Appendix O

Public Consultation

City of Sault Ste. Marie

Sault Ste. Marie Solid Waste Environmental Assessment
Public Consultation Report
FINAL

Prepared by:

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Project Number:

60117627

Date:

June, 2025

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June 3, 2025

Mr. Carl Rumiel, P. Eng.
Engineering Department
City of Sault Ste. Marie
99 Foster Drive, 5th Floor
Sault Ste. Marie, ON P6A 5N1

Dear Mr. Rumiel:

Project No: **60117627**

Regarding: **City of Sault Ste. Marie Solid Waste Management Environmental Assessment Public Consultation Report**

We are pleased to submit our FINAL Public Consultation Report which has been prepared to support a proposed expansion of the existing municipal landfill located on Fifth Line.

This report provides a narrative description of the consultation undertaken, input received and actions taken to address comments and input throughout the duration of the Environmental Assessment process.

This report has been updated to address comments included in a letter dated July 14, 2017 from Agni Papageorgiou of the Ministry as well as comments received from Shannon Dennie, Sr. Advisor, Environmental Assessment Program Support with the Ministry of the Environment, Conservation and Parks through the Final EA submission review period.

Sincerely,
AECOM Canada ULC

Rick Talvitie, P. Eng.
Manager, Northern Ontario

RT:nm

Encl.

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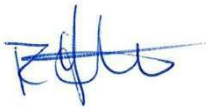
Revision Log

Revision #	Revised By	Date	Issue / Revision Description
0	R, Talvitie	August 26, 2016	DRAFT for City review
1	R. Talvitie	September 6, 2022	FINAL – includes revisions to address Ministry July, 2017 comments
2	R. Talvitie	June 3, 2025	FINAL – includes revisions to address Ministry comments on Final EA.

AECOM Signatures

Report Prepared By:



Rick Talvitie, P. Eng.
Branch Manager

Report Reviewed By:

Karla Kolli
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1. Introduction

The proposed project includes an expansion of the disposal boundaries to the north and west. Landfill mining is also proposed within the western portion of the existing disposal footprint to facilitate the construction of a liner to enhance environmental management at the site. The mining process involves excavation of waste within the existing disposal footprint, removing fines and recyclables, transferring the residual waste to a new lined cell and lining the mined area to accommodate future waste disposal. The City has owned and successfully operated this site for 30+ years and the proposed expansion incorporates operational and site development enhancements to further build on the historical success. The planned expansion will be accommodated within existing City-owned lands.

The Environmental Assessment process is designed to be responsive to comments, issues or concerns that are raised by government agencies, stakeholders, Aboriginal Communities and the general public. A comprehensive public consultation program was undertaken to solicit input from a broad cross-section of people and interests, ensure issues were identified as early as possible in the process and provide a means for addressing and incorporating input received. Over time, the contact list has grown to include additional interested groups and individuals. This document provides a narrative description of the consultation undertaken, input received, responses provided or actions taken to address input received throughout the duration of the Environmental Assessment process (refer to Section 3).

We have also included in Section 2 of this report, an overview of the waste management planning activities and associated public consultation that preceded this EA. Although the planning work was undertaken outside of the EA framework it established an important foundation for this EA.

2. Waste Management Planning and Related Consultation Activities (2000-2005)

A significant level of planning work and related consultation occurred through the Waste Management Planning activities undertaken by the City from 2000 to 2005 prior to initiating the EA Planning process. We have summarized within this Section, the planning activities and related consultation activities undertaken prior to initiating the EA process.

In September of 2000 the City set out to develop a comprehensive waste management plan to guide the future management of municipal solid waste. The study was largely initiated to address the City's low waste diversion rate and the diminishing waste disposal capacity at the City landfill on Fifth Line.

A series of studies were undertaken to assess existing waste management programs/services and identify potential system enhancements. Some of the key reports that were produced through these planning initiatives are described below and the full text is accessible on the City’s Waste Management EA webpage and included in the report Appendices.

Current Waste Management System Summary Report (September, 2000) - Inventoried and summarized current (i.e. 1999) waste management programs including costs and revenues (refer to Appendix A).

Alternative Waste Diversion/Collection Systems Report (June, 2001) - Identified alternative waste diversion programs and the quantities that could potentially be diverted (refer to Appendix B).

Business and Implementation Plan (February, 2003) (Note: this is a “living document” that was most recently updated in 2021) - Identified costs of the existing and proposed waste management programs and

explored strategies to recover those costs (bag limits, bag fees, increased tipping and gate fees) (refer to Appendix C).

The City recognized the importance of focusing their initial efforts to enhance 3Rs (reduce, reuse, recycle) through system enhancements and more equitable user fee structures that would support the diversion efforts.

Although not specifically required or mandated, the City felt it was important to engage the public in the process and solicit their input and feedback. The consultation activities undertaken throughout the early 2000's in conjunction with the planning work are summarized in the following paragraphs.

On September 26, 2001 a Public Open House was held from 3:00 p.m. to 7:00 p.m. to present information to the public on the alternative waste diversion systems developed for the City of Sault Ste. Marie. In total, 23 people signed into the meeting and 16 questionnaires were received.

In summary, the results of the questionnaires were as follows:

- all 16 respondents felt waste management was an important issue facing the City;
- all 16 respondents currently use their blue box and 15 would like to be able to put more materials in the blue box;
- 11 respondents would like more information on how and what can be recycled;
- 15 respondents felt that it was important to recycle more material even if it cost slightly more;
- 14 respondents currently utilize backyard composters;
- 11 respondents felt that backyard composting was the best option to manage organic waste with curbside pickup of organic waste to a central facility the second preference;
- 4 respondents had used the household special waste depot, with 11 planning to;
- 14 respondents felt that waste management services should be paid through a fee based on the amount of garbage generated;
- 15 respondents felt businesses should pay the full cost of disposing their waste;
- 15 respondents felt System 5 (Collection and Composting of Organic Wastes) was the preferred way to manage the City's waste while 11 thought System 4 (Recycling of Expanded Materials) was the second preference;
- System 1 (Status Quo) was the least preferred of all the systems;
- 9 respondents indicated landfill mining as the preferred option for disposal, followed by landfill expansion;
- incineration and export of waste to the United States were the least preferred disposal options.

On March 18 and 19, 2003, **Public Open Houses** were held at the John Rhodes Community Centre and Korah Collegiate to present information to the public on the Solid Waste Management Plan and, in particular, the alternative user pay options being considered. In total, 29 people signed into the meetings and 29 questionnaires were received.

In summary, the results of the questionnaires are as follows:

- all 29 respondents felt waste management was an important issue facing the City;
- 58 percent of the respondents had between 3 and 5 people living in their house;
- 62 percent of the respondents put out 2 or 3 bags of garbage a week;
- 100 percent of the respondents used the yellow and blue boxes on a regular basis;
- 72 percent of respondents reduced the number of large garbage bags produced by one through the blue and yellow box program;
- 57 percent of the respondents support a city-wide composting program;
- 90 percent of the respondents preferred to pay for waste management services through a user fee instead of an increase in property taxes;
- 54 percent of the respondents ranked the following user fee scenario as preferred:
  - 2 bag limit; fee for each bag in excess of that limit;

  - increase gate fee to $4.00 in 2003;
  - increase landfill tipping fees to $65.00/tonne by 2006;
- 92 percent of the respondents ranked the following user fee scenario as the least preferred:
  - increase property taxes by $40.00 - $50.00 per household in 2003;
  - leave gate fee at $2.00/visit;
  - leave tipping fee at $27.50; and
- 76 percent of respondents felt businesses should pay full cost of disposing of their garbage.

Public Open Houses were also conducted to discuss and review the DRAFT Terms of Reference document for the Waste Management EA on **July 3, 2003 and July 13, 2004** respectively. A total of 8 and 5 individuals attended the open houses respectively and the feedback received through the open houses is summarized below.

Based on the three completed questionnaires that were received, the Criteria Groups that were ranked the highest importance were ground water, surface water, design and operations and biology/forestry. Groups that were ranked the lowest included archaeology, heritage and social. Input provided on the individual criteria groups is summarized as follows:

- Hydrogeology – mining and lining the old site could improve groundwater quality;
- Design/Social – potential for more noise especially if an expansion is vertical and increased air emissions including methane and carbon dioxide from operating machinery;
- Surface Water – proximity to Canon Creek and Root River;
- Transportation – safety with trucks turning left off of Great Northern Road onto Fifth Line;
- Mining – the availability of aggregate to cover the waste;
- Cost/Social – impacts to property owners and property values associated with property acquisition for an expansion.

Other comments included:

- Minimizing environmental impact while maintaining economic viability is critical to success; and
- Energy should be focussed on waste reduction to increase the longevity of the landfill site.

In addition to the foregoing, consultation was also undertaken with Aboriginal communities to solicit input regarding the EA Terms of Reference. Input received is summarized as follows:

<u>Batchewana First Nations</u>

- Concerns with impacts to Root River water quality/aquatic habitat and medicinal plants;
- Concerns with future waste management services for BFN reserves north of the City; and
- Concerns with liability for any future environmental damage resulting from landfilling of waste.

Additional details regarding these consultation events and the Aboriginal consultation are included in Appendix D.

3. Waste EA Consultation Activities

A key objective of the consultation strategy was to solicit meaningful input from review agencies, Aboriginal Communities, stakeholders and the general public each step of the way. The principle goals of the consultation process include:

- Engage the public, stakeholders and First Nations in the consultation process;
- Provide sufficient information in a user-friendly format;
- Provide opportunities for input before decisions are made;
- Be flexible to meet the needs of the all participants when undertaking consultation;

- Be responsive – listening to comments, giving them careful consideration, making changes where appropriate and providing rationale when no change is made.

Ultimately the consultation process:

- Enhances the quality of the decision making process by capturing ideas and experiences of a broad cross-section of people;
- Ensures transparency in the decision making process;
- Enhances public understanding of the process, and rationale for the decisions reached; and
- Meets legislative requirements.

To meet these goals and objectives various tools and methodologies were utilized to disseminate project information and solicit input including:

- Notices;
- Newsletters;
- Project Webpage;
- Advertisements;
- Interim Reports;
- Comment sheets;
- Email;
- Questionnaires (online and hard copy);
- Workbooks;
- Discussion groups;
- Open houses;
- Presentations;
- Meetings; and
- Presentations.

Within the following subsections we have provided a summary of who was contacted and the principle methodologies used to disseminate project information and updates.

3.1 Project Contact List

At the onset of the project a contact list was developed by the project consultant with input from City staff. The list was developed to reach a broad cross-section of individuals, agencies, Communities and Aboriginal interests including all property owners and tenants located within a 1000m radius of the existing site. The initial Project Newsletter/Notice, which included notification of the commencement of the study, an update on waste diversion improvements, an overview of the EA process, next steps and City and Consultant contact details was issued to everyone on the project contact list. The contact list has been updated periodically over the course of the study as additional individuals, agencies, or Aboriginal Communities have expressed interest in the project. The initial and current contact lists and the initial project Newsletter are included in Appendix E.

3.2 Project Webpage

A project webpage has been established on the City of Sault Ste. Marie website. This page includes important and relevant planning documentation that was developed prior to initiating the EA together with documentation that has been developed within the framework of the EA process. The site also provides contact information for the Consultant Project Manager and the City's principle contact. The webpage has been updated periodically and updates will continue to be made as the study continues to progress.

Invitations were also extended to neighbouring communities, including Aboriginal Communities, to explore the possibility of including a link to the City's webpage on their community websites with the ultimate goal of enhancing the level of engagement.

3.3 Notices and Newsletters

Notices and Newsletters were used to invite participation in consultation activities and events and to disseminate important information and project updates. There were 10 notices or newsletters issued through to the submission of the DRAFT EA document to the Ministry. The notices and newsletters are summarized in Table 1.

Table 1. <Summary of Notices and Newsletters

Name and Type	Description and Distribution	Date
Notice of Commencement/ Newsletter No.1	Notice/Newsletter published in the local newspaper, posted on the City web site and mailed to those on the project mailing list inviting comments and providing information on the EA process, contact names and next steps.	October 2006
Notice of Public Information Centre	The notice was published in local newspapers and on the City web site and distributed to those on the project mailing list. Copies of the notice were also forwarded to adjacent communities or community groups (ie: Batchewana First Nation, Garden River First Nation, Prince Township, Métis Nation of Ontario, and Missanabie Cree) for posting on their websites and in prominent locations within their communities	June 2007
Newsletter No.2	Newsletter inviting individuals to the June, 2010 Public Open House and updating them regarding the EA process, the City's contractual relationship with Elementa, results of the "Alternatives To" evaluation, the level of diversion being achieved, next steps in the process and project contact names was mailed to all individuals on the project mailing list	May 2010
Notice of Public Information Centre	The notice was published in local newspapers, Shaw Cable 10 and the City web site and notices were distributed to those on the project mailing list. Copies of the notice were also forwarded to adjacent communities or community groups (ie: Batchewana First Nation, Garden River First Nation, Prince Township, Metis Nation of Ontario, and Missanabie Cree).	May 2010
Newsletter No.3	Newsletter providing information on the EA process, the City's contractual relationship with Elementa, results of the "Alternatives To" evaluation, next steps in evaluating a new landfill versus a landfill expansion, details of the April 19, 2011 Public Input Session, and different avenues to provide input was distributed to those on the project mailing list	April 2011
Notice of Public Information Centre	The notice was published in local newspapers, Shaw Cable 10 and the City web site and notices were distributed to those on the project mailing list. Copies of the notice were also forwarded to adjacent communities or community groups (ie: Batchewana First Nation, Garden River First Nation, Prince Township, Metis Nation of Ontario, and Missanabie Cree.	April 2011
Notice of Public Information Centre	The notice was published in local newspapers and on the City web site and notices were distributed to those on the project mailing list. Copies of the notice were also forwarded to adjacent communities or community groups (ie: Batchewana First Nation, Garden River First Nation, Prince Township, Metis Nation of Ontario, and Missanabie Cree). Local media also raised awareness of the event through relevant news articles.	February 2012
Notice of Public Information Centre	The notice was published in local newspapers, Shaw Cable 10 and the City web site and notices were distributed to those on the project mailing list. Copies of the notice were also forwarded to adjacent communities or community groups (ie: Batchewana First Nation, Garden River First Nation, Prince Township, Metis Nation of Ontario, and Missanabie Cree).	January 2016
January 2016 Newsletter	Newsletter inviting individuals to the January 2016 Public Open House and updating them regarding the EA process, the historical activities completed, current study activities and project contact names was mailed to all individuals on the project mailing list	January 2016
Notice of Completion and Submission of DRAFT EA Document	Notice was published in local newspapers and the City web site and notices were distributed to those on the project mailing list. Copies of the notice were also forwarded to adjacent communities or community groups (ie: Batchewana First Nation, Garden River First Nation, Prince Township, Metis Nation of Ontario, and Missanabie Cree).	May 2017

Additional notices may be issued as the study progresses into its final stages.

3.4 Public Input Sessions

Public open houses and workshops were undertaken to disseminate project information and solicit input at key milestones or decision points within the process. The events were staged to solicit feedback and input from review agencies, stakeholders, Aboriginal communities and the general public.

The format for the "workshops" included a presentation followed by the formation of focus groups to provide input specifically tailored to the topics and issues being contemplated at the time (eg. evaluation criteria, evaluation methodology, etc.). The workshops were lead by consultant staff with the assistance of Municipal staff. The input was solicited through the completion of "workbooks" by focus groups.

The "open houses" were intended to be less formal and consisted of a series of display panels arranged to guide individuals through the process. The project consultants, with the assistance of City staff ushered individuals or groups of individuals through the presentation materials, explained the contents and addressed questions and issues.

Both formats were used to cater to the preferences of individuals (some prefer a more formal setting while others are more comfortable with a less formal setting and one on one time with consultant or City staff).

The principle objectives of the workshops and open houses were:

- communicate project progress;
- solicit input and feedback;
- enhance the quality of the decision making process by making adjustments as necessary based on the feedback received; and
- enhance understanding of the process and the decisions reached.

Each of the public input sessions is summarized in the following subsections and supporting information related to each session is included in Appendices F to K.

3.4.1 June 26, 2007 Public Input Session – Input on "Alternatives To" and Evaluation Criteria

A public input session was conducted on Tuesday June 26, 2007 in the Russ Ramsay Boardroom of the Sault Ste. Marie Civic Centre. The session provided a forum for interested individuals, Aboriginal representatives, agency representatives, and property owners, to discuss the "alternatives to" the undertaking and criteria that will be used to compare and select a preferred approach to manage solid waste in Sault Ste. Marie, Prince Township and Batchewana First Nation's Rankin Reserve. The meeting format included a presentation followed by facilitated discussions regarding the alternatives and the evaluation criteria.

Representatives of the Consultant team and the City of Sault Ste. Marie were in attendance throughout the session to provide information, address questions, and facilitate discussions. The information session was open from 6:00 p.m. to 9:00 p.m. with a total of 10 individuals recording their names on the sign-in sheet.

Notification of the Open House (copy included in Appendix F)

The Open House was advertised as follows:

- Sault Star on June 16 and June 23, 2007;

- Sault This Week on June 20, 2007;
- Community Channel for 10 days;
- City of Sault Ste. Marie website;
- Hardcopies and a digital copy of the notice were also forwarded to adjacent communities or community groups (ie: Batchewana First Nation, Garden River First Nation, Prince Township, Metis Nation of Ontario, and Missanabie Cree) for posting on their websites and in prominent locations within their communities; and
- Individual notices were mailed to property owners abutting the project and to all individuals and agencies that had expressed an interest in Waste Management EA.

Information Available to Participants

Two working papers were issued and made available for review in advance of the session which characterized the study area and provided information on waste quantities, the alternatives to the undertaking and the evaluation criteria. These papers entitled “Waste Quantity Projections and Existing Environment Profile” and “Alternatives to the Undertaking” were also available at the session.

These reports were made available for review at the following locations prior to the public input session:

- AECOM’s office;
- Civic Centre Engineering and Planning;
- Public Works and Transportation;
- Main Library;
- Churchill Branch Library;
- Korah Branch Library;
- Township of Prince Municipal Office;
- Batchewana First Nation;
- Garden River First Nation;
- Local Metis Nation of Ontario Office; and
- Local Missanabie Cree Office.

The reports were also available on the City of Sault Ste. Marie website.

A Participant’s Workbook was also posted on the City’s website and distributed at the session to provide individuals with an opportunity to record their ideas and opinions relating to the alternatives and the proposed evaluation criteria.

At the onset of the session a presentation was made to report on recent successes with diversion and to provide an overview of the alternatives being considered and the evaluation criteria being proposed. Displays were also posted on the walls to disseminate information to any individuals that missed the initial presentation. The following displays were posted on the walls (refer to Appendix F):

- A display welcoming residents;
- Meeting Format;
- Objectives of the Meeting;
- Historical Overview of the Waste Management Planning Process;
- Waste Management Services provided by the City;
- Other Recycling Opportunities provided in the City;
- Historical Overview of Waste Quantities Landfilled;

- Historical Overview of the Residential Waste Diversion Rate;
- Composition of Waste Landfilled;
- Project Need;
- What is an EA?;
- Overview of the EA Process
- "Alternatives To" being considered;
- Overview of the Increased Waste Diversion Alternative;
- Overview of the Incineration/High Heat Process Alternative;
- Overview of the Landfill Alternative;
- Overview of the Export Waste Alternative;
- Overview of the Evaluation Criteria;
- Next steps to be undertaken in the process; and
- Proposed Project Schedule.

Comments and Questions

The following comments/questions were raised during the presentation portion of the meeting.

Table 1
JUNE 26, 2007 PIC QUESTIONS AND RESPONSES

Questions	Response
Where would the hazardous waste from an incinerator go?	It would need to be taken to a hazardous waste facility near Sarnia or other suitably licensed site.
How big a landfill would be needed?	Based on the projections, a landfill that could accommodate approximately 2.7 million tonnes would be needed. A typical footprint for a 2.0 million tonne landfill would likely be in the range of 20 Ha. (Note: The waste projections were subsequently modified to address MECP comments on the DRAFT submission and the FINAL EA incorporates a requirement for 1.78 million tonnes with an estimated longevity to 2049-2051).
Have you considered population in your waste quantity disposal projections?	Yes, the waste quantity projections are based on population projections done by another consultant. The total estimated Sault Ste. Marie population in 2046 is nearly 86,000 (Note: the City Planning department revised their projections in 2015. As a result of those revisions the projected 2046 was reduced to 82,820. The population projections were further modified in 2018 resulting in a 2046 Sault Ste. Marie population of 89,895. The most recent projections are incorporated in the FINAL EA).
Have you considered increasing the service area so that incineration or high heat technologies would be more	A waste management steering committee comprised of City staff is overseeing the project. The City's mandate is to look after its own waste and that is the intention of this study. The province has also recently released a draft provincial

Table 1
JUNE 26, 2007 PIC QUESTIONS AND RESPONSES

Questions	Response
cost effective? Sault Ste. Marie could service a larger area as a profitable business generating jobs for our residents. You should establish a committee with a mandate to look at this.	policy statement which encourages the management of waste close to source. The transport of waste over significant distances results in additional impacts including noise, dust and air emissions. The private sector is more likely to explore opportunities for a facility servicing a broad geographic region.
Can there be more than one "Alternative to" selected?	Yes, the preferred waste system is likely to include a combination of the alternatives. For example, it is expected that increased 3R's would be part of the system along with one or more disposal method(s).
Doesn't diversion have a bigger service area?	The collection of blue and yellow box materials outside of the study area is a private collection and is not part of the municipal system.
Would a high heat process be able to manage nuclear or hospital waste?	Requires further study and would be looked at if "high heat" is the preferred "Alternatives To".
It was suggested that the City should not overlook incineration/high heat as a future waste management option. A lot can change over the years and it may prove to be beneficial and cost effective in the future.	Agreed.
It was noted that the timing of the meeting right before a long weekend made it challenging to attend as this is a very busy week.	It was noted that the project team wanted to have a meeting prior to vacation season. Future sessions will consider statutory holidays.

Facilitated Discussions

After the presentation, participants were asked for their input on the "alternatives to" being considered and the evaluation criteria. A workbook was provided to help facilitate this discussion. City and Consultant staff members participated in the discussion and took note of the comments raised. The following reflects the questions asked in the workbook and the results of the discussion on these questions.

1. Are there additional alternatives or evaluation criteria that you think should be considered?

In all cases the selected alternative will be a combination of two or more alternatives. The evaluation should consider impacts associated with the relevant combination of alternatives (eg. the selection of incineration/high heat will involve increased diversion, incineration/high heat, landfilling and export of waste – hazardous waste).

2. Are there any advantages or disadvantages of the alternatives that were missed?

Table 2
JUNE 26, 2007 PIC ADVANTAGES AND DISADVANTAGES

Alternatives	Advantages	Disadvantages
Increased Waste Diversion	• has significant advantages • some materials are increasing in value so we may be able to recycle more/get more revenue • consider mandatory recycling	
Incineration/High Heat Processes	• requires less space	• still have to truck hazardous waste to Sarnia or other approved hazardous waste site • seems that it is used most in densely populated areas • if costs are too high for industry they may start illegal dumping • the acceptability of incineration varies with the political climate
Landfill	• landfill mining will add a few years to the life of the landfill	
Export of Waste Outside the Study Area		• wear and tear on roads • noise • out of control of City - still need local disposal/landfill if border closes
Do-Nothing		• not an option; need to manage waste

3. Are there any alternatives that should be excluded from serious consideration?

Generally participants felt that the Do-nothing option was not a realistic option as there is a need to manage waste.

Export was also identified as an option that should not be pursued any further. It was noted that provincial policy is favouring solutions as close as practicable to generation and it was felt that exporting waste is not reliable and not sustainable for the long term.

4. How well do you feel each option meets the intent of the evaluation criteria?

Comments made on the ability of each of the alternatives to meet the criterion are noted. An x represents general agreement that the alternative cannot meet the intention of the criterion. Blanks left are intentional as comments were not made for all alternatives/criteria.

Table 3
JUNE 26, 2007 PIC ALTERNATIVES EVALUATION

Criteria	Increased Diversion	Incineration/ High Heat	Landfill	Export	Do-nothing
Compliance with Regulations and Policy	complies with regulations and policy	would meet criterion; would not comply as well as landfill	would meet criterion; meeting future regulations may be difficult	may not meet policy/ regulation in a few years (e.g. if border closes)	x
Environmental Acceptability	environmentally acceptable	environmentally acceptable cleaner; less emissions than landfill	environmentally acceptable	less likely to be acceptable compared to other alternatives	x
Ability of City to implement	City can implement	could implement but more challenging because new technology	City can implement	public would probably be concerned about exporting	x
Flexibility of System		some uncertainty	landfill is flexible	not flexible as you are stuck with a negotiated quantity leaves no contingency if someone strikes	x
Capability to Manage Quantity and Quality of Waste	could mandate recycling but will still not cover everything	some uncertainty	best at managing all waste		x
Proven Technical Capability	proven	proven not enough information to know if they would meet our environmental standards	proven	proven	x
Economic/ Cost		cost prohibitive			

Other comments made about the alternatives:

- Should deal with waste management at the source and the time of generation - landfilling of waste was noted to be an interim “storage” solution whereas incineration/high heat processes represented a longer term management approach. It was also conceded that current economic conditions are not conducive to managing waste through incineration/high heat at this time (ie: too costly).
- Landfills may be regarded as resources to be mined as a fuel at a future date once the economics become more favourable.
- Manufacturing and packaging are changing so we need a system that has the flexibility to manage this change and adapt to less waste.

- New generations are teaching their parents about recycling so we will see more emphasis on increased diversion in the future.
- Should look to the private sector for information on incineration – they probably have more experience.
- Consider that landfilled waste could be a future resource.
- Expand the service area to make incineration/high heat processes more cost effective/viable.

5. Should all the evaluation criteria be of equal importance?

   There were different opinions expressed on the importance of the criteria as well as some comments on the criteria themselves as follows:
   - Some participants indicated that all criteria should be considered equally important.
   - Environmental acceptability was raised as a criterion that should be considered most important.
   - Flexibility and capability of managing the waste stream were identified as criteria that should be considered less important.
   - Compliance with regulation/policy, environmental acceptability, ability of city to implement and cost were identified as most important by some participants.
   - Proven technical capability was identified as a criterion that should not be considered as more important than flexibility and capability of managing waste stream.
   - It was noted that proven technical capability really reflects the ability to "sell" the technology to the public.
   - It was noted that the ability of the City to implement really reflects the will of the people.
   - It was noted that environmental acceptability may be different for different stakeholders.
   - It was noted that cost is a reality of life.

Completed Workbooks

In addition to the foregoing feedback obtained through the facilitated discussions three completed workbooks were also received following the consultation event (refer to Appendix F).

In general, preferences were noted for waste diversion, incineration/high heat processes and landfilling. Export and do-nothing were identified as impractical and unrealistic. Comments that were included in the workbooks together with responses are summarized in the table below.

Table 4
JUNE 26, 2007 PIC SUMMARY OF COMPLETED WORKBOOKS

Comment	Response
The selected system should allow conversion of waste into energy without sorting.	Some sorting is completed at source as part of the recycling programs including the public drop-off area at the landfill site. Typically no additional sorting is done for landfilling however most incineration/high heat processes will include some upfront sorting.
Consider processing of waste for the Region as a potential job creation strategy.	See response in Table 1.
Consider impacts of combined alternatives.	Consideration of combined impacts is included in the rankings under each criterion.
Quality of residues from incineration and high heat processes is dependant on what is included in the waste which is difficult to control.	Agreed.

Table 4 JUNE 26, 2007 PIC SUMMARY OF COMPLETED WORKBOOKS	
Comment	**Response**
Concerns were noted with possible need for land expropriation and the location of the existing site on the City's aquifer.	Property impacts are considered at a general level at this time but will be considered in greater detail in the next phase of the process. Potential impacts to surface water resources is included. An engineered leachate collection and management system is included in the landfilling alternative.
It is important that waste reduction is included as an alternative or at least incorporated as part of the waste diversion alternative.	The waste diversion alternative includes the 3 R's (reduce, reuse, recycle).
Concern was noted that incineration and high heat processes may generate more hazardous waste than is noted in the EA documentation.	The information included in the documentation was obtained through research completed on existing operating facilities.
Skepticism was noted that incineration/high heat processes are safe. Research needs to be independent and unbiased.	Incineration and high heat processing plants would be required to meet MOECC regulated emission requirements of the day. Facilities must be instrumented with monitoring equipment to demonstrate on going compliance.
Need to consider leachate impacts and impacts on habitat associated with landfilling including attraction of bears and rats.	This is considered at a general level at this time and will be considered in more detail in the next phases of the process.

3.4.2 August 9, 2007 Public Input Session – GRFN Input on "Alternatives To" and Evaluation Criteria

A public open house was conducted on Thursday August 9, 2007 in the Garden River First Nation Community Centre. The session provided a forum for interested individuals, agency representatives, and property owners, to discuss the "alternatives to" the undertaking and criteria that will be used to compare and select a preferred approach to manage solid waste in Sault Ste. Marie, Prince Township and Batchewana First Nation's Rankin Reserve. The session was conducted in an open house format which allowed interested individuals to attend at any time between 4:00 pm and 7:00 pm.

Representatives of the Consultant team and the City of Sault Ste. Marie were in attendance throughout the session to provide information, address questions, and facilitate discussions. A total of 5 individuals recorded their names on the sign-in sheet.

Notification of the Open House (copy included in Appendix G)

Notification of the Open House was advertised as follows:

- Sault Star on July 28 and August 4, 2007;
- City of Sault Ste. Marie website;
- Garden River First Nation website;

- Garden River First Nation's August, 2007 Newsletter;
- Six hardcopies of the notice were also forwarded to Garden River First Nation for posting in prominent locations within their community; and
- The event was also advertised for two days in advance of the event on the changeable message sign located along Highway 17 in front of Community Hall.

Information Available to Participants

Two working papers were issued and made available at and in advance of the open house. These papers entitled "Waste Quantity Projections and Existing Environment Profile" and "Alternatives to the Undertaking" provided information on the environmental character of the study area, waste quantities, the alternatives to the undertaking and the evaluation criteria. These documents were available for downloading from the City's website or by contacting AECOM or by visiting the local Band Office.

A Participant's Workbook was also posted on the City's website and distributed at the open house to provide individuals with an opportunity to record their ideas and opinions relating to the alternatives and the proposed evaluation criteria.

Displays were posted on the walls during the open house and Consultant and/or City staff representatives explained the contents of the displays to individuals or small groups and answered their questions. The following displays were posted on the walls (copies are included in the Appendix G):

- A display welcoming residents;
- Objectives of the Meeting;
- Historical Overview of the Waste Management Planning Process;
- Waste Management Services provided by the City;
- Other Recycling Opportunities provided in the City;
- Historical Overview of Waste Quantities Landfilled;
- Historical Overview of the Residential Waste Diversion Rate;
- Composition of Waste Landfilled;
- Project Need;
- What is an EA?;
- Overview of the EA Process
- "Alternatives To" being considered;
- Overview of the Increased Waste Diversion Alternative;
- Overview of the Incineration/High Heat Process Alternative;
- Overview of the Landfill Alternative;
- Overview of the Export Waste Alternative;
- Overview of the Evaluation Criteria;
- Next steps to be undertaken in the process; and
- Proposed Project Schedule.

Comments and Questions

Aside from the input provided through the completed workbooks (refer to Section below) there were no additional alternatives or evaluation criteria identified and no opinions voiced on the importance of the evaluation criteria during discussions with participants.

During the conduct of the open house there was considerable interest in expanded diversion programs and an understanding that some form of waste disposal will continue to be required in the future.

Completed Workbooks

Two completed workbooks were received during the event. The input obtained through the completed workbooks is summarized below.

1. Are there additional alternatives or evaluation criteria that you think should be considered?

Responses provided were “no” and “I don’t know”.

2. Are there any advantages or disadvantages of the alternatives that were missed?

Table 5
AUGUST 9, 2007 PIC ADVANTAGES AND DISADVANTAGES

Alternatives	Advantages	Disadvantages
Increased Waste Diversion	• Long term benefits resulting from public education including changed habits and reduced waste generation	
Incineration/High Heat Processes		
Landfill		
Export of Waste Outside the Study Area		• Sends the “wrong” message. • Encourages increased waste generation – “out of sight out of mind”
Do-Nothing		

3. Are there any alternatives that should be excluded from serious consideration?

Generally participants felt that the Do-nothing option was not a realistic option as there is a need to manage waste.

Export was also identified as an option that should not be pursued any further because of the higher costs, increased environmental impacts, and a need to be responsible for our own problems.

4. How well do you feel each option meets the intent of the evaluation criteria?

Input was provided by one individual for three alternatives.

Increased waste diversion was rated the highest possible under each criterion and landfill and incineration were rated similarly under each criterion with a slight preference shown for landfill.

5. Should all the evaluation criteria be of equal importance?

The only comment made by one individual was that “environmental acceptability” is the most important criterion. The importance of other criteria was not differentiated.

6. Do you have any other issues or additional comments you would like to make?

   One respondent strongly supported the development of a residential organics collection and processing program and/or encouraging individuals to compost organics themselves.

3.4.3 June 3, 2010 Public Input Session – Preferred "Alternative To" and Next Steps

A public information centre was conducted on Thursday June 3, 2010 in the Thompson Room at the Civic Centre. The session provided a forum for interested individuals, agency representatives, Aboriginals and stakeholders, to obtain updated information regarding waste management planning, gain an understanding of the Environmental Assessment process, review and provide comments on the results of the "alternatives to" the undertaking evaluation, identify next steps in the process and have questions answered. The session was conducted in an open house format which allowed interested individuals to attend at any time between 3:30 pm and 7:30 pm.

Representatives of the Consultant team and the City of Sault Ste. Marie were in attendance throughout the session to provide information, address questions, and facilitate discussions. A total of 10 individuals recorded their names on the sign-in sheet. Some individuals in attendance did not record their names on the sign-in sheet.

Notification of the Open House (copy included in Appendix H)

The Open House was advertised as follows:

- Sault Star on May 29, 2010;
- Sault this Week on May 26 and June 2, 2010;
- City of Sault Ste. Marie website; and
- Local Shaw Cable 10 for approximately 6 days.

The Notice of the Open House and Newsletter were also forwarded to Garden River First Nation (GRFN), Batchewana First Nation (BFN), Metis Nation of Ontario, and Missanabie Cree. Offers were also extended to GRFN and BFN to attend a Band Council meeting to update them on the study progress. GRFN responded and invited the City and its Consultant to attend the June 8, 2010 Band Council working meeting (refer to meeting report included in the Appendix H).

In addition, Newsletters were distributed to agencies, stakeholders, individuals who previously expressed an interest in the study, and property owners within 1,000 m of the existing landfill site.

Information Available to Participants

Displays were posted on the walls during the open house and the Consultant team and/or City staff representatives explained the contents of the displays to individuals or small groups and answered their questions. The following displays were posted on the walls (copies are included in the Appendix H);

- A display welcoming resident;
- A display summarizing what individuals should do at the Open House;
- Objectives of the Public Information Centre;
- Overview of waste management planning work completed over the last decade;
- Principle Waste Management Services provided by the City;
- Other Recycling Opportunities provided in the City;
- Historical Overview of the Residential Waste Diversion Rate;
- Historical Overview of Waste Quantities Landfilled;

- Composition of Waste Landfilled;
- Project Need;
- What is an EA?;
- Overview of the EA Process
- "Alternatives To" being considered;
- Overview of the Increased Waste Diversion Alternative;
- Overview of the Incineration/High Heat Process Alternative;
- Overview of the Landfill Alternative;
- Overview of the Export Waste Alternative;
- Overview of the "Do Nothing" Alternative;
- Overview of the Evaluation Criteria;
- Results of the Evaluation;
- Preferred "Alternative To" the undertaking and the rationale for the selection;
- Next steps to be undertaken in the process; and
- How to contact the project team.

Comments and Questions

During the conduct of the Open House, no comment sheets were received. There were however, a number of comments/questions that are summarized in Table 6.

Table 6
JUNE 3, 2010 PIC COMMENTS/QUESTIONS AND RESPONSES

Comment/Question	Response
Has consideration been given to the energy requirements to recycle plastics vs. thermally processing plastics?	Municipalities are mandated by Provincial legislation to collect and recycle No's 1 and 2 plastics (ie. designated by the province). In Sault Ste. Marie, other plastics (ie: numbers 3 through 7) are currently being disposed of in landfill and are currently available for thermal processing. A comparison of the energy requirements to recycle no's 1 and 2 plastics versus thermally processing these plastics is beyond the scope of this study and should be done at the Provincial level as part of the material designation process.
A concern was noted with the potential impact of the landfill on groundwater resources in the area of the landfill site. It was noted that the City had extended the Municipal water distribution system along Fifth Line west of the landfill to address water quality concerns in drinking water wells.	The extension of the Municipal water distribution system to the landfill site was completed in 1997± to address potential concerns with potable water quality on the landfill site itself. The City is not aware of any water quality problems in potable wells surrounding the landfill site that may be attributable to the landfilling operations. (Note: time was also spent educating the individual regarding the various monitoring and leachate control systems that are present at the existing landfill site to safeguard groundwater quality beyond the boundaries of the landfill site).

Table 6 JUNE 3, 2010 PIC COMMENTS/QUESTIONS AND RESPONSES	
Comment/Question	**Response**
The biosolids generated at the two waste water pollution control plants could be processed in the proposed Elementa facility.	This may be a viable approach but Elementa has not yet tested and confirmed that biosolids can be processed in their facility. Furthermore their proposed commercial scale plant will not have adequate capacity to process all residual waste generated in Sault Ste. Marie and they will likely prefer waste streams with higher energy content if available.
Surprised that thermal processes did not fare better in the evaluation relative to landfilling.	The rationale for the rankings is included in a summary table in the Alternatives to the undertaking report and any comments on individual rankings are encouraged.

3.4.4 April 19, 2011 Public Input Session – Evaluation Approach/ Criteria for a new Site vs. Expansion

A public input session was conducted on Tuesday April 19, 2011 in the Russ Ramsay Room at the Civic Centre.

The session provided a forum for interested individuals, agency representatives, and stakeholders, to obtain updated information regarding waste management planning, gain an understanding of the Environmental Assessment process, review and provide comments on the criteria and approach used to evaluate a new site versus expansion of an existing site, discuss and comment on the preliminary results of the evaluation, provide input regarding the evaluation criteria to be used in the next steps and have questions answered. The session included a presentation by the consultant team followed by a question and answer period and a working group session to complete the workbook.

Representatives of the Consultant team and the City of Sault Ste. Marie were in attendance throughout the session to disseminate information, address questions, and facilitate discussions.

Notification of Public Input Session (copy included in Appendix I)
The Session was advertised as follows:

- Sault Star on April 16, 2011;
- Sault this Week on April 6 and 13, 2011;
- City of Sault Ste. Marie website; and
- Local Shaw Cable 10 for approximately two weeks.

The Notice of the Open House and Newsletter were also forwarded to Prince Township, Garden River First Nation (GRFN), Batchewana First Nation (BFN), Metis Nation of Ontario, and Missanabie Cree. Offers were also extended to GRFN and BFN to attend a Band Council meeting to update them on the study progress.

In addition, Newsletters were distributed to agencies, stakeholders, individuals who previously expressed an interest in the study, and property owners within 1,000 m of the existing landfill site.

Information Available to Participants

Large scale copies of the power point presentation slides were posted on the walls for easy reference throughout the public input session (copies included in Appendix I). The following slides/displays were posted:

- A display welcoming participants;
- A display summarizing planned activities;
- Objectives of the Public Input Session;
- Overview of waste management planning work completed over the last decade;
- Principle Waste Management Services provided by the City;
- Other Diversion Opportunities provided to residents;
- Historical Overview of the Residential Waste Diversion Rate;
- Historical Overview of Waste Quantities Landfilled;
- Composition of waste landfilled;
- Project Need;
- What is an EA?;
- Overview of the EA Process
- Phase 2 - “Alternatives To” conclusions reached;
- Overview of Alternative Methods being considered;
- Overview of the two step evaluation to be completed;
- Overview of the Evaluation Criteria;
- Results of the Preliminary Evaluation;
- Preliminary Preferred “Step 1 Alternative Methods” and the rationale for the selection;
- Next steps to be undertaken in the process; and
- How to contact the project team.

In addition to presenting the material on the slides an overview of the landfill environmental management features and monitoring program was provided.

Comments/ Questions Raised During the Presentation

The questions/comments raised during the presentation and responses provided are summarized in Table 7.

Table 7
APRIL 19, 2011 PIC COMMENTS/QUESTIONS DURING PRESENTATION

Comment/Question	Response
Is 34% diversion comparable to other municipalities	Yes. City of Sault Ste. Marie is in line with other similarly sized municipalities with similar diversion programs.
In southern Ontario there is a large weight associated with newspapers so their diversion rate shows as higher. We should use volume to indicate diversion rate rather than weight.	It is very difficult to measure volume and weights are much more practical/convenient.
Sudbury diversion rates are higher but they do collect more plastics and they have organics collection. It is a single stream process with improved participation. The waste from the Sudbury MRF is approximately 1.5-4%	No response required.
Are there items banned from the landfill?	Yes old corrugated cardboard and leaf and yard waste are banned.

Table 7 APRIL 19, 2011 PIC COMMENTS/QUESTIONS DURING PRESENTATION	
Comment/Question	**Response**
Elementa tried to do their EA and Certificate of Approval at the same time. They should have finished one process and then gone to the next.	No response required.
How much of the residual waste is organics?	Based on previous studies completed, approximately 30-40% of the waste stream is organic.
How much does the existing site cost? How much less will an expansion cost compared to a new site?	Although detailed estimates have not been completed qualitatively an expansion is less costly and the rationale is detailed in the EA report.
The City has improved odour control with the installation of the gas management system. Sludge is the remaining issue that needs to be dealt with at the existing site.	Agreed. A biosolids management plan has been completed to mitigate odours in transit to the landfill and at the site itself.
Needs to be clear that, while local residents may have become used to the site it does not mean that they like it.	Understood. The City will continue to be as proactive as possible to continually improve nuisance management at the site.
Representatives from Elementa indicated that they can process any carbon based material that is available. In their discussions with Spain they understand that landfills are banned there. The comment “why bury energy” was made.	The City has endorsed a waste supply agreement with Elementa which provides for the management of a portion of the residual waste stream in an energy-from-waste facility.
Is the City of Sault Ste. Marie looking at new recycling products? The City should work with the contractor to get more recyclable materials collected.	The City’s contract for recycling collection and processing includes provisions to consider new products. The inclusion of new material is however contingent upon having an established market to purchase/utilize the materials.

Public Input Session Workbook

Following the presentation and question/answer period, a small group discussion was held with participants to go through the public input session workbook. Six participants joined in the small group discussion including two site neighbours. The following documents the discussion that took place.

Participants were asked to comment on the project team’s preliminary conclusion that a landfill expansion is preferred over the development of a new site and the key differences between the two options. Participants commented as follows:

Table 8
APRIL 19, 2011 PIC – COMMENTS/QUESTIONS DURING WORKING GROUP SESSION

Comment/Question	Response
An expansion option assumes there is land to expand into. We need to confirm that there is enough room.	This is an important consideration and will be addressed in Step 2 of the Alternative Methods evaluation provided expansion is selected as preferred in Step 1.
Should consider mining the existing site and expanding upwards. You could remove recyclables from the mined material and then take it to Elementa for processing.	Mining and a vertical expansion will be considered in the next step of the Alternative Methods phase. Recoverable materials that are encountered during the mining operations will be separated and marketed.
It was noted that you could always mine the existing site even if a new site was identified as preferred.	Agreed, however there would be two sites that would generate nuisance impacts and would require additional resources to operate and manage.
A new site brings a lot of headaches – Where are you going to find a clay dish like you have at the existing site? You will spend 10 years and a lot of money to look for a new site and then find out at the last minute that there is something about it that makes it not workable.	The search for a suitable new site can be very time consuming and costly and typically generates significant anxiety in communities. Significant investment can occur with no guarantees that a workable site will be established. This is also the case for site expansion but a lessor investment is likely required. Both a site expansion and a new site will however require a liner to manage leachate.
The existing site is a known quantity.	Agreed. This was cited as an advantage in the evaluation.
We don't have the density and sprawl in Sault Ste. Marie that they have in southern Ontario so we could probably find a new site that might be better than the existing site.	The search for a suitable new site can be very time consuming and costly and typically generates significant anxiety in communities. Although a new site could potentially be identified the preliminary conclusion reached through the evaluation completed is that the City should initially focus resources on assessing the practicality and net impacts of an expansion. A search for a new site was also completed in the late 80's with limited success.
You will run in to NIMBY if you try to site a new landfill. Residents and property owners were concerned with wind turbines so they are certainly going to be concerned with a landfill.	Agreed.
It was noted that both sites have similar potential for disruption to the neighbouring community.	Agreed but there has been some adaptation with the existing site.
Concern about mining is the odour. There was a lot of odour when they dug into the site to place the pipes for the landfill gas collection system.	Odour is a significant concern associated with mining operations and will require close attention to best practices to mitigate. The intent would also be to limit the timeline for mining operations.

Table 8
APRIL 19, 2011 PIC – COMMENTS/QUESTIONS DURING WORKING GROUP SESSION

Comment/Question	Response
Don't think a community will allow a new landfill. The City should go with what we have and make it better.	The preliminary conclusions reached through the evaluation suggest focusing on an expansion for a number of reasons as noted elsewhere in the report. The intent would be to further improve the environmental management features at the existing site in conjunction with an expansion.
It was suggested that an expansion could not go east or south, there is not much room to go west, and the north is the best direction for an expansion as there are no additional people to impact. North was preferred over going higher. A separate fill area to the north was suggested.	Various expansion options will be explored in the next step of the process if the preferred alternative from the current step is expansion. It was acknowledged that expansion east or south is not likely practical.
It was acknowledged that there would be a cost savings with an expansion over a new site.	Agreed.
There was discussion on the lifecycle cost of existing equipment and whether it could be re-used if a new site was selected. It was suggested that the equipment cost difference for the site is probably not that great and should not be what is relied upon to make the decision between the options.	It was noted that in addition to the equipment there are infrastructure items on the current site that could potentially be reused including site roads, weigh scale(s), scale house and administrative and maintenance buildings existing groundwater, surface water and landfill gas monitoring systems. Collectively these items could result in a substantial cost savings.
It was noted that investigations on a new site would be very costly and there is a lot less certainty than with an existing site.	The search for a suitable new site can be very time consuming and costly and typically generates significant anxiety in communities. Significant investment can occur with no guarantees that a workable site will be established. Although a significant investment is also required for a site expansion the required investment is likely much less given the significant knowledge that pre-exists for the site.
Don't think that a new site would be much harder to approve but it would be harder to get buy-in from the community.	Agreed that there may be increased challenges in obtaining buy-in from the community for a new site particularly if it is located near sensitive uses. The approval for a new site would require more extensive investigations to ascertain potential impacts particularly with groundwater.
The existing site is well run there have been improvements (e.g. gas management). The sludge smell and potential for groundwater impacts are the only issues at the existing site that neighbours are concerned about. If you fix these issues then there is no problem with the existing site.	A biosolids management study is being completed to address the management, nuisance impacts and potential beneficial use of the sewage biosolids. The City has been effectively monitoring and managing groundwater quality at the existing site and expansion would include further enhancements

Table 8 APRIL 19, 2011 PIC – COMMENTS/QUESTIONS DURING WORKING GROUP SESSION	
Comment/Question	**Response**
	to the existing leachate management features and protocols.
One option to fix the concern about groundwater is to supply municipal water to local residents.	Consideration will be given to potential impacts to private well supplies in the next phase of the study.
The long term plan for the landfill is good but we should also be focusing on what we can do to help Elementa. It was noted that their biggest issue at this point was getting an appropriate electricity rate from the Ontario Power Authority. Waste-to-energy is the only thing not included in the government's feed-in-tariff program and it should be.	The City has endorsed a waste supply agreement with Elementa. It is anticipated that Elementa will continue to negotiate with OPA with the goal of establishing an acceptable power purchase agreement.
It was noted that we should be focusing on reducing and recycling.	Increased 3R's was identified as an important element of the overall preferred solution identified in the first phase of the study and the City is committed to investigating and implementing cost effective 3R's strategies.

There was not sufficient time to review the evaluation criteria to be used in the next step. Participants suggested that they liked the approach taken to date where the team goes through the evaluation using their technical expertise and brings it back to the community for review and input.

In addition to the workbook that was collectively reviewed by the group at the Public Input Session, a member of the public also submitted a completed workbook. Comments were made throughout the workbook and were summarized as follows:

"I agree with the preliminary conclusions….however the City must continue to find ways to reduce the amount of garbage in the first place."

3.4.5 March 6, 2012 Public Input Session – Evaluation Approach/ Criteria and Preliminary Preferred Expansion Option

A Public Input Session was conducted on March 6, 2012 in the Russ Ramsay Room of the Civic Center. Representatives of the Consultant team and the City of Sault Ste. Marie were in attendance throughout the session to provide information, address questions, and facilitate discussions. The information session was open from 3:30 p.m. to 7:30 p.m. with a total of seventeen (17) individuals recording their names on the sign-in sheet.

The principle objective of the Step 2 Alternative Methods consultation task was to obtain feedback from the general public, agencies, Aboriginal Communities and stakeholders regarding the evaluation criteria and the preliminary results. To assist in soliciting as much input as possible, a questionnaire was developed to provide targeted feedback and a comment sheet was made available to provide general comments. The questionnaire and comment sheet were available at the March 6, 2012 Public Input Session and were posted on the project webpage on the City's website. In addition digital responses were encouraged through Survey Monkey, an online survey website.

Notification of the Public Input Session (copy included in Appendix J)

The Open House was advertised as follows:

- Sault Star on February 25, 2012;
- Sault This Week on February 22 and February 29, 2012;
- City of Sault Ste. Marie website;
- The local media (radio, online news agencies and newspapers) raised awareness of the open house;
- Hardcopies of the notice were mailed to individuals that reside in close proximity to the landfill and/or previously expressed an interest in the project;

Information Available to Participants

Displays were posted on the walls to disseminate information to individuals that attended the public input session. The following displays were posted on the walls (copies of the displays are included in the Appendix J):

- A welcoming display;
- What individuals should do when they arrive at the session;
- Objectives of the session;
- Waste management planning activities;
- Waste diversion opportunities, accomplishments, and possible future initiatives (4 displays);
- Project need rationalized;
- Overview of the EA process (2 displays);
- The conclusions reached in the “Alternatives To” phase;
- Step 1 Alternative Methods considered and conclusions reached (2 displays);
- Overview of landfill expansion options considered (5 slides);
- Summary of the proposed evaluation criteria, methodology and preliminary results (4 slides);
- Identification of the preliminary preferred alternative selected by the technical team;
- Next steps in the process; and
- Project team contact information.

In addition to the displays, copies of the Solid Waste Management Environmental Alternative Methods – Step 2 (Identification and Comparison of Expansion Options) Draft Working Paper was available for review together with earlier reports.

Comments and Questions

The following input was received during and following the public input session:

- Two (2) letters;
- One (1) comment sheet;
- Two (2) completed online surveys through Survey Monkey; and
- Two (2) questionnaires.

The information received through the various formats is summarized in the Table 9.

Table 9
MARCH 6, 2012 PIC SUMMARY OF COMMENTS/INPUT RECEIVED AND THE PROJECT TEAM'S RESPONSES

Comments	Response
Suggested that a waste-to-energy vendor be invited to convert our waste (Elementa or an alternate vendor).	A private sector energy-from-waste (EFW) proponent called The Elementa Group (Elementa) has built and tested a pilot steam reformation plant that converts municipal solid waste into a char and synthetic gas that can be used to generate electricity. The pilot testing was completed from 2007 to 2009 and Elementa has plans to construct a new larger-scale facility, with an estimated annual throughput capacity of at least 35,000 tonnes. In 2009, the City entered into a waste supply agreement with Elementa to process a minimum 12,500 tonnes per year of the City's residential MSW for a minimum ten year period commencing in 2011. The project implementation has been delayed on a number of occasions and the waste supply agreement was amended on a number of occasions to reflect changes in waste supply commencement dates.
Prevent leachate from entering groundwater and surface water sources.	The proposed expansion includes strategies to mitigate potential adverse impacts to ground and surface water that could be generated from the proposed expansion area. The preliminary preferred expansion option includes provisions to enhance ground and surface water protection measures associated with the existing disposal footprint. Further details will be forthcoming in the next phase of the project (ie. detailed impact assessment)
The necessity and cost of the proposed landfill mining in the western portion of the existing footprint was questioned.	Although landfill mining is not a "necessity" there are pros and cons to this component of the preliminary preferred option. Landfill mining provides an opportunity to enhance groundwater protection measures associated with the existing disposal footprint. A secondary benefit is the additional disposal capacity sourced by separating the waste from the fines and re-landfilling only the waste. The principle drawbacks to landfill mining are the added cost, nuisance impacts (ie. odours, dust, noise) and worker protection. The feedback that we have received to date is that the long term ground water quality benefits outweigh the added costs and short term operational impacts.
Displays and presentation was well done and very informative.	No response required.
Consideration should be given to petition the expansion of the current Provincial Groundwater Monitoring Network (PGMN). This expansion could allow for additional groundwater quality and quantity monitoring away from the landfill. The additional monitoring	There is an extensive network of monitoring wells located within and immediately adjacent to the existing waste disposal site. This network provides ample opportunity to assess groundwater quality within and adjacent to the site. We support your suggestion that

Table 9
MARCH 6, 2012 PIC SUMMARY OF COMMENTS/INPUT RECEIVED AND THE PROJECT TEAM'S RESPONSES

Comments	Response
capability would increase the predictability of any potential threat of off-site contamination and allow the operators of the municipal drinking water distribution network to have ample notice of any impending issues. Policies will be included in the Municipality's Source Protection Plan to address.	there are benefits to expanding the PGMN within the capture zones of the municipal wells to identify contaminants well in advance of reaching the well head.
Concern was expressed regarding the long term quality of drinking water sourced from private wells adjacent to the site.	There is an extensive network of monitoring wells located within and immediately adjacent to the existing waste disposal site. This network provides ample opportunity to assess groundwater quality within and adjacent to the site. Despite the extensive monitoring network we understand the concern raised and further consideration will be given to this concern in the next phase of the project (ie. detailed impact assessment).
Concern was expressed with the location of a landfill on a significant ground water recharge area but also acknowledged that the expansion of the existing site allows an opportunity to help reduce the risk of the existing landfill operation with ongoing monitoring and through the application of partial or total impervious cover over the existing footprint to limit infiltration and leachate production.	Although the location of the existing waste disposal site may not be ideal the ongoing operation and site monitoring by the Municipality has demonstrated that leachate is being effectively managed as demonstrated through the annual reporting. Despite the effective leachate management the City believes the proposed expansion offers an opportunity to further enhance the protection measures associated with the existing disposal site. These measures may include a liner at the base of the waste and at the interface between the new and existing waste in the expansion areas, a partial or full impervious final cover design, mining and lining a portion of the existing site and installation of a horizontal collector along the western boundary of the expansion area.
Support for landfill mining to improve ground water quality but also identified a need to consider air quality and protection of workers during the operations.	There are pros and cons to landfill mining. Landfill mining provides an opportunity to enhance groundwater protection measures associated with the existing disposal footprint. A secondary benefit is the additional disposal capacity sourced by separating the waste from the fines and re-landfilling the waste only. The principle drawbacks to landfill mining are the added cost, nuisance impacts (ie. odours, dust, noise) and worker protection during the operations. Further consideration of the nuisance impacts and safety will be included in the detailed impact assessment.
Composting should be fast tracked by the MOECC.	The City, through its Consultant, interacts regularly with MOECC staff regarding proposed changes to the composting regulations.
Support expressed for Option 3 - North and West Expansion B. Also suggested that landfill mining	Although there is additional expense associated with the proposed landfill mining it will help to mitigate

Table 9
MARCH 6, 2012 PIC SUMMARY OF COMMENTS/INPUT RECEIVED AND THE PROJECT TEAM'S RESPONSES

Comments	Response
should be considered as technology becomes available and this option becomes more cost competitive. It was also noted that there should continue to be a focus on recycling.	potential ground water impacts to the south west of the site. The preferred solution that was identified in the "Alternatives To" stage of the process included increased waste diversion and the City is committed to investigating and implementing cost effective ways and means of reducing residual waste disposal quantities.
Every effort should be made to reduce the timeframe to initiate the landfill expansion plan.	The City is committed to moving forward with the next steps of the EA process and the technical approvals required for the expansion.

3.4.6 February 9, 2016 Public Input Session – Impact Assessment for the Preferred Option

A Public Input Session was conducted on February 9, 2016 in the Russ Ramsay Room of the Civic Center. Representatives of the Consultant team, and the City of Sault Ste. Marie were in attendance throughout the session to provide information, address questions, and facilitate discussions. The information session was open from 3:30 p.m. to 7:30 p.m. with a total of nine (9) individuals recording their names on the sign-in sheet.

The principle objective of the Impact Assessment consultation task was to obtain feedback from the general public, agencies, Aboriginal Communities and stakeholders regarding the identified impacts and the proposed mitigation measures for the preferred option. A comment sheet was provided which incorporated two key questions and provided space to record any other comments or concerns. The comment sheet was also posted on the project webpage on the City's website.

Notification of the Public Input Session (copy included in Appendix K)

The Open House was advertised as follows:

- Sault Star on January 30, 2016;
- Sault This Week on January 26 and February 2, 2016;
- City of Sault Ste. Marie website;
- The local media also raised awareness of the open house through news articles; and
- Hardcopies of the notice were mailed to agencies, Aboriginal Communities and individuals that reside in close proximity to the landfill and/or previously expressed an interest in the project.

Information Available to Participants

Displays were posted on the walls to disseminate information to individuals that attended the public input session. The following displays were posted on the walls (copies of the displays are included in the Appendix K):

- A welcoming display;
- What individuals should do when they arrive at the session;
- Objectives of the session;
- Overview of the EA process (2 displays);
- Project history and key milestones;
- The conclusions reached in the "Alternatives To" phase (increased 3R's and landfilling);
- Step 1 Alternative Methods conclusions reached (landfill expansion in lieu of a new site);

- Step 2 Alternative Methods conclusions reached (north and west expansion with landfill mining);
- Conceptual plan of the preferred expansion option;
- Description and key objectives of the Impact Assessment for the preferred option (2 slides);
- Results of the biological impact assessment;
- Conclusions from the geotechnical investigation;
- Results of the groundwater impact assessment;
- Results of the noise impact assessment;
- Results of the air quality impact assessment;
- Results of the odour impact assessment;
- Results of the surface water impact assessment;
- Results of the socio-economic impact assessment;
- Results of the visual impact assessment;
- Results of the traffic impact assessment;
- Results of the cultural impact assessment;
- Results of the land use impact assessment; and
- Next steps.

In addition to the displays, copies of the impact assessment reports were available for review.

Comments and Questions

The following input was received during and following the public input session:

- Comments recorded during the open house;
- Two (2) emails;
- One (1) comment sheet;

The information received through the various formats is summarized in the Table 10.

Table 10
FEBRUARY 9, 2016 SUMMARY OF COMMENTS/INPUT RECEIVED AND THE PROJECT TEAM'S RESPONSES

Comments	Response
Concern was expressed with litter sprawl and plastic bags and odours.	The City has proactive litter pickup protocols in place at the landfill site which include manual and mechanical collection methods. There are a significant number of odour mitigation protocols in place as follows: • In 2010 the City completed an upgrade from a "passive" system to an "active" landfill gas collection system over a portion of the site. The system reduces the quantity of methane released to the atmosphere (ie: reduces the carbon footprint of the site) and also reduces odours generated at the site. • In addition to landfill gas, biosolids (i.e: sewage sludge) delivered to the site for disposal may also contribute to off-site odours. The City continues to be proactive in its efforts to manage and mitigate odours associated with the transport, management and disposal of biosolids. A biosolids management study is also nearing completion which

Table 10
FEBRUARY 9, 2016 SUMMARY OF COMMENTS/INPUT RECEIVED AND THE PROJECT TEAM'S RESPONSES

Comments	Response
	incorporates processing of the sludge to reduce odour impacts and facilitate beneficial uses. • An odour neutralizing agent is applied to the biosolids at the water pollution control plants prior to delivery to the landfill site. Once the biosolids are tipped at the working face they are mixed with other wastes and cover is applied promptly. A hand held sprayer is used by the vehicle operators to apply an odour neutralizing agent to the empty trailers before they leave the site throughout the year. • Early in 2013, mesh tarps were replaced with impermeable, waterproof tarps on one biosolids trailer at the west plant and two biosolids trailers at the east plant to mitigate odour release in transit to the landfill. • Regular trailer washing was also initiated in 2013 to remove residual biosolids from the outside faces and wheels of the trailers. Careful attention will also be given to the implementation of best management practices to mitigate odours associated with the proposed landfill mining operations. Local residents are encouraged to contact the landfill to alert operations staff of any issues related to litter sprawl or odours to ensure actions are taken to mitigate nuisances.
A request was made to undertake groundwater sampling to the north of the landfill to confirm impacts are not migrating to the north.	There are several monitors that are located to the north of the disposal footprint that have been sampled historically and have been used as background monitors because they have shown any significant impacts. In addition there is a significant inventory of groundwater monitors that have consistently demonstrated that groundwater flows south, south-east and south-west from the landfill site.
A representative of Ellwood Robinson Ltd. (local Contractor) requested that access be maintained to their pit in conjunction with the proposed expansion. The pit is currently only accessible through the landfill site.	City staff noted that they believe there is an agreement addressing access to the pit and it will continue to be respected in conjunction with the proposed expansion.
A local resident had several questions related to pay-as-you-throw programs, source separated organics/ backyard composters, bi-weekly waste collection and the use of clear bags for waste disposal.	A detailed response was issued and it describes the current partial pay-as-you-throw program and future potential enhancements, the challenges with a source separated organics collection and processing program and bi-weekly waste collection in Sault Ste. Marie, the potential for future enhanced public education related to backyard composting and considerations in mandating clear waste disposal bags in the future. In addition we provided a comprehensive summary of 3R's initiatives that are integral to the City's waste management plan.
A local resident questioned what initiatives are planned to enhance	We provided a comprehensive summary of current and proposed future 3R's initiatives that are integral to the City's waste management plan. We also

Table 10 FEBRUARY 9, 2016 SUMMARY OF COMMENTS/INPUT RECEIVED AND THE PROJECT TEAM'S RESPONSES	
Comments	**Response**
diversion and the status of the proposed waste-to-energy facility.	explained that the waste-to-energy project has been delayed on several occasions and the contract with the City has been amended at the request of the vendor. The current contract identifies the latest possible construction start in May 2016 which was not achieved. In addition in December 2015 the vendor was ordered into receivership and the future of the contract with the City is unknown.

3.5 Detailed Accounting of Waste EA Consultation Activities (initiated in 2006)

The EA process was initiated in October 2006 and throughout the process various types of consultation activities have been undertaken as outlined in this report. The input received through the Public Consultation Events have been incorporated in sections 3.3.1 to 3.3.6 inclusive. This approach has been taken as it is often difficult to categorize stakeholder type during these events. For comments, questions and input received outside of the aforementioned consultation events the consultation activities have been summarized in two distinct formats as noted below.

Within Appendix L the consultation activities and supporting documentation have been collated and summarized by the following stakeholder types:

1. Municipalities
   - ✓ Prince Township
2. Agencies
   - ✓ Indian and Northern Affairs Canada
   - ✓ Ministry of Environment
   - ✓ Ministry of Natural Resources and Forestry
   - ✓ Ministry of Northern Development and Mines
   - ✓ Ministry of Tourism and Culture
   - ✓ Ministry of Transportation Ontario
   - ✓ Ontario Realty Corporation/Infrastructure Ontario
   - ✓ Sault Ste. Marie Region Conservation Authority
   - ✓ Transport Canada
3. General Public

Indigenous consultation activities and supporting documentation have been included separately from other stakeholder types for ease of reference. Consultation summary tables and supporting documentation for the following Indigenous communities can be found within Appendix M:

- ✓ Batchewana First Nation
- ✓ Garden River First Nation
- ✓ Missanabie Cree
- ✓ Metis Nation of Ontario

Separate tables have been established for each of the four principle stakeholder groups with subsections established for each of the subgroups. The tables have been organized to provide a description of the consultation

activity, the date it occurred, comments/questions or input received as a result of the activity, how the input was addressed, where the relevant reference material can be found and whether there are any outstanding issues to be resolved. These tables will allow individuals to easily identify what consultation has occurred with the various stakeholder groups.

In addition to the foregoing, we have also prepared a chronological summary of the consultation activities. This summary has been included as Appendix N.

AECOM

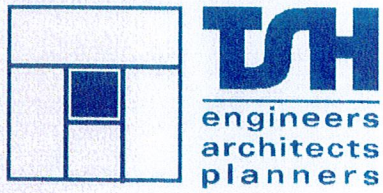
Appendix A

Current Waste Management System Summary Report (September, 2000)

City of Sault Ste. Marie

CURRENT WASTE MANAGEMENT SYSTEM SUMMARY

September, 2000

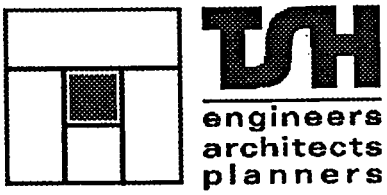


In association with
Russell Environmental Services ("RES")

City of Sault Ste. Marie

CURRENT WASTE MANAGEMENT SYSTEM SUMMARY

September, 2000



In association with
Russell Environmental Services ("RES")

CITY OF SAULT STE. MARIE

CURRENT WASTE MANAGEMENT SYSTEM SUMMARY

TSH Project No. 38-60219

TSH

CITY OF SAULT STE. MARIE
CURRENT WASTE MANAGEMENT SYSTEM SUMMARY

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LIST OF ABBREVIATIONS

ASI	Algoma Steel Incorporated
cm	centimetre(s)
CSR	Corporation Supporting Recycling
c/w	complete with
ft^3	cubic feet
ft.	foot(feet)
GP	Georgia Pacific
HDPE	High Density Polyethylene
hh	household
HHW	Household Hazardous Waste
IC&I	Industrial Commercial and Institutional
kg	kilogram(s)
km	kilometre(s)
OCC	Old Corrugated Cardboard
PET	Polyethylene Terephthalate
RES	Russell Environmental Services
TSH	Totten Sims Hubicki Associates
WRO	Waste Reduction Office

CITY OF SAULT STE. MARIE
WASTE MANAGEMENT SYSTEM SUMMARY

1. INTRODUCTION

1.1 General

The City of Sault Ste. Marie retained Totten Sims Hubicki Associates (TSH), in association with Russell Environmental Services (RES) and Hydroterra Limited, to provide the City with direction on all aspects of its solid waste management for the next 25 to 40 years. A four-phased study is being undertaken over the next 18 months with the goal to develop a practical, economically feasible, environmentally acceptable and technically competent long-term waste management system for the City.

The four phases of the study include:

- Phase 1: Identification of a Preferred Waste Diversion System
- Phase 2: Identification of a Preferred Waste Disposal System
- Phase 3: Development of an Implementation and Business Plan
- Phase 4: Development of an Environmental Assessment Terms of Reference

This report provides a summary description of the current waste management programs being offered in the City of Sault Ste. Marie and compares the programs and costs with other Ontario municipalities. Five Ontario cities which are similar to Sault Ste. Marie in location and size were used as comparison municipalities. The municipalities compared included the Cities of Thunder Bay, Timmins, Sudbury, North Bay and Barrie. A brief description of each municipality's waste management system is provided in Section 1.2 and summarized in Table 1.1.

1.2 Description of Current Waste Management Systems of Sault Ste. Marie and Comparable Municipalities

The City of Sault Ste. Marie has a population of 80,054[1]. City forces collect waste weekly in the downtown sector, while a private contractor collects waste weekly in the rural areas. The waste is deposited in the City owned and operated landfill. The City has a six-bag limit for wastes generated by each residential and commercial establishment.

Blue box recycling collection and processing is undertaken by a private contractor. The materials are collected weekly and include: cans, glass bottles and jars, newsprint, magazines, PET plastic and aluminum. The City has banned commercial cardboard from the landfill and set up 13 depots throughout the City for cardboard collection. At the landfill, wet cell batteries, large appliances, scrap metal, used tires, propane cylinders, leaves, wood waste and Christmas trees are also diverted from disposal. The City also operates a leaf and yard waste collection program in the Fall. It is

[1] *Source: Enumeration, 1997*

estimated that the City has a waste diversion rate of 8%. The City is currently in the process of establishing a Household Hazardous Waste (HHW) facility.

The City of Thunder Bay is a located 700 km northwest of Sault Ste. Marie and has a population of 116,965[1]. Municipal forces collect garbage weekly. The waste is disposed in a City owned and operated landfill. The City has a three-bag limit on residential garbage collection. Recycling collection is undertaken by a private contractor bi-weekly (every other week). Prior to March 2000, fibres (newspapers, magazines and other papers) were collected at the curbside in see-through blue bags. It was felt that the bags offered better protection from the elements than a blue box. Containers (cans, glass bottles and jars, PET plastic, and HDPE plastic) were dropped off at centrally located depots. It was found that this dual system increased the cost of the recycling program, therefore the two systems were combined into one curbside collection contract. As of March 2000, residents place containers in one blue bag, while fibres are placed in a second blue bag. Both bags are collected from the curbside on a bi-weekly basis. Corrugated cardboard is bundled and left beside the blue bags for collection. Scrap metal is segregated for recycling at the landfill. The City had one collection of yard waste from the curbside in 1999, and residents can take yard waste to a depot at the landfill at any time. A municipal HHW depot collects and processes hazardous waste self hauled by the residents.

The City of Timmins, located 320 km northeast of Sault Ste. Marie, has a population of 45,845[1]. Municipal forces collect garbage weekly in the spring and summer months, and bi-weekly in the fall and winter months. There is no limit on the number of bags collected per household. The City owns and operates one main landfill, 4 smaller landfill sites, and one transfer station. A private contractor collects recyclables under contract to the City, in a "green box" on a bi-weekly basis. Depots for the collection of recyclables, steel and rubber are also available at the landfill sites and transfer stations. The City does not have programs for centralized composting or the handling of HHW.

The City of Sudbury is located 300 km east of Sault Ste. Marie. The City has a population of 91,056[1] and uses both public and private sector forces for waste collection. There is no limit on the number of bags collected per household. Waste is collected in the southern, rural portion of the City and the downtown commercial area by a private contractor, while municipal forces collect waste from the remainder of the City. The landfill sites and recycling program are administered at the Regional level (population 164,000) which includes a number of rural communities. The Region of Sudbury is responsible for the operation of 5 landfill sites. Waste diversion activities implemented at the Regional landfill sites include diversion of tires, white goods, scrap metals, wood wastes and wet cell batteries. Leaves, grass clippings, garden waste, brush, tree trunks and trimmings, other plant material and clean wood waste can be delivered to a designated area of the Regional landfill sites for on-site composting. The contract for the weekly collection and processing of blue box recyclables provides a 50/50 split of the material revenue between the Region and the contractor. The Region operates a permanent HHW depot that is open 26 Saturdays per year and also a "toxic taxi" service that collects hazardous waste by appointment from residents throughout the Region. Overall, the Region of Sudbury is diverting 28% of the residential waste stream.

The City of North Bay is east of Sudbury, and has a population of 56,411[1]. A private sector contractor picks up waste on a weekly basis. There is a four-bag limit for residential waste and a 16 bag limit for the Industrial, Commercial and Institutional ("IC&I") sector. The City operates one landfill site. Special materials, such as tires, wood waste, and concrete are diverted at the landfill. The City purchased recycling equipment and leases the recycling building. Collection and processing of recyclables is contracted, with the City receiving 80% of the revenue from the sale of materials. Collection of recyclables is done on a bi-weekly basis. The City operates a HHW depot. North Bay ran a leaf and yard waste collection program for 3 weeks in the Fall of 1999.

The City of Barrie is located in southern Ontario, approximately 100 kilometres north of Toronto and has a population of 78,965[1]. Waste collection is contracted to the private sector. Residents are allowed to put out two bags of garbage each week for free, after which they pay $1.00 per bag. The City has a well-developed waste diversion program that includes an expanded blue box program with extensive public education. The weekly collection and processing of recyclables is contracted to the private sector. Recyclables collected include newspaper, boxboard, cardboard, telephone books, magazines, textiles, steel and aluminum cans, clear and coloured glass, PET and HDPE plastic jugs and bottles. Leaf and yard waste collection is provided throughout the year on a bi-weekly basis. The City has a permanent HHW depot that is open 2 days a week. Barrie is achieving a 50% waste diversion rate.

The following sections provide detailed descriptions of each component of the City of Sault Ste. Marie's waste management system. The different waste management component costs are compared to the five other municipalities referenced in this section.

TABLE 1.1
WASTE MANAGEMENT SYSTEMS IN SAULT STE. MARIE AND COMPARABLE MUNICIPALITIES

	Sault Ste. Marie	Thunder Bay	Timmins	Sudbury	North Bay	Barrie
Distance from Sault Ste. Marie (kms)	0	700	320	300	450	600
Population	80,054	116,965	45,845	91,056	56,411	78,965
Waste Collection Frequency	weekly	weekly	- weekly in spring and summer - biweekly in fall and winter	weekly	weekly	weekly
Waste Collection Forces	public/private	public	public	public/private	private	private
Bag Limit	6	3	none	none	4	2 free bags, $1.00 per bag beyond limit
Recycling Collection Frequency	weekly	bi-weekly	bi-weekly	weekly	bi-weekly	weekly
Centralized Composting Available	yes (private)	yes (public)	no	yes (public)	yes (public)	yes (public)
Yard Waste Collections per year	4	1	none	none	3	26
HHW depot	planned	yes	no	yes	yes	yes
Residential Waste Diversion Rate (%)	8			28		50

Source: TSH, August 2000

2. WASTE COLLECTION AND DISPOSAL

2.1 Waste Collection

Municipal By-Laws

The City of Sault Ste. Marie's Municipal By-Law 94-101 governs the requirements for municipal waste collection. According to the by-law, waste must be placed in one of the following containers for collection:

- metal or plastic container, not to exceed 97 cm in height, 51 cm in diameter, and 110 litres in volume;
- plastic bags, not less than 46 cm or more than 97 cm in height; or
- bundles, not to exceed 61 cm x 61 cm x 91 cm and securely tied with heavy cord or twine.

The individual weight for any of the above units is not to exceed 25 kilograms. The by-law lists a number of items not collected in the municipal waste collection system, including: animal waste, electrical appliances, furniture , mattresses, building materials, and other bulky items. A public drop-off area at the landfill site is available to accept these items at a nominal fee of $2.00.

Effective January 1, 2000, the City of Sault Ste. Marie implemented a 6 bag (or can) per week limit for all residential and commercial establishments, with the exception of apartment buildings, which are allowed the following set-out rates:

- buildings containing one or two apartments or businesses are entitled to a total of six bags (or cans) per week;
- buildings containing three or four apartments or businesses are entitled to a total of ten bags (or cans) per week; and
- buildings containing five to twenty apartments or businesses are entitled to a total of twenty bags (or cans) per week.

For apartment buildings that use containers for the collection of waste from the residents, the following limits apply:

- buildings containing between five and twenty apartments are entitled to the collection of a total of 2.25 cubic metres once per week;
- buildings containing between twenty and fifty apartments are entitled to the collection of a total of 4.5 cubic metres once per week; and
- buildings containing fifty one or more apartments are entitled to the collection of a total of 4.5 cubic metres of garbage twice per week.

The City contracts separately for the collection of waste from approximately 80 apartment buildings that use containerized garbage collection.

Any individual business that generates more than 6 bags (or cans) of garbage per week is required to contract with a private hauler for the collection of their waste stream.

Collection Responsibility

The City of Sault Ste. Marie utilizes both private and public sector forces for waste collection. The collection throughout the City is done five days per week.

Waste is collected in the central urban area of the City using municipally operated and maintained equipment. Three (two-person) rear-loading packer vehicles are utilized on a regular basis, with two vehicles available for backup. The following vehicles are currently in use for this service:

Central Area

- 1994 Ford model CRT 8000 c/w Heil model 5000, 25 cubic yard packer
- 1995 Ford model CRT 8000 c/w Heil model 5000, 25 cubic yard packer
- 1996 Freightliner model FL 80 c/w Heil model 5000, 25 cubic yard packer
- 2000 Mack model MR 688S c/w Heil model 5000, 25 cubic yard packer
- 2000 Mack model MR 688S c/w Heil model 5000, 25 cubic yard packer

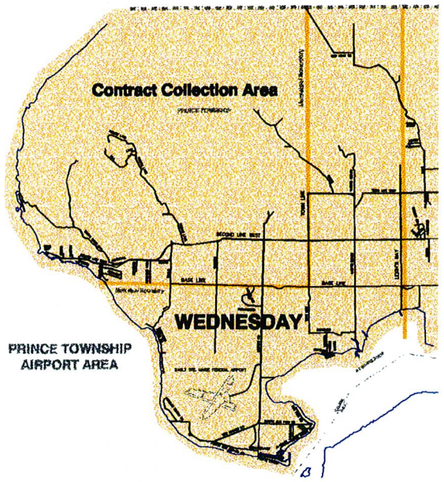
Waste in the central area is collected five days per week, as indicated in the schedule shown in Figure 1.

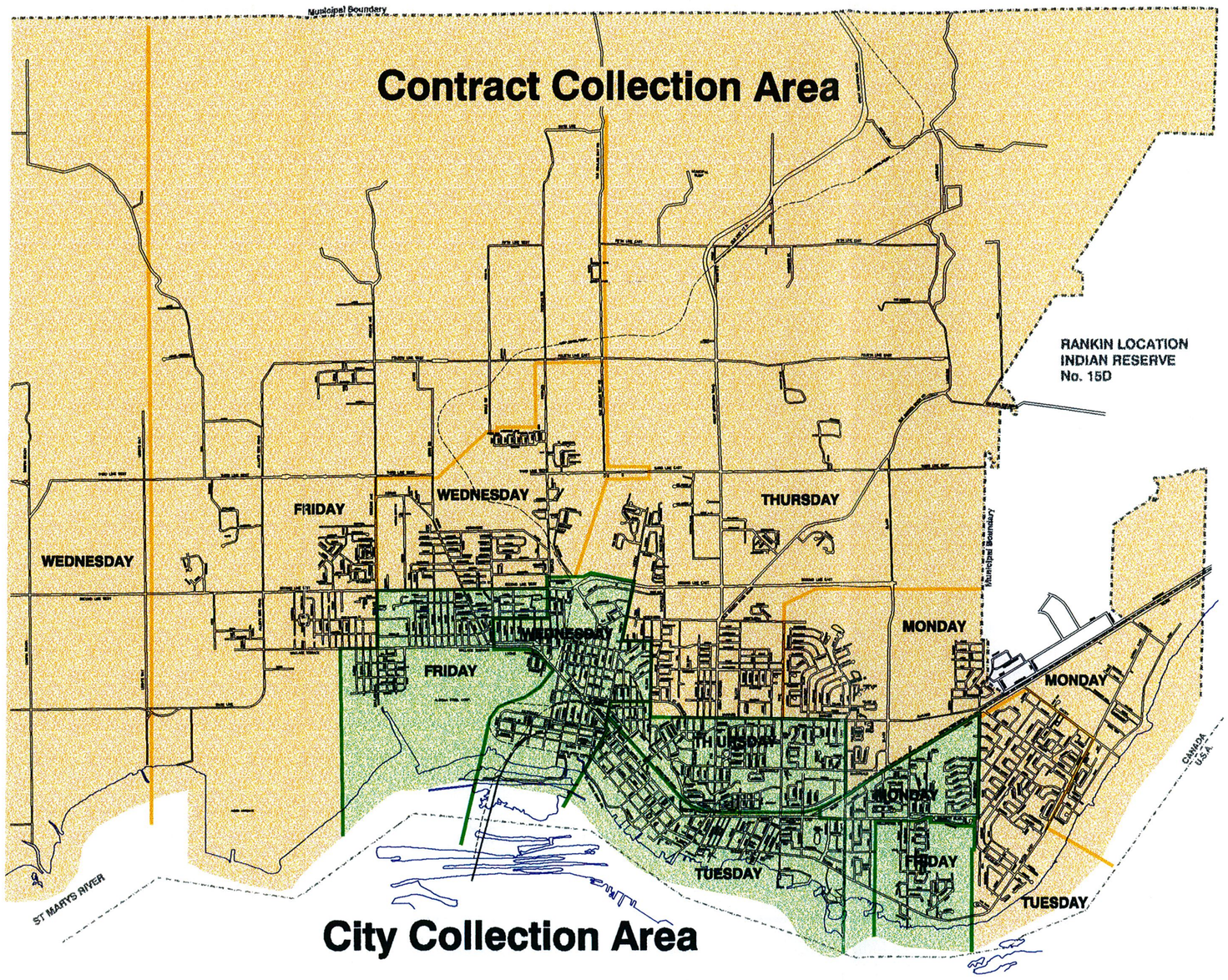
Outlying Area

Collection of waste in the outlying, more rural areas is contracted to the private sector. In December 1999, a private contractor (Canadian Waste) was awarded the contract to provide all labour and equipment necessary to complete the service for a 5-year period. The collection of waste from the 80 high-density residential (apartment) units is also part of this waste collection contract.

The contractor utilizes three (one-person) 1995 Labrie Expert 2000 side-loading collection vehicles (25 cubic metre) for the regular municipal collection, and front-loaders for waste collection from the apartments.

Waste from the outlying areas is collected five days per week, based on the schedule shown in Figure 1.





REFUSE COLLECTION SERVICE AREA

Contract Waste/Recycling Collection Area

City Waste Collection/Contract Recycling Collection Area

TSH engineers architects planners

City of Sault Ste. Marie
Waste Management Plan

City and Private Sector Waste and Recycling Collection Routes

FIGURE NO.

1

G:\60219 - SSM WMP\Dwg\60219 sh collection route map.dwg

Waste Quantities Per Household

The quantity of waste collected at curbside by both the private and public sectors in 1999 is summarized in Table 2.1. As indicated, the quantity of waste per household collected in the rural areas is less than what is collected in the central area of the City. This is fairly typical, since residents in rural areas have larger properties and are generally more inclined to compost or burn waste on-site.

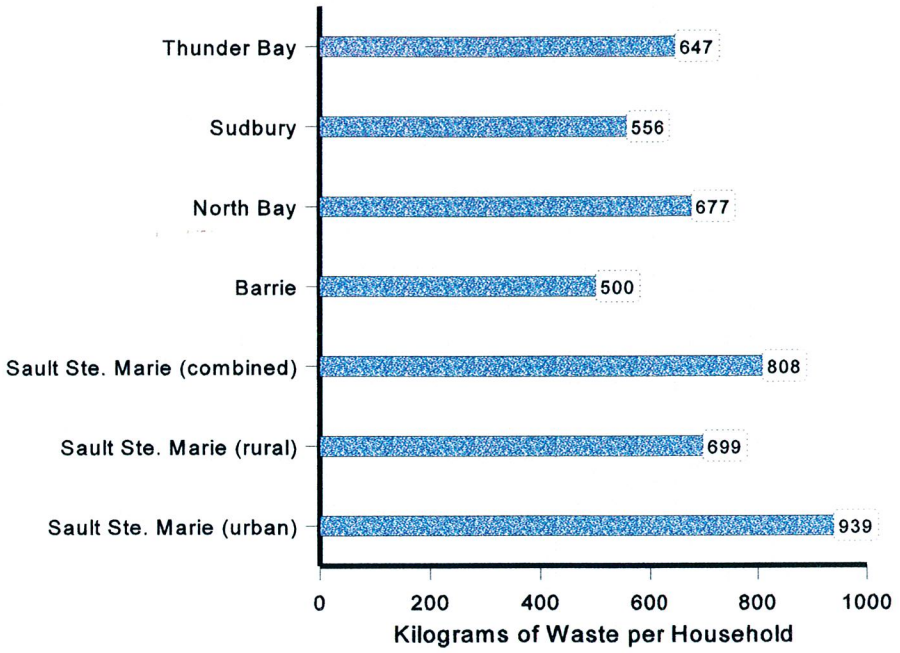
TABLE 2.1
CITY OF SAULT STE. MARIE
MUNICIPAL WASTE COLLECTION (1999)

	Urban	Rural	Total
Service Provider	Public	Private	
Households	11002	13410	24412
No. of Collection Vehicles	3	3	6
Waste Collected (tonnes)	10,336	9,380	19,716
Waste/Household (kg/hh)	939	699	**808**

Source: Mr. P. McAuley, City of Sault Ste. Marie

The quantity of waste collected in the City's municipal system averaged 808 kilograms per household during 1999. As shown in Figure 2, this is a high waste generation rate when compared to the other municipalities. The City of Timmins does not weigh the waste collected in the municipal system and is therefore not included in this analysis.

Figure 2 - Residential Waste Generation Rate for Sault Ste. Marie and Comparable Municipalities - 1999
Source: TSH, August 2000



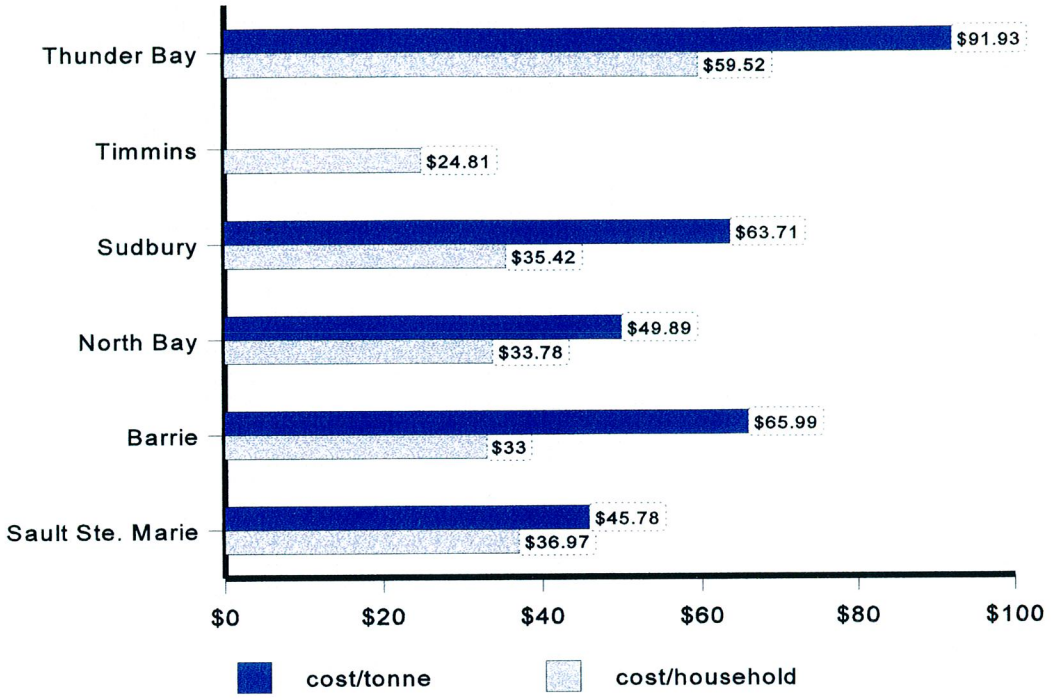
Collection Costs

The total cost of providing the municipal waste collection services in the City for the year 1999 was $902,518 per year (excluding apartments and special collections), as shown in Table 2.2 . This equates to a cost of $36.97 per household, or $45.78 per tonne, which is reasonable in comparison with other similar municipalities as shown in Figure 3.

TABLE 2.2 - BREAKDOWN OF COST OF WASTE COLLECTION	
Canadian Waste Management Contract	$415,174
Direct Supervision	$21,424
City Labour	$247,520
Vehicle depreciation, fuel, maintenance	$218,400
TOTAL	$902,518

Source: Sault Ste. Marie Budget and discussions with Pat McAuley,

Figure 3 - Cost of Waste Collection for Sault Ste. Marie and Comparable Municipalities - 1999
Source: TSH, August 2000



2.2 Waste Disposal

Landfill Tonnages

The landfill site servicing the City of Sault Ste. Marie was developed, owned and operated by Cherokee Construction in the early 1960's. The site was acquired by the City in 1989 and is currently operated by City staff under Provisional Certificate of Approval No. 560102, dated March 29, 1989. The landfill site is open to the public 5½ days a week during the summer months (April 1 - October 31) and 5 days a week from November 1 to March 31.

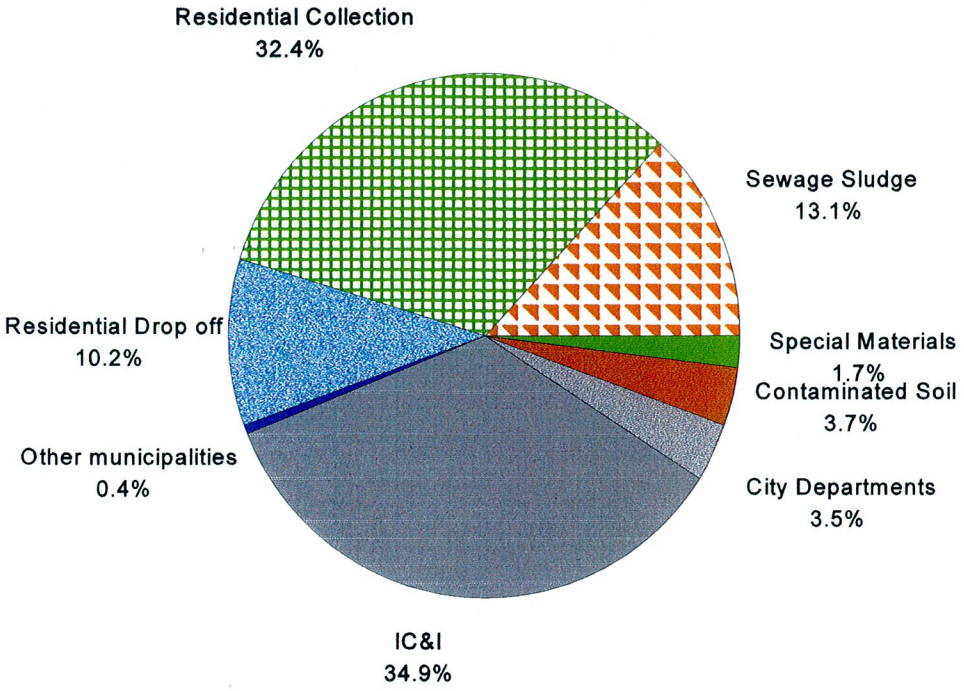
A total of 73,952 tonnes of waste was accepted at the landfill in 1999. This is more than double the amount of waste that was projected (with recycling) in the Design and Operations Report for the Cherokee Landfill Site (*Dillon, December 1990*) for that year. Using the current 1999 figures, it is estimated that the site has capacity for approximately 11 years of waste or until 2011 (*Dillon, February 2000*).

A general breakdown of the incoming tonnages for 1999 is shown in Figure 4, while Table 2.3 details the incoming waste tonnages for the years 1996 through 1999.

TABLE 2.3
SAULT STE. MARIE LANDFILL TONNAGES (1996-1999)

	1996	1997	1998	1999
Residential (Rural)	9,543.4	9,588.0	9,551.4	9,379.5
Residential (Urban)	11,006.8	11,161.9	10,823.2	10,335.9
Sewage Sludge	8,997.8	9,640.1	9,646.2	9,660.5
Canadian Waste IC&I	12,637.7	13,122.6	11,672.0	12,186.9
Canadian Waste (Apartment Credit)	3,371.2	4,007.7	4,341.8	4,258.2
Sault Disposal IC&I	6,160.3	5,849.0	7,279.6	9,103.3
Meyers - General Accounts	130.7	100.4	110.3	131.8
- Rankin Reserve	62.4	66.5	70.9	80.1
Prince Township	217.4	215.2	222.8	228.4
Community Services Department (CSD)	113.3	370.0	105.1	1,054.2
Public Works and Transportation	1,831.1	1,563.5	1,386.3	1,252.3
Road Sweepings/City Other	5,120.9	1,082.6	2,455.9	
Humane Society	41.3	32.0	13.3	8.3
Public Drop-Off	7,205.7	7,655.0	7,397.1	7,558.5
Inert Material			281.1	7.1
Shingles			1,241.0	1,033.0
Metal	285.3		542.2	
CSD Brush	563.0	712.9	441.7	312.9
Other Brush	2,731.9		102.9	17.1
Christmas Trees	15.8	17.0	12.0	15.0
Asbestos		17.4	1.3	172.9
St. Mary's Paper	9,198.6	674.2	9.5	
G.P. Flakeboard	14,456.6	6,047.1	1,528.2	
Contaminated Soil	12,207.9	4,010.0	6,953.7	2,752.5
Miscellaneous Cash	514.5	685.0	650.5	859.9
Miscellaneous Charge	3,908.8	553.9	2,708.5	3,544.8
Total Incoming Material	**110,481.3**	**82,226.6**	**79548.5**	**73,952.1**
Total Diverted Material	1,718.4	585.9	1098.8	1381.0
Total Landfilled Material	**108,762.9**	**81,640.71**	**78449.7**	**72,571.1**

Figure 4 - Incoming Waste at the Sault Ste. Marie Landfill - 1999
Source: TSH, August 2000

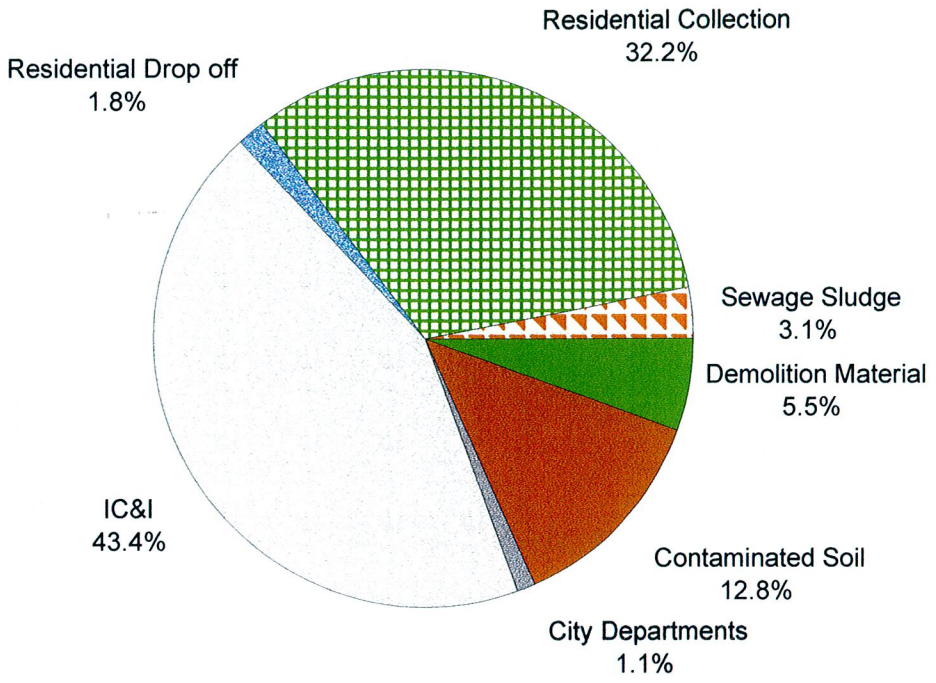


In Figure 4, "Residential Collection" includes single family residential and high-density residential waste picked up by both the public and private sectors. The "City Departments" category includes waste brought in by the Community Services and Public Works and Transportation Departments (e.g. brush from tree trimmings, waste from road construction, etc.). "Special Materials" includes brush, shingles, asbestos, and inert materials.

The single largest contributor of waste being disposed at the Sault Ste. Marie landfill is the residential sector, which generates a total of 42.6% of the total waste landfilled through the municipal collection system (of which 10.2% is delivered by residents to the public drop-off area at the landfill). The second largest contributor is the IC&I sector at 34.9%, followed by sewage sludge from the City's sewage treatment plants at 13.1%.

In comparison, we have presented as Figure 5, the breakdown of the incoming waste at the North Bay landfill as it is recorded in similar categories as at the Sault Ste. Marie landfill. It is noted that the waste accepted at the North Bay landfill site consists of 34.1% residential waste, 43.4% IC&I waste, and 22.5% other wastes.

Figure 5 - Incoming Waste at the North Bay Landfill - 1999
Source: TSH, August 2000



Tipping Fees

The current tipping fee at the Sault Ste. Marie landfill is $27.50 per tonne for IC&I wastes. Waste is also delivered to the site from Prince Township and the Rankin Reserve for a tipping fee of $43.00 per tonne. Local residents with less than 500 kilograms of waste can drop it off for a $2.00 per visit fee. The fee for dropping off passenger tires is $1.80 per tire or $200 per tonne for larger tires. Based on these tipping fees, the City generated $984,310 in revenue from the site in 1999, which included $111,954 in drop-off fees from individual vehicles. Table 2.4 indicates the breakdown of the tipping fee revenue for 1999.

TABLE 2.4
BREAKDOWN OF TIPPING FEE REVENUE
AT SAULT STE. MARIE LANDFILL - 1999

	Revenue
C.W.S. Private Refuse	332,612.10
SSM Disposals	248,453.00
Meyers Cartage	3,595.79
Rankin First Nation	3,416.19
Prince Township	9,746.69
Charge Accounts	96,745.87
Shingles	28,192.97
Asbestos - bulk	34,309.24
Asbestos - bags	793.97
Contaminated Soil	75,122.79
Tires	7,181.62
Cash for Disposals	31,158.60
Batteries	1,027.19
Sub-total	**872,356.02**
Gate Fee	111,954.00
Total	**984,310.02**

Source: Written correspondence from P. McAuley, dated Sept. 12, 2000

The $27.50 per tonne tipping fee being charged at the Sault Ste. Marie landfill is low in comparison to other landfill sites, particularly in southern Ontario where tipping fees are typically in the range of $65 to $100 per tonne.

Table 2.5 below indicates tipping fees that are currently being charged at the five comparison municipalities.

TABLE 2.5
TIPPING FEES AT MUNICIPAL LANDFILLS

Municipality	Tipping Fee ($/tonne)
Sault Ste. Marie	$27.50
North Bay	$37.00
Region of Sudbury	$72.00
Timmins	No Weigh Scale - $40 for 32 ft^3
Thunder Bay	$27.50
Barrie	$74.00

Source: TSH, August 2000

Landfill Operating Costs

In 1999 it cost the City approximately $1,058,054 to operate the landfill site, as indicated in Table 2.6. Based on accepting 73,952 tonnes of waste at the site, this represents an operating cost of $14.31 per tonne.

TABLE 2.6 - SAULT STE. MARIE LANDFILL OPERATING COSTS (1997 - 1999)			
	1997	1998	1999
Direct Supervision	$11,884	$14,337	$9,582
Salaried Employees & Benefits	$74,958	$52,812	$55,233
Site Labour & Benefits	$696,064	$795,467	$685,380
Leachate Pump Station (Mtce. &Repairs)	$51,671	$13,332	$5,686
Landfill Monitoring	$103,125	$100,722	$153,688
Grant In-lieu of Taxes	$21,737	$58,216	$59,270
City Owned Equipment	$8,820	$9,867	$9,710
Special Projects	$20,550	$21,234	$15,577
Supplies	$5,579	$9,281	$3,072
Utilities (gas, electric)	$18,606	$16,086	$18,704
Janitorial Service	$4,934	$4,444	$5,996
Miscellaneous Equipment	$5,138	$1,958	$1,571
Road Maintenance	$11,459	$20,697	$17,559
Building and Grounds Maintenance	$20,955	$20,015	$17,026
TOTAL	**$1,055,480**	**$1,138,468**	**$1,058,054**

Source: City of Sault Ste. Marie Budget

Based on the information presented in this section, the net cost to the City for waste collection and disposal after tipping fees is $1,028,935 based on the following information:

TABLE 2.7 WASTE COLLECTION AND DISPOSAL COSTS -1999	
Waste Collection - single family dwellings	$902,518
Waste Collection - multi-family and special collections	$59,304
Landfill Operating Costs	$1,058,054
Tipping Fees (Revenue)	($984,310)
TOTAL	**$1,035,566**

Figure 6 provides the per tonne landfill operating costs for all six municipalities. Thunder Bay has very low cost per tonne due to a large quantity of industrial waste that is brought in from one local industry which is used for landfill cover. The landfill operating cost for the remaining comparison municipalities range between $13 and $24 per tonne.

Figure 6 - Landfill Operating Costs Per Tonne - 1999
Source: TSH, August 2000

2.3 Landfill Performance

As a condition of the Provisional Certificate of Approval annual reporting has been completed and submitted to the MOE since 1989 with the most recent submission being the following:

- Site Development and Operations Report - 1998-1999
  Sault Ste. Marie Municipal Landfill dated February 10, 2000 by Dillon Consulting; and
- Monitoring Report - 1999
  Sault Ste. Marie Municipal Landfill dated February 18, 2000 by Dillon Consulting.

The overall plan for the landfill development is described in the Design and Operation Report (Cherokee Landfill Site, M.M. Dillon Limited, finalized in December, 1990.) Any deviations from this plan are outlined within each of the annual reporting documents.

In general, the waste, once accepted at the landfill site, is either disposed of within the landfilling area(s) or segregated to be transported and recycled off-site. At the 1999 rate of volume consumption there is approximately 11 years of disposal remaining at the site.

A leachate collection system has been operating since November, 1992. Until March, 1998 the collected leachate was re-circulated, however, since that time leachate discharge has been redirected via a leachate transmission sewer to the City's sanitary sewer system.
Three purge wells were installed in 1996 along the west perimeter of the landfill. The purpose of the purge wells is to intercept groundwater flow between the landfill area and the west property limit. They have been operational since April, 1997, however, operational difficulties have been encountered due to biofouling, etc. A detailed preventative maintenance program has been recommended and the installation of backup wells a possibility.

A groundwater and surface water monitoring program has been established for the landfill site. The groundwater monitoring program for 1999 included the sampling of 28 monitoring wells at 24 sampling locations for up to three occasions during the year. Chemical analysis were conducted and the results presented in the Monitoring Report - 1999. The surface water monitoring program for 1999 included five events of the collection of water samples and benthic invertebrates at five sampling locations along Canon Creek and Root River. Leachate samples from the pump station were also collected twice for fish toxicity testing. Methane gas measurements were taken on two occasions at the three gas monitors.

In summary, the Monitoring Report - 1999 by Dillon Consulting concludes "that the monitoring program is indicative that the natural attenuation processes and dilution by infiltrating precipitation are either reducing or keeping the plume stationary along the eastern and southern property boundaries." The results of the chemical analysis both upgradient and downgradient of the collection system directly reflect its installation. The Dillon Report also concluded that the surface water quality for 1999 is consistent with results for previous years.

2.4 Summary

The following conclusions are provided on the waste collection and disposal components of the City of Sault Ste. Marie waste management system:

- There is a high quantity of waste being generated per household;
- The cost of waste collection on a per household basis is low in comparison to the other municipalities;
- The largest generators of waste going to the landfill are the residential sector (42.6%), the IC&I sector (34.9%), and sewage sludge (13.1%);
- The landfill site has approximately 11 years of capacity remaining, based on 1999 generation rates with the Dillon February, 2000 report.
- The annual landfill operating costs are relatively low when compared to the other municipalities;
- The tipping fee charged at the landfill is low in comparison to the other municipalities;
- The net cost to the City for waste collection and disposal (after tipping fee revenue) is $1,035,566.

- The leachate collection system requires remediation;

- The leachate monitoring program appears to be acceptable;
- The leachate collection system, together with natural attenuation processes, appear to be controlling groundwater migration of landfill leachate; and

- The surface water in Canon Creek adjacent to the landfill (Monitoring Station B-3) indicates the presence of iron precipitates and iron bacteria.

Photo No. 1 - Northeast Corner of Storage Building

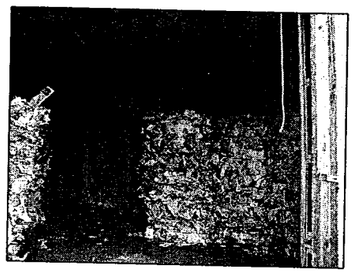


Photo No. 2 - Looking Inside Storage Building
(ie. Newspaper Storage)

Photo No. 3 - South Side of Storage Building

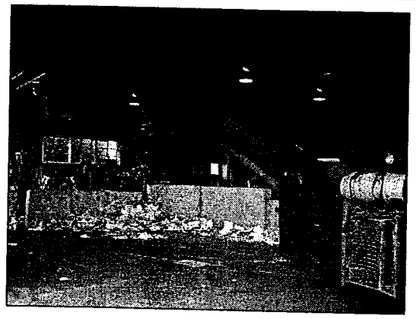


Photo No. 4 - Conveyor with Baler at rear

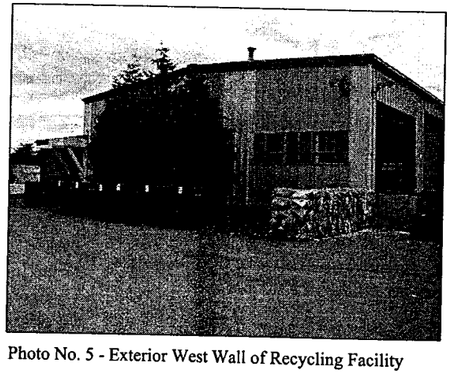


Photo No. 5 - Exterior West Wall of Recycling Facility

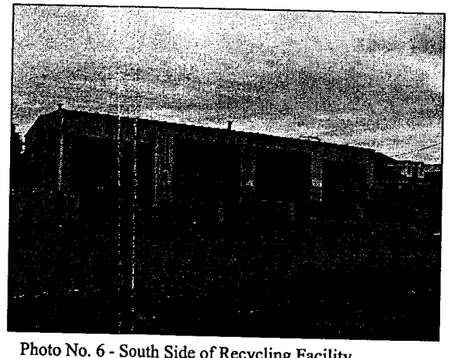


Photo No. 6 - South Side of Recycling Facility

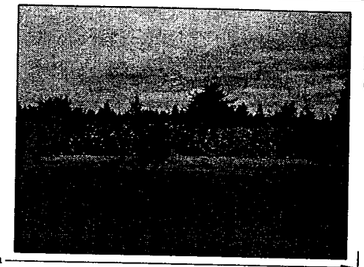


Photo No. 7 - Storage Bays at North Side of Building
(ie. Glass - Coloured and Clear Storage)

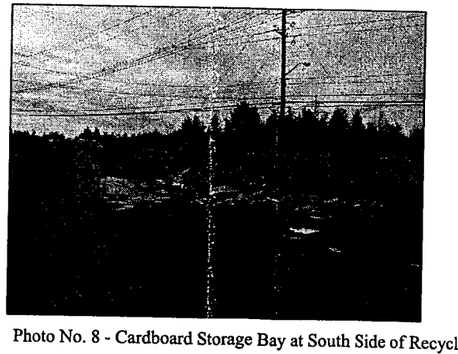


Photo No. 8 - Cardboard Storage Bay at South Side of Recycling Facility

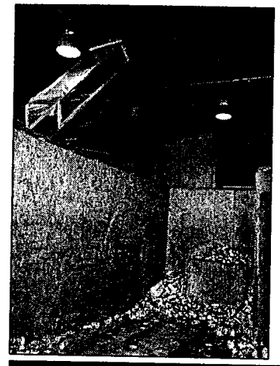


Photo No. 9 - Feed Area for Steel and Aluminum Material

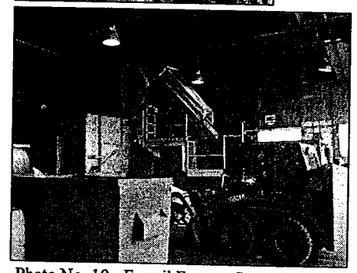
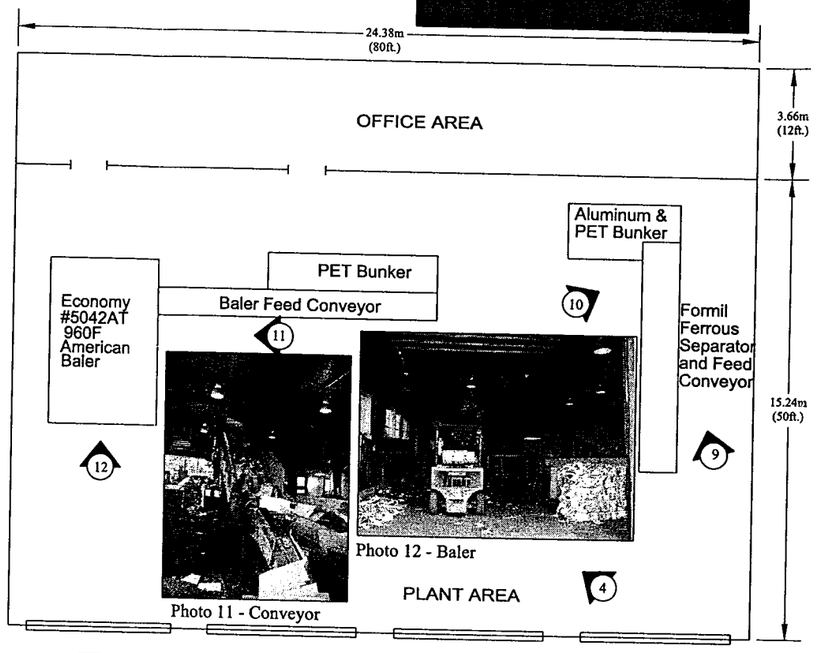


Photo No. 10 - Formil Ferrous Separator and Feed Conveyor

Photo No. 11 - Conveyor

Photo No. 12 - Baler



STORAGE BUILDING

Note: Dimensions and Location of Storage Building Approximate Only

Legend

1 Location and Direction of Photograph Number

Note: Building Dimensions to Scale
Equipment Only General Proportions

TSH
engineers
architects
planners

City of Sault Ste. Marie
Waste Management Plan

Recycling Facility Schematic

FIGURE NO.
7

C:\60219 - SSM WMP\Dwg\60219 sh 3sm recycling facility.dwg

3. WASTE DIVERSION

3.1 Blue Box Recycling

Processing Plant

In 1990, the City converted its 4-bay former Tarentorus Works Garage into a municipal recycling centre. The plant area measures approximately 50ft. x 80ft. A 12ft. x 80ft. addition houses the office, locker room, rest room, storage area, lunch room and electrical room. The facility is located on a 3 acre parcel at 920 McNabb Street and is owned by the City.

A schematic of the recycling facility is included as Figure 7. The processing equipment at the facility includes:

- 1 Economy #5042ATX Conveyor/Baler System;
- 1 Formil Ferrous Separator/Conveyor System;
- 1 Sorting Conveyor;
- 5 Dump carts;
- 2 Thomas Model T-132 Skid Steer Loaders, propane powered; and
- 1 Cat #V40D Lift Truck.

Glass that is brought to the recycling plant is dumped in outside bunkers until there is sufficient material to send to market. Fibres are dumped onto the floor in the centre of the plant area and then loaded onto the baler feed conveyor, where any contaminants are pulled off manually by the operator(s) prior to the material being baled. Containers are dumped at the base of the ferrous separator feed conveyor. The conveyor has a magnetic head pulley, so that when the containers travel to the end of the conveyor the ferrous steel cans are magnetically held to the head pulley, while the PET plastic and aluminum containers drop off the end into a plywood storage bunker. The steel cans drop onto the floor where they are then loaded onto the baler feed conveyor to be baled. When the aluminum and PET bunker is full, the material is shovelled out onto the floor, and then loaded onto the sorting conveyor where the PET is manually sorted from the aluminum and thrown into the PET storage bunker. After the aluminum has been baled, the PET bunker is emptied onto the baler feed conveyor and the PET is processed (baled).

The processing equipment at the recycling plant has been in operation since the program's inception in 1990, and although the mobile equipment is in good condition, the baler is in need of a major overhaul including a new conveyor feed belt. The ferrous separator is not very effective at producing a clean sort of ferrous, and in general, there is considerable cross contamination in the bales of recovered materials. This contamination would reduce the amount of revenue obtained for the recyclables. In particular, a high percentage of aluminum is ending up in the ferrous metal stream. A good percentage of aluminum is then sold for the price of steel, which has a value of $51 per tonne, in comparison to the much higher aluminum value of $1909 per tonne[(2)].

The processing plant is currently operated by a private sector contractor (Canadian Waste) under contract.

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[2] *Source: CSR Reported Spot Market Prices as of July 14, 2000*

Collection

The City of Sault Ste. Marie operates a curbside blue box collection program for cans (ferrous aluminum), glass bottles and jars, newsprint, magazines and PET plastic. Recyclables are collected throughout the City on a weekly basis from a total of 23,412 properties, made up of:

- 21,725 single family and semi-detached properties[3];
- 1,478 duplexes, rowhouses and apartments to five units; and,
- 209 apartments with six or more units.

Collection is conducted by Canadian Waste using three City-owned 1990 Walinga top-loading recycling vehicles. These collection vehicles have also been in operation for 10 years and are nearing the end of their practical service life. The 30 cubic yard vehicles have four compartments, allowing the recyclables to be divided into four separate material streams as outlined in Table 3.1.

TABLE 3.1
RECYCLING COLLECTION STREAMS

Fibres	Newsprint, Office Paper, Glossy Paper (Magazines)
Containers	PET Bottles, Aluminum Cans, Ferrous Cans
Clear Glass	Clear Glass
Coloured Glass	Coloured Glass

The equipment, including plant and rolling stock, is maintained by the Contractor.

There are bins at the exterior of the recycling plant allowing residents and businesses to drop off recyclables at any time. It has been assumed that most of the recyclables dropped off are from residences, therefore volume figures for this material have been included with the residential recyclables total (see Table 3.2).

Tonnages Collected

The material collected in the blue box program is not weighed when it is brought to the recycling centre. Table 3.2 outlines the quantity of recyclables sold from the recycling operation in 1999.

[3] *Source: Corporation of the City of Sault Ste. Marie Request for Proposal : Recycling Program Contract No. 95EJ01*

TABLE 3.2
RESIDENTIAL RECYCLABLES PROCESSED IN 1999
AT SAULT STE. MARIE RECYCLING CENTRE

Material	Annual Quantity (tonnes)	Market Location
Newsprint	1261	Thunder Bay
Glass	479	Toronto
Aluminum Containers	77	Toronto
Ferrous Containers	211	Sault Ste. Marie
PET Plastic	39	Toronto
Total Recyclables	2067	
Recyclables/Household	88 kg/hh	

Source: Canadian Waste Management

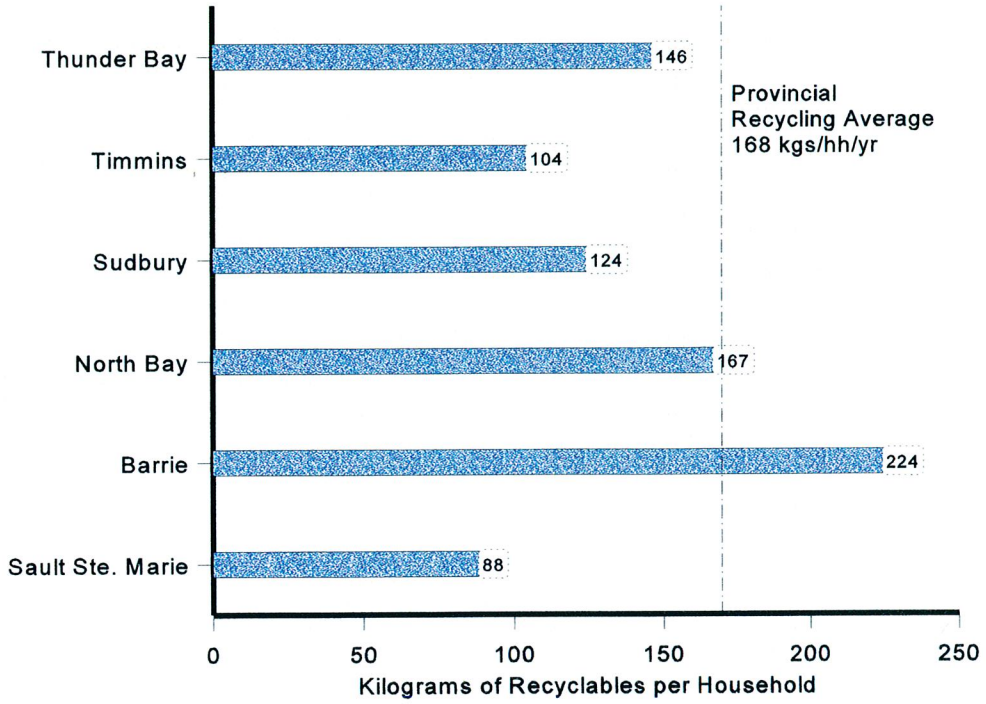
The Contractor also processes approximately 1,500 tonnes of corrugated cardboard and office paper per year collected from the IC&I sector at the McNabb Street facility. Since this material is generated by local industries and businesses, it is not included with the residential recycling tonnages.

The blue box program in the City captured approximately 88 kilograms of recyclables per household in 1999 as shown in Figure 8. This is considerably less than the quantity of recyclables recovered in other municipalities, and approximately half of the Provincial average of 168 kilograms of recyclables per household per year [4]. Public participation is the key to capturing and recovering the maximum amount of recyclables and public education is imperative to obtaining resident participation.

[4] *Source: Municipal 3Rs in Ontario: 1998 Fact Sheet*

Figure 8 - Residential Recyclables Collected for Sault Ste. Marie and Comparable Municipalities - 1999

Source: TSH, August 2000



Recycling Program Costs

The costs for operating recycling programs vary in different municipalities due to a number of factors, including:

- the number and types of materials collected;
- the population served and population density;
- the collection and processing systems used;
- ownership of the collection and processing equipment and any funding received for purchase;
- the age of the equipment being used for collection and processing;
- operating efficiencies;
- contractual issues, such as material revenue share; and,
- the value of recovered materials.

For the sake of this analysis, the cost of recycling included rental of buildings and equipment. The cost of recycling collection vehicles has not typically been included since recycling vehicles were purchased by the municipalities, with funding from the province and OMMRI (Corporations in Support of Recycling).

In Sault Ste. Marie, the contractor leases the recycling facility and collection vehicles from the City. The contractor provides all labour and materials necessary to collect and process the recyclables, and to maintain the recycling vehicles and equipment. All revenue obtained from the sale of the recyclables remains with the contractor. The Contractor pays rent for the use of the recycling building and equipment and the City pays a monthly fee for the recycling contract. The net cost to the City for the blue box recycling program was $119,000 in 1999. The contractor has advised the City that it has been losing money on the existing contract and is requesting an increase in the monthly payment for any extension to the contract. The existing contract expires in September 2000, and the City is currently negotiating a 2 year extension.

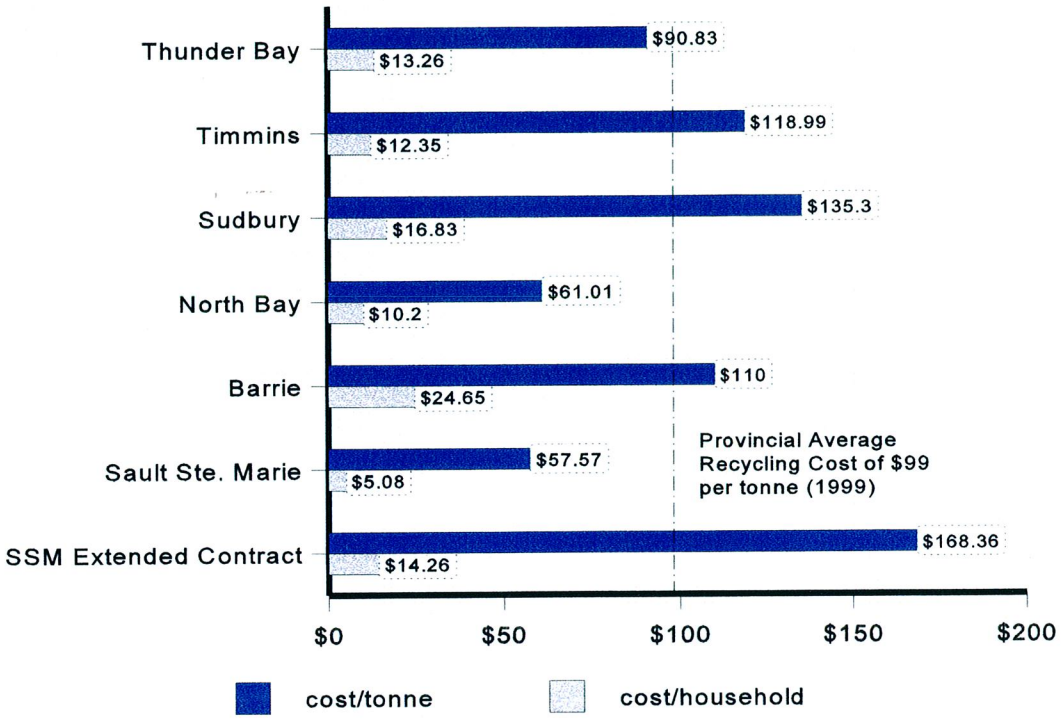
The current cost per household for recycling in Sault Ste. Marie is low in comparison to other municipalities as shown in Figure 9. An important factor to keep in mind when comparing recycling program costs is that the cost of recycling per household also reflects the quantities of recyclables that are collected from each household, so a low cost per household may indicate a cost-effective program or it may be indicative of a low capture rate of recyclables. In the case of Sault Ste. Marie, a low capture rate exists as shown in Figure 8.

Based on the quantity of recyclables processed in 1999, the cost for the blue box program on a per tonne basis was $62.76. This cost is also relatively low in comparison with other municipalities.

According to the *Waste Diversion Organization Interim Report* (30 June 2000), the net blended "basket of goods" cost of collection, processing, and marketing recyclables in Ontario in 1999 was estimated to be $99 per tonne. This figure includes operating costs and the amortized capital replacement cost of collection vehicles and recycling facilities and the blends of a range of costs observed in small and rural communities, mid-size towns and large urban centres. At the current time, the cost of recycling in the City is lower than the provincial average; however, it is expected that the recycling contract currently being negotiated will increase the costs to higher than the Provincial average.

Figure 9 indicates graphically how the costs for the current recycling program and the extended contract for recycling in the City of Sault Ste. Marie compare with the Ontario average and the recycling costs in other comparable municipalities. In all cases, costs include operating, collection, processing and capital costs net of revenue amounts.

Figure 9 - Cost of Residential Recycling for Sault Ste. Marie and Comparable Municipalities - 1999
Source: TSH, August 2000



3.2 Corrugated Cardboard Recycling

The City realized that a large portion of the waste going to landfill was old corrugated cardboard (OCC) being generated by businesses. Effective April 1, 1999, the City implemented a ban of commercially generated OCC at the landfill site. The City contracted with the private sector to set up depot containers at nine locations throughout the City for the collection of OCC. A one-year contract to supply the containers, collect the OCC from the containers as required, and process and market the OCC was awarded. The contractor is paid a lift fee for each container of OCC collected. The OCC depot collection program in Sault Ste. Marie resulted in the diversion of approximately 148 tonnes of waste from the landfill in 1999[5].

[5] *Source: Written correspondence from Mr. P. McAuley, City of Sault Ste. Marie*

The amount of OCC recovered has reportedly been increasing[6] since the program start and the number of containers being utilized has increased from the nine original containers to thirteen. The containers are emptied twice a week and the OCC is brought to a processing facility where the material is baled with a manual vertical baler and sent to market when a full truckload volume has been accumulated. The amount of OCC currently being processed is approximately 22 tonnes per month[7].

Although these containers have been put in place primarily for the commercial sector, they are also utilized by residents, since OCC is not collected as part of the blue box program. The depots are predominately utilized by the IC&I sector, therefore, this material is not included in the residential recycling tonnages. An assumption has been made that any residential OCC recovered in the depot OCC program and not included in the residential recycling tonnages will be offset by the commercial recyclables that are dropped off at the municipal recycling facility, which are included with the residential tonnages.

3.3 Miscellaneous Landfill Diversion

The waste diversion activities at the Sault Ste. Marie Landfill includes the diversion of the following materials:

- wet cell batteries;
- large appliances and scrap metal;
- used tires;
- propane cylinders;
- leaves and wood waste; and
- Christmas trees.

In 1999, a total of 1381 tonnes of material was diverted from disposal at the landfill site through these recovery programs. Table 3.3 outlines the processes used for diverting these materials and the 1999 quantities diverted.

[6] *Source: Verbal communications with Mr. Martella, Sault Ste. Marie Disposal Inc.*

[7] *Source: Verbal communications with Mr. Martella, Sault Ste. Marie Disposal Inc.*

TABLE 3.3 MISCELLANEOUS LANDFILL DIVERSION - 1999		
Material	**Processor**	**Tonnes Processed**
Scrap Metal	Scrap dealer removes and recycles scrap metal from the landfill and pays the City a revenue of $7 per tonne.	511
Batteries	Batteries are recycled by Interstate Batteries who pay the City a revenue of $1/battery (@ 18 kg/battery)	19
Wood	Superior 3-R processes and removes all wood waste from the landfill for a unit price of $27.00 per tonne. Wood chips used as fuel by local industry or composted.	827
Scrap tires	Cockburn Island Tire Recycling removes and recycles scrap tires from the landfill for $240 per tonne	24
	Total	**1381**

Source: Weigh Scale Information from Sault Ste. Marie Landfill

3.4 Composting

The City of Sault Ste. Marie and *Clean North*, a non-profit group environmental group dedicated to promoting waste reduction in the Sault and Algoma District, have distributed subsidized and free backyard composters to City residents. Although these programs were discontinued when the Province discontinued the subsidies on composters in 1995, it is estimated that 11,000 backyard composters were distributed in the early 1990's[8]. Clean North estimates that 60% to 70% of these units are still be used. Assuming that several people purchase or build there own composting units, it is estimated that there are 8,000 backyard composting units currently being used in the City of Sault Ste. Marie. Based on an average organic waste diversion of 122 kgs/year for each composter, there may currently be an estimated 976 tonnes per year of waste diverted through backyard composting in Sault Ste. Marie.

The City has a once per year collection of Christmas trees which are chipped at the landfill site. In 1999 there were 15 tonnes of Christmas trees collected and diverted from disposal.

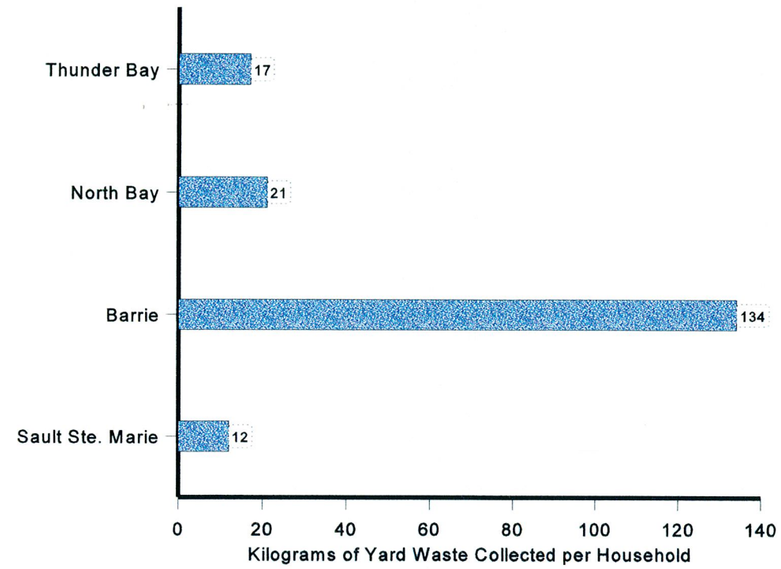
The City implemented a leaf and yard waste collection program in 1997. Periodically in the fall, City trucks are used to collect yard waste from residents in the central area of the City (see Figure 1) on the day after the regular waste collection day. This material is hauled to the landfill site where it is weighed, then taken to *Lemieux Composting & Haul-Away*, a privately owned and operated composting site located in the City. In 1999, the City collected 294 tonnes of leaves in 3 collection weeks. Four leaf and yard waste collection weeks are planned for the year 2000.

As shown in Figure 10, the amount of yard waste that is collected in the municipal yard waste collection program is low compared to other municipalities. The amount of yard waste collected is typically a function of the frequency of collection events. For example, the high quantity of yard

[8]*Source: Written correspondence from Mr. P. McAuley, City of Sault Ste. Marie*

waste collected in Barrie reflects the fact that the City provides bi-weekly yard waste collection throughout the year.

Figure 10 - Yard Waste Collected for Sault Ste. Marie and Comparable Municipalities - 1999
Source: TSH, August 2000



Lemieux Composting is located on Black Road in Sault Ste. Marie and has been operating an organic waste composting operation since 1990. They accept a variety of organic waste products including: leaves, lawn clippings, sod, uncooked vegetables, fruit, flowers and garden clippings. Residents and businesses can drop off suitable organic materials 7 days a week, provided that they do not leave any bagged materials. Lemieux Composting accepts the organic waste for free, including the material picked up by the City during its leaf and yard waste collection events. The waste is composted in open windrows and is then sold either as pure compost, or mixed with loam to produce a high-organic soil mix.

In 1999, a total of 1231 tonnes of organic material was accepted and processed at Lemieux Composting as detailed in Table 3.4.

TABLE 3.4 ESTIMATED QUANTITY OF MATERIALS PROCESSED AT LEMIEUX COMPOSTING (tonnes)		
Material	1998	1999
Leaves (City collection)	161	294
Leaves (public drop-off)	497	635
Grass	188	215
Wood waste	0	34
Sod	64	53
Total	910	1231

Source: Waste Volumes as provided by Lemieux Composting and converted based on densities from the WRO Waste and Secondary Density and Conversion Table

3.5 IC&I Waste Diversion

Waste diversion in the IC&I sector is difficult to quantify because the City does not have control over privately-generated waste or recyclables. In Sault Ste. Marie, businesses are provided with access to the drop-off depot at the recycling plant and the OCC recycling depots. There are also several diversion programs in place for specialized waste streams that are generated by particular industries.

Many of the local landscaping and yard maintenance companies utilize *Lemieux Composting* to drop off the yard waste generated in conducting their business.

GP Flakeboard uses waste wood purchased from other companies in its production of medium density fiber board and as a fuel source.

Algoma Steel Incorporated (ASI) has formed joint-ventures with several companies to utilize its slag as aggregate and in cement production. Among several other projects for by-products, ASI is using blast furnace and coke oven gases to supplement its own energy needs.

St. Mary's Paper uses pulp and paper sludges for the reclamation of closed landfills. It also sends sludge to be composted at a local site that specializes in processing paper sludge into a valuable soil amendment. St. Mary's uses wood chips from the landfill diversion program and other sources as a fuel source.

And-Son Contracting of Sault Ste. Marie chips waste wood which is sold for mulch and hog fuel. The company also owns screening equipment that has been used in a landfill mining project and other business applications and has done work with various communities in composting projects.

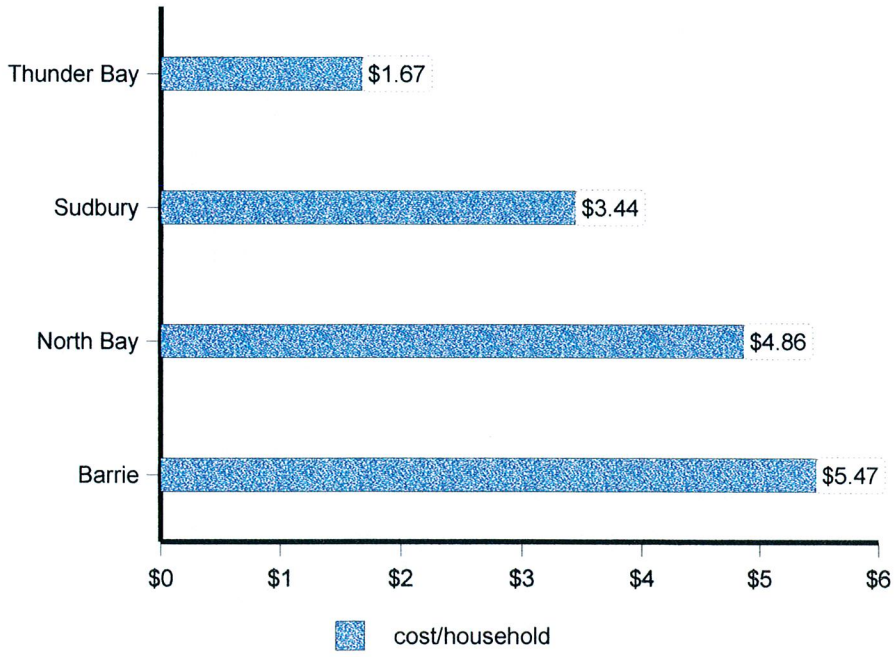
3.6 Household Hazardous Waste

The City does not currently have a program in place for the collection and proper disposal of household hazardous waste (HHW).

The City is currently in the process of examining the best available alternatives for the establishment of a permanent household hazardous waste depot. It is anticipated that a facility will be up and operating by the Summer of 2001.

Of the five comparison municipalities, four currently have programs in place for the collection of HHW. The Region of Sudbury operates both a regular HHW depot and a "toxic taxi" system that collects HHW from residents throughout the Region. The costs of the HHW programs range from $1.67 per household to $5.47 per household.

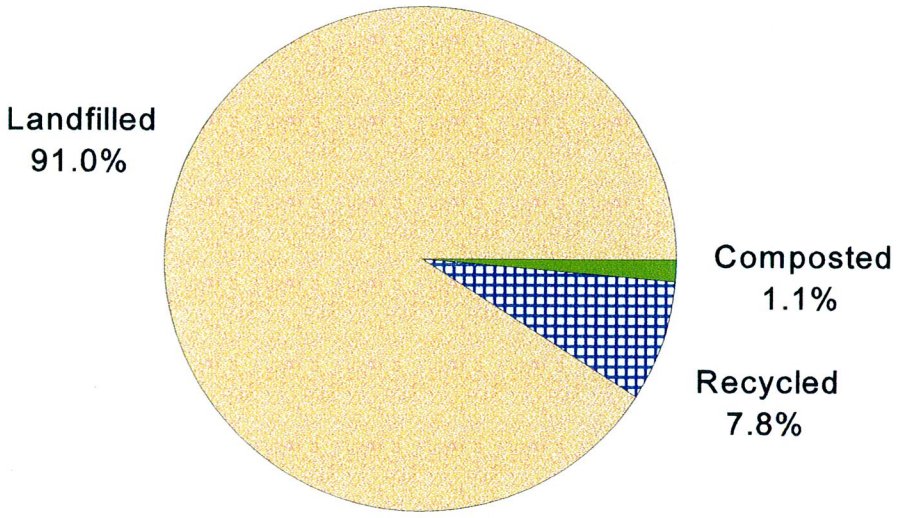
Figure 11 - Cost of HHW Programs for Comparable Municipalities - 1999
Source: TSH, August 2000



3.7 Residential Waste Diversion Rate

When considering the residential waste that is collected in the municipally operated system, the City is achieving a 9.0% diversion rate from landfilling. The breakdown is shown on Figure 12.

Figure 12 - Residential Waste Stream for the City of Sault Ste. Marie - 1999
Source: TSH, August 2000

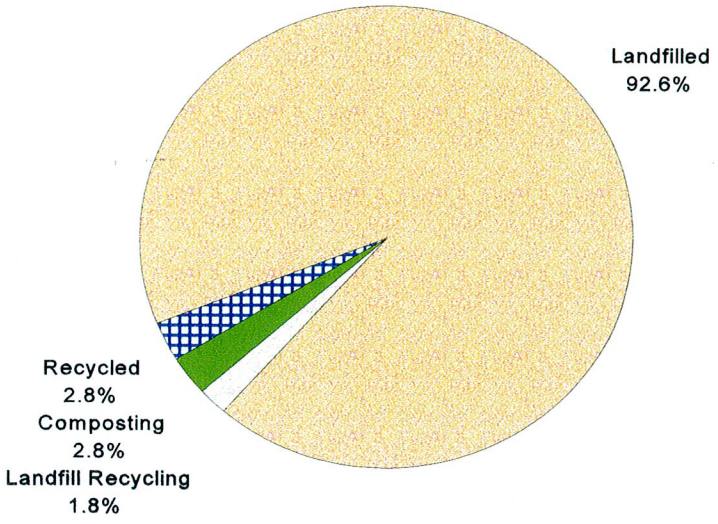


In 1999, a total of 26,445 tonnes of residential waste was collected by the City of Sault Ste. Marie. Of this amount 91.0% was landfilled and 8.9% was diverted from landfill through curbside blue box recycling (7.8%) and yard waste composting (1.1%) programs.

3.8 Total System Diversion Rate

If the entire waste stream is considered, the City is achieving a 7.4% waste diversion rate as shown on Figure 13.

Figure 13 - Total Waste Stream for the City of Sault Ste. Marie - 1999
Source: TSH, August 2000



In 1999, a total of 78,374 tonnes of waste was generated in the City of Sault Ste. Marie. Of this amount, 2.8% was recycled in the blue box or depot recycling programs, 2.8% was composted (in backyard composters or at Lemieux Composting), 1.8% was diverted through diversion programs at the landfill, and the remainder was landfilled.

3.9 Summary

The following conclusions are provided on the waste diversion components comprising the Sault Ste. Marie waste management system.

- There is very low recovery of recyclables in the blue box program (half of the provincial average) and less than any other of the comparable municipalities;
- The cost for recycling is currently low compared to the provincial average and other comparable municipalities;
- The cost per tonne for recycling after September 2000 is expected to be higher than the provincial average and that of all other comparable municipalities. This is directly related to the low rate of participation in the program by local residents;
- The quantity of yard waste collected per household is low compared to other municipalities;
- The City is achieving a 9.0% diversion from landfill based on the residential waste that is

collected in the municipally operated system; and

- The City is achieving a 7.4% diversion from landfill based on the total waste stream.

4. CONCLUSIONS

Based on the analysis presented in this report, the following conclusions will be taken into consideration during the conduct of the Waste Management Planning Study:

- The municipal waste collection and disposal system components are generally well operated and financially controlled. The recycling component lacks participation and is inefficient;

- The overall waste management system cost for 1999 is as follows:

System Component	Annual Cost ($)
Waste Collection - single family dwellings	902,518
Waste Collection - multi-family and special collections	59,304
Landfill Operating Costs	1,058,054
Recycling Costs - Collection and Processing	134,944
Revenue (Tipping Fees)	(984,310)
Total System Cost	**1,170,510**

- The cost figures provided by the comparison municipalities were found not to be developed on the same basis (ie. all municipalities did not include the same costing categories when compiling their gross figures). The comparison figures presented may therefore not accurately reflect the true cost of certain system components.

- A high quantity of waste designated for disposal is being generated from the household sector in the City. This can be directly related to the low diversion rate;

- The cost per tonne for household waste collection is low, presumably because of the high quantities of wastes per household being directed to the landfill;

- The cost per household for household waste collection is comparable to the other municipalities;

- The largest generators of waste going to landfill are the residential sector, IC&I sector and the sewage treatment plants (sewage sludge). These generators should be targeted to increase their current diversion rates;

- The current tipping fee at the landfill is low compared to other northern municipalities;

- The landfill has approximately 11 years of capacity remaining, based on the 1999 disposal rate;

- The leachate collection system requires remediation;
- The leachate monitoring program appears to be acceptable;
- The leachate collection system, together with natural attenuation processes, appear to be controlling groundwater migration of landfill leachate;
- The surface water in Canon Creek adjacent to the landfill (Monitoring Station B-3) indicates the presence of iron precipitates and iron bacteria;
- The City-owned recycling collection and processing equipment is aging and will require replacement in the very near future;
- The recovery rate for recyclables is very low when compared to the Provincial average and other comparable municipalities. This area should be targeted to increase future diversion rates;
- The cost per tonne for recycling as a result of the extended contract is higher than the provincial average and that of all other comparable municipalities. This is directly related to the low rate of participation in the program by local residents;
- The cost per tonne for cardboard recycling is high; and
- The amount of yard waste collected is very low.

An overall summary of the comparable municipalities' waste programs is presented in Appendix A.

All of which is respectfully submitted.

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Appendix A
Summary of Municipal Waste Programs

APPENDIX A: SUMMARY OF MUNICIPAL WASTE PROGRAMS

	City of North Bay	City of Sudbury	City of Timmins	City of Thunder Bay	City of Sault Ste. Marie	City of Barrie
Population (Enumeration, 1997)	56,411	164,000	45,845	116,965	80,054	78,965
Number of Households	18,500	41,500	18,190	42,000	24,412	34,593
Waste Collection Residential:						
Private/Public Collection	Private	Combination	Public	Public	Combination	Private
Waste Collected (tonnes)	12,528	23,075	—	27,194	19,716	17,300
Waste/Household (kilograms)	677	556	—	647	808	500
Annual Collection Costs - single family dwellings	$625,000	$1,470,000	$451,273	$2,500,000	$902,518	$1,141,569
Annual Collection Costs - multi-family and special collections					$59,304	
Collection Costs/tonne	$49.89	$63.71	—	$91.93	$45.78	$65.99
Collection Costs/Household	$33.78	$35.42	$24.81	$59.52	$36.97	$33.00
Landfill Operations:						
Number of Sites	1	5	5	1	1	1
Private/Public Operation	Combination		Public		Public	Public
Total Tonnes Disposed	48,406	100,000	26,400	186,771	72,571	31,444
Annual Landfill Operating Costs	$645,000	$2,330,000	$476,773	$800,000	$1,058,054	$765,959
Operating Cost/tonne	$13.32	$23.30	$18.06	$4.28	$14.31	$24.36
Operating Cost/household	$34.86	$56.14	$26.21	$19.05	$43.34	$22.14
Tipping Fee/tonne	$37.00	$72.00	—	$27.50	$27.50	$74.00
Tipping Fee Revenue	$1,016,000	—	—	—	$984,310	—
Misc. Landfill Diversion (ie. scrap metal, tires, etc.) (tonnes)	710	5,200	—	—	1,381	—

Recycling Collection/Processing Residential:						
Private/Public Collection	Private	Private	Private	Private	Private	Private
Recyclables Collected (tonnes)	3,092	9,551	1,888	6,132	2,067	7,751
Recyclables/Household(kilograms)	167	124	104	146	88	224
Annual Collection/Processing Costs	$188,657	$1,292,216	$224,647	$557,000	$119,000	$852,610
Recycling Cost/tonne	$61.01	$135.30	$118.99	$90.83	$57.57	$110.00
Recycling Cost/Household	$10.20	$16.83	$12.35	$13.26	$5.08	$24.65
OCC Recycling Program					$15,944	

Organics:						
Yard waste collected (tonnes)	384	N/A	N/A	700	294	4630
Yard waste/hh (kilograms)	21	0	0	17	12	134
HHW:						
Annual HHW Costs	$90,000	$263,746	N/A	$70,000	—	$189,253
HHW Cost/hh	$4.86	$3.44	—	$1.67	—	$5.47

Notes:

1. Residential Waste Collection excludes collection contracts for apartments or commercial sectors.
2. Landfill operations and the recycling program for the City of Sudbury are based on the programs operated by the Region of Sudbury.
3. No weights are available for waste collection in the City of Timmins.
4. The Region of Sudbury accepts yard waste for composting if it is dropped off at the Regional Landfill Sites, however the City does not conduct a yard waste collection program.

AECOM

Appendix B

Alternative Waste Diversion/Collection Systems Report (June, 2001)

City of Sault Ste. Marie

ALTERNATIVE WASTE DIVERSION/COLLECTION SYSTEM OPTIONS

June 2001

In Association With
Russell Environmental Services

CITY OF SAULT STE. MARIE

ALTERNATIVE WASTE DIVERSION/COLLECTION SYSTEM OPTIONS

TSH Project No. 38-60219

engineers
architects
planners

June 26, 2001

Mr. Jim Elliott, P.Eng.
Environmental/Construction Engineer
City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive
Sault Ste. Marie, Ontario
P6A 5N1

Dear Mr. Elliott:

Re: City of Sault Ste. Marie
Alternative Diversion/Collection System Options
TSH Project No. 38-60219

We are pleased to submit the final Alternative Waste Diversion/Collection System Options Report. This report outlines a number of potential waste diversion/collection systems and a methodology for evaluation of the systems. A financial model was developed specifically for the City waste management system which was used to conduct a financial evaluation of the systems. Finally, a comparative evaluation of the potential waste diversion/collection systems is presented.

We wish to express our appreciation to City staff whose cooperation enabled us to complete this report.

Yours very truly,

Michael Cant
Project Manager

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Encl.

CITY OF SAULT STE. MARIE
ALTERNATIVE WASTE DIVERSION/COLLECTION SYSTEM OPTIONS

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LIST OF ABBREVIATIONS

C&D	Construction and Demolition
CCAF	Climate Change Action Fund
CCME	Canadian Council of Ministry of the Environment
CSR	Corporations Supporting Recycling
FCM	Federation of Canadian Municipalities
GMIF	Green Municipal Investment Fund
GMEF	Green Municipal Enabling Fund
HDPE	High Density Polyethylene
hh	Household
HSW	Household Special Waste
IC&I	Industrial Commercial and Institutional
km	kilometre
MRF	Material Recovery Facility
NaPP	National Packaging Protocol
OCC	Old Corrugated Cardboard
OCWA	Ontario Clean Water Agency
PET	Polyethylene Terephthalate
RES	Russell Environmental Services
TSH	Totten Sims Hubicki
WPCP	Water Pollution Control Plant
WDO	Waste Diversion Organization

EXECUTIVE SUMMARY

Twenty-one different waste diversion system components were evaluated as potential building blocks for the development of waste diversion/collection systems for the City of Sault Ste. Marie. The waste diversion system components were evaluated based on the following screening criteria:

- waste diversion potential;
- reliable operating history; and
- economic feasibility.

Nine waste diversion system components were found to satisfy the screening criteria and were considered for further evaluation as part of potential waste diversion systems:

- public education;
- landfill ban (yard waste);
- higher disposal fees;
- user pay waste systems;
- recycling of traditional materials;
- recycling of expanded materials;
- backyard composting;
- centralized outdoor aerobic composting of yard waste; and,
- centralized in-vessel aerobic composting of all organics.

Five (5) main waste diversion systems were developed based on the above waste diversion components. These systems build upon each other, as each system is intended to increase the amount of waste being diverted from the landfill. The five main waste diversion systems are:

- System 1: The status quo;
- System 2: Increased yard waste collection with a ban on yard waste at the landfill;
- System 3: Curbside collection of OCC;
- System 4: Recycling of expanded materials; and,
- System 5: Organic waste composting.

A Reuse Centre is being developed in the City by Clean North, and a municipal Household Special Waste (HSW) Depot has been constructed by the City and will likely begin operation in late 2001. These two waste diversion programs are considered to be inherent components of any of the proposed waste diversion systems.

There are a number of implementation options that can help to encourage waste generators to participate in new waste diversion programs. Bag limits, user-pay programs, and increased tipping fees are options that encourage residents and businesses to reduce the amount of waste set out for disposal, and encourage the recovery of waste for beneficial purposes.

Four different implementation options were evaluated for each of the main waste diversion systems.

Basic System

This is the basic system, with no incentives for the residential sector or Industrial, Commercial and Institutional (IC&I) sectors to participate in waste diversion programs. It comprises the current six bag limit and $27.50 tipping fee for the IC&I.

Implementation Option A

With this option residents would be allowed to place only two bags of garbage at the curbside each week. Bag tags may be purchased for waste set out over the two-bag limit. Disposal fees for waste delivered to the landfill would be increased so that they more clearly reflect the true cost of waste disposal.

Implementation Option B

Implementation Option B includes a user-pay system on the residential waste stream such that residents would be required to purchase bag tags for each bag of waste placed at the curb. Tipping fees for waste delivered to landfill would remain at the current rates.

Implementation Option C

With this option, residents would be required to purchase bag tags for waste they set out at the curb. Tipping fees for waste delivered to landfill would be increased so that they more clearly reflect the true cost of waste disposal.

Each of these implementation options will impact the amount of waste being captured by the various waste diversion programs, and therefore the diversion rates achieved by the system and the cost of operating the programs.

The five waste diversion systems, and four different implementation options result in twenty (20) different waste diversion/collection systems. The waste quantities being captured by the various waste diversion system components will vary for each one of these systems. The main difference between the various systems is the amount of recyclables or organics that would be recovered and therefore diverted from disposal.

The proposed waste diversion and collection systems were evaluated based on the following criteria:

- Diversion from Landfill;
- Flexibility;
- Marketability of Materials and Products;
- Availability and Expertise of the Private Sector;
- Partnership Possibilities (Public and Private);
- Compliance with Legislation;
- Public Acceptability; and,
- Overall System Cost.

Diversion from Landfill is the total quantity of waste that would be expected to be diverted from landfill or other disposal if the system were implemented. The Canadian Council of Ministers of the Environment (CCME) and the Province of Ontario have established a target of 50% diversion from disposal.

The only waste diversion system that is expected to allow the City to reach 50% diversion of the overall waste stream is System 5 with user fees and increased tipping fees in place. This system includes the following components:

- curbside collection of expanded recyclables;
- processing of recyclables from the IC&I sector;
- curbside collection of organics;
- composting of organics from the IC&I sector;
- leaf and yard waste collection (13 time/yr/hh);
- landfill ban (yard waste);
- public education;
- backyard composting;
- Reuse Centre;
- HSW depot:
- user fees: and
- increased tipping fees.

The Provincial Waste Diversion Organization (WDO) has reviewed the current municipal recycling programs and the costs associated with increasing diversion as part of the *Report to the Minister of the Environment - Achieving Sustainable Municipal Waste Diversion Programs in Ontario*. The WDO recommends a waste diversion goal for WDO funded programs be 44% for residential waste by 2005. The two System 4 options that incorporate user fees, and the System 5 options that incorporate either bag limits or user fees meet or exceed the 44% WDO goal.

Flexibility is the ability for the system to adapt to changing waste streams and generation rates.

It is apparent that if the City wishes to have the flexibility to divert a wider range of materials, it will be necessary to develop new facilities that are capable of accepting more materials. The existing waste diversion system in the City has little ability to adapt to increased tonnages or material mix. Systems 4 and 5 include new waste diversion facilities that would be designed so that they would have the flexibility to adapt to changes in the quantities and composition of the feedstock, and be able to accept and divert waste from the IC&I sector.

Marketability of Materials and Products is a measure of the ability to distribute the products that result from the waste diversion system and the financial implications of the product marketing. The sustainability of a waste diversion program is dependant upon the ability to market the materials and products that are generated by the program.

The waste diversion systems proposed for the City would produce a range of dry recyclables and organic compost products. A limited survey of potential markets was conducted to determine the marketability of these materials and products. The materials recovered from Systems 1 to 4 are recyclables that are readily marketable and generally obtain high revenues, depending on market conditions at the time. System 5 would also produce a Class A compost that would be saleable to local landscapers, nurseries, lawn care contractors, and residents.

Availability and Expertise of the Private Sector is the ability and willingness of private companies to develop and operate the infrastructure necessary for the waste diversion system.

There are a number of waste management firms that would be interested in entering into a Private/Public Partnership with the City for the development of new waste management facilities. The City received nine submissions to a Request for Proposals they issued recently for a waste diversion system. Although the companies that responded were not generally from Northern Ontario, if firms were contracted to design and build a facility, they would likely hire local contractors and labourers to complete the work.

Partnership Possibilities reflects the possibilities of obtaining partnerships for the funding of the waste diversion system. There are a number of opportunities available for the City to partner with other levels of government or the industry sector in the development and operation of a waste diversion program.

There are two separate federal infrastructure funding programs that the City may wish to apply to if it decides to develop new facilities for the management of waste in the City. The Ontario Clean Water Agency (OCWA) has also expressed an interest in partnering with the City in the development of a facility that could compost sewage sludge along with other municipal organic wastes, and there are a number of local industries that may be interested in partnering with the City in the development of new waste diversion facilities, providing that the new facilities would help to manage particular waste streams that the industry generates.

The Provincial Waste Diversion Organization (WDO) has developed a potential plan for funding municipal waste diversion programs. Industry partners representing the grocery, soft drink, packaging, and consumer product industries committed to fund 50% of the net municipal recycling cost. There is a single funding formula developed for all municipal recycling programs in the province. Based on this formula, each municipal recycling program will be funded a per tonne amount that is determined by the following factors:

- material mix;
- population density
- size of the municipality; and
- depot or curbside collection.

Data from municipal recycling programs for 1999 was input into the funding formula. Based on this information, the City would receive a total of $65,299 in funding for its 1999 recycling program. This equates to $33 per tonne of material processed, which is low in comparison to the Provincial average of $45 per tonne. Municipalities that collect and process a more expanded mix of recyclables typically receive more funding on a per tonne basis (for example, based on 1999 data, the Centre and South Hastings municipal recycling program would receive $71 per tonne of material processed).

It can be concluded, however, that if WDO funding is put in place, a waste diversion system that collects, processes and markets a more expanded mix of recyclables, such as System 4 or 5, will receive comparatively higher per tonne funding than a traditional recycling program.

Compliance with Legislation measures the ability of the system to comply with provincial and federal waste management regulations that are currently in existence.

The requirements for waste diversion of municipal waste are contained in Ontario Regulation 101/94. The regulation stipulates the minimum requirements for a municipal waste management system. All of the waste diversion systems proposed for the City comply with the current Ontario Regulation 101/94. It is difficult to know what future legislation will be in place for waste management, therefore it is impossible to be able to evaluate the proposed systems based on compliance with future legislation.

Public Acceptability is a measure of the expected reaction of the residents and businesses that are the users of the system. A successful waste diversion/collection system requires the participation of the residents and businesses that generate waste in the community. It is therefore important that the waste diversion/collection system be acceptable to the members of the public, so that they understand and participate in the program.

It is difficult to assess the public acceptability of the proposed waste diversion/collection systems until some public consultation has been done to determine the views of the community. It is recommended that an open house be conducted to determine the public acceptability of the proposed waste diversion systems.

Overall System Cost is the total annual system cost which factors in capital and operating costs, financing costs and depreciation. A financial model was developed specifically for the City waste management system to determine the cost of each of the waste diversion systems being considered. This model took into account the entire waste management system, including waste collection, waste diversion, the estimated cost to establish, operate and close a landfill site, and other waste management facilities.

The overall annual system cost consists of two components:

- the annualized capital cost for buildings and equipment; and,
- the system operating costs

It was found that the net costs of the five systems, without factoring in user fees or increased tipping fees, were basically equivalent, as outlined below.

ANNUAL COST OF WASTE DIVERSION OPTIONS		
	Waste Diversion System	Annual Cost
1.	Status Quo	$5,130,000
2.	Increased Yard Waste Collection	$5,140,000
3.	Curbside Collection of OCC	$5,120,000
4.	Recycling of Expanded Materials	$5,320,000
5.	Organic Waste Composting	$5,340,000

The City must recover the system costs through general taxation and/or user fees (e.g. bag tags and tipping fees).

The implementation of user fees provides a mechanism to encourage waste diversion and to distribute the costs proportionally to the waste generators.

It has been demonstrated through the financial model that a user pay system can be tailored to balance expenditures and revenues and to ensure equity between the various waste generators (i.e. residential and IC&I).

In summary, the report concludes that:

- the products generated from all the diversion systems are marketable;
- all of the proposed waste diversion systems comply with current legislation;
- Systems 4 and 5 provide the greatest flexibility for managing the waste stream
- there is interest from the private sector to work with the City to develop a waste diversion system;
- there are a number of partnership opportunities for the City to develop and operate a waste diversion system:
  - Federal funding programs;
  - OCWA;
  - the Waste Diversion Organization; and,
  - local industries.

  Systems 4 and 5 have the greatest potential for partnerships
- the only waste diversion system that is expected to allow the City to reach 50% diversion of the overall waste stream is System 5 with user fees and increased tipping fees
- two System 4 options and three System 5 options are expected to allow the City to reach the WDO goal of 44% diversion of the residential waste stream by 2005;
- the net cost of all of the waste diversion systems without user fees and increased tipping fees are basically equivalent;
- user fees encourage participation in diversion programs;
- user fees ensure equity between waste generators (e.g. residential and IC&I); and
- residents and businesses should be consulted to determine the public acceptability of the proposed systems

1. INTRODUCTION

1.1 General

The City of Sault Ste. Marie (City) retained Totten Sims Hubicki Associates (TSH), in association with Russell Environmental Services (RES) to provide the City with direction on all aspects of its solid waste management for the next 25 to 40 years. A four-phased study is being undertaken over the next 18 months with the goal to develop a practical, economically feasible, environmentally acceptable and technically competent long-term waste management system for the City.

The four phases of the study include:

- Phase 1: Identification of a Preferred Waste Diversion and Collection System
- Phase 2: Identification of a Preferred Waste Disposal System
- Phase 3: Development of an Implementation and Business Plan
- Phase 4: Development of an Environmental Assessment Terms of Reference

This report provides a description of several alternative waste diversion and collection systems for the City and presents a methodology for evaluating the systems.

1.2 Background

The Canadian Council of Ministers of the Environment (CCME) and the Government of Ontario have established a target to decrease the amount of waste going to disposal by 50%, by the year 2000, compared to 1987 rates. Although many municipalities track and attempt to reduce only the residential waste stream, in the case of the City of Sault Ste. Marie both residential and industrial, commercial and industrial (IC&I) waste is deposited in the municipal landfill. It is therefore prudent for the City to consider all of the waste generated in planning their waste diversion system.

The City began weighing waste going to the landfill in 1988, therefore the earliest weigh scale records are from the 1988/89 reporting year. Based on this data, the City has reduced the per capita waste generation rate from 1,167 kg per capita in 1988/89 to 928 kg per capita in 2000, which is an 20% decrease in waste going to landfill.

TABLE 1.1
PER CAPITA WASTE GENERATION

Year	Population	Waste Landfilled (tonnes)	Waste Landfilled (kg/capita)
1989	82,500	96,279	1,167
2000	78,534	72,868	928
Reduction in waste per capita			20%

Note: Populations based on Statistics Canada Estimates and include Prince Township and Rankin Reserve

In order to increase the amount of waste diversion in the City, the following waste diversion components are being considered as part of potential waste diversion systems:

- public education;
- bag limits;
- landfill bans (OCC and yard waste);
- increased disposal fees;
- user-pay waste systems;
- recycling of traditional materials;
- recycling of expanded materials;
- backyard composting;
- centralized outdoor aerobic composting of yard waste;
- centralized in-vessel aerobic composting of all organics;
- reuse centre; and
- Household Special Waste (HSW) Depot.

These waste diversion components will be combined in a variety of practical ways to create potential waste diversion systems that could be utilized by the City to reduce the amount of waste going to disposal. The waste diversion systems are described in detail in Section 2, various options for waste collection are presented in Section 3. Section 4 provides an outline of the capital costs to implement each system. Section 5 provides an evaluation methodology and evaluates the proposed systems.

A Reuse Centre is being developed and a municipal Household Special Waste (HSW) Depot will be constructed by the City in Spring of 2001 and will likely begin operation in late 2001. These two waste diversion programs will be considered to be inherent components of all of the waste diversion systems being evaluated.

1.3 Waste Diversion Goals and Objectives

The City has identified the need to develop a plan that will provide direction on how to manage all aspects of the municipal waste system for a minimum of the next twenty-five (25) years. The City owns and operates its own landfill, however, based on current usage, the site is expected to reach capacity in approximately ten (10) to twelve (12) years.

Although the City has not adopted a specific waste reduction target, the City has the objective to increase the amount of waste being diverted from landfill. It is important that the waste diversion plan be affordable to the City and use technologies and concepts that have proven successful in similar municipalities.

In order to assess the effectiveness of a waste diversion plan, a number of potential integrated waste diversion systems have been developed. These systems take into account all of the waste that is currently being managed by the City, including waste that is collected by municipal forces or under municipal contract, and waste that is delivered to the City's landfill by other haulers. The total quantity of waste handled by the City in 2000 was 80,558 tonnes and consisted of the following materials:

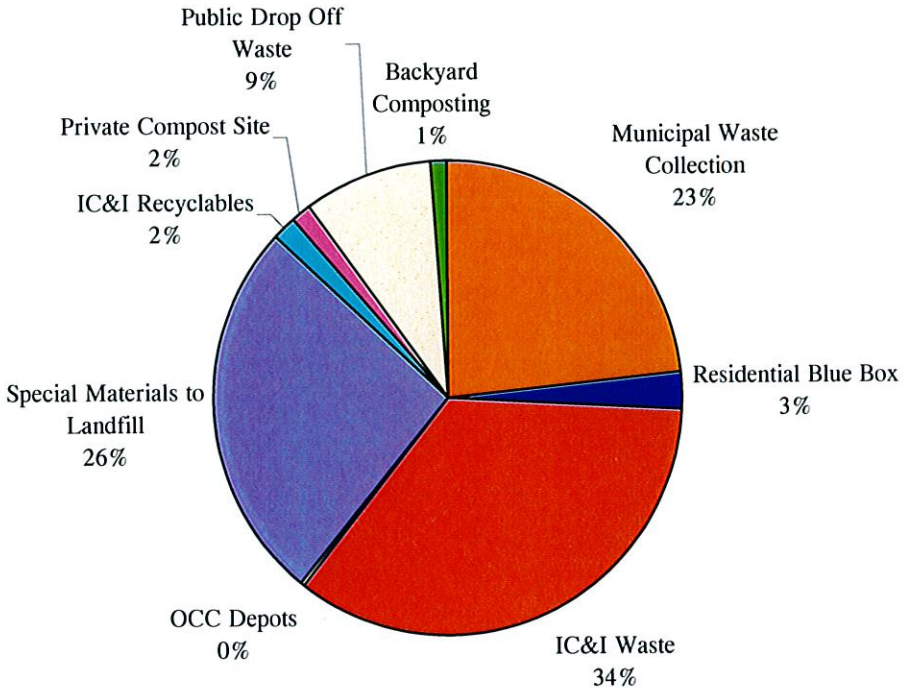
- 18,689 tonnes of residential garbage collected in the municipal collection program;
- 2,133 tonnes of recyclables processed in the City blue box program;
- 27,985 tonnes of Industrial, Commercial and Institutional (IC&I) waste accepted at the City landfill;
- 1,565 tonnes of waste from municipal departments accepted at the landfill;
- 7,055 tonnes of waste accepted at the public drop off at the landfill;
- 19,310 tonnes of special materials accepted at the landfill;
  - 9,185 tonnes of sewage sludge;
  - 7,750 tonnes of contaminated soil;
  - 1,197 tonnes of shingles;
  - 1,135 tonnes of metal/batters/brush/tires;
  - 43 tonnes of asbestos
- 300 tonnes of Old Corrugated Cardboard (OCC) collected in the OCC depot program;
- 1,300 tonnes of OCC and office paper from the IC&I sector processed at the recycling facility;
- 1,245 tonnes of organic waste processed at a private composting facility; and,
- 976 tonnes of waste currently going to backyard composting.

Figure 1 illustrates the current waste generation in the City of Sault Ste. Marie.

There are additional waste streams that are generated in the City of Sault Ste. Marie that are being managed directly by the waste generator (wastes being reprocessed by an IC&I waste generator) or through private operations (e.g. wood recyclers) which the City is not involved in, and has limited information on.

The waste diversion system is only one component of the overall integrated waste management system. Any waste remaining that is not managed by the waste diversion system will be disposed of in some manner. Although this phase of the study does not deal with the options for waste disposal, it is necessary to consider the waste disposal component of the integrated waste management system in order to evaluate the overall cost of each diversion system. For example, a system that diverts a large quantity of waste from landfill will increase the cost of waste diversion for the City, but will impact the cost of collecting and disposing of garbage. It is therefore necessary to include the cost of managing the entire waste stream in the financial evaluation of alternative waste diversion systems.

Figure 1
Current Waste Generation in the City of Sault Ste. Marie



2. ALTERNATIVE WASTE DIVERSION SYSTEMS

Five (5) main waste diversion systems have been developed based on the waste diversion components that were deemed to meet the mandatory screening criteria (see *Waste Diversion System Components Report*, February 2001). These systems build upon each other, as each system is intended to increase the amount of waste being diverted from the landfill. The five main waste diversion systems are:

1. the status quo;
2. increased yard waste collection;
3. curbside collection of OCC;
4. recycling of expanded materials; and,
5. organic waste composting.

The success of a waste diversion program is dependent primarily upon the participation of the residents and businesses that generate the waste. There are a number of implementation options that can help to encourage waste generators to participate in new waste diversion programs. Bag limits, user-pay programs, and increased tipping fees are options that encourage residents and businesses to reduce the amount of waste set out for disposal, and encourage the recovery of waste for beneficial purposes.

Four different implementation options were evaluated for each of the main waste diversion systems.

Basic System

This is the basic system, with no incentives for the residential sector or IC&I sectors to participate in waste diversion programs.

Implementation Option A

With this option residents would be allowed to place two bags of garbage at the curbside each week. Bag tags may be purchased for waste set out over the two-bag limit. Disposal fees for waste delivered to the landfill would be increased so that they more clearly reflect the true cost of landfilling.

Implementation Option B

Implementation Option B includes a user-pay system on the residential waste stream such that residents would be required to purchase bag tags for each bag of waste going to landfill. Tipping fees for waste delivered to landfill would remain at the current rates.

Implementation Option C

With this option, residents would be required to purchase bag tags for waste they set out at the curb. Tipping fees for waste delivered to landfill would be increased so that they more clearly reflect the true cost of landfilling.

Each of these implementation options will impact the amount of waste being captured by the various waste diversion programs, and therefore the diversion rates achieved by the system and the cost of operating the programs.

The five waste diversion systems, and four different implementation options result in twenty (20) different waste diversion/collection systems. The five (5) main waste diversion systems are described below and all twenty (20) systems are summarized in Table 2.1. It is assumed that for all of the systems an aggressive public education campaign will be implemented to make residents aware of the changes to the waste diversion program.

2.1 System 1 - The Status Quo

The Status Quo System is based on the existing waste diversion system that is operating in the City, and includes the following components:

- curbside collection of traditional recyclables;
- depot OCC program;
- leaf and yard waste collection (3 weeks/yr/hh);
- backyard composting;
- public education;
- Reuse Centre; and
- HSW depot.

2.2 System 2 - Increased Yard Waste Collection

This system incorporates the same components as with the City's current waste diversion system, however the leaf and yard waste collection is done on a biweekly basis from mid-May through to the end of November. *The City of Sault Ste. Marie Residential Waste Composition Study, Summer/Fall 2000* determined that the amount of yard waste in the residential waste stream in August was almost double that found in the waste stream in late October. It is expected that the amount of yard waste is higher still during the rapid growing season in the spring.

A ban on yard waste in the waste collection system and at the landfill would also be implemented to encourage participation in the yard waste composting program, and an aggressive public education program would be put in place.

The following components are included in System 2:

- curbside collection of traditional recyclables;
- depot OCC program;
- leaf and yard waste collection (13 times/yr/hh bi-weekly during the growing season);
- landfill ban (yard waste);
- public education;
- backyard composting;
- Reuse Centre; and,
- HSW depot.

2.3 System 3 - Curbside Collection of OCC

System 3 incorporates the same components as System 2, however the depot OCC program is replaced with curbside collection of OCC. Residential OCC and small quantities of OCC from the IC&I sector would be picked up from the curbside with the regular blue box collection. Larger IC&I generators of OCC will be required to drop off material at the City's Material Recovery Facility (MRF), or contract with the private sector for OCC collection.

The following components are included in System 3:

- curbside collection of traditional recyclables, including OCC;
- leaf and yard waste collection (13 times/yr/hh, bi-weekly during growing season);
- landfill ban (yard waste);
- public education;
- backyard composting;
- Reuse Centre; and,
- HSW depot.

2.4 System 4 - Recycling of Expanded Materials

With System 4, the list of materials collected for recycling will be expanded to include a number of new materials, such as:

- Boxboard (e.g. cereal boxes);
- polystyrene containers (e.g. styrofoam cups);
- paper cups and plates;
- plastic film;
- HDPE bottles (e.g. shampoo bottles);
- rigid polystyrene containers (e.g. blister paks);
- telephone directories;
- textiles;
- and polycoat paperboard containers (e.g. juice containers).

Due to the number of materials being collected, it will be necessary to commingle a number of materials that will need to be separated at the MRF. This would necessitate replacing the City's existing MRF in order to undertake the level of material sorting required.

The City's existing recycling facility does not have the capacity to manage large quantities of recyclables from the IC&I sector. A new MRF, however, would be able to accommodate recyclables brought in from IC&I generators. A tipping fee would be charged for the processing of the IC&I material, but it would be lower than the tipping fee at the landfill in order to encourage diversion.

The following components are included in System 4:

- curbside collection of expanded recyclables, including OCC;
- processing of recyclables delivered by the IC&I sector;

- leaf and yard waste collection (13 times/yr/hh, bi-weekly during the growing season);
- landfill ban (yard waste);
- public education;
- backyard composting;
- Reuse Centre; and
- HSW depot.

2.5 System 5 - Organic Waste Composting

System 5 incorporates the curbside collection and processing of the organic component of the waste stream in an enclosed in-vessel aerobic composting system. There are a number of benefits to continuing to process leaf and yard waste at the existing outdoor windrow composting facility including:

- the cost of processing yard waste at an outdoor windrow facility is much cheaper than processing through an enclosed, more automated system;
- it is difficult for an enclosed system to handle the large surges of yard waste that occur in the spring of the year; and,
- any brush collected with the yard waste should be shredded prior to composting, and this is difficult to do if the brush is mixed with the rest of the organic waste stream.

The following components are included in System 5:

- curbside collection of expanded recyclables, including OCC;
- processing of recyclables delivered by the IC&I sector;
- curbside collection of organics;
- processing of organics delivered by the IC&I sector;
- leaf and yard waste collection (13 times/yr/hh, bi-weekly during the growing season);
- landfill ban (yard waste);
- public education;
- backyard composting;
- Reuse Centre; and,
- HSW depot.

TABLE 2.1
POTENTIAL WASTE DIVERSION SYSTEMS

System	Implementation Option			Waste Diversion System Components						
	Bag Limits	User Pay	Higher Disposal Fees	Traditional Curbside Recycling	Corrugated Cardboard	Expanded Curbside Recycling	Leaf and Yard Waste (#/year)	Yard Waste Ban	Organic Waste Collection (Curbside)	Public Education Campaign
1 (Basic)				✓	✓ (D)		✓ (3)			✓
1A	✓		✓	✓	✓ (D)		✓ (3)			✓
1B		✓		✓	✓ (D)		✓ (3)			✓
1C		✓	✓	✓	✓ (D)		✓ (3)			✓
2 (Basic)				✓	✓ (D)		✓ (13)	✓		✓
2A	✓		✓	✓	✓ (D)		✓ (13)	✓		✓
2B		✓		✓	✓ (D)		✓ (13)	✓		✓
2C		✓	✓	✓	✓ (D)		✓ (13)	✓		✓
3 (Basic)				✓	✓ (C)		✓ (13)	✓		✓
3A	✓		✓	✓	✓ (C)		✓ (13)	✓		✓
3B		✓		✓	✓ (C)		✓ (13)	✓		✓
3C		✓	✓	✓	✓ (C)		✓ (13)	✓		✓
4 (Basic)				✓	✓ (C)	✓ (C)	✓ (13)	✓		✓
4A	✓		✓	✓	✓ (C)	✓ (C)	✓ (13)	✓		✓
4B		✓		✓	✓ (C)	✓ (C)	✓ (13)	✓		✓
4C		✓	✓	✓	✓ (C)	✓ (C)	✓ (13)	✓		✓
5 (Basic)				✓	✓ (C)	✓ (C)	✓ (13)	✓	✓	✓
5A	✓		✓	✓	✓ (C)	✓ (C)	✓ (13)	✓	✓	✓
5B		✓		✓	✓ (C)	✓ (C)	✓ (13)	✓	✓	✓
5C		✓	✓	✓	✓ (C)	✓ (C)	✓ (13)	✓	✓	✓

Note: Backyard composting, a Reuse Centre and HSW Depot are considered to be part of all the Waste Diversion Systems.
D = Depot Collection
C = Curbside Collection

2.6 Mass Balance for Waste Diversion Systems

The five main waste diversion systems, each with the four options for implementation, result in a total of 20 potential waste diversion systems. The waste quantities being captured by the various waste diversion system components will vary for each one of these systems. The main difference between the various systems is the amount of waste reduced or the quantities of recyclables or organics that would be recovered and therefore diverted from disposal. The amount of material recovered is dependent upon the participation of residents and businesses in the waste diversion programs.

According to *The City of Sault Ste. Marie Residential Waste Composition Study - Summer/Fall 2000*, approximately 44% of households in the City currently participate in the blue box program over a two-week period, compared to a 90% blue box participation rate[1] in the Province. The low participation rate in the City's current blue box program results in a very low capture of recoverable items.

The mass balance for each of the proposed waste diversion systems is included in Appendix A. The tables outline the quantities of waste that are expected to be handled by the various components of the waste diversion systems identified for possible use by the City.

The City should have an HSW depot and Reuse Centre available for residents in 2001. The mass balances have been developed with the assumptions that these programs are in operation. Therefore the diversion rates shown are slightly higher than the diversion rates currently being achieved in the City.

In developing the mass balances for the waste diversion systems, a number of assumptions were made based on the experiences of other municipalities. These assumptions are outlined below.

Bag Limits

Bag limits have been used in many municipalities to reduce the amount of waste set out for disposal. It has been found, however, that communities that establish a bag limit at four or more bags rarely experience a noticeable reduction in waste sent to landfill or an increase in materials diverted through recycling or composting programs[2]. Bag limits of 3 bags or less have, however, resulted in a reduction in waste sent to landfill and increased waste diversion. Residents in the City currently set out an average of 2.7 units of garbage each week[3], therefore a 3 bag limit is not expected to have a significant impact on diversion rates in the City. It has been assumed that if residents were limited to setting out 2 free bags of waste each week (any additional may be charged), the waste management system would be affected as follows:

- the recovery of recyclables would increase from the current rate of 42% to 60%;
- the amount of OCC recovered through the depot program would increase from 6% to 30%;

[1] *Source: Report to the Minister of the Environment, Achieving Sustainable Municipal Waste Diversion Programs in Ontario, WDO, September 1, 2000.*
[2] *Source: The Waste Diversion Impacts of Bag Limits and Pay as you Throw Systems in Selected Communities in North America, Enviros RIS, April 2001.*
[3] *Source: The City of Sault Ste. Marie Residential Waste Composition Study – Summer/Fall 2000 (TSH)*

- the amount of waste going to backyard composters would increase 300 tonnes per year (an increase of approximately 30%);
- the amount of material going to a Reuse Centre would double; and,
- a general residential waste reduction of 500 tonnes would be realized by a change in consumer purchasing.

User Fees

Bag limits have a somewhat limited effect on waste reduction because once residents have reduced their waste to the two-bag limit, there is no further incentive to achieve further waste reduction. User fees, on the other hand, provide a continual incentive to reduce waste to the minimum. The implementation of user fees is more effective than bag limits in diverting garbage from landfill and increasing recycling rates. It has been assumed that if user fees were implemented (e.g. bag tags) on the residential waste stream, the waste management system would be affected as follows:

- the recovery of recyclables would increase from the current rate of 42% to 70%;
- the amount OCC recovered through the depot program would increase from 6% to 35%;
- 60% of households would use backyard composters, which would increase waste going to backyard composters by 731 tonnes;
- the amount of material going to a Reuse Centre would double; and,
- a general residential waste reduction of 500 tonnes would be realized by a change in consumer purchasing.

Tipping Fees

Bag limits and user fees affect only the residential waste stream that is set out for curbside collection, which makes up approximately 23% of the waste that is currently being landfilled in the City. In order to significantly reduce the total amount of waste being landfilled, it will be necessary to address the waste brought to the landfill by the IC&I sector, and waste delivered to the public drop-off area by residents. This can be done by increasing the tipping fees charged for disposal to a cost that is more reflective of the true cost of landfilling, and more in line with tipping fees being charged in other areas of the province. It has been assumed that if the tipping fee at the landfill was increased to $65 per tonne, the waste management system would be affected as follows:

- the amount of waste being delivered to the public drop-off area would decrease by 35%;
- most of the brush that is currently being delivered to the landfill would be taken to a private composting facility;
- the amount of OCC being delivered to the OCC depots would increase from 16% to 35%;
- 35% of the IC&I yard waste would be delivered to the private composting facility;
- the amount of special materials, such as scrap metal, shingles, asbestos, and contaminated soils being delivered to landfill would decrease by 35%; and,
- a general IC&I waste reduction of 5000 tonnes would be realized by processing modifications and more internal reuse and recycling of wastes.

The existing MRF in the City does not have the capacity to process recyclables from the IC&I sector. It has been assumed (in Systems 4 and 5), however, that a new MRF would be designed to accept both residential and IC&I recyclables. A new composting facility (System 5) should also be designed to handle organics generated from the IC&I sector. Although it has been assumed that up to 70% of recyclables and organic materials would be recovered from the residential sector, it is the experience in other municipalities that the IC&I sector does not participate to the same extent in waste diversion programs. Therefore, for Systems 4 and 5, it has been assumed that a maximum of 60% of the IC&I recyclables and organics would be recovered, with the exception of sewage sludge. Because the City controls the management of sewage sludge, it has been assumed that all of the sludge would be delivered to the compost facility.

3. COLLECTION SYSTEMS

The collection system is an integral component of a waste management system. There are many collection system options available for the City, depending on the waste diversion system chosen.

There are two main methods of collecting multiple waste streams. The various waste streams (recyclables, organics, and garbage) can be collected separately in vehicles that pick up just one of the waste types at a time. This means that it is necessary for the collection vehicles to make numerous trips along each street in order to collect different waste streams. Another option is to collect more than one material type in a vehicle, thereby making another vehicle pass unnecessary. When more than one type of waste is collected on a single vehicle it is called co-collection.

3.1 System 1 - The Status Quo

Both waste and recyclables are currently collected on a weekly basis in the City. The City utilizes both private and public sector forces for the collection of waste and recyclables. The collection throughout the City is done five days per week.

Waste is collected in the central urban area of the City using municipal forces and municipally owned, operated and maintained equipment. Three (two-person) rear-loading packer vehicles are utilized on a regular basis, with two vehicles available for backup. The City also provides container collection to multi-family apartment units.

Collection of waste in the outlying, more rural areas is contracted to the private sector. In December 1999, a private contractor was awarded the contract to provide all labour and equipment necessary to complete the service for a 5-year period. The collection of waste from the 80 high-density residential (apartment) units is also part of the waste collection contract.

The collection of recyclables is contracted to a private contractor, who utilizes three city-owned Walinga top-loading collection vehicles. These vehicles have four compartments so that fibres, containers (metal and plastic), clear glass and coloured glass can be kept separate in the vehicle.

Leaf and yard waste is collected during a three-week period in the fall by City forces. The City's waste collection vehicles are used to collect yard waste on the day after the regular waste collection day during this period.

The City contracts with the private sector to provide depot collection at nine locations throughout the City. The contractor is required to supply the containers, collect the OCC from the containers as required, and process and market the OCC. The contractor is paid a lift fee for each container of OCC collected.

An HSW depot is being constructed in the City. Residents will be able to drop off HSW at the depot during regular hours, which will initially be scheduled for two days a week.

For the sake of this analysis, the collection system for the status quo option will remain the same. The status quo system is shown in Figure 2.

3.2 System 2 - Increased Yard Waste Collection

The changes proposed in System 2 are that the leaf and yard waste collection be increased to 13 times per year (biweekly throughout the growing season) in order to catch the spring and summer yard waste season. It is proposed that the collection system remain the same, however additional trucks will be required to service the expanded collection area and more frequent collections. Yard waste vehicles would be utilized on a weekly basis from May through November, however each household would receive collection on a biweekly basis.

The collection system proposed for this system is illustrated in Figure 3.

3.3 System 3 – Curbside Collection of OCC

It is proposed that with System 3, OCC be collected at the curbside along with the rest of the recyclables. This will require an additional compartment on the truck to keep OCC separate from the other materials. It has been assumed that residents and small generators from the IC&I sector will place their OCC at the curb for collection, while generators of large quantities of OCC will be required to bring the material to the recycling facility, or contract with the private sector to manage their OCC.

System 3 eliminates the need for the OCC depots, the separate collection of OCC from the depots, and the OCC processing operation. The collection system proposed for this system is illustrated in Figure 4.

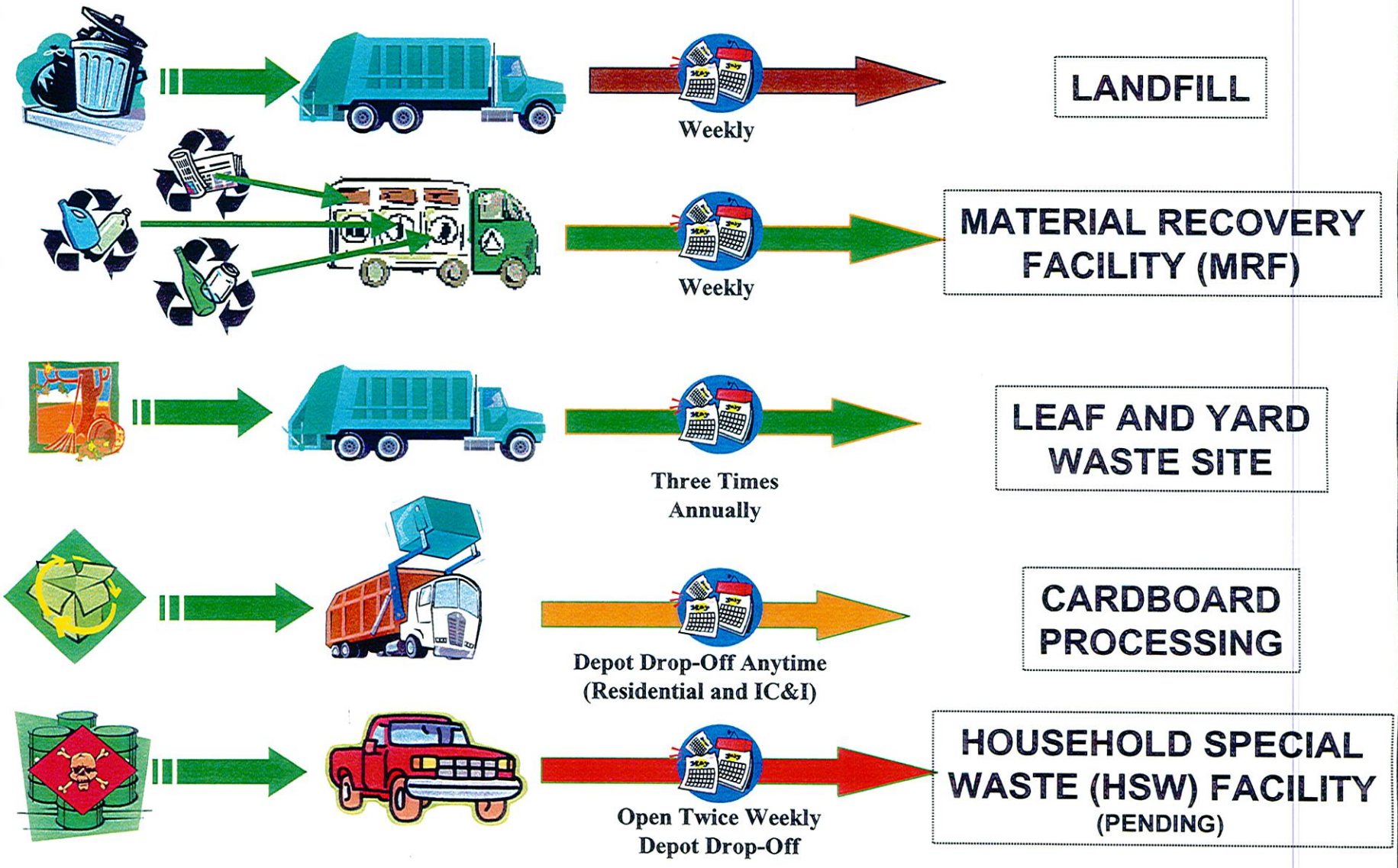
3.4 System 4 – Recycling of Expanded Materials

With System 4, there will be a greater variety of materials that will be collected for recycling. Due to the number of materials being collected, it will be necessary to commingle materials in the collection process. These materials will then be separated at the MRF.

It is typical to divide the recyclables into a "fibres" stream and a "containers" stream, as indicated in Table 3.1.

TABLE 3.1
MATERIALS INCLUDED IN FIBRE AND CONTAINER RECYCLING STREAMS

Fibres	Containers
Newsprint	PET Bottles
Office Paper	Aluminum Cans
Boxboard	Aluminum Foil
Corrugated Cardboard	Ferrous Cans
Paper Cups and Plates	Clear Glass
Plastic Film	Coloured Glass
Telephone Directories	Polystyrene Containers
Textiles	HDPE Bottles



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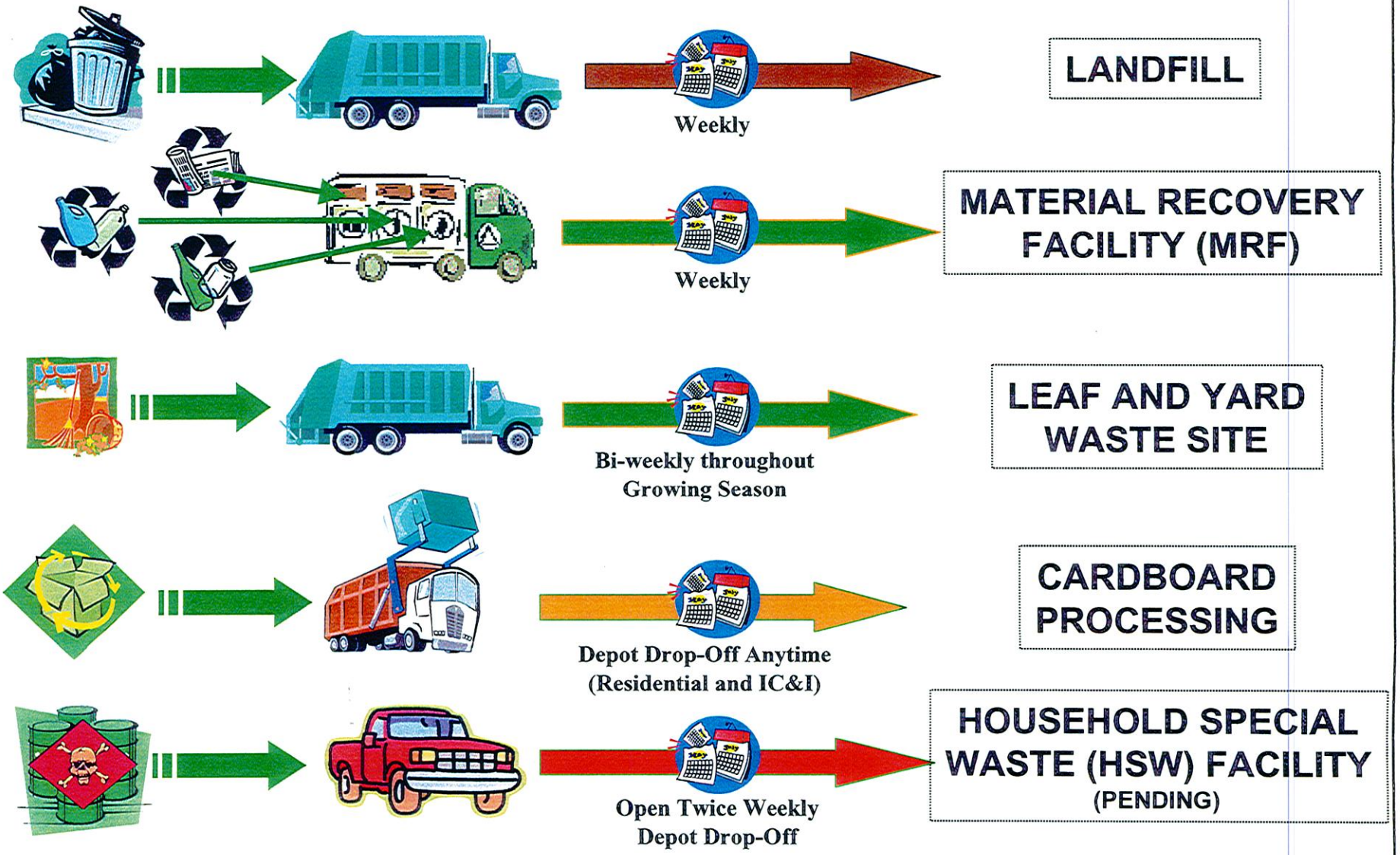
City of Sault Ste. Marie
Existing Waste Management System

Figure 2



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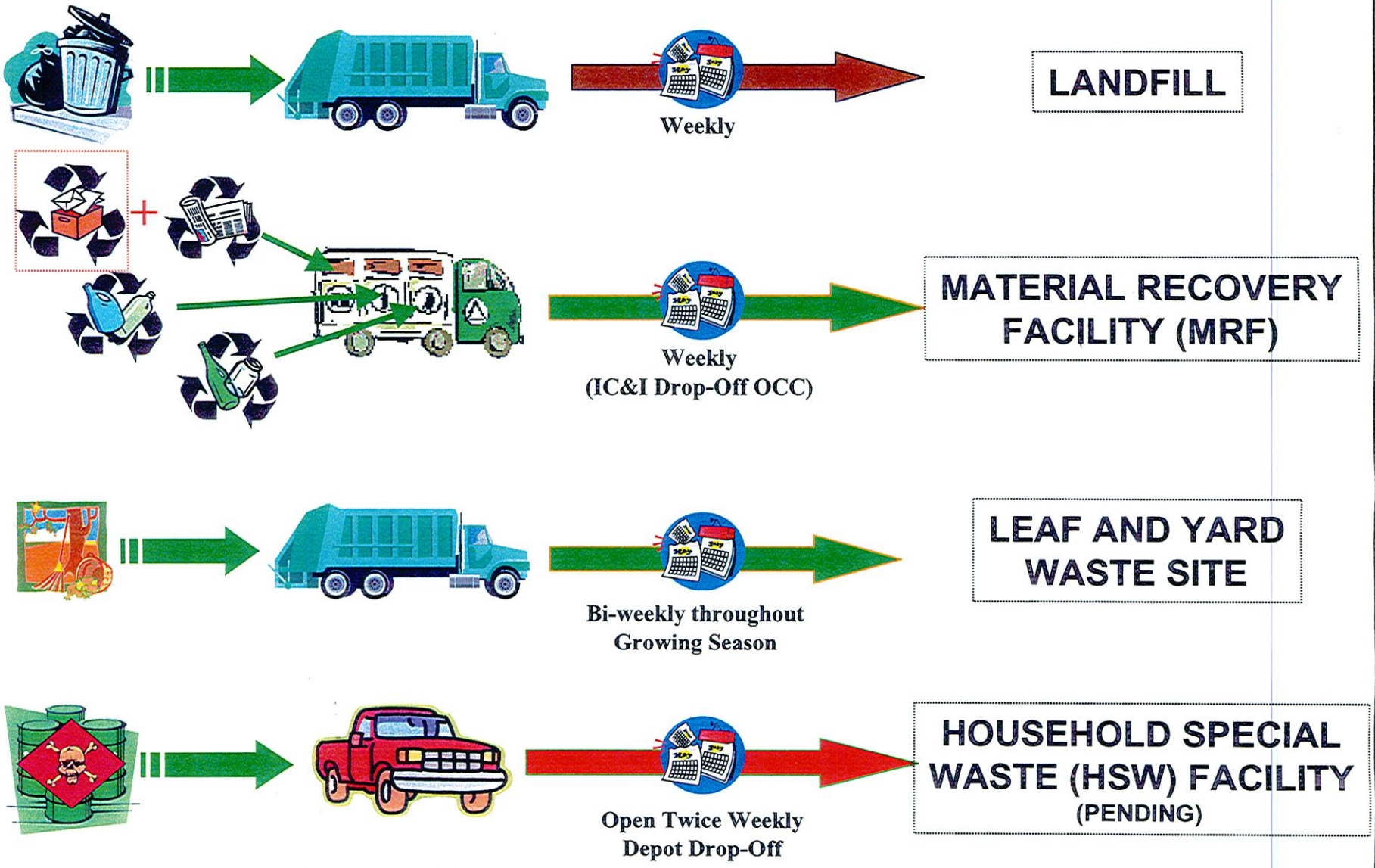
City of Sault Ste. Marie
Increased Yard Waste Collection

Figure 3



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City of Sault Ste. Marie
Curbside Collection of OCC

Figure 4

Containers are typically placed in the blue box, with fibres being placed in either a second box, or in a see-through (blue or clear) bag. Although this increases the amount of processing that is necessary when the material reaches the MRF, it makes the collection system much more efficient. Manual sorting is not required at the curbside, and there is not as much opportunity for a truck to "cube out" (a cube out occurs when a collection vehicle has one of the compartments on the truck full, while the others have space remaining). This results in a vehicle making a trip back to the MRF even though it does not contain a full load. The fibre and container waste streams can be collected in a two-compartment truck that is able to compact both streams.

The collection system proposed for this system is illustrated in Figure 5.

3.5 System 5 - Organic Waste Composting

System 5 requires the separation of an additional waste stream by the homeowner. As part of this system, organic wastes, such as meats, vegetable scraps, dairy products, etc. will be separated and sent for processing at a compost facility. There are many ways that this can be accomplished without requiring more trucks to pass by each house each week.

This system will require that residents separate their waste into 4 streams on a regular basis:

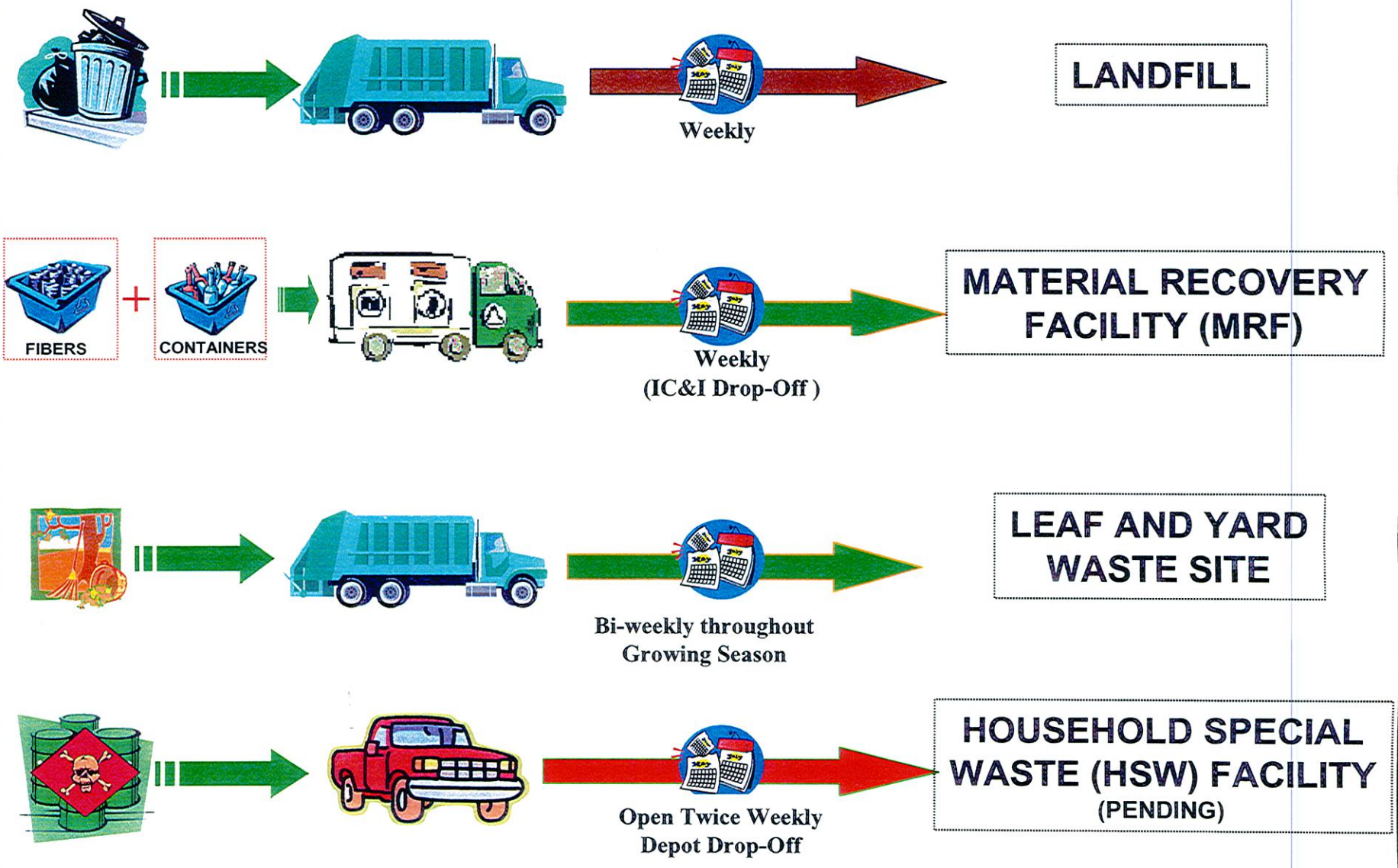
- fibres;
- organics;
- containers; and,
- garbage.

Leaf and yard waste will continue to be separated for collection on a bi-weekly basis throughout the growing season.

There are many combinations for collecting the various waste streams, but residents usually like to have their organic waste collected every week, since it is the most likely to cause odour problems. Recyclable fibres and containers can be co-collected with the organics on an alternating week schedule, so that fibres and organics are collected one week, while containers and organics are collected on the alternating week. This type of schedule is being utilized in many areas, including Markham and Halifax. These municipalities send out a calendar to residents advising them of what materials get collected in each area each week.

There are many different options for containers that residents can use to place the various waste streams at the curb. Some municipalities use different coloured see-through bags to differentiate containers, fibres and organic materials. Wheeled carts and various types of recycling boxes and pails are other options. The important point is that residents be given clear instructions as to what containers they can use for each of the separated waste streams.

The collection system proposed for this system is shown in Figure 6.



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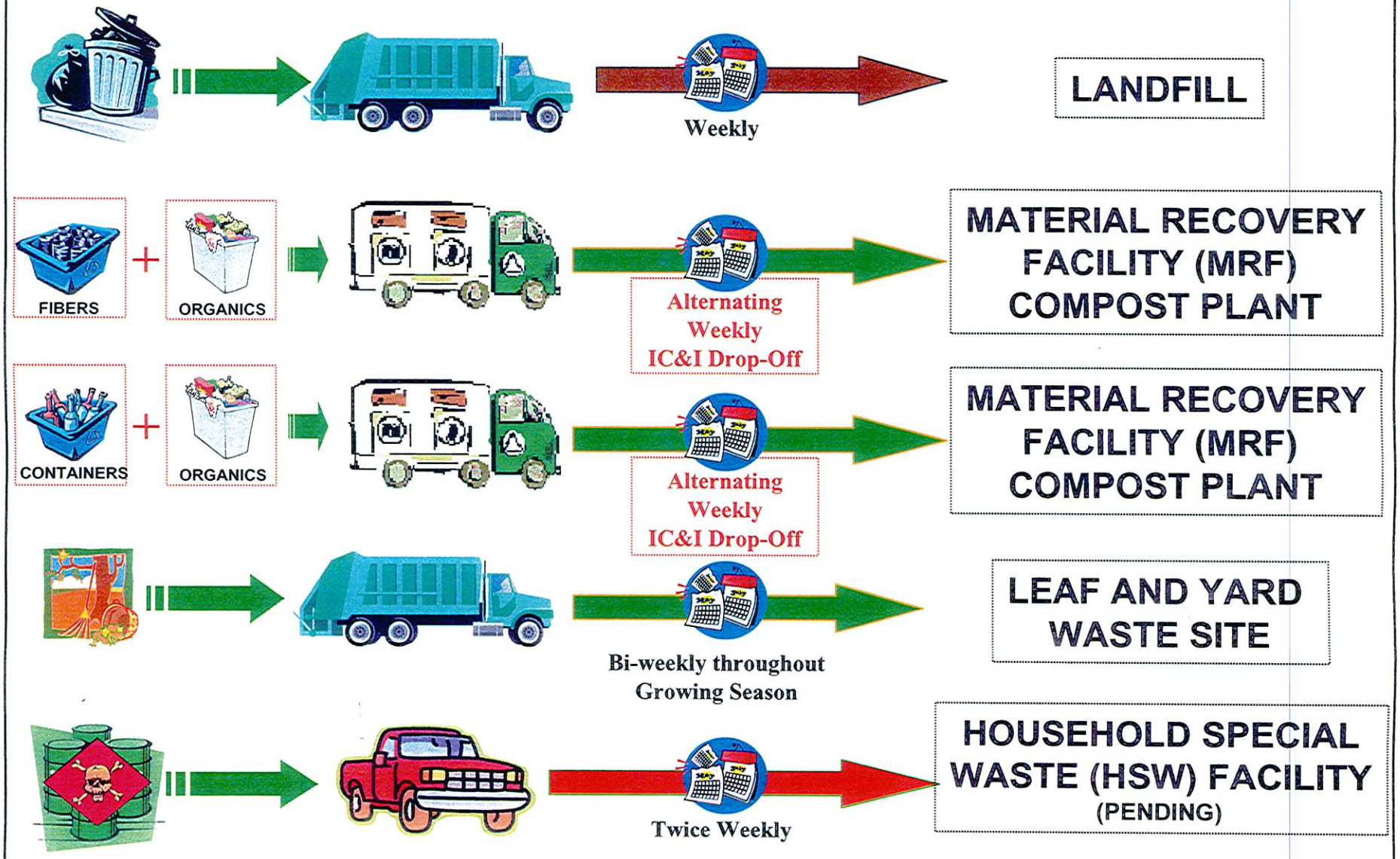
City of Sault Ste. Marie
Recycling of Expanded Materials

Figure 5



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City of Sault Ste. Marie
Curbside Collection of Organic Waste

Figure 6

4. CAPITAL COSTS FOR WASTE DIVERSION AND COLLECTION SYSTEMS

The total annualized capital costs for the five proposed waste management systems are outlined in this section. The costs were calculated based on the following methodology:

- the capital costs for all equipment and buildings necessary to implement the system were calculated;
- financing charges for the capital expenditures were added to the capital costs; and
- the annualized capital costs were determined by allocating the capital costs over the expected life of the investment.

The implementation of the potential waste diversion and collection systems will use existing City-owned equipment wherever possible. A listing of the equipment currently used by the City for waste diversion and collection is included in Appendix B. The cost for replacement of any equipment scheduled for the next three years necessary for any of the potential systems has been included in the capital cost for that system.

Table 4.1 outlines the expected life span for the various capital investments that will be necessary in order to implement the potential waste diversion systems.

TABLE 4.1
EXPECTED LIFE SPAN OF CAPITAL INVESTMENTS

Capital Investment	Expected Life Span
Collection Vehicles	7 Years
Buildings	20 Years
Processing Equipment	10 Years

The following sections provide information on the capital cost investment for each of the potential waste management systems.

4.1 System 1 - The Status Quo

With the status quo system, the existing waste management programs would continue. Some of the equipment being used to deliver the existing programs have reached the end of their practical life span and should be replaced.

The City owns five waste collection vehicles, the oldest of which is seven years old. Currently, two collection vehicles are used for yard waste collection and for peak waste collection periods. Three of the waste collection vehicles should be retired over the next three years. The cost for the replacement of these vehicles with 30.2 m^3 (39 yd^3) rear-loading compaction vehicles is in the range of $160,000 to $220,000. For the sake of this analysis, an estimated cost of $180,000 has been used.

Recycling collection services are provided using three City-owned 1990 Walinga 25 m^3 (33 yd^3) top-loading recycling vehicles. These collection vehicles have been in operation for 11 years and are at the end of their practical service life. In order to allow for expansion of the recycling program, it is recommended that these vehicles be replaced with three 33 m^3 (43 yd^3) top-loading recycling vehicles equipped with a can crusher to compact metal and plastic containers. The cost of each vehicle is estimated at $137,000.

The recycling facility and equipment is owned by the City. This equipment has been in service for over ten years, and is generally due for an overhaul, however if the baler has been adequately maintained, it should have another ten years of service. The baler slider plates and the conveyor belt should be replaced, and some additional funds may be needed for general equipment upgrades. A figure of $50,000 has been estimated for overhaul of the recycling equipment.

The recycling building was used as a works yard prior to being converted to a recycling facility. If the facility continues to operate at that location, it is expected that funds will be needed on an annual basis to keep the building in usable condition, and $25,000 a year has been allocated for that purpose.

Table 4.2 outlines the capital cost estimate for implementing System 1.

TABLE 4.2
CAPITAL COST ESTIMATE FOR IMPLEMENTING SYSTEM 1

	Total Cost (2001 $)	Service Life (yrs)	Interest Rate (%)	Annualized Cost (2001 $)
Waste Collection Vehicles (3)	540,000	7	6	96,736
Recycling Collection Vehicles (3)	411,000	7	6	73,626
Recycling Facility Upgrade	50,000	10	6	6,794
Recycling Building Maintenance (on an annual basis)				25,000
			TOTAL ANNUALIZED COST	**$202,156**

4.2 System 2 - Increased Yard Waste Collection

With System 2, the number of yard waste collections will increase to 13 per year for each household on a bi-weekly basis throughout the growing season. The increase in the number of collections and a ban on the disposal of yard waste is expected to increase the amount of yard waste collected from the current quantity of 300 tonnes per year to a maximum quantity of approximately 1000 tonnes a year. Based on an expected compacted yard waste density of 300 kg/m^3, the City's existing 25 yd^3 (19 m^3) collection vehicle would be able to collect 5.7 tonnes of yard waste in each load. The new 30.2 m^3 (39 yd^3) rear-loading compaction vehicles would be able to collect 9.1 tonnes of yard waste per load. No additional collection vehicles will be required relative to System 1.

The necessary capital expenditures for implementing Waste Diversion System 2 are the same as for System 1, as outlined in Table 4.3.

TABLE 4.3
CAPITAL COST ESTIMATE FOR IMPLEMENTING SYSTEM 2

	Total Cost (2001 $)	Service Life (yrs)	Interest Rate (%)	Annualized Cost (2001$)
Waste Collection Vehicles (3)	540,000	7	6	96,736
Recycling Collection Vehicles (3)	411,000	7	6	73,626
Recycling Facility Upgrade	50,000	10	6	6,794
Recycling Building Maintenance (on an annual basis)				25,000
TOTAL ANNUALIZED COST				**$202,156**

4.3 System 3 – Curbside Collection of OCC

System 3 replaces the OCC depots with curbside collection of OCC as part of the blue box program. In order to do this, the blue box collection system would be revised to a five-stream sort, which would include:

- papers (newsprint, office paper, and magazines);
- containers (PET bottles, aluminum cans, ferrous cans);
- clear glass;
- coloured glass; and
- OCC.

Due to the additional material being collected, and the additional time required to do a five-stream sort instead of a four-stream sort, one additional recycling collection vehicle would be required. The estimated capital cost of System 3 is as outlined in Table 4.4.

TABLE 4.4
CAPITAL COST ESTIMATE FOR IMPLEMENTING SYSTEM 3

	Total Cost (2001 $)	Service Life (yrs)	Interest Rate (%)	Annualized Cost (2001 $)
Waste Collection Vehicles (3)	540,000	7	6	96,736
Recycling Collection Vehicles (4)	548,000	7	6	98,169
Recycling Facility Upgrade	50,000	10	6	6,794
Recycling Building Maintenance (on an annual basis)				25,000
TOTAL ANNUALIZED COST				**$226,699**

4.4 System 4 - Recycling of Expanded Materials

For the sake of this analysis, the cost for implementing System 4 is based on the City developing their own MRF to process recyclables. It may, however, be more economical for the City to send their recyclables to an established facility. Cost estimates for a City-owned facility have been developed and can be used as a comparison with the cost of sending recyclables for processing elsewhere.

System 4 is based on the recycling program being expanded to include a list of 18 different commodities being collected for processing and sale to secondary markets. As the number of materials being recycled increases from a traditional to an expanded system, it is not feasible to have separate compartments in the collection vehicle for each material type, therefore materials will be "commingled", or mixed together. More sorting is required at the recycling facility to further separate the collection streams. Recycling facilities have become more sophisticated with equipment to automatically separate the various material streams based on physical properties. The term Material Recovery Facility (MRF) was coined to reflect the increase in the amount of processing being done after the recyclables are collected. The current recycling facility being used to process blue box materials collected in the City would not be adequate to process and expanded mix of recyclables, therefore the City would need to construct a new MRF for that purpose.

A MRF is typically a large warehouse with a tipping floor to receive the shipments of recyclables and conveyor belts for the recyclables to be transported through the separation system. Older MRF's rely on manual separation of the recyclables, as workers line the sides of the conveyor belts and pull off one type of material or another. This approach is time-consuming and expensive.

Automated techniques are available for some materials, and new separation equipment is being developed as the recycling industry evolves. Ferrous metals can be separated with a magnetic separator. Screening can be done to remove small pieces of glass and other waste that may contaminate streams. An eddy current separator uses an electromagnetic field to eject aluminum from a stream of mixed materials. Plastics can be separated from glass with an air classifier, which takes advantage of the density differences of the materials. Manual sorting is typically utilized to separate the different polymers of plastic, different colours of glass, and different grades of paper, however optical techniques are being developed to complete these tasks. Automated separation methods will greatly improve the economics of recycling by decreasing labour costs and increasing revenues through greater purity of the recovered materials.

It is expected that the City MRF would accept separate streams of commingled fibres and containers. Separate sorting lines would be dedicated to the separation of each of these streams. The various grades of paper and cardboard would be sorted manually on the fibre sorting line. The container sorting line would be more automated, with magnetic separation of steel, air classification of heavy and light materials, and aluminum being separated with an eddy current separator. The mobile equipment (skid steer and fork lift) could be moved to the new location to reduce the equipment costs of the new MRF. Based on these assumptions, a MRF to process

approximately 8000 tonnes of recyclables from the City would cost approximately $5.5 million, of which $2.5 million would be for the building, and $3 million for equipment.

The collection of recyclables would be accomplished with 30 m^3 (39 yd^3) side-loading co-collection compaction vehicles. The following compaction densities are expected for each of the materials collected:

- 200 kg/m^3 for containers; and,
- 350 kg/m^3 for fibres.

Since the curbside sorting is virtually eliminated, three collection vehicles would be adequate to collect the expected quantities of residential recyclables (up to 7,300 tonnes a year). The cost of each co-collection vehicle is estimated at $195,000.

Due to the decrease in residential waste being set out for collection, only two new waste collection vehicles will be needed for the collection of regular waste and yard waste.

The estimated capital costs of System 4 are outlined in Table 4.5.

TABLE 4.5
CAPITAL COST ESTIMATE FOR IMPLEMENTING SYSTEM 4

	Total Cost (2001 $)	Service Life (yrs)	Interest Rate (%)	Annualized Cost (2001 $)
Waste Collection Vehicles (2)	360,000	7	6	64,490
Recycling Collection Vehicles (3)	585,000	7	6	104,797
MRF Building	2,500,000	20	6	217,950
MRF Equipment	3,000,000	10	6	407,610
			TOTAL ANNUALIZED COST	**$794,847**

4.5 System 5 - Organic Waste Composting

The System 5 scenario includes in-vessel composting of organic waste as a component of the waste management system. There are a number of in-vessel composting technologies that are currently being used in North America, however most systems include the following basic components:

- pre-processing equipment to remove contaminants from the organic feedstock;
- channels or other type of containers where the composting takes place;
- turning equipment to mix the organic feedstock during the composting process;
- an aeration system to ensure proper air flow during the composting process;
- a biofilter to remove odours from the exhaust air; and,
- an outdoor curing pad.

It is recommended that the composting facility initially be designed to process 18,000 tonnes per year of organic waste (see Section 5 for further discussion on composting capacity). Based on other composting facilities of this size currently in operation, it is estimated that the total cost of the composting plant would be $7.5 million, of which $3.5 million would be for the building, and $4 million would be for equipment.

Based on the expected quantity of recyclables and organics that would be collected, four 30 m^3 (39 yd^3) side-loading co-collection compaction vehicles, at a cost of $195,000 each would be required.

The total annualized capital cost of System 5 is shown in Table 4.6.

TABLE 4.6
CAPITAL COST ESTIMATE FOR IMPLEMENTING SYSTEM 5

	Total Cost (2001 $)	Service Life (yrs)	Interest Rate (%)	Annualized Cost (2001 $)
Waste Collection Vehicles (2)	360,000	7	6	64,490
Recycling/Organics Collection Vehicles (4)	780,000	7	6	139,729
MRF Building	2,500,000	20	6	217,950
MRF Equipment	3,000,000	10	6	407,610
Compost Plant Building	3,500,000	20	6	305,130
Compost Plant Equipment	4,000,000	10	6	543,480
			TOTAL ANNUALIZED COST	**$1,678,389**

4.6 Summary

Based on the information presented in this section, the total annualized cost for capital expenditures for each waste diversion system is as follows:

- System 1 - $ 202,000
- System 2 - $ 202,000
- System 3 - $ 227,000
- System 4 - $ 795,000
- System 5 - $1,678,000

5. WASTE DIVERSION AND COLLECTION SYSTEMS EVALUATION

5.1 Evaluation Criteria

It is proposed that the 20 potential waste diversion and collection systems shown in Table 2.1 be evaluated based on the criteria outlined in this section. These criteria were developed in consultation with City staff.

Diversion from Landfill is the total quantity of waste that would be expected to be diverted from landfill or other disposal if the system were implemented.

Flexibility is the ability for the system to adapt to changing waste streams and generation rates.

Marketability of Materials and Products is a measure of the ability to distribute the products that result from the waste diversion system and the financial implications of the product marketing.

Availability and Expertise of the Private Sector is the ability and willingness of private companies to develop and operate the infrastructure necessary for the waste diversion system.

Partnership Possibilities reflect the possibilities of obtaining partnerships for the funding of the waste diversion system.

Compliance with Legislation measures the ability of the system to comply with provincial and federal waste management regulations that are currently in existence.

Public Acceptability is a measure of the expected reaction of the residents and businesses that are the users of the system.

Overall System Cost is the total annual system cost as determined by the financial model, which factors in capital and operating costs, financing costs and depreciation. The costs for each of the potential waste diversion systems will be calculated with the assumption that the City would own and operate any facilities or equipment to be used for the waste diversion system. This does not, however, preclude the City from contracting for any of the waste management services.

Each of the systems are evaluated using the aforementioned criteria in the sections that follow.

5.2 Diversion from Landfill

One of the main goals of this study is to increase the diversion of waste from landfill. The City currently has approximately 10-12 years of capacity remaining in its existing landfill. This timeframe could be extended if the City is able to increase waste diversion. An increased waste diversion rate will also mean more efficient use of existing and future landfill capacity.

The diversion from landfill rate was calculated for both the residential and total waste stream based on the mass balance tables found in Appendix A, and has been summarized in Figure 7 and Table 5.1.

Figure 7
Overall Diversion Rates for Potential Waste Diversion Systems

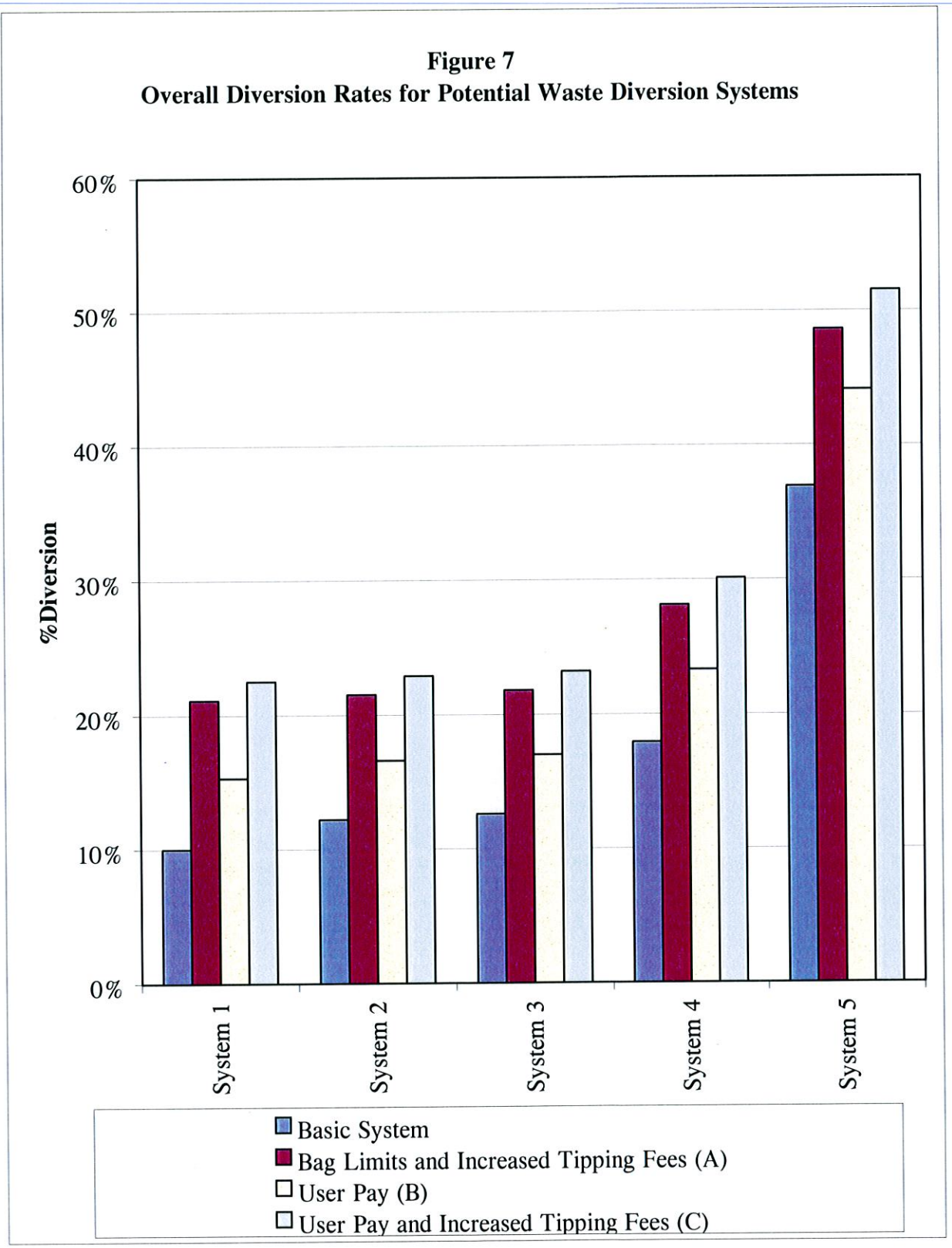

TABLE 5.1
EXPECTED DIVERSION RATES FOR POTENTIAL WASTE DIVERSION SYSTEMS (PERCENT)

Options	System 1 Status Quo		System 2 Yard Waste Bans and Increased Yard Waste Collection		System 3 Curbside Collection of OCC		System 4 Expanded Recyclables		System 5 Organics Processing	
	Res.	Total	Res.	Total	Res.	Total	Res.	Total	Res.	Total
Basic System	18.1	10.0	21.8	12.2	22.9	12.6	30.0	17.9	41.9	36.9
Bag Limits and Increased Tipping Fees	28.7	21.1	29.7	21.5	30.5	21.8	38.9	28.1	53.2	48.6
User Pay	32.3	15.3	33.5	16.6	34.4	17.0	44.3	23.3	61.0	44.1
User Pay and Increased Tipping Fees	32.3	22.5	33.3	22.9	34.3	23.2	44.1	30.1	60.8	51.5

Res = Residential

The only waste diversion system that is expected to allow the City to reach 50% diversion of the overall waste stream is System 5 with user fees and increased tipping fees in place. This system includes the following components:

- curbside collection of expanded recyclables;
- processing of recyclables from the IC&I sector;
- curbside collection of organics;
- composting of organics from the IC&I sector;
- leaf and yard waste collection (13 time/yr/hh bi-weekly during the growing season);
- landfill ban (yard waste);
- public education;
- backyard composting;
- Reuse Centre;
- HSW depot:
- user fees: and
- increased tipping fees.

The Waste Diversion Organization (WDO) has reviewed the current municipal recycling programs and the costs associated with increasing diversion as part of the *Report to the Minister of the Environment – Achieving Sustainable Municipal Waste Diversion Programs in Ontario*. The WDO recommends a waste diversion goal for WDO funded programs be 44% for residential waste by 2005. The two System 4 options that incorporate user fees, and the System 5 options that incorporate either bag limits or user fees meet or exceed the 44% WDO goal.

The City is particularly challenged in achieving a high rate of waste diversion due to the number of IC&I generators that use the City landfill site. There are currently not many waste diversion alternatives for these IC&I generators, therefore almost all of their waste is being landfilled.

It is clear that the City will not achieve high waste diversion rates unless it establishes the infrastructure for waste diversion with the financial incentives in place to encourage residential and IC&I waste generators to use the waste diversion programs. This is done through direct financial penalties, such as a charge on each bag of waste generated, or tipping fees that reflect the true cost of developing, operating and maintaining the waste management system.

5.3 System Flexibility

The waste diversion and collection system that the City chooses to implement is expected to handle all of the waste generated in the City for the next 25 to 40 years. It is therefore very important that the system be flexible in managing varying waste compositions and quantities. Historically, the quantities and composition of the City's waste has changed from year to year, and it is important that the waste diversion system that the City chooses be flexible enough to be able to adapt to future changes.

It was identified in the *Organic Waste Diversion Report (TSH, March 2001)* that there is a significant amount of organic waste generated in the City that is currently not being managed by municipal facilities. The organic waste stream that was part of the municipal waste stream consisted of 22,752 tonnes in 2000, which was only 32% of the total organic waste stream. The City also manages an additional 9,185 tonnes of sewage sludge at the municipal landfill site. This quantity is expected to increase to 13,000 tonnes per year with the expansion of the East End Water Pollution Control Plant. Approximately 40,300 tonnes of organic waste was generated in the City in 2000 that was managed by other means. St. Mary's Paper produces 7,300 tonnes per year of paper fibre sludge that is currently being used as final cover for landfill sites and for mine rehabilitation. There is another 33,000 tonnes per year of wood waste that is being chipped by a private contractor and then sold to landscapers or to local industries for boiler "hog fuel". Some or all of these additional waste streams may enter the City's waste management system from time to time. It is therefore important that the City's system be able to deal with fluctuations in feedstock.

The City's current recycling facility is operating at capacity. The building is not adequately sized to allow for indoor tipping of the material being delivered, or for indoor storage of the processed materials. Both unprocessed and processed recyclables are being stored outside which can lead to problems of blowing litter, and a reduction of material revenues due to moisture contamination. The equipment in the facility is nearing the end of its useful life span and is not capable of separating a more expanded mix of recyclables (such as HDPE plastic or aseptic containers). There is very little flexibility for increased quantities of recyclables, or for increasing the material mix with the existing recycling facility.

A private composting facility is able to handle an increased quantity of yard waste, however they are not able to manage a full organics stream or sewage sludge due to the concern of odours and processing problems that may occur due to having an outdoor facility. The private facility is currently certified to accept the following materials:

- wood sludge;
- bark;
- vegetable matter;

- lawn clippings;
- leaf and yard waste; and,
- manure.

It is apparent that if the City wishes to have the flexibility to divert a wider range of materials, it will be necessary to develop new facilities that are capable of accepting more materials. One of the more challenging issues in developing new waste management facilities is to size the operations to allow for potential changing requirements in the future, particularly since the municipality has control over only the waste that is collected in the municipal collection. It is therefore important to design a waste management system that can adapt to changing waste quantities.

Systems 4 and 5 in this study propose a new MRF to process recyclables. Based on the figures in the mass balance tables, the MRF would need to process approximately 12,000 tonnes of recyclables a year, which is considered to be a small-scale operation. The size of a MRF is dependant upon throughput requirements, however, the building size and equipment requirements generally remain the same for most small-scale operations.

A MRF is designed with three main areas:

- a tipping floor for the storage of unprocessed recyclables;
- processing equipment area; and,
- storage for processed materials.

The tipping floor area should be designed to handle the material that would typically be delivered each day, as well as space for unloading the recycling collection vehicles, therefore there is not a direct relationship between the area required and the facility throughput. The processing equipment area is generally not throughput dependant since the same equipment would typically be required for a plant whether it processed 10,000 or 20,000 tonnes per year of recyclables. Storage area requirements are standard, since the area is determined based on the requirement to store a full truckload of each of the materials that the facility processes, regardless of how long it takes to generate a full truckload.

A MRF is therefore, by its very nature, flexible to changing waste streams. It is typical that the throughput of a MRF be rated based on a number of tonnes per hour and fluctuations in throughput are managed by adjusting the operating hours of the facility.

An in-vessel composting facility, on the other hand, is a constant biological process, so the annual processing capacity is dependant on the volume of the processing vessel. Composting capacity is rated in tonnes per year, with little ability to increase throughput by operational changes. Most composting technologies are easily expandable, however, by simply adding another vessel or bin (depending on the technology). It is therefore suggested that if the City chooses System 5 as the preferred waste diversion system, that the compost facility be designed to handle only the initial expected quantities (18,000 tonnes per year), with additional capacity being brought on line as required.

It has been determined that the existing waste diversion system in the City has little ability to adapt to increased tonnages or material mix. Systems 4 and 5 include new waste diversion

facilities that would be designed so that they would have the flexibility to adapt to changes in the quantities and composition of the feedstock.

5.4 Marketability of Materials and Products

The sustainability of a waste diversion program is dependant upon the ability to market the materials and products that are generated by the program. The waste diversion systems proposed for the City would produce a range of dry recyclables and organic compost products. A survey of potential markets was conducted to determine the marketability of these materials and products.

5.4.1 Dry Recyclables

Markets for dry recyclables are reasonably well established due to the amount of time that recycling programs have been in operation, however the value of dry recyclables has fluctuated significantly over the past ten years (see the Corporations Supporting Recycling (CSR) Sheet, Reported Spot Market Prices as of May 15th in Appendix C). The average market price for the blended mix of materials tracked by CSR for the first 5 months of 2001 is $101 per tonne. The values quoted are free on board (F.O.B.) at the recycling facility for all materials other than glass and polystyrene.

The value obtained for recyclables is dependent upon the quality of the material recovered. The markets want material that is contaminant free, and in tightly compacted bales.

Often the best net market prices for materials are not obtained at markets in close proximity to the recycling facility. The Plant Manager of the Northumberland MRF, which processes a wide range of dry recyclables, states that she shops around for the best prices, and is currently marketing plastics in Texas and Quebec, and ferrous metals in Connecticut[4]. These markets pay transportation costs to their facilities, providing the material received is a clean product in tightly compacted bales. The Northumberland MRF received a net revenue (less transportation costs) of $103 per tonne in 1999, and $152 per tonne in 2000.

[4] *Source: Verbal conversation with Mary Little, Plant Manager, Northumberland MRF.*

Table 5.2 outlines some potential markets that are in close proximity to the City.

TABLE 5.2
MARKETS FOR DRY RECYCLABLES

Material	Market	Contact
OCC	Weyerhauser, Sturgeon Falls, Ontario	Greg Carello (705) 753-2170
OCC, Newsprint, Boxboard	Michigan Paperboard Co. Battlecreek, Michigan	Bill Bryant (616) 963-4004
Newsprint	Bowater Pulp and Paper Thunder Bay, Ontario	Gail Lock (807) 475-2300
Ferrous Metals	Traders Metal Sault Ste. Marie, Ontario	Donald Pitts (705) 945-2492
PET	ATI Grand Rapids, Michigan	Matt Paschick (616) 742-3872
PET	Cedar Salvage Cedar Springs, Michigan	Dick Capek (616) 696-2000

5.4.2 Compost

Compost operations typically sell their product to landscapers, nurseries, lawn care contractors, and residents. The markets for compost tend to be much more localized than markets for dry recyclables. Potential markets for compost (including a sod farm) in the City were contacted to determine the level of interest in purchasing organic compost. The companies contacted stated that they would purchase compost, providing that the price is competitive with the cost of topsoil and other alternatives. Topsoil sells locally for approximately $70/tonne ($30 - $32 per cubic yard). Based on this information, a Class A compost priced at $25 per tonne should be marketable in the area.

5.5 Availability and Expertise of the Private Sector

Traditionally, the public sector owned and operated the infrastructure needed to provide municipal services, such as water treatment plants, sewage treatment, and waste management facilities. The main goal of the public sector in establishing such facilities was to provide quality service to the taxpayer at a reasonable cost.

In recent years, there has been a greater involvement of the private sector in both owning and operating the facilities to provide municipal services. This is particularly the case with waste management services. The private sector is playing an increasing role in waste collection, disposal and diversion systems. There are a number of advantages and disadvantages in privatization of waste management services as outlined in Table 5.3.

TABLE 5.3
PRIVATE SECTOR AND PUBLIC SECTOR ADVANTAGES

Factor	Public Sector	Private Sector
Control of Waste Stream	Has control of residential waste but not IC&I	No control of waste stream
Accountability	Fully accountable for establishing service level	Accountable to meet terms of contract
Profit Goals	Driven by need to provide service	Must have a return on investment
Regulatory Requirements	Is exempt from certain laws and regulations	May have stricter regulatory requirements
Ability to Obtain Funds	Typically able to obtain good debenture rates	Typically obtains standard loan rates
Decision Making	Decision making may be onerous	More streamlined and pragmatic decision-making process
Cost Efficiencies	Typically higher labour costs	May be more efficient
Government Funding	Greater potential	Limited potential

Whatever waste diversion system is chosen for the City, there will likely be some private sector involvement in the construction, ownership or operation of one or more of the system components. Canadian Waste currently provides a number of waste management services in the City, including waste collection in the outlying areas, recycling collection, and processing of recyclables. Lemieux Composting is a local private sector business that owns and operates a composting site that processes the City's leaves and other yard wastes. Sault Ste. Marie Disposal Inc. currently operates the OCC Depot program.

A Private/Public Partnership involves both the private and public sectors in providing services to the taxpayer. One increasingly popular type of Private/Public Partnership is to have the private sector design, build, and possibly operate a municipal facility. This option allows for as much flexibility and innovation in the process as possible.

With a design/build scenario the municipality issues a list of general performance goals for the facility, the required throughput of material, and the type of waste that the facility will expect to receive. Potential contractors will to invited to submit preliminary design and costing figures for the owner's evaluation. In this way, the municipality defines the overall objectives of the facility, however they do not have as much control over the final product.

There are a number of waste management firms that would be interested in entering into a Private/Public Partnership with the City for the development of new waste management facilities. The City received nine submissions to a Request for Proposals they issued recently for a waste diversion system. Although the companies that responded were not generally from Northern Ontario, if firms were contracted to design and build a facility, they would likely hire local contractors and labourers to complete the work.

5.6 Partnership Possibilities

There are a number of opportunities available for the City to partner with other levels of government or the industry sector in the development and operation of a waste diversion program.

5.6.1 Federal Funding Programs

The Canadian government has committed funds for the development of the infrastructure to sustain Canada's growth and the Canadian quality of life. There are two separate infrastructure funding programs that the City may wish to apply to, if it decides to develop new facilities for the management of waste in the City.

FCM Green Municipal Funds

The Federation of Canadian Municipalities (FCM) has established the $100-million Green Municipal Investment Fund (GMIF) and the $25-million Green Municipal Enabling Fund (GMEF), which are designed to encourage advances in environmental technology and innovation. The expectation is that knowledge and experience gained with support from GMIF/GMEF in best practice and innovative environmental projects will be applied to national infrastructure projects.

Climate Change Action Fund

The Climate Change Action Fund (CCAF) was established by the federal government to help Canada meet the commitments it made towards the Kyoto Protocol for the reduction of greenhouse gas production. The CCAF was announced in the 1998 federal budget, where $150 million was allocated over three years to support the development of an implementation strategy to meet these commitments and to facilitate early action to reduce greenhouse gas emissions. Landfills are the largest source of man-made methane (a greenhouse gas) entering the atmosphere, therefore infrastructure developed that helps to reduce the landfilling of waste may be eligible for funding under this program.

5.6.2 Ontario Clean Water Agency

The Water Pollution Control Plants (WPCP) in the City generate a significant amount of sewage sludge that is currently being landfilled. The WPCPs are operated by the Ontario Clean Water Agency (OCWA), who are looking for other alternatives for the management of the sewage sludge Province wide.

On January 31, 2001, the City met with representatives from OCWA to discuss organics management and the efforts OCWA is taking to divert this material from the landfill. The City learned that OCWA has taken the initiative to establish a northern team within their agency to evaluate alternative methods of dealing with sewage sludges and other organic wastes being generated by municipalities throughout the north. This initiative is being undertaken independently by OCWA with no involvement from the City. The OCWA team will focus on implementing sludge handling systems that produce a Class A compost.

It is possible that OCWA would be interested in partnering with the City in the development of a facility that could compost sewage sludge along with other municipal organic wastes.

5.6.3 Waste Diversion Organization Funding

The Province of Ontario recognizes that municipalities should not be responsible for the full cost of recycling materials that are produced by the private sector. In order to correct this situation, the Province formed the Waste Diversion Organization (WDO) in 1999 to develop a plan for funding municipal waste diversion programs. The WDO determined that the average net cost of collecting, processing and marketing recyclables in 1999 was $99/tonne, based on data reported by municipalities using standardized data call procedures. Industry partners representing the grocery, soft drink, packaging, and consumer product industries committed to fund 50% of the net municipal recycling cost. Ninety percent (90%) of this money will be allocated directly to municipalities based on a funding formula that was developed by the WDO, and the remaining 10% of the funds will be available to support projects to improve recycling system efficiency.

The funding will apply only to materials collected from the residential sector. There is a single funding formula developed for all municipal recycling programs in the province. Based on this formula, each municipal recycling program will be funded a per tonne amount that is determined by the following factors:

Material Mix

Municipalities that market greater quantities of higher net cost materials (e.g. aseptic containers, film plastics, polystyrene) will receive higher per tonne funding than municipalities that market a more traditional mix of recyclables.

Population Density

Communities with lower population densities will receive comparatively higher per tonne funding which is reflective of the higher cost to collect recyclables in these areas.

Size of the Municipality

Recycling operations that service a smaller municipal base will receive higher per tonne funding to compensate for the increased cost to provide recycling services to smaller communities.

Depot or Curbside Collection

Municipalities that have curbside collection of recyclables will receive comparatively higher per tonne funding than municipalities that have depot collection programs to reflect the increased cost for curbside collection.

Municipalities will be required to report the annual tonnes for each material marketed from the residential sector. The standard costs for each municipality is then determined by applying the standard costs per tonne and per cubic metre to the quantities of materials reported by the municipality, then modified by a "population density factor" and "municipality size factor".

Although there was consideration given to making allowances for a "distance from market factor" for remote municipalities (such as northern Ontario), it was decided not to make this adjustment because it was found that municipalities that are a greater distance from markets for materials such as glass and plastics, are typically closer to markets for other materials (e.g. newsprint and OCC).

The data from municipal recycling programs for 1999 has been input into the funding formula. Based on this information, the City would receive a total of $65,299 in funding for its 1999 recycling program. This equates to $33 per tonne of material processed, which is low in comparison to the Provincial average of $45 per tonne. Municipalities that collect and process a more expanded mix of recyclables typically receive more funding on a per tonne basis (for example, based on 1999 data, the Centre and South Hastings municipal recycling program would receive $71 per tonne of material processed).

The WDO funding for any given year will be based on municipal tonnes recycled the previous year, and the average of marketed material revenues for the previous year. It is expected that the per tonne funding amounts would be lower for the 2000 year, as a result of the higher material revenues received by municipalities in 2000.

WDO funding was not included in the financial model used in this study because the Province has not yet approved the funding proposal of the WDO or put the legislation in place that would require the industry partners to participate in the plan. It can be concluded, however, that if WDO funding is put in place, a waste diversion system that collects, processes and markets a more expanded mix of recyclables will receive comparatively higher per tonne funding than a traditional recycling program, and that a system that maximizes the amount of recyclables captured for recycling will receive a greater overall funding amount.

5.6.4 Private Industries

There are a number of local industries (e.g. St. Mary's Paper, Domtar) that may be interested in partnering with the City of Sault Ste. Marie in the development of new waste diversion facilities, providing that the new facilities would help to manage particular waste streams that the industry generates. In particular, the development of a compost plant for System 5 would be able to process paperfibre sludges that are generated by these industries.

5.7 Compliance With Legislation

The Canadian Council of Ministers of the Environment (CCME) and the Province of Ontario have both adopted a target of 50% waste diversion from landfill. This waste diversion target is only a goal, and there are currently no legislative requirements for waste diversion rates in Ontario.

The requirements for waste diversion of municipal waste are contained in Ontario Regulation 101/94. The regulation stipulates that a municipality with a population of at least 5,000 shall establish, operate and maintain a blue box waste management system that includes the following materials:

- basic blue box waste, being aluminum food or beverage cans, glass bottles and jars, newsprint, PET bottles, and steel food or beverage cans.
- at least two categories of supplementary blue box wastes, being aluminum foil, boxboard, corrugated cardboard, expanded polystyrene containers, fine paper, magazines, paper cups and plates, plastic film, rigid plastic containers, telephone directories, textiles, and polycoat paperboard containers.

The current Sault Ste. Marie blue box management system complies with Regulation 101.

The regulation also requires municipalities with a population of at least 5,000 to establish, operate and maintain a leaf and yard waste system, which includes the provision of home composters to residents at cost or less and the provision of educational information to residents about composting. Municipalities with a population greater than 50,000 are required to collect or accept leaf and yard waste in a manner that is reasonably convenient to the generators of leaf and yard waste in the municipality. The leaf and yard waste system must also provide a leaf and yard waste composting site and information to promote the effective separation of leaf and yard waste and full use of the composting system.

Regulation 101/94 also outlines the requirements for aerobic composting operation and specifies the minimum quality of the final compost product for restricted and unrestricted usage, as indicated in Table 5.4.

TABLE 5.4
COMPOST QUALITY STANDARDS

	Maximum Concentration for Unrestricted Use Compost (mg/kg dry weight)	Maximum Concentration for Controlled Compost (mg/kg dry weight)
Metals		
Arsenic	10	20
Cadmium	3	4
Chromium	50	50
Cobalt	25	25
Copper	60	100
Lead	150	500
Mercury	0.15	0.5
Molybdenum	2	3
Nickel	60	60
Selium	2	2

TABLE 5.4
COMPOST QUALITY STANDARDS

	Maximum Concentration for Unrestricted Use Compost (mg/kg dry weight)	Maximum Concentration for Controlled Compost (mg/kg dry weight)
Zinc	500	500
Plastic (Greater than Size 8 Mesh)	1%	1%
Other Non-Biodegradable Material (Greater than Size 8 Mesh)	2%	2%

Controlled compost can be used as compost in the soil subject to a number of restrictions, including a requirement that the person who uses the compost keeps a record, for at least 10 years after using the compost, of the date the compost was used, the amount of compost used, and the chemical analysis of the compost received from the producer of the compost. Compost that does not meet either of these quality standards cannot be sold or used on an area unless it receives a Certificate of Approval for Waste Disposal.

Because the composting facility in the proposed System 5 accepts only source separated organic feedstock, it is expected that the finished compost produced will meet the specifications for unrestricted use compost.

All of the waste diversion systems proposed for the City comply with the current Ontario Regulation 101/94. It is difficult to know what future legislation will be in place for waste management, therefore it is impossible to be able to evaluate the proposed systems based on compliance with future legislation.

5.8 Public Acceptability

A successful waste diversion/collection system requires the participation of the residents and businesses that generate waste in the community. It is therefore important that the waste diversion/collection system be acceptable to the members of the public, so that they understand and participate in the program.

Most of the systems being considered by the City will require some change in the way that people manage the waste that they generate. Some of the systems require people to sort different waste streams in their home or business prior to placing it out for collection. Some systems limit the amount of garbage that each household can generate, or require residents to purchase tags for each bag of garbage generated. Some of the systems target behavioural change in businesses through increasing the landfill tipping fees. These changes may be thought to be publicly unacceptable at first, but if residents and businesses are advised of the reasons for the changes, and if they feel that they are a part of the decision making process, a new waste management system may gain wide acceptance with the public.

There are a number of methods that can be used to notify and consult with the public on the proposed waste diversion/collection systems. The most popular methods of public consultation are outlined below.

Newsletters

Newsletters can be used to educate the public about waste management issues, the process being undertaken to plan for long term waste management needs, and to encourage interest and involvement in the process. Newsletters can be distributed through bulk mailings, as enclosures with utility bills, or through set-outs in public areas.

News Releases

A news release is a prepared article that is distributed to the media for inclusion in the newspaper, or on radio or television. The purpose of a news release is basically the same as a newsletter, and is often done at the same time as distributing a newsletter in order to reinforce the message.

Public Meeting

A public meeting is an open forum in which the proponent makes a presentation regarding the process that is being undertaken, and the public is invited to respond with questions and comments. Some members of the public find that public meetings can be intimidating, and are not inclined to bring forward their point of view, particularly if there is a large number of people in attendance at the meeting.

Open House

An open house is an informal event that allows people to "drop in" and obtain information at their convenience. Information is provided through a variety of exhibits, such as charts, maps, reports and brochures. Resource people are available to answer questions individually or in small groups. Comments and questions raised by the public should be recorded in order to document feedback.

Workshops

A workshop is a forum where a number of people work together in groups to solve a particular problem, usually with the assistance of a facilitator. If the number of participants at the workshop is large they are typically divided into smaller groups at the workshop.

Presentations to Organized Groups

It is often beneficial for a municipal representative to make presentations to various organized groups in the community, such as the Chamber of Commerce and local service clubs. These sessions can provide information regarding how the proposed waste management systems will affect their particular sector, and obtain feedback from that target group.

Questionnaires

Questionnaires can be a good method of determining public preferences. They can be mailed out to the general public, or administered to the respondent over the telephone or in person. They are generally most effective if used after the respondent has been able to receive information on the proposed systems, such as at a public meeting or open house.

Focus Groups

A focus group is a meeting of invited participants, designed to obtain a general sense of what the public response will be to a proposed system. Participants can be specifically selected to represent a cross section of geographical, socio-economic or demographic groups. Focus groups can provide the municipality with an in-depth understanding of the views and values of the community and, in particular, how people might respond to a specific idea or opinion.

It is difficult to assess the public acceptability of the proposed waste diversion/collection systems until some public consultation has been done to determine the views of the community.

5.9 Overall System Costs

This section outlines the financial model that was developed to determine the overall system costs for the potential waste diversion systems being evaluated for the City. This model takes into account the entire waste management system, including waste collected in the municipal pick up, waste delivered to the landfill and other waste management facilities, and IC&I waste generation. The evaluation will be based on the annual cost for each system.

The overall annual system cost consists of two components:

- the annualized capital cost for buildings and equipment; and,
- the system operating costs.

5.9.1 Cost of Disposal

As outlined previously, it is necessary to consider the waste disposal component of the integrated waste management system in order to evaluate the overall cost of each diversion system. The waste diversion system is a component of the overall integrated waste management system therefore the cost of any potential waste diversion system will be affected by the amount of waste that requires disposal.

The operating cost for the City Landfill is currently $14.31 per tonne[5]. It is expected, however, that the City will need to either expand the current landfill or develop a new landfill during the 25 to 40 year planning period. It is therefore necessary to determine the true cost of disposal that will be incurred by the City in the future.

[5] *Source: Sault Ste. Marie Current Waste Management System Summary, TSH (September 2000).*

According to the report *Cost Accounting Methods for Landfill* (February 1991), the following items should be taken into account to determine the true cost of landfilling:

- engineering and approvals costs;
- compensation costs;
- initial construction costs;
- occasional and ongoing capital costs;
- annual operating costs;
- equipment replacement costs;
- monitoring costs ;
- leachate treatment or natural attenuation costs; and
- site closure and post closure costs.

Using the above factors the costs to establish a greenfield landfill site, with a disposal capacity of 2 million tonnes for the City were calculated. The calculations assumed a twenty year operation and 100 year post closure period. The 2001 costs for the following seven components were calculated:

• Environmental Approvals	$ 4,000,000
• Property Acquisition and Compensation	$ 800,000
• Initial Site Construction	$16,800,000
• Annual Operating Costs (20 Years)	$58,800,000
• Closure Costs	$ 4,500,000
• Post Closure Costs (100 Years)	$32,900,000
• Contingency Costs	$12,500,000
TOTAL	130,300,000

Therefore, the total lifetime costs of the landfill were calculated to be $130 million. This represents a cost of $65 tonne. Appendix D contains a table showing in more detail how the above costs were derived.

An overall figure of approximately $65 per tonne will be used as the cost for disposal in the financial evaluation of potential waste management systems. This cost includes both the capital and operations. This number could be lower if landfill mining or expansion of the existing site resulted. A full analysis of long term disposal costs will conducted as part of the preparation of the Disposal Options Report in Phase 3.

5.9.2 The Financial Model

A financial model was developed specifically for the City waste management system to determine the cost of each of the waste diversion systems being considered. When the preferred waste management system for the City is selected, a financial plan will be developed for a 25-year planning period. The multi-year financial plan will be presented as part of the Business Plan in Phase 3 of the study for the City.

The costs used in the Financial Model are based on the following costs for the waste system components.

Waste Collection (Single Family)

The cost for curbside collection of waste is based on the current cost per tonne of $45.05/tonne for waste collection in the City. It is recommended that the method of waste collection remain the same for all of the potential waste management systems, therefore there should be little change to the waste collection cost.

Waste Collection (Multi-Family)

The cost for collection of from multi-family units is based on the current cost per tonne of $13.08 for waste collection from these establishments. There is no change recommended to this collection system.

Landfill Diversion

The cost for the diversion of special materials (brush, tires, batteries, scrap metal) from landfill is based on the current average cost per tonne of $50.00 for these materials.

Waste Disposal

The financial model for the existing system includes the $14.31 per tonne cost that the City is currently paying to operate the existing landfill. This cost does not include any capital replacement or closure costs. As outlined in Section 5.9.1, the true cost of waste disposal is estimated to be $65 per tonne, which is the cost that has been used in the financial model for the potential waste diversion systems being evaluated for the City.

Public Education

All of the proposed waste diversion systems, with the exception of the basic status quo system, will require a public education program to educate residents and businesses about the changes to the program. A figure of $100,000 a year was used in the model for public education.

Recycling

The City's current recycling contract is based on a combined monthly cost for providing all recycling services, therefore it is difficult to determine the costs for each component of the program, i.e. collection, processing and revenue from recyclables. The total cost that the City currently pays for recycling is used in the financial model for the existing system.

For Systems 1, 2, and 3, the cost for collection of recyclables was estimated at $100 per tonne, and the cost of processing is estimated at $65 per tonne, which are typical costs for municipal recycling programs.

The cost for collection of recyclables for System 4 and 5 is reduced due to the reduced need for curbside sorting and the ability to compact the recyclables allowing more material per load. A collection cost of $55/tonne is used in the financial model based on the experience of Guelph, Ontario where it costs approximately $53/tonne to co-collect wet and dry waste.

The processing costs for Systems 4 and 5 have been estimated at $80 per tonne, based on typical processing costs for expanded recycling programs. The processing cost for an expanded program is higher than for a traditional program because there are more materials to separate, and the recyclable streams are typically more commingled.

OCC Recycling (Depots)

The cost for recycling of OCC is based on the current cost per tonne of $111 for the OCC depot recycling program. There is no change recommended to this collection system.

Yard Waste Collection

The cost for collection of yard waste is based on the current cost per tonne of $57 for yard waste collection in the City. It is recommended that the yard waste collection system remain the same for all of the potential waste management systems, therefore there should not be any change to the collection cost.

Yard Waste Composting

Yard waste is currently being accepted at a private facility at no charge. The company receives revenue to pay for the composting operation through the sale of finished compost. Yard waste composting has been shown as a no-cost item in the financial analysis, however the City may wish to enter into a contract with the private contractor if they plan to continue to use the company to process yard waste collected in the municipal program.

Organics Collection

In System 5, organics are co-collected with recyclables, therefore the cost of organics collection will be $55 per tonne.

Organics Composting

The cost for composting of organics is based on typical costs of $40/tonne for other organics composting operations.

User Fees

Municipalities typically implement user fees for waste collected from curbside in the range of $1.00 to $3.00 per bag. Regardless of the fee charged per bag, it has been found that user fees consistently reduce the amount of waste placed at the curb for collection. As the amount of waste diverted from landfill increases, the number of bags, and therefore the revenue received from user fees, will decrease. For the sake of the financial analysis, a user fee of $2.00 per bag has been used, which is in line with the bag tag fee being charged in other northern municipalities (Kenora, Sioux Lookout). The number of bags of waste set out per household is estimated based on Table 5.5.

TABLE 5.5 ESTIMATED AVERAGE NUMBER OF BAGS PER HOUSEHOLD PER WEEK	
Annual Residential Waste Collected (Tonnes)	Number of Bags/HH/Week
17,001 - 19,000	2.7
15,001 - 17,000	2.4
13,001 - 15,000	2.1
11,001 - 13,000	1.8
9,001 - 11,000	1.5
7,001 - 9,000	1.2
5,001 - 7,000	0.9

Landfill Tipping Fees

Landfill tipping fees are based on two scenarios for the various waste management systems:

- the current City tipping fee of $27.50 per tonne; and,
- an increased tipping fee of $65.00 per tonne which more closely reflects the true cost of landfilling.

MRF and Compost Plant Tipping Fees

A tipping fee of $25/tonne has been included in the financial model for the processing of IC&I recyclables and organic waste at the MRF and Compost Facility. This tipping fee is based on the fact that it provides an incentive to divert these waste streams, as opposed to disposing of them.

Sale of Recyclables

The revenue value for recyclables is based on the value established by the 1999 Municipal Cost Survey conducted by the Municipal Chief Administrative Officers of Ontario of $88/tonne. This value can be considered to be relatively conservative, since the values for most recyclable commodities have increased significantly since 1999 (see CSR Spot Market Listing in Appendix C). A lower revenue of $85 per tonne is used for the expanded recycling program, because the additional materials being marketed typically have a lower value, therefore decreasing the overall revenue pre tonne. Further information on the value of the sale of recyclables can be found in Section 5.4.

Sale of Compost

The cost for the sale of compost is based on a market value of $25 per tonne, which is a typical value of compost being realized from similar operations.

5.9.3 Results of Financial Modelling

The cost of the existing waste management system in the City of Sault Ste. Marie is currently $22 per household. This cost will increase substantially when the City is required to develop new landfill capacity. The financial modelling for each of the potential waste management systems is included in Appendix E. The results are shown in Figure 8 and Table 5.6.

It is important to note that although the cost of the systems that incorporate increased tipping fees or user pay systems have significantly lower costs per tonne and many of the systems generate a net revenue, this is in part due to increased revenues received from residents and the IC&I sector.

Figure 8
Net Cost of Potential Waste Diversion Systems

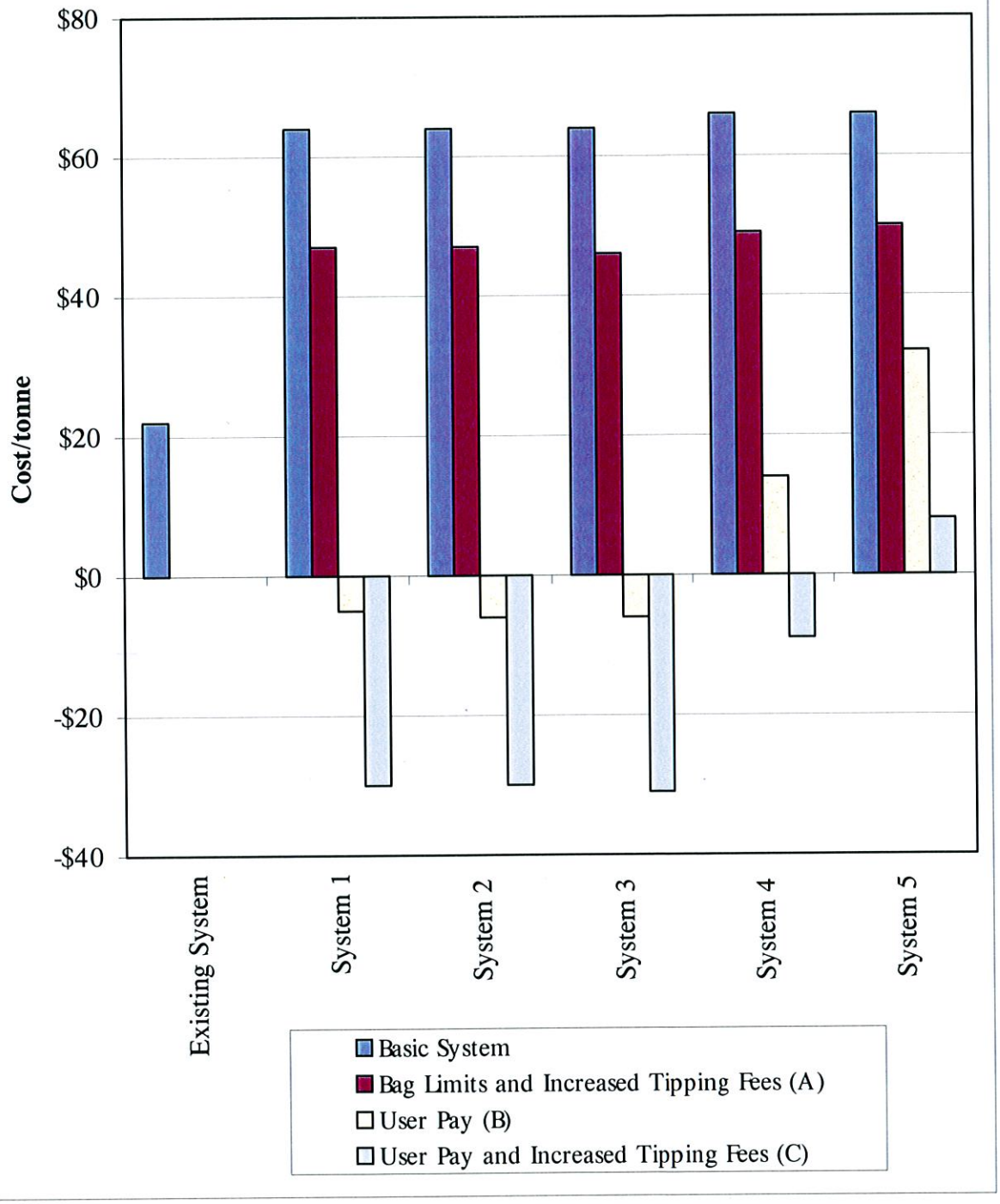

TABLE 5.6
NET COST OF POTENTIAL WASTE DIVERSION SYSTEMS
(COST PER TONNE)

Options	Basic System	Bag Limits and Increased Tipping Fees (A)	User Pay (B)	User Pay and Increased Tipping Fees (C)
Existing System	$22	-	-	-
System 1: Status Quo	$64	$47	($5)	($30)
System 2: Yard Waste Bans and Increased Yard Waste Collection	$64	$47	($6)	($30)
System 3: Curbside Collection of OCC	$64	$46	($6)	($31)
System 4: Expanded Recyclables	$66	$49	$14	($9)
System 5: Organics Processing	$66	$50	$32	$8

Source: Pages 1 through 21 in Appendix E
Based on a total waste stream of 80,558 tonnes

5.10 System Evaluation Summary

The potential waste diversion systems were evaluated as to their suitability for implementation in the City, based on the information developed in the previous sections.

For two of the criteria, **marketability of materials** and **compliance with legislation**, it was found that all of the systems equally met the criteria, and therefore the systems have not been further evaluated for these criteria.

For three criteria, **overall system cost**, **diversion from landfill**, and **public acceptability**, it was deemed necessary to evaluate all 20 waste diversion/collection systems, because the method of implementation would affect the evaluation for that particular criteria. The results of the evaluation of for all 20 potential waste diversion systems are shown in Table 5.7 for these criteria.

For the remaining criteria, it was found that the method of implementation would not have any affect on the evaluation, therefore only the five main waste diversion/collection systems were evaluated. This evaluation is shown in Table 5.8.

TABLE 5.7
EVALUATION OF WASTE DIVERSION SYSTEM COMPONENTS
(COSTS, DIVERSION AND PUBLIC ACCEPTABILITY)

System	Overall System Cost	Diversion	Public Acceptability
System 1: Status Quo	$64 per tonne	10%	• No change from current system.
System 1A: Status Quo with bag limits and increased tipping fees	$47 per tonne • Additional revenue received from increased tipping fees	21%	• Increased tipping fees may be opposed by business sector
System 1B: Status Quo with user fees	($5) per tonne • Additional revenue received from user fees	15%	• User fees may be opposed by residents
System 1C: Status Quo with user fees and increased tipping fees	($30) per tonne • Additional revenue received from user fees and increased tipping fees	23%	• Increased tipping fees may be opposed by business sector • User fees may be opposed by residents
System 2: Increased yard waste collection	$64 per tonne	12%	• Little change from current system
System 2A: Increased yard waste collection with bag limits and increased tipping fees	$47 per tonne • Additional revenue received from increased tipping fees	22%	• Increased tipping fees may be opposed by business sector
System 2B: Increased yard waste collection with user fees	($6) per tonne • Additional revenue received from user fees	17%	• User fees may be opposed by residents
System 2C: Increased yard waste collection with user fees and increased tipping fees	($30) per tonne • Additional revenue received from user fees and increased tipping fees	23%	• Increased tipping fees may be opposed by business sector • User fees may be opposed by residents
System 3: Curbside collection of OCC	$64 per tonne	13%	• Little change from current system
System 3A: Curbside collection of OCC with bag limits and increased tipping fees	$46 per tonne • Additional revenue received from increased tipping fees	22%	• Increased tipping fees may be opposed by business sector
System 3B: Curbside collection of OCC with user fees	($6) per tonne • Additional revenue received from user fees	17%	• User fees may be opposed by residents
System 3C: Curbside collection of OCC with user fees and increased tipping fees	($31) per tonne • Additional revenue received from user fees and increased tipping fees	23%	• Increased tipping fees may be opposed by business sector • User fees may be opposed by residents
System 4: Expanded Recycling	$66 per tonne	18%	• Little change from current system

TABLE 5.7
EVALUATION OF WASTE DIVERSION SYSTEM COMPONENTS
(COSTS, DIVERSION AND PUBLIC ACCEPTABILITY)

System	Overall System Cost	Diversion	Public Acceptability
System 4A: Expanded recycling with bag limits and increased tipping fees	$49 per tonne • Additional revenue received from increased tipping fees	28%	• Increased tipping fees may be opposed by business sector
System 4B: Expanded recycling with user fees	$14 per tonne • Additional revenue received from user fees	23%	• User fees may be opposed by residents
System 4C: Expanded recycling with user fees and increased tipping fees	($9) per tonne • Additional revenue received from user fees and increased tipping fees	30%	• Increased tipping fees may be opposed by business sector • User fees may be opposed by residents
System 5: Organic waste composting	$66 per tonne	37%	• Requirement to separate organic waste
System 5A: Organic waste composting with bag limits and increased tipping fees	$50 per tonne • Additional revenue received from increased tipping fees	49%	• Increased tipping fees may be opposed by business sector • Requirement to separate organic waste
System 5B: Organic waste composting with user fees	$32 per tonne • Additional revenue received from user fees	44%	• User fees may be opposed by residents • Requirement to separate organic waste
System 5C: Organic waste composting with user fees and increased tipping fees	$8 per tonne • Additional revenue received from user fees and increased tipping fees	52%	• Increased tipping fees may be opposed by business sector • User fees may be opposed by residents • Requirement to separate organic waste

TABLE 5.8
EVALUATION OF WASTE DIVERSION SYSTEM COMPONENTS
(FLEXIBILITY, PRIVATE SECTOR AND PARTNERSHIPS)

System	Flexibility	Availability and Expertise of the Private Sector	Partnership Possibilities
System 1: Status Quo	• Little flexibility for increases in quantity or mix of recyclables • Ability to increase quantities of yard waste • No ability for composting other organics	• Private sector involvement may be limited due to the size of current operations	• Little or no opportunity for funding partners • Comparatively low WDO per tonne funding
System 2: Increased Yard Waste Collection	• Little flexibility for increase in quantity or mix of recyclables • Ability to increase quantities of yard waste • No ability for composting other organics	• Private sector involvement may be limited due to the number of licensed composting facilities in the area	• Little opportunity for funding partners • Comparatively low WDO per tonne funding
System 3: Curbside Collection of OCC	• Little flexibility for increases in quantity or mix of recyclables • Ability to increase quantities of yard waste • No ability for composting other organics	• Private sector involvement may be limited due to the size of current operations	• Little opportunity for funding partners • Comparatively low WDO per tonne funding
System 4: Expanded Recycling	• Flexibility for increases in quantity or mix of recyclables • Ability to increase quantities of yard waste • No ability for composting other organics	• Increased private sector involvement due to the development of new recycling facility	• Opportunities for infrastructure funding from Federal Government • Comparatively high WDO per tonne funding
System 5: Organic Waste Composting	• Flexibility for increases in quantity or mix of recyclables • Flexibility for increases in quantity or mix of organics	• Increased private sector involvement due to the development of new recycling and composting facilities • Potential industrial partners	• Opportunities for infrastructure funding from Federal Government • Opportunity to partner with OCWA for composting facility • Comparatively high WDO per tonne funding

6. CONCLUSIONS

Five (5) main waste diversion/collection systems were evaluated for the City. Each system had four implementation options, which resulted in 20 different waste diversion/collection systems. Based on the evaluation, the following conclusions can be made.

1. The cost of the current waste management system in the City is $22 per tonne. This cost is expected to increase significantly when the existing municipal landfill site reaches capacity and City is required to locate, finance and operate alternative waste disposal capacity.

2. The only waste diversion system that is expected to allow the City to reach 50% diversion of the overall waste stream is System 5 with user fees and increased tipping fees in place. This system includes the following components:

   - curbside collection of expanded recyclables;
   - processing of recyclables from the IC&I sector;
   - curbside collection of organics;
   - composting of organics from the IC&I sector;
   - leaf and yard waste collection (13 time/yr/hh);
   - landfill ban (yard waste);
   - public education;
   - backyard composting;
   - Reuse Centre;
   - HSW depot:
   - user fees: and
   - increased tipping fees.

3. The WDO recommends a waste diversion goal for WDO funded programs of 44% for the residential waste stream by 2005. The two System 4 options that incorporate user fees, and the System 5 options that include either bag limits or user fees meet or exceed the 44% WDO goal.

4. Systems 4 and 5 provide the greatest flexibility because with these systems the City would construct new recycling and composting facilities that would be able to adapt to increased quantities of recovered materials, and a broader range of recyclables and organics.

5. The materials and products generated from all of the systems should be readily marketable.

6. There is interest from the private sector in working with the City to develop a waste diversion/collection system.

7. There are a number of opportunities for the City to partner with other levels of government or the industry sector in the development and operation of a waste diversion system, such as:

   - Federal funding programs;
   - The Ontario Clean Water Agency (OCWA);
   - The Waste Diversion Organization (WDO); and,
   - Local industries.

   Systems 4 and 5 have the greatest potential for partnerships.

8. All of the proposed waste diversion/collection systems comply with current legislation.

9. Residents and businesses in the City should be consulted to determine the public acceptability of the proposed systems.

All of which is respectfully submitted,

Pamela Russell, P.Eng.

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APPENDIX A

MASS BALANCE TABLES

Assumptions Used in Mass Balance Calculations

Residential Curbside Collection

1. 50% recovery assumed if no incentive for diversion
2. 60% recovery assumed if bag limits in place
3. 70% recovery assumed if financial incentives in place (user fees or increased tipping fees)

Depot Collection

1. 30% recovery assumed for depot programs if bag limits in place
2. 35% recovery assumed for depot programs if financial incentives in place (user fees or increased tipping fees)

Other Programs

1. Residential waste reduction increases by 500 tpy if bag limits or user pay is in place
2. Backyard composting increases by 300 tpy with bag limits and 731 tpy (60% participation) with user fees
3. Material to reuse centre doubles with bag limits or user fees
4. Public drop quantities decrease by 35% if tipping fees at the landfill increase
5. A yard waste ban diverts 60% of the yard waste from landfill
6. IC&I waste reduction increases by 5000 tpy if tipping fees increase.
7. 135 tonnes of HSW will go to the HSW depot instead of in the municipal waste collection
8. IC&I recyclables are recovered when a new MRF is constructed

	Total Available	30% recovery	35% recovery	50% recovery	60% recovery	70% recovery
Residential Blue Box materials (trad.)	5351			2676	3211	3746
Residential yard waste	2960			1480	1776	2072
Residential OCC	797	239	279	399	478	558
Residential Blue Box materials (exp.)	10427			5214	6256	7299
Residential organics (excl. yd waste)	7218			3609	4331	5053
IC&I OCC	1548	464	542			
IC&I recyclables	7293			3647	4376	
IC&I yard waste	1877		657	939	1126	
IC&I organics (excl. yd. waste)	4994			2497	2996	

Note: Residential quantities include single family residential and public drop off
Total available quantities as per Table 3.1 in Waste Diversion System Components Report
All quantities in tonnes

TSH

Mass Balance for Waste Diversion System 1
Status Quo System

	System 1	System 1A		System 1B		System 1C	
	Status Quo	Bag limits and high tipping fee		User Pay		User Pay & high tipping fee	
		Difference	Total	Difference	Total	Difference	Total
Residential Waste Stream:							
Municipal waste collection	18,554	-1012	17,542	-4,298	14,256	-2,118	16,436
Collection of recyclables	2,133	1078	3,211	1,613	3,746	1,613	3,746
Public drop-off waste	6,230	-2180	4,050	0	6,230	-2,180	4,050
OCC to depots	50	189	239	229	279	229	279
Yard waste collection	300	300	600	400	700	400	700
Yard waste to private composting	944	100	1,044	0	944	100	1,044
Organic waste to compost plant							
Backyard composting	976	300	1,276	731	1,707	731	1,707
Reuse Centre	825	825	1,650	825	1,650	825	1,650
HSW depot	135		135		135		135
Brush	120	-100	20		120	-100	20
Tires	10		10		10		10
Residential waste reduction	0	500	500	500	500	500	500
Total residential waste	30,277	0	30,277	0	30,277	0	30,277
IC&I Waste Stream:							
IC&I waste delivered to landfill	27,985	-2601	25,384		27,985	-2,601	25,384
municipal departments waste	1,565		1,565		1,565		1,565
OCC waste to depots	250	292	542		250	292	542
Yard waste to private composting	0	657	657			657	657
IC&I recyclables to the MRF	1,300	0	1,300	0	1,300	0	1,300
Organic waste to compost plant							
Scrap metal	575	-201	374		575	-201	374
CSD brush	431		431		431		431
Shingles	1,197	-419	778		1,197	-419	778
Asbestos	43	-15	28		43	-15	28
Contaminated Soils	7,750	-2713	5,037		7,750	-2,713	5,037
Sewage sludge	9,185		9,185		9,185		9,185
IC&I waste reduction	0	5000	5,000		0	5,000	5,000
Total IC&I waste	50,281	0	50,281	0	50,281	0	50,281
Summary:							
Residential waste diverted	5,493		8,685		9,791		9,791
Total residential waste	30,277		30,277		30,277		30,277
Diversion rate for residential waste	**18.1%**		**28.7%**		**32.3%**		**32.3%**
Total waste diverted	8,049		16,989		12,347		18,095
Total waste	80,558		80,558		80,558		80,558
Diversion rate for total waste stream	**10.0%**		**21.1%**		**15.3%**		**22.5%**

All quantities in tonnes

Mass Balance for Waste Diversion System 2
Increased Yard Waste Collection and Yard Waste bans

	Status Quo	System 2 Basic System		System 2A Bag limits and high tipping fee		System 2B User Pay		System 2C User Pay and high tipping fee	
		Diff.	Total	Diff.	Total	Diff.	Total	Diff.	Total
Residential Waste Stream:									
Municipal waste collection	18,554	-1093	17,461	-1312	17,242	-4,648	13,906	-2,418	16,136
Collection of recyclables	2,133	543	2,676	1078	3,211	1,613	3,746	1,613	3,746
Public drop-off waste	6,230		6,230	-2180	4,050	0	6,230	-2,180	4,050
OCC to depots	50		50	189	239	229	279	229	279
Yard waste collection	300	500	800	600	900	700	1,000	700	1,000
Yard waste to private composting	944	50	994	100	1,044	50	994	100	1,044
Organic waste to compost plant									
Backyard composting	976		976	300	1,276	731	1,707	731	1,707
Reuse Centre	825		825	825	1,650	825	1,650	825	1,650
HSW depot	135		135		135		135		135
Brush	120		120	-100	20		120	-100	20
Tires	10		10		10		10		10
Residential waste reduction	0		0	500	500	500	500	500	500
Total residential waste	30,277	0	30,277	0	30,277	0	30,277	0	30,277
IC&I Waste Stream:									
IC&I waste delivered to landfill	27,985	-695	27,290	-2639	25,346	-695	27,290	-2,639	25,346
municipal departments waste	1,565		1,565		1,565		1,565		1,565
OCC waste to depots	250		250	292	542		250	292	542
Yard waste to private composting	0	1126	1,126	1126	1,126	1,126	1,126	1,126	1,126
IC&I recyclables to the MRF	1,300	0	1,300	0	1,300	0	1,300	0	1,300
Organic waste to compost plant			0						
Scrap metal	575		575	-201	374		575	-201	374
CSD brush	431	-431	0	-431	0	-431	0	-431	0
Shingles	1,197		1,197	-419	778		1,197	-419	778
Asbestos	43		43	-15	28		43	-15	28
Contaminated Soils	7,750		7,750	-2713	5,037		7,750	-2,713	5,037
Sewage sludge	9,185		9,185		9,185		9,185		9,185
IC&I waste reduction	0		0	5000	5,000		0	5,000	5,000
Total IC&I waste	50,281	0	50,281	0	50,281	0	50,281	0	50,281
Summary:									
Residential waste diverted	5,493		6,586		8,985		10,141		10,091
Total residential waste	30,277		30,277		30,277		30,277		30,277
Diversion rate for residential waste	**18.1%**		**21.8%**		**29.7%**		**33.5%**		**33.3%**
Total waste diverted	8,049		9,837		17,327		13,392		18,433
Total waste	80,558		80,558		80,558		80,558		80,558
Diversion rate for total waste stream	**10.0%**		**12.2%**		**21.5%**		**16.6%**		**22.9%**

All quantities in tonnes

TSH

Mass Balance for Waste Diversion System 3
Curbside Collection of OCC

	Status Quo	System 3 Basic System		System 3A Bag limits and high tipping fee		System 3B User Pay		System 3C User Pay and high tipping fee	
		Diff.	Total	Diff.	Total	Diff.	Total	Diff.	Total
Residential Waste Stream:									
Municipal waste collection	18,554	-1442	17,112	-1551	17,003	-4,927	13,627	-2,697	15,857
Collection of recyclables	2,133	942	3,075	1556	3,689	2,171	4,304	2,171	4,304
Public drop-off waste	6,230		6,230	-2180	4,050	0	6,230	-2,180	4,050
OCC to depots	50	-50	0	-50	0	-50	0	-50	0
Yard waste collection	300	500	800	600	900	700	1,000	700	1,000
Yard waste to private composting	944	50	994	100	1,044	50	994	100	1,044
Organic waste to compost plant	0		0						
Backyard composting	976		976	300	1,276	731	1,707	731	1,707
Reuse Centre	825		825	825	1,650	825	1,650	825	1,650
HSW depot	135		135		135		135		135
Brush	120		120	-100	20		120	-100	20
Tires	10		10		10		10		10
Residential waste reduction	0		0	500	500	500	500	500	500
Total residential waste	30,277	0	30,277	0	30,277	0	30,277	0	30,277
IC&I Waste Stream:									
IC&I waste delivered to landfill	27,985	-695	27,290	-2639	25,346	-695	27,290	-2,639	25,346
municipal departments waste	1,565		1,565		1,565		1,565		1,565
OCC waste to depots	250	-250	0	-250	0	-250	0	-250	0
Yard waste to private composting	0	1126	1,126	1126	1,126	1,126	1,126	1,126	1,126
IC&I recyclables to the MRF	1,300	250	1,550	542	1,842	250	1,550	542	1,842
Organic waste to compost plant									
Scrap metal	575		575	-201	374		575	-201	374
CSD brush	431	-431	0	-431	0	-431	0	-431	0
Shingles	1,197		1,197	-419	778		1,197	-419	778
Asbestos	43		43	-15	28		43	-15	28
Contaminated Soils	7,750		7,750	-2713	5,037		7,750	-2,713	5,037
Sewage sludge	9,185		9,185		9,185		9,185		9,185
IC&I waste reduction	0		0	5000	5,000		0	5,000	5,000
Total IC&I waste	50,281	0	50,281	0	50,281	0	50,281	0	50,281
Summary:									
Residential waste diverted	5,493		6,935		9,224		10,420		10,370
Total residential waste	30,277		30,277		30,277		30,277		30,277
Diversion rate for residential waste	**18.1%**		**22.9%**		**30.5%**		**34.4%**		**34.3%**
Total waste diverted	8,049		10,186		17,566		13,671		18,712
Total waste	80,558		80,558		80,558		80,558		80,558
Diversion rate for total waste stream	**10.0%**		**12.6%**		**21.8%**		**17.0%**		**23.2%**

All quantities in tonnes

Mass Balance for Waste Diversion System 4
Recycling of Expanded Materials

	Status Quo	System 4 Basic System		System 4A Bag limits and high tipping fee		System 4B User Pay		System 4C User Pay and high tipping fee	
		Diff.	Total	Diff.	Total	Diff.	Total	Diff.	Total
Residential Waste Stream:									
Municipal waste collection	18,554	-3581	14,973	-4118	14,436	-7,922	10,632	-5,692	12,862
Collection of recyclables	2,133	3081	5,214	4123	6,256	5,166	7,299	5,166	7,299
Public drop-off waste	6,230		6,230	-2180	4,050	0	6,230	-2,180	4,050
OCC to depots	50	-50	0	-50	0	-50	0	-50	0
Yard waste collection	300	500	800	600	900	700	1,000	700	1,000
Yard waste to private composting	944	50	994	100	1,044	50	994	100	1,044
Organic waste to compost plant	0		0						
Backyard composting	976		976	300	1,276	731	1,707	731	1,707
Reuse Centre	825		825	825	1,650	825	1,650	825	1,650
HSW depot	135		135		135		135	-100	35
Brush	120		120	-100	20		120		120
Tires	10		10		10		10		10
Residential waste reduction	0		0	500	500	500	500	500	500
Total residential waste	30,277	0	30,277	0	30,277	0	30,277	0	30,277
IC&I Waste Stream:									
IC&I waste delivered to landfill	27,985	-2792	25,193	-5173	22,812	-2,792	25,193	-5,173	22,812
municipal departments waste	1,565		1,565		1,565		1,565		1,565
OCC waste to depots	250	-250	0	-250	0	-250	0	-250	0
Yard waste to private composting	0	1126	1,126	1126	1,126	1,126	1,126	1,126	1,126
IC&I recyclables to the MRF	1,300	2347	3,647	3076	4,376	2,347	3,647	3,076	4,376
Organic waste to compost plant									
Scrap metal	575		575	-201	374		575	-201	374
CSD brush	431	-431	0	-431	0	-431	0	-431	0
Shingles	1,197		1,197	-419	778		1,197	-419	778
Asbestos	43		43	-15	28		43	-15	28
Contaminated Soils	7,750		7,750	-2713	5,037		7,750	-2,713	5,037
Sewage sludge	9,185		9,185		9,185		9,185		9,185
IC&I waste reduction	0		0	5000	5,000		0	5,000	5,000
Total IC&I waste	50,281	0	50,281	0	50,281	0	50,281	0	50,281
Summary:									
Residential waste diverted	5,493		9,074		11,791		13,415		13,365
Total residential waste	30,277		30,277		30,277		30,277		30,277
Diversion rate for residential waste	**18.1%**		**30.0%**		**38.9%**		**44.3%**		**44.1%**
Total waste diverted	8,049		14,422		22,667		18,763		24,241
Total waste	80,558		80,558		80,558		80,558		80,558
Diversion rate for total waste stream	**10.0%**		**17.9%**		**28.1%**		**23.3%**		**30.1%**

All quantities in tonnes

TSH

Mass Balance for Waste Diversion System 5
Organic Waste Composting

	Status Quo	System 5 Basic System		System 5A Bag limits and high tipping fee		System 5B User Pay		System 5C User Pay and high tipping fee	
		Diff.	Total	Diff.	Total	Diff.	Total	Diff.	Total
Residential Waste Stream:									
Municipal waste collection	18,554	-7190	11,364	-8449	10,105	-12,975	5,579	-10,745	7,809
Collection of recyclables	2,133	3081	5,214	4123	6,256	5,166	7,299	5,166	7,299
Public drop-off waste	6,230		6,230	-2180	4,050	0	6,230	-2,180	4,050
OCC to depots	50	-50	0	-50	0	-50	0	-50	0
Yard waste collection	300	500	800	600	900	700	1,000	700	1,000
Yard waste to private composting	944	50	994	100	1,044	50	994	100	1,044
Organic waste to compost plant	0	3609	3,609	4331	4,331	5,053	5,053	5,053	5,053
Backyard composting	976		976	300	1,276	731	1,707	731	1,707
Reuse Centre	825		825	825	1,650	825	1,650	825	1,650
HSW depot	135		135		135		135		135
Brush	120		120	-100	20		120	-100	20
Tires	10		10		10		10		10
Residential waste reduction	0		0	500	500	500	500	500	500
Total residential waste	30,277	0	30,277	0	30,277	0	30,277	0	30,277
IC&I Waste Stream:									
IC&I waste delivered to landfill	27,985	-5289	22,696	-8169	19,816	-5,289	22,696	-8,169	19,816
municipal departments waste	1,565		1,565		1,565		1,565		1,565
OCC waste to depots	250	-250	0	-250	0	-250	0	-250	0
Yard waste to private composting	0	1126	1,126	1126	1,126	1,126	1,126	1,126	1,126
IC&I recyclables to the MRF	1,300	2347	3,647	3076	4,376	2,347	3,647	3,076	4,376
Organic waste to compost plant		11682	11,682	12181	12,181	11,682	11,682	12,181	12,181
Scrap metal	575		575	-201	374		575	-201	374
CSD brush	431	-431	0	-431	0	-431	0	-431	0
Shingles	1,197		1,197	-419	778		1,197	-419	778
Asbestos	43		43	-15	28		43	-15	28
Contaminated Soils	7,750		7,750	-2713	5,037		7,750	-2,713	5,037
Sewage sludge	9,185	-9185	0	-9185	0	-9185	0	-9185	0
IC&I waste reduction	0		0	5000	5,000		0	5,000	5,000
Total IC&I waste	50,281	0	50,281	0	50,281	0	50,281	0	50,281
Summary:									
Residential waste diverted	5,493		12,683		16,122		18,468		18,418
Total residential waste	30,277		30,277		30,277		30,277		30,277
Diversion rate for residential waste	18.1%		41.9%		53.2%		61.0%		60.8%
Total waste diverted	8,049		29,713		39,179		35,498		41,475
Total waste	80,558		80,558		80,558		80,558		80,558
Diversion rate for total waste stream	10.0%		36.9%		48.6%		44.1%		51.5%

All quantities in tonnes

APPENDIX B

LIST OF EXISTING EQUIPMENT

City of Sault Ste. Marie - List of Existing Equipment

Waste Collection

- 1994 Ford model CRT 8000 c/w Heil model 5000, 25 cubic yard packer
- 1995 Ford model CRT 8000 c/w Heil model 5000, 25 cubic yard packer
- 1996 Freightliner model FL 80 c/w Heil model 5000, 25 cubic yard packer
- 2000 Mack model MR 688S c/w Heil model 5000, 25 cubic yard packer
- 2000 Mack model MR 688S c/w Heil model 5000, 25 cubic yard packer

Blue Box Program

- three 1990 Walinga top-loading recycling vehicles
- 1 Economy #5042ATX Conveyor/Baler System
- 1 Formil Ferrous Separator/Conveyor System
- 1 Sorting Conveyor
- 5 Dump carts
- 2 Thomas Model T-132 Skid Steer Loaders, propane powered
- 1 Cat #V40D Lift Truck
- a 4960 ft^2 building

APPENDIX C

SPOT MARKET PRICES

The CSR Sheet

Reported Spot Market Prices as of May 15th

CSR CORPORATIONS SUPPORTING RECYCLING

CURRENT $ (2000-2001)

MATERIALS	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
Aluminum	1880	1909	1909	1902	1902	1808	1806	1780	1866	1868	1834	1840
Steel (mill price)	95	95	95	95	84	73	73	89	78	89	89	89
Steel (broker price)	51	51	50	52	52	45	45	43	29	32	32	32
Glass (clear)	50	50	50	50	50	50	50	50	50	50	50	50
Glass (coloured)	24	24	24	24	24	24	24	24	24	(2)	(3)	(6)
Glass (3 coloured)	(15)	(15)	(15)	(15)	(15)	(15)	(15)	(15)	(15)	(15)	(15)	(15)
PET	320	342	395	390	390	401	396	386	393	395	393	390
HDPE (mixed)	370	397	460	460	503	503	413	330	325	325	359	355
Plastic Tubs & Lids	5	5	5	5	5	5	5	5	5	5	5	5
Film Plastic	5	15	15	15	15	15	15	25	25	23	23	25
Polystyrene	125	125	125	125	125	125	125	125	125	125	125	125
ONP (#8)	140	133	116	114	111	103	98	83	76	76	76	75
OCC	155	145	82	71	63	65	60	60	59	59	59	51
Res. Mixed Paper	87	82	70	64	55	49	46	44	40	40	40	36
Polycoat Containers	95	95	95	90	90	90	75	65	65	60	58	55
CSR Composite Index	151	147	131	129	126	119	115	105	102	101	100	98

HISTORICAL AVERAGE $ (1990-2001)

MATERIALS	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001 to date
Aluminum	1118	866	838	758	1731	2045	2045	1827	1595	1608	1893	1838
Steel (mill price)	77	77	80	80	97	141	141	146	121	101	94	87
Steel (broker price)											52	34
Glass (clear)	47	47	47	47	47	48	47	47	49	50	50	50
Glass (coloured)	44	44	44	44	44	44	42	39	27	24	24	7
Glass (3 coloured)							0	(4)	(25)	(20)	(15)	(15)
PET	220	220	141	141	181	650	650	155	300	144	326	391
HDPE (mixed)	90	90	90	90	259	345	356	447	226	211	373	339
Plastic Tubs & Lids						100	100	76	66	3	5	5
Film Plastic	0	0	28	40	40	40	40	(4)	(5)	(12)	7	24
Polystyrene					88	110	125	125	125	125	125	125
ONP (#8)	5	15	28	28	80	214	159	31	48	76	118	77
OCC	28	28	28	30	94	159	214	97	73	99	112	58
Res. Mixed Paper	0	20	20	20	38	159	120	5	17	20	65	40
Polycoat Containers						189	198	99	26	24	83	61

[ ] Indicates FOB the municipality [ ] Indicates delivery to mill or industry

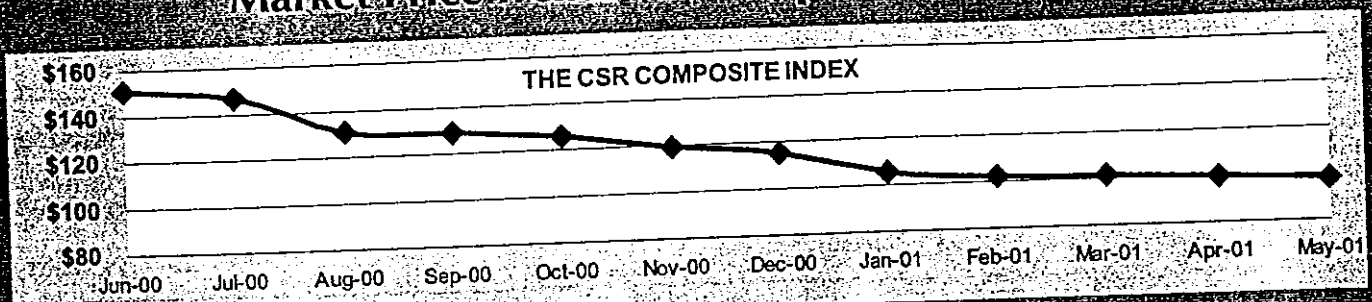
Notes:

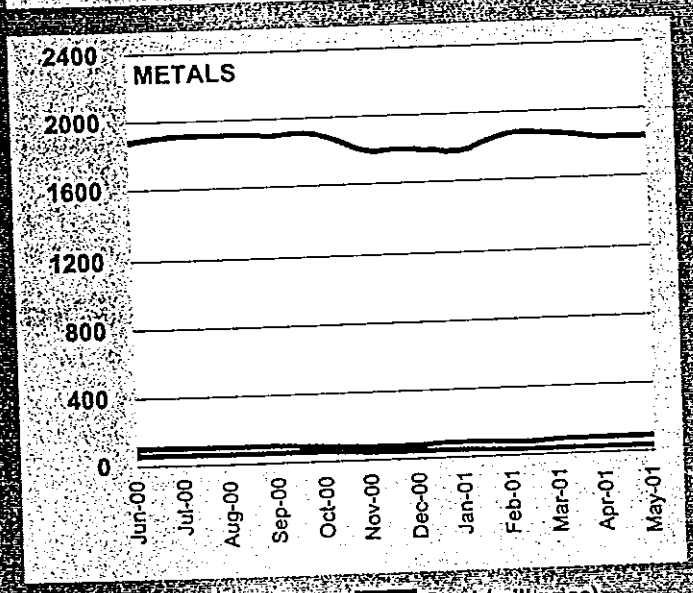
1. Average spot market prices are given in Canadian $ per metric tonne.
2. Market prices do not reflect special contract or pricing arrangements which may exist. The spot market prices are based on information from key network contacts, but should not be taken as the market prices being paid for residential material across Ontario.
3. These prices are based on post-consumer residential materials, baled to specifications and uncontaminated.
4. The CSR Composite Index is calculated using a provincial average of multi-material program composition. A detailed breakdown is available upon request.
5. Effective January 2000, the calculation for the CSR Composite Index reflects broker's prices for steel (instead of mill prices).
6. Coloured glass pricing is based on 700 tonnes per month to NexCycle/Consumers at $24/metric tonne delivered and remainder of Ontario tonnage at -$10/metric tonne delivered.

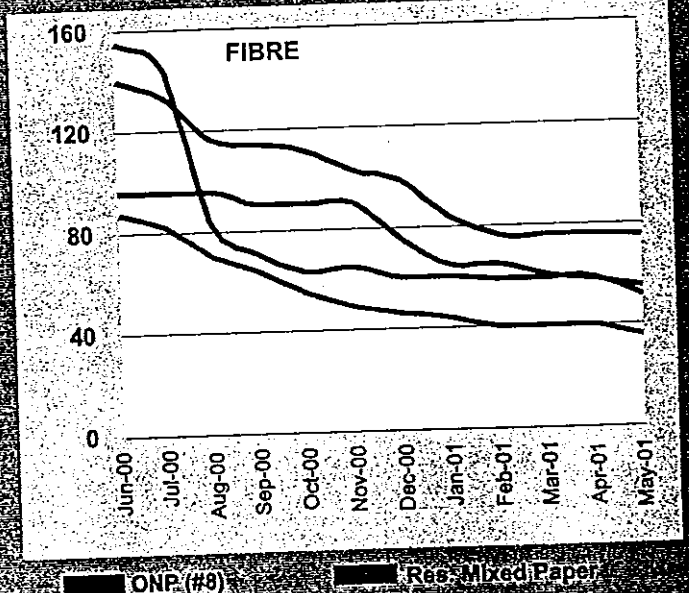
Tel: 416.594.3456, ext. 230
Fax: 416.594.3463
Toll Free: 1.888.277.2762
Email: stone@csr.org
Website: http://www.csr.org
26 Wellington Street East, Suite 601, Toronto, Ontario M5E 1S2

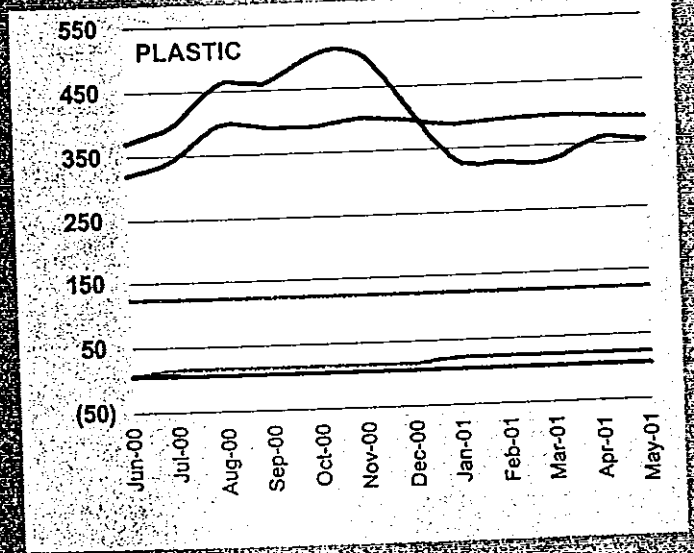
The CSR Sheet

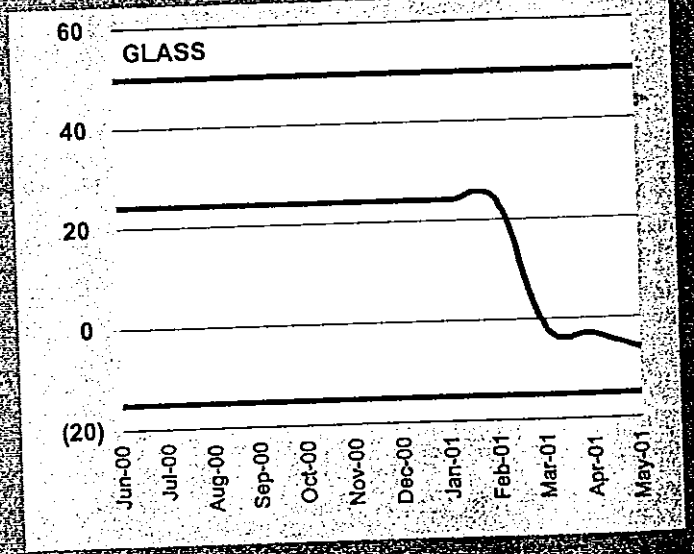
Market Price Trends (CDN $ per metric tonne)











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APPENDIX D

LANDFILL COST SUMMARY

City of Sault Ste. Marie New Greenfield Site
2 Million Tonnes of Disposal Capacity

Component	Unit	Unit Cost	Units	Total Cost	20 Year Operation 100 Year P. Closure	Cost per tonne
1. Environmental Approvals						
Environmental Assessment Act Approvals	LS			$1,000,000		
Environmental Protection Act Approvals	LS			$1,000,000		
Hearing Costs	LS			$1,200,000		
MOE Review Fees		$50,000	1	$50,000		
Detailed Design and Tender	LS			$750,000		
Sub-Total				**$4,000,000**	**$4,000,000**	**$2.00**
2. Property Acquisition and Compensation						
Land Purchase (footprint and 100m buffer)	ha	$5,000	50	$250,000		
Legal Survey	ha	$600	50	$30,000		
Compensation (within 500 metres)	ha	$2,000	170	$340,000		
Compensation (within 1000 metres)	ha	$1,000	214	$214,000		
Sub-Total				**$834,000**	**$834,000**	**$0.42**
3. Initial Site Construction						
Construct Maintenace/Admin Building	LS	$750,000	1	$750,000		
Site Access Road	km	$400,000	3	$1,200,000		
Constuct Weigh Scale & Scale House	LS	$250,000	1	$250,000		
Public Drop off Area	LS	$200,000	1	$200,000		
Gate/Fencing	m	$60	2900	$174,000		
Clearing and Grubbing	ha	$5,000	3	$15,000		
Liner and Leachate Collection System	ha	$1,000,000	3	$3,000,000		
Force Main to Sanitary Sewer	m	$80	3000	$240,000		
Pumping Station	LS	$125,000	1	$125,000		
Monitor Well Installation	each	$2,500	15	$37,500		
Power Supply	LS	$200,000	1	$200,000		
On-site Treatment Facility	LS	$1,250,000	1	$1,250,000		
Initial Excavation	m3	$7	90000	$630,000		
Sub-Total				**$8,071,500**		
Engineering and Contingency(15% of total)				$1,210,725		
Sub-Total				**$9,282,225**		
20 Year amortized cost (6%)				**$16,760,000**	**$16,760,000**	**$8.38**
4. Annual Operating Costs						
Cell Excavation	m3	$7	45000	$315,000		
Liner Installation	ha	$1,000,000	1.15	$1,150,000		
Salaried Employees and Benefits	LS	$340,000	1	$340,000		
Site Equipment	LS	$370,000	1	$370,000		
Grant In Lieu of Taxes	LS	$60,000	1	$60,000		
Landfill Monitoring and Reporting	LS	$180,000	1	$180,000		
Utilities	LS	$25,000	1	$25,000		
Road Maintenance	LS	$25,000	1	$25,000		
Building and Grounds Maintenance	LS	$60,000	1	$60,000		
Supplies	LS	$10,000	1	$10,000		
Leachate Pumping Station Maintenance	LS	$10,000	1	$10,000		
Leachate Trearment	gal	$0.05	2300000	$115,000		
Janitorial Services	LS	$5,000	1	$5,000		
Clearing and Grubbing	ha	$5,000	1.5	$7,500		
Sub-Total				**$2,672,500**		
Engineering & Contingency (10% of total)				$267,250		
Sub-Total				**$2,939,750**	**$58,795,000**	**$29.40**
5. Closure Costs						
Closure Report	LS	$50,000	1	$50,000		
Final Cover Material	m3	$15	205000	$3,075,000		
Topsoil	m3	$30	41000	$1,230,000		
Seed	m2	$2	27000	$40,500		
Removal of Facilities	LS	$100,000	1	$100,000		
Sub-Total				**$4,495,500**	**$4,495,500**	**$2.25**
6. Post Closure						
Annual Monitoring and Reporting	LS	$150,000	1	$150,000		
Site Inspections and maintenance	LS	$30,000	1	$30,000		
Leachate Pumping Station and Plant Maintenance	LS	$40,000	1	$40,000		
Leachate Treatment	gal	$0.05	115000	$5,750		
Sub-Total				**$225,750**	**$22,575,000**	**$11.29**
Leachate Plant and Pumping Station Replacement	LS	$1,375,000	4	$5,500,000		
Force Main Replacement	LS	$240,000	2	$480,000		
Sub-Total				**$5,980,000**		
20 Year amortized cost (6%)				**$10,280,000**	**$10,280,000**	**$5.14**
7.Contingency Cost	tonne	$5	2500000	$12,500,000		
Sub-Total				**$12,500,000**	**$12,500,000**	**$6.25**
Total Cost					**$130,239,500**	***$65.12***

TSH

APPENDIX E

FINANCIAL MODEL OF SYSTEMS

FINANCIAL MODEL (Existing System)			
	Tonnages	$/tonne	Annual Cost
WASTE COLLECTION			
curbside collection (single-family)	18,554	$47.05	$872,966
curbside collection (multi-family)	4,534	$13.08	$59,305
capital collection costs			$96,736
user fee revenue			$0
Subtotal waste collection	**23,088**		**$1,029,006**
DISPOSAL			
municipal waste collection	23,088		
depot (public drop off)	6,230		
IC&I waste	23,451		
municipal department waste	1,565		
sewage sludge	9,185		
other special materials (brush, tires, soils)	10,126		
incoming waste	73,645		
landfill diversion (brush, tires, scrap metal)	1,136		
landfill operating cost	72,509	$14.31	$1,037,604
landfill tipping fee ($27.50/tonne) revenue	39,807	$27.50	-$1,094,693
Subtotal disposal	**72,509**		**$57,089**
REDUCTION			$0
public education	0	$0.00	$0
residential waste reduction	0	$0.00	$0
other waste reduction	825	$0.00	$0
reuse centre	**825**		**$0**
Subtotal reduction			
RECYCLING	2,133	$214.00	$457,346
recycling collection (residential)	1,300	$0.00	$0
IC&I recyclables dropped off	3,433	$0.00	$0
recyclables processed	1,136	$50.00	$56,800
landfill diversion (brush, tires, scrap metal)	300	$111.00	$33,300
OCC recycling (depots)			$105,420
capital diversion costs	0		$0
MRF tipping fee revenue	0		$0
sale of recyclables revenue	**4,869**		**$652,866**
Subtotal recycling			
ORGANICS	300	$57.00	$17,100
yard waste collection	944	$0.00	$0
yard waste drop off	1,244	$0.00	$0
yard waste composting	976	$0.00	$0
backyard composting	0		$0
organics collection (residential)	0		$0
IC&I organics dropped off	0		$0
organics composting			$0
capital organics cost	0		$0
compost plant tipping revenue	0		$0
sale of compost revenue	**2,220**		**$17,100**
Subtotal organics			
	135	$1,000	$135,000
HSW depot	**135**		**$135,000**
Subtotal HSW depot	825		
REDUCTION	7,089	**$95**	$669,966
DIVERSION COSTS (including organics)	72,509	**$13**	$971,918
DISPOSAL & WASTE COLLECTION COSTS	135	**$1,000**	$135,000
HSW COSTS	80,558	**$22**	$1,776,884
TOTAL SYSTEM COSTS			

FINANCIAL MODEL SYSTEM 1 (Status Quo System)			
	Tonnages	$/tonne	Annual Cost
WASTE COLLECTION			
curbside collection (single-family)	18,554	$47.05	$872,966
curbside collection (multi-family)	4,534	$13.08	$59,305
capital collection costs			$96,736
user fee revenue			$0
Subtotal waste collection	**23,088**		**$1,029,006**
DISPOSAL			
municipal waste collection	23,088		
depot (public drop off)	6,230		
IC&I waste	23,451		
municipal department waste	1,565		
sewage sludge	9,185		
other special materials (brush, tires, soils)	10,126		
incoming waste	73,645		
landfill diversion (brush, tires, scrap metal)	1,136		
true cost of waste disposal	72,509	$65.00	$4,713,085
landfill tipping fee ($27.50/tonne) revenue	39,807	$27.50	-$1,094,693
Subtotal disposal	**72,509**		**$3,618,393**
REDUCTION			
public education			$0
residential waste reduction	0	$0.00	$0
other waste reduction	0	$0.00	$0
reuse centre	825	$0.00	$0
Subtotal reduction	**825**		**$0**
RECYCLING			
recycling collection (residential)	2,133	$100.00	$213,300
IC&I recyclables dropped off	1,300	$0.00	$0
recyclables processed	3,433	$65.00	$223,145
landfill diversion (brush, tires, scrap metal)	1,136	$50.00	$56,800
OCC recycling (depots)	300	$111.00	$33,300
capital diversion cost			$105,420
MRF tipping fee revenue	0		$0
sale of recyclables (@ $88.00/tonne) revenue	3,433	$88.00	-$302,104
Subtotal recycling	**4,869**		**$329,861**
ORGANICS			
yard waste collection	300	$57.00	$17,100
yard waste drop off	944	$0.00	$0
yard waste composting	1,244	$0.00	$0
backyard composting	976	$0.00	$0
organics collection (residential)	0		$0
IC&I organics dropped off	0		$0
organics composting	0		$0
capital organics cost			$0
compost plant tipping fee revenue	0		$0
sale of compost revenue	0		$0
Subtotal organics	**2,220**		**$17,100**
HSW depot	135	$1,000	$135,000
Subtotal HSW depot	**135**		**$135,000**
REDUCTION	825		
DIVERSION COSTS (including organics)	7,089	**$49**	$346,961
DISPOSAL & WASTE COLLECTION COSTS	72,509	**$64**	$4,647,399
HSW COSTS	135	**$1,000**	$135,000
TOTAL SYSTEM COSTS	80,558	**$64**	$5,129,360

FINANCIAL MODEL SYSTEM 1A (Status Quo System)			
	Tonnages	$/tonne	Annual Cost
WASTE COLLECTION			
curbside collection (single-family)	17,542	$47.05	$825,351
curbside collection (multi-family)	4,534	$13.08	$59,305
capital collection costs			$96,736
user fee revenue			$0
Subtotal waste collection	**22,076**		**$981,392**
DISPOSAL			
municipal waste collection	22,076		
depot (public drop off)	4,050		
IC&I waste	20,850		
municipal department waste	1,565		
sewage sludge	9,185		
other special materials (brush, tires, soils)	6,678		
incoming waste	64,404		
landfill diversion (brush, tires, scrap metal)	835		
true cost of waste disposal	63,569	$65.00	$4,131,985
landfill tipping fee (@$65.00/tonne) revenue	31,578	$65.00	-$2,052,570
Subtotal disposal	**63,569**		**$2,079,415**
REDUCTION			
public education			$100,000
residential waste reduction	500	$0.00	$0
other waste reduction	5,000	$0.00	$0
reuse centre	1,650	$0.00	$0
Subtotal reduction	**7,150**		**$100,000**
RECYCLING			
recycling collection (residential)	3,211	$100.00	$321,100
IC&I recyclables dropped off	1,300	$0.00	$0
recyclables processed	4,511	$65.00	$293,215
landfill diversion (brush, tires, scrap metal)	835	$50.00	$41,750
OCC recycling (depots)	781	$111.00	$86,691
capital diversion cost			$105,420
MRF tipping fee revenue	0		$0
sale of recyclables (@ $88.00/tonne) revenue	4,511	$88.00	-$396,968
Subtotal recycling	**6,127**		**$451,208**
ORGANICS			
yard waste collection	600	$57.00	$34,200
yard waste drop off	1,701	$0.00	$0
yard waste composting	2,301	$0.00	$0
backyard composting	1,276	$0.00	$0
organics collection (residential)	0		$0
IC&I organics dropped off	1,300	$0.00	$0
organics composting	0		$0
capital organics cost			$0
compost plant tipping fee revenue	0		$0
sale of compost revenue	0		$0
Subtotal organics	**3,577**		**$34,200**
HSW depot	135	$1,000	$135,000
Subtotal HSW depot	**135**		**$135,000**
REDUCTION	7,150		
DIVERSION COSTS (including organics)	9,704	**$60**	$585,408
DISPOSAL & WASTE COLLECTION COSTS	63,569	**$48**	$3,060,807
HSW COSTS	135	**$1,000**	$135,000
TOTAL SYSTEM COSTS	80,558	**$47**	$3,781,215

FINANCIAL MODEL SYSTEM 1B (Status Quo System)			
	Tonnages	$/tonne	Annual Cost
WASTE COLLECTION			
curbside collection (single-family)	14,256	$47.05	$670,745
curbside collection (multi-family)	4,534	$13.08	$59,305
capital collection costs			$96,736
user fee (2.1 bags/week @ $2.00/bag) revenue			-$5,331,580
Subtotal waste collection	**18,790**		**-$4,504,794**
DISPOSAL			
municipal waste collection	18,790		
depot (public drop off)	6,230		
IC&I waste	23,451		
municipal department waste	1,565		
sewage sludge	9,185		
other special materials (brush, tires, soils)	10,126		
incoming waste	69,347		
landfill diversion (brush, tires, scrap metal)	1,136		
true cost of waste disposal	68,211	$65.00	$4,433,715
landfill tipping fee (@$27.50/tonne) revenue	39,807	$27.50	-$1,094,693
Subtotal disposal	**68,211**		**$3,339,023**
REDUCTION			
public education			$100,000
residential waste reduction	500	$0.00	$0
other waste reduction	0	$0.00	$0
reuse centre	1,650	$0.00	$0
Subtotal reduction	**2,150**		**$100,000**
RECYCLING			
recycling collection (residential)	3,746	$100.00	$374,600
IC&I recyclables dropped off	1,300	$0.00	$0
recyclables processed	5,046	$65.00	$327,990
landfill diversion (brush, tires, scrap metal)	1,136	$50.00	$56,800
OCC recycling (depots)	529	$111.00	$58,719
capital diversion cost			$105,420
MRF tipping fee revenue	0		$0
sale of recyclables (@ $88.00/tonne) revenue	5,046	$88.00	-$444,048
Subtotal recycling	**6,711**		**$479,481**
ORGANICS			
yard waste collection	700	$57.00	$39,900
yard waste drop off	944	$0.00	$0
yard waste composting	1,644	$0.00	$0
backyard composting	1,707	$0.00	$0
organics collection (residential)	0		$0
IC&I organics dropped off	1,300	$0.00	$0
organics composting	0		$0
capital organics cost			$0
compost plant tipping fee revenue	0		$0
sale of compost revenue	0		$0
Subtotal organics	**3,351**		**$39,900**
HSW depot	135	$1,000	$135,000
Subtotal HSW depot	**135**		**$135,000**
REDUCTION	2,150		
DIVERSION COSTS (including organics)	10,062	**$62**	$619,381
DISPOSAL & WASTE COLLECTION COSTS	68,211	**-$17**	-$1,165,772
HSW COSTS	135	**$1,000**	$135,000
TOTAL SYSTEM COSTS	80,558	**-$5**	-$411,391

FINANCIAL MODEL SYSTEM 1C (Status Quo System)			
	Tonnages	$/tonne	Annual Cost
WASTE COLLECTION			
curbside collection (single-family)	16,436	$47.05	$773,314
curbside collection (multi-family)	4,534	$13.08	$59,305
capital collection costs			$96,736
user fee (2.4 bags/week @ $2.00/bag) revenue			-$6,093,236
Subtotal waste collection	**20,970**		**-$5,163,881**
DISPOSAL	20,970		
municipal waste collection	4,050		
depot (public drop off)	20,850		
IC&I waste	1,565		
municipal department waste	9,185		
sewage sludge	6,678		
other special materials (brush, tires, soils)	63,298		
incoming waste	835		
landfill diversion (brush, tires, scrap metal)	62,463	$65.00	$4,060,095
true cost of waste disposal	31,578	$65.00	-$2,052,570
landfill tipping fee (@$65.00/tonne) revenue	**62,463**		**$2,007,525**
Subtotal disposal			
REDUCTION			$100,000
public education	500	$0.00	$0
residential waste reduction	5,000	$0.00	$0
other waste reduction	1,650	$0.00	$0
reuse centre	**7,150**		**$100,000**
Subtotal reduction			
RECYCLING	3,746	$100.00	$374,600
recycling collection (residential)	1,300	$0.00	$0
IC&I recyclables dropped off	5,046	$65.00	$327,990
recyclables processed	835	$50.00	$41,750
landfill diversion (brush, tires, scrap metal)	821	$111.00	$91,131
OCC recycling (depots)			$105,420
capital diversion cost	0		$0
MRF tipping fee revenue	5,046	$88.00	-$444,048
sale of recyclables (@ $88.00/tonne) revenue	**6,702**		**$496,843**
Subtotal recycling			
ORGANICS	700	$57.00	$39,900
yard waste collection	1,701	$0.00	$0
yard waste drop off	2,401	$0.00	$0
yard waste composting	1,707	$0.00	$0
backyard composting	0		$0
organics collection (residential)	0		$0
IC&I organics dropped off	0		$0
organics composting			$0
capital organics cost	0		$0
compost plant tipping fee revenue	0		$0
sale of compost revenue	**4,108**		**$39,900**
Subtotal organics			
	135	$1,000	$135,000
HSW depot	**135**		**$135,000**
Subtotal HSW depot	7,150		
REDUCTION	10,810	**$59**	$636,743
DIVERSION COSTS (including organics)	62,463	**-$51**	-$3,156,356
DISPOSAL & WASTE COLLECTION COSTS	135	**$1,000**	$135,000
HSW COSTS	80,558	**-$30**	-$2,384,613
TOTAL SYSTEM COSTS			

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FINANCIAL MODEL SYSTEM 2 (Yard waste collection and ban)			
	Tonnages	$/tonne	Annual Cost
WASTE COLLECTION			
curbside collection (single-family)	17,461	$47.05	$821,540
curbside collection (multi-family)	4,534	$13.08	$59,305
capital collection costs			$96,736
user fee revenue			$0
Subtotal waste collection	**21,995**		**$977,581**
DISPOSAL			
municipal waste collection	21,995		
depot (public drop off)	6,230		
IC&I waste	22,756		
municipal department waste	1,565		
sewage sludge	9,185		
other special materials (brush, tires, soils)	9,695		
incoming waste	71,426		
landfill diversion (brush, tires, scrap metal)	705		
true cost of waste disposal	70,721	$65.00	$4,596,865
landfill tipping fee (@$27.50/tonne) revenue	38,681	$27.50	-$1,063,728
Subtotal disposal	**70,721**		**$3,533,138**
REDUCTION			
public education			$100,000
residential waste reduction	0	$0.00	$0
other waste reduction	0	$0.00	$0
reuse centre	825	$0.00	$0
Subtotal reduction	**825**		**$100,000**
RECYCLING			
recycling collection (residential)	2,676	$100.00	$267,600
IC&I recyclables dropped off	1,300	$0.00	$0
processing	3,976	$65.00	$258,440
landfill diversion (brush, tires, scrap metal)	705	$50.00	$35,250
OCC recycling (depots)	300	$111.00	$33,300
capital diversion cost			$105,420
MRF tipping fee revenue	0		$0
sale of recyclables (@ $88.00/tonne) revenue	3,976	$88.00	-$349,888
Subtotal recycling	**4,981**		**$350,122**
ORGANICS			
yard waste collection	800	$57.00	$45,600
yard waste drop off	2,120	$0.00	$0
yard waste composting	2,920	$0.00	$0
backyard composting	976	$0.00	$0
organics collection (residential)	0		$0
IC&I organics dropped off	0		$0
organics composting	0		$0
capital organics cost			$0
compost plant tipping fee revenue	0		$0
sale of compost revenue	0		$0
Subtotal organics	**3,896**		**$45,600**
HSW depot	135	$1,000	$135,000
Subtotal HSW depot	**135**		**$135,000**
REDUCTION	825		
DIVERSION COSTS (including organics)	8,877	**$56**	$495,722
DISPOSAL & WASTE COLLECTION COSTS	70,721	**$64**	$4,510,718
HSW COSTS	135	**$1,000**	$135,000
TOTAL SYSTEM COSTS	80,558	**$64**	$5,141,440

FINANCIAL MODEL SYSTEM 2A (Yard waste collection and ban)			
	Tonnages	$/tonne	Annual Cost
WASTE COLLECTION			
curbside collection (single-family)	17,242	$47.05	$811,236
curbside collection (multi-family)	4,534	$13.08	$59,305
capital collection costs			$96,736
user fee revenue			$0
Subtotal waste collection	**21,776**		**$967,277**
DISPOSAL			
municipal waste collection	21,776		
depot (public drop off)	4,050		
IC&I waste	20,812		
municipal department waste	1,565		
sewage sludge	9,185		
other special materials (brush, tires, soils)	6,247		
incoming waste	63,635		
landfill diversion (brush, tires, scrap metal)	404		
true cost of waste disposal	63,231	$65.00	$4,110,015
landfill tipping fee (@$65.00/tonne) revenue	31,109	$65.00	-$2,022,085
Subtotal disposal	**63,231**		**$2,087,930**
REDUCTION			$100,000
public education	500	$0.00	$0
residential waste reduction	5,000	$0.00	$0
other waste reduction	1,650	$0.00	$0
reuse centre	**7,150**		**$100,000**
Subtotal reduction			
RECYCLING	3,211	$100.00	$321,100
recycling collection (residential)	1,300	$0.00	$0
IC&I recyclables dropped off	4,511	$65.00	$293,215
processing	404	$50.00	$20,200
landfill diversion (brush, tires, scrap metal)	781	$111.00	$86,691
OCC recycling (depots)			$105,420
capital diversion cost	0		$0
MRF tipping fee revenue	4,511	$88.00	-$396,968
sale of recyclables (@ $88.00/tonne) revenue	**5,696**		**$429,658**
Subtotal recycling			
ORGANICS	900	$57.00	$51,300
yard waste collection	2,170	$0.00	$0
yard waste drop off	3,070	$0.00	$0
yard waste composting	1,276	$0.00	$0
backyard composting	0		$0
organics collection (residential)	0		$0
IC&I organics dropped off	0		$0
organics composting			$0
capital organics cost	0		$0
compost plant tipping fee revenue	0		$0
sale of compost revenue	**4,346**		**$51,300**
Subtotal organics			
	135	$1,000	$135,000
HSW depot	**135**		**$135,000**
Subtotal HSW depot	7,150		
REDUCTION	10,042	**$58**	$580,958
DIVERSION COSTS (including organics)	63,231	**$48**	$3,055,207
DISPOSAL & WASTE COLLECTION COSTS	135	**$1,000**	$135,000
HSW COSTS	80,558	**$47**	$3,771,165
TOTAL SYSTEM COSTS			

FINANCIAL MODEL SYSTEM 2B (Yard waste collection and ban)			
	Tonnages	$/tonne	Annual Cost
WASTE COLLECTION			
curbside collection (single-family)	13,906	$47.05	$654,277
curbside collection (multi-family)	4,534	$13.08	$59,305
capital collection costs			$96,736
user fee (2.1 bags/week @ $2.00/bag) revenue			-$5,331,580
Subtotal waste collection	**18,440**		**-$4,521,262**
DISPOSAL			
municipal waste collection	18,440		
depot (public drop off)	6,230		
IC&I waste	22,756		
municipal department waste	1,565		
sewage sludge	9,185		
other special materials (brush, tires, soils)	9,695		
incoming waste	67,871		
landfill diversion (brush, tires, scrap metal)	705		
true cost of waste disposal	67,166	$65.00	$4,365,790
landfill tipping fee (@$27.50/tonne) revenue	38,681	$27.50	-$1,063,728
Subtotal disposal	**67,166**		**$3,302,063**
REDUCTION			
public education			$100,000
residential waste reduction	500	$0.00	$0
other waste reduction	0	$0.00	$0
reuse centre	1,650	$0.00	$0
Subtotal reduction	**2,150**		**$100,000**
RECYCLING			
recycling collection (residential)	3,746	$100.00	$374,600
IC&I recyclables dropped off	1,300	$0.00	$0
processing	5,046	$65.00	$327,990
landfill diversion (brush, tires, scrap metal)	705	$50.00	$35,250
OCC recycling (depots)	529	$111.00	$58,719
capital diversion cost			$105,420
MRF tipping fee revenue	0		$0
sale of recyclables (@ $88.00/tonne) revenue	5,046	$88.00	-$444,048
Subtotal recycling	**6,280**		**$457,931**
ORGANICS			
yard waste collection	1,000	$57.00	$57,000
yard waste drop off	2,120	$0.00	$0
yard waste composting	3,120	$0.00	$0
backyard composting	1,707	$0.00	$0
organics collection (residential)	0		$0
IC&I organics dropped off	0		$0
organics composting	0		$0
capital organics cost			$0
compost plant tipping fee revenue	0		$0
sale of compost revenue	0		$0
Subtotal organics	**4,827**		**$57,000**
HSW depot	135	$1,000	$135,000
Subtotal HSW depot	**135**		**$135,000**
REDUCTION	2,150		
DIVERSION COSTS (including organics)	11,107	**$55**	$614,931
DISPOSAL & WASTE COLLECTION COSTS	67,166	**-$18**	-$1,219,199
HSW COSTS	135	**$1,000**	$135,000
TOTAL SYSTEM COSTS	80,558	**-$6**	-$469,268

FINANCIAL MODEL SYSTEM 2C (Yard waste collection and ban)			
	Tonnages	$/tonne	Annual Cost
WASTE COLLECTION			
curbside collection (single-family)	16,136	$47.05	$759,199
curbside collection (multi-family)	4,534	$13.08	$59,305
capital collection costs			$96,736
user fee (2.4 bags/week @ $2.00/bag) revenue			-$6,093,236
Subtotal waste collection	**20,670**		**$5,177,996**
DISPOSAL			
municipal waste collection	20,670		
depot (public drop off)	4,050		
IC&I waste	20,812		
municipal department waste	1,565		
sewage sludge	9,185		
other special materials (brush, tires, soils)	6,247		
incoming waste	62,529		
landfill diversion (brush, tires, scrap metal)	404		
true cost of waste disposal	62,125	$65.00	$4,038,125
landfill tipping fee (@$65.00/tonne) revenue	31,109	$65.00	-$2,022,085
Subtotal disposal	**62,125**		**$2,016,040**
REDUCTION			$100,000
public education	500	$0.00	$0
residential waste reduction	5,000	$0.00	$0
other waste reduction	1,650	$0.00	$0
reuse centre	**7,150**		**$100,000**
Subtotal reduction			
RECYCLING	3,746	$100.00	$374,600
recycling collection (residential)	1,300	$0.00	$0
IC&I recyclables dropped off	5,046	$65.00	$327,990
processing	404	$50.00	$20,200
landfill diversion (brush, tires, scrap metal)	821	$111.00	$91,131
OCC recycling (depots)			$105,420
capital diversion cost	0		$0
MRF tipping fee revenue	5,046	$88.00	-$444,048
sale of recyclables (@ $88.00/tonne) revenue	**6,271**		**$475,293**
Subtotal recycling			
ORGANICS	1,000	$57.00	$57,000
yard waste collection	2,170	$0.00	$0
yard waste drop off	3,170	$0.00	$0
yard waste composting	1,707	$0.00	$0
backyard composting	0		$0
organics collection (residential)	0		$0
IC&I organics dropped off	0		$0
organics composting			$0
capital organics cost	0		$0
compost plant tipping fee revenue	0		$0
sale of compost revenue	**4,877**		**$57,000**
Subtotal organics			
	135	$1,000	$135,000
HSW depot	**135**		**$135,000**
Subtotal HSW depot	7,150		
REDUCTION	11,148	**$57**	$632,293
DIVERSION COSTS (including organics)	62,125	**-$51**	-$3,161,956
DISPOSAL & WASTE COLLECTION COSTS	135	**$1,000**	$135,000
HSW COSTS	80,558	**-$30**	-$2,394,663
TOTAL SYSTEM COSTS			

FINANCIAL MODEL SYSTEM 3 (Curbside collection of OCC)			
	Tonnages	$/tonne	Annual Cost
WASTE COLLECTION			
curbside collection (single-family)	17,112	$47.05	$805,120
curbside collection (multi-family)	4,534	$13.08	$59,305
capital collection costs			$96,736
user fee revenue			$0
Subtotal waste collection	**21,646**		**$961,160**
DISPOSAL			
municipal waste collection	21,646		
depot (public drop off)	6,230		
IC&I waste	22,756		
municipal department waste	1,565		
sewage sludge	9,185		
other special materials (brush, tires, soils)	9,695		
incoming waste	71,077		
landfill diversion (brush, tires, scrap metal)	705		
true cost of waste disposal	70,372	$65.00	$4,574,180
landfill tipping fee (@$27.50/tonne) revenue	38,681	$27.50	-$1,063,728
Subtotal disposal	**70,372**		**$3,510,453**
REDUCTION			
public education			$100,000
residential waste reduction	0	$0.00	$0
other waste reduction	0	$0.00	$0
reuse centre	825	$0.00	$0
Subtotal reduction	**825**		**$100,000**
RECYCLING			
recycling collection (residential)	3,075	$100.00	$307,500
IC&I recyclables dropped off	1,550	$0.00	$0
processing	4,625	$65.00	$300,625
landfill diversion (brush, tires, scrap metal)	705	$50.00	$35,250
OCC recycling (depots)	0	$111.00	$0
capital diversion cost			$129,963
MRF tipping fee revenue	0		$0
sale of recyclables (@ $88.00/tonne) revenue	4,625	$88.00	-$407,000
Subtotal recycling	**5,330**		**$366,338**
ORGANICS			
yard waste collection	800	$57.00	$45,600
yard waste drop off	2,120	$0.00	$0
yard waste composting	2,920	$0.00	$0
backyard composting	976	$0.00	$0
organics collection (residential)	0		$0
IC&I organics dropped off	0		$0
organics composting	0		$0
capital organics cost			$0
compost plant tipping fee revenue	0		$0
sale of compost revenue	0		$0
Subtotal organics	**3,896**		**$45,600**
HSW depot	135	$1,000	$135,000
Subtotal HSW depot	**135**		**$135,000**
REDUCTION	825		
DIVERSION COSTS (including organics)	9,226	**$55**	$511,938
DISPOSAL & WASTE COLLECTION COSTS	70,372	**$64**	$4,471,613
HSW COSTS	135	**$1,000**	$135,000
TOTAL SYSTEM COSTS	80,558	**$64**	$5,118,551

FINANCIAL MODEL SYSTEM 3A (Curbside collection of OCC)			
	Tonnages	$/tonne	Annual Cost
WASTE COLLECTION			
curbside collection (single-family)	17,003	$47.05	$799,991
curbside collection (multi-family)	4,534	$13.08	$59,305
capital collection costs			$96,736
user fee revenue			$0
Subtotal waste collection	**21,537**		**$956,032**
DISPOSAL			
municipal waste collection	21,537		
depot (public drop off)	4,050		
IC&I waste	20,812		
municipal department waste	1,565		
sewage sludge	9,185		
other special materials (brush, tires, soils)	6,247		
incoming waste	63,396		
landfill diversion (brush, tires, scrap metal)	404		
true cost of waste disposal	62,992	$65.00	$4,094,480
landfill tipping fee (@$65.00/tonne) revenue	31,109	$65.00	-$2,022,085
Subtotal disposal	**62,992**		**$2,072,395**
REDUCTION			$100,000
public education	500	$0.00	$0
residential waste reduction	5,000	$0.00	$0
other waste reduction	1,650	$0.00	$0
reuse centre	**7,150**		**$100,000**
Subtotal reduction			
RECYCLING	3,689	$100.00	$368,900
recycling collection (residential)	1,842	$0.00	$0
IC&I recyclables dropped off	5,531	$65.00	$359,515
processing	404	$50.00	$20,200
landfill diversion (brush, tires, scrap metal)	0	$111.00	$0
OCC recycling (depots)			$129,963
capital diversion cost	0		$0
MRF tipping fee revenue	5,531	$88.00	-$486,728
sale of recyclables (@ $88.00/tonne) revenue	**5,935**		**$391,850**
Subtotal recycling			
ORGANICS	900	$57.00	$51,300
yard waste collection	2,170	$0.00	$0
yard waste drop off	3,070	$0.00	$0
yard waste composting	1,276	$0.00	$0
backyard composting	0		$0
organics collection (residential)	0		$0
IC&I organics dropped off	0		$0
organics composting			$0
capital organics cost	0		$0
compost plant tipping fee revenue	0		$0
sale of compost revenue	**4,346**		**$51,300**
Subtotal organics			
	135	$1,000	$135,000
HSW depot	**135**		**$135,000**
Subtotal HSW depot	7,150		
REDUCTION	10,281	**$53**	$543,150
DIVERSION COSTS (including organics)	62,992	**$48**	$3,028,427
DISPOSAL & WASTE COLLECTION COSTS	135	**$1,000**	$135,000
HSW COSTS	80,558	**$46**	$3,706,577
TOTAL SYSTEM COSTS			

FINANCIAL MODEL SYSTEM 3B (Curbside collection of OCC)			
	Tonnages	$/tonne	Annual Cost
WASTE COLLECTION			
curbside collection (single-family)	13,627	$47.05	$641,150
curbside collection (multi-family)	4,534	$13.08	$59,305
capital collection costs			$96,736
user fee (2.1 bags per week@ $2.00/bag) revenue			-$5,331,580
Subtotal waste collection	**18,161**		**-$4,534,389**
DISPOSAL			
municipal waste collection	18,161		
depot (public drop off)	6,230		
IC&I waste	22,756		
municipal department waste	1,565		
sewage sludge	9,185		
other special materials (brush, tires, soils)	9,695		
incoming waste	67,592		
landfill diversion (brush, tires, scrap metal)	705		
true cost of waste disposal	66,887	$65.00	$4,347,655
landfill tipping fee (@$27.50/tonne) revenue	38,681	$27.50	-$1,063,728
Subtotal disposal	**66,887**		**$3,283,928**
REDUCTION			
public education			$100,000
residential waste reduction	500	$0.00	$0
other waste reduction	0	$0.00	$0
reuse centre	1,650	$0.00	$0
Subtotal reduction	**2,150**		**$100,000**
RECYCLING			
recycling collection (residential)	4,304	$100.00	$430,400
IC&I recyclables dropped off	1,550	$0.00	$0
processing	5,854	$65.00	$380,510
landfill diversion (brush, tires, scrap metal)	705	$50.00	$35,250
OCC recycling (depots)	0	$111.00	$0
capital diversion cost			$129,963
MRF tipping fee revenue	0		$0
sale of recyclables (@ $88.00/tonne) revenue	5,854	$88.00	-$515,152
Subtotal recycling	**6,559**		**$460,971**
ORGANICS			
yard waste collection	1,000	$57.00	$57,000
yard waste drop off	2,120	$0.00	$0
yard waste composting	3,120	$0.00	$0
backyard composting	1,707	$0.00	$0
organics collection (residential)	0		$0
IC&I organics dropped off	0		$0
organics composting	0		$0
capital organics cost			$0
compost plant tipping fee revenue	0		$0
sale of compost revenue	0		$0
Subtotal organics	**4,827**		**$57,000**
HSW depot	135	$1,000	$135,000
Subtotal HSW depot	**135**		**$135,000**
REDUCTION	2,150		
DIVERSION COSTS (including organics)	11,386	**$54**	$617,971
DISPOSAL & WASTE COLLECTION COSTS	66,887	**-$19**	-$1,250,461
HSW COSTS	135	**$1,000**	$135,000
TOTAL SYSTEM COSTS	80,558	**-$6**	-$497,490

FINANCIAL MODEL SYSTEM 3C (Curbside collection of OCC)			
	Tonnages	$/tonne	Annual Cost
WASTE COLLECTION			
curbside collection (single-family)	15,857	$47.05	$746,072
curbside collection (multi-family)	4,534	$13.08	$59,305
capital collection costs			$96,736
user fee (2.4 bags/week @ $2.00/bag) revenue			-$6,093,236
Subtotal waste collection	**20,391**		**-$5,191,123**
DISPOSAL			
municipal waste collection	20,391		
depot (public drop off)	4,050		
IC&I waste	20,812		
municipal department waste	1,565		
sewage sludge	9,185		
other special materials (brush, tires, soils)	6,247		
incoming waste	62,250		
landfill diversion (brush, tires, scrap metal)	404		
true cost of waste disposal	61,846	$65.00	$4,019,990
landfill tipping fee (@$65.00/tonne) revenue	31,109	$65.00	-$2,022,085
Subtotal disposal	**61,846**		**$1,997,905**
REDUCTION			$100,000
public education	500	$0.00	$0
residential waste reduction	5,000	$0.00	$0
other waste reduction	1,650	$0.00	$0
reuse centre	**7,150**		**$100,000**
Subtotal reduction			
RECYCLING	4,304	$100.00	$430,400
recycling collection (residential)	1,842	$0.00	$0
IC&I recyclables dropped off	6,146	$65.00	$399,490
processing	404	$50.00	$20,200
landfill diversion (brush, tires, scrap metal)	0	$111.00	$0
OCC recycling (depots)			$129,963
capital diversion cost	0		$0
MRF tipping fee revenue	6,146	$88.00	-$540,848
sale of recyclables (@ $88.00/tonne) revenue	**6,550**		**$439,205**
Subtotal recycling			
ORGANICS	1,000	$57.00	$57,000
yard waste collection	2,170	$0.00	$0
yard waste drop off	3,170	$0.00	$0
yard waste composting	1,707	$0.00	$0
backyard composting	0		$0
organics collection (residential)	0		$0
IC&I organics dropped off	0		$0
organics composting			$0
capital organics cost	0		$0
compost plant tipping fee revenue	0		$0
sale of compost revenue	**4,877**		**$57,000**
Subtotal organics			
	135	$1,000	$135,000
HSW depot	**135**		**$135,000**
Subtotal HSW depot	7,150		
REDUCTION	11,427	**$52**	$596,205
DIVERSION COSTS (including organics)	61,846	**-$52**	-$3,193,218
DISPOSAL & WASTE COLLECTION COSTS	135	**$1,000**	$135,000
HSW COSTS	80,558	**-$31**	-$2,462,013
TOTAL SYSTEM COSTS			

FINANCIAL MODEL SYSTEM 4 (Expanded Recycling)			
	Tonnages	$/tonne	Annual Cost
WASTE COLLECTION			
curbside collection (single-family)	14,973	$47.05	$704,480
curbside collection (multi-family)	4,534	$13.08	$59,305
capital collection costs			$64,490
user fee revenue			$0
Subtotal waste collection	**19,507**		**$828,274**
DISPOSAL			
municipal waste collection	19,507		
depot (public drop off)	6,230		
IC&I waste	20,659		
municipal department waste	1,565		
sewage sludge	9,185		
other special materials (brush, tires, soils)	9,695		
incoming waste	66,841		
landfill diversion (brush, tires, scrap metal)	705		
true cost of waste disposal	66,136	$65.00	$4,298,840
landfill tipping fee (@$27.50/tonne) revenue	36,584	$27.50	-$1,006,060
Subtotal disposal	**66,136**		**$3,292,780**
REDUCTION			
public education			$100,000
residential waste reduction	0	$0.00	$0
other waste reduction	0	$0.00	$0
reuse centre	825	$0.00	$0
Subtotal reduction	**825**		**$100,000**
RECYCLING			
recycling collection (residential)	5,214	$55.00	$286,770
IC&I recyclables dropped off	3,647	$0.00	$0
recyclables processed	8,861	$80.00	$708,880
landfill diversion (brush, tires, scrap metal)	705	$50.00	$35,250
OCC recycling (depots)	0	$111.00	$0
capital diversion cost			$730,357
MRF tipping fee (@ $25.00/tonne) revenue	3,647	$25.00	-$91,175
sale of recyclables (@ $85.00/tonne) revenue	8,861	$85.00	-$753,185
Subtotal recycling	**9,566**		**$916,897**
ORGANICS			
yard waste collection	800	$57.00	$45,600
yard waste drop off	2,120	$0.00	$0
yard waste composting	2,920	$0.00	$0
backyard composting	976	$0.00	$0
organics collection	0		$0
organics composting	0		$0
capital organics cost			$0
compost plant tipping fee revenue	0		$0
sale of compost revenue	0		$0
Subtotal organics	**3,896**		**$45,600**
HSW depot	135	$1,000	$135,000
Subtotal HSW depot	**135**		**$135,000**
REDUCTION	825		
DIVERSION COSTS (including organics)	13,462	**$79**	$1,062,497
DISPOSAL & WASTE COLLECTION COSTS	66,136	**$62**	$4,121,054
HSW COSTS	135	**$1,000**	$135,000
TOTAL SYSTEM COSTS	80,558	**$66**	$5,318,551

FINANCIAL MODEL SYSTEM 4A (Expanded Recycling)			
	Tonnages	$/tonne	Annual Cost
WASTE COLLECTION			
curbside collection (single-family)	14,436	$47.05	$679,214
curbside collection (multi-family)	4,534	$13.08	$59,305
capital collection costs			$64,490
user fee revenue			$0
Subtotal waste collection	**18,970**		**$803,009**
DISPOSAL			
municipal waste collection	18,970		
depot (public drop off)	4,050		
IC&I waste	18,278		
municipal department waste	1,565		
sewage sludge	9,185		
other special materials (brush, tires, soils)	6,247		
incoming waste	58,295		
landfill diversion (brush, tires, scrap metal)	404		
true cost of waste disposal	57,891	$65.00	$3,762,915
landfill tipping fee (@$65.00/tonne) revenue	28,575	$65.00	-$1,857,375
Subtotal disposal	**57,891**		**$1,905,540**
REDUCTION			
public education			$100,000
residential waste reduction	500	$0.00	$0
other waste reduction	5,000	$0.00	$0
reuse centre	1,650	$0.00	$0
Subtotal reduction	**7,150**		**$100,000**
RECYCLING			
recycling collection (residential)	6,256	$55.00	$344,080
IC&I recyclables dropped off	4,376	$0.00	$0
recyclables processed	10,632	$80.00	$850,560
landfill diversion (brush, tires, scrap metal)	404	$50.00	$20,200
OCC recycling (depots)	0	$111.00	$0
capital diversion cost			$730,357
MRF tipping fee (@ $25.00/tonne) revenue	4,376	$25.00	-$109,400
sale of recyclables (@ $85.00/tonne) revenue	10,632	$85.00	-$903,720
Subtotal recycling	**11,036**		**$932,077**
ORGANICS			
yard waste collection	900	$57.00	$51,300
yard waste drop off	2,170	$0.00	$0
yard waste composting	3,070	$0.00	$0
backyard composting	1,276	$0.00	$0
organics collection	0		$0
organics composting	0		$0
capital organics cost			$0
compost plant tipping fee revenue	0		$0
sale of compost revenue	0		$0
Subtotal organics	**4,346**		**$51,300**
HSW depot	135	$1,000	$135,000
Subtotal HSW depot	**135**		**$135,000**
REDUCTION	7,150		
DIVERSION COSTS (including organics)	15,382	**$70**	$1,083,377
DISPOSAL & WASTE COLLECTION COSTS	57,891	**$47**	$2,708,549
HSW COSTS	135	**$1,000**	$135,000
TOTAL SYSTEM COSTS	80,558	**$49**	$3,926,926

FINANCIAL MODEL SYSTEM 4B (Expanded Recycling)			
	Tonnages	$/tonne	Annual Cost
WASTE COLLECTION			
curbside collection (single-family)	10,632	$47.05	$500,236
curbside collection (multi-family)	4,534	$13.08	$59,305
capital collection costs			$64,490
user fee (1.5 bags per week@ $2.00/bag) revenue			-$3,808,272
Subtotal waste collection	**15,166**		**-$3,184,242**
DISPOSAL			
municipal waste collection	15,166		
depot (public drop off)	6,230		
IC&I waste	20,659		
municipal department waste	1,565		
sewage sludge	9,185		
other special materials (brush, tires, soils)	9,695		
incoming waste	62,500		
landfill diversion (brush, tires, scrap metal)	705		
true cost of waste disposal	61,795	$65.00	$4,016,675
landfill tipping fee (@$27.50/tonne) revenue	36,584	$27.50	-$1,006,060
Subtotal disposal	**61,795**		**$3,010,615**
REDUCTION			
public education			$100,000
residential waste reduction	500	$0.00	$0
other waste reduction	0	$0.00	$0
reuse centre	1,650	$0.00	$0
Subtotal reduction	**2,150**		**$100,000**
RECYCLING			
recycling collection (residential)	7,299	$55.00	$401,445
IC&I recyclables dropped off	3,647	$0.00	$0
recyclables processed	10,946	$80.00	$875,680
landfill diversion (brush, tires, scrap metal)	705	$50.00	$35,250
OCC recycling (depots)	0	$111.00	$0
capital diversion cost			$730,357
MRF tipping fee (@ $25.00/tonne) revenue	3,647	$25.00	-$91,175
sale of recyclables (@ $85.00/tonne) revenue	10,946	$85.00	-$930,410
Subtotal recycling	**11,651**		**$1,021,147**
ORGANICS			
yard waste collection	1,000	$57.00	$57,000
yard waste drop off	2,120	$0.00	$0
yard waste composting	3,120	$0.00	$0
backyard composting	1,707	$0.00	$0
organics collection	0		$0
organics composting	0		$0
capital organics cost			$0
compost plant tipping fee revenue	0		$0
sale of compost revenue	0		$0
Subtotal organics	**4,827**		**$57,000**
HSW depot	135	$1,000	$135,000
Subtotal HSW depot	**135**		**$135,000**
REDUCTION	2,150		
DIVERSION COSTS (including organics)	16,478	**$71**	$1,178,147
DISPOSAL & WASTE COLLECTION COSTS	61,795	**-$3**	-$173,627
HSW COSTS	135	**$1,000**	$135,000
TOTAL SYSTEM COSTS	80,558	**$14**	$1,139,520

FINANCIAL MODEL SYSTEM 4C (Expanded Recycling)			
	Tonnages	$/tonne	Annual Cost
WASTE COLLECTION			
curbside collection (single-family)	12,862	$47.05	$605,157
curbside collection (multi-family)	4,534	$13.08	$59,305
capital collection costs			$64,490
user fee (1.8 bags per week@ $2.00/bag) revenue			-$4,569,926
Subtotal waste collection	**17,396**		**-$3,840,974**
DISPOSAL			
municipal waste collection	17,396		
depot (public drop off)	4,050		
IC&I waste	18,278		
municipal department waste	1,565		
sewage sludge	9,185		
other special materials (brush, tires, soils)	6,247		
incoming waste	56,721		
landfill diversion (brush, tires, scrap metal)	404		
true cost of waste disposal	56,317	$65.00	$3,660,605
landfill tipping fee (@$65.00/tonne) revenue	28,575	$65.00	-$1,857,375
Subtotal disposal	**56,317**		**$1,803,230**
REDUCTION			$100,000
public education	500	$0.00	$0
residential waste reduction	5,000	$0.00	$0
other waste reduction	1,650	$0.00	$0
reuse centre	**7,150**		**$100,000**
Subtotal reduction			
RECYCLING	7,299	$55.00	$401,445
recycling collection (residential)	4,376	$0.00	$0
IC&I recyclables dropped off	11,675	$80.00	$934,000
recyclables processed	404	$50.00	$20,200
landfill diversion (brush, tires, scrap metal)	0	$111.00	$0
OCC recycling (depots)			$730,357
capital diversion cost	4,376	$25.00	-$109,400
MRF tipping fee (@ $25.00/tonne) revenue	11,675	$85.00	-$992,375
sale of recyclables (@ $85.00/tonne) revenue	**12,079**		**$984,227**
Subtotal recycling			
ORGANICS	1,000	$57.00	$57,000
yard waste collection	2,170	$0.00	$0
yard waste drop off	3,170	$0.00	$0
yard waste composting	1,707	$0.00	$0
backyard composting	0		$0
organics collection	0		$0
organics composting			$0
capital organics cost	0		$0
compost plant tipping fee revenue	0		$0
sale of compost revenue	**4,877**		**$57,000**
Subtotal organics			
	135	$1,000	$135,000
HSW depot	**135**		**$135,000**
Subtotal HSW depot	7,150		
REDUCTION	16,956	**$67**	$1,141,227
DIVERSION COSTS (including organics)	56,317	**-$36**	-$2,037,744
DISPOSAL & WASTE COLLECTION COSTS	135	**$1,000**	$135,000
HSW COSTS	80,558	**-$9**	-$761,517
TOTAL SYSTEM COSTS			

FINANCIAL MODEL SYSTEM 5 (Organic Waste Composting)			
	Tonnages	$/tonne	Annual Cost
WASTE COLLECTION			
curbside collection (single-family)	11,364	$47.05	$534,676
curbside collection (multi-family)	4,534	$13.08	$59,305
capital collection costs			$64,490
user fee revenue			$0
Subtotal waste collection	**15,898**		**$658,471**
DISPOSAL			
municipal waste collection	15,898		
depot (public drop off)	6,230		
IC&I waste	18,162		
municipal department waste	1,565		
sewage sludge	0		
other special materials (brush, tires, soils)	9,695		
incoming waste	51,550		
landfill diversion (brush, tires, scrap metal)	705		
true cost of waste disposal	50,845	$65.00	$3,304,925
landfill tipping fee (@$27.50/tonne) revenue	34,087	$27.50	-$937,393
Subtotal disposal	**50,845**		**$2,367,533**
REDUCTION			
public education			$100,000
residential waste reduction	0	$0.00	$0
other waste reduction	0	$0.00	$0
reuse centre	825	$0.00	$0
Subtotal reduction	**825**		**$100,000**
RECYCLING			
curbside collection (recycling)	5,214	$55.00	$286,770
IC&I recyclables dropped off	3,647	$0.00	$0
recyclables processed	8,861	$80.00	$708,880
landfill diversion (brush, tires, scrap metal)	705	$50.00	$35,250
OCC recycling (depots)	0	$111.00	$0
capital diversion cost (with 3 vehicles)			$730,356
MRF tipping fee (@ $25.00/tonne) revenue	3,647	$25.00	-$91,175
sale of recyclables (@ $85.00/tonne) revenue	8,861	$85.00	-$753,185
Subtotal recycling	**9,566**		**$916,896**
ORGANICS			
yard waste collection	800	$57.00	$45,600
yard waste drop off	2,120	$0.00	$0
yard waste composting	2,920	$0.00	$0
backyard composting	976	$0.00	$0
organics collection (residential)	3,609	$55.00	$144,360
IC&I organics dropped off	11,682	$0.00	$0
organics composting	15,291	$40.00	$611,640
capital organics cost (with 1 vehicle)			$883,543
compost plant tipping fee (@ $25.00/tonne) revenue	11,682	$25.00	-$292,050
sale of compost (@ $25.00/tonne) revenue	9,175	$25.00	-$229,375
Subtotal organics	**19,187**		**$1,163,718**
HSW depot	135	$1,000	$135,000
Subtotal HSW depot	**135**		**$135,000**
REDUCTION	825		
DIVERSION COSTS (including organics)	28,753	**$76**	$2,180,614
DISPOSAL & WASTE COLLECTION COSTS	50,845	**$60**	$3,026,003
HSW COSTS	135	**$1,000**	$135,000
TOTAL SYSTEM COSTS	80,558	**$66**	$5,341,617

FINANCIAL MODEL SYSTEM 5B (Organic Waste Composting)			
	Tonnages	$/tonne	Annual Cost
WASTE COLLECTION			
curbside collection (single-family)	5,579	$47.05	$262,492
curbside collection (multi-family)	4,534	$13.08	$59,305
capital collection costs			$64,490
user fee (0.9 bags per week@ $2.00/bag) revenue			-$2,284,964
Subtotal waste collection	**10,113**		**-$1,898,677**
DISPOSAL			
municipal waste collection	10,113		
depot (public drop off)	6,230		
IC&I waste	18,162		
municipal department waste	1,565		
sewage sludge	0		
other special materials (brush, tires, soils)	9,695		
incoming waste	45,765		
landfill diversion (brush, tires, scrap metal)	705		
true cost of waste disposal	45,060	$65.00	$2,928,900
landfill tipping fee (@$27.50/tonne) revenue	34,087	$27.50	-$937,393
Subtotal disposal	**45,060**		**$1,991,508**
REDUCTION			
public education			$100,000
residential waste reduction	500	$0.00	$0
other waste reduction	0	$0.00	$0
reuse centre	1,650	$0.00	$0
Subtotal reduction	**2,150**		**$100,000**
RECYCLING			
curbside collection (recycling)	7,299	$55.00	$401,445
IC&I recyclables dropped off	3,647	$0.00	$0
recyclables processed	10,946	$80.00	$875,680
landfill diversion (brush, tires, scrap metal)	705	$50.00	$35,250
OCC recycling (depots)	0	$111.00	$0
capital diversion cost (with 3 vehicles)			$730,356
MRF tipping fee (@ $25.00/tonne) revenue	3,647	$25.00	-$91,175
sale of recyclables (@ $85.00/tonne) revenue	10,946	$85.00	-$930,410
Subtotal recycling	**11,651**		**$1,021,146**
ORGANICS			
yard waste collection	1,000	$57.00	$57,000
yard waste drop off	2,120	$0.00	$0
yard waste composting	3,120	$0.00	$0
backyard composting	1,707	$0.00	$0
organics collection (residential)	5,053	$55.00	$202,120
IC&I organics dropped off	11,682	$0.00	$0
organics composting	16,735	$40.00	$669,400
capital organics cost (with 1 vehicle)			$883,543
compost plant tipping fee (@ $25.00/tonne) revenue	11,682	$25.00	-$292,050
sale of compost (@ $25.00/tonne) revenue	10,041	$25.00	-$251,025
Subtotal organics	**21,562**		**$1,268,988**
HSW depot	135	$1,000	$135,000
Subtotal HSW depot	**135**		**$135,000**
REDUCTION	2,150		
DIVERSION COSTS (including organics)	33,213	**$72**	$2,390,134
DISPOSAL & WASTE COLLECTION COSTS	45,060	**$2**	$92,830
HSW COSTS	135	**$1,000**	$135,000
TOTAL SYSTEM COSTS	80,558	**$32**	$2,617,964

FINANCIAL MODEL SYSTEM 5C (Organic Waste Composting)			
	Tonnages	$/tonne	Annual Cost
WASTE COLLECTION			
curbside collection (single-family)	7,809	$47.05	$367,413
curbside collection (multi-family)	4,534	$13.08	$59,305
capital collection costs			$64,490
user fee (1.2 bags per week@ $2.00/bag) revenue			-$3,046,618
Subtotal waste collection	**12,343**		**-$2,555,410**
DISPOSAL			
municipal waste collection	12,343		
depot (public drop off)	4,050		
IC&I waste	15,282		
municipal department waste	1,565		
sewage sludge	0		
other special materials (brush, tires, soils)	6,247		
incoming waste	39,487		
landfill diversion (brush, tires, scrap metal)	404		
true cost of waste disposal	39,083	$65.00	$2,540,395
landfill tipping fee (@$65.00/tonne) revenue	28,579	$65.00	-$1,857,635
Subtotal disposal	**39,083**		**$682,760**
REDUCTION			
public education			$100,000
residential waste reduction	500	$0.00	$0
other waste reduction	5,000	$0.00	$0
reuse centre	1,650	$0.00	$0
Subtotal reduction	**7,150**		**$100,000**
RECYCLING			
curbside collection (recycling)	7,299	$55.00	$401,445
IC&I recyclables dropped off	4,376	$0.00	$0
recyclables processed	11,675	$80.00	$934,000
landfill diversion (brush, tires, scrap metal)	404	$50.00	$20,200
OCC recycling (depots)	0	$111.00	$0
capital diversion cost (with 3 vehicles)			$730,356
MRF tipping fee (@ $25.00/tonne) revenue	4,376	$25.00	-$109,400
sale of recyclables (@ $85.00/tonne) revenue	11,675	$85.00	-$992,375
Subtotal recycling	**12,079**		**$984,226**
ORGANICS			
yard waste collection	1,000	$57.00	$57,000
yard waste drop off	2,170	$0.00	$0
yard waste composting	3,170	$0.00	$0
backyard composting	1,707	$0.00	$0
organics collection (residential)	5,053	$55.00	$202,120
IC&I organics dropped off	12,181	$0.00	$0
organics composting	17,234	$40.00	$689,360
capital organics cost (with 1 vehicle)			$883,543
compost plant tipping fee (@ $25.00/tonne) revenue	12,181	$25.00	-$304,525
sale of compost (@ $25.00/tonne) revenue	10,340	$25.00	-$258,500
Subtotal organics	**22,111**		**$1,268,998**
HSW depot	135	$1,000	$135,000
Subtotal HSW depot	**135**		**$135,000**
REDUCTION	7,150		
DIVERSION COSTS (including organics)	34,190	**$69**	$2,353,224
DISPOSAL & WASTE COLLECTION COSTS	39,083	**-$48**	-$1,872,650
HSW COSTS	135	**$1,000**	$135,000
TOTAL SYSTEM COSTS	80,558	**$8**	$615,574

AECOM

Appendix C

Business and Implementation Plan (February, 2003 with updates in 2019 and 2021)

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Project name:
SSM Landfill Monitoring and Reporting 20211

Project ref:
60650330

To:
Catherine Taddo, P.Eng.

CC:
Susan Hamilton Beach, P.Eng.

From:
Rick Talvitie, P.Eng.

Date:
June 29 2021

FINAL

Waste Management Business Plan (June 2021 Update)
Memorandum

We have completed several changes to the waste management business plan to reflect system changes that have occurred over the last several years. One of the principle changes is the introduction of the Provinces Food and Organic Waste Policy Statement which mandates the City of Sault Ste Marie to achieve 50 per cent waste reduction and resource recovery of food and organic waste generated by single-family dwellings by 2025. To achieve this target the City must initiate a curbside source separated organics (SSO) collection and processing program. To address the "processing" component it is proposed that the Biosolids processing facility is expanded to meet the requirements for both biosolids and SSO. To address the "collection" component there are various approaches that could be considered.

SSO will result in a fourth waste stream to be collected curbside (blue box recyclables, leaf and yard waste, SSO and residual waste). The approach to collection of four waste streams varies amongst municipalities and it is difficult to clearly identify the collection approach for SSM as the blue box program is currently scheduled to transition from a Municipal responsibility to a Stewards responsibility in September 2023. If we assume blue box recyclables continue to be collected by the Stewards as a dual stream with split body trucks, waste collection may consist of a weekly dual stream collection of SSO and residual waste in split body trucks. Leaf and yard waste will likely continue as a single stream seasonal collection.

Waste collection in the City is currently a shared responsibility between City crews and contracted crews. The collection vehicles would have to be retrofitted and modifications would have to be negotiated to the current contract which expires in 2029. Within the updated Business Plan we have incorporated an "allowance" under the waste collection column commencing in 2025 to account for the potential changes. Once the collection framework is better understood the Plan will be updated accordingly.

The principle changes incorporated in the attached Business Plan update include:

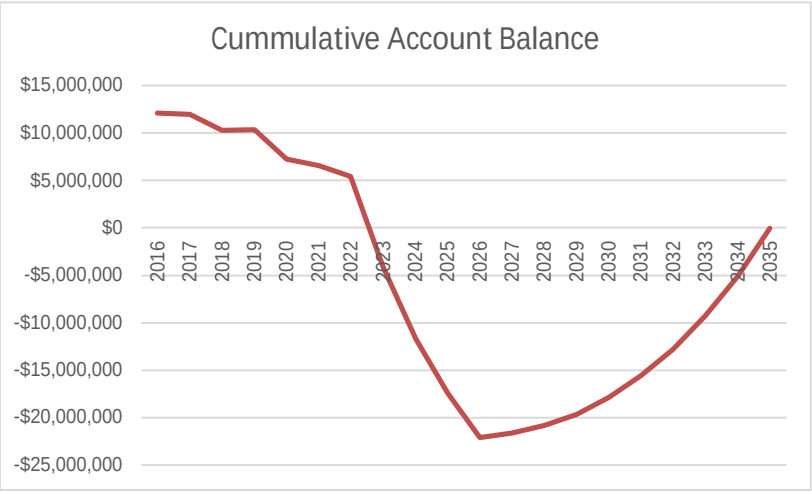
- Incorporated the costs for the Biosolids/SSO processing facility. It has been assumed that 1/3 of the costs will be charged to waste management and 2/3 will be charged to sewer surcharge. This apportionment has been established based on an estimated 10,000t/year of biosolids and 5,000t/year of SSO. Therefore, the waste management business plan incorporates 1/3 of the capital costs and 1/3 of the projected operation and maintenance costs. The project is currently at a conceptual level of design and the costs incorporated reflect the high end of the cost range. As the design evolves the cost estimates will be refined and the Waste Management Business Plan will be updated accordingly. Design will continue through 2022 with construction initiated in 2023 and the facility is proposed to become operational in 2025. We have also included higher operations costs in the first two years as there will be a learning and training period.
- Although we have not specifically developed cost estimates for the transformation of collection protocols (i.e. separate SSO waste stream will be introduced in 2025) we have bumped collection costs by 20% in 2025 to account for increased costs associated with the new waste stream. This is just an allowance to account for increased equipment costs and

increased labour. There has been no detailed analysis at this time but these costs will be updated in the future once the impacts are better understood. At the time of the next Business Plan iteration consideration will also be given to the acquisition of SSO collections carts.

- We have also included an additional one-time allowance of $10/stop in 2022 to address premature waste collection truck depreciation as requested by Public Works. The overall allowance is approximately $262k.
- The timeline related to the Waste EA submission has been updated to reflect a 2021 submission. The submission has been delayed to incorporate property acquisition in the vicinity of the landfill to satisfy MECP requirements for attenuation of leachate impacted groundwater. We have assumed the expenditure of the remaining engineering budget in 2021 but we are also anticipating modest additional charges in 2022 beyond the current budget. An allowance has been included for the additional charges in 2022.
- For the property acquisition we have included an allowance of $2.2M with $1.1M to be disbursed in each of 2021 and 2022. This is expected to be adequate for the acquisition of five or six higher priority properties to the west of the landfill. There are other properties that are of interest within the area of influence of the landfill but these will be budgeted beyond the term of this plan or may be funded from savings that may accrue from other elements that are included in the plan (eg. Biosolids/SSO facility or contingency – see points below).
- Multi-family waste collection has been excluded as a City cost commencing in January 2021. Collection and disposal of waste in this sector is an owner responsibility. We have however included the recently tendered costs for waste collection at City facilities (i.e. approx. $17,700 in 2021).
- We have assumed that the blue box program will become a Steward's responsibility in January 2024. Therefore in 2024 all costs and revenues associated with this program have been eliminated. At the time of the next Business Plan Iteration we will consider the possible revenue stream from selling the blue box carts to the stewards.
- It is our understanding based on feed back received from Public Works that the HHW facility is scheduled to be transferred to a Steward's responsibility in 2022. The 2021 costs included in the plan for this item is approximately $240k. It was agreed that we will continue to carry this cost throughout the duration of the plan and once the transition to the Stewards occurs the costs included will be considered a contingency for other uses (eg. additional property acquisition).

The time period covered by the plan has been increased by five years to 2035 and it includes the construction of Cells 1 and 1A (i.e. landfill mining). The next phase of cell development is expected to occur after 2035 and will be incorporated in the future. The approach taken in terms of the principle financial goal for the plan was to ensure there are adequate revenues over the period covered by the plan to ensure the reserve account balance is approximately $0 in 2035. The approach taken in the previous iteration was similar but reflected a reserve account balance of approximately $0 in 2030 in lieu of 2035. To achieve the goal in the previous iteration we required user fee increases of 10% every 5 years together with annual levy increase of 7.45% per year until 2030.

There have been a number of additional financial obligations added to the plan, most notably the need to collect and process SSO. The result of these changes is that assuming that user fee increases of 10% occur every 5 years and the levy contribution to waste management continues to increase by 7.45% over the additional 5 year period we meet the financial objective (i.e. reserve account balance of approximately $0 in 2035 – refer to the adjacent Figure).



The plan should continue to be re-evaluated as elements and costs change. As an example, the current plan incorporates the high end of the project cost estimate envelope for the Biosolids/SSO processing facility. It is hoped that the tendered price will be lower than the high end. This will be confirmed at the time of tendering in 2023. Other changes that could come to

the forefront include the possibility of provincial government funding to help support their mandate for municipalities like Sault Ste Marie to initiate an SSO program. The introduction of funding will have a positive impact on the plan and would necessitate a change.

Based on the foregoing, it appears to be appropriate to stay the course with the planned user fee and levy increases as committed to 2030 and continue to re-evaluate periodically over time. As we approach 2030 the timeline of the plan will again be expanded beyond 2035 and this will assist in better understanding how the levy contribution will be impacted over time.

City of Sault Ste. Marie
Solid Waste Management Business and Implementation Plan
Scenario 6 - 6,000t IC&I with Fee Increases at 5 yr Intervals, Annual Tax Increases to MEET Needs, Multi-Res Owner Responsibility
Bag = 4 (approx), Annual % Tax Increases to MEET Needs,10% Fee Increases at Five Year Intervals, ICI Waste = 6,000t, Multi-Res Owner Responsibility

Implementation Plan		Estimated Unit Costs/Revenues											Unit Costs								Unit Revenues							Miscellaneous Quantities							Diversion Quantities								Esti
Year	Key Activities	Residential Waste/SSO Collection ($/stop)	Multi-Residential and City Facilities Waste Collection ($/stop or LS starting in 2021)	Landfill Site Operations ($/year)	Leachate Treatment ($/c.m)	Material Processing at Landfill (wood waste) - ($/tonne)	Residential Recyclables Collection & Processing ($/tonne)	Residential Leaf and Yard Waste Collection & Processing ($/tonne)	SSO Processing ($/tonne)	Household Special Waste Processing ($/tonne)	Third Party Tipping Fees ($/tonne)	Sewage Sludge Disposal Management ($/yr)	City Share of Sale of Recyclables (50% of Basket of Goods Price) ($/tonne)	Scrap Metal ($/tonne)	Residential Bag Fee ($/bag)	Average Gate Fees at Landfill ($/visit)	Sewage Sludge Tipping/ Management Fee ($/tonne)	Usable Contaminated Soil Tipping Fee ($/tonne)	Landfill Tipping Fees ($/tonne)	Population	Number of Stops	Number of Single Family Households	Number of Multi-Family Households	Bags per Household per week	Number of Bags with Tags per year	Residential Public Drop-off Trips per year	Curbside Recycling for Cost and Revenue (tonnes)	IC&I Recycling (tonnes)	Landfill Material Processing - Wood (tonnes)	Landfill Scrap Metal	Backyard Composting (tonnes)	Residential Leaf and Yard Waste Processing (tonnes)	Multi-residential & IC&I Organics Processing (tonnes)	SSO Processing (tonne)	
	Column Reference	D	E	F	G	H	I	J	J1	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AH1	
	Formula	Inflated Previous Year	Inflated Previous Year	Inflated Previous Year	N/A	Inflated Previous Year	Inflated Previous Year	Inflated Previous Year	Inflated Previous Years	Inflated Previous Year	Inflated Previous Year	Inflated Previous Year	Inflated Previous Year	Inflated Previous Year	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
		Future (i.e. 2019 and beyond based on fully automated collection inclusive of cart acquisition and distribution (used 2018 contracted cost + City estimate for their services (0.72+.85)/2 = (0.785/stop/week)	cost from city spreadsheet and stops from datacall cost ($0 beginning in 2019 to reflect OWNER responsibility	from city spreadsheet (avg of 2014 & 2015 wB375k removed)- assumes costs are generally fixed regardless of quantity. Includes annual allowance of $350k for equipment replacement and $250k for site infrastructure	from closure/post closure memo - $0 means we assume no transfer from waste acct to waste water acct	2015 Annual Report (wood)	Contracted cost divided by contract quantities - used 2015 value Cost become $50 in 2024 with Blue Box transition	Leaf and Yard ONLY - City spreadsheet based on avg cost/tonne over 3 years - does this include collection or is collection elsewhere?	This is ONLY 1/3 of the O/A cost as other 2/3 apportioned to wastewater - operating cost base year is 2021 - assume operating costs are 1.5X base for first two years	Assumed to be a fixed cost per year regardless of quantity used 3 year average - will there be a reduction at landfill?	Elementa	City estimate included on spreadsheet - we assumed this cost disappears when biosolids are processed in 2025	Total revenue for blue box divided by residential+ICI quantities averaged over 3 years Becomes $0 in 2024 with Blue Box Transition	City spreadsheet (average over 3 years)		avg tipping fee per GP visit over 3 years	Becomes $0 when we start processing biosolids in 2025			2016 census - assume it is stagnant	2018 Waste Collection RFP	datacall - assume it is stagnant	datacall - assume it is stagnant but chnages to 1 in 2021 to incoporate costs for City facilities ONLY	could potentially use data from last audit	city spreadsheet averaged over 5 yrs - no change with automated collection and new carts	five year average and remains stagnant	Based on quantity provided by City - assume same quantity for cost and revenue - avg'd over 3 yrs - this value seems to be quite different from Datacall - refer to recent memo on diversion reduction	total ICI marketed from datacalls - two year average (2013 and 2014 incls GFL OCC around 1000t - review these numbers with Tara relative to datacall numbers but I don't believe this is being used in any calcs	5 year avg (2012 to 2016) from Datacall assume costs absorbed by sewer surcharge when biosolids disposed and then a landfill cost when biosolids are processed	3 year average	Datacall	Leaf & Yard ONLY - Datacall curbside and depot 3 year average		Assume 5000/year stagnant	
Base Yr	Typically 2015 data used or where appropriate average of last 3 to 5 years	$35.44	$20.28	$1,525,547.00	$0.84	$53.65	$268.67	$125.00	$65.00	$212,935.00	$67.37	$375,000.00	$42.46	$192.00	$2.00	$12.00	$70.00	$35.00	$70.00	73368	26234	26251	6266	na	4041	50129	5207	1985	1998	402	1210	1502	0	5000	
2016	Prepare DRAFT EA Documentation and D&O Report for the Preferred Expansion Option	$36.14	$20.69	$1,556,057.94	$0.00	$54.72	$274.05	$127.50	$0.00	$217,193.70	$68.72	$382,500.00	$43.31	$195.84	$2.00	$12.00	$70.00	$35.00	$70.00	73368	26234	26251	6266	na	4041	50129	5207	1985	0	402	1210	1502	0	0	
2017	Finalize DRAFT EA Documentation and D&O Report for the Preferred Expansion Option and review/negotiate with MECP	$36.87	$21.10	$1,587,179.10	$0.00	$55.82	$279.53	$130.05	$0.00	$221,537.57	$70.09	$390,150.00	$44.18	$199.76	$2.00	$12.00	$70.00	$35.00	$70.00	73368	26234	26251	6266	na	4041	50129	5207	1985	0	402	1210	1502	0	0	
2018	Continue EA Documentation and D&O Report for the Preferred Expansion Option and Land Acquisition Prepare RFP for Curbside Waste Collection Initiate Preliminary Design of Biosolids facility (costs included elsewhere)	$37.61	$21.53	$1,618,922.68	$0.00	$56.93	$285.12	$132.65	$0.00	$225,968.33	$71.49	$397,953.00	$45.06	$203.75	$2.00	$12.00	$70.00	$35.00	$70.00	73368	26234	26251	6266	na	4041	50129	5207	1985	0	402	1210	1502	0	0	
2019	Continue EA Documentation and D&O Report for the Preferred Expansion Option and Land Acquisition Preliminary Design of Biosolids Processing Facility (costs included elsewhere) Initate Curbside Waste Collection Contract - July 1 2019	$42.12	$21.96	$1,651,301.13	$0.00	$58.07	$290.82	$135.30	$0.00	$230,487.69	$72.92	$405,912.06	$45.96	$207.83	$2.00	$12.00	$70.00	$35.00	$70.00	73368	26234	26251	6266	na	4041	50129	5207	1985	0	402	1210	1502	0	0	
2020	Continue EA Documentation and D&O Report for the Preferred Expansion Option and Land Acquisition Preliminary Design of Biosolids Processing Facility (costs included elsewhere)	$46.81	$22.40	$1,684,327.16	$0.00	$59.23	$296.64	$138.01	$0.00	$235,097.45	$74.38	$414,030.30	$46.88	$211.98	$2.20	$13.20	$77.00	$38.50	$77.00	73368	26234	26251	6266	na	4041	50129	5207	1985	0	402	1210	1502	0	0	
2021	Multi-Res Waste Collection is now an Owner Responsibility EA Documentation and D&O Report for the Preferred Expansion Option and Land Acquisition Submit EA to MECP Finalize Biosolids/SSO Preliminary Design (1/3 costs included here)	$47.74	$17,712.00	$1,718,013.70	$0.00	$60.42	$302.57	$140.77	$0.00	$239,799.39	$75.87	$422,310.91	$47.82	$216.22	$2.20	$13.20	$77.00	$38.50	$77.00	73368	26234	26251	1	na	4041	50129	5207	1985	0	402	1210	1502	0	0	
2022	Land Acquisition Prepare Tender for Cell 1 and solicit approvals Detail Design and Tendering of Biosolids Facility (1/3 costs included here) Retrofit two Collection Trucks ($262k)	$58.70	$18,066.24	$1,752,373.97	$0.00	$61.63	$308.62	$143.59	$0.00	$244,595.38	$77.39	$430,757.13	$48.78	$220.55	$2.20	$13.20	$77.00	$38.50	$77.00	73368	26234	26251	1	na	4041	50129	5207	1985	0	402	1210	1502	0	0	
2023	Construction of Cell 1 Construction of Biosolids/SSO Facility (1/3 costs included here) Prepare Cell 1A (mining) tender and solicit approvals	$49.67	$18,427.56	$1,787,421.45	$0.00	$62.86	$314.80	$146.46	$0.00	$249,487.29	$78.93	$439,372.27	$49.75	$224.96	$2.20	$13.20	$77.00	$38.50	$77.00	73368	26234	26251	1	na	4041	50129	5207	1985	0	402	1210	1502	0	0	
2024	Recycling is now a Stewards Responsibility Construction of Biosolids/SSO Facility (1/3 costs included here) Construction of Cell 1A (mining and lining)	$50.67	$18,796.12	$1,823,169.88	$0.00	$64.12	$0.00	$149.39	$0.00	$254,477.04	$80.51	$448,159.71	$0.00	$229.46	$2.20	$13.20	$77.00	$38.50	$77.00	73368	26234	26251	1	na	4041	50129	5207	1985	0	402	1210	1502	0	0	
2025	Initiate Processing of Biosolids/SSO Initiate Collection of SSO - assume 20% increase in collection costs Construction of Cell 1A (mining and lining)	$62.02	$19,172.04	$1,859,633.28	$0.00	$65.40	$0.00	$152.37	$105.54	$259,566.58	$82.12	$0.00	$0.00	$234.05	$2.42	$14.52	$0.00	$42.35	$84.70	73368	26234	26251	1	na	4041	50129	5207	1985	1998	402	1210	1502	0	5000	
2026	Construction of Cell 1A (mining and lining)	$63.26	$19,555.48	$1,896,825.95	$0.00	$66.71	$0.00	$155.42	$107.65	$264,757.91	$83.77	$0.00	$0.00	$238.73	$2.42	$14.52	$0.00	$42.35	$84.70	73368	26234	26251	1	na	4041	50129	5207	1985	1998	402	1210	1502	0	5000	
2027		$64.52	$19,946.59	$1,934,762.46	$0.00	$68.04	$0.00	$158.53	$73.20	$270,053.07	$85.44	$0.00	$0.00	$243.50	$2.42	$14.52	$0.00	$42.35	$84.70	73368	26234	26251	1	na	4041	50129	5207	1985	1998	402	1210	1502	0	5000	
2028		$65.81	$20,345.52	$1,973,457.71	$0.00	$69.40	$0.00	$161.70	$74.66	$275,454.13	$87.15	$0.00	$0.00	$248.37	$2.42	$14.52	$0.00	$42.35	$84.70	73368	26234	26251	1	na	4041	50129	5207	1985	1998	402	1210	1502	0	5000	
2029		$67.13	$20,752.43	$2,012,926.87	$0.00	$70.79	$0.00	$164.93	$76.16	$280,963.21	$88.89	$0.00	$0.00	$253.34	$2.42	$14.52	$0.00	$42.35	$84.70	73368	26234	26251	1	na	4041	50129	5207	1985	1998	402	1210	1502	0	5000	
2030		$68.47	$21,167.48	$2,053,185.41	$0.00	$72.21	$0.00	$168.23	$77.68	$286,582.47	$90.67	$0.00	$0.00	$258.41	$2.66	$15.97	$0.00	$46.59	$93.17	73368	26234	26251	1	na	4041	50129	5207	1985	1998	402	1210	1502	0	5000	
2031		$69.84	$21,590.83	$2,094,249.11	$0.00	$73.65	$0.00	$171.60	$79.23	$292,314.12	$92.48	$0.00	$0.00	$263.57	$2.66	$15.97	$0.00	$46.59	$93.17	73368	26234	26251	1	na	4041	50129	5207	1985	1998	402	1210	1502	0	5000	
2032		$71.24	$22,022.65	$2,136,134.10	$0.00	$75.12	$0.00	$175.03	$80.82	$298,160.41	$94.33	$0.00	$0.00	$268.85	$2.66	$15.97	$0.00	$46.59	$93.17	73368	26234	26251	1	na	4041	50129	5207	1985	1998	402	1210	1502	0	5000	
2033		$72.66	$22,463.10	$2,178,856.78	$0.00	$76.63	$0.00	$178.53	$82.44	$304,123.61	$96.22	$0.00	$0.00	$274.22	$2.66	$15.97	$0.00	$46.59	$93.17	73368	26234	26251	1	na	4041	50129	5207	1985	1998	402	1210	1502	0	5000	
2034		$74.11	$22,912.36	$2,222,433.91	$0.00	$78.16	$0.00	$182.10	$84.08	$310,206.09	$98.15	$0.00	$0.00	$279.71	$2.66	$15.97	$0.00	$46.59	$93.17	73368	26234	26251	1	na	4041	50129	5207	1985	1998	402	1210	1502	0	5000	
2035		$75.60	$23,370.61	$2,266,882.59	$0.00	$79.72	$0.00	$185.74	$85.77	$316,410.21	$100.11	$0.00	$0.00	$285.30	$2.93	$17.57	$0.00	$51.24	$102.49	73368	26234	26251	1	na	4041	50129	5207	1985	1998	402	1210	1502	0	5000	
	TOTALS (2016 to 2035)																								76779	952451	98925	37715	21978	7638	22990	28538	0	55000	

imated Quantities					Waste Disposal Quantities										Waste Collection and Disposal Costs										Estimated Expenditures									
																									Diversion Material Collection and Processing Costs									
Sewage Sludge (tonnes)	Household Special Waste Program - Total Collected (tonnes)	Reuse Centre (tonnes)	Waste Diverted (tonnes)	Residential Waste Diversion Rate (%)	Leachate Treatment (cu. m)	Waste NOT Subject to Tipping Fees	Private Sector Waste Subject to Tipping Fees (tonnes)	Contaminated Soil Suitable for Cover - Reduced Tipping Fee (tonnes)	Street Sweepings and Clean Soil NOT Subject to Tipping Fees	Residential Public Drop-off Disposal (tonnes)	Sewage Sludge (tonnes)	Residential Waste Managed at Other Facilities (tonnes)	Total Waste Disposal (tonnes)	TOTAL WASTE MANAGED (tonnes)	Description of Engineering/Capital Expenditures	Engineering	Capital	Residential Waste Collection	Multi-Res and City Facilities Waste Collection	Waste Disposal Operations	Third Party Tipping Fees	Leachate Treatment	Total Disposal Costs	Description of Engineering Expenditures	Engineering	Landfill Material Processing (wood waste)	Residential Recyclables Collection & Processing	Residential Leaf and Yard Waste Collection & Processing	SSO Processing	Sewage Sludge Processing	Household Special Waste Program	Re-Use Centre
AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BK1	BL	BM	BN
N/A	N/A	N/A	=AB+AC+AD+AE+AF+AG+AH+AI+AJ+AK	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	=AO+AP+AS+AT	=AL+AQ+AR+AV	N/A	Sum of Eng/Approvals values in adj column	N/A	=D*V	=E*X	=F+M	=L*AU	=G*AN	=AY+AZ+BA+BB+BC+BD+BE	N/A	Eng/Approvals values in adj column	=H*AD	=I*AB	=J*AG	=J1*AH1	N/A	=K	N/A
Commence diversion in 2021 and full diversion in 2022	Datacall three year average		sum adjacent columns	avg over last three years from datacall assume stagnant - this value is NOT calculated and is not correct based on the AECOM memo	avg over last three years from annual reports	avg over last three years from annual reports (residential/ multi-res/ PWT/ P&R)	avg over last three years from annual reports (commercial/ shingles/ asbestos /medical/ non-usable contam soil - APPLIED 6,000t/yr in this scenario	avg over last three years from annual reports	avg over last three years from annual reports	avg over last three years from annual reports - not used in cost calcs but may include landfill diversion items when it shouldn't	assumed value	Elementa	sums four of the seven adj columns	sum diverted+disposed+materials available for cover		Equipment and carts for curbside program are included in Column D	No.stops * $/stop	Units* $/unit	changed to a LS not tied to quantity includes sludge management at working face - Need to confirm savings will be realized when sludge is processed	Elementa	Assume there is no transfer from waste to waste water acct			Wood waste processing	This calculation uses the residential quantity only - is this correct?	leaf + yard only	Initiate SSO in 2025	Cost allocated to a different account			
0	271	0	10577	35	395251	17199	6000	4955	6708	8371	10000	0	41570	63810	Prepare DRAFT EA Documentation and D&O report for the Preferred Expansion Option ($93k) + Annual Engineering ($121k)	$214,000	$0	$948,223	$129,642	$1,938,558	$0	$0	$3,230,423		$0	$0	$1,426,850	$191,505	$0	$0	$217,194	$0
0	271	0	10577	35	395251	17199	6000	4955	6708	8371	10000	0	41570	63810	Finalize DRAFT EA Documentation and D&O report for the Preferred Expansion Option and review/negotiate with MECP ($51k) + Annual Engineering ($117k)	$168,000	$0	$967,187	$132,235	$1,977,329	$0	$0	$3,244,751		$0	$0	$1,455,387	$195,335	$0	$0	$221,538	$0
0	271	0	10577	35	395251	17199	6000	4955	6708	8371	10000	0	41570	63810	Continue negotiations and confirm MECP requirements to finalize EA ($2k) + Land Acquisition + Preliminary Design of Biosolids (costs included elsewhere) + Curbside Waste Collection RFP ($29k) + Annual Engineering ($130K)	$161,000	$0	$986,531	$134,880	$2,016,876	$0	$0	$3,299,286		$0	$0	$1,484,495	$199,242	$0	$0	$225,968	$0
0	271	0	10577	35	395251	17199	6000	4955	6708	8371	10000	0	41570	63810	Continue EA ($98k) + Land Acquisition + Biosolids Preliminary Design (costs included elsewhere) + Annual Engineering ($115k)	$213,000	$0	$1,105,067	$137,577	$2,057,213	$0	$0	$3,512,858		$0	$0	$1,514,185	$203,227	$0	$0	$230,488	$0
0	271	0	10577	35	395251	17199	6000	4955	6708	8371	10000	0	41570	63810	Continue EA ($67k) + Land Acquisition + Biosolids Preliminary Design (costs included elsewhere) + Annual Engineering ($140k) + City Facilities Waste Collection Tender (No costs as was completed internally)	$207,000	$0	$1,227,950	$140,329	$2,098,357	$0	$0	$3,673,637		$0	$0	$1,544,468	$207,291	$0	$0	$235,097	$0
0	271	0	10577	35	395251	17199	6000	4955	6708	8371	10000	0	41570	63810	Continue and submit EA including MECP follow-up ($66k) + Land Acquisition (assume $1.1M) + Biosolids/SSO Preliminary Design (1/3 apportioned to Waste - $111k) + Annual Engineering ($149k)	$322,000	$1,100,000	$1,252,509	$17,712	$2,140,325	$0	$0	$4,832,546		$0	$0	$1,575,358	$211,437	$0	$0	$239,799	$0
0	271	0	10577	35	395251	17199	6000	4955	6708	8371	10000	0	41570	63810	Land Acquisition (assume $1.1M) + Detail Design/ Tender Cell 1 (5%) + Approvals ($50k) +Biosolids/SSO Detail Design and Tender (1/3 apportioned to Waste -$219k) + Annual Engineering ($150k)	$685,278	$1,100,000	$1,539,900	$18,066	$2,183,131	$0	$0	$5,526,375		$0	$0	$1,606,865	$215,666	$0	$0	$244,595	$0
0	271	0	10577	35	395251	17199	6000	4955	6708	8371	10000	0	41570	63810	Construct Cell 1 ($5.32M)+ Engineering Oversight (7%) + Construction of Biosolids/SSO Facility (1/3 apportioned to Waste - $4.25M + $195k) + Detail Design/Tender Cell 1A ($320k) + Approvals ($50k) + Annual Engineering ($155k)	$1,092,790	$9,578,566	$1,303,111	$18,428	$2,226,794	$0	$0	$14,219,688		$0	$0	$1,639,002	$219,979	$0	$0	$249,487	$0
0	271	0	10577	35	395251	17199	6000	4955	6708	8371	10000	0	41570	63810	Construction of Biosolids/SSO Facility (1/3 apportioned to Waste - $4.25M + $127k) + Construction Cell 1A ($4.42M) + Engineering Oversight (7%) + Annual Engineering ($160k)	$596,143	$8,669,323	$1,329,173	$18,796	$2,271,330	$0	$0	$12,884,765		$0	$0	$0	$224,379	$0	$0	$254,477	$0
10000	271	0	27575	35	395251	17199	6000	4955	6708	8371	0	0	31570	70808	Finalize Biosolids/SSO Facility (1/3 apportioned to Waste - $1.16M + $15k) + Construction Cell 1A ($4.50M) + Engineering Oversight (7%) + Annual Engineering ($165k)	$514,325	$5,664,650	$1,626,908	$19,172	$1,859,633	$0	$0	$9,684,688		$0	$130,667	$0	$228,866	$527,686	$0	$259,567	$0
10000	271	0	27575	35	395251	17199	6000	4955	6708	8371	0	0	31570	70808	Construction Cell 1A ($4.60M) + Engineering Oversight (7%) +Annual Engineering ($170k)	$479,143	$4,594,743	$1,659,446	$19,555	$1,896,826	$0	$0	$8,649,713		$0	$133,281	$0	$233,444	$538,239	$0	$264,758	$0
10000	271	0	27575	35	395251	17199	6000	4955	6708	8371	0	0	31570	70808	Annual Engineering ($175k)	$175,000	$0	$1,692,635	$19,947	$1,934,762	$0	$0	$3,822,344		$0	$135,946	$0	$238,112	$366,003	$0	$270,053	$0
10000	271	0	27575	35	395251	17199	6000	4955	6708	8371	0	0	31570	70808	RFP for Waste Collection ($50k) + Annual Engineering ($180k)	$230,000	$0	$1,726,488	$20,346	$1,973,458	$0	$0	$3,950,291		$0	$138,665	$0	$242,875	$373,323	$0	$275,454	$0
10000	271	0	27575	35	395251	17199	6000	4955	6708	8371	0	0	31570	70808	Annual Engineering ($185k)	$185,000	$0	$1,761,017	$20,752	$2,012,927	$0	$0	$3,979,697		$0	$141,438	$0	$247,732	$380,789	$0	$280,963	$0
10000	271	0	27575	35	395251	17199	6000	4955	6708	8371	0	0	31570	70808	Annual Engineering ($190k)	$190,000	$0	$1,796,238	$21,167	$2,053,185	$0	$0	$4,060,591		$0	$144,267	$0	$252,687	$388,405	$0	$286,582	$0
10000	271	0	27575	35	395251	17199	6000	4955	6708	8371	0	0	31570	70808	Annual Engineering ($195k)	$195,000	$0	$1,832,162	$21,591	$2,094,249	$0	$0	$4,143,002		$0	$147,153	$0	$257,741	$396,173	$0	$292,314	$0
10000	271	0	27575	35	395251	17199	6000	4955	6708	8371	0	0	31570	70808	Annual Engineering ($200k)	$200,000	$0	$1,868,806	$22,023	$2,136,134	$0	$0	$4,226,962		$0	$150,096	$0	$262,895	$404,097	$0	$298,160	$0
10000	271	0	27575	35	395251	17199	6000	4955	6708	8371	0	0	31570	70808	Annual Engineering ($205k)	$205,000	$0	$1,906,182	$22,463	$2,178,857	$0	$0	$4,312,502		$0	$153,098	$0	$268,153	$412,179	$0	$304,124	$0
10000	271	0	27575	35	395251	17199	6000	4955	6708	8371	0	0	31570	70808	Annual Engineering ($210k)	$210,000	$0	$1,944,305	$22,912	$2,222,434	$0	$0	$4,399,652		$0	$156,160	$0	$273,516	$420,422	$0	$310,206	$0
10000	271	0	27575	35	395251	17199	6000	4955	6708	8371	0	0	31570	70808	Annual Engineering ($215k)	$215,000	$0	$1,983,192	$23,371	$2,266,883	$0	$0	$4,488,445		$0	$159,283	$0	$278,987	$428,831	$0	$316,410	$0
110000	5149	0	387933		7509769	326781	114000	94145	127452	159049	80000	0	679830	1289360		$6,243,679	$30,707,282	$29,508,808	$851,321	$39,600,703	$0	$0	$106,911,793		$0	$1,590,053	$10,819,760	$4,461,563	$4,636,146	$0	$5,060,042	$0

7.45 **Annual %'age Increase in Taxes commencing in 2020**

-$373 **Year 2035 Reserve Fund Balance**

Date Revised: 28-Jun-21

	General				Estimated Revenues																Reserves	
					Waste Collection and Disposal Revenues						Diversion Revenues					General						
Total Diversion Costs	Financing Costs	Administrative Costs	Total General Costs	TOTAL EXPENDITURES	Bag Fees	Gate Fees	Sewage Sludge Tipping/ Management Fee	Contaminated Soil Fees	Landfill Tipping Fees	Total Waste Collection and Disposal Revenues	Recycling (Sale of Materials)	Diversion Subsidies	Scrap Metal	Processed Sewage Sludge Sales	Total Diversion Revenues	General Levy	Interest	Total General Revenues	TOTAL REVENUES	REVENUES MINUS EXPENDITURES	CUMMULATIVE ACCOUNT TOTAL
BO	**BP**	**BQ**	**BR**	**BS**	**BT**	**BU**	**BV**	**BW**	**BX**	**BY**	**BZ**	**CA**	**CB**	**CC**	**CD**	**CE**	**CF**	**CG**	**CH**	**CI**	**CJ**
=BH+BI+BJ+BK+BL+BM+BN	=CPC47/100 IF CI is Negative	Inflated Previous Year	=BQ+BP	=BF+BO+BR	=P*Z	=Q*AA	=R*AT	=S*AQ	=T*AP	=BT+BU+BV+BW+BX	=N*AB	Inflated Previous Year	=O*AE	N/A	=BZ+CA+CB+CC	Inflated Previous Year	N/A	=CE+CF	=BY+CD+CG	=CH-BS	=CH+CJ (previous year)
	Calculated when Reserves fall below $0	City spreadsheet averaged over three years									used collection rather than marketed quantity - this ends in 2024 with Blue Box transition	City spreadhseet - 2015 value inclusive of all subsidies - this ends in 2024 with Blue Box transition		Assume no costs or revenue related to biosolids processing - assume waste water acct		The base number was taken from City spreadsheet averaged for 3 yrs. The 2016 to 2019 values were provided by Jake and future values are calculated	Assumed none				2016 to 2018 values received from Jake 2019 and future values are calculated
$2,231,750	$0	$658,449	$658,449	$7,022,206	$8,082	$601,548	$700,000	$173,435	$1,186,723	$2,669,787	$221,082	$685,816	$77,184	$0	$984,082	$2,180,654	$0	$2,180,654	$5,834,523	-$1,187,682	
$1,835,549	$0	$671,618	$671,618	$5,737,590	$8,082	$601,548	$700,000	$173,425	$420,000	$1,903,055	$225,504	$699,532	$78,728	$0	$1,003,764	$2,369,951	$0	$2,369,951	$5,276,770	-$460,820	$12,077,343
$1,872,260	$0	$685,050	$685,050	$5,802,062	$8,082	$601,548	$700,000	$173,425	$420,000	$1,903,055	$230,014	$713,523	$80,302	$0	$1,023,839	$2,053,726	$0	$2,053,726	$4,980,620	-$821,442	$11,963,656
$1,909,705	$0	$698,751	$698,751	$5,907,743	$8,082	$601,548	$700,000	$173,425	$420,000	$1,903,055	$234,614	$727,793	$81,908	$0	$1,044,316	$2,651,480	$0	$2,651,480	$5,598,851	-$308,892	$10,337,417
$1,947,899	$0	$712,726	$712,726	$6,173,483	$8,082	$601,548	$700,000	$173,425	$420,000	$1,903,055	$239,306	$742,349	$83,546	$0	$1,065,202	$3,210,000	$0	$3,210,000	$6,178,257	$4,774	$10,342,191
$1,986,857	$0	$726,981	$726,981	$6,387,475	$8,890	$661,703	$770,000	$190,768	$462,000	$2,093,361	$244,092	$757,196	$85,217	$0	$1,086,506	$3,449,145	$0	$3,449,145	$6,629,012	$241,537	$7,279,538
$2,026,594	$0	$741,521	$741,521	$7,600,661	$8,890	$661,703	$770,000	$190,768	$462,000	$2,093,361	$248,974	$772,340	$86,922	$0	$1,108,236	$3,706,106	$0	$3,706,106	$6,907,703	-$692,958	$6,586,580
$2,067,126	$0	$756,351	$756,351	$8,349,852	$8,890	$661,703	$770,000	$190,768	$462,000	$2,093,361	$253,954	$787,787	$88,660	$0	$1,130,401	$3,982,211	$0	$3,982,211	$7,205,973	-$1,143,880	$5,442,700
$2,108,469	$0	$771,478	$771,478	$17,099,635	$8,890	$661,703	$770,000	$190,768	$462,000	$2,093,361	$259,033	$803,543	$90,433	$0	$1,153,009	$4,278,886	$0	$4,278,886	$7,525,255	-$9,574,379	-$4,131,679
$478,856	$206,584	$786,908	$993,491	$14,357,112	$8,890	$661,703	$770,000	$190,768	$462,000	$2,093,361	$0	$0	$92,242	$0	$92,242	$4,597,663	$0	$4,597,663	$6,783,265	-$7,573,846	-$11,705,525
$1,146,786	$585,276	$802,646	$1,387,922	$12,219,396	$9,779	$727,873	$0	$209,844	$508,200	$1,455,697	$0	$0	$94,087	$0	$94,087	$4,940,189	$0	$4,940,189	$6,489,972	-$5,729,424	-$17,434,949
$1,169,721	$871,747	$818,699	$1,690,446	$11,509,880	$9,779	$727,873	$0	$209,844	$508,200	$1,455,697	$0	$0	$95,969	$0	$95,969	$5,308,233	$0	$5,308,233	$6,859,898	-$4,649,982	-$22,084,931
$1,010,115	$1,104,247	$835,073	$1,939,319	$6,771,778	$9,779	$727,873	$0	$209,844	$508,200	$1,455,697	$0	$0	$97,888	$0	$97,888	$5,703,696	$0	$5,703,696	$7,257,281	$485,503	-$21,599,428
$1,030,317	$1,079,971	$851,774	$1,931,745	$6,912,353	$9,779	$727,873	$0	$209,844	$508,200	$1,455,697	$0	$0	$99,846	$0	$99,846	$6,128,622	$0	$6,128,622	$7,684,164	$771,811	-$20,827,617
$1,050,923	$1,041,381	$868,809	$1,910,190	$6,940,810	$9,779	$727,873	$0	$209,844	$508,200	$1,455,697	$0	$0	$101,843	$0	$101,843	$6,585,204	$0	$6,585,204	$8,142,743	$1,201,933	-$19,625,684
$1,071,942	$981,284	$886,186	$1,867,470	$7,000,002	$10,757	$800,660	$0	$230,829	$559,020	$1,601,266	$0	$0	$103,880	$0	$103,880	$7,075,802	$0	$7,075,802	$8,780,947	$1,780,945	-$17,844,739
$1,093,380	$892,237	$903,909	$1,796,146	$7,032,529	$10,757	$800,660	$0	$230,829	$559,020	$1,601,266	$0	$0	$105,957	$0	$105,957	$7,602,949	$0	$7,602,949	$9,310,172	$2,277,643	-$15,567,096
$1,115,248	$778,355	$921,988	$1,700,342	$7,042,553	$10,757	$800,660	$0	$230,829	$559,020	$1,601,266	$0	$0	$108,076	$0	$108,076	$8,169,369	$0	$8,169,369	$9,878,711	$2,836,158	-$12,730,937
$1,137,553	$636,547	$940,427	$1,576,974	$7,027,029	$10,757	$800,660	$0	$230,829	$559,020	$1,601,266	$0	$0	$110,238	$0	$110,238	$8,777,987	$0	$8,777,987	$10,489,490	$3,462,462	-$9,268,476
$1,160,304	$463,424	$959,236	$1,422,660	$6,982,615	$10,757	$800,660	$0	$230,829	$559,020	$1,601,266	$0	$0	$112,443	$0	$112,443	$9,431,947	$0	$9,431,947	$11,145,655	$4,163,040	-$5,105,436
$1,183,510	$255,272	$978,421	$1,233,692	$6,905,647	$11,833	$880,726	$0	$253,912	$614,922	$1,761,393	$0	$0	$114,691	$0	$114,691	$10,134,627	$0	$10,134,627	$12,010,711	$5,105,063	-$373
$26,567,565	$8,896,325	$15,646,932	$24,543,257	$158,022,615	$183,212	$13,636,552	$5,950,000	$3,931,389	$9,521,022	$33,222,174	$1,709,987	$5,304,532	$1,834,148	$0	$8,848,667	$107,787,840	$0	$107,787,840	$149,858,681	-$8,163,933	

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Memorandum

To	Catherine Taddo, P.Eng.	Page	1
CC	Susan Hamilton Beach, P.Eng.		
Subject	**Waste Management System Business Plan**		
From	Rick Talvitie		
Date	October 22, 2019	Project Number	60563161

Introduction

The Waste Management System (WMS) in the City of Sault Ste. Marie includes a number of programs and elements including:

- Curbside collection of waste (City and contracted);
- Multi-residential waste collection (contracted);
- Curbside collection and processing of recyclables (contracted);
- Curbside collection and processing of leaf and yard waste (City);
- Development and operation of the municipally owned landfill site (City); and
- Household Hazardous Waste Depot (City).

The purpose of the WMS Business Plan is to take a long term view of the overall waste management system costs (facilities, equipment, staffing, etc.) to ensure appropriate funding is in place for operations, maintenance, replacement equipment, replacement infrastructure and any new components. Funding for the WMS has historically been sourced from a combination of user fees (eg. tipping fees and gate fees at the landfill and bag tags), City's share of the sale of recyclable materials, subsidies (eg. WDO) and property taxes. In recent years the revenues derived from user fees and in particular, tipping fees from the industrial, commercial and institutional (IC&I) sector, have declined dramatically as a significant proportion of this waste is being exported to a landfill in northern Michigan (i.e. quantity received locally declined from approximately 26,000 tonnes in 2011 to approximately 6,000 tonnes in 2015-2018). Although this has had a positive impact on the rate of filling in our landfill it has a significant adverse impact on revenues and cash flows. This item alone represents a $1.4M impact to annual revenues.

In addition to the loss of IC&I tipping fee revenue the planned expansion of the landfill site will also have a significant impact on WMS costs and the City's finances. Environmental regulations have changed over time resulting in enhanced protections to safeguard the environment. The development of the expanded site includes a lining system, much like a swimming pool liner, to capture precipitation filtering through the waste and direct it to the City's waste water treatment plant. Within the period covered by the financial scenarios presented herein capital expenditures related to the landfill expansion are approximately $21.5M.

Based on the foregoing, there is a need to estimate future WMS costs and identify alternatives to fund these costs.

Financial Scenarios

The WMS is dynamic and therefore the future costs and revenues are not fixed but are dependent on a number of variables such as Provincial policies and directions (eg. the City of SSM may be mandated to collect and process source separated organic (SSO) or the blue box diversion program may be funded entirely by the producers of the packaging/waste, etc.), quantities of IC&I waste received at the site, future expansion of the existing disposal site, etc. To address these challenges a number of financial models have been developed to better understand potential impacts to the City's finances over time. Each of the modeled scenarios is summarized below.

Spreadsheet 1 – High IC&I Waste

- 27,000 tonnes IC&I waste
- No User Fee Increases
- Levy contribution increases 2% annually
- Multi-Family Residential collected by the City

Spreadsheet 2 – Reduced IC&I Waste

- 10,000 tonnes IC&I waste
- No User Fee Increases
- Levy contribution increases 2% annually
- Multi-Family Residential collected by the City

Spreadsheet 3 – No IC&I Waste

- 0 tonnes IC&I waste
- No User Fee Increases
- Levy contribution increases 2% annually
- Multi-Family Residential collected by the City

Note: the first three scenarios highlight the sensitivity of the City Finances to the quantity of IC&I waste received at the site.

Spreadsheet 4 – 2015-2018 Status Quo IC&I Waste with Modest Annual User Fee and WMS Levy Increases – this scenario reflects a reasonable quantity of IC&I waste (approximate 2015-2018 volumes) and highlights the impacts of regular user fee and WMS levy increases in line with inflation

- 6,000 tonnes IC&I waste
- 10% increase in User Fees every 5 years commencing in 2020
- Levy contribution increases 2% annually
- Multi-Family Residential collected by the City

Spreadsheet 5 –2015-2018 Status Quo IC&I Waste with Modest Annual User Fee and WMS Levy Increases and Multi-Residential is Owner Responsibility – same as Scenario 4 with the exception that multi-family residential collection and disposal costs are an owner responsibility as approved by Council on September 23, 2019

- 6,000 tonnes IC&I waste
- 10% increase in User Fees every 5 years
- Levy contribution increases 2% annually
- Multi-Family Residential is an owner responsibility (i.e. City cost =$0) commencing in 2020

Spreadsheet 6 – 2015-2018 Status Quo IC&I Waste with Modest Average Annual User Fee Increases, Annual WMS Levy Increases to meet Long Term Expenditures and Multi-Residential is Owner Responsibility – Same as Scenario 5 with the exception that the WMS levy contribution annual increases are structured to provide adequate revenues to meet expenditures to 2030.

- 6,000 tonnes IC&I waste
- 10% increase in User Fees every 5 years
- Levy contribution increases tailored to meet expenditures to 2030
- Multi-Family Residential is an owner responsibility (i.e. City cost =$0) commencing in 2020

Spreadsheet 7 – 2015-2018 Status Quo IC&I Waste with Modest Annual WMS Levy Increases, Annual User Fee Increases to meet Long Term Expenditures and Multi-Residential is Owner Responsibility – Same as Scenario 5 with the exception that user fee increases occur annually and are structured to provide adequate revenues to meet expenditures to 2030.

- 6,000 tonnes IC&I waste
- Levy contribution increases 2% annually
- Annual User Fees increases tailored to meet expenditures to 2030
- Multi-Family Residential is an owner responsibility (i.e. City cost =$0) commencing in 2020

Discussion

The financial scenarios have been developed with consideration of all long term costs (i.e. asset management approach) and the expected revenues from all sources. To illustrate the results of each scenario, expenditures have been subtracted from revenues in each year and a cumulative "account" balance has been plotted over time in Figure 1. The cumulative account balance was set at $10.3M at the end of 2018 which reflects current reserves.

It is interesting to note that if the IC&I waste quantities remained strong (i.e. at 2011 levels) and the WMS levy contribution increased modestly at 2% per year, as identified by Scenario 1 (black line in Figure 1) the revenue generated would generally be adequate to fund the WMS (i.e. Cumulative Account Balance is modestly negative at -$1.0M in 2030).

In contrast to Scenario 1, Scenario 3 was modeled to demonstrate the impacts of an IC&I waste quantity of zero. In this scenario only the IC&I waste quantity differs relative to Scenario 1 and the Cumulative Account Balance is -$30.0M in 2030. Scenario 2 falls in between Scenarios 1 and 3 as it incorporates an annual IC&I waste quantity of 10,000 tonnes resulting in a Cumulative Account Balance of -$19.2M in 2030.

Given that the IC&I waste quantities have stabilized in the 6,000 t/year range over the last three years (i.e. 2015 to 2018) this quantity has been used in Scenarios 4 through 7.

Scenario 4 demonstrates the impact to finances if modest user fee increases are implemented in addition to modest increases in the WMS levy increases (i.e. average annual increase of 2% for each). The quantity of IC&I waste remains consistent at 6,000 tonnes/year and the 2030 Cumulative Account Balance is -$20.6M.

Scenario 5 builds on Scenario 4 by removing the City's costs for collection and disposal of multi-residential waste (approved by Council on September 23, 2019). Under this scenario owners of multi-residential properties would coordinate and pay a private sector company to collect and dispose of waste generated on their properties, much like other businesses in the Community. In comparing this scenario to Scenario 4 there would be a positive impact of approximately $2.1M on the City's finances from 2019 to 2030 with a Cumulative Account Balance of -$18.5M in 2030. This excludes any additional positive financial impact from tipping fee revenue for this waste (i.e. this scenario conservatively assumes all waste will be exported).

The last two scenarios build on Scenario 5 but incorporate adequate annual increases in either the WMS levy (Scenario 6) or User Fees (Scenario 7) to ensure the Cumulative Account Balance is positive in 2030. Scenario 6 includes 10% increases in user fees every 5 years coupled with an initial WMS levy increase of approximately $239,000 in 2020 and increasing each year over the period covered by the plan. The average annual increase in the levy from 2020 to 2030 is approximately $350,000. This compares with recent WMS levy increases in the range of $600,000 in 2018 and 2019.

In contrast Scenario 7 incorporates annual inflationary increases (i.e. 2%) in the WMS levy contribution coupled with an initial $10/tonne increase in tipping fees in 2020 and increasing each year over the period covered by the plan. The average annual increase in tipping fees from 2020 to 2030 is approximately $23/tonne. Under Scenario 7 it was assumed the IC&I waste quantity remains consistent at 6,000 tonnes/year but this is not likely realistic. It is anticipated that more waste would likely be exported to a northern Michigan landfill due to the significant tipping fee increases.

Scenarios 6 and 7 show similar trends but incorporate different future funding mechanisms.

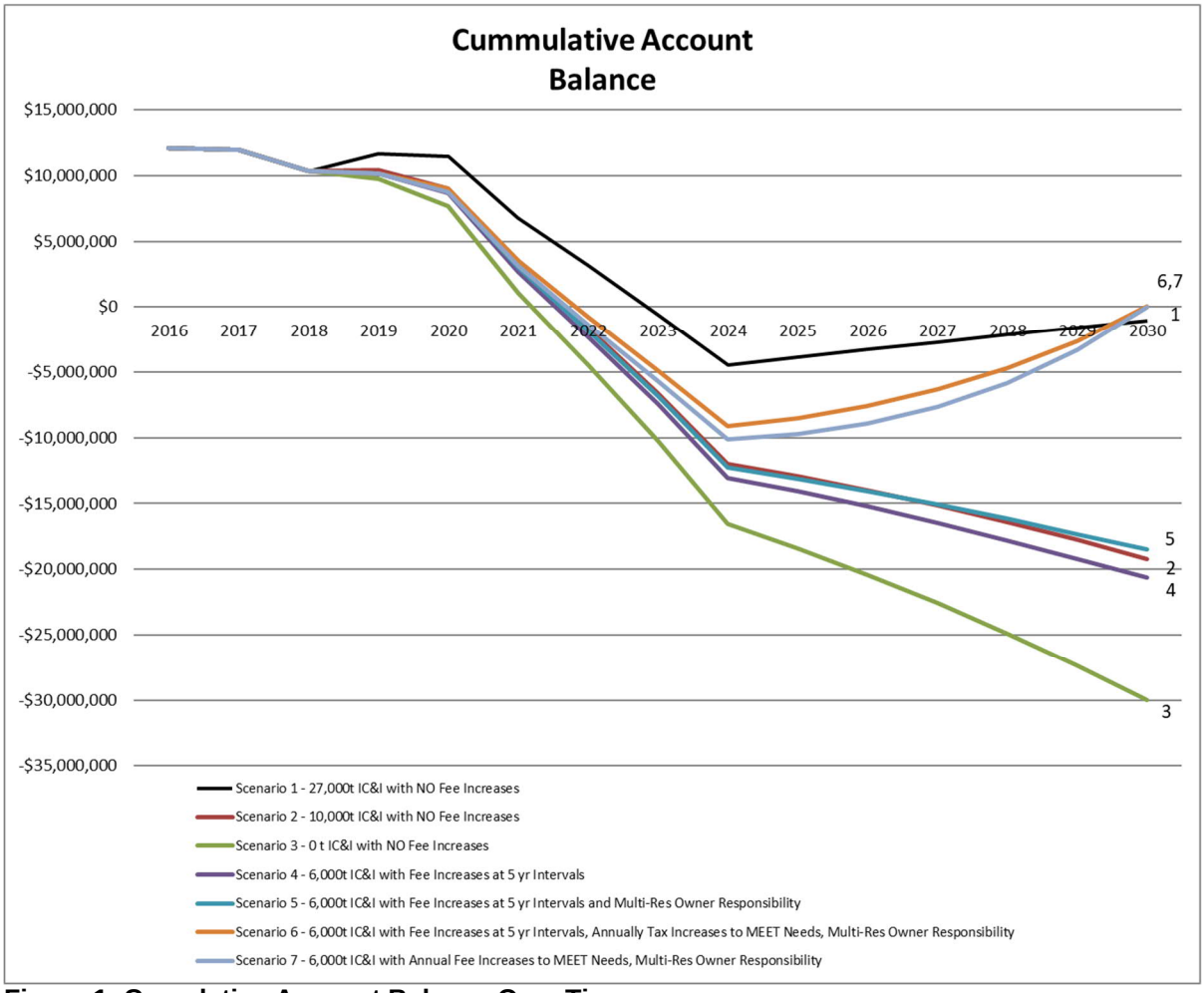


Figure 1: Cumulative Account Balance Over Time

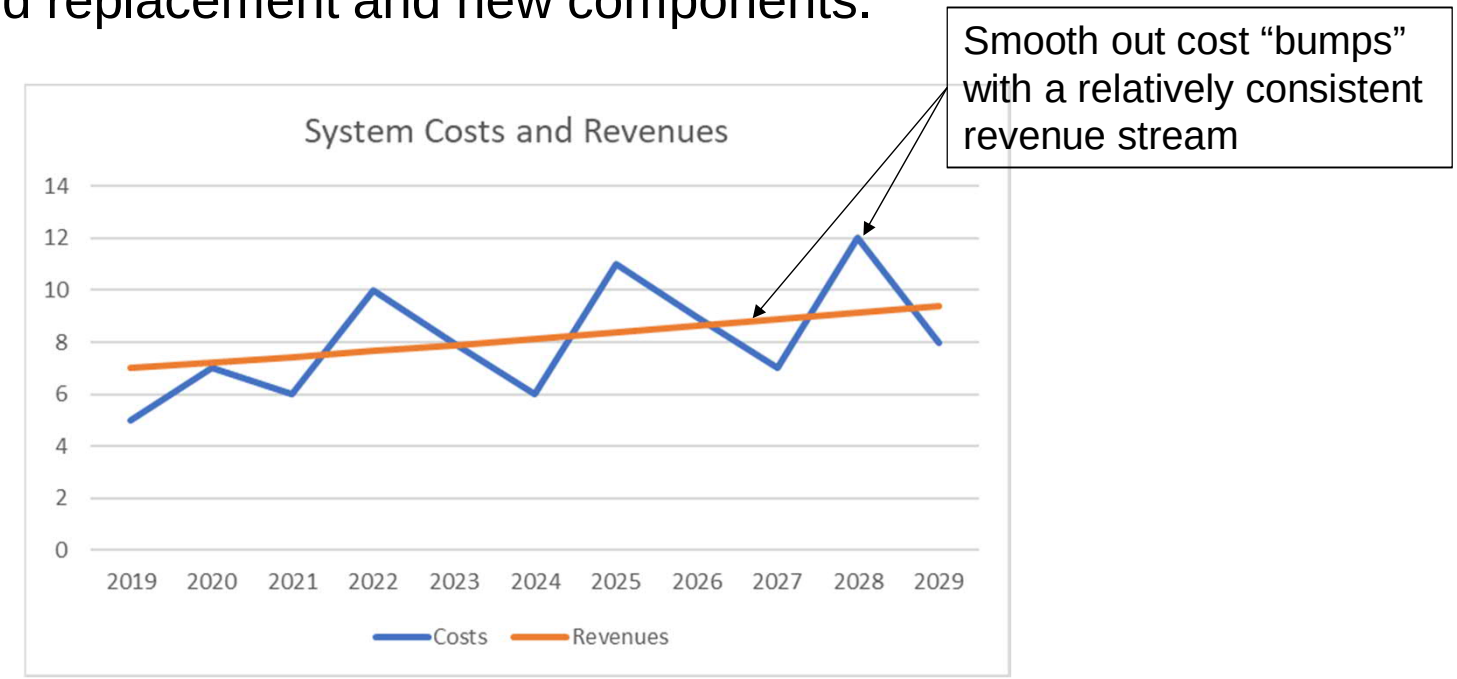
Waste Management Business Plan

City of Sault Ste. Marie

October, 22, 2019

Why Do We Need a Business Plan?

– Take a long term view of waste management system costs to ensure appropriate funding is in place for operations, maintenance, equipment replacement, facilities upgrades and replacement and new components.



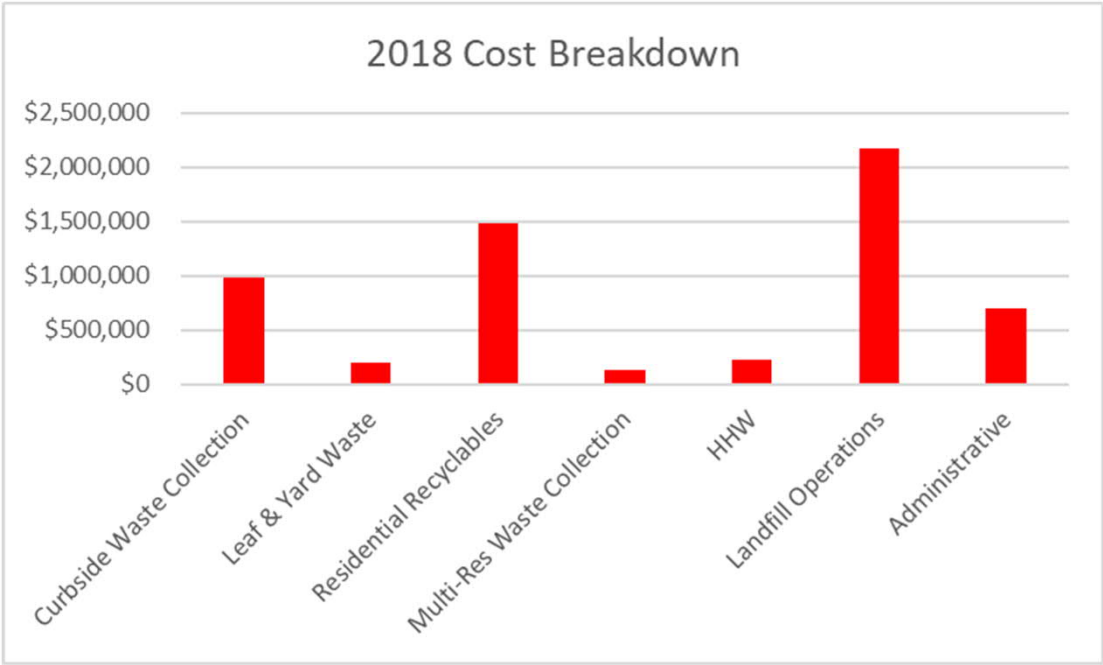
What Infrastructures/Services Are Included?

– Curbside collection of waste (City and contracted);
– Multi-residential waste collection (contracted);
– Curbside collection and processing of recyclables (contracted);
– Curbside collection and processing of leaf and yard waste (City);
– Development and operation of the municipally owned landfill site (City); and
– Household Hazardous Waste Depot (City).

Includes land, buildings, equipment, operations, maintenance, labour costs and contracted services.

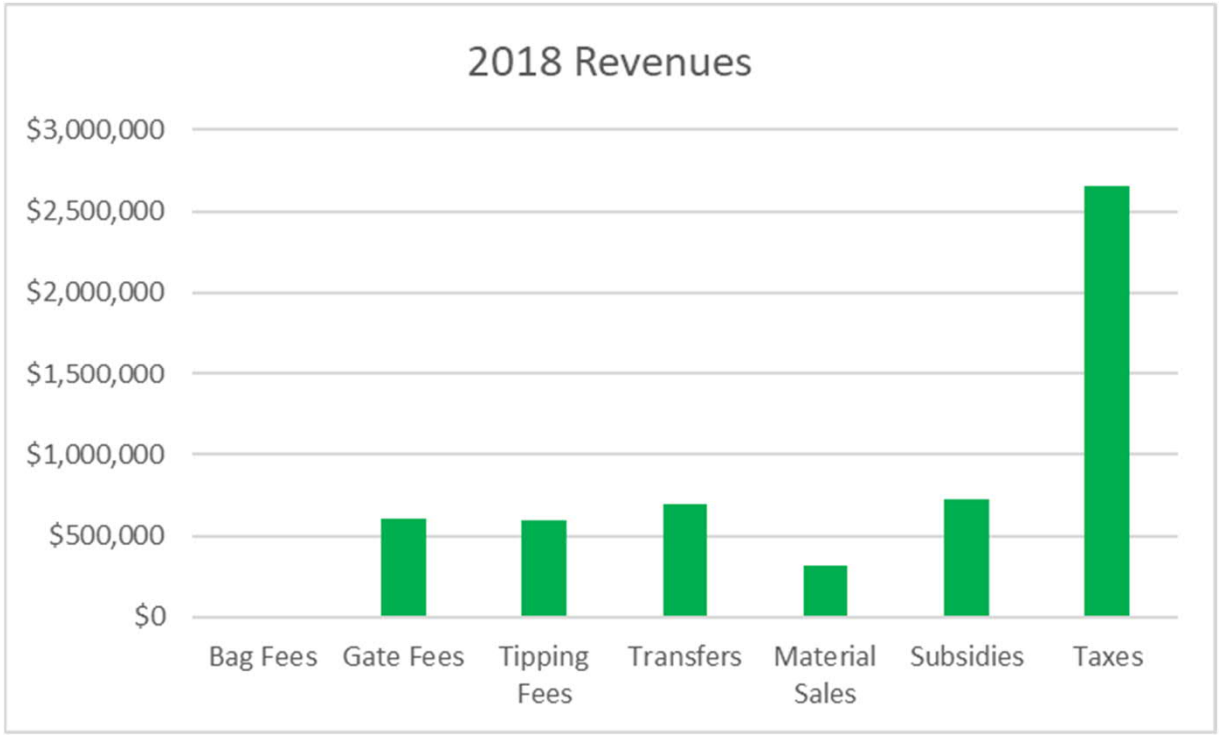
Cost Breakdown (2018)

- Curbside refuse collection;
- Curbside leaf and yard waste and recyclables collection and processing;
- Multi-res waste collection;
- Household hazardous waste depot;
- Landfill; and
- Administration.



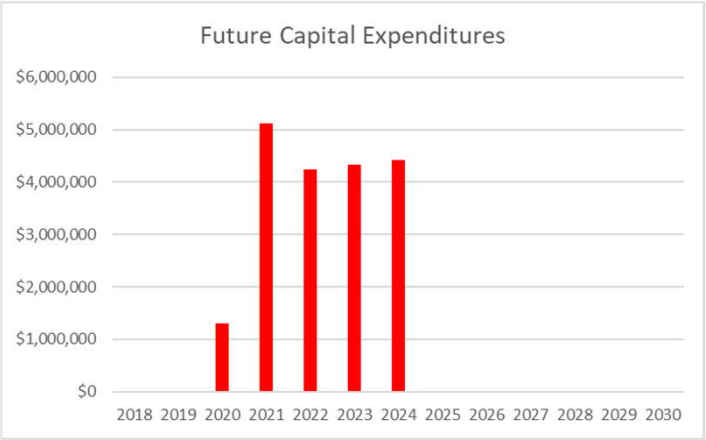
Revenue Breakdown (2018)

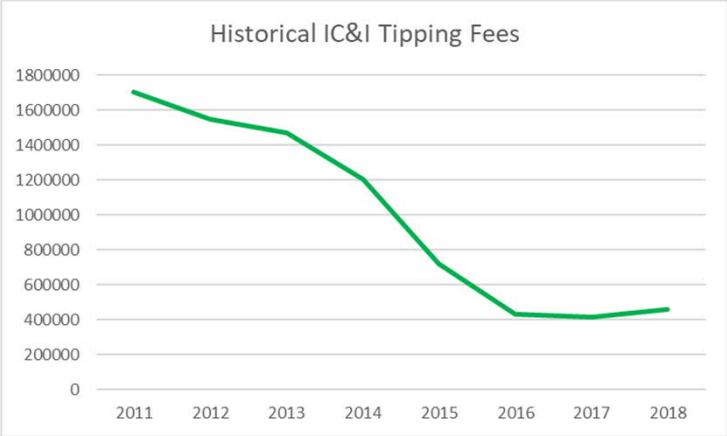
- User Fees (tipping fees and gate fees at the landfill, bag tags);
- Transfers from other Departments (sewer surcharge);
- Sale of collected recyclables;
- Subsidies (WDO);
- Property Taxes.



What has Changed?

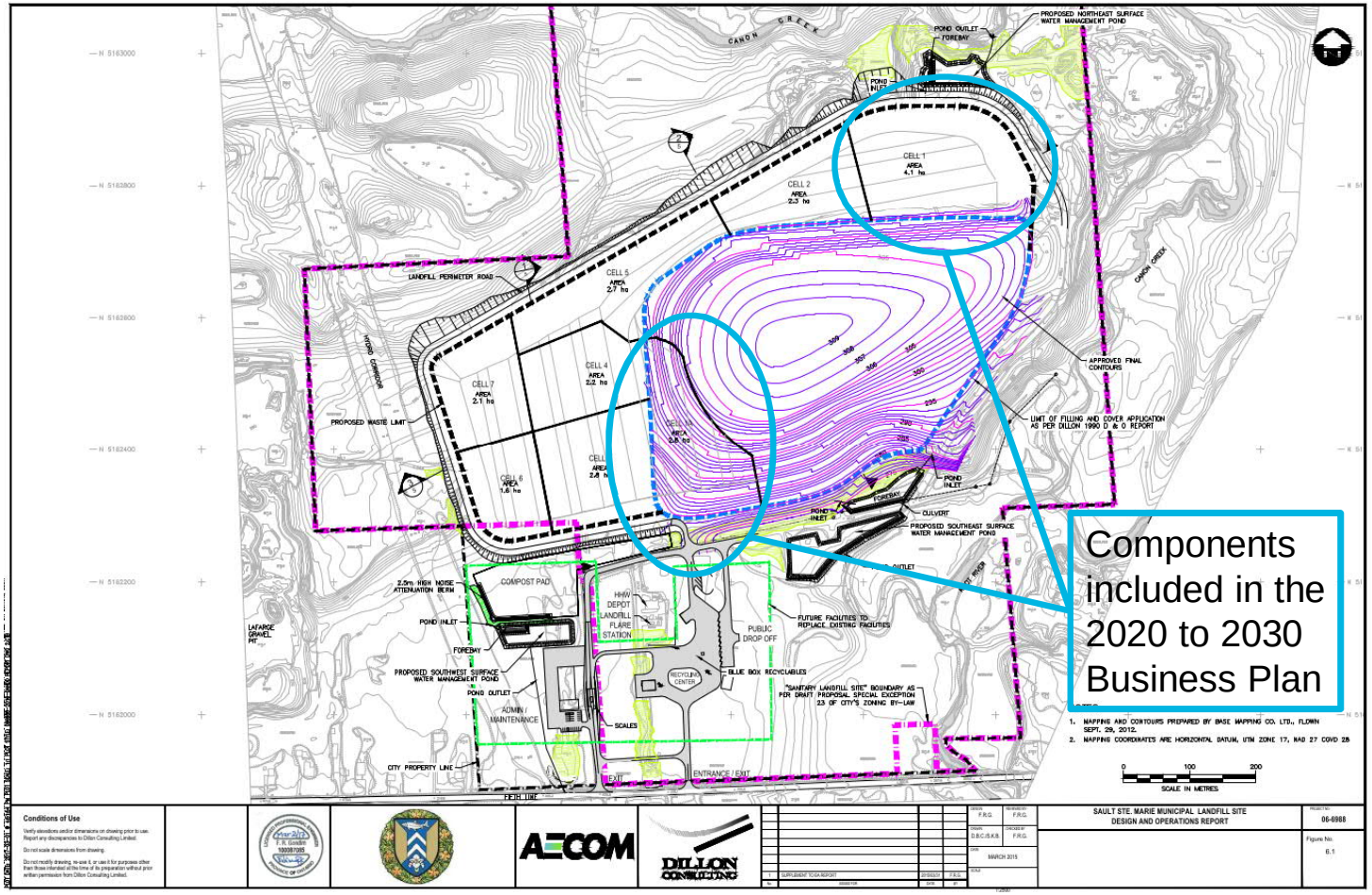
- Running out of disposal capacity (approx. 7 years remaining);
- Landfill design standards are more rigorous to better protect the environment – this leads to increased planning and technical approval costs, site development costs and operating costs; and



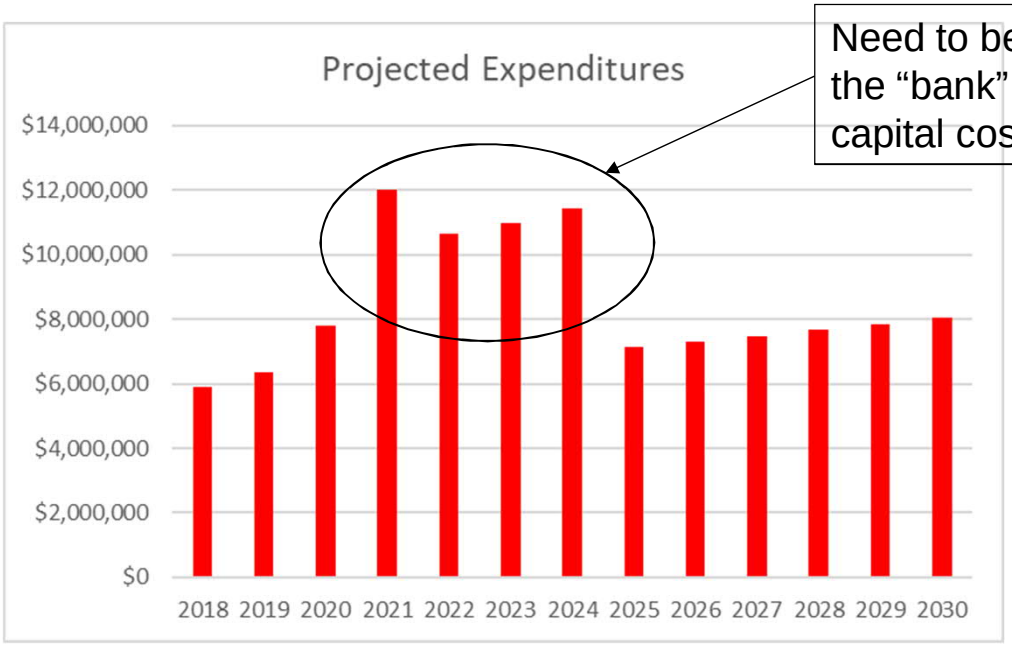


- Proportion of IC&I waste disposed of locally has declined substantially which has a positive impact on site longevity but an adverse impact on revenues

Future Waste Disposal Site



Lets Look at Future Estimated Costs

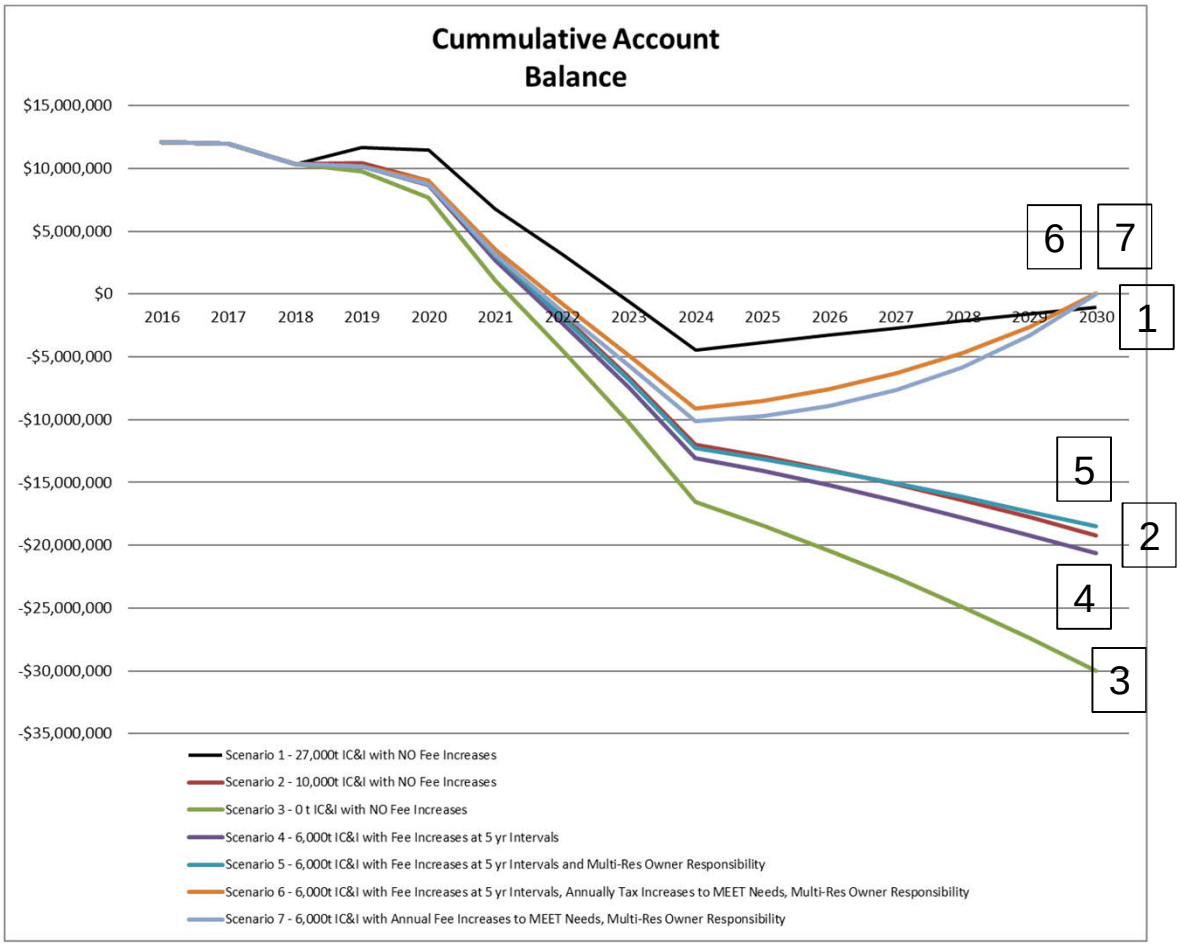


– Principal capital costs include:
  - a new "lined" disposal cell to the north of the existing disposal footprint.
  - Pumping station to pump the collected leachate.
  - New access roads.
  - Stormwater management.
  - Landfill mining and lining in the southwestern portion of the existing disposal footprint.

How to Fund Future Costs

- Two principal options to fund future increased costs:
  - User fees
  - Taxes

Scenarios Modeled



- We have developed financial scenarios to illustrate how various assumptions and system changes can impact future finances.
- Scenarios 1-3 illustrate impact of IC&I tipping fees.
- Scenarios 4-7 maintain consistent IC&I tipping fees (6,000t/year – similar to last 3 years) and look at different funding scenarios with 6 and 7 developed to ensure adequate funding to 2030.

Financial Scenarios 6 and 7

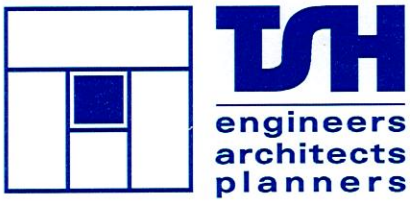
- Both scenarios have the same cost assumptions but present different ways of funding the system.
- Scenario 6 includes modest user fee increases (2% /year) and a 2020 WMS levy increase of $239k and average annual WMS levy increases of approximately $350k per year from 2020 to 2030.
- Scenario 7 includes modest WMS levy increases (2% /year) and an initial $10/tonne tipping fee increase and average annual tipping fee increases of $23/tonne from 2020 to 2030.

Imagine it.
Delivered.

City of Sault Ste. Marie

SOLID WASTE MANAGEMENT PLAN
BUSINESS AND IMPLEMENTATION PLAN

February, 2003



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February 4, 2003

Mr. Don Elliott, P. Eng.
City of Sault Ste. Marie
Engineering Department
99 Foster Drive
Sault Ste. Marie, Ontario
P6A 5N1

Dear Mr. Elliott:

Re: City of Sault Ste. Marie
Business and Implementation Plan
TSH Project No. 60219

We are pleased to submit the final Business and Implementation Plan. This report identifies a proposed implementation schedule for various waste management programs, estimated waste quantities, projected expenditures, and projected revenues for the preferred waste management system. Several alternative diversion strategies (ie: Diversion Systems 4 and 5) and revenue structures have been developed and modeled within the context of the Plan.

The findings presented in this report are sensitive to the assumptions made. Please recognize that this is a living document that will require frequent review and modification as circumstances change over time.

We wish to express our appreciation to City staff for their input and cooperation during the preparation of this report. We look forward to making a presentation to Council on February 10, 2003. We will be available to address any questions Council may have at that time.

Should you have in questions in the interim, please do not hesitate to call.

Yours very truly,

R. Talvitie, P. Eng.
Project Manager

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CITY OF SAULT STE. MARIE
SOLID WASTE MANAGEMENT PLAN
BUSINESS AND IMPLEMENTATION PLAN

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APPENDICES

Appendix A - Business and Implementation Plan Financial Model
Appendix B - User Pay Case Study City of Peterborough, Ontario

LIST OF ABBREVIATIONS

AMRC	Association of Municipal Recycling Coordinators
hh	household
HSW	Household Special Waste
IC&I	Industrial, Commercial and Institutional
OCC	Old Corrugated Cardboard
PAYT	Pay-as-you-throw - a system under which residents pay for municipal waste management services based on the quantity of waste set out curb side for collection.
The Plan	Business and Implementation Plan
TSH	Totten Sims Hubiki Associates Limited
WDS	Waste Diversion Supervisor

EXECUTIVE SUMMARY

A solid waste management plan has been developed for the City of Sault Ste. Marie which identifies a strategy to manage the solid waste stream in the City for the next 25 to 40 years. Through the study process the solid waste stream was characterized, waste diversion and waste disposal options were developed and evaluated and recommendations were documented.

The key problems addressed within the context of the study include the historical low level of diversion being achieved within the City and the limited available disposal capacity in the existing landfill site. The preferred solid waste management system addresses collection, diversion, and disposal of solid waste generated in the residential and industrial, commercial & institutional ("IC&I") sectors.

The Business and Implementation Plan ("The Plan") has been developed to provide City Staff and Council with guidance in preparing for and implementing future waste management programs. It has been developed on an Excel spreadsheet and it identifies the suggested timing for various waste management initiatives, projected system expenditures and alternative revenue sources for the period spanning 2003 to 2027.

In the recent past the annual waste management system expenditures have generally ranged from $2.4 to $2.9 million. Under Diversion System 4 the average annual expenditure over the next 7 years is projected to be in the range of $3.8 to $5.2 million (inclusive of a reasonable allowance for inflation). For the period 2010 to 2027 the costs are projected to be in the range of $6.7 to $12 million. The significant increase in future expenditures relative to past expenditures relates primarily to increases in diversion costs and the need for new waste disposal capacity. ***Additional revenues are required to fund the future waste management costs.***

Revenues can be sourced from the general tax levy or user fees (eg. tipping fees, gate fees, or pay-as-you-throw ("PAYT") programs). With greater emphasis on full cost recovery for municipal services and accountability to the taxpayer, the recent trend has been to establish some form of user pay system. With the implementation of a user pay system, waste generators pay for waste management on the basis of the amount of waste they generate. This results in the following key advantages over the traditional method of funding a waste management system through the general levy:

- waste management costs are more transparent to residents;
- residents are encouraged to recycle and reduce waste; and
- costs are more equitably distributed amongst customers.

User fees are presently being charged in the City in the form of tipping fees and gate fees at the landfill site. The existing fees charged are significantly lower relative to other similar sized municipalities in the province and the fees do not reflect the "true cost" of waste disposal. ***The existing tipping fees and gate fees should be increased to levels that are more consistent with the true cost of waste disposal and the fees being charged in other Ontario municipalities.***

With the very low level of diversion historically being achieved in the City of Sault Ste. Marie some form of Pay-As-You-Throw ("PAYT") program (ie: either partial or full) is deemed critical to the success of existing and future diversion programs. A PAYT program is a form of user fee

that requires advance payment for each bag of waste set out curbside for collection in excess of the designated bag limit (ie. purchase a tag and place it on each bag of waste in excess of the designated bag limit). Several PAYT programs have been developed and modelled within the Plan.

Although numerous assumptions have been made in developing this plan, the results highlight the need to plan for the projected significant increases in future waste management expenditures. In order to pay for the future expenditures additional revenues will be required through the general tax levy or user fees.

Following a review of the various cost recovery alternatives developed and presented within the context of this report, the City's Waste Management Steering Committee comprising of City staff, the engineering consultant, the general public and the Ministry of Environment is recommending the implementation of a partial user pay system with the following key features:

- Contributions from the general tax levy to the waste management program should remain stable at current levels in future years. This amounts to a contribution of $2.1 million in 2003 with amounts in future years adjusted for inflation.
- The user fees charged at the landfill site should be systematically increased in the near term to reflect the true cost of waste disposal and the fees being charged in other similar municipalities across the province. It is proposed to increase tipping fees to $65/tonne by 2006 and increase the gate fee to $4 per visit in 2003. Subsequent increases in these fees would be tailored to meet future expenditures.
- A PAYT program should be implemented in 2003 with a bag limit of two bags/household/week with a charge of $2.00/bag applied to each additional bag of waste in excess of the designated bag limit. Future increases in the bag fee or future reductions in the bag limit would be tailored to meet future expenditures and/or waste management goals.

The alternative to implementing an enhanced partial user pay system is increased property taxes. The projected increase in property taxes that would be payable by the average homeowner (ie: assessed value of $96,000) would likely be in the range of $40-$50 in 2003 and continue to increase in each year of the plan to approximately $130-$140 in 2027.

CITY OF SAULT STE. MARIE
SOLID WASTE MANAGEMENT PLAN
BUSINESS AND IMPLEMENTATION PLAN

1.0 INTRODUCTION

1.1 General

A solid waste management plan has been developed for the City of Sault Ste. Marie which identifies a strategy to manage the solid waste stream in the City for the next 25 to 40 years. Through the planning process the solid waste stream was characterized, waste diversion and waste disposal options were developed and evaluated and recommendations were documented.

The key problems addressed within the context of the study include the historic low level of diversion being achieved within the City and the limited available disposal capacity in the existing landfill site. The preferred solid waste management system addresses collection, diversion, and disposal of solid waste generated in the Residential and Industrial, Commercial & Institutional ("IC&I") sectors.

Throughout this report references are made to waste Diversion Systems 4 and 5. These systems were developed as part of the waste management planning process and were defined in the "Alternative Waste Diversion/Collection System Options" Report. System 4 comprises of the following:

- Residential/small business curb side collection of expanded recyclables (including old corrugated cardboard);
- Landfill ban on old corrugated cardboard;
- Processing of recyclables generated by the IC&I sector
- Enhanced leaf and yard waste collection and processing;
- Landfill ban on yard waste;
- Enhanced public education;
- Backyard composting;
- Re-use centre;
- Household Special Waste Facility;
- Partial or full user fees; and
- Increased tipping fees.

System 5 comprises of each of the components noted above together with the following **additional components**:

- Residential/small business curb side collection of organics; and
- Processing of organics generated by the IC&I sector.

1.2 Purpose of the Business and Implementation Plan

It is important for the City to prepare for the future expenditures required to establish additional waste disposal capacity, implement new or expanded diversion programs and manage the environmental controls at the existing landfill site.

The Business and Implementation Plan ("The Plan") has been developed to provide City Staff and Council with guidance in preparing for future waste management initiatives. It has been developed on an Excel spreadsheet and it identifies the suggested timing for implementing the key waste management programs together with projected system expenditures and alternative methods of recovering the system costs for the period spanning 2003 to 2027. A description of the overall layout of the spreadsheet and detailed descriptions of each component of the spreadsheet are included in Appendix A of this report.

In developing the plan, assumptions have been made regarding the future directions of the overall waste management system. In some cases separate plans have been prepared to reflect different future scenarios (ie: Diversion System 4 versus Diversion System 5). These different scenarios provide some insight into the manner in which the overall waste management plan can change. City Staff and Council must be prepared to react to changing circumstances and adjust the plan accordingly.

For example, based on the level of study completed to date, the preferred approach for future residual waste disposal is landfill mining and/or expansion of the existing site (refer to the report entitled "Waste Collection and Disposal, July, 2002"). The feasibility of implementing these options requires further technical study and may in part be dependant upon the conclusions of other related studies (eg. Aquifer Recharge Study being conducted by the Public Utilities Commission).

Recognizing the numerous assumptions required over the 25 year planning period, this document is a "living" document that is intended to be updated on a regular basis (ie: ideally once annually).

1.3 Preferred Waste Management System Implementation Schedule

The preferred waste management system includes various components some of which are relatively easily implemented and others which will require further study and analysis to confirm feasibility and cost effectiveness. Furthermore some of the waste management programs are mandated by the provincial government. Specifically, the minimum requirements for diversion of municipal waste are contained in Ontario Regulation 101/94. That regulation stipulates that municipalities having a population of 5,000 or more shall establish, operate and maintain a blue box waste management system and a leaf and yard waste system. The preferred waste management system has been developed to address the provincially legislated requirements together with the historic low level of diversion and the limited available disposal capacity in the existing landfill site. The components of the preferred waste management plan and the scheduled implementation date for each is summarized in Table 1.1.

TABLE 1.1
PREFERRED WASTE MANAGEMENT SYSTEM SUMMARY

Component Description	Status
1.0 Waste Diversion	
1.1 Residential/small business curb side collection of expanded recyclables (including Old Corrugated Cardboard).	An enhanced recycling program was implemented in October 2002 through a new municipal recycling contract.
1.2 Landfill ban (Old Corrugated Cardboard)	To be implemented in 2003. Presently the IC&I sector is banned from disposing of old corrugated cardboard ("OCC") in the City's landfill. With the implementation of the expanded recycling program in October 2002, the OCC ban can be extended to include the residential and small business sector.
1.3 Processing of recyclables generated by the IC&I sectors	This is a private sector initiative that is presently being undertaken to a limited extent within the City. It is anticipated that this component will be more attractive to the IC&I sector in the future as tipping fees are increased.
1.4 Residential/small business curb side collection of organics	A pilot study is being undertaken in 2002-2003 to determine the level of participation and willingness of residents to separate their organic wastes, the class of compost that can be produced and the financial viability of implementing a full scale organics collection and processing program. The results of the pilot study will likely identify the feasibility of proceeding with a full scale program.
1.5 Processing of organics generated by the IC&I sectors	It is anticipated that this will likely be a private sector initiative that is undertaken in concert with the residential/small business sector program noted above.
1.6 Enhanced leaf and yard waste collection and processing (bi-weekly during the growing season).	Presently the City is collecting leaf and yard waste in the late fall. It is proposed to enhance the existing system to provide collection on a bi-weekly basis throughout the growing season (ie: May through October). This component is scheduled to be implemented in the spring of 2003. This initiative may be contracted out or undertaken by City forces.
1.7 Landfill ban (yard waste)	The landfill ban on yard waste would be initiated in concert with the expanded leaf and yard waste program identified above.

TABLE 1.1 PREFERRED WASTE MANAGEMENT SYSTEM SUMMARY	
Component Description	**Status**
1.8 Enhanced public education	The City hired a Waste Diversion Supervisor ("WDS") in 2000. The responsibilities of the WDS include enhanced public education relating to the waste management system. In addition the new recycling contract commencing in October 2002 includes obligations for promoting recycling and educating the public.
1.9 Backyard composting	Presently being undertaken. It is anticipated that this component will be enhanced with the implementation of a landfill ban on yard waste.
1.10 Establish a re-use centre	Scheduled to be established in 2004. A re-use centre allows for the exchange of items between individuals with the goal of avoiding disposal in the City's landfill. Unwanted usable items are left at the facility by one party and may be retrieved and put into use by another party.
1.11 Establish a household special waste ("HSW") depot	The HSW facility was commissioned in the fall of 2001 and is presently operating. This facility provides for the disposal of hazardous wastes from residences and small businesses that cannot be disposed of in the City's landfill.
2.0 Waste Disposal	
2.1 Mining of the existing landfill site	The Waste Collection and Disposal report concluded that landfill mining should be investigated further. It is anticipated that landfill mining may be initiated in 2010±. The implementation of this component is however subject to the successful completion of relevant technical studies and approvals under the Environmental Assessment Act and Environmental Protection Act. The relevant studies, reports and applications are scheduled to be completed from 2003 to 2008. It may be possible to reduce this proposed schedule by approximately one year if the EPA work is undertaken concurrently with the EA approvals.

TABLE 1.1
PREFERRED WASTE MANAGEMENT SYSTEM SUMMARY

Component Description	Status
2.2 Expansion of the existing landfill site	The Waste Collection and Disposal report concluded that expansion of the existing landfill site should be investigated further. With appropriate environmental controls (ie. leachate collection and treatment) the area to the north of the existing landfill footprint may be suitable for the disposal of municipal solid waste. It is anticipated that expansion of the existing site may be initiated in 2010±. The implementation of this component is however subject to the successful completion of relevant technical studies and approvals under the Environmental Assessment Act and Environmental Protection Act. The relevant studies, reports and applications are scheduled to be completed from 2003 to 2008. It may be possible to reduce this proposed schedule by approximately one year if the EA approvals.
3.0 System Funding	
3.1 Implementation of an enhanced partial or full user pay system. A partial user pay system includes funds sourced from user fees in combination with funds from the general tax levy whereas a full user pay system sources funds solely through user fees. User fees typically comprise of tipping fees, gate fees and pay-as-you-throw programs ("PAYT"). PAYT programs require advance payment for each bag of waste set out curb side in excess of the designated bag limits.	It is proposed to enhance the existing partial user pay system or implement a full user pay system over the period 2003 to 2006. Over this period of time tipping fees and gate fees would be increased to levels that are consistent with other similar municipalities and more representative of the actual cost of disposing of waste. In addition the current bag limits (ie: six bags per household per week) would be reduced and charges would be applied to waste set out curb side in excess of the new designated bag limits.
3.2 Increased Property Taxes	In the event that the user fee structure is not enhanced to recover the increased system costs, property taxes will have to be increased.

1.4 Alternative Scenarios Modelled Within the Plan

As noted in the foregoing section some of the waste management programs require further study and analysis prior to implementation. In order to assess the impacts of the various directions that the overall waste management system may take a series of alternative scenarios were developed within the context of the Plan.

For example, the implementation of a full scale organics collection and processing program (ie: Items 1.4 and 1.5 listed in Table 1.1) is a significant undertaking that could have a significant impact on the waste management system and the overall system costs. Since the feasibility of undertaking a full scale organics collection and processing program is unknown at this time, it was considered prudent to develop separate business plans to illustrate the financial implications of these two scenarios. The waste management scenario which includes full scale organics collection and processing is identified throughout this report as **Diversion System 5** and the scenario that excludes organics collection and processing is referred to as **Diversion System 4**. This terminology is used throughout this report to differentiate these two scenarios.

In addition to the System 4 and System 5 scenarios the method selected to fund the waste management system costs could also have a significant impact on the overall waste management system including the level of diversion achieved within the City. The implementation of a partial or full user pay system (ie: Item 3.1 of Table 3.1) is an important component of the overall waste management system. User pay systems can include different forms of user fees but typically include, tipping fees, gate fees and a PAYT program. With user pay systems, fees are charged based on the level of waste generated for disposal. Studies have shown that the implementation of user pay systems which incorporate a PAYT program can have a significant influence on the level of participation in the diversion programs. A detailed discussion on the various methods of funding the waste management system expenditures is included in Section 2.0 of this report.

Initially a series of eight Excel spreadsheets were prepared to reflect the various scenarios considered within the context of this Plan. Each spreadsheet is described below:

- Diversion System 4 with partial user pay (Options A and B) – Spreadsheets 1 & 2.
- Diversion System 5 with partial user pay (Options A and B) – Spreadsheets 3 & 4.
- Diversion System 4 with full user pay (Options A and B) – Spreadsheets 5 & 6.
- Diversion System 5 with full user pay (Options A and B) – Spreadsheets 7 & 8.

Two options (ie: Options A and B) were developed for each scenario to illustrate different fee structures that could be established to achieve similar revenue streams.

With the input of the City's Waste Management Steering Committee comprising of nine City staff, two engineering consultant staff, one representative of the general public and one representative of the Ministry of Environment an additional scenario was developed as follows:

- Diversion System 4 with partial user pay (Option C) – Spreadsheet 9.

This scenario is similar to the scenarios presented on spreadsheets 1 and 2 but incorporates an accelerated reduction of the residential bag limit.

The alternative user pay programs that have been modelled are discussed in greater detail in Section 2.4.

2.0 WASTE MANAGEMENT SYSTEM FINANCING

Generally there are two principle ways of generating revenues to fund waste management system costs:

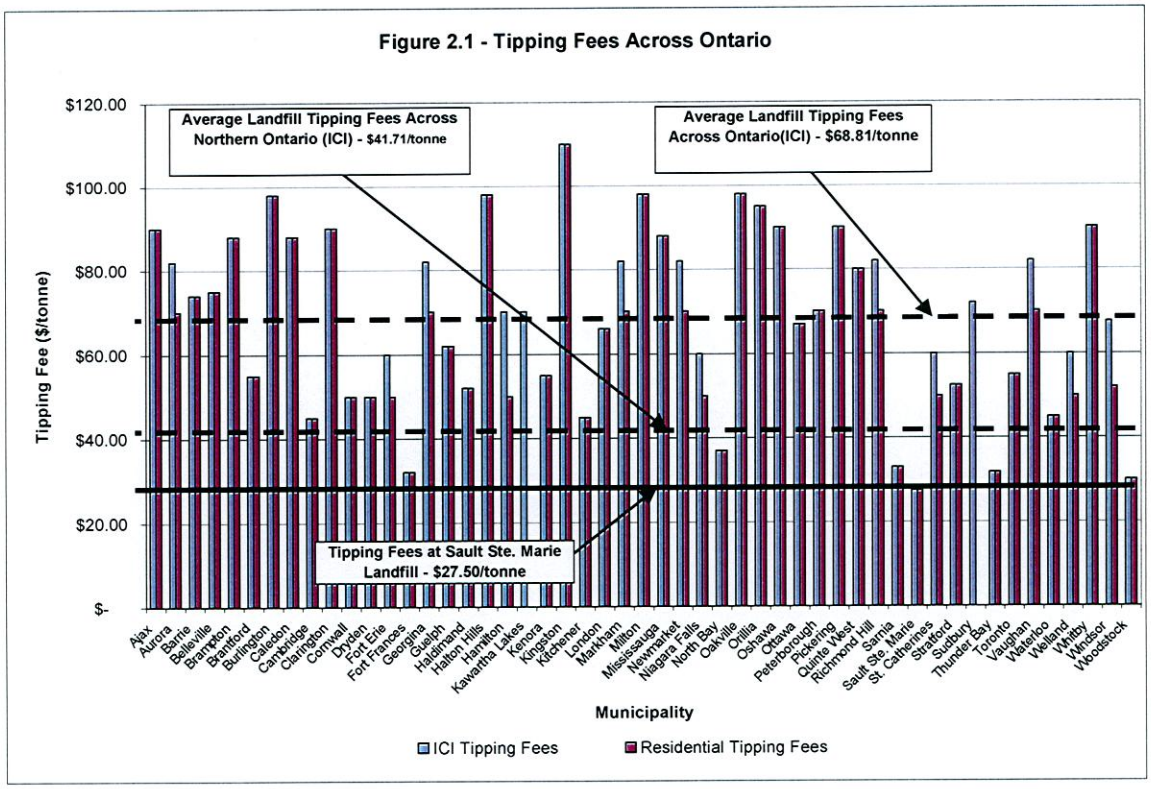
- General Tax Levy; and
- User Fees.

There has been increasing pressure on municipalities to provide services to ratepayers on a full cost recovery basis. In the case of the waste management system, this means that adequate revenues must be generated to pay for present and future system costs. There has also been greater emphasis on recovering municipal servicing costs in an equitable manner. Typically this involves some form of a "user pay" system where individuals are charged based on quantification of the service provided. **Some examples of other municipal and utility services that recover costs through user pay systems include sewage collection and treatment, potable water treatment and distribution, natural gas supply and distribution, and electrical supply and distribution.**

The existing waste management system is presently funded through the general tax levy in combination with user fees (ie: tipping fees and gate fees) applied at the landfill site. The existing method of recovering the system costs is considered a partial user pay system. As noted above the user fee component of the existing system comprises of tipping fees charged to the Industrial, Commercial & Institutional ("IC&I") sector on the basis of the weight of waste delivered to the landfill site and a gate fee charged to the residential sector for each visit to the landfill site (provided the weight of the material is under 500 kg).

2.1 Tipping Fees

The tipping fees and gate fees presently being charged at the City's landfill are significantly lower than other similar municipalities in Ontario. The tipping fees charged at other Ontario landfills are plotted in Figure 2.1 and compared to the fees charged at the City's landfill.



The City currently charges a tipping fee of $27.50/tonne, which is less than half of the average tipping fee of $68.81/tonne for Ontario municipalities surveyed. Northern and north western Ontario municipalities generally have lower tipping fees which average $41.71/tonne.

In order to determine whether the tipping fees being charged in other Ontario communities are appropriate relative to the actual costs incurred to dispose of waste, the estimated cost of developing and operating a new landfill site over its full life was prepared. An estimated cost was developed for a 2,000,000 tonne capacity site which would provide adequate capacity for the City for a period of approximately 27 years at present disposal rates. The cost estimate included the following components:

- identifying a suitable new site;
- obtaining all relevant approvals;
- operating costs over the period of landfilling;
- landfill closure; and
- post closure monitoring and maintenance costs.

Ideally the tipping fees should be adequate to recover all of the development, approvals, operating, closure and post closure costs associated with the site. Therefore, the total estimated cost was divided by the total tonnage capacity of the site to determine a suitable tipping fee.

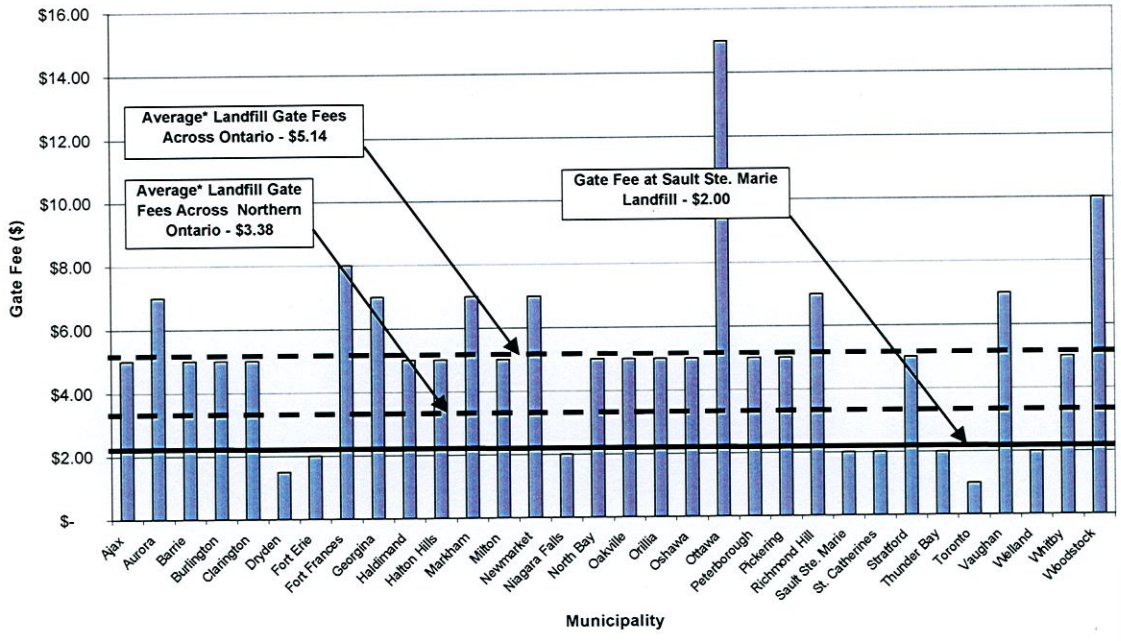
The foregoing calculation resulted in a tipping fee in the range of $60 to $70/tonne. This figure is indicative of the "true cost" of waste disposal for a suitably sized landfill site for the City.

The results of the "true cost" of landfilling calculation together with the tipping fees being charged in other Ontario municipalities highlights the importance of increasing the existing tipping fees to more appropriate levels. In each of the scenarios developed within the context of the Plan it is proposed to systematically increase tipping fees from the present $27.50/tonne to the $65/tonne range over the period from 2003 to 2006. From 2006 to 2027 tipping fees are increased at a constant rate to ensure adequate revenues are generated to meet the projected expenditures.

2.2 Gate Fees

Gate fees represent another source of revenue that is typically charged to residential customers for the disposal of waste delivered to landfill sites. Currently the City of Sault Ste. Mare charges residents a gate fee of $2.00 per vehicle provided the quantity of waste is under 500 kg. Across Ontario, gate fees generally range from $1.00 to $15.00. The gate fees charged at other Ontario landfills are plotted in Figure 2.2 and compared to the fees charged at the City's landfill.

Figure 2.2 - Gate Fees Across Ontario



* - Only Municipalities that currently charge a gate fee are considered

The average gate fee for the municipalities surveyed was $5.14 and the average fee charged in northern and north western Ontario was $3.38. A gate fee of $5.00 for loads of up to 100 kg is generally representative of what is being charged at other landfill sites that use a gate fee. This translates into a cost of $50/tonne for the first 100 kg of waste. For weights in excess of 100 kg the normal tipping fee would apply.

Considering the gate fees being charged in other municipalities together with the proposed increase in the tipping fees to the $65/tonne range, it is recommended that the gate fee be increased to $4.00 per visit in 2003 for loads under 500 kg. A $4.00 per visit fee has been

selected to allow the continued use of the "payment drop box" presently being used at the landfill (ie: loonies or toonies are deposited into a payment drop box prior to proceeding to the public drop-off area). A further increase to $6.00 per visit has been included for each scenario in 2006 and increases beyond 2006 have tailored to reflect tipping fee increases.

It is also recommended that the existing 500 kg weight limit be reduced to 100 kg in 2006. Once implemented the gate fee would apply to the first 100 kg of waste and the normal tipping fee would apply to the weight of waste in excess of 100 kg. The reduction from the present 500 kg limit to 100 kg will likely result in increased usage of the existing weigh scale at the landfill site. An allowance has been included for the installation of an additional scale in 2005 to accommodate the projected increased usage. This would allow the City to have separate scales dedicated for inbound and outbound traffic. It will also ensure that a single scale will be available in the event that one scale requires servicing or repair.

2.3 "Pay-As-You Throw" Programs - General

In addition to increasing tipping fees and gate fees a third component of user pay systems which is currently not applied in the City of Sault Ste. Marie is a "Pay-as-you-throw" (PAYT) program. PAYT programs are structured to encourage citizens to divert and reduce waste and are increasingly becoming an accepted method for financing residential waste management services. In a PAYT program, waste generators pay for waste management on the basis of the amount of residual waste they generate.

"The three major selling points of a PAYT program are known as the three E's – environment, economics, and equality. PAYT is billed as a program that can encourage residents to recycle and reduce waste, help communities pay for solid waste costs, and distribute costs more evenly among consumers".[1]

Recognizing that a PAYT program is new to the municipality some information and data was gathered on the experiences with PAYT programs in other municipalities.

2.3.1 PAYT Programs in Ontario

PAYT Programs may be introduced under one of two scenarios, a full PAYT program or a partial PAYT program.

Full PAYT Program: all waste that is placed at the curb for collection by the City must be paid for in advance (eg. by purchasing a tag and placing it on each bag of waste (ie: "bag tags")).

Partial PAYT Program: a designated number of bags are permitted to be placed at the curb without requiring advance payment. If the resident exceeds the designated number of bags permitted at the curb then any additional bags must be paid for in advance (eg. by purchasing a tag and placing it on each additional bag of waste).

[1] Horton, Tonia. 1998. "**Environomics: Can the Marriage of Economics and the Environment End Happily Ever After?**" MSW Management. Volume 8, No. 7: 50-57.

In lieu of bag tags some programs are implemented using different systems such as marked bags, variable standardized container sizes and weight-based systems. The majority of Ontario communities however use the bag tag system.

In 1996, 59 user-pay programs were operating in Ontario (mainly implemented between 1991 and 1996). In 2001, over 100 programs were in place in Ontario with many of the more recent programs being introduced in the larger municipalities.[2]

One of the most important advantages of PAYT is the positive influence on residential waste diversion programs. Residents are more inclined to maximize their participation in the available diversion programs in order to reduce their bag fee costs. This results in improved levels of participation in the diversion programs and improved capture efficiency of the diversion materials. This is an important benefit for the City as historical diversion rates have been very low in comparison to other municipalities in Ontario.

In terms of bag limits, communities that establish a bag limit program at four or more bags rarely experience a noticeable reduction in waste sent to landfill or an increase in materials diverted through recycling or composting programs. The introduction of a three-bag limit can alter waste disposal/diversion behaviour somewhat by targeting the portion of the population that exceeds three bags of waste per week on a regular basis and that does not fully participate in waste diversion programs.[3]

The results of the Residential Waste Composition Study completed for the City in 2000 indicated that the average number of bags set out each week by each household was 2.67. The results also indicated that approximately 24% of the households that participated set out four or more bags. The proportion of households that set out four or more bags of waste would likely be reduced with the implementation of bag limits/PAYT as residents would likely pack more waste into each bag. For example residents that typically generate 3 ½ bags per week could likely pack all of their waste in 3 bags with more efficient packing. Furthermore the residential waste audit was undertaken in 2000 prior to the implementation of the enhanced blue/yellow box recycling program. The implementation of that program has resulted in a significant reduction in the quantity of waste being set out curb side. ***Therefore in order to achieve meaningful changes in diversion habits in the City a bag limit of two or less is recommended.***

In municipalities with PAYT programs bag prices ranged from $0.50 to $5.00 per bag with most charging between $1.00 to $2.00 per bag. However, it should be noted that a $1.00 tag fee was found to be too low to maintain or promote further waste reduction efforts over time and rarely is the $1.00 tag fee a reflection of the true cost of waste collection and disposal. Rather it is considered an acceptable fee to charge residents during the launch of a PAYT program without causing significant backlash.[4]

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[2] Enviros-RIS. April 2001. **The Waste Diversion Impacts of Bag Limits and PAYT (Pay-As-You-Throw) Systems in North America, Report to City of Toronto Policy and Planning, Works and Emergency Services Department**

[3] Association of Municipal Recycling Coordinators (AMRC). 1996. **User Pay Implementation Kit**. Guelph, Ontario cited in reference.

[4] Enviros-RIS. April 2001. **The Waste Diversion Impacts of Bag Limits and PAYT (Pay-As-You-Throw) Systems in North America, Report to City of Toronto Policy and Planning, Works and Emergency Services Department**

In addition to traditional "bag tag" PAYT programs, municipalities are introducing variations on the user-pay theme, from flat fees that cover part of the municipal waste management service to the outright removal of certain services (in particular bulky goods collection) from the tax base (ie: levy charges for bulky items).

For example, in Stratford, the pick-up of bulky items such as couches requires a $10 tag and the City charges $22 for pick-up of white goods. This trend reflects actual handling costs that were previously absorbed by the waste collection service.[5] The City of Sault Ste. Marie has adopted a similar policy to that in Barrie which precludes the collection of bulky items at the curb.

Listed in Table 2.1 are some examples of PAYT programs presently ongoing in Ontario.

TABLE 2.1
SAMPLE PAYT PROGRAMS IN ONTARIO

Municipality	Bag Limit	Tag Cost	Notes
Barrie	2	$1.00	Charge for extra bags in excess of limit.
Belleville	6	$1.00	Every item requires a bag tag. Pay for each tag.
Brampton	3	$1.00	Charge for extra bags in excess of limit.
Caledon	3	$1.00	Charge for extra bags in excess of limit.
Clarington	3	$1.00	Tag system being implemented next year.
Dryden	None	$1.50	Pay for each tag.
Fort Erie	3	$1.00	Charge for extra bags in excess of limit.
Georgina	None	$1.00	Pay for each tag.
Kawartha Lakes	2	$2.00	Charge for extra bags in excess of limit.
Kenora	None	$2.00	Pay for each tag.
Kingston	3	$2.00	Charge for extra bags in excess of limit.
Markham	3	-	Pick up more tags for no charge – 12 at a time.
Mississauga	3	$1.00	Charge for extra bags in excess of limit.
Niagara Falls	3	$1.00	Charge for extra bags in excess of limit.
Orillia	None	$1.50	40 free tags issued to each residence free of charge. Charge for extra tags.
Oshawa	4	$1.00	Charge for extra bags in excess of limit.
Quinte West	4	$2.00	Pay for each tag.
St. Catherines	3	$1.00	Charge for extra bags in excess of limit.
St. Thomas	2	$1.50	Privately run by Green Lane Environmental.
Stratford	None	$1.20	Various rate tag system – depends on size of item.
Welland	3	$1.00	Charge for extra bags in excess of limit.

Typically there is resistance from the community when PAYT programs are initiated. Most PAYT programs have shown that opposition usually fades within six months.[6]

[5] Kelleher, M. and Dixie, J. **User Pay in Canada – A 1999 Survey: Here to stay and increasing in popularity and efficiency.** http://www.risltd.com/mpindex05s7.htm, retrieved August 30, 2002
[6] Recycling Council of Ontario (RCO) Workshop. 1996. **Implementing Municipal User Fees for Garbage**.

2.3.2 Problems Experienced with PAYT Programs

Problems are likely to be experienced with individuals attempting to circumvent the bag fees. Typical problems include illegal dumping of waste, backyard burning of waste, and increased traffic to the public drop-off at the landfill. Despite concerns about illegal dumping, the majority of communities with PAYT programs did not experience serious illegal dumping problems.[7] Most communities have established enforcement procedures and fines in their waste management by-law/ordinances to deal with illegal dumping. Communities rely on education and promotion to inform residents about the "zero-tolerance" towards illegal dumping rather than enforcing the by law/ordinance penalty sections.

In Barrie, upon implementation of a PAYT program, illegal dumping increased for the first 3 to 4 months. City staff would sort through bags to identify the owner of the waste. Upon identification, the individual would be sent a letter with a photo of the evidence. Also included would be an invoice that included the cost to collect and landfill the waste, and the associated administrative costs (person hours). The media discouraged illegal dumping by covering the tactics the City would employ, if required. Now, illegal dumping has virtually disappeared. However, there are 1-2 calls per month involving incidents where residents have dumped waste on other residents' property. Under the City by-law, City staff can sort through the bags and charge the residents up to a $5000 fine.[8] This response is consistent with other communities surveyed by Enviros-RIS (ie. Orillia and St. Catherines).

Some communities will hire additional enforcement staff for the early stages of the program implementation and will simultaneously enact anti-dumping legislation with fines to deter illegal dumping. Consequently, illegal dumping rarely becomes a long-term problem for communities.[9]

Backyard burning of waste is a problem that is generally easier to address than illegal dumping. The identification of delinquents is generally driven by complaints. Communities rely on education and promotion to inform residents about the "zero-tolerance" towards backyard burning of waste and establish enforcement procedures and fines to deter this activity.

In some instances the level of traffic to the public drop-off has increased dramatically following the introduction of a PAYT program. For example, the City of Stratford which has a full PAYT program charges $1.20 per bag at the curb but only $0.50 per bag at the landfill. Thus, the community experienced a 160% increase in residential self-haul to the landfill. It is important that the bag fee and tipping/gate fee structure is properly integrated to deter this type of activity (eg. Implement a higher gate fee).

2.3.3 What are the Impacts on Diversion?

Quantitative work suggests that the impacts from PAYT are the single most effective change that could be made to a curb side diversion program. Implementing PAYT had a larger impact on

[7] Enviros-RIS. April 2001. **The Waste Diversion Impacts of Bag Limits and PAYT (Pay-As-You-Throw) Systems in North America, Report to City of Toronto Policy and Planning, Works and Emergency Services Department**
[8] See reference [7]
[9] Ibid.

recycling than adding additional materials, changing frequency of collection or any other modifications to programs[10] (see the City of Peterborough example in Appendix B).

However, the combination of a convenient curbside recycling program coupled with a PAYT program can promote higher recycling rates than either program operating on their own.

In terms of waste going to landfill, the Association of Municipal Recycling Coordinators ("AMRC") has approximated percentage waste reduction rates following the introduction of PAYT programs as follows:

- Partial, two 'free bags' will result in a 15-20% reduction in residential waste sent to landfill
- Partial, one 'free bag' will result in a 25-35% reduction in residential waste sent to landfill
- Full, no 'free bags' will result in 30-45% reduction in residential waste sent to landfill

These percentage reductions have been consistent with data reported by the communities of Barrie, Orillia, Georgina and Stratford.

In the end, the reduction in waste greatly depends on the available diversion alternatives and the participation achieved by the community.

Of some interest, Skumatz has demonstrated that PAYT programs actually lead to 5 to 7% source reduction as expressed as a percentage of residential solid waste generation. Source reduction is ultimately attributed to changes in behaviour including buying items in bulk or with less packaging, reusing items, reducing junk mail and backyard composting.[11]

2.3.4 Additional Cost of Administering a PAYT Program

Administrative costs will vary depending on the method through which a PAYT program is administered.

Barrie has experienced a 10-15% increase in administrative costs while Orillia reports no change in administrative burden because they mail their 40 tags to residents. Mainly, additional administration is required to track the sales of tags either in the Civic offices or through local retailers. Education and promotion of the program may also result in additional costs.

If illegal dumping surfaces as a serious problem, the municipality may hire an inspector that just deals with illegal dumping issues which would incur additional salary expenditures.

For the purposes of the financial models developed for the City, an allowance of $100,000 (2002 $'s) has been included for increased administrative costs associated with the implementation of partial PAYT programs and an allowance of $125,000 (2002 $'s) has been included for full PAYT programs.

[10] Skumatz, Lisa. 1993. **Variable-rate or "Pay-as-you-throw" Waste Management: Answers to Frequently Asked Questions**. Policy Study No. 295, Reason Foundation, Los Angelas, California.
[11] Skumatz, Lisa. 2000. **Source reduction can be measured**. Resource Recycling Volume 38, No. 8: 22-26.

2.3.5 Pros and Cons of Alternative Methods of Funding the Waste Management System

In Table 2.2 the pros and cons of general tax levy funding versus PAYT programs are summarized. The overriding benefits of the PAYT programs are the positive impacts on diversion, and equity.

TABLE 2.2
PROS AND CONS OF ALTERNATIVE WASTE MANAGEMENT REVENUE SOURCES

System	Pros	Cons
General Tax Levy	• Easy and less costly to administer. • Less resistance from the public. • Lower level of illegal dumping/backyard burning of waste.	• Reduced participation and capture efficiency in the waste diversion programs. • Requires higher disposal capacity due to reduced diversion. • Higher per capita waste generation rates are likely. • Less equitable distribution of costs. • Waste management costs are less visible to the community. • Will require significant tax increases to fund increased waste management costs.
Pay-as-you-throw	• Will likely result in increased participation and capture efficiency in diversion programs. • Will likely result in a reduced quantity of waste being landfilled. • Waste generation rates may be reduced. • More equitable distribution of costs. • Provides an alternate source of revenue which could eliminate or temper future tax increases. • Waste management system costs are more visible to the community.	• Increased administration costs. • Likely requires greater efforts to enforce illegal dumping/backyard burning of waste. • Resistance to change can be expected.

Other important observations from other municipalities with user pay programs in place include:

- suitable alternatives should be available to residents to reduce their waste (ie: comprehensive curb side recycling and leaf and yard waste programs as a minimum) – ***an***

enhanced dry recyclables program was initiated in Sault Ste. Marie in October, 2002, an enhanced leaf and yard waste program is proposed for the spring of 2003 and the feasibility of undertaking residential organics collection and composting is presently being studied; and

- public education programs play an important role particularly during the early stages of launching bag limits and/or PAYT programs. Suitable methods of disseminating information to the public may include printed materials delivered through PUC mailings, newspaper advertisements, local television and hot lines. – ***the City hired a waste diversion supervisor in 2000 and the new dry recyclables contract includes provisions for public education***.

2.4 Alternative User Pay Systems Considered within the Context of the Plan

The success of the existing and future waste diversion programs will be dictated in part by the implementation of a suitable user pay system. Each of the user pay systems developed includes tipping fees, gate fees and some form of PAYT program (ie: bag fees). Each of the scenarios considered is described in the following subsections.

2.4.1 Partial User Pay Program

Five alternative partial user pay systems have been developed within the context of the Plan. Within each of these models revenues are generated through a combination of user fees and contributions from the general tax levy. In order to establish a suitable level of annual contributions from the general levy, the net levy contribution to waste management in the 2000 and 2001 calendar years was obtained from the City and is summarized in Table 2.3.

TABLE 2.3
GENERAL TAX LEVY CONTRIBUTIONS TO WASTE MANAGEMENT

Year	Net Contribution from General Levy
2000	$1,571,705
2001	$2,011,854
2002	$2,180,857[1]

1. This is a budgeted amount.

For the purposes of developing a partial user pay system it was decided that a reasonable approach would be to maintain a relatively consistent contribution from the general levy and fund future increases in the waste management costs through user fees (tipping fees, gate fees and a PAYT program). Therefore the actual net 2000 and 2001 contributions noted above have been incorporated into each of the partial user pay system models and an allowance for inflation has been applied to the 2001 amount for all future years. Any funds in excess of the proposed general levy contributions required to fund the future waste management expenditures would be funded through new or increased user fees.

A partial user pay system has been modelled for each of Systems 4 and 5. In addition different fee structures have been developed and modelled for each of these systems (ie: Options A, B and C). Five separate spreadsheets have been developed featuring partial user pay systems:

- Diversion System 4 with partial user pay (Options A, B and C) – Spreadsheets 1, 2 & 9; and
- Diversion System 5 with partial user pay (Options A and B) – Spreadsheets 3 & 4.

For System 4 it has been assumed that the bag limit would be reduced from the current six bags per household per week to two bags per household per week.

For System 5 it has been assumed that the bag limit would be reduced from six bags per household per week to one bag per household per week.

The period of time over which these changes are effected differs with each scenario. The proposed bag limit under System 5 is reduced relative to System 4 due to the enhanced diversion opportunities afforded through the residential organics collection and processing program that is inherent in System 5. Although the bag limits have been established at 2 bags and 1 bag per household per week for each of Systems 4 and 5 respectively these limits could be reduced further in future years as circumstances warrant (eg. increased revenue required, enhanced participation required in the diversion programs, etc.).

The spreadsheets developed for each of the partial user pay scenarios have been provided to the City in a digital format. In addition a hardcopy of Spreadsheet 9 which reflects System 4 with a partial user pay program has been included in the pocket at the back of this report. A comparison of the various partial user pay scenarios is included in Section 3.0.

2.4.2 Full User Pay System

Several full user pay systems have been developed to generate sufficient revenues to meet estimated future expenditures over the 25 year planning period. Although the approach to funding the waste management system through a full user pay system is new to the community, it represents an **equitable** means of recovering the waste management system costs. It is similar to the approaches taken to pay for other municipal and utility services including water treatment and distribution, waste water collection and treatment, natural gas supply and distribution and power generation and distribution.

With the implementation of a full user pay system the majority of the waste management system revenues will accrue through bag fees, tipping fees and gate fees. A phased implementation of the full user pay system has been included over a period of four years (ie: 2003 to 2006). During this transition period the residential bag limit is reduced from the present six bags per household per week limit to zero bags in 2006. In 2006 and all future years each bag that is set out curb side would be subject to a bag fee.

A full user pay system has been modelled for each of Systems 4 and 5. In addition different fee structures have also been developed and modelled for each system (ie: Options A and B). Four separate spreadsheets have been developed featuring full user pay systems:

- Diversion System 4 with full user pay (Options A and B) – Spreadsheets 5 & 6.
- Diversion System 5 with full user pay (Options A and B) – Spreadsheets 7 & 8.

The spreadsheets developed for each of the full user pay scenarios have been provided to the City in a digital format. A comparison of the various full user pay scenarios is included in Section 3.0.

3.0 DISCUSSION OF FINANCIAL MODELS (SPREADSHEETS)

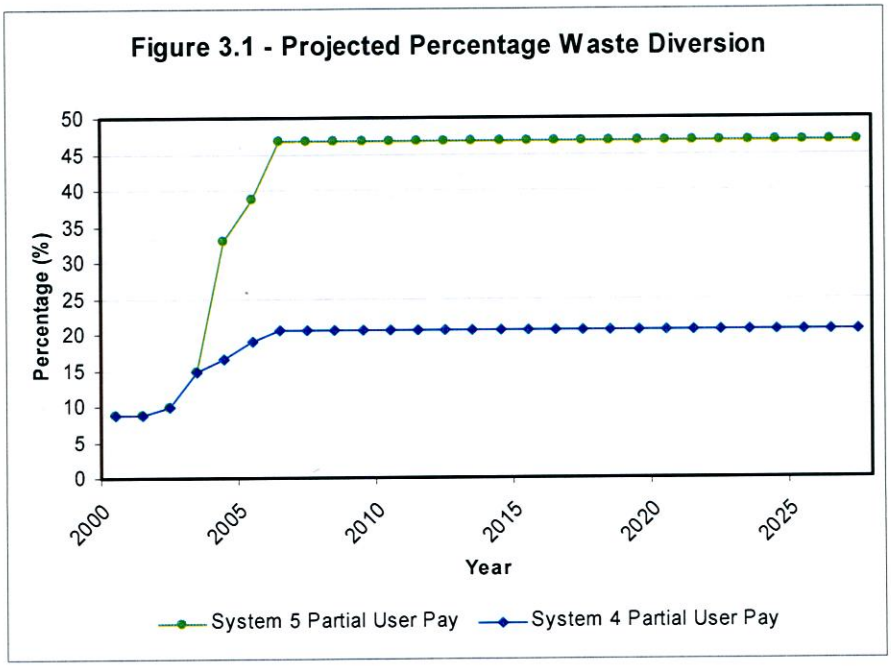
A total of nine financial models (spreadsheets) have been produced to reflect different waste management scenarios that may develop as the waste management plan is implemented over time. This Plan spans the period from 2003 to 2027. The estimated waste management quantities, expenditures and revenues have been developed for each year of the Plan to assist the municipality in planning and budgeting for future waste management programs.

Within the following subsections the content of the various financial models (ie: spreadsheets) are compared and discussed. For clarity and simplicity the graphical comparison of System 4 versus System 5 scenarios has been illustrated using the partial user pay models. Both the partial user pay models and full user pay models illustrate similar trends.

3.1 Estimated Future Waste Diversion Quantities

One of the goals of the waste management planning process was to increase the level of diversion in the City. Each of the scenarios considered within the context of the Plan will result in a different level of diversion. In Figure 3.1 we have summarized the anticipated level of diversion to be achieved for each of Systems 4 and 5 with the implementation of a partial user pay system. For the purposes of this comparison Spreadsheets 1 and 5 have been used.

Figure 3.1 - Projected Percentage Waste Diversion



On the basis of the data presented in Figure 3.1 significant increases are anticipated in the existing diversion rate in the community. Under System 4 the diversion rate is projected to increase from less than 10% to the 20%-25% range while under System 5 the diversion rate is projected to increase to the 45%-50% range. The higher projected diversion rate for System 5 is attributable to the organics collection and processing program included in that system.

Council has endorsed, in principle, the implementation of System 5 subject to financial feasibility and public input. The feasibility of implementing System 5 is presently being studied through the Co-composting Pilot Study. A report will be made available to Council in 2003 with the results of the pilot study. The reporting will include the willingness of residents to separate their organic wastes, their impressions of the pilot program, the quality of compost that can be achieved and possible markets for the finished compost. Ultimately the pilot study will provide the necessary information to make a decision on whether to remain with Diversion System 4 or proceed with Diversion System 5.

3.2 Estimated Future Waste Disposal Quantities

The estimated disposal capacity required over the 25 year planning period varies for each of the scenarios considered within the Plan. For example under System 5 the quantity of waste disposal in a given year is much lower than the disposal capacity consumed under System 4. This is attributed to the organics diversion program that is inherent in System 5. Similarly, the scenarios that include a partial user pay system consume more disposal capacity in comparison to the corresponding scenario with a full user pay system.

The disposal capacity that is consumed within the 25 year planning period is an important consideration as any reserve or unused disposal capacity has a significant value that must been considered when comparing the various scenarios.

Earlier in this report (ie: Section 2.1) an estimate of the "true cost" of waste disposal was presented. The calculation identified that the "true cost" of disposing of waste (ie: inclusive of site selection, environmental approvals, operations during the active site life, closure and post closure monitoring) is in the range of $60 to $70/tonne (2002 $'s). Assuming that this cost will increase over time at a rate of 3% per annum the estimated 2027 cost for waste disposal will likely be in the range of $125 to $145/tonne. For the purposes of this Plan, $125/tonne has been used to approximate the value of unused waste disposal capacity at the end of the 25 year planning period.

The total waste disposal capacity consumed in each year of the Plan for two scenarios (ie: System 4 Partial User Pay Option A – Spreadsheet 1 versus System 5 Partial User Pay Option A – Spreadsheet 5) has been plotted in Figure 3.2 and the total disposal capacity consumed over the full 25 year planning period for both partial and full user pay scenarios is summarized in the Table 3.1.

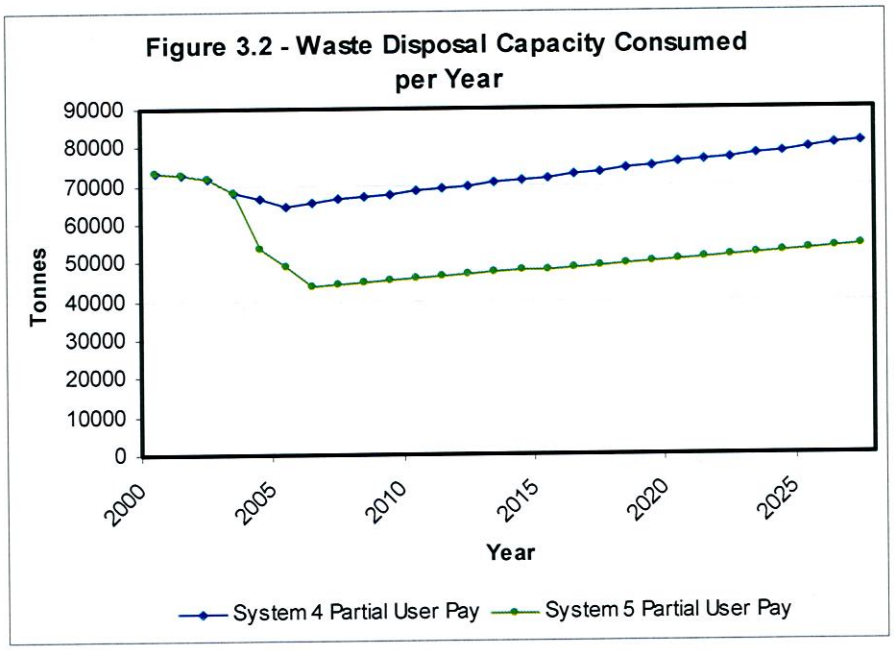


TABLE 3.1
TOTAL WASTE DISPOSAL CAPACITY CONSUMED
(2003 TO 2027)

Scenario Description	Total Waste Disposal Capacity Consumed (tonnes)
System 4 – Partial User Pay	1,813,599
System 4 – Full User Pay	1,772,436
System 5 – Partial User Pay	1,252,291
System 5 – Full User Pay	1,251,632

Based on the data presented in Table 3.1 the difference in the waste disposal quantities for a given system with the implementation of a partial versus full user pay system is relatively small. This relatively small difference is attributable to the reasonable bag limits proposed within each of the partial user pay systems. In the event that more modest bag limits were allowed (ie: greater than 2 bags per household per week for System 4 and 1 bag per household per week for System 5) the disparity in the waste disposal quantities would increase more substantially.

In contrast however, the difference in the waste to be disposed of under System 4 versus System 5 is significant. For example, under the partial user pay systems the additional capacity consumed under System 4 relative to System 5 is approximately 561,000 tonnes over the 25 year planning period.

Assuming a unit value of $125/tonne, the total estimated value of the System 5 reserve disposal capacity equates to approximately $70 million in 2027.

The reserve disposal capacity and its estimated value are summarized for each scenario in Table 3.2. System 4 with a partial user pay system (ie: scenario that features the highest waste disposal consumption) has been used as the base case (ie: 0 reserve disposal capacity in 2027).

TABLE 3.2
ESTIMATED RESERVE DISPOSAL CAPACITY/VALUE IN 2027

Scenario Description	25 Year Disposal (tonnes)	Reserve Disposal Capacity in 2027 (tonnes)	Estimated Value of Reserve Disposal Capacity in 2027*
System 4 – Partial User Pay	1,813,599	0	$0
System 4 – Full User Pay	1,772,436	41,163	$5,145,375
System 5 – Partial User Pay	1,252,291	561,308	$70,163,500
System 5 – Full User Pay	1,251,632	561,967	$70,245,875

* Based on an estimated unit value of $125/tonne.

The value of reserve/unused disposal capacity is considered when comparing the net costs for each of the scenarios considered within this Plan (refer to Section 3.4).

3.3 Projected Expenditures

Generally the costs associated with each of the system components has been developed by either extrapolating historical costs, using the results of recent tenders or proposal submissions or using the costs for similar services in other municipalities. In computing the costs for future years a reasonable allowance for inflation (ie: 3% per annum) has been included.

The estimated future expenditures depend on the specific diversion system to be implemented (ie: System 4 or System 5) and the method selected to recover the expenditures (ie: partial or full user pay system). In subsections 3.3.1 and 3.3.2 we have compared the estimated waste management system expenditures for System 4 versus System 5 and for partial versus full user pay systems.

3.3.1 Projected Expenditures (System 4 Partial User Pay versus System 5 Partial User Pay)

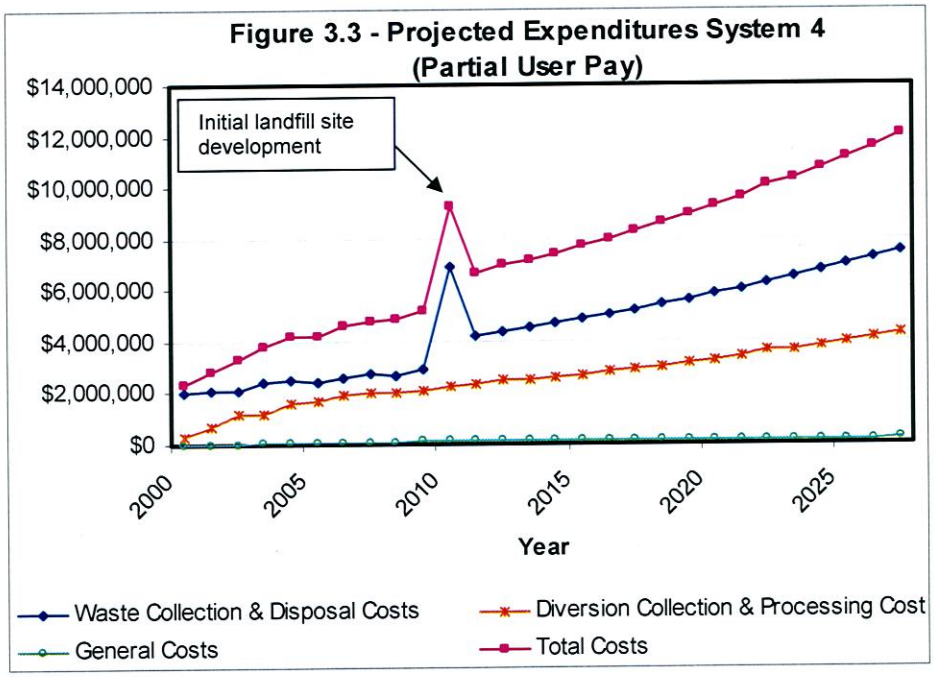
For the purposes of comparing the System 4 costs versus System 5 costs the following models (spreadsheets) were used:

- Spreadsheet 1 - System 4 (Partial User Pay Option A); and
- Spreadsheet 5 - System 5 (Partial User Pay Option A).

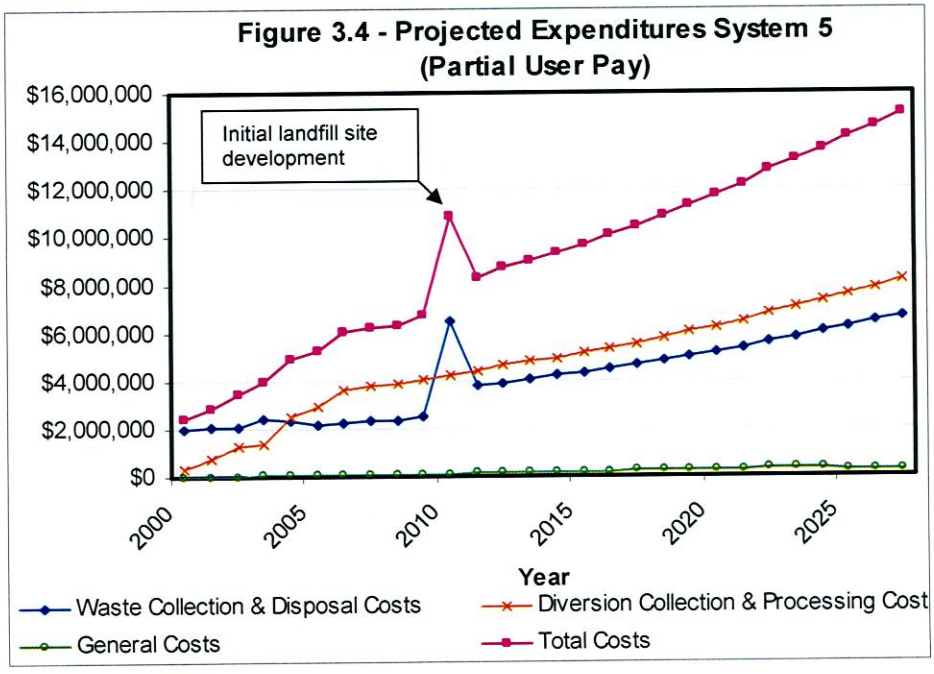
The estimated expenditures for each of the waste management components are itemized in the relevant Spreadsheets. Figures 3.3 and 3.4 summarize the estimated System 4 and 5 expenditures on the basis of the following categories:

- Waste Collection and Disposal;

- Diversion Collection and Processing;
- General (financing and additional administration); and
- Total Costs.



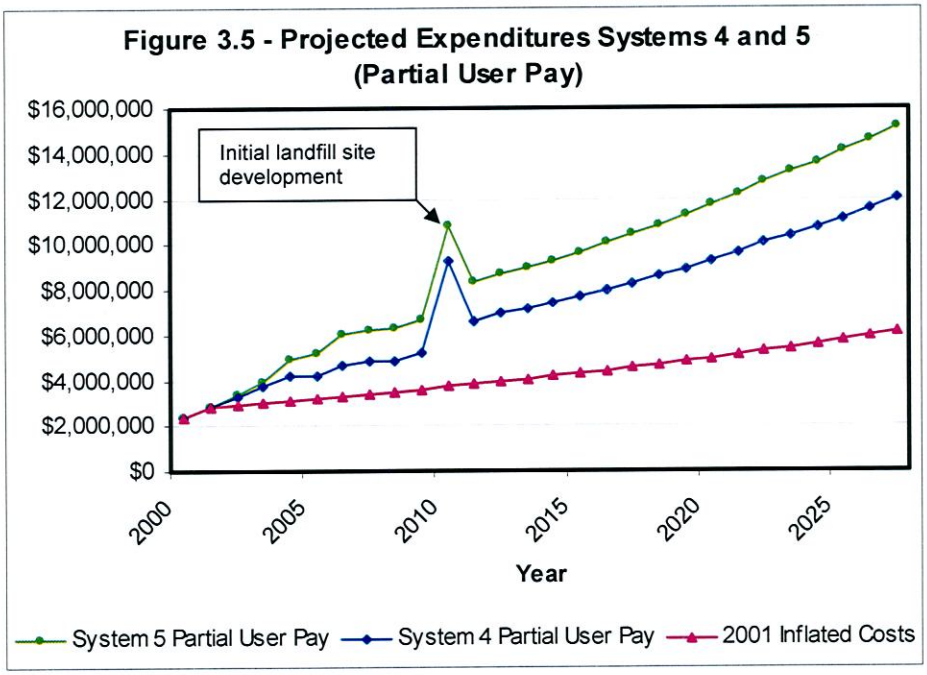
The projected annual System 4 waste management expenditures range from $3.8 million in 2003 to $12.0 million in 2027. The total estimated waste management expenditures over this period are $195.9 million.



The projected total annual waste management expenditures for System 5 range from $3.9 million in 2003 to $15.2 million in 2027. The total estimated waste management expenditures over this period are $245.3 million.

The total estimated expenditures for each of Systems 4 and 5 with the implementation of a partial user pay system are presented in Figure 3.5.

Figure 3.5 - Projected Expenditures Systems 4 and 5 (Partial User Pay)



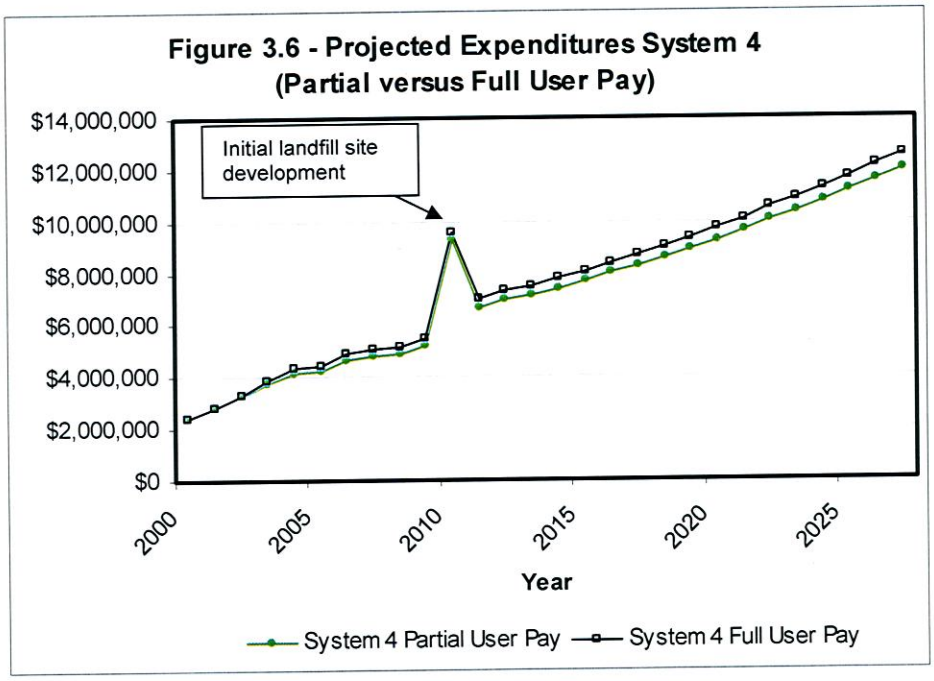
The total projected System 5 expenditures are approximately $50 million higher than System 4 over the 25 year planning period. System 5 however includes additional waste diversion activities (ie: organics collection and processing) relative to System 4.

The increased diversion activities in System 5 result in a significant reduction in landfilling relative to System 4. As a result a landfill reserve capacity exists under System 5 relative to System 4 at the end of the 25 year planning period. The reserve capacity has a significant value which must be considered when comparing the system costs. Refer to the discussion in Section 3.4.

3.3.2 Projected Expenditures (System 4 Partial User Pay versus System 4 Full User Pay)

For the purposes of comparing the estimated expenditures under a partial user pay system versus a full user pay system the System 4 spreadsheets (ie: Spreadsheets 1 and 3) were used.

In Figure 3.6 the total estimated expenditures in each year of the Plan have been summarized for System 4 with a partial user pay system versus a full user pay system.



Based on the data presented in Figure 3.6 the implementation of a partial user pay system versus a full user pay system will have a relatively small impact on the projected overall waste management expenditures. The expenditures are slightly higher with the implementation of a full user pay system as the level of diversion is enhanced relative to the system being implemented with a partial user pay system.

Although the costs are higher with the implementation of a full user pay system, additional waste disposal capacity will be consumed under the partial user pay scenario. The value of any reserve disposal capacity at the end of the 25 year planning period must be considered when comparing the costs associated with each scenario (refer to Section 3.4).

3.4 Net System Costs

In Section 3.3.1 the projected 25 year System 5 expenditures exceeded the projected System 4 expenditures by approximately $50 million. Those expenditure forecasts excluded any consideration of the difference in the disposal capacity consumed within each System. In order to effectively compare the options an allowance has to be made for the value of the reserve disposal capacity for each scenario. In Table 3.2 included in Section 3.2 the estimated value of the reserve disposal capacity was calculated for each scenario using System 4 Partial User Pay Option A (ie: the scenario that consumed the most disposal capacity) as a base. For the purposes of comparing the scenarios the value of the reserve disposal capacity has been subtracted from the projected expenditures presented in Sections 3.3.1 and 3.3.2 to provide a net system cost. The results are summarized in Table 3.3.

TABLE 3.3 ESTIMATED NET SYSTEM COSTS			
Scenario Description	**Projected 25 Year Expenditures**	**Estimated Value of Reserve Disposal Capacity in 2027***	**Estimated Net System Cost**
System 4 – Partial User Pay	$195,912,681	$0	$195,912,681
System 4 – Full User Pay	$204,816,600	$5,145,375	$199,671,225
System 5 – Partial User Pay	$245,254,318	$70,163,500	$175,090,818
System 5 – Full User Pay	$252,352,112	$70,245,875	$182,106,237

On the basis of the data presented in Table 3.3 the lowest net cost waste management alternative is System 5 with the implementation of a partial user pay system. This conclusion is based on and is sensitive to the estimated costs included in the Plan for a full scale organics collection and processing program. Once the ongoing co-composting pilot study is completed, the estimated costs for the organics diversion program can be refined further and updated in this Plan. Ultimately the pilot study will provide the necessary information to make a decision on whether to remain with Diversion System 4 or proceed with Diversion System 5.

3.5 Comparison of Cost Recovery Alternatives

Several alternative scenarios have been modelled to recover the projected expenditures over the 25 year planning period. The alternative approaches considered to recover the expenditures comprise of full and partial user pay systems with PAYT programs as defined in Section 2.4 of this report. For comparison purposes we have also included the projected required increase in property taxes to generate revenues equivalent to those that will be generated by the proposed changes to the existing user fee structure. For this comparison it has been assumed that the existing user fee structure would remain unchanged (ie: tipping fee of $27.50, gate fee of $2.00 and no PAYT).

3.5.1 Enhanced User Pay Models with PAYT

In order to compare the revenue structures required for different scenarios it was important to consider the value of the reserve disposal capacity in the year 2027. The implementation of System 5 with a full user pay system requires the lowest level of waste disposal of the scenarios considered and System 4 with a partial user pay system consumes the greatest quantity of disposal capacity. Therefore System 5 with a full user pay system has the largest reserve disposal capacity at the end of the 25 year planning period.

In order to compare the revenue structure requirements for each scenario, the revenues for System 5 with a full user pay system were structured to provide a cumulative financial reserve of essentially $0 in the year 2027. This scenario was established as a base and the revenues for each of the other scenarios were structured to provide a positive cumulative reserve in 2027 to account for the higher disposal capacity consumed.

For example, System 4 with the implementation of a partial user pay program requires an estimated 1,813,599 tonnes of disposal capacity over the 25 year planning period which is

561,967 tonnes greater than System 5 with a full user pay program. Therefore the required cumulative reserve for System 4 in 2027 was established as follows:

561,967 tonnes * $125/tonne = $70,245,875

This financial reserve is intended to account for the reserve disposal capacity remaining under System 5 (Full User Pay) versus System 4 (Partial User Pay). A similar approach was used to calculate a suitable cumulative financial reserve for each scenario in relation to System 5 with a full user pay program.

On the basis of the foregoing, the estimated fees that would have to be charged under each scenario over the 25 year planning period have been summarized in Tables 3.4 and 3.5 for System 4 and 5 respectively. This data has also been presented graphically in Figures 3.7 and 3.8 for each of the Partial User Pay Systems.

TABLE 3.4
SUMMARY OF COST RECOVERY ALTERNATIVES – SYSTEM 4

Scenario Description	Principle Revenue Sources								
	General Levy ($'s per year in millions $)			Bag Fees ($'s per bag) ($'s per year in millions)			Tipping Fees ($/tonne) ($'s per year in millions)		
	2003	2006	2027	2003	2006	2027	2003	2006	2027
System 4 Partial User Pay (Option A)	$2.1	$2.3	$4.3	$1.00 $0.2	$1.00 $0.6	$3.55 $2.5	$30 $1.0	$45 $1.5	$160 $6.5
System 4 Partial User Pay (Option B)	$2.1	$2.3	$4.3	$1.00 $0.2	$1.00 $0.6	$2.00 $1.4	$35 $1.2	$65 $2.2	$136 $5.6
System 4 Partial User Pay (Option C)	$2.1	$2.3	$4.3	$2.00 $1.2	$2.00 $1.1	$2.95 $2.1	$35 $1.2	$65 $2.2	$96 $3.9
System 4 Full User Pay (Option A)	$1.6	$0	$0	$1.00 $0.3	$1.27 $3.3	$2.74 $8.2	$35 $1.2	$50 $1.6	$127 $5.1
System 4 Full User Pay (Option B)	$1.6	$0	$0	$1.00 $0.3	$1.00 $2.6	$2.00 $6.0	$35 $1.2	$65 $2.1	$171 $6.8

Note: The figures in the above table result in an adequate reserve in 2027 to provide equivalent disposal capacity for each scenario.

TABLE 3.5
SUMMARY OF COST RECOVERY ALTERNATIVES – SYSTEM 5

Scenario Description	Principle Revenue Sources								
	General Levy ($'s per year in millions $)			Bag Fees ($'s per bag) ($'s per year in millions)			Tipping Fees ($/tonne) ($'s per year in millions)		
	2003	2006	2027	2003	2006	2027	2003	2006	2027
System 5 Partial User Pay (Option A)	$2.1	$2.3	$4.3	$1.00 $0.1	$2.00 $1.2	$4.61 $3.4	$35 $1.2	$65 $1.4	$188 $5.2
System 5 Partial User Pay (Option B)	$2.1	$2.3	$4.3	$1.00 $0.1	$1.00 $0.6	$3.00 $2.2	$35 $1.2	$65 $1.4	$285 $7.8
System 5 Full User Pay (Option A)	$1.6	$0	$0	$1.00 $0.1	$2.75 $4.4	$5.49 $9.9	$35 $1.2	$65 $1.4	$103 $2.8
System 5 Full User Pay (Option B)	$1.6	$0	$0	$1.00 $0.1	$1.00 $1.6	$3.00 $5.4	$35 $1.2	$65 $1.4	$561 $15.4

Note: The figures in the above table result in an adequate reserve in 2027 to provide equivalent disposal capacity for each scenario.

Figure 3.7 - Bag Fees - Partial User Pay Systems

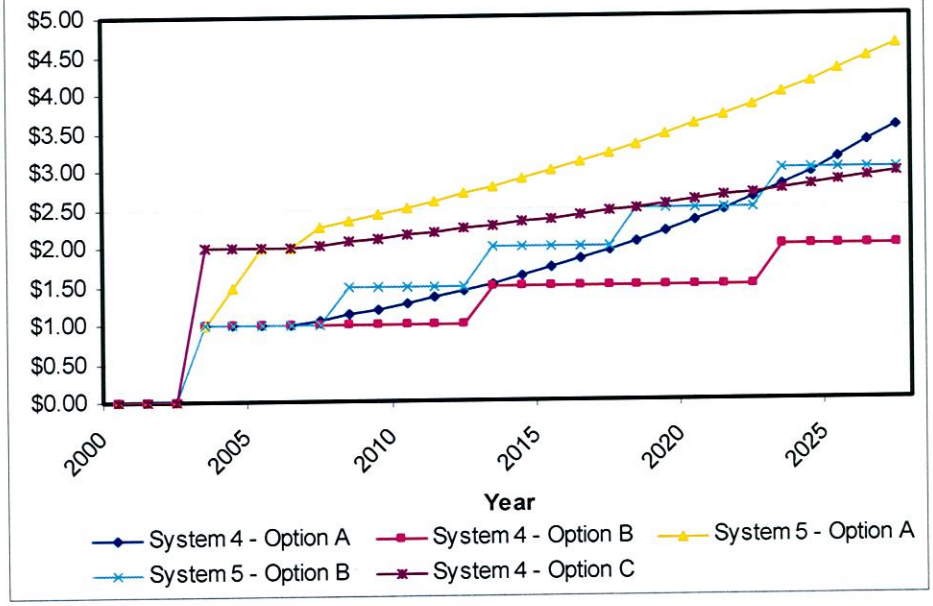
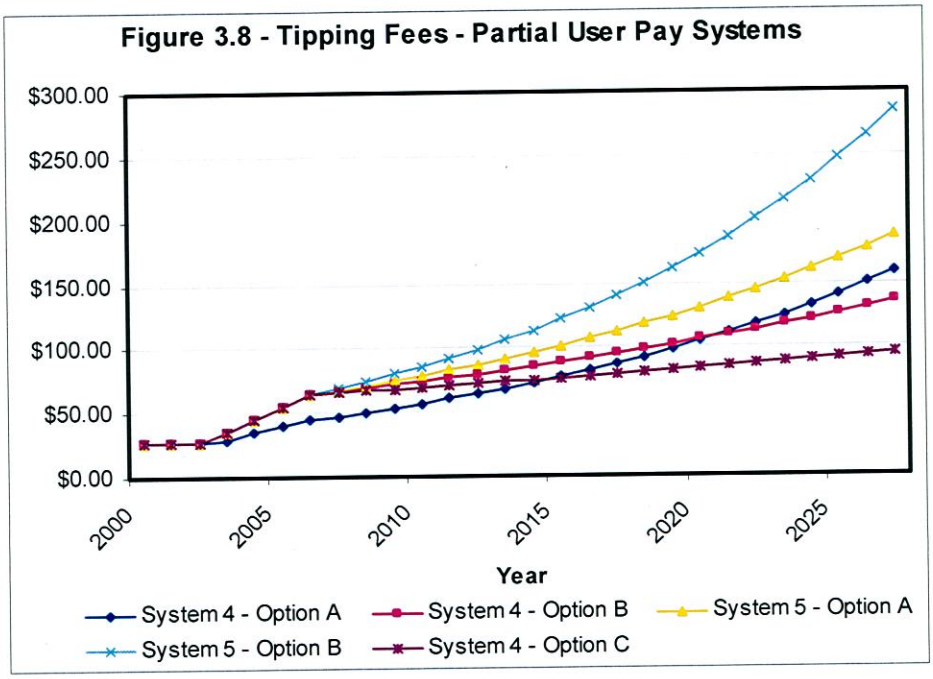


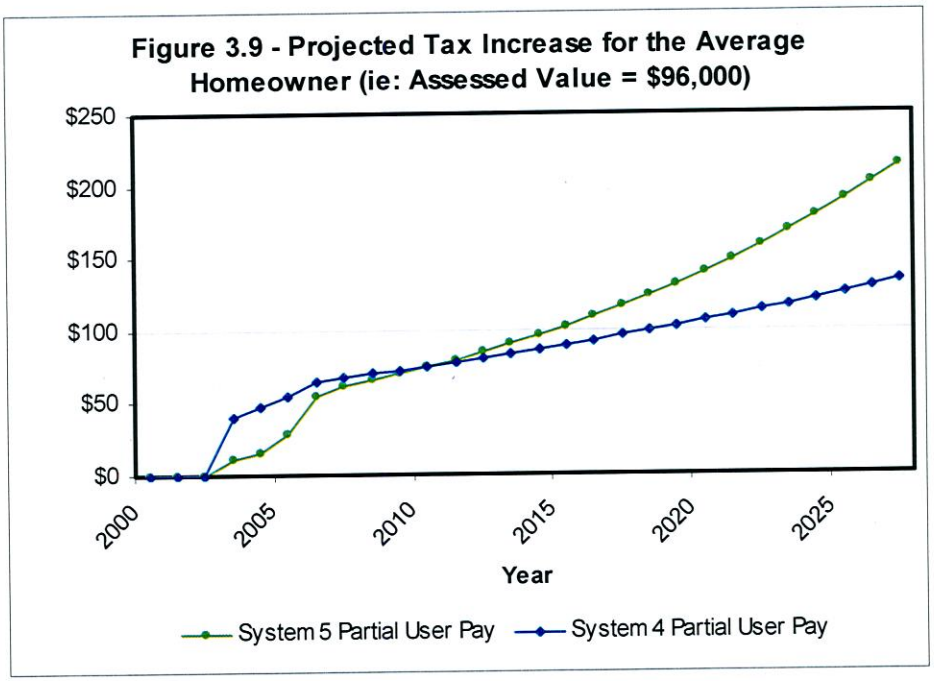
Figure 3.8 - Tipping Fees - Partial User Pay Systems



Each of the scenarios included in Figures 3.7 and 3.8 include an annual general levy contribution ranging from $2.1M in 2003 to $4.3M in 2027.

3.5.2 Increased Property Taxes

In lieu of recovering the projected increased costs through user fees the municipality may elect to increase property taxes to generate adequate revenues to meet the future waste management costs. For comparison purposes we have presented in Figure 3.9 the projected required increase in property taxes in each year of the plan for the average homeowner (ie: based on an assessed value of $96,000). In developing the projected increased property taxes it has been assumed that the existing user fees would remain at their current levels.



Based on the data presented in Figure 3.9 the property tax payable for the average homeowner under System 4 would increase by some $40-$50 in 2003 and continue to increase in each year of the plan to approximately $130-$140 in 2027. These projected increases are in addition to any inflationary increases.

3.5.3 Summary of Cost Recovery Alternatives

The financial models (ie: spreadsheets) developed within the context of the Plan allow the development and comparison of an unlimited number of cost recovery scenarios. The alternatives presented in Table 3.4 and Figures 3.7 to 3.9 are intended to give City Staff and Council an idea of the fees that need to be charged to generate adequate revenues to meet future estimated expenditures. It must be reiterated that this Plan is intended to be a living document. It is important that this plan be re-visited and modified as the circumstances relating to waste management change.

4.0 CONCLUSIONS AND RECOMMENDATIONS

The following are the principle conclusions of this report:

- The City currently has a partial user pay program in place. The waste management system is funded through a combination of user fees (tipping fees = $27.50/tonne and gate fees = $2.00/visit) and contributions from the general levy ($2.01 million in 2001).

- The requirements for diversion of municipal waste are contained in Ontario Regulation 101/94. The regulation stipulates that municipalities having a population of 5,000 or more shall establish, operate and maintain a blue box waste management system and a leaf and yard waste system. The preferred waste management system complies with Regulation 101/94.

- The future waste management expenditures are expected to increase substantially relative to the expenditures in the recent past. Over the period 2000 - 2001, the annual waste management system expenditures have generally ranged from $2.4 to $2.9 million. Under System 4 the average annual expenditures over the next 7 years are projected to be in the range of $3.8 to $5.2 million (inclusive of a reasonable allowance for inflation). For the period 2010 to 2027 the annual costs are projected to be in the range of $6.7 to $12 million.

- Additional revenues will be required to fund the increased expenditures. The additional required revenues can be sourced from the general tax levy (ie: tax increases) or through user fees.

- The tipping fees (ie: $27.50/tonne) and gate fees (ie: $2.00/visit) presently being charged at the City's landfill are essentially the lowest in the province based on the municipalities surveyed.

- The true cost of disposing of waste is estimated to be in the range of $60 to $70/tonne (2002 $'s). This estimate includes allowances for site selection, environmental approvals, operations during the active landfilling period, closure and post closure monitoring.

- The implementation of some form of PAYT program with reasonable bag limits is important to the success of the existing and future waste diversion programs.

- The lowest net cost alternative based on the assumptions made is System 5 with the implementation of a partial user pay program. The feasibility of implementing System 5 is presently being investigated through the Co-composting Pilot Study.

- The Waste Management Steering Committee is recommending the implementation of a Partial User Pay system included in this report as System 4 Partial User Pay Option C (refer to Spreadsheet 9). The recommended system includes the following key elements:

    - a contribution from the general tax levy that is consistent with amounts contributed in the recent past (ie: 2003 contribution = $2.1 million with amounts in future years adjusted for inflation).

- a reduction in the bag limit from 6 bags per household per week to 2 bags per household per week commencing in 2003;
- a bag fee of $2.00/bag for each bag set out in excess of the two bag limit;
- an increase in the gate fee to $4.00 in 2003; and
- an increase in the tipping fees to $65/tonne by 2006.

- Future changes to bag limits and user fees should be tailored to meet the goals of the waste management system (eg. increased waste diversion) and the future waste management system expenditures.

- User fees offer several important benefits including enhanced participation and capture efficiency in the diversion programs, reduced waste generation rates, more equitable distribution of costs and enhanced public awareness of waste management costs.

- In lieu of the proposed user fee structure recommended by the Waste Management Steering Committee the projected increase in property taxes payable by the average homeowner would likely be in the range of $40-$50 in 2003 and continue to increase in each year of the plan to approximately $130-$140 in 2027.

- Adjustments should be made to this Plan each year to reflect any changes in expenditures/revenues or in the implementation of specific waste management programs.

APPENDIX A

BUSINESS AND IMPLEMENTATION PLAN FINANCIAL MODEL

City of Sault Ste. Marie

SOLID WASTE MANAGEMENT PLAN
BUSINESS AND IMPLEMENTATION PLAN

APPENDIX A

FINANCIAL MODEL

February, 2003

CITY OF SAULT STE. MARIE
SOLID WASTE MANAGEMENT PLAN

APPENDIX A
BUSINESS AND IMPLEMENTATION PLAN
FINANCIAL MODEL

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CITY OF SAULT STE. MARIE
BUSINESS AND IMPLEMENTATION PLAN
FINANCIAL MODEL

1.0 BUSINESS AND IMPLEMENTATION PLAN SPREADSHEETS

A series of Excel spreadsheets have been prepared to reflect the various scenarios considered within the context of this Plan. Separate spreadsheets have been prepared to reflect the following distinct scenarios:

- Diversion System 4 with partial user fees (Option A)
- Diversion System 4 with partial user fees (Option B)
- Diversion System 4 with partial user fees (Option C) – this scenario was developed by the Waste Management Steering Committee
- Diversion System 5 with partial user fees (Option A)
- Diversion System 5 with partial user fees (Option B)
- Diversion System 4 with full user fees (Option A)
- Diversion System 4 with full user fees (Option B)
- Diversion System 5 with full user fees (Option A)
- Diversion System 5 with full user fees (Option B)

A digital copy of each spreadsheet has been provided to the City and a hardcopy of Spreadsheet 9 is included in the pocket at the back of this report. Each spreadsheet has been segregated into six major divisions as follows:

1. Implementation Plan
2. Estimated Unit Costs/Revenues
3. Estimated Quantities
4. Estimated Expenditures
5. Estimated Revenues
6. Reserves

Within each of these divisions there are a number of columns. Each of the major divisions and columns are discussed/defined in the following subsections.

In addition there are several parameters that are used in the calculations throughout the spreadsheet. Each parameter is defined below:

- An inflation rate of 3% per year has been assumed.
- It has been assumed that the population will remain stagnant until 2006 and then grow at a rate of 1% per annum for the remainder of the plan.
- A financing rate of 6% per annum has been assumed.
- An interest rate of 4% per annum has been assumed.

Each of these parameters can be changed at the bottom of the spreadsheet and the changes will be reflected throughout the spreadsheet.

It is also noted that the City allows small businesses to participate in residential waste management programs. References to residential programs throughout the report and spreadsheets also include small businesses.

1.1 Division 1 – Implementation Plan

1.1.1 Year

Identifies each year covered by the plan.

1.1.2 Key Activities

Identifies the key waste management initiatives to be undertaken within each year of the plan (ie: generally those activities that are not part of normal operations have been identified).

1.2 Division 2 – Estimated Unit Costs/Revenues

In order to develop the annual costs and revenues associated with the overall waste management plan, unit cost and unit revenue estimates were developed for various components of the plan. Generally the unit costs/revenues have been developed by extrapolating historical costs provided by the City, or using the results of recent tenders or proposal submissions or using the costs for similar services in other municipalities. For the purposes of this plan the base year is the year 2000. Each of the unit costs/revenues is defined below.

1.2.1 Estimated Unit Costs

1.2.1.1 Residential Waste Collection: The unit costs are expressed in $/person. These are derived from the base year information (ie: total 2000 residential waste collection costs divided by the 2000 population). Each year the unit cost is adjusted for inflation and multiplied by the population to obtain an estimate of the annual residential waste collection cost. This approach recognizes that as the population increases the number of stops increases and the overall collection costs increase. No reduction in cost has been included for the reduction in the quantity of waste that will be set out curbside as diversion increases. This unit cost also includes an appropriate reserve for the replacement of collection equipment.

1.2.1.2 Landfill Site Operations: The unit costs are expressed in $/tonne. These are derived from the base year information (ie: total 2000 waste disposal operating cost divided by the 2000 disposal tonnage). Each year the unit cost is adjusted for inflation and multiplied by the disposal quantity to obtain the estimated annual operating cost for disposal. This unit cost also includes an appropriate reserve for the replacement of disposal equipment.

1.2.1.3 Leachate Treatment: The unit costs are expressed in $/cu. m. The leachate generated at the landfill site is being collected and directed to the City's waste water treatment facilities. The costs incurred to treat the leachate should be accounted for in the waste management budget. The base year data was derived from the industrial rates established by the City for the collection and treatment of sewage. Each year the unit cost is adjusted for inflation and multiplied by the estimated quantity of leachate collected at the landfill site to obtain the estimated annual costs for the treatment of leachate.

1.2.1.4 Diversion at Landfill: The unit costs are expressed in $/tonne. These are derived from the base year information (ie: total 2000 landfill diversion costs divided by the 2000 landfill diversion tonnage). The unit cost generally includes contracts for managing wood waste/brush, tires and scrap metal. Each year the unit cost is adjusted for inflation and multiplied by the landfill diversion quantity to obtain the estimated annual costs for landfill diversion.

1.2.1.5 Residential Recyclables Collection and Processing: The unit costs are expressed in $/tonne. These are derived from the 2002 contract price submitted by Green Circle Environmental Recycling Inc. Each year the unit cost is adjusted for inflation and multiplied by the estimated quantity of dry residential recyclables to obtain the estimated annual costs for the collection and processing of recyclables.

1.2.1.6 Residential Organics Collection and Processing: The unit costs are expressed in $/tonne. It has been assumed that a private contractor will be contracted to collect and process the organics (ie: similar to the dry recyclables contract) and a unit price will be charged to the City. It has also been assumed that there will be no revenue sharing relating to the sale of the final compost. A 2002 unit cost of $100/tonne has been assumed for the collection and composting of leaf and yard waste. This unit cost was derived from the bids received for the optional items included in the 2002 Request for Proposals for the collection and processing of recyclables. Under the System 5 scenario the cost has been increased in 2004 to reflect the implementation of full scale residential organics collection and composting. A unit price of $150/tonne (expressed in 2002 $'s) has been assumed. Each year the unit cost is adjusted for inflation and multiplied by the estimated quantity of organics to obtain the estimated annual costs for the collection and processing of organics.

1.2.1.7 Sewage Sludge Processing: The unit costs are expressed in $/tonne. Processing of sewage sludge would be initiated in 2004 under the System 5 scenario only. It has been assumed that the sewage sludge would be co-composted with the residential organics. It has also been assumed that there will be no revenue sharing relating to the sale of the final compost. A 2002 unit cost of $50/tonne has been assumed for the composting of sewage sludge. Transportation of the sewage sludge is excluded. Each year the unit cost is adjusted for inflation and multiplied by the estimated quantity of sewage sludge to obtain the estimated annual costs for the processing of sewage sludge.

1.2.2 Estimated Unit Revenues

1.2.2.1 City Share of Sale of Recyclables (50% of Basket of Goods Price): The unit revenue is expressed in $/tonne. Under the terms of the 2002 recycling contract the City is entitled to share the revenue (ie: 50/50 split) from the sale of the recyclable materials to end markets. The amount shown represents the City's proportion (ie: ½) of the revenue and reflects a mixed basket of recyclable materials. Each year the unit revenue is adjusted for inflation and multiplied by the estimated quantity of recyclables to obtain an estimate of the City's share of the annual revenue relating to the sale of the recyclable materials to end markets.

1.2.2.2 Residential Bag Fee: The unit revenues are expressed in $/bag. This fee would be payable in 2003 and all future years for each bag of refuse set out curb side in excess of the designated bag limit. Several bag limit/bag fee scenarios have been considered within the Plan

including full and partial user pay systems. Under the partial user pay system it has been assumed that the existing bag limit would be reduced from six bags per household per week to 2 bags per household per week under System 4 and 1 bag per household per week under System 5. A lower bag limit is proposed for System 5 because it includes more diversion opportunities (ie: organics collection and processing) relative to System 4. Under the full user pay system it has been assumed that the bag limits would gradually decrease from the current limit of six bags to zero bags in 2006 (ie: in 2006 full user fees would apply).

1.2.2.3 Gate Fees at the Landfill: The unit revenues are expressed in $/visit. The present gate fee is $2.00 per visit and an increase to $4.00 per visit has been proposed in 2003. The gate fee remains at $4.00 for the period 2003 to 2005 inclusive and is raised to $6.00 in 2006. For the remainder of the plan it is increased each year in proportion to the tipping fee increase. This fee applies to residents that use the public drop-off facility at the landfill site. The present gate fee applies provided the weight of the waste does not exceed 500 kg. In concert with the proposed gate fee increase it is also recommended that the weight limit be reduced to 100 kg in 2006. Therefore the standard tipping would apply to wastes delivered to the site in excess of the 100 kg threshold. This approach will result in increased demands on the weigh scale. For the purposes of the Plan the installation of an additional scale has been incorporated in 2005. An additional benefit of having a second scale is to serve as a back-up during periods when one scale is being repaired or maintained. The gate fee is multiplied by the estimated number of visitors in each year to obtain the estimated annual revenue from this source.

1.2.2.4 Sewage Sludge Tipping/Processing Fee: The unit revenues are expressed in $/tonne. For the purposes of the waste management plan this fee has been included to allow offsetting revenue for the disposal or processing of sewage sludge. The City is presently incurring significant costs for the disposal of sewage sludge in its landfill (ie: the loss of valuable disposal capacity). In future years sewage sludge may be processed (ie: co-composted with residential organics) to produce either a restricted or unrestricted compost (ie: System 5) or it may continue to be landfilled (ie: System 4). A pilot study is presently underway to assess the feasibility of co-composting sewage sludge with residential organics. Regardless of whether the sewage sludge is landfilled or processed there is a significant cost associated with the management of this material. The introduction of a revenue stream to offset the costs allows the City to remove the sewage sludge disposal/processing costs from the waste management budget and include it with sewage collection and treatment. Each year the unit revenue is adjusted for inflation and multiplied by the estimated quantity of sewage sludge to obtain the estimated annual revenue from this source.

1.2.2.5 Landfill Tipping Fees: The unit revenues are expressed in $/tonne. This fee applies to IC&I waste delivered to the landfill. This fee is presently $27.50/tonne which is very low in relation to the actual cost to dispose of waste and tipping fees being charged in other Ontario municipalities. Over the short term it is proposed to increase the tipping fees to more appropriate levels with longer term increases tied to the changes in the cost of disposing of waste. The tipping fee is multiplied by the estimated quantity of waste subject to tipping fees in each year to obtain the estimated annual revenue from this source.

1.3 Division 3 – Estimated Quantities

The quantity estimates play an important role in computing the estimated system costs and revenues associated with the various waste collection, diversion and disposal programs. During

the development of the "Alternative Waste Diversion/Collection System Options" report detailed quantity estimates were produced for each of the five Alternative systems. The systems were designed to build upon each other, and each system is intended to increase the amount of waste being diverted from landfill. Steps are presently being undertaken by the City to implement System 4 and City Council has endorsed the implementation of System 5 subject to the receipt of public input and a determination of the financial feasibility.

The quantities presented in the business and implementation plan have been derived from the quantity estimates produced for Systems 4 and 5 of the "Alternative Waste Diversion/Collection System Options" report. It is however noted that the "waste reduction" quantities developed for systems 4 and 5 have been assumed to be zero for the purposes of the Business and Implementation Plan. The "waste reduction" quantities developed for systems 4 and 5 reflect conscious decisions by residents and businesses to alter their waste generation habits to reduce the amount of waste being generated. The anticipated change in waste generation habits is expected to accrue as a result of the enhanced public education program in conjunction with a user pay program. The approach taken for the Business and Implementation Plan (ie: assume no waste reduction) is more conservative.

1.3.1 Miscellaneous Quantities

1.3.1.1 Population: The base year population was derived from the year 2000 census data. For the purposes of the Plan an assumption was made that the population would remain stagnant until the year 2006 and than grow at a rate of 1% annually from 2007 to 2027 inclusive. The population is used in a number of the calculations throughout the plan.

1.3.1.2 Number of Households: This figure is used to estimate the revenue that would accrue to the City through bag fees. The City's Planning Department provided a listing of various housing types and the number of residential units within the City. The information provided by the City was used for the base year. The number of residential units in future years is directly proportional to the population.

1.3.1.3 Bags per Household per Week: This figure is an estimate of the average number of bags set out curb side by each household each week. It is used to estimate the revenue that would accrue to the City through bag fees. The City completed a comprehensive residential waste composition study in the summer/fall of 2000. Through that study it was determined that an average of 2.67 bags of waste was set out curb side each week by each household. In estimating the number of bags that will be set out in future years the following approach was used: the number of bags has been proportioned in relation to the change in diversion rate (ie: as the diversion rate increases in future years it has been assumed that the number of bags of waste will be reduced proportionally); and it has also been acknowledged that as bag fees are introduced residents will likely pack more waste into each bag. In this regard it has been assumed that the number of bags set out by each household will decrease as partial or full user fees are phased in.

1.3.1.4 Number of Bags with Tags per Year: This figure is an estimate of the number of bags of waste placed at the curb for collection that are paid for in advance (ie: number of bags with tags set out in excess of the designated bag limits). It is used to estimate the revenue that would accrue to the City through bag fees. It is computed by multiplying the number of households by the estimated number of bags per household per week by the number of weeks in a year by the

estimated percentage of bags with tags. The proportion of the total bags of waste that will have tags affixed is related to the bag limit and the diversion system (ie: System 4 or System 5). The lower the bag limit for a given system the greater the proportion of tagged bags relative to the total number of bags set out. In order to establish an estimate of the percentage of bags with tags for different bag limit scenarios the data gathered through the residential waste composition study completed in 2000 was used. During that study the number of bags of waste set out by each household was recorded and is summarized in the first two columns of Table 1.1.

Once the diversion programs included in systems 4 and 5 are fully operational, the number of bags of waste set out by each household will be reduced relative to the set out rate documented in the residential waste composition study. In addition it is also assumed that as a partial or full user pay system is phased in, residents will pack more waste into each bag. In the two right-hand columns of Table 1.1, estimates of the number of bags of waste that are anticipated once the respective diversion programs and user pay programs are fully implemented are shown. For example, 11% of households set out 4 bags of waste during the conduct of the residential waste composition study. It is anticipated that the same households will likely set out 3 bags of waste under System 4 and 2 bags of waste under system 5. The lower set out rate is attributable to the increased diversion opportunities and the desire to pack more waste into each bag.

TABLE 1.1
WASTE BAG SET OUT DATES

Number of Bags of Waste	Percentage of Households from Residential Waste Composition Study	Number of Equivalent Bags Under System 4 with some form of User Pay	Number of Equivalent Bags Under System 5 with some form of User Pay
1	28	1	1
2	28	2	1
3	20	2	2
4	11	3	2
5	6	4	3
6	4	5	3
More than 6 (Average number set out was 8)	3	6	4

The data presented in Table 1.1 was used to calculate the estimated proportion of bags with tags relative to the total number of bags set out curb side for various bag limit scenarios. The results are summarized in Table 1.2 and are used in estimating the number of bags with tags within the Plan.

TABLE 1.2 ESTIMATED PERCENTAGE OF BAGS WITH TAGS		
Bag Limit	**Percentage of Bags with Tags – System 4**	**Percentage of Bags with Tags – System 5**
3	10.5	1.9
2	21.5	10.0
1	54.3	37.5
0	100.0	100.0

1.3.1.5 Residential Public Drop-off Trips per Year: This figure is an estimate of the number of trips that residential customers will make to the public drop-off at the landfill site each year. It is used to estimate the revenue that would accrue to the City through gate fees at the landfill site. The gate fee applies to each residential customer disposing of waste at the public drop-off area provided the weight of the waste does not exceed a designated weight limit. The base year information has been used to identify the number of trips in 2000. The number of residential public drop-off trips in future years is directly proportional to changes in the population.

1.3.2 Diversion Quantities

1.3.2.1 Residential Recycling: This figure is an estimate of the quantity, in tonnes, of dry recyclables to be collected and processed through the City's residential recycling program. A new recycling contract was initiated in October 2002. The contract was awarded to Green Circle Environmental Recycling Inc. for a ten year period. Payment to the contractor will be based on the quantity of recyclables collected and processed each year. The estimated quantities included in the Plan are generally increased from 2003 to 2006 as a partial/full user pay system is phased in. Generally the quantity estimates in 2006 reflect the estimates presented for the various waste diversion systems in the "Alternative Waste Diversion/Collection System Options" report. Under a partial user pay system the estimated recycling quantities are lower relative to a full user pay system. The quantities in future years change in proportion to changes in the total waste managed.

1.3.2.2 Multi-residential and IC&I Recycling: This figure is an estimate of the quantity, in tonnes, of dry recyclables to be collected and processed in the IC&I and multi-residential sectors. This diversion program would be a private sector initiative established through private contracts between contractors and property owners in the IC&I and multi-residential sectors. **There are no City costs or revenues associated with this item in the model.** The quantities are increased proportionally from 2003 to 2006 as higher tipping fees are introduced. Generally the quantity estimates in 2006 reflect the estimates presented for the various waste diversion systems in the "Alternative Waste Diversion/Collection System Options" report. The quantities in future years change in proportion to changes in the total waste managed.

1.3.2.3 Landfill Diversion: This figure is an estimate of the quantity, in tonnes, of materials diverted at the landfill site. Generally the materials that are presently being diverted at the landfill site include scrap metal, clean wood/brush, and tires. The estimated quantity varies over

the 2003 to 2006 transition period. In 2006 the quantity is derived from the various waste diversion systems estimates included in the "Alternative Waste Diversion/Collection System Options" report. The quantities in future years change in proportion to changes in the total waste managed.

1.3.2.4 Backyard Composting: This figure is an estimate of the quantity, in tonnes, of residential organic material processed in backyard composters. **There are no City costs or revenues associated with this item in the model.** The quantity was derived from the estimates included in the "Alternative Waste Diversion/Collection System Options" report. A sizable increase in the quantity is shown in 2003 with the introduction of the landfill ban on leaf and yard waste. The quantities in future years change in proportion to changes in the total waste managed.

1.3.2.5 Residential Organics Processing: This figure is an estimate of the quantity, in tonnes, of residential organic material collected and processed through the City's organics collection and processing program. The present organics program comprises of the collection and processing of leaf and year wastes in the late fall only. The scale of a future residential organics collection and processing program is presently unknown and separate business plans have been developed to reflect different scenarios (ie: System 4 versus System 5). System 4 includes the collection and processing of leaf and yard waste throughout the growing season only. System 5 includes a leaf and yard waste program throughout the growing season together with the collection and processing of other residential organic wastes throughout the year.

A pilot study is presently being undertaken to determine the feasibility of collecting and co-composting residential organic wastes and sewage sludge. The results of that study will likely dictate whether it is feasible/cost effective to enhance the scope of the organics program beyond the collection and processing of leaf and yard wastes. For the purposes of the model it has been assumed that an expanded leaf and yard waste program would be initiated in 2003 under Systems 4 and 5. The quantity estimates shown reflect the collection of leaf and yard waste throughout the growing season (May through October) for all years from 2003 onward. Under the System 5 scenario the residential organics quantities would also increase substantially in 2004 with the implementation of a full scale residential organics collection and processing program. The estimated quantities were derived from the various estimates prepared for the waste diversion systems in the "Alternative Waste Diversion/Collection System Options" report. The quantity estimates in future years change in proportion to changes in the total waste managed.

1.3.2.6 Multi-residential and IC&I Organics Processing: This figure is an estimate of the quantity, in tonnes, of multi-residential and IC&I organic material collected and processed. This diversion program would be a private sector initiative established through private contracts between contractors and property owners in the IC&I and multi-residential sectors. **There are no City costs or revenues associated with this item in the model.** As noted above for the residential organics program, the quantities will be dependant upon whether System 4 or System 5 is implemented by the City. Under System 4 the quantities reflect leaf and yard wastes only whereas under System 5 a significant increase in the quantity would occur in 2004 with the initiation of full scale organics processing. The estimated quantity in 2003 was derived from the various estimates prepared for the waste diversion systems in the "Alternative Waste Diversion/Collection System Options" report. The quantity estimates in future years change in proportion to changes in the total waste managed.

1.3.2.7 Sewage Sludge Processing: This figure is an estimate of the quantity, in tonnes, of the sewage sludge that would be processed through an organics processing facility. The City is presently disposing of sewage sludge in its landfill. In future years sewage sludge may be processed (ie: co-composted with residential organics) to produce either a restricted or unrestricted compost or it may continue to be landfilled. A pilot study is presently underway to assess the feasibility of co-composting sewage sludge with residential organics. Under System 4 the quantity under this item remains at 0 as organics processing is limited to leaf and yard waste only. Under System 5 however, it has been assumed that all sewage sludge would be processed commencing in 2004 with the initiation of full scale organics processing. The estimated quantity of sewage sludge to be processed in future years changes in proportion to changes in the total waste managed. In addition a 3,000 tonne increase has been included in 2006 to reflect the addition of secondary treatment at the City's east end plant.

1.3.2.8 Household Special Waste Program: This figure is an estimate of the quantity, in tonnes, of special waste that is managed through the household special waste program. The quantity gradually increases over the first three years of operation to 135 tonnes and changes in future years are proportional to changes in the total waste managed.

1.3.2.9 Reuse Centre: This figure is an estimate of the quantity, in tonnes, of waste managed through a reuse centre. It has been assumed that a reuse centre would be established in 2004. The quantity gradually increases over the first three years of operation to 1650 tonnes (ie: the quantity presented in the "Alternative Waste Diversion/Collection System Options" report) and changes in future years are proportional to changes in the total waste managed.

1.3.2.10 Total Waste Diverted: This figure is an estimate of the quantity, in tonnes, of waste diverted from disposal. This quantity is computed by adding the values in the nine preceding columns which reflect different components of the waste diversion system.

1.3.2.11 Waste Diversion Rate: This figure is an estimate of the overall waste diversion rate being achieved in the City. It has been computed by dividing the waste diversion tonnage in the preceding column by the total waste managed.

1.3.3 Waste Disposal Quantities

1.3.3.1 Leachate Treatment: This figure is an estimate of the quantity, in cubic metres, of leachate impacted ground water that is collected and pumped into the City's sanitary collection system for treatment. The estimated quantity for the period 2000 to 2002 is based on the quantity reported in the 2001 annual monitoring report for the landfill site. The estimated quantity for 2003 and future years has been increased to reflect the proposed addition of additional purge wells at the landfill site.

1.3.3.2 Private Sector Waste Subject to Tipping Fees: This figure is an estimate of the quantity of waste, in tonnes, that will be subject to tipping fees. The proportion of landfilled waste that was subject to tipping fees in the base year is used to determine the quantity of waste that will be subject to tipping fees in future years. The values in this column are computed by multiplying the Total Waste Disposal quantity by the proportion subject to tipping fees in the base year.

1.3.3.3 Residential Public Drop-off: This figure is an estimate of the quantity, in tonnes, of the waste delivered to the landfill by the residential sector. Historical records available for the landfill site include the total tonnage recorded at the public drop-off. This tonnage includes both residential waste (gate fee) and IC&I waste (tipping fees). It was necessary to make an assumption regarding the percentage composition from the residential sector (ie: 70%) versus the IC&I sector (ie: 30%). The assumed proportions shown above have been provided by landfill site staff familiar with the operations. The quantities in future years are computed by multiplying the Total Waste Disposal quantity by the proportion of residential public drop-off waste computed for the base year.

1.3.3.4 Sewage Sludge: This figure is an estimate of the quantity, in tonnes, of sewage sludge disposed of at the landfill site. In future years sewage sludge may be processed (ie: co-composted with residential organics) to produce either a restricted or unrestricted compost or it may continue to be landfilled. A pilot study is presently underway to assess the feasibility of co-composting sewage sludge with residential organics. Under System 4, it has been assumed that the full quantity of sewage sludge will be landfilled in future years. Under System 5 however, it has been assumed that sewage sludge would only be landfilled until 2003 at which time a full scale organics processing program would be initiated. The estimated quantity of sewage sludge to be landfilled in future years changes in proportion to changes in the total waste managed. In addition a 3,000 tonne increase has been included in 2006 to reflect the addition of secondary treatment at the City's east end plant.

1.3.3.5 Total Waste Disposal: This figure is an estimate of the quantity, in tonnes, of waste disposed of at the landfill. This quantity is computed by subtracting the total waste diverted quantity from the total waste managed quantity.

1.3.4 Total Waste Managed

This figure is an estimate of the quantity, in tonnes, of the solid non-hazardous waste managed by the City. It has been calculated by multiplying the population by a waste generation rate that was developed from the base year data provided by the City (ie: 1.06 tonnes/person/year). The waste generation rate has been increased from 1.06 tonnes/person/year to 1.10 tonnes/person/year in the year 2006 to reflect the anticipated increase in sewage sludge resulting form the construction of the new secondary sewage treatment plant in the City's east end.

1.4 Division 4 – Estimated Expenditures

In order to assist City Staff and Council in planning and budgeting for future waste management initiatives it was necessary to develop estimates of the future expenditures for each component of the overall waste management system. The expenditure estimates have been developed based on the unit costs and quantity estimates described in the preceding sections of this report. The Plan covers a significant period of time (25 years) and in general the confidence in the estimates dissipates with time. Recognizing the variables and assumptions involved in developing the expenditure projections the importance of updating of the plan frequently is emphasized.

This section of the spreadsheet is subdivided into the waste collection and disposal costs, diversion collection and processing costs and general costs. In developing the expenditure

projections a reasonable inflation allowance of 3% per annum has been assumed. The individual components within each of these subdivisions are described in the following subsections.

1.4.1 Waste Collection and Disposal Costs

1.4.1.1 Description of Engineering/Capital Expenditures: In this column the specific disposal related engineering or capital works to be undertaken in each year of the Plan are described.

1.4.1.2 Engineering: This figure is an estimate of the cost for contracted waste disposal engineering services in each year. The estimates have been developed based on experience with similar initiatives in other municipalities.

1.4.1.3 Capital: This figure is an estimate of the cost for waste disposal related capital improvements. The estimates have been developed based on experience with similar capital works in other municipalities.

1.4.1.4 Residential Waste Collection: This figure is an estimate of the cost for the curb side collection of residential waste. The amount shown for the base year is based on actual cost data provided by the City. The amount in future years is computed by multiplying the population by the residential waste collection cost per person in each year. This figure includes an appropriate reserve for repairs and replacement of collection equipment.

1.4.1.5 Waste Disposal Operations: This figure is an estimate of the cost of operating the landfill site. The amount shown for the base year is based on actual cost data provided by the City. The amount in future years is computed by multiplying the tonnage of waste disposed of in the landfill site by the unit operating cost per tonne. This figure includes an appropriate reserve for repairs and replacement of landfill operating equipment.

1.4.1.6 Leachate Treatment: This figure is an estimate of the cost of treating the leachate impacted ground water that is collected at the landfill site. The amount in each year is computed by multiplying the quantity of leachate by the unit rate charged to the IC&I sector for waste water collection and treatment.

1.4.1.7 Total Disposal Costs: This figure is an estimate of the total cost to the municipality for waste disposal related initiatives. It is computed by adding the values in the preceding four columns.

1.4.2 Diversion Material Collection and Processing Costs

1.4.2.1 Description of Engineering Expenditures: In this column the specific engineering work to be undertaken to implement the diversion programs in each year of the Plan is described.

1.4.2.2 Engineering: This figure is an estimate of the cost for contracted waste diversion engineering services in each year. The estimates have been developed based on experience with similar initiatives in other municipalities.

1.4.2.3 Landfill Diversion: This figure is an estimate of the cost of processing and diverting materials at the landfill site. The materials that have typically been processed in the past include

tires, wood and scrap metal. The amount shown for the base year is based on actual cost data provided by the City. The amount in future years is computed by multiplying the estimated tonnage of material diverted at the landfill by the relevant unit cost in each year.

1.4.2.4 Residential Recyclables Collection and Processing: This figure is an estimate of the cost of undertaking curb side collection and processing of residential recyclables. The amount shown for the base year is based on actual cost data provided by the City. That contract was based on a fixed lump sum monthly price. A new weight-based contract was initiated in the fall of 2002. The estimated program cost for the year 2003 and future years is computed by multiplying the estimated tonnage of residential recyclables by the relevant unit cost.

1.4.2.5 Residential Organics Collection and Processing: This figure is an estimate of the cost of undertaking curb side collection and processing of residential organics. Presently the City has a limited leaf and yard waste program with leaf collection three times in the fall of each year. Since the program is very limited, the costs associated with this program have been included with the residential waste collection costs for the years 2000 through 2002. In 2003 and future years it has been assumed that an expanded leaf and yard waste program would be initiated with leaf and yard waste collection undertaken throughout the growing season (ie: May through October of each year). Furthermore under the System 5 scenario it has also been assumed that full scale organics collection and processing would be initiated in 2004. Therefore in 2003 and all future years this figure has been computed by multiplying the quantity of residential organics by the relevant unit cost.

1.4.2.6 Sewage Sludge Processing: This figure is an estimate of the cost to process sewage sludge to produce a restricted or unrestricted compost. This figure is computed by multiplying the tonnage of sewage sludge by the relevant unit cost. Under the System 4 scenario the cost under this item is 0 for all years as it has been assumed that full scale organics processing would not be undertaken. Conversely, under the System 5 scenario it has been assumed that all sewage sludge would be processed commencing in 2004.

1.4.2.7 Household Special Waste ("HSW") Program: This figure is an estimate of the cost to operate the HSW program each year. An annual cost of $125,000 was established for 2002 based on input from City staff. The cost in future years reflects the 2002 annual cost with an appropriate allowance for inflation.

1.4.2.8 Re-Use Centre: This figure is an estimate of the cost to establish and operate a re-use centre. Within the Plan it has been assumed that a re-use centre would be established at the landfill site in 2004. An allowance of $200,000 has been included in 2004 to establish suitable infrastructure and a budget of $100,000 has been included in 2005 to operate the facility. The operating budget in future years is based on the 2005 budget with an appropriate allowance for inflation.

1.4.2.9 Total Diversion Costs: This figure is an estimate of the total cost to the municipality for waste diversion programs. It is computed by adding the values in the preceding seven columns.

1.4.3 General Costs

1.4.3.1 Financing: This figure is an estimate of the annual financing costs required for the waste management system. This figure has been computed by multiplying a negative cumulative reserve in the preceding year by the assumed financing rate. In the event that the cumulative reserve in the preceding year is positive it has been assumed that interest revenue would accrue to the municipality.

1.4.3.2 Additional Administrative Costs: This figure is an estimate of the additional costs to accrue to the City to administer a partial or full user pay program. An allowance of $100,000 (in 2002 $'s) for the partial user pay scenarios and $125,000 (in 2002 $'s) for the full user pay scenarios has been incorporated into the models. This allowance is intended to cover the costs associated with the sale of bag tags, policing and enforcement.

1.4.3.3 Total General Costs: This figure is an estimate of the total general waste management costs to accrue to the municipality. It is computed by adding the values in the preceding two columns.

1.4.4 Total Expenditures

This figure is an estimate of the total waste management system expenditures in a given year. This figure has been computed by adding the total disposal costs, total diversion costs and the total general costs.

1.5 Division 5 – Estimated Revenues

There are several alternative methods available to generate revenues to meet the projected waste management system expenditures. The alternatives comprise of the general tax levy, a partial user pay program or a full user pay program. Under a partial user pay program, the waste management system is funded through a combination of the general levy and user fees while under a full user pay program adequate revenues are generated from user fees to meet all of the projected expenditures (ie: no contribution is required from the general levy).

This section of the spreadsheet is subdivided into waste collection and disposal revenues, diversion revenues and interest income. An interest rate of 4% per annum has been assumed. The individual columns within each of these subdivisions are described in the following subsections.

1.5.1 Waste Collection and Disposal Revenues

1.5.1.1 Bag Fees: This figure is an estimate of the revenue to accrue to the City through the implementation of a Pay-As-You-Throw ("PAYT") program. Revenues would accrue in 2003 and all future years for each bag of refuse set out curb side in excess of the designated bag limit. This figure is computed by multiplying the unit revenue per bag of waste by the estimated number of bags set out each year with a bag tag.

1.5.1.2 Gate Fees: This figure is an estimate of the revenue to accrue to the City for each visit to the landfill's public drop-off by a residential customer provided the weight of waste is under the

designated maximum. This figure is computed by multiplying the estimated number of residential visitors to the landfill in a given year by the gate fee.

1.5.1.3 Sewage Sludge Tipping Fee: This figure is an estimate of the revenue that would accrue to the waste management budget to account for the disposal of sewage sludge in the City's landfill. The City is presently incurring significant costs for the disposal of sewage sludge in its landfill (ie: the loss of valuable disposal capacity). In future years sewage sludge may be processed (ie: co-composted with residential organics) to produce either a restricted or unrestricted compost (ie: System 5) or it may continue to be landfilled (ie: System 4). A pilot study is presently underway to assess the feasibility of co-composting sewage sludge with residential organics. Regardless of whether the sewage sludge is landfilled or composted there is a significant cost associated with the management of this material. The introduction of a revenue stream to offset the costs allows the City to remove the sewage sludge disposal/processing costs from the waste management budget and include it with sewage collection and treatment. This figure is computed by multiplying the tonnage of sewage sludge by the sewage sludge tipping fee.

1.5.1.4 Landfill Tipping Fees: This figure is an estimate of the revenue to accrue to the City through the collection of tipping fees at the landfill site. This fee applies to waste delivered to the landfill by the IC&I sector. This figure is computed by multiplying the tonnage of private sector waste subject to tipping fees by the tipping fee.

1.5.1.5 Total Waste Collection and Disposal Revenues: This figure is an estimate of the revenue to accrue to the City for the collection and disposal of residential waste and the disposal of IC&I waste. It is computed by adding the figures in the preceding four columns.

1.5.2 Diversion Revenues

1.5.2.1 Residential Recycling (Sale of Materials): This figure is an estimate of the revenue to accrue to the City for the sale of recyclable materials to end markets. A new recycling contract was initiated in October 2002 which included provisions for the sharing of revenues from the sale of recyclable materials to end markets. The revenues are to be split 50/50 between the Contractor and City. This figure is computed by multiplying the estimated quantity of residential recyclables in a given year by the estimated unit revenue for a mixed basket of recyclable materials.

1.5.2.2 Diversion Subsidies: The City is presently receiving subsidies to assist with the costs of diverting glass. The amount of the subsidy in recent years has been in the range of $30,000 annually. An allowance of $30,000 per year has been incorporated into the Plan for the time being without an allowance for inflation. Although the longevity and value of any subsidy program is rarely well-defined this is a marginal allowance that can easily be adjusted as new programs are implemented and/or existing programs are terminated. Legislation was recently passed which mandates the food packaging industry to provide financial assistance to municipalities to operate a dry recycling program. The funding formula was being developed in the fall of 2002 and it is anticipated that efficient and comprehensive diversion programs will be rewarded with higher levels of funding. It is expected that this component of the Plan will be adjusted annually to reflect the subsidy programs of the day.

1.5.2.3 Sewage Sludge Processing Fee: This figure is an estimate of the revenue that would accrue to the waste management budget to account for the co-composting of sewage sludge with

residential organics. The City is presently incurring significant costs for the disposal of sewage sludge in its landfill (ie: the loss of valuable disposal capacity). In future years sewage sludge may be processed (ie: co-composted with residential organics) to produce either a restricted or unrestricted compost (ie: System 5) or it may continue to be landfilled (ie: System 4). A pilot study is presently underway to assess the feasibility of co-composting sewage sludge with residential organics. Regardless of whether the sewage sludge is landfilled or composted there is a significant cost associated with the management of this material. The introduction of a revenue stream to offset the costs allows the City to remove the sewage sludge disposal/processing costs from the waste management budget and include it with sewage collection and treatment. This figure is computed by multiplying the tonnage of sewage sludge by the sewage sludge processing fee.

1.5.2.4 Total Diversion Revenues: This figure is an estimate of the revenue to accrue to the City through the diversion programs. It is computed by adding the figures in the preceding three columns.

1.5.3 General Revenue

1.5.3.1 General Levy: This figure is an estimate of the net contribution to be made to the waste management system from the general tax levy. Under the partial user pay programs the value of the contribution in each year of the Plan has been established based on the year 2001 net contribution with an appropriate allowance for inflation in future years. Conversely under the full user pay programs the value of the contribution has been progressively eliminated over the period from 2003 to 2006 as the user pay program is phased in. In 2006 and all future years the contribution from the general tax levy has been established as $0 as the entire system costs are funded through system revenues.

1.5.3.2 Interest: This figure is an estimate of the annual interest income to accrue through the investment of the funds in the reserve account. This figure has been computed by multiplying a positive cumulative reserve in the preceding year by the assumed interest rate. In the event that the cumulative reserve in the preceding year is negative it has been assumed that financing costs would accrue to the municipality.

1.5.3.3 Total General Revenues: This figure is an estimate of the total general revenues in a given year. This figure has been computed by adding the revenue figures in the two preceding columns.

1.5.4 Total Revenues

This figure is an estimate of the total revenues that will accrue to the waste management budget in a given year from all sources. It has been computed by adding the total waste collection and disposal revenues, total diversion revenues and the general revenues.

1.6 Division 6 – Reserves

1.6.1 Annual Reserve (Revenues minus Expenditures)

This figure is an estimate of the annual reserve for the waste management system. It has been computed by subtracting the total expenditures from the total revenues. A positive value indicates that revenues are expected to exceed expenditures in a given year whereas a negative value indicates that expenditures are expected to exceed revenues in a given year.

1.6.2 Cumulative Reserve

This figure is an estimate of the cumulative reserve that will accrue over time. It has been computed by taking the cumulative reserve in the previous year and adding to it the annual reserve in the current year. A positive value indicates that revenues are expected to exceed expenditures over the given period of time whereas a negative value indicates that expenditures are expected to exceed revenues over the given period of time.

2.0 BAG FEE CALCULATION SPREADSHEET

In a user pay system revenues are typically generated through tipping fees and gate fees applied at the landfill site and bag fees applied to each bag of refuse set out curb side in excess of the bag limit. Since the principle means of recovering the costs related to the residential waste management programs is through bag fees and the general tax levy, calculations have been completed to identify suitable bag fee rates that will be adequate to recover the net expenditures from one, two or all three of the residential waste management programs noted below.

- Waste collection and disposal;
- Dry recyclables collection and processing; and
- Organic waste collection and processing. The implementation of a full scale organics collection and processing program will be dependant upon the success of an ongoing pilot feasibility study.

The intent of these calculations is to provide a range of bag fees that may be appropriate depending on whether a partial or full user pay program is implemented. For a full user pay program it may be desirable to establish a bag fee that provides sufficient revenues to meet the projected expenditures for all three residential waste management programs noted above. Alternatively under a partial user pay program a more moderate bag fee may be appropriate.

Separate bag fee calculation spreadsheets have been developed for Systems 4 and 5 (digital copies have been provided to the City). A detailed explanation of each component of the System 5 bag fee calculation spreadsheet is provided in the following subsections. The System 4 bag fee calculation spreadsheet is generally the same with the exception that division 4 noted below is excluded.

The spreadsheet has been segregated into four major divisions as follows:

1. General
2. Bag Fee for Collection and Waste Disposal
3. Bag Fee for Collection, Waste Disposal and Recycling
4. Bag Fee for Collection, Waste Disposal, Recycling and Organics Processing

Within each of these divisions there are a number of components in individual columns. Each of the major divisions and columns are discussed/defined in the following subsections.

2.1 Division 1 - General

Each of the columns in this division is defined in detail under the Business and Implementation Plan spreadsheet. The values in each of these columns is automatically updated from the corresponding data included in the "System 5 - Full Bag Fee" spreadsheet. This approach ensures that these columns always reflect the entries in the corresponding columns in the "System 5 - Full Bag Fee" spreadsheet.

2.2 Division 2 – Bag Fee for Collection and Waste Disposal

In this division of the spreadsheet an equitable bag fee is calculated to generate sufficient revenues to cover the anticipated costs of the residential waste collection and disposal programs. Each of the components within this division is defined below.

2.2.1 Estimated Residential Waste Collected and Disposed

This figure is an estimate of the quantity, in tonnes, of the waste collected through the residential waste collection program and disposed of in the landfill. The quantity shown for the base year is based on actual data provided by the City. The quantity in future years is inversely proportional to the diversion rate and directly proportional to the total quantity of waste managed.

2.2.2 Disposal Fee for Residential Waste:

This figure is an estimate of the revenue that would accrue if tipping fees were applied to the disposal of residential waste. It is computed by multiplying the estimated residential waste collected and disposed of in the landfill by the proposed tipping fee.

2.2.3 Collection Costs for Residential Waste

This figure is an estimate of the cost of undertaking curb side collection of residential waste. The amount shown for the base year is based on actual cost data provided by the City of Sault Ste. Marie. The amount in future years is computed by multiplying the population by the residential waste collection cost per person in each year. This column is automatically updated to reflect the data in the corresponding column of the "System 5 - Full Bag Fee" spreadsheet.

2.2.4 Total Cost Collection and Disposal of Residential Waste

This figure is an estimate of the total cost for the collection and disposal of residential waste in each year. The values in this column are computed by adding the values in the two preceding columns (ie: Disposal Fee for Residential Waste and Collection Costs for Residential Waste).

2.2.5 Estimated Number of Bags with Tags

This figure is an estimate of the total number of bags set out curb side and paid for in advance (ie: set out with a tag). This column is automatically updated to reflect the data in the corresponding column of the "System 5 - Full Bag Fee" spreadsheet. A detailed explanation of the approach taken to estimate this quantity is provided under the Business and Implementation Plan spreadsheet.

2.2.6 Suitable Bag Fee for Collection and Disposal of Residential Waste

This figure is an estimate of an equitable fee to be charged for each bag of waste to reflect the costs for collection and disposal of residential waste. This value is calculated by dividing the "Total Cost for Collection and Disposal of Residential Waste" by the "Estimated Number of Bags with Tags" set out curb side.

2.3 Division 3 – Bag Fee for Collection, Waste Disposal and Recycling

In this division of the spreadsheet an equitable bag fee is calculated to generate sufficient revenues to cover the anticipated costs of residential waste collection, residential waste disposal and the collection and processing of dry recyclables. Each of the components within this division is defined below.

2.3.1 Recycling Collection and Processing Costs

This figure is an estimate of the cost of undertaking curb side collection and processing of residential recyclables. The amount shown for 2003 and future years is computed by multiplying the estimated tonnage of recyclables collected and processed by the relevant unit cost. This column is automatically updated to reflect the data in the corresponding column of the "System 5 - Full Bag Fee" spreadsheet.

2.3.2 Municipal Revenues from Sale of Materials and Subsidies

This figure is an estimate of the Municipality's share of the revenues that accrue from the sale of the recyclable materials to end markets combined with any subsidies from other levels of government. The revenues from the sale of recyclable materials will be realized in late 2002 and future years. The values in this column are computed by multiplying the tonnage of recyclables collected and processed by the relevant unit revenue and adding to it any subsidies from government programs. This column is automatically updated to reflect the data in the corresponding columns of the "System 5 - Full Bag Fee" spreadsheet.

2.3.3 Total Net Cost Collection and Disposal of Waste and Recycling

This figure is an estimate of the total net cost for the collection and disposal of residential waste and collection and processing of residential recyclables in each year. The values in this column are computed by adding the "total cost of collection and disposal of residential waste" to the "recycling collection and processing costs" and subtracting the "municipal revenues from the sale of materials and subsidies".

2.3.4 Estimated Number of Bags with Tags

This figure is an estimate of the total number of bags set out curb side and paid for in advance (ie: set out with a tag). This column is automatically updated to reflect the data in the corresponding column of the "System 5 - Full Bag Fee" spreadsheet. A detailed explanation of the approach taken to estimate this quantity is provided under the Business and Implementation Plan spreadsheet.

2.3.5 Suitable Bag Fee for Collection, Waste Disposal and Recycling

This figure is an estimate of an equitable fee to be charged for each bag of waste to reflect the costs for collection and disposal of residential waste and collection and processing of residential

recyclables. This value is calculated by dividing the "Total Net Cost for Collection and Disposal of Waste and Recycling" by the "Estimated Number of Bags with Tags" set out curb side.

2.4 Division 4 – Bag Fee for Collection, Waste Disposal, Recycling and Organics Processing

In this division of the spreadsheet an equitable bag fee is calculated to generate sufficient revenues to cover the anticipated costs of residential waste collection, residential waste disposal, collection and processing of dry recyclables and collection and processing of residential organics. Each of the components within this division is defined below.

2.4.1 Residential Organics Collection and Processing Costs

This figure is an estimate of the cost of undertaking curb side collection and processing of residential organics. It has been assumed that an expanded leaf and yard waste program would be initiated in 2003 and full scale residential organics collection and processing would be initiated in 2004. The amount shown for 2003 and future years is computed by multiplying the tonnage of residential organics collected and processed by the relevant unit cost. This column is automatically updated to reflect the data in the corresponding column of the "System 5 - Full Bag Fee" spreadsheet.

2.4.2 Total Cost Collection, Waste Disposal, Recycling & Organics Processing

This figure is an estimate of the total net cost for the collection and disposal of residential waste, the collection and processing of residential recyclables and the collection and processing of residential organics in each year. The values in this column are computed by adding the "Total Net Cost Collection and Disposal of Waste and Recycling" to the "Residential Organics Collection and Processing Costs".

2.4.3 Estimated Number of Bags with Tags

This figure is an estimate of the total number of bags set out curb side and paid for in advance (ie: set out with a tag). This column is automatically updated to reflect the data in the corresponding column of the "System 5 - Full Bag Fee" spreadsheet. A detailed explanation of the approach taken to estimate this quantity is provided under the Business and Implementation Plan spreadsheet.

2.4.4 Suitable Bag Fee for Collection, Waste Disposal, Recycling and Organics Processing

This figure is an estimate of an equitable fee to be charged for each bag of waste to reflect the costs for collection and disposal of residential waste, the collection and processing of residential recyclables and the collection and processing of residential organics. This value is calculated by dividing the "Total Cost Collection, Waste Disposal, Recycling & Organics Processing" by the "Estimated Number of Bags with Tags" set out curb side.

APPENDIX B

USER PAY CASE STUDY
CITY OF PETERBOROUGH, ONTARIO

User Pay Case Study
City of Peterborough, Ontario

Relevance to Toronto: Over 5 years, moved from a 6 to 3 bag limit in 1994, and to a 2 bag limit in 1995. Close to Toronto.

Demographics:

Population: 68,748 (2000)

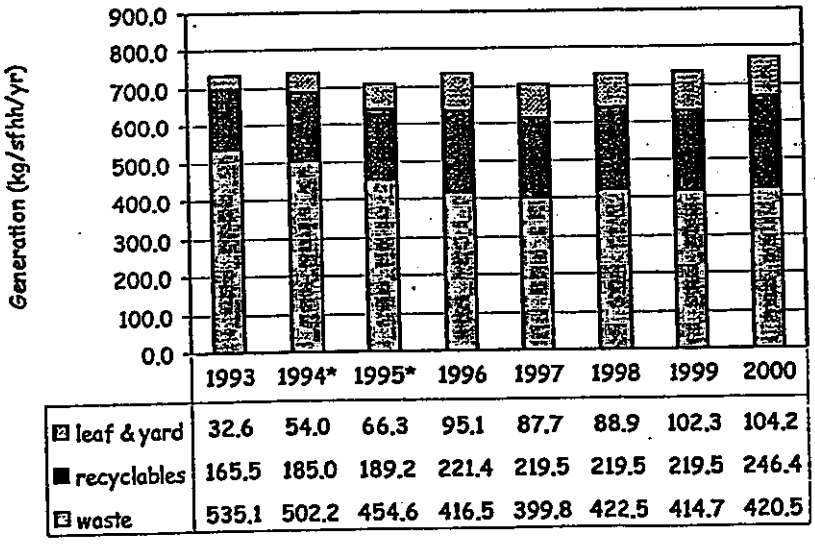
- **Households:** 29,000

City of Peterborough, Waste Diversion at a Glance

Type of System	Date Started	Years with Data	% change in waste landfilled (kg/sfhh)	% change in recycling (kg/sfhh)*	% change in leaf & yard collection (kg/sfhh)	% diversion (without BYC)
			Compared with baseline year 1993			
Bag Limits	3 bag limit introduced in 1994	1993				+27%
		1994	-6%	+12%	+66%	+32%
		1995	-15%	+14%	+104%	+36%
		1996	-22%	+34%	+192%	+43%
	2 bag limit introduced in 1995	1997	-25%	+33%	+169%	+43%
		1998	-21%	+33%	+173%	+42%
		1999	-23%	+46%	+214%	+45%
		2000	-21%	+49%	+220%	+45%

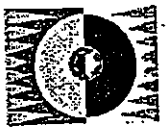
*Note: New materials added to recycling program in 1993, 1994, 1995 and 2000.

Peterborough - Impacts of Bag Limits



	1993	1994*	1995*	1996	1997	1998	1999	2000
leaf & yard	32.6	54.0	66.3	95.1	87.7	88.9	102.3	104.2
recyclables	165.5	185.0	189.2	221.4	219.5	219.5	219.5	246.4
waste	535.1	502.2	454.6	416.5	399.8	422.5	414.7	420.5

* Bag limit reduced from 6 to 3 in 1994 and 3 to 2 in 1995



Program Description:

- The City of Peterborough introduced a two bag/container limit per week in 1995. Prior bag weekly limits were 18 bags in 1989, 6 bags in 1990, four bags in 1991 and three bags in 1994.
- An acceptable container is defined as a 120 litres (32 gallon can) or a plastic bag. Containers cannot exceed 23 kg (50lb).
- Households that exceed the two container limit are required to store waste until a subsequent collection period or drop waste at the landfill for a minimum fee of $5.00.
- The data provided by the City included the following: 1) waste to landfill data includes businesses that participate in the 4 bag business bag limit but excludes most residential multi-units with six or more units. City staff expect these factors to balance out. 2) The recycling tonnages include collection from businesses that participate in the curbside waste collection program and large multi-units.

Impacts on Waste to Landfill

Year	HHs	Tonnes	% Change from base year (1993)
1993 (base year)	27,950	14956	
1994	28,100	14111	-6%
1995	28,250	12842	-15%
1996	28,400	11829	-22%
1997	28,550	11414	-25%
1998	28,700	12126	-21%
1999	28,850	11964	-23%
2000	29,000	12195	-21%

- Average set out of 1.2 bags/household/week.

Recycling

Year	HHs	Tonnes*	% Change from base year (1993)
1993 (base year)	27,950	4627	
1994	28,100	5199	+12%
1995	28,250	5346	+14%
1996	28,400	6289	+34%
1997	28,550	6268	+33%
1998	28,700	6301	+33%
1999	28,850	6956	+46%
2000	29,000	7146	+49%

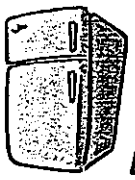
*Note: The recycling tonnages include collection from businesses that participate in the curbside waste collection program and large multi-units.

- Weekly collection.
- Curbside Blue Box program since 1987.
- Since 1995, blue box recyclables have been banned from waste disposal.
- The City currently collects: ONP, OCC, OBB, OMG, mixed paper, glass, plastics #1 and #2, aluminum cans and foil, steel cans, empty paint cans, empty aerosol cans, aseptic packages and gable top cartons. Polystyrene can be dropped of at the depot.
- Blue box materials evolved as follows:
  - In 1987, the City collected glass containers, metal cans, ONP and Plastic #1 bottles.
  - Film plastic was introduced in 1991.
  - In 1993, plastic #2 bottles, OMG, OCC and foil were added.
  - In 1994, OBB and phone books were added.
  - In 1995, plastic tubs and jugs and mixed paper were added.
  - In 2000, empty paint cans, empty aerosol cans , aseptic packages and polycoat was added.
- A study showed the average set out per household is 8.8 kg and the average bag weight is 6.6 kg.

Leaf and Yard Waste

Year	HHs	Tonnes	% Change from base year (1993)
1993 (base year)	27,950	910	
1994	28,100	1516	+66%
1995	28,250	1873	+104%
1996	28,400	2700	+192%
1997	28,550	2504	+169%
1998	28,700	2552	+173%
1999	28,850	2950	+214%
2000	29,000	3021	+220%

- Weekly collection between April and November.
- Mandatory leaf and yard waste composting by-law.
- Curbside collection of leaf and yard waste introduced in 1993. Loose collection of leaves since 1990.
- Since 1990, over 13,000 composters have been purchased by residents through the City's subsidy program.
- Since September 1998, the City has provided a 50% subsidy on the cost of a mulching blade, that can be installed on most lawn mowers.
- Yard waste tonnages (above) exclude estimated loose curbside leaf collection. Between 1994 to 1997, an estimated 965 tonnes per year of loose leaves were collected. With the promotion of mulching, the City estimates the following: 465 tonnes in 1998; 431 tonnes in 1999 and 456 tonnes in 2000.



Bulky Wastes

- Since 1992, four large article collections are scheduled each year. Tickets must be purchased the week before collection at City Hall or Public Works for $15 for the first item and $5 for each additional item.
- Bulky items are defined as items over 23 kg (50 lbs).

Exchange Day

- Since 1991, the City has sponsored 2-3 "Reusables Exchange" weekends per year. Participants place reusable items to curb on the Friday and pick up remaining items on the Sunday evening.

Textiles Collection

- Since 1996, in partnership with Peterborough Green-Up, two curbside textiles drives are held each year.

Promotion and Education:

- The program is promoted on the website,

Lessons Learned:

- The City always introduced alternatives for reducing waste when new bag limits were introduced.
- Staging program changes over time will help get a higher level of support (e.g., material ban and reduced bag limit).

Future Goals:

- Collection of food wastes being investigated in 2001.

City of Sault Ste. Marie
Solid Waste Management Business and Implementation Plan
SPREADSHEET 9 - System 4 Partial User Pay (Option C)
Bag limit = 2, Bag fee = $2.00/bag to 2006 and increased at same rate as tipping f

Implementation Plan		Estimated Unit Costs/Revenu						
		Unit Costs						
Year	Key Activities	Residential Waste Collection ($/person)	Landfill Site Operations ($/tonne)	Leachate Treatment ($/cu. m)	Diversion at Landfill ($/tonne)	Residential Recyclables Collection & Processing ($/tonne)	Residential Organics Collection & Processing ($/tonne)	Sewage Sludge Processing ($/tonne)
2000	Initiate Solid Waste Management Plan	$12.91	$13.59	N/A	$48.93	N/A	N/A	N/A
2001	Undertake Solid Waste Management Plan Initiate preparation of Enhanced Recycling RFP Open Household Special Waste Facility Initiate Expanded Public Education Program	$13.29	$14.00	N/A	$50.40	N/A	N/A	N/A
2002	Finalize Solid Waste Management Plan Tender and Award Enhanced Recycling Contract Initiate Co-composting Feasibility Study	$13.69	$14.42	N/A	$51.91	$210.00	N/A	N/A
2003	Finalize Co-composting Feasibility Study Initiate Expanded Leaf and Yard Waste Program/Landfill Ban Expand ban on OCC to Residential Sector Initiate Environmental Assessment for Disposal Increase Tipping Fees and Gate Fees Reduce Bag Limits (two bags) and charge bag fees	$14.10	$14.85	$0.36	$53.47	$210.00	$103.00	N/A
2004	Finalize Environmental Assessment for Disposal Establish Re-use Centre Increase Tipping Fees	$14.53	$15.30	$0.37	$55.07	$216.30	$106.09	N/A
2005	Environmental Assessment Act Approvals Increase Tipping Fees	$14.96	$15.75	$0.39	$56.72	$222.79	$109.27	N/A
2006	Initiate Environmental Protection Act Requirements for Disposal Increase Tipping Fees	$15.41	$16.23	$0.40	$58.42	$229.47	$112.55	N/A
2007	Finalize Environmental Protection Act Requirements for Disposal Increase Tipping Fees and Bag Fees to meet system costs	$15.87	$16.71	$0.41	$60.18	$236.36	$115.93	N/A
2008	Environmental Protection Act Approvals Increase Tipping Fees and Bag Fees to meet system costs	$16.35	$17.21	$0.42	$61.98	$243.45	$119.41	N/A
2009	Detail Design of Landfill Increase Tipping Fees and Bag Fees to meet system costs	$16.84	$17.73	$0.43	$63.84	$250.75	$122.99	N/A
2010	Initial Site Construction Increase Tipping Fees and Bag Fees to meet system costs	$17.35	$18.26	$0.45	$65.76	$258.27	$126.68	N/A
2011	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$17.87	$18.81	$0.46	$67.73	$266.02	$130.48	N/A
2012	Re-tender Recycling Contract Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$18.40	$19.38	$0.47	$69.76	$274.00	$134.39	N/A
2013	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$18.96	$19.96	$0.49	$71.86	$282.22	$138.42	N/A
2014	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$19.52	$20.56	$0.50	$74.01	$290.69	$142.58	N/A
2015	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$20.11	$21.17	$0.52	$76.23	$299.41	$146.85	N/A
2016	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$20.71	$21.81	$0.53	$78.52	$308.39	$151.26	N/A
2017	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$21.33	$22.46	$0.55	$80.87	$317.64	$155.80	N/A
2018	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$21.97	$23.14	$0.57	$83.30	$327.17	$160.47	N/A
2019	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$22.63	$23.83	$0.58	$85.80	$336.99	$165.28	N/A
2020	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$23.31	$24.54	$0.60	$88.37	$347.10	$170.24	N/A
2021	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$24.01	$25.28	$0.62	$91.02	$357.51	$175.35	N/A
2022	Re-tender Recycling Contract Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$24.73	$26.04	$0.64	$93.75	$368.24	$180.61	N/A
2023	Annual Liner Construction Increase Tipping Fees and Bag Fees to meet system costs	$25.47	$26.82	$0.66	$96.57	$379.28	$186.03	N/A
2024	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$26.24	$27.62	$0.68	$99.46	$390.66	$191.61	N/A
2025	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$27.03	$28.45	$0.70	$102.45	$402.38	$197.36	N/A
2026	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$27.84	$29.31	$0.72	$105.52	$414.45	$203.28	N/A
2027	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$28.67	$30.19	$0.74	$108.69	$426.89	$209.38	N/A
	TOTALS (2000 to 2027)							
	TOTALS (2003 to 2027)							

Notes and Assmptions:

Assumed Inflation Rate =	3 %
Assumed Population Growth Rate after 2006 =	1 %
Percentage Increase in fees after 2006 =	1.9 %
Financing Rate =	6 %
Interest Rate	4 %
Estimated Value of Disposal Capacity in 2027	125

Financial Model Summary

System funded through a combination of the general levy and system revenues (primarily user fees).
Contribution from general levy is approximately equivalent to net contributions in 2000 and 2001 - increas
Bag limit reduced from 6 bags to 2 bags in 2003.
Each bag set out curb side in excess of designated bag limit must be paid for in advance.

$2.00	2006 Bag Fee
$2.95	2027 Bag Fee
$65.00	2006 Tipping Fee
$95.80	2027 Tipping Fee
$70,288,778	Cummulative Reserve in 2027
1813599	Disposal Capacity Consumed
561968	Additional Disposal Capacity Consumed Relative to System 5 - Full User Pay
$70,245,958	Required Cumulative Reserve

City of Sault Ste. Marie
Solid Waste Management Busine
SPREADSHEET 9 - System 4 Parl

Implementation Plan		ues						
		Unit Revenues					Misc	
Year	Key Activities	City Share of Sale of Recyclables (50% of Basket of Goods Price) ($/tonne)	Residential Bag Fee ($/bag)	Gate Fees at Landfill ($/visit)	Sewage Sludge Tipping/ Processing Fee ($/tonne)	Landfill Tipping Fees ($/tonne)	Population	Number of Households
2000	Initiate Solid Waste Management Plan	N/A	$0.00	$2.00	$27.50	$27.50	75576	26500
2001	Undertake Solid Waste Management Plan Initiate preparation of Enhanced Recycling RFP Open Household Special Waste Facility Initiate Expanded Public Education Program	N/A	$0.00	$2.00	$27.50	$27.50	75576	26500
2002	Finalize Solid Waste Management Plan Tender and Award Enhanced Recycling Contract Initiate Co-composting Feasibility Study	$42.00	$0.00	$2.00	$27.50	$27.50	75576	26500
2003	Finalize Co-composting Feasibility Study Initiate Expanded Leaf and Yard Waste Program/Landfill Ban Expand ban on OCC to Residential Sector Initiate Environmental Assessment for Disposal Increase Tipping Fees and Gate Fees Reduce Bag Limits (two bags) and charge bag fees	$43.26	$2.00	$4.00	$40.00	$40.00	75576	26500
2004	Finalize Environmental Assessment for Disposal Establish Re-use Centre Increase Tipping Fees	$44.56	$2.00	$4.00	$40.00	$40.00	75576	26500
2005	Environmental Assessment Act Approvals Increase Tipping Fees	$45.89	$2.00	$4.00	$55.00	$55.00	75576	26500
2006	Initiate Environmental Protection Act Requirements for Disposal Increase Tipping Fees	$47.27	$2.00	$6.00	$65.00	$65.00	75576	26500
2007	Finalize Environmental Protection Act Requirements for Disposal Increase Tipping Fees and Bag Fees to meet system costs	$48.69	$2.04	$6.11	$66.21	$66.21	76332	26765
2008	Environmental Protection Act Approvals Increase Tipping Fees and Bag Fees to meet system costs	$50.15	$2.08	$6.23	$67.45	$67.45	77095	27033
2009	Detail Design of Landfill Increase Tipping Fees and Bag Fees to meet system costs	$51.65	$2.11	$6.34	$68.70	$68.70	77866	27303
2010	Initial Site Construction Increase Tipping Fees and Bag Fees to meet system costs	$53.20	$2.15	$6.46	$69.98	$69.98	78645	27576
2011	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$54.80	$2.19	$6.58	$71.29	$71.29	79431	27852
2012	Re-tender Recycling Contract Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$56.44	$2.23	$6.70	$72.62	$72.62	80225	28130
2013	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$58.14	$2.28	$6.83	$73.97	$73.97	81028	28412
2014	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$59.88	$2.32	$6.96	$75.35	$75.35	81838	28696
2015	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$61.68	$2.36	$7.08	$76.75	$76.75	82656	28983
2016	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$63.53	$2.41	$7.22	$78.18	$78.18	83483	29272
2017	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$65.43	$2.45	$7.35	$79.64	$79.64	84318	29565
2018	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$67.40	$2.50	$7.49	$81.13	$81.13	85161	29861
2019	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$69.42	$2.54	$7.63	$82.64	$82.64	86013	30159
2020	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$71.50	$2.59	$7.77	$84.18	$84.18	86873	30461
2021	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$73.65	$2.64	$7.92	$85.75	$85.75	87741	30766
2022	Re-tender Recycling Contract Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$75.86	$2.69	$8.06	$87.35	$87.35	88619	31073
2023	Annual Liner Construction Increase Tipping Fees and Bag Fees to meet system costs	$78.13	$2.74	$8.21	$88.97	$88.97	89505	31384
2024	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$80.48	$2.79	$8.37	$90.63	$90.63	90400	31698
2025	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$82.89	$2.84	$8.52	$92.32	$92.32	91304	32015
2026	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$85.38	$2.89	$8.68	$94.04	$94.04	92217	32335
2027	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$87.94	$2.95	$8.84	$95.80	$95.80	93139	32658
	TOTALS (2000 to 2027)							
	TOTALS (2003 to 2027)							

Notes and Assmptions:

Assumed Inflation Rate =	3
Assumed Population Growth Rate after 2006 =	1 ses in future years based on inflation.
Percentage Increase in fees after 2006 =	1.9
Financing Rate =	6
Interest Rate	4
Estimated Value of Disposal Capacity in 2027	125

City of Sault Ste. Marie
Solid Waste Management Busine
SPREADSHEET 9 - System 4 Parl

Implementation Plan		ellaneous Quantities						
Year	Key Activities	Bags per Household per week	Number of Bags with Tags per year	Residential Public Drop-off Trips per year	Residential Recycling (tonnes)	Multi-residential & IC&I Recycling (tonnes)	Landfill Diversion (tonnes)	Backyard Composting (tonnes)
2000	Initiate Solid Waste Management Plan	2.67	0	57240	2433	1300	1125	976
2001	Undertake Solid Waste Management Plan Initiate preparation of Enhanced Recycling RFP Open Household Special Waste Facility Initiate Expanded Public Education Program	2.67	0	56789	2478	1324	1125	976
2002	Finalize Solid Waste Management Plan Tender and Award Enhanced Recycling Contract Initiate Co-composting Feasibility Study	2.64	0	56200	2734	1934	980	976
2003	Finalize Co-composting Feasibility Study Initiate Expanded Leaf and Yard Waste Program/Landfill Ban Expand ban on OCC to Residential Sector Initiate Environmental Assessment for Disposal Increase Tipping Fees and Gate Fees Reduce Bag Limits (two bags) and charge bag fees	2.10	619933	53167	4000	2544	835	1276
2004	Finalize Environmental Assessment for Disposal Establish Re-use Centre Increase Tipping Fees	2.04	603538	51987	4750	3154	690	1276
2005	Environmental Assessment Act Approvals Increase Tipping Fees	1.97	583366	50534	5500	3764	545	1276
2006	Initiate Environmental Protection Act Requirements for Disposal Increase Tipping Fees	1.92	569225	51370	6256	4376	404	1276
2007	Finalize Environmental Protection Act Requirements for Disposal Increase Tipping Fees and Bag Fees to meet system costs	1.92	574917	51884	6319	4420	408	1289
2008	Environmental Protection Act Approvals Increase Tipping Fees and Bag Fees to meet system costs	1.92	580666	52402	6382	4464	412	1302
2009	Detail Design of Landfill Increase Tipping Fees and Bag Fees to meet system costs	1.92	586473	52926	6446	4509	416	1315
2010	Initial Site Construction Increase Tipping Fees and Bag Fees to meet system costs	1.92	592338	53456	6510	4554	420	1328
2011	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	1.92	598261	53990	6575	4599	425	1341
2012	Re-tender Recycling Contract Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	1.92	604244	54530	6641	4645	429	1354
2013	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	1.92	610286	55075	6707	4692	433	1368
2014	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	1.92	616389	55626	6774	4739	437	1382
2015	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	1.92	622553	56182	6842	4786	442	1396
2016	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	1.92	628778	56744	6911	4834	446	1409
2017	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	1.92	635066	57312	6980	4882	451	1424
2018	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	1.92	641417	57885	7049	4931	455	1438
2019	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	1.92	647831	58464	7120	4980	460	1452
2020	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	1.92	654309	59048	7191	5030	464	1467
2021	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	1.92	660852	59639	7263	5080	469	1481
2022	Re-tender Recycling Contract Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	1.92	667461	60235	7336	5131	474	1496
2023	Annual Liner Construction Increase Tipping Fees and Bag Fees to meet system costs	1.92	674136	60838	7409	5183	478	1511
2024	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	1.92	680877	61446	7483	5234	483	1526
2025	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	1.92	687686	62060	7558	5287	488	1542
2026	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	1.92	694563	62681	7634	5340	493	1557
2027	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	1.92	701508	63308	7710	5393	498	1573
	TOTALS (2000 to 2027)		15736673	1583020	174989	121108	15187	37982
	TOTALS (2003 to 2027)		15736673	1412791	167344	116550	11957	35054

Notes and Assmptions:

Assumed Inflation Rate =	3
Assumed Population Growth Rate after 2006 =	1
Percentage Increase in fees after 2006 =	1.9
Financing Rate =	6

City of Sault Ste. Marie
Solid Waste Management Busine
SPREADSHEET 9 - System 4 Part

Implementation Plan		Estimated Quantities						
		Diversion Quantities						
Year	Key Activities	Residential Organics Processing (tonnes)	Multi-residential & IC&I Organics Processing (tonnes)	Sewage Sludge Processing (tonnes)	Household Special Waste Program (tonnes)	Reuse Centre (tonnes)	Total Waste Diverted (tonnes)	Waste Diversion Rate (%)
2000	Initiate Solid Waste Management Plan	1245	0	0	0	0	7079	9
2001	Undertake Solid Waste Management Plan Initiate preparation of Enhanced Recycling RFP Open Household Special Waste Facility Initiate Expanded Public Education Program	1245	0	0	62	0	7210	9
2002	Finalize Solid Waste Management Plan Tender and Award Enhanced Recycling Contract Initiate Co-composting Feasibility Study	1245	0	0	98	0	7967	10
2003	Finalize Co-composting Feasibility Study Initiate Expanded Leaf and Yard Waste Program/Landfill Ban Expand ban on OCC to Residential Sector Initiate Environmental Assessment for Disposal Increase Tipping Fees and Gate Fees Reduce Bag Limits (two bags) and charge bag fees	1944	1126	0	135	0	11860	15
2004	Finalize Environmental Assessment for Disposal Establish Re-use Centre Increase Tipping Fees	1944	1126	0	135	300	13375	17
2005	Environmental Assessment Act Approvals Increase Tipping Fees	1944	1126	0	135	950	15240	19
2006	Initiate Environmental Protection Act Requirements for Disposal Increase Tipping Fees	1944	1126	0	135	1650	17167	21
2007	Finalize Environmental Protection Act Requirements for Disposal Increase Tipping Fees and Bag Fees to meet system costs	1963	1137	0	136	1667	17339	21
2008	Environmental Protection Act Approvals Increase Tipping Fees and Bag Fees to meet system costs	1983	1149	0	138	1683	17512	21
2009	Detail Design of Landfill Increase Tipping Fees and Bag Fees to meet system costs	2003	1160	0	139	1700	17688	21
2010	Initial Site Construction Increase Tipping Fees and Bag Fees to meet system costs	2023	1172	0	140	1717	17864	21
2011	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	2043	1183	0	142	1734	18043	21
2012	Re-tender Recycling Contract Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	2064	1195	0	143	1752	18224	21
2013	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	2084	1207	0	145	1769	18406	21
2014	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	2105	1219	0	146	1787	18590	21
2015	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	2126	1231	0	148	1805	18776	21
2016	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	2147	1244	0	149	1823	18963	21
2017	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	2169	1256	0	151	1841	19153	21
2018	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	2191	1269	0	152	1859	19345	21
2019	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	2212	1281	0	154	1878	19538	21
2020	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	2235	1294	0	155	1897	19733	21
2021	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	2257	1307	0	157	1916	19931	21
2022	Re-tender Recycling Contract Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	2279	1320	0	158	1935	20130	21
2023	Annual Liner Construction Increase Tipping Fees and Bag Fees to meet system costs	2302	1334	0	160	1954	20331	21
2024	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	2325	1347	0	161	1974	20535	21
2025	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	2349	1360	0	163	1993	20740	21
2026	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	2372	1374	0	165	2013	20947	21
2027	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	2396	1388	0	166	2033	21157	21
	TOTALS (2000 to 2027)	57140	30933	0	3869	41628	482844	
	TOTALS (2003 to 2027)	53405	30933	0	3709	41628	460588	

Notes and Assmptions:

Assumed Inflation Rate =	3
Assumed Population Growth Rate after 2006 =	1
Percentage Increase in fees after 2006 =	1.86
Financing Rate =	6

City of Sault Ste. Marie
Solid Waste Management Busine
SPREADSHEET 9 - System 4 Part

Implementation Plan		Waste Disposal Quantities						
Year	Key Activities	Leachate Treatment (cu. m)	Private Sector Waste Subject to Tipping Fees (tonnes)	Residential Public Drop-off (tonnes)	Sewage Sludge (tonnes)	Total Waste Disposal (tonnes)	TOTAL WASTE MANAGED (tonnes)	Description of Engineering/Capital Expenditures
2000	Initiate Solid Waste Management Plan	178000	36995	4939	9185	73479	80558	Solid Waste Management Plan($49,605)
2001	Undertake Solid Waste Management Plan Initiate preparation of Enhanced Recycling RFP Open Household Special Waste Facility Initiate Expanded Public Education Program	178000	36704	4900	9134	72901	80111	Solid Waste Management Plan($79,165)
2002	Finalize Solid Waste Management Plan Tender and Award Enhanced Recycling Contract Initiate Co-composting Feasibility Study	178000	36323	4849	9134	72144	80111	Finalize Solid Waste Management Plan ($38,815)
2003	Finalize Co-composting Feasibility Study Initiate Expanded Leaf and Yard Waste Program/Landfill Ban Expand ban on OCC to Residential Sector Initiate Environmental Assessment for Disposal Increase Tipping Fees and Gate Fees Reduce Bag Limits (two bags) and charge bag fees	200000	34363	4587	9134	68251	80111	Initiate EA for Disposal ($300,000)
2004	Finalize Environmental Assessment for Disposal Establish Re-use Centre Increase Tipping Fees	250000	33600	4485	9134	66735	80111	Finalize EA for Disposal ($300,000)
2005	Environmental Assessment Act Approvals Increase Tipping Fees	250000	32661	4360	9134	64870	80111	EA Act Approvals for Disposal ($100,000) Install additional scale ($100,000)
2006	Initiate Environmental Protection Act Requirements for Disposal Increase Tipping Fees	250000	33201	4432	12134	65944	83111	Initiate EPA Work for Disposal ($300,000)
2007	Finalize Environmental Protection Act Requirements for Disposal Increase Tipping Fees and Bag Fees to meet system costs	250000	33533	4476	12255	66603	83942	Finalize EPA Work for Disposal ($300,000)
2008	Environmental Protection Act Approvals Increase Tipping Fees and Bag Fees to meet system costs	250000	33868	4521	12378	67269	84781	EPA Approvals for Disposal ($100,000) MOE Review Fee ($50,000)
2009	Detail Design of Landfill Increase Tipping Fees and Bag Fees to meet system costs	250000	34207	4566	12502	67942	85629	Detail Design of Landfill ($300,000)
2010	Initial Site Construction Increase Tipping Fees and Bag Fees to meet system costs	250000	34549	4612	12627	68621	86486	Initial Site Construction ($4,000,000) Design/construction admin. (5% of construction)
2011	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	250000	34895	4658	12753	69307	87350	Annual Construction Design/construction admin. (5% of construction)
2012	Re-tender Recycling Contract Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	250000	35244	4705	12880	70000	88224	Annual Construction Design/construction admin. (5% of construction)
2013	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	250000	35596	4752	13009	70700	89106	Annual Construction Design/construction admin. (5% of construction)
2014	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	250000	35952	4799	13139	71407	89997	Annual Construction Design/construction admin. (5% of construction)
2015	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	250000	36312	4847	13271	72121	90897	Annual Construction Design/construction admin. (5% of construction)
2016	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	250000	36675	4896	13403	72843	91806	Annual Construction Design/construction admin. (5% of construction)
2017	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	250000	37041	4945	13538	73571	92724	Annual Construction Design/construction admin. (5% of construction)
2018	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	250000	37412	4994	13673	74307	93651	Annual Construction Design/construction admin. (5% of construction)
2019	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	250000	37786	5044	13810	75050	94588	Annual Construction Design/construction admin. (5% of construction)
2020	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	250000	38164	5095	13948	75800	95534	Annual Construction Design/construction admin. (5% of construction)
2021	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	250000	38545	5145	14087	76558	96489	Annual Construction Design/construction admin. (5% of construction)
2022	Re-tender Recycling Contract Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	250000	38931	5197	14228	77324	97454	Annual Construction Design/construction admin. (5% of construction)
2023	Annual Liner Construction Increase Tipping Fees and Bag Fees to meet system costs	250000	39320	5249	14370	78097	98429	Annual Construction Design/construction admin. (5% of construction)
2024	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	250000	39713	5301	14514	78878	99413	Annual Construction Design/construction admin. (5% of construction)
2025	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	250000	40111	5354	14659	79667	100407	Annual Construction Design/construction admin. (5% of construction)
2026	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	250000	40512	5408	14806	80464	101411	Annual Construction Design/construction admin. (5% of construction)
2027	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	250000	40917	5462	14954	81268	102425	Annual Construction Design/construction admin. (5% of construction)
	TOTALS (2000 to 2027)	6734000	1023127	136578	351793	2032123	2514967	
	TOTALS (2003 to 2027)	6200000	913106	121891	324340	1813599	2274188	

Notes and Assmptions:

Assumed Inflation Rate =	3
Assumed Population Growth Rate after 2006 =	1
Percentage Increase in fees after 2006 =	1.86
Financing Rate =	6
Interest Rate	4

City of Sault Ste. Marie
Solid Waste Management Busine
SPREADSHEET 9 - System 4 Part

Implementation Plan		Waste Collection and Disposal Costs						Estimated
Year	Key Activities	Engineering	Capital	Residential Waste Collection	Waste Disposal Operations	Leachate Treatment	Total Disposal Costs	Description of Engineering Expenditures
2000	Initiate Solid Waste Management Plan	$49,605	$0	$975,496	$998,551	$0	$2,023,652	Solid Waste Management Plan($49,605)
2001	Undertake Solid Waste Management Plan Initiate preparation of Enhanced Recycling RFP Open Household Special Waste Facility Initiate Expanded Public Education Program	$79,165	$0	$1,004,761	$1,020,412	$0	$2,104,338	Solid Waste Management Plan($79,165) Initiate preparation of Enhanced Recycling RFP ($8,700)
2002	Finalize Solid Waste Management Plan Tender and Award Enhanced Recycling Contract Initiate Co-composting Feasibility Study	$38,815	$0	$1,034,904	$1,040,109	$0	$2,113,828	Finalize Solid Waste Management Plan ($38,815) Tender and Award Enhanced Recycling Contract ($41,300)
2003	Finalize Co-composting Feasibility Study Initiate Expanded Leaf and Yard Waste Program/Landfill Ban Expand ban on OCC to Residential Sector Initiate Environmental Assessment for Disposal Increase Tipping Fees and Gate Fees Reduce Bag Limits (two bags) and charge bag fees	$300,000	$0	$1,065,951	$1,013,509	$72,800	$2,452,260	Design and Tender Re-use Center ($40,000)
2004	Finalize Environmental Assessment for Disposal Establish Re-use Centre Increase Tipping Fees	$300,000	$0	$1,097,929	$1,020,732	$93,730	$2,512,391	
2005	Environmental Assessment Act Approvals Increase Tipping Fees	$100,000	$100,000	$1,130,867	$1,021,973	$96,542	$2,449,382	
2006	Initiate Environmental Protection Act Requirements for Disposal Increase Tipping Fees	$300,000	$0	$1,164,793	$1,070,046	$99,438	$2,634,278	
2007	Finalize Environmental Protection Act Requirements for Disposal Increase Tipping Fees and Bag Fees to meet system costs	$300,000	$0	$1,211,734	$1,113,169	$102,421	$2,727,325	
2008	Environmental Protection Act Approvals Increase Tipping Fees and Bag Fees to meet system costs	$150,000	$0	$1,260,567	$1,158,030	$105,494	$2,674,091	
2009	Detail Design of Landfill Increase Tipping Fees and Bag Fees to meet system costs	$300,000	$0	$1,311,368	$1,204,699	$108,659	$2,924,725	
2010	Initial Site Construction Increase Tipping Fees and Bag Fees to meet system costs	$200,000	$4,000,000	$1,364,216	$1,253,248	$111,919	$6,929,383	
2011	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$65,250	$1,305,000	$1,419,194	$1,303,754	$115,276	$4,208,474	
2012	Re-tender Recycling Contract Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$67,208	$1,344,150	$1,476,388	$1,356,295	$118,734	$4,362,775	Re-tender Recycling Contract ($70000)
2013	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$69,224	$1,384,475	$1,535,886	$1,410,954	$122,296	$4,522,835	
2014	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$71,300	$1,426,009	$1,597,782	$1,467,815	$125,965	$4,688,872	
2015	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$73,439	$1,468,789	$1,662,173	$1,526,968	$129,744	$4,861,114	
2016	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$75,643	$1,512,853	$1,729,159	$1,588,505	$133,637	$5,039,795	
2017	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$77,912	$1,558,238	$1,798,844	$1,652,522	$137,646	$5,225,161	
2018	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$80,249	$1,604,985	$1,871,337	$1,719,118	$141,775	$5,417,465	
2019	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$82,657	$1,653,135	$1,946,752	$1,788,399	$146,028	$5,616,971	
2020	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$85,136	$1,702,729	$2,025,206	$1,860,471	$150,409	$5,823,952	
2021	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$87,691	$1,753,811	$2,106,822	$1,935,448	$154,921	$6,038,693	
2022	Re-tender Recycling Contract Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$90,321	$1,806,425	$2,191,727	$2,013,447	$159,569	$6,261,489	Re-tender Recycling Contract ($90000)
2023	Annual Liner Construction Increase Tipping Fees and Bag Fees to meet system costs	$93,031	$1,860,618	$2,280,053	$2,094,589	$164,356	$6,492,647	
2024	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$95,822	$1,916,436	$2,371,940	$2,179,001	$169,287	$6,732,485	
2025	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$98,696	$1,973,930	$2,467,529	$2,266,814	$174,365	$6,981,335	
2026	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$101,657	$2,033,147	$2,566,970	$2,358,167	$179,596	$7,239,538	
2027	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$104,707	$2,094,142	$2,670,419	$2,453,201	$184,984	$7,507,453	
	TOTALS (2000 to 2027)	$3,537,529	$32,498,872	$46,340,768	$42,889,945	$3,299,593	$128,566,706	
	TOTALS (2003 to 2027)	$3,369,944	$32,498,872	$43,325,607	$39,830,872	$3,299,593	$122,324,888	

Notes and Assmptions:

Assumed Inflation Rate =	3
Assumed Population Growth Rate after 2006 =	1
Percentage Increase in fees after 2006 =	1.86
Financing Rate =	6

City of Sault Ste. Marie
Solid Waste Management Busine
SPREADSHEET 9 - System 4 Parl

Implementation Plan		Expenditures						
		Diversion Material Collection and Processing Costs						
Year	Key Activities	Engineering	Landfill Diversion	Residential Recyclables Collection & Processing	Residential Organics Collection & Processing	Sewage Sludge Processing	Household Special Waste Program	Re-Use Centre
2000	Initiate Solid Waste Management Plan	$49,605	$55,046	$251,931	$0	$0	$0	$0
2001	**Undertake Solid Waste Management Plan Initiate preparation of Enhanced Recycling RFP Open Household Special Waste Facility Initiate Expanded Public Education Program**	**$87,865**	**$56,697**	**$506,175**	**$0**	**$0**	**$100,000**	**$0**
2002	Finalize Solid Waste Management Plan Tender and Award Enhanced Recycling Contract Initiate Co-composting Feasibility Study	$80,115	$50,871	$953,690	$0	$0	$125,000	$0
2003	**Finalize Co-composting Feasibility Study Initiate Expanded Leaf and Yard Waste Program/Landfill Ban Expand ban on OCC to Residential Sector Initiate Environmental Assessment for Disposal Increase Tipping Fees and Gate Fees Reduce Bag Limits (two bags) and charge bag fees**	**$40,000**	**$44,645**	**$840,000**	**$200,232**	**$0**	**$128,750**	**$0**
2004	Finalize Environmental Assessment for Disposal Establish Re-use Centre Increase Tipping Fees	$0	$37,999	$1,027,425	$206,239	$0	$132,613	$200,000
2005	**Environmental Assessment Act Approvals Increase Tipping Fees**	**$0**	**$30,914**	**$1,225,340**	**$212,426**	**$0**	**$136,591**	**$100,000**
2006	Initiate Environmental Protection Act Requirements for Disposal Increase Tipping Fees	$0	$23,604	$1,435,581	$218,799	$0	$140,689	$103,000
2007	**Finalize Environmental Protection Act Requirements for Disposal Increase Tipping Fees and Bag Fees to meet system costs**	**$0**	**$24,555**	**$1,493,435**	**$227,617**	**$0**	**$144,909**	**$106,090**
2008	Environmental Protection Act Approvals Increase Tipping Fees and Bag Fees to meet system costs	$0	$25,544	$1,553,620	$236,789	$0	$149,257	$109,273
2009	**Detail Design of Landfill Increase Tipping Fees and Bag Fees to meet system costs**	**$0**	**$26,574**	**$1,616,231**	**$246,332**	**$0**	**$153,734**	**$112,551**
2010	Initial Site Construction Increase Tipping Fees and Bag Fees to meet system costs	$0	$27,645	$1,681,365	$256,259	$0	$158,346	$115,927
2011	**Annual Construction Increase Tipping Fees and Bag Fees to meet system costs**	**$0**	**$28,759**	**$1,749,124**	**$266,586**	**$0**	**$163,097**	**$119,405**
2012	Re-tender Recycling Contract Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$70,000	$29,918	$1,819,614	$277,330	$0	$167,990	$122,987
2013	**Annual Construction Increase Tipping Fees and Bag Fees to meet system costs**	**$0**	**$31,123**	**$1,892,945**	**$288,506**	**$0**	**$173,029**	**$126,677**
2014	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$0	$32,378	$1,969,230	$300,133	$0	$178,220	$130,477
2015	**Annual Construction Increase Tipping Fees and Bag Fees to meet system costs**	**$0**	**$33,683**	**$2,048,590**	**$312,229**	**$0**	**$183,567**	**$134,392**
2016	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$0	$35,040	$2,131,148	$324,811	$0	$189,074	$138,423
2017	**Annual Construction Increase Tipping Fees and Bag Fees to meet system costs**	**$0**	**$36,452**	**$2,217,034**	**$337,901**	**$0**	**$194,746**	**$142,576**
2018	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$0	$37,921	$2,306,380	$351,519	$0	$200,588	$146,853
2019	**Annual Construction Increase Tipping Fees and Bag Fees to meet system costs**	**$0**	**$39,449**	**$2,399,327**	**$365,685**	**$0**	**$206,606**	**$151,259**
2020	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$0	$41,039	$2,496,020	$380,422	$0	$212,804	$155,797
2021	**Annual Construction Increase Tipping Fees and Bag Fees to meet system costs**	**$0**	**$42,693**	**$2,596,610**	**$395,753**	**$0**	**$219,188**	**$160,471**
2022	Re-tender Recycling Contract Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$90,000	$44,414	$2,701,253	$411,702	$0	$225,764	$165,285
2023	**Annual Liner Construction Increase Tipping Fees and Bag Fees to meet system costs**	**$0**	**$46,203**	**$2,810,114**	**$428,293**	**$0**	**$232,537**	**$170,243**
2024	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$0	$48,065	$2,923,361	$445,554	$0	$239,513	$175,351
2025	**Annual Construction Increase Tipping Fees and Bag Fees to meet system costs**	**$0**	**$50,002**	**$3,041,173**	**$463,509**	**$0**	**$246,698**	**$180,611**
2026	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$0	$52,018	$3,163,732	$482,189	$0	$254,099	$186,029
2027	**Annual Construction Increase Tipping Fees and Bag Fees to meet system costs**	**$0**	**$54,114**	**$3,291,230**	**$501,621**	**$0**	**$261,722**	**$191,610**
	TOTALS (2000 to 2027)	$417,585	$1,087,365	$54,141,679	$8,138,436	$0	$4,919,130	$3,445,288
	TOTALS (2003 to 2027)	$200,000	$924,751	$52,429,883	$8,138,436	$0	$4,694,130	$3,445,288

Notes and Assmptions:

Assumed Inflation Rate =	3
Assumed Population Growth Rate after 2006 =	1
Percentage Increase in fees after 2006 =	1.9
Financing Rate =	6
Interest Rate	4

City of Sault Ste. Marie
Solid Waste Management Busine
SPREADSHEET 9 - System 4 Part

Implementation Plan			General				Waste Coll	
Year	Key Activities	Total Diversion Costs	Financing Costs	Additional Administrative Costs	Total General Costs	TOTAL EXPENDITURES	Bag Fees	Gate Fees
2000	Initiate Solid Waste Management Plan	$356,582	$0	$0	$0	$2,380,234	$0	$114,480
2001	Undertake Solid Waste Management Plan Initiate preparation of Enhanced Recycling RFP Open Household Special Waste Facility Initiate Expanded Public Education Program	$750,737	$0	$0	$0	$2,855,075	$0	$113,579
2002	Finalize Solid Waste Management Plan Tender and Award Enhanced Recycling Contract Initiate Co-composting Feasibility Study	$1,209,676	$0	$0	$0	$3,323,505	$0	$112,399
2003	Finalize Co-composting Feasibility Study Initiate Expanded Leaf and Yard Waste Program/Landfill Ban Expand ban on OCC to Residential Sector Initiate Environmental Assessment for Disposal Increase Tipping Fees and Gate Fees Reduce Bag Limits (two bags) and charge bag fees	$1,253,627	$0	$103,000	$103,000	$3,808,887	$1,239,865	$212,670
2004	Finalize Environmental Assessment for Disposal Establish Re-use Centre Increase Tipping Fees	$1,604,275	$0	$106,090	$106,090	$4,222,756	$1,207,077	$207,947
2005	Environmental Assessment Act Approvals Increase Tipping Fees	$1,705,271	$0	$109,273	$109,273	$4,263,925	$1,166,732	$202,135
2006	Initiate Environmental Protection Act Requirements for Disposal Increase Tipping Fees	$1,921,672	$0	$112,551	$112,551	$4,668,501	$1,138,450	$308,219
2007	Finalize Environmental Protection Act Requirements for Disposal Increase Tipping Fees and Bag Fees to meet system costs	$1,996,606	$0	$115,927	$115,927	$4,839,858	$1,171,267	$317,104
2008	Environmental Protection Act Approvals Increase Tipping Fees and Bag Fees to meet system costs	$2,074,483	$0	$119,405	$119,405	$4,867,980	$1,205,031	$326,245
2009	Detail Design of Landfill Increase Tipping Fees and Bag Fees to meet system costs	$2,155,422	$0	$122,987	$122,987	$5,203,135	$1,239,767	$335,650
2010	Initial Site Construction Increase Tipping Fees and Bag Fees to meet system costs	$2,239,543	$0	$126,677	$126,677	$9,295,603	$1,275,505	$345,325
2011	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$2,326,972	$0	$130,477	$130,477	$6,665,923	$1,312,274	$355,280
2012	Re-tender Recycling Contract Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$2,487,839	$0	$134,392	$134,392	$6,985,005	$1,350,102	$365,521
2013	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$2,512,281	$0	$138,423	$138,423	$7,173,539	$1,389,020	$376,058
2014	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$2,610,439	$0	$142,576	$142,576	$7,441,887	$1,429,061	$386,898
2015	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$2,712,460	$0	$146,853	$146,853	$7,720,427	$1,470,255	$398,051
2016	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$2,818,497	$0	$151,259	$151,259	$8,009,551	$1,512,638	$409,525
2017	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$2,928,709	$0	$155,797	$155,797	$8,309,667	$1,556,241	$421,331
2018	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$3,043,262	$0	$160,471	$160,471	$8,621,197	$1,601,102	$433,476
2019	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$3,162,326	$0	$165,285	$165,285	$8,944,582	$1,647,256	$445,972
2020	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$3,286,082	$0	$170,243	$170,243	$9,280,277	$1,694,741	$458,827
2021	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$3,414,715	$0	$175,351	$175,351	$9,628,758	$1,743,594	$472,054
2022	Re-tender Recycling Contract Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$3,638,417	$0	$180,611	$180,611	$10,080,517	$1,793,856	$485,661
2023	Annual Liner Construction Increase Tipping Fees and Bag Fees to meet system costs	$3,687,391	$0	$186,029	$186,029	$10,366,067	$1,845,566	$499,661
2024	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$3,831,844	$0	$191,610	$191,610	$10,755,939	$1,898,767	$514,065
2025	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$3,981,994	$0	$197,359	$197,359	$11,160,687	$1,953,502	$528,883
2026	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$4,138,067	$0	$203,279	$203,279	$11,580,885	$2,009,814	$544,129
2027	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$4,300,298	$0	$209,378	$209,378	$12,017,129	$2,067,750	$559,814
	TOTALS (2000 to 2027)	$72,149,485	$0	$3,755,304	$3,755,304	$204,471,495	$37,919,232	$10,250,959
	TOTALS (2003 to 2027)	$69,832,489	$0	$3,755,304	$3,755,304	$195,912,681	$37,919,232	$9,910,501

Notes and Assmptions:

Assumed Inflation Rate =	3
Assumed Population Growth Rate after 2006 =	1
Percentage Increase in fees after 2006 =	1.9
Financing Rate =	6
Interest Rate	4

City of Sault Ste. Marie
Solid Waste Management Busine
SPREADSHEET 9 - System 4 Part

Implementation Plan		Estimated Revenues						
		ection and Disposal Revenues			Diversion Revenues			
Year	Key Activities	Sewage Sludge Tipping Fee	Landfill Tipping Fees	Total Waste Collection and Disposal Revenues	Residential Recycling (Sale of Materials)	Diversion Subsidies	Sewage Sludge Processing Fee	Total Diversion Revenues
2000	Initiate Solid Waste Management Plan	$0	$1,017,363	$1,131,843	$0	$30,000	$0	$30,000
2001	Undertake Solid Waste Management Plan Initiate preparation of Enhanced Recycling RFP Open Household Special Waste Facility Initiate Expanded Public Education Program	$0	$1,009,354	$1,122,933	$0	$30,000	$0	$30,000
2002	Finalize Solid Waste Management Plan Tender and Award Enhanced Recycling Contract Initiate Co-composting Feasibility Study	$0	$998,873	$1,111,272	$39,438	$90,000	$0	$129,438
2003	Finalize Co-composting Feasibility Study Initiate Expanded Leaf and Yard Waste Program/Landfill Ban Expand ban on OCC to Residential Sector Initiate Environmental Assessment for Disposal Increase Tipping Fees and Gate Fees Reduce Bag Limits (two bags) and charge bag fees	$365,359	$1,374,513	$3,192,407	$173,040	$70,000	$0	$243,040
2004	Finalize Environmental Assessment for Disposal Establish Re-use Centre Increase Tipping Fees	$365,359	$1,343,988	$3,124,371	$211,650	$30,000	$0	$241,650
2005	Environmental Assessment Act Approvals Increase Tipping Fees	$502,369	$1,796,340	$3,667,577	$252,420	$30,000	$0	$282,420
2006	Initiate Environmental Protection Act Requirements for Disposal Increase Tipping Fees	$788,709	$2,158,069	$4,393,447	$295,730	$30,000	$0	$325,730
2007	Finalize Environmental Protection Act Requirements for Disposal Increase Tipping Fees and Bag Fees to meet system costs	$811,445	$2,220,279	$4,520,095	$307,648	$30,000	$0	$337,648
2008	Environmental Protection Act Approvals Increase Tipping Fees and Bag Fees to meet system costs	$834,836	$2,284,281	$4,650,393	$320,046	$30,000	$0	$350,046
2009	Detail Design of Landfill Increase Tipping Fees and Bag Fees to meet system costs	$858,901	$2,350,129	$4,784,447	$332,944	$30,000	$0	$362,944
2010	Initial Site Construction Increase Tipping Fees and Bag Fees to meet system costs	$883,660	$2,417,875	$4,922,365	$346,361	$30,000	$0	$376,361
2011	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$909,133	$2,487,573	$5,064,259	$360,320	$30,000	$0	$390,320
2012	Re-tender Recycling Contract Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$935,340	$2,559,281	$5,210,243	$374,841	$30,000	$0	$404,841
2013	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$962,302	$2,633,056	$5,360,436	$389,947	$30,000	$0	$419,947
2014	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$990,042	$2,708,957	$5,514,958	$405,661	$30,000	$0	$435,661
2015	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$1,018,581	$2,787,047	$5,673,934	$422,010	$30,000	$0	$452,010
2016	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$1,047,943	$2,867,387	$5,837,494	$439,017	$30,000	$0	$469,017
2017	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$1,078,152	$2,950,044	$6,005,768	$456,709	$30,000	$0	$486,709
2018	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$1,109,231	$3,035,083	$6,178,892	$475,114	$30,000	$0	$505,114
2019	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$1,141,206	$3,122,573	$6,357,007	$494,261	$30,000	$0	$524,261
2020	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$1,174,103	$3,212,586	$6,540,257	$514,180	$30,000	$0	$544,180
2021	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$1,207,948	$3,305,193	$6,728,789	$534,902	$30,000	$0	$564,902
2022	Re-tender Recycling Contract Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$1,242,769	$3,400,470	$6,922,756	$556,458	$30,000	$0	$586,458
2023	Annual Liner Construction Increase Tipping Fees and Bag Fees to meet system costs	$1,278,593	$3,498,493	$7,122,314	$578,883	$30,000	$0	$608,883
2024	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$1,315,451	$3,599,342	$7,327,625	$602,212	$30,000	$0	$632,212
2025	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$1,353,370	$3,703,099	$7,538,854	$626,482	$30,000	$0	$656,482
2026	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$1,392,383	$3,809,846	$7,756,172	$651,729	$30,000	$0	$681,729
2027	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$1,432,521	$3,919,670	$7,979,754	$677,993	$30,000	$0	$707,993
	TOTALS (2000 to 2027)	$24,999,706	$72,570,764	$145,740,661	$10,839,994	$940,000	$0	$11,779,994
	TOTALS (2003 to 2027)	$24,999,706	$69,545,174	$142,374,613	$10,800,556	$790,000	$0	$11,590,556

Notes and Assmptions:

Assumed Inflation Rate =	3
Assumed Population Growth Rate after 2006 =	1
Percentage Increase in fees after 2006 =	1.86
Financing Rate =	6

City of Sault Ste. Marie
Solid Waste Management Busine
SPREADSHEET 9 - System 4 Part

Date Revised: March 25/03

Implementation Plan		General				Reserves	
Year	Key Activities	General Levy	Interest	Total General Revenues	TOTAL REVENUES	Annual Reserve (Revenues minus Expenditures)	CUMMULATIVE RESERVE
2000	Initiate Solid Waste Management Plan	$1,571,705	$0	$1,571,705	$2,733,548	$353,314	$2,451,850
2001	Undertake Solid Waste Management Plan Initiate preparation of Enhanced Recycling RFP Open Household Special Waste Facility Initiate Expanded Public Education Program	$2,011,854	$98,074	$2,109,928	$3,262,861	$407,786	$2,733,453
2002	Finalize Solid Waste Management Plan Tender and Award Enhanced Recycling Contract Initiate Co-composting Feasibility Study	$2,072,210	$109,338	$2,181,548	$3,422,258	$98,753	$2,832,206
2003	Finalize Co-composting Feasibility Study Initiate Expanded Leaf and Yard Waste Program/Landfill Ban Expand ban on OCC to Residential Sector Initiate Environmental Assessment for Disposal Increase Tipping Fees and Gate Fees Reduce Bag Limits (two bags) and charge bag fees	$2,134,376	$113,288	$2,247,664	$5,683,111	$1,874,224	$4,706,430
2004	Finalize Environmental Assessment for Disposal Establish Re-use Centre Increase Tipping Fees	$2,198,407	$188,257	$2,386,664	$5,752,685	$1,529,929	$6,236,359
2005	Environmental Assessment Act Approvals Increase Tipping Fees	$2,264,359	$249,454	$2,513,814	$6,463,811	$2,199,886	$8,436,245
2006	Initiate Environmental Protection Act Requirements for Disposal Increase Tipping Fees	$2,332,290	$337,450	$2,669,740	$7,388,917	$2,720,416	$11,156,661
2007	Finalize Environmental Protection Act Requirements for Disposal Increase Tipping Fees and Bag Fees to meet system costs	$2,402,259	$446,266	$2,848,525	$7,706,267	$2,866,410	$14,023,071
2008	Environmental Protection Act Approvals Increase Tipping Fees and Bag Fees to meet system costs	$2,474,327	$560,923	$3,035,249	$8,035,688	$3,167,708	$17,190,779
2009	Detail Design of Landfill Increase Tipping Fees and Bag Fees to meet system costs	$2,548,556	$687,631	$3,236,188	$8,383,578	$3,180,443	$20,371,222
2010	Initial Site Construction Increase Tipping Fees and Bag Fees to meet system costs	$2,625,013	$814,849	$3,439,862	$8,738,588	-$557,014	$19,814,208
2011	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$2,703,764	$792,568	$3,496,332	$8,950,911	$2,284,988	$22,099,195
2012	Re-tender Recycling Contract Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$2,784,876	$883,968	$3,668,844	$9,283,928	$2,298,923	$24,398,118
2013	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$2,868,423	$975,925	$3,844,347	$9,624,730	$2,451,192	$26,849,310
2014	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$2,954,475	$1,073,972	$4,028,448	$9,979,067	$2,537,181	$29,386,491
2015	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$3,043,110	$1,175,460	$4,218,569	$10,344,513	$2,624,087	$32,010,577
2016	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$3,134,403	$1,280,423	$4,414,826	$10,721,336	$2,711,785	$34,722,362
2017	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$3,228,435	$1,388,894	$4,617,330	$11,109,806	$2,800,139	$37,522,501
2018	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$3,325,288	$1,500,900	$4,826,188	$11,510,195	$2,888,997	$40,411,499
2019	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$3,425,047	$1,616,460	$5,041,507	$11,922,776	$2,978,194	$43,389,692
2020	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$3,527,798	$1,735,588	$5,263,386	$12,347,823	$3,067,546	$46,457,238
2021	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$3,633,632	$1,858,290	$5,491,922	$12,785,612	$3,156,854	$49,614,092
2022	Re-tender Recycling Contract Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$3,742,641	$1,984,564	$5,727,205	$13,236,419	$3,155,901	$52,769,994
2023	Annual Liner Construction Increase Tipping Fees and Bag Fees to meet system costs	$3,854,920	$2,110,800	$5,965,720	$13,696,917	$3,330,850	$56,100,844
2024	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$3,970,568	$2,244,034	$6,214,602	$14,174,439	$3,418,499	$59,519,343
2025	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$4,089,685	$2,380,774	$6,470,459	$14,665,794	$3,505,107	$63,024,450
2026	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$4,212,376	$2,520,978	$6,733,354	$15,171,254	$3,590,369	$66,614,820
2027	Annual Construction Increase Tipping Fees and Bag Fees to meet system costs	$4,338,747	$2,664,593	$7,003,340	$15,691,087	$3,673,958	$70,288,778
	TOTALS (2000 to 2027)	$83,473,544	$31,793,720	$115,267,265	$272,787,920	$68,316,425	
	TOTALS (2003 to 2027)	$77,817,775	$31,586,308	$109,404,084	$263,369,253	$67,456,572	

Notes and Assmptions:

Assumed Inflation Rate =	3
Assumed Population Growth Rate after 2006 =	1
Percentage Increase in fees after 2006 =	1.86
Financing Rate =	6
Interest Rate	4

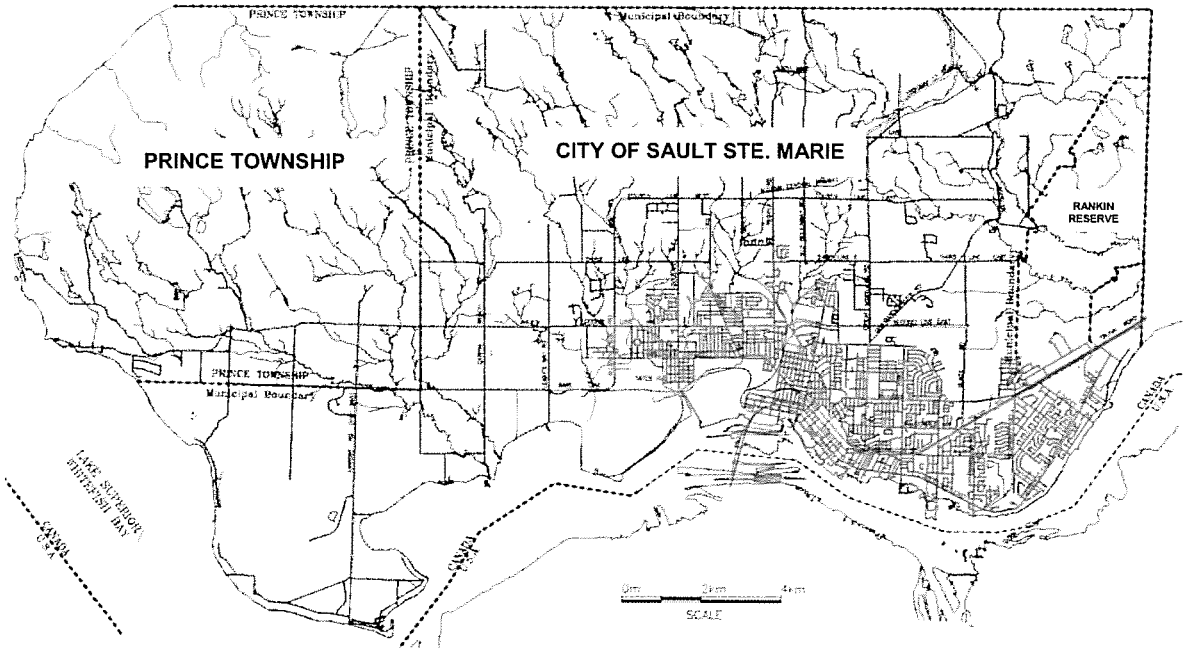
Appendix D

EA Terms of Reference Consultation Report and Summary of Aboriginal Consultation

Solid Waste Management Plan Terms of Reference Consultation Report – March, 2005

City of Sault Ste. Marie

SOLID WASTE MANAGEMENT PLAN
TERMS OF REFERENCE



CONSULTATION REPORT

March 2005

engineers
architects
planners

CITY OF SAULT STE. MARIE

SOLID WASTE MANAGEMENT PLAN TERMS OF REFERENCE

CONSULTATION REPORT

TSH Project No. 38-60319

engineers
architects
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(905) 668-9363 Fax: (905) 668-0221
E-mail: tsh@tsh.ca www.tsh.ca

March 1, 2005

Mr. Don Elliott, P.Eng.
Manager of Construction and Environmental Engineering
City of Sault Ste. Marie
P.O. Box 580
Civic Centre, 99 Foster Drive
Sault Ste. Marie, Ontario
P6A 5N1

Dear Mr. Elliott:

Re: City of Sault Ste. Marie
Solid Waste Management Plan Environmental Assessment
Terms of Reference Consultation Report
TSH Project No. 38-60319

We are pleased to submit the Consultation Report Terms of Reference. This report summarizes the consultation undertaken on the Terms of Reference.

Should you have any questions, please do not hesitate to call the undersigned or Mr. Rick Talvitie.

Yours very truly,

Michael Cant
Manager, Solid Waste

MC/wb
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Encl.

CITY OF SAULT STE. MARIE
SOLID WASTE MANAGEMENT PLAN TERMS OF REFERENCE
CONSULTATION REPORT

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LIST OF ABBREVIATIONS

EA	Environmental Assessment
EA Act	Environmental Assessment Act
GMEF	General Municipal Enabling Fund
MOE	Ministry of the Environment
ToR	Terms of Reference

CITY OF SAULT STE. MARIE
SOLID WASTE MANAGEMENT PLAN TERMS OF REFERENCE
CONSULTATION REPORT

1. INTRODUCTION

Consultation was an important component of the preparation of the Environmental Assessment Terms of Reference (ToR) for the City's Solid Waste Management Plan. As outlined in the ToR, the City has adopted a series of consultation principles to ensure that the process is transparent, understandable and accessible to everyone.

This supplementary report to the Terms of Reference documents the relevant consultation activities undertaken as part of the Solid Waste Management Plan which has been ongoing since 2000. In addition, the report outlines the consultation activities undertaken in preparing the ToR, the comments received and responses to those comments. The report also provides an overview of the consultation activities anticipated during the preparation of the EA.

1.1 Background

In September 2000, the City of Sault Ste. Marie initiated a four-phased Solid Waste Management Plan to provide direction on all aspects of its solid waste management system for the next 20 to 40 years. The four phases of the study included:

Phase 1: Identification of a Preferred Waste Diversion System
Phase 2: Identification of a Preferred Waste Disposal System
Phase 3: Development of a Business and Implementation Plan
Phase 4: Development of an Environmental Assessment Act Terms of Reference

Phase 1 of the study was completed in June 2001 with the release of the *Alternative Waste Diversion/Collection Systems Options Report.* In this report, it was recommended that waste diversion programs be expanded. The City awarded a contract for an expanded blue box diversion program in October 2002. A new Materials Recovery Facility (MRF) was constructed and made operational in late 2003. In addition, the City has implemented bag limits and increased tipping fees. Recycling is being introduced to multi-residential facilities and leaf and yard waste collection is expanding from three times per year to bi-weekly May through November.

In addition the City received funding through the Green Municipal Enabling Fund (GMEF) to undertake a feasibility study on co-composting residential organics and leaf and yard waste with biosolids. The *Co-composting Pilot Study* report was finalized in February 2004.

Phase 2 of the study was completed in July 2002 with the release of the *Waste Collection and Disposal Report.* In this phase, it was recognized that with the limited disposal capacity remaining in the City's landfill additional disposal capacity would be required in the future despite the significant efforts to enhance diversion. Within this report a number of disposal alternatives were explored and evaluated and public input on the disposal alternatives was sought.

Phase 3 of the study was completed in February 2003 with the release of the *Business and Implementation Plan.* This plan outlines the costs of expanded waste diversion programs and disposal requirements and explores options to recover the costs. The result of this report was that Council approved the implementation of residential bag limits, bag fees and increased tipping fees at the landfill site.

Although not part of the ToR, the above reports provide a significant amount of background on the existing and future waste management system in the City. Public input was sought on all the documents.

It is noted that a ToR was prepared in June 2003 and public input on the document was received. Due to the Richmond Landfill court decision and uncertainty on the EA process, the ToR was never submitted to the MOE for formal review and approval.

After consultation with the MOE, it was decided to revise the Terms of Reference. This report outlines the consultation undertaken during the Solid Waste Management Planning process, on the original ToR and the revised ToR.

The solid waste management plan has considered opportunities for both waste diversion and waste disposal. These conclusions will be re-evaluated as part of the Environmental Assessment planning process. As the City is approaching capacity at the current site, the City will require approval under the EA Act if additional capacity is required. The first key step in the process is the preparation of the ToR for the Environmental Assessment.

2. SOLID WASTE MANAGEMENT PLAN CONSULTATION

2.1 General

The City has been developing a Solid Waste Management Plan since September 2000. A number of consultation activities have been undertaken during the development of the plan. Three relevant consultation events occurred in September 2001, March 2003 and July 2003. A brief discussion of these events follows:

2.2 Public Open House September 26, 2001

A Public Open House was held on September 26, 2001 to present information to the public regarding the long-term solid waste management plan and, in particular, the alternative waste diversion systems. In total 23 people attended the Open House. Attendees were asked to complete a questionnaire. The results from two of the questions are presented below:

Question 12: *How do you think the City of Sault Ste. Marie should manage its recycling program? Five alternatives have been developed and are listed below. (Please rank these options from 1 to 5, with 1 being most preferred and 5 being least preferred)*

System 1: *The same system as is currently provided (potential diversion 10-23%)*

System 2: *System 1 components **plus** biweekly collection of yard waste during the May to October season (potential diversion 12-23%)*

System 3: *System 2 components **plus** the collection of corrugated cardboard from curbside (potential diversion 13-23%)*

System 4: *System 3 components **plus** the recycling of additional materials, such as cereal boxes, plastic film, juice containers, etc. (18-30%)*

System 5: *System 4 components **plus** the collection and composting of organic wastes (potential diversion 37-52%)*

RESPONSES TO QUESTION 12					
Ranking	System 1	System 2	System 3	System 4	System 5
1 (Most Preferred)					15
2				11	
3		1	9		
4		8			
5 (Least Preferred)	10	1	1	1	

Question 13: *The Sault Ste. Marie Landfill is expected to reach capacity in 10 – 12 years. How do you think the City of Sault Ste. Marie should manage its garbage once the existing landfill site is full?*
(Please rank these options from 1 to 7, with 1 being most preferred and 7 being least preferred)

Option 1: Incineration (burning)
Option 2: New Landfill Site in City Limits
Option 3: New Landfill Site Outside City Limits
Option 4: Export Waste Elsewhere in Ontario (e.g. Adam's Mine)
Option 5: Export Waste to United States
Option 6: Expansion of Existing Landfill
Option 7: Landfill Mining (rework existing landfill site)

RESPONSES TO QUESTION 13							
Ranking	Option 1	Option 2	Option 3	Option 4	Option 5	Option 6	Option 7
1 (Most Preferred)	1	1	1			2	9
2	1	1	2			6	1
3		5	3			2	
4		2	3	1	1		1
5	4			1	1	1	
6		2		2	1		
7 (Least Preferred)	5	1	2	3	5	1	

The results of the Open House are summarized in Appendix A.

2.3 Public Open Houses March 18 and 19, 2003

On March 18 and 19, 2003, two Open Houses were held in the City to discuss the proposed user fee scenario being proposed through the *Business and Implementation Plan*. In addition, the Environmental Assessment process was discussed with the public. In total 29 people attended the two meetings. Attendees were asked to complete a questionnaire. The results of one of the questions asked is highlighted below.

Question 8: *The Sault Ste. Marie Landfill is expected to reach capacity in 10 – 12 years. How do you think the City of Sault Ste. Marie should manage its garbage once the existing landfill site is full?*
(Please rank these options from 1 to 7, with 1 being most preferred and 7 being least preferred)

Option 1: Incineration (burning)
Option 2: New Landfill Site in City Limits
Option 3: New Landfill Site Outside City Limits
Option 4: Export Waste Elsewhere in Ontario (e.g. Adam's Mine)
Option 5: Export Waste to United States
Option 6: Expansion of Existing Landfill
Option 7: Landfill Mining (rework existing landfill site)

RESPONSES TO QUESTION 8							
Ranking	Option 1	Option 2	Option 3	Option 4	Option 5	Option 6	Option 7
1 (Most Preferred)	6	1	2		1	6	10
2	1	3	3			13	8
3	4	4	8		2	3	6
4	2	10	9	1		3	1
5	6	3	3	8	1	1	2
6	1	1	1	13	8		
7 (Least Preferred)	7	2		2	13		

The results of the Open House are summarized in Appendix B.

2.4 Meeting with Waste Management Steering Committee

A Waste Management Steering Committee has been established to provide direction in developing a long-term solid waste management plan. A meeting was held on May 26, 2003 to outline to the Committee that an Environmental Assessment Terms of Reference Document was being prepared and the purpose of the document.

As mentioned previously, this ToR Document was never submitted.

2.5 Public Open House July 3, 2003

On July 3, 2003 an Open House was held to obtain input on the first ToR Document. In total eight (8) people attended the meeting. A handout was provided to those attending asking for input on the relative importance of the different criteria groups. The meeting notice, sign-in sheet, displays, handouts and input received are contained in Appendix C.

2.6 Other Consultation Related Activities

Newspaper Articles

The local press has provided considerable newspaper coverage of the Solid Waste Management Study. This has resulted in residents obtaining information about the process being proposed by the City.

Council Presentations

A number of presentations were made to Council during the completion of the Solid Waste Management Planning Study. All meetings were open to the public and televised on the local community channel.

3. CONSULTATION - PREPARING THE TERMS OF REFERENCE

3.1 General

The following consultation activities were carried out leading up to the issuance of the current Terms of Reference:

Project Notification	Placement of an initial notice about the project and workshop in the newspapers.	July 2004
Web Site	Posting of initial notice of the July 2004 project on City's web site.	July 2004
Draft Terms of Reference and Public Open House	A public open house to discuss the Terms of Reference.	July 2004
Review of Draft Terms of Reference	A newspaper notice and mailing list distribution notified the public of the opportunity to review the Draft Terms of Reference and attend a Public Open House. The Terms of Reference was distributed to the following government review agencies for comment: • Canadian Environmental Assessment Agency; • Department of Indian Affairs and Northern Development Canada; • Environment Canada; • Fisheries and Oceans Canada; • Sault Ste. Marie Region Conservation Authority; • Ontario Native Affairs Secretariat; • Ministry of Agriculture and Food; • Ministry of Culture; • Ministry of Tourism and Recreation; • Ministry of Health and Long Term Care; • Algoma Health Unit; • Ministry of Municipal Affairs and Housing; • Ministry of Natural Resources; • Ministry of Northern Development and Mines; • Ministry of Transportation; and • Ministry of the Environment	July 2004

3.2 Project Notification

A copy of the project notification is included in Appendix D.

3.3 Public Open House July 13, 2004

A Public Open House was held on July 13, 2004 to discuss the ToR Document. In total five (5) people attended the Open House. A copy of the attendance report is included in Appendix E. Also included in Appendix E are the display boards and handout provided. The display boards and handout were also posted on the City's web site. No handouts were returned with comments.

3.4 Comments and Response - Draft Environmental Assessment Terms of Reference

Table 3.1 documents the comments received and provides responses highlighting how the comments have been, or will be, addressed in the Environmental Assessment. All comments raised have been included in the table. As noted in Section 3.3, no comments were received from the general public.

TABLE 3.1
COMMENTS RECEIVED ON DRAFT TERMS OF REFERENCE DOCUMENT

Organization	Contact	Date Comments Received	Comments Received	
			Comments	Response
Canadian Environmental Assessment Agency (CEAA)	Cathy Hainsworth Senior Program Officer	Aug 18/04	While sufficient information on the proposed undertaking is currently not available to determine whether the federal environmental assessment process will apply to this project, the proponent should be aware that the Canadian Environmental Assessment Act (CEAA) requires a federal environmental assessment to be conducted when, in respect of a project, a federal authority: • is the proponent; • makes or authorizes payment or any other form of financial assistance to the proponent; • sells, leases or otherwise disposes of lands; or • issues a permit, or license or other form of approval pursuant to a statutory or regulatory provision referred to in the Law List Regulations. In order for CEAA to apply, there must be a project, a federal authority and a trigger under section 5(1) of the Act. To identify if this project will be submitted to the CEAA, a detailed project description will be required once the details of the project become known.	The agency will continue to be kept informed of the project and further details will be provided as they become available during the EA to allow the need for a Federal EA to be determined.
Department of Indian Affairs and Northern Development	Mr. John Higham Acting Director		Voicemail message left September 15. Email message sent September 16. Voicemail message left September 23. Still awaiting a response.	--
Environment Canada	Mr. Rob Dobos Head, EA Section	July 22/04	Environment Canada has no comments. Would like to participate in review of draft EA Report.	We will keep Environment Canada informed.
Fisheries and Oceans	Mr. Paul Savoie Impact Assessment Biologist		Voicemail message left September 15. Email message sent September 16. Out of office until September 20. Voicemail message left September 27. Still awaiting a response.	--

TABLE 3.1
COMMENTS RECEIVED ON DRAFT TERMS OF REFERENCE DOCUMENT

Organization	Contact	Date Comments Received	Comments Received	
			Comments	Response
Ontario Native Affairs Secretariat	Mr. Richard Saunders Director, Corporate Aboriginal Policy and Management Branch Mr. David Pickles Senior Policy Advisor	Jan. 20, 05	The responsibilities of the Ontario Native Affairs Secretariat (ONAS) include conducting land claim negotiations and finalizing and implementing land claim settlement agreements on behalf of the Province. ONAS is not aware of any First Nation's land claims that will have an impact on this project. The proposed project may impact or be of interest to Aboriginal people. The Terms of Reference should refer to contacting First Nations with a potential interest in the project. Particularly, in light of the project's close proximity to Batchewana First Nation and the Garden River First Nation, we would encourage you to contact these First Nations for their comments on the proposed project. They can be contact as follows: Batchewana First Nation 236 Frontenac Street Sault Ste. Marie, Ontario P6A 5K9 Telephone: (705) 759-0914 Fax: (705) 759-9171 Garden River First Nation 7 Shingwauk Street, R.R. #4 Sault Ste. Mare, Ontario P6A 5K9 Telephone: (705) 946-6300 Fax: (705) 945-1415 We suggest also contacting the following organizations that represent a number of First Nations to ask whether there are any other First Nations who may be interested in the project and wish to provide comments. Anishinabek Nation/Union of Ontario Indians Nipissing First Nation P.O. Box 711 North Bay, Ontario P1B 8J8	

TABLE 3.1
COMMENTS RECEIVED ON DRAFT TERMS OF REFERENCE DOCUMENT

Organization	Contact	Date Comments Received	Comments Received	
			Comments	Response
			Association of Iroquois and Allied Indians 387 Princess Avenue London, Ontario N6B 2A7 Telephone: (519) 434-2761 Fax: (519) 679-1653 As well, the Government of Canada sometimes receives claims that Ontario does not receive, or with which Ontario does not become involved. For information about possible claims in the area, we suggest you call or write to the following federal contacts: Nadia Bartolini A/Research Manager Specific Claims Branch Indian and Northern Affairs Canada 19 Wellington Street, Room 1610 Gatineau, Quebec K1A 0H4 Telephone: (819) 953-2228 Fax: (819) 953-4224 Louis Trepanier Director Claims East of Manitoba Comprehensive Claims Branch Indian and Northern Affairs Canada 10 Wellington Street, Room 1610 Gatineau, Quebec K1A 0H4 Telephone: (416) 994-1121 Fax: (416) 963-3109 ONAS also notes that the Terms of Reference indicate that a number of public open houses have been held regarding the project. Were First Nations invited to attend? If so, were any concerns raised by any First Nations at the meeting?	We will add these contacts to our mailing list. We will add these contacts to our mailing list. Public notification was provided and no comments were received. Individual notices will be provided for future consultation events.

TABLE 3.1
COMMENTS RECEIVED ON DRAFT TERMS OF REFERENCE DOCUMENT

Organization	Contact	Date Comments Received	Comments Received	
			Comments	Response
Ministry of Agriculture and Food	Mr. Ray Valaitis Rural Planner	Sept 7/04	Section 4.3 Potential Effects Table 4.1 Environmental Components to be Considered in Evaluations This table may be utilized to assess the effects of the preferred disposal alternative method such as a landfill site. The following additions are recommended: Environmental Component – Social, Page 8 Under "Indicators" it is recommended "number of farm families displaced on-site and off-site" be added. Economic – Agricultural/Forestry/Mining, Page 8 Under "indicators" it is recommended "(loss of farm operations, level of capital investment in farm operations (i.e. farm buildings and drainage improvements)" be added after "agricultural". Economic – Transportation, Page 8 Under "Indicators" it is recommended "Impacts of haulage truck traffic on the movement of farm equipment" be added.	This table has been moved to Section 5.3 of the Final Term of Reference. The term "indicators" under this criterion will include all types of residences, including farm families. The criteria will be refined as the process proceeds and these could be added at this stage. The potential for conflicts between landfill truck traffic and farm equipment is captured under economics.

TABLE 3.1
COMMENTS RECEIVED ON DRAFT TERMS OF REFERENCE DOCUMENT

Organization	Contact	Date Comments Received	Comments Received	
			Comments	Response
			Section 5.3.2 Alternative Methods Evaluation Table 5.2 Proposed Evaluation Criteria for Alternative Methods Social-Cultural Environment – Proposed Evaluation Criteria, page 11 It is recommended under the first bullet point "and agricultural operations" be added after "residents". Economics, Page 11 It is recommended "/" be replaced with "(loss of farm operations, level of capital investment in on-site farm operations i.e. loss of on-site farm buildings and drainage improvements) and". It is recommended a new Criteria Group being "Transportation" and a new Proposed Evaluation Criteria "Compare potential impacts of haulage truck traffic on the movement of farm equipment" be added.	Table 5.2 has been moved to Section 4 and is now Table 4.2. This has been added. Typically, the type of farm including level of investment is qualitatively assessed under this criteria. The potential for conflicts between landfill truck traffic and farm equipment is captured under economics.
Ministry of Culture	Mr. Andrew Hinshelwood Heritage Planner / Archaeologist	Sept 17/04	In my review of this document, I note that this Ministry's concerns are identified in Table 4.1 (Archaeology and Heritage). We require that additional information on consideration and mitigation of adverse impacts to these environmental components is communicated to us as the project proceeds.	The Ministry will continue to be consulted.
Ministry of Tourism and Recreation	Ms. Elaine Lynch Manager	Sept 16/04	We have no comments.	No response required.
Ministry of Health and Long Term Care	Mr. Alex Timmins	Aug 18/04	We have no comments.	No response required.

TABLE 3.1
COMMENTS RECEIVED ON DRAFT TERMS OF REFERENCE DOCUMENT

Organization	Contact	Date Comments Received	Comments Received	
			Comments	Response
Algoma Health Unit	Dr. Allan Northan Officer of Health Bill O'Donnell	Nov 25/04	In terms of preferred methods, we recently participated in a meeting with the Ministry of Natural Resources, the Ministry of the Environment and the City regarding the imminent closure of landfill sites in the Sault North Planning area. One of the options discussed was opening discussions with the City around a multi-user landfill site that could meet the needs of the City and Sault North. The terms of reference speak to 'waste disposal in the City' but perhaps it should include an outside of the City option too. In terms of environmental impacts we trust that the assessment will include a comprehensive discussion of the air quality and water quality impacts of the various options, both in the City and surrounding communities.	Comment noted. Flexibility has been incorporated into the document to allow the service area to be defined as the EA progresses. These discussions will occur.
Ministry of Municipal Affairs and Housing	Ms. Heather Robertson Manager Mr. Steve May Municipal Housing Advisor	Sept 17/04	As part of the Environmental Assessment process, it appears that some of the alternatives which will be assessed may include the consideration of a green field site outside of the City's municipal boundaries should a new land fill site be considered. Locating a new land fill site outside of municipal boundaries may create some unique issues, depending on the location. The Township of Prince currently has an Official Plan, however the plan is very old and its policies are not up to date with regards to adequately being able to address matters of provincial interest. Further, the Ministry of Municipal Affairs and Housing is the approval authority for amendment's the Township's Official Plan, and we would play a direct role through early consultation and approvals under the Planning Act in assessing the planning merits of a proposed OPA. Our involvement at the earliest opportunity would be beneficial for the project as a whole.	These points will be considered during the Environmental Assessment and will be incorporated into the evaluation of alternatives..

TABLE 3.1
COMMENTS RECEIVED ON DRAFT TERMS OF REFERENCE DOCUMENT

Organization	Contact	Date Comments Received	Comments Received	
			Comments	Response
			Potentially more troubling would be the consideration of a location within an unincorporated area in proximity to the City of Sault Ste. Marie. The Provincial Policy Statement, which is the Province's articulation of matters of provincial interest, issued under the Planning Act, indicates that in territory without municipal organization, the focus of development activity will be resource activates and resource-based recreational activities, unless the area forms part of a Planning Area. The Sault North Planning Area has been established by the province and includes certain geographic townships north of the City. Any proposal which may impact territory within this area should include consultation with the Sault North Planning Board. As with the Township of Prince, the Province is the approval authority for amendments to the Planning Board's Official Plan, however the Official Plan was approved by this Ministry in the Bill 20 policy environment, and is considered to be up to date as of today (keep in mind, though, that through this Ministry's Planning Reform initiative, we are likely to have a new Provincial Policy Statement and changes to the Planning Act in place prior to the end of the EA consultation; this may impact any proposal). There are other unincorporated areas located further from the City which are not within an identified planning area. I strongly caution the consideration of locating a land fill in these areas, as it does not appear to be supported by Provincial policy in place today, or proposed policy being considered now under Planning Reform.	

TABLE 3.1
COMMENTS RECEIVED ON DRAFT TERMS OF REFERENCE DOCUMENT

Organization	Contact	Date Comments Received	Comments Received	
			Comments	Response
Ministry of Natural Resources	Ms. Janice Christian	Aug 27/04	1) Section 2: How much time is required to obtain approval for new disposal capacity?	A preliminary schedule (Figure 3) has been included in the Terms of Reference.
			2) Section 4: You indicate that the Service Area could be expanded. MNR would like to discuss the possibility of adding the Sault North Planning Board townships to the service area with representatives of TSH and the City of Sault Ste. Marie.	Comment noted. Flexibility has been incorporated into the document to allow the service area to be defined as the EA progresses.
			3) Section 4.2: When you refer to the existing environment, does this refer to the Service Area as defined previously? If so, do the population estimates include Prince Township and Rankin Reserve? You refer to the City when you are discussing Natural, Social/Cultural, Economic and Transportation Environments. Do you actually mean the Service Area? If not, discussion regarding Prince and Rankin Reserve should also be included in order to address and provide background on the entire Service Area. If so, the report should indicate that you are referring to the Service Area and not just the City.	Yes, the populations include Prince Township and Rankin Reserve. We are referring to the service area.
			4) Section 4.3 and Table 4:1	Table 4.1 is Table 5.1 in the final report.
			a) This section would benefit from some further information. For example, the criteria listed in the chart is rather brief.	More detailed criteria will be developed as the EA evolves.

TABLE 3.1
COMMENTS RECEIVED ON DRAFT TERMS OF REFERENCE DOCUMENT

Organization	Contact	Date Comments Received	Comments Received	
			Comments	Response
			b) Table 4.1 - Natural Environment -Biology	
			i) How is vicinity defined? For example, would vicinity refer to adjacent lands within 120 m of the site?	This will be refined as the EA progresses.
			ii) Terrestrial systems point should also include areas used for the movement of resident and migratory species.	This will be considered as the EA progresses.
			iii) What about significant wildlife habitat?	This will be considered as the EA progresses.
			iv) What about vulnerable, threatened and endangered species?	This will be considered as the EA progresses.
			v) What about hazardous lands?	This will be considered as the EA progresses.
			c) Table 4.1 – Socio-Cultural Environment	Archaeology is below ground features, heritage is above ground features.
			ii) Are aboriginal values included in the archaeology and heritage sections? If so, please specify. We would recommend, however, that a separate section be incorporated to address aboriginal values which would include First Nation reserves and communities, and spiritual, cultural, ceremonial, and traditional use sites.	A separate criteria has been added.
			iii) Both the Archaeology and Heritage sections should address built sites and/or landscapes.	Agreed.

TABLE 3.1
COMMENTS RECEIVED ON DRAFT TERMS OF REFERENCE DOCUMENT

Organization	Contact	Date Comments Received	Comments Received	
			Comments	Response
			iv) In the Social Component, what about the presence or recreational features such as trails or trail networks? What about public health and safety?	Recreational features are noted in the criteria.
			d) Table 4.1 – Economic Environment	
			i) What about tourism?	Tourism will be considered.
			5) Section 5.3.2 and Table 5.2 – this section is fairly broad, which may be appropriate at this stage; however, in future stages specific criteria should be developed. These could include short-term and long-term impacts; value of the feature being affected; magnitude of the effects; predictability of effects; reversibility/irreversibility (i.e. groundwater contamination could be very difficult to reverse); geographic extent of impacts. As well, impacts on terrestrial features and wildlife, and aquatic features and fisheries should be addressed.	During the conduct of the EA these criteria will be expanded.
			6) Section 5.33 – Opportunities or requirements for monitoring should also be identified during the impact assessment.	Agreed
			7) Section 8.1 – Depending upon the site, Environmental Impact Studies may also be required at some point prior to approvals.	Agreed. This will be determined as the EA progresses.
Ministry of Northern Development and Mines	Mr. Robert J. Fraser Regional Land Use Geologist Mr. Tom Hernden Northern Development Advisor	Aug 25/04	Our comments relate to the Ministry for Northern Development and Mines' (MNDM) mandate for promoting northern economic development and mineral development throughout the province. In general, MNDM has no significant concerns with the draft ToR, but offer the attached comments for your consideration.	

TABLE 3.1
COMMENTS RECEIVED ON DRAFT TERMS OF REFERENCE DOCUMENT

Organization	Contact	Date Comments Received	Comments Received	
			Comments	Response
			• MNDM notes that the ToR identifies criteria of evaluating alternatives of disposal (Table 5.2) but does not outline the process for how alternatives will be evaluated, who will do the evaluation, or where the proponent will source information for the evaluation. MNDM is pleased that the EA plans to acknowledge mining interests and mineral potential.	Additional details will be provided as the EA evolves.
			• The evaluation of alternate methods of disposal would be of great interest to MNDM, particularly through examining the "Socio-Cultural Environment and Economics" criteria listed in Table 5.2.	Comment noted MNDM will continue to be informed and invited to participate as the EA evolves.
			• On page 3, the ToR states that "the purpose of the undertaking is to provide long-term environmentally safe solid waste disposal capacity to serve the City and area". The document later states that the service area and area of study is the Township of Prince and Rankin Reserve (page 6). When taking into consideration supply of solid waste for future uses (i.e., incineration, landfill mining, etc.) the study may wish to consider the availability of materials in areas north and east of the City, for the following reasons. • The unorganised area north of Sault Ste. Marie is experiencing similar problems with solid waste management. Prior to the year 2000, the Ministry of Natural Resources operated 4 active waste disposal sites in the Sault North Area. Currently only 1 active site remains (serving an area of 2,600 square km and a population between 6,000 – 10,000 permanent and seasonal residents).	

TABLE 3.1
COMMENTS RECEIVED ON DRAFT TERMS OF REFERENCE DOCUMENT

Organization	Contact	Date Comments Received	Comments Received	
			Comments	Response
			• In September 2003, The Ministry of the Environment advised that one active site at Haviland will reach capacity in 5 to 6 months. MOE has also indicated that several municipalities located east of Sault Ste. Marie will have to look for new waste management solutions over the next few years. The export of waste to a disposal facility in the United States is identified as an "Alternative to the Undertaking" (page 5). With this in mind, the proponent may wish to expand section 4.2 "Transportation Environment" (page 7) to note that the direct road link to the United States is Interstate 75. In addition to being the only road link from Canada to the US between Thunder Bay and Sarnia, 1-75 provides a direct route through the US.	This discussion will occur. This will be considered in the evaluation.
Sault Ste. Marie Region Conservation Authority	Mr. W. Alan Sloan Technical Advisor	Sept 25/04	We have no objections or other comments.	No response required.
Ministry of Transportation, Northeastern Region	Ms. Lynda Franklin-Allard Transportation Technician	Aug 17/04	It is not anticipated that there would be any direct impact to the Ministry of Transportation facilities as a result of the development of a long term waste management plan for the City of Sault Ste. Marie.	

TABLE 3.1
COMMENTS RECEIVED ON DRAFT TERMS OF REFERENCE DOCUMENT

Organization	Contact	Date Comments Received	Comments Received	
			Comments	Response
			The only potential issue that may be involved is access along the Kings Highway 17. If the preferred alternative is identified as a new landfill site or exporting waste elsewhere, then additional detailed information would be required by the Ministry. The issue of debris along the haul route on MTO's right-of-way would have to be addressed. There should be commitment from the owner/operator of the landfill site to undertake or maintain a clean-up or "off-site" litter control program along the highway corridor on an as required basis.	This will be considered during the evaluation.
Ministry of the Environment	Mr. Khaleed Khalfan Project Officer Environmental Assessment and Approvals Branch	July 8/04	General Comments: 1. ToR should indicate that an executive summary will be prepared for the EA which will include a list of studies, reports and maps showing the location of the undertaking as required by Reg. 334. 2. Should also indicate that the documentation will show traceability of the decision making process. 3. Need to be careful in the ToR to not define the undertaking as "additional disposal capacity". The EA should be for a "problem/opportunity". The problem may be that SSM is "approaching capacity at the current site" or something similar. Or that they are looking for a "waste solution/option". Especially at: a. 1.3 – additional disposal capacity b. 2 – solid waste disposal capacity c. 4.3 – preferred disposal alternative	This has been added. This has been added. Only disposal requires EA approval. If the City reaches 60% diversion they will still require disposal capacity. The wording has been changed to "approaching capacity at the current site".

TABLE 3.1
COMMENTS RECEIVED ON DRAFT TERMS OF REFERENCE DOCUMENT

Organization	Contact	Date Comments Received	Comments Received	
			Comments	Response
			2. Purpose and Description of the Proposed Undertaking	
			1. As per 6.1(2)(a) of the Act, this should really be a "description of the purpose of the undertaking".	This has been changed.
			2. The ToR should still state that a description of the proposed undertaking will be defined and described in the EA.	This has been changed
			3. Again, be careful not to talk about "disposal capacity", but rather the problem of decreasing capacity, or the need for a waste solution.	Wording has been changed to "approaching capacity at the current site".
			3.1 "Alternatives to" the Undertaking	
			1. Wording such as: Alternatives... considered... "will include but not be limited to" and then listing them explicitly allows for flexibility in considering other "alternatives to" during the EA should other options arise.	This has been changed.
			2. Under the "Increased Waste Diversion" option. the last line should not be included as part of this list. It is really part of the evaluation of this option as to whether or not further diversion is feasible.	The sentence has been removed.
			4.1 Service Area and Study Area.	
			1. The last line, "the Study area will..." could be moved to the beginning of the paragraph and rather than saying it will be "defined" in the EA, perhaps saying it will be "further defined" after "alternatives to" is a preferable phrasing as some definition of the study area is implicit in the development of the ToR.	This has been changed.

TABLE 3.1
COMMENTS RECEIVED ON DRAFT TERMS OF REFERENCE DOCUMENT

Organization	Contact	Date Comments Received	Comments Received	
			Comments	Response
			4.3 Potential Effects	
			1. Table 4.1 talks about indicators at/in the vicinity of "the site". Given that an alternative has not yet been decided, the indicators to be considered should be considered for "the current and/or potential sites".	This has been changed.
			2. Again including the phrase, "will include but not be limited to" will allow for further components and indicators to be considered.	This has been changed.
			Figure 2	
			1. May want to lay out other consultation points as well. In phase 1, "public input on Draft ToR" is explicit, but nowhere else is consultation made obvious, though perhaps you are just trying to highlight the current stage.	The City is just trying to highlight the current stage. Additional consultation events are shown on Figure 3.
			5.3.1 "Alternatives to" Evaluation	
			1. In the second last paragraph, "rational" should be "rationale".	This has been changed.
			2. Again, keeping the criteria flexible for evaluation of "alternatives to" and in fact for "alternative methods" as well can be achieved with the phrasing, "will include but not be limited to".	This has been changed.
			3. I also wonder if perhaps the more detailed tables of criteria, rather than being listed in the "work plan" section, would not be more appropriate in Section 3 where the "alternatives to" and "alternative methods" are discussed leaving the "work plan" section as more of a listing of the overall key steps.	This has been changed.

TABLE 3.1
COMMENTS RECEIVED ON DRAFT TERMS OF REFERENCE DOCUMENT

Organization	Contact	Date Comments Received	Comments Received	
			Comments	Response
			6. Consultation Plan	
			1. This should really be split into two pieces, one is the consultation "plan" to be included with the ToR. The other is the consultation "record" which should be a separate document from the ToR, but submitted with the ToR as supplementary information.	A separate consultation report has been prepared.
			2. I think that I appreciate what you are trying to show with the selected questions from the surveys, however I would suggest either including a complete copy of the survey (i.e. all questions), or even just summarizing the conclusions you have made. In the spirit of traceability, however the information should be available.	This has been moved to the consultation report.
			3. There is mention of newspaper articles, council presentations, meetings etc. Newspaper "notification", dates of the meetings, presentation material, minutes, or other summaries can be included as part of the consultation "record".	This has been moved to the consultation report.
			Given that SSM has already completed much consultation for other phases of their waste management planning, in 6.2, you may want to mention that consultation will build on/continue from consultation that has already occurred. This explicitly recognizes that consultation has been occurring and continues to inform the process.	Agreed
Ministry of the Environment		Sept 2/04	Page 6 references the aquifer in the northern portion of the community. It should be noted that this is also one of the city's sources of ground water for municipal drinking.	This will be addressed under the hydrogeological criteria.

TABLE 3.1
COMMENTS RECEIVED ON DRAFT TERMS OF REFERENCE DOCUMENT

Organization	Contact	Date Comments Received	Comments Received	
			Comments	Response
			With respect to alternatives to undertaking, the city should consider a regional landfill operation, i.e., wastes from outlying district residents. The city is dependent on groundwater for it's municipal water supply. In 2002/2003, The Sault Ste. Marie PUC undertook an extensive groundwater study to map aquifers within the area, assess groundwater quality, document groundwater use, inventory possible contaminant sources and define wellhead protection areas for municipal wells. Given the importance of source protection, it is recommended that in the environmental components to be considered in evaluations (Table 4.1), under the geology/hydrogeology component, that the following items be added: wellhead protection areas of municipal supply wells; and, groundwater use (private and municipal). A third item that could be added, which may be somewhat more difficult to incorporate, is the consideration of future water resources development potential. In Table 4.1, the last section entitled "Atmospheric", along with its sub-heading belongs under the first section titled "Natural Environment". Similarly, Table 5.2 needs to include a sub-section under Natural Environment regarding "Atmospheric" with sub-headings for air-quality, noise and dust.	Comment noted. Flexibility exists to further define the service area as the EA evolves. Depending on the alternatives to be identified, these criteria will be considered. Table 4.1 has been moved to Section 5 and is now Table 5.1 Atmospheric has been moved under natural environment. Table 5.2 has been moved to Section 4 and is now Table 4.2.
Ministry of the Environment		Sept 21/04	Under section 8.1, the sub-section, "Other Approvals" should read: "Other approvals that may be required and that will be confirmed during the detailed site investigations and may include approval to construct on-site structures and facilities; approval under the Ontario Water Resources Act, Section 53 for storm water management, leachate collection, and disposal; and amendments to local Official Plans and Zoning By- Laws".	Section 8 is now Section 10 and the recommended change has been made.

TABLE 3.1
COMMENTS RECEIVED ON DRAFT TERMS OF REFERENCE DOCUMENT

Organization	Contact	Date Comments Received	Comments Received	
			Comments	Response
			Page 4, Section 3.1, "Alternatives to" the Undertaking, bottom of page. The ToR differentiates potential sites as being within or outside the City Limits. Is this differentiation necessary given that the study area encompasses both? Is there a process or an understanding whereby sites within the City Limits is preferable to one outside?	We have revised the ToR to include only landfilling as an alternative and not differentiate between within and outside the City limits.
Sault Ste. Marie Economic Development Corporation	Mr. Norman Jaehrling Economic Development Officer	July 12/04	3.1 "Alternatives to" the undertaking We would suggest that Incineration and High Heat Processes be identified as two separate and distinct alternatives. We are of the impression that incineration is generally viewed by the public as an undesirable process due to related emissions and perceived deleterious environmental effects. High heat processes that can transform MSW into value added products such as biooil and electricity do not involve the incineration or burning of waste and are generally closed systems that have little or not emissions. It is important that the public understand that these processes are not the same; placing them in the same category may suggest public opposition to both and result in the disqualification of high heat processes from further consideration in the EA process. We would suggest that a new category of "High Heat/Waste to Energy Processes" be created to ensure this distinction is clear and the evaluation of the alternatives is fair. It is noted that SSMEDC is presently working with the City and Enquest Power Corporation on the evaluation and potential development of a waste-to-energy demonstration plant that would convert MSW into electricity utilizing a high heat process and fuel cell technology. This demonstration project will initially utilize 10,000 tonnes of waste annually and generate 1 MW of renewable energy. If successful, this process (and perhaps other similar technologies), have the potential to convert upwards of 95% of the municipal waste stream into value added products.	Under Guideline A-7, a thermal process is defined as any process that utilizes heat to accomplish physical and/or chemical change in the waste material. As such, high heat processes are defined as incineration.

TABLE 3.1
COMMENTS RECEIVED ON DRAFT TERMS OF REFERENCE DOCUMENT

Organization	Contact	Date Comments Received	Comments Received	
			Comments	Response
			4.2 Economic Environment It may be noted that, among other things, SSMEDC is actively investigating and developing a variety of industrial opportunities based on the conversion of local municipal and industrial waste streams into value added products such as packaging materials, chemicals, biooil and electricity.	Comment noted.
			5.3 Environmental Assessment Study It would seem that a combination of the proposed objectives might also meet the needs of the community vs. a single alternative. How will the EA process consider and accommodate this?	This is possible as waste management systems include numerous components. The EA will consider this.
			Table 5.1 The evaluation criteria should also anticipate the opportunity for the City to enter into partnerships with the private sector to implement alternatives. The City may not have the ability to undertake an option, but the private sector may. In some cases, the private sector itself may be prepared to finance most or all of the costs related to the disposal of MSW (assuming that the waste can be profitably transformed into a value added product).	Although not specifically stated, public/private partnership will be considered.
			There should be provisions in the EA to accommodate the demonstration of new technologies and the accommodation of emerging technologies as they are proven locally or in other jurisdictions.	New technologies may be considered.

TABLE 3.1
COMMENTS RECEIVED ON DRAFT TERMS OF REFERENCE DOCUMENT

Organization	Contact	Date Comments Received	Comments Received	
			Comments	Response
			Table 5.2 It is important to consider the potential for displacement or disruption to existing businesses especially those who already provide services related to the handling, diversion and processing of MSW. We would propose that the potential for the creation of new businesses, investment and employment also be considered.	Agreed.

4. PROPOSED ENVIRONMENTAL ASSESSMENT CONSULTATION PROGRAM

Since initiating the Solid Waste Management Plan in 2000, the City has placed an emphasis on working with the public to develop an appropriate long-term solid waste management plan. The City recognizes the need to involve the public in the waste management planning process and will continue with this process throughout the EA study.

The City has adopted the following principles for consultation on this project:

- **include all stakeholders** in the consultation process;
- provide sufficient **information in a user-friendly format**;
- provide **opportunities for input before decisions are made**;
- be **flexible to meet the needs of the stakeholders** when undertaking consultation; and
- **be responsive** – listening to comments, giving them careful consideration, making changes where appropriate and providing rationale when no change is made.

The following presents the proposed consultation plan for the EA. This plan represents the minimum consultation as per the principles above and will be adjusted to meet the needs of the community throughout the EA where appropriate.

Access to Information

All meeting announcements, reports, etc. will be placed on the City and its Consultants web sites. The web site will be kept up to date as a repository of information so that those with access to the internet can download documents for information and/or review. Key documents will also be placed in the municipal office and libraries to provide other opportunities for access to information.

Workshops

Workshops will provide an opportunity for interested members of the public to assist in the EA process. Three workshops will be held during the preparation of the EA. The first will discuss the "alternatives to", the evaluation criteria and their relative importance. The second will discuss the alternative methods, their evaluation criteria and relative importance. A third workshop will be held once the preferred alternative is identified to discuss impact management. The fourth workshop will be held to discuss the draft EA Summary Report and impact management strategy. The format of these workshops will allow discussion among participants.

Public Open Houses

Public Open Houses will be held at key points in the study to present information for public feedback. The Open Houses are anticipated to present the following preliminary decisions for public review:

- the preliminary preferred "alternative to";
- the preliminary preferred "alternative method"
- the preferred alternative; and
- the draft EA and impact management strategy.

The format of these meetings will likely be a combination of display panels and discussions with those attending. Notification for the Public Open Houses will include advertisements in local newspapers, web sites and the local community channel and a mailing to those on the project mailing list.

Stakeholder Meetings/Networking

During the course of the study, the project team will network with stakeholders and agencies to ensure that they have the information they require to participate. This ongoing networking will include telephone discussions and meetings with key stakeholders. Stakeholder meetings will be held as the need arises.

Consultation Documentation

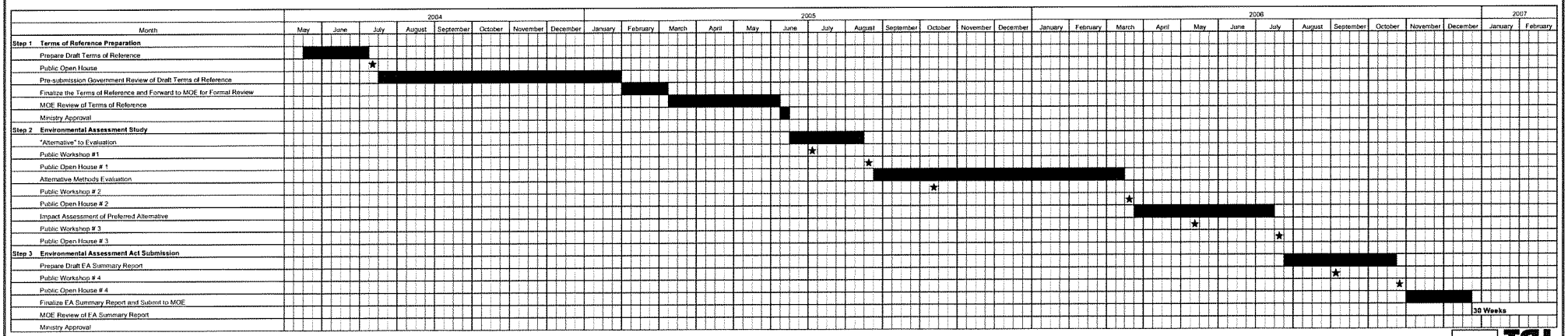
All input received as part of this project will be documented and will become part of the EA documentation. Every effort will be made to ensure that it is clear where changes were made as a result of public input and if no change was possible the reasons why will be provided.

5. ENVIRONMENTAL ASSESSMENT SCHEDULE

Figure 1 presents an estimate of the schedule to complete the EA Study.

The timeline to complete the EA Study is estimated and could change depending on the alternatives identified during the process. In addition, the length of the MOE reviews and approvals are estimated. A more detailed study schedule will be provided as the EA study progresses.

Figure 1
City of Sault Ste. Marie
Environmental Assessment Schedule



APPENDIX A

OPEN HOUSE REPORT
SEPTEMBER 26, 2001

File 1.4
6029

City of Sault Ste. Marie

SOLID WASTE MANAGEMENT PLAN

REPORT ON THE SEPTEMBER 26, 2001 PUBLIC OPEN HOUSE

October 2001

In Association With
Russell Environmental Services

TSH
engineers
architects
planners

CITY OF SAULT STE. MARIE

SOLID WASTE MANAGEMENT PLAN

REPORT ON THE SEPTEMBER 26, 2001 PUBLIC OPEN HOUSE

TSH Project No. 38-60219

TSH

engineers
architects
planners

Totten Sims Hubicki Associates
523 Wellington Street East,
Sault Ste. Marie, Ontario, Canada P6A 2M4
(705) 942-2612 Fax: (705) 942-3642
E-mail: ssmarie@tsh.ca www.tsh.ca

October 12, 2001

Mr. Jim Elliott, P.Eng.
Manager of Construction and Environmental Engineering
City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive
Sault Ste. Marie, Ontario
P6A 5N1

Dear Mr. Elliott:

Re: City of Sault Ste. Marie
Solid Waste Management Plan
Report on the September 26, 2001 Public Open House
TSH Project No. 38-60219

We are pleased to submit a report summarizing the input received at the September 26, 2001 Public Open House.

If you have any questions please do not hesitate to call.

Yours very truly,

Michael Cant
Project Manager

MC/wb
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Encl.
pc: Mr. R. Talvitie, P.Eng., TSH Sault Ste. Marie
Ms. P. Russell, P.Eng., RES

CITY OF SAULT STE. MARIE
SOLID WASTE MANAGEMENT PLAN
REPORT ON THE SEPTEMBER 26, 2001 PUBLIC OPEN HOUSE

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EXECUTIVE SUMMARY

On September 26, 2001 a Public Open House was held from 3:00 p.m. to 7:00 p.m. to present information to the public on the alternative waste diversion systems developed for the City of Sault Ste. Marie.

In total, 23 people signed into the meeting and 16 questionnaires were received.

In summary, the results of the questionnaires are as follows:

- all 16 respondents felt waste management was an important issue facing the City;
- all 16 respondents currently use their blue box and 15 would like to be able to put more materials in the blue box;
- 11 respondents would like more information on how and what can be recycled;
- 15 respondents felt that it was important to recycle more material even if it cost more;
- 14 respondents currently utilize backyard composters;
- 11 respondents felt that backyard composting was the best option to manage organic waste with curbside pickup and delivery of organic waste to a central facility the second preference;
- 4 respondents had used the household special waste depot, with 11 planning to;
- 14 respondents felt that waste management services should be paid through a fee based on the amount of garbage generated;
- 15 respondents felt businesses should pay the full cost of disposing their waste;
- 15 respondents felt System 5 (Collection and Composting of Organic Wastes) was the preferred way to manage the City's waste while 11 thought System 4 (Recycling of Expanded Materials) was the second preference;
- System 1 (Status Quo) was the least preferred of all the systems;
- 9 respondents indicated landfill mining as the preferred option for disposal, followed by landfill expansion; and
- incineration and export of waste to the United States were the least preferred disposal options.

CITY OF SAULT STE. MARIE
SOLID WASTE MANAGEMENT PLAN
REPORT ON THE SEPTEMBER 26, 2001 PUBLIC OPEN HOUSE

1. INTRODUCTION

A Public Open House was held from 3:00 p.m. until 7:00 p.m. on September 26, 2001 to present information to the public regarding the long term waste management plan, and in particular the alternative waste diversion systems, for the City of Sault Ste. Marie. The Open House was advertised in two separate editions of the local newspaper (see notice in Appendix A) and the community channel for a two-week period.

The open house was staffed by consultants from Totten Sims Hubicki Associates (TSH) and Russell Environmental Services (RES). Several City staff members were also in attendance.

Twenty display boards were available outlining the work that has been completed to date on the waste management study, including information on the current waste management system, proposed waste diversion systems and implementation options, and the estimated costs of the proposed systems. Copies of the displays are included in Appendix B. A slide show ran through a more extensive presentation of the solid waste management study.

Twenty-three people signed the attendance record, although there were additional attendees that did not sign in. Attendees were asked to complete a questionnaire so that the City could obtain public input on the development of a long term waste management strategy for the City. The questionnaire had a total of 13 questions, with space provided for additional comments.

The results of the questionnaires are compiled in Section 2. Although 16 completed questionnaires were received, not all respondents answered all of the questions, therefore the figures may not always sum to 16.

2. RESULTS OF QUESTIONNAIRES

Question 1: *Do you think that waste management is an important issue facing the City of Sault Ste. Marie?*

Yes:	16
No:	0
Don't know	0

Question 2: *Do you currently use your blue box on a regular basis?*

Yes, I put everything I can in the blue box	16
I use the blue box for some recyclables	0
No, I do not use the blue box	0

Question 3: *Do you feel that you are given enough information on how and what you can recycle?*

Yes	4
No	11

Question 4: *Would you like to be able to recycle more materials in your blue box?*

Yes	15
No	0
Don't know	0

Question 5: *Do you think that it is important to recycle more material, even if the cost is more than the cost of the current waste management system?*

Yes	15
No	1
Don't know	0

Question 6: *Do you currently use a backyard composter at your home?*

Yes	14
No	2
Sometimes	0

If you do not currently use a backyard composter, would you purchase and use one if the cost of the unit was subsidized by the City, so that your cost was approximately $35?

Yes	3
No	0
Don't know	0

Question 7: *The City is considering building a composting facility to convert organic waste into compost. If you could have organic waste (food scraps, yard waste) collected from your curbside each week, would you separate this material into a special box or bag?*

Yes	12
No	3
Don't know	0

Question 8: How would you prefer to manage your organic waste (food scraps, yard waste)?
(Please rank these options from 1 to 4, with 1 being most preferred and 4 being least preferred)

Option 1: Backyard composter at my home
Option 2: Take it to a composting site in the City of Sault Ste. Marie
Option 3: Put it in a special container to be picked up at curbside each week
Option 4: Put it in with regular garbage to be landfilled

RESPONSES TO QUESTION 8				
Ranking	Option 1	Option 2	Option 3	Option 4
1 (Most Preferred)	11	3	4	
2	1	2	6	1
3	1	7	2	
4 (Least Preferred)		1		8

Question 9: *Have you used the household hazardous waste depot?*

Yes	4
Not yet, but I plan to	11
No	1
Was not aware that it exists	0

Question 10: *Would you prefer to pay for waste management services through taxes or through a fee based on the amount of garbage you generate (i.e. user fee) ?*

Property tax	0
User fee	14
Don't know	2

Question 11: *Do you think that businesses should pay the full cost of disposing of their garbage?*

Yes	15
No	0
Don't know	0

Question 12: *How do you think the City of Sault Ste. Marie should manage its recycling program? Five alternatives have been developed and are listed below. (Please rank these options from 1 to 5, with 1 being most preferred and 5 being least preferred)*

System 1: *The same system as is currently provided (potential diversion 10-23%)*

System 2: *System 1 components **plus** biweekly collection of yard waste during the May to October season (potential diversion 12-23%)*

System 3: *System 2 components **plus** the collection of corrugated cardboard from curbside (potential diversion 13-23%)*

System 4: *System 3 components **plus** the recycling of additional materials, such as cereal boxes, plastic film, juice containers, etc. (18-30%)*

System 5: *System 4 components **plus** the collection and composting of organic wastes (potential diversion 37-52%)*

RESPONSES TO QUESTION 12

Ranking	System 1	System 2	System 3	System 4	System 5
1 (Most Preferred)					15
2				11	
3		1	9		
4		8			
5 (Least Preferred)	10	1	1	1	

Question 13: *The Sault Ste. Marie Landfill is expected to reach capacity in 10 – 12 years. How do you think the City of Sault Ste. Marie should manage its garbage once the existing landfill site is full?*
(Please rank these options from 1 to 7, with 1 being most preferred and 7 being least preferred)

Option 1: Incineration (burning)
Option 2: New Landfill Site in City :Limits
Option 3: New Landfill Site Outside City Limits
Option 4: Export Waste Elsewhere in Ontario (e.g. Adam's Mine)
Option 5: Export Waste to United States
Option 6: Expansion of Existing Landfill
Option 7: Landfill Mining (rework existing landfill site)

RESPONSES TO QUESTION 13

Ranking	Option 1	Option 2	Option 3	Option 4	Option 5	Option 6	Option 7
1 (Most Preferred)	1	1	1			2	9
2	1	1	2			6	1
3		5	3			2	
4		2	3	1	1		1
5	4			1	1	1	
6		2		2	1		
7 (Least Preferred)	5	1	2	3	5	1	

3. ADDITIONAL COMMENTS

Almost all of the respondents took advantage of the opportunity to provide additional comments on the questionnaire. The respondent's understanding of the issues and the extent of the comments were encouraging. In general, the respondents seemed to be strongly in favour of more education on waste diversion, more reuse opportunities, and user fees (particularly if some free tags were provided). There was some concern that long term disposal options were not presented in sufficient detail. This is due to the fact that the intent of this Open House was to present information on potential waste diversion systems. One display board outlined the disposal options that would be considered in the study. Another Public Open House is planned later in the study to present the finding of the disposal study.

All of the comments provided by the respondents on the questionnaires are included below.

I realize that the permutations of options are too great to present all of them at this open house. Has consideration been given to an incremental approach to diversion options? For example a 1 or 2 year period where System 4 and option A are exercised, to allow people to be more accustomed to the new systems. The progression to either System 5, or Option C, or both would be part of the successional waste management program.

There is very little information on the longer term options available to the city – eventually the landfill will be full. Many people will take home the idea that implementing an increased recycling program along with increased collection and tipping fees will resolve the issue. How does your presentation prepare residents for the long term issues? Is this beyond the terms of the consultation?

I found the open house staff to be very approachable and extremely knowledgeable. Thanks.

I think that it's great that Sault Ste. Marie is looking early at its options! People do have to realize that garbage costs all of us! That being said question 13 is quite ambiguous – the combinations of some of these options can be horrendous. More information is necessary to explain the options, i.e. incineration in Japan is relatively clean and provides energy for sale. If in this context it means that everyone gets a backyard barrel – this is not good! While I realize that paying for garbage will not be popular, it is the way of the world. The idea of increasing the recycling would be great and should really increase diversion from landfill. Unfortunately it will have to be a "forced program" here – i.e. pay for what you dispose of.

We need a massive education program. The schools must participate. Institutions/businesses can help lead the way. The environmental cost of doing nothing could also have a price tag attached. We must also publish the costs to develop/prepare a new site in today's dollars and in 10 years or 20 years.

All school garbage must be recycled as a required part of the education of our children!

Business/consumer user fees to be implemented.

This should have been done 25 years ago and delaying it will only increase cost! I believe in user pay!

Over past summer I have placed large quantities of household goods (webless lawn chairs, furniture, aluminum and wood storm windows and screens etc.) and about 95% of the items were picked up by passing citizens. Suggest serious consideration be given to curbside "scrounge days" once or twice a year. It works very well in Peterborough, Ontario and based on my experience, it could work well here.

Christmas tree pick-up ends about one week too early. Leaf collection days might need to be started one week later also extended depending on when the leaves are almost all down.

Clean North has long advocated a "reverse" user fee system, whereby households receive a certain number of bags/tickets for "free" when they pay property tax, or on similar yearly date. These could be traded with neighbours or refunded if not needed, while additional tickets or bags would be available for purchase if needed. This would establish the habit and thus minimize the trash-to-ravines problem that user fees sometimes bring. I would encourage waste minimization through a "reward" rather than a "punishment" approach.

City should post waste management system changes, with links to City sites, on http://cleannorth.org, a publicly accessible site which encourages reader comment, and receives 80-100 hits per day from people looking for environmental information.

Sewage sludge diversion is an obvious area for dramatic improvement. With a sewer use by-law that required dental labs and photo shops to separate metal solutions, our sludge could be composted for land application, especially for the forestry sector. It might even be an economic generator for this area if it proved useful in tree plantations. Propose a research project to the silviculture experts at Canadian Forest Services lab here.

REDUCE should be the main focus!

Concerns – Would education $ to make residents aware of alternatives to non-essential (single-use disposable) waste (i.e. juice boxes, plastic film). Is there an emphasis on REDUCE, REUSE in any of the waste management plans? I have concerns about the recycling of materials that a) are hard to recycle b) are unnecessary waste.

Look for programs that reward citizens as opposed to punish waste management (i.e. provide two free tags/household with incentive to get money back for tags not used and education program to help people reduce).

Some of this is out of City control, but worth questioning. When I buy some products like ketchup, juice I can only purchase them in plastic. The whole question of refillable should be brought forward again (pressure on Province and Federal policy by municipal).

How much promotion has the City done to promote Reuse, Recycle in our residential community. Why are other northern communities doing so much better in retrieving recyclables? Has this been researched? The Hailifax example comes to mind.

Landfill – any new landfill site location should be carefully selected. I have grave concerns about any changes made to existing landfill considering new leaching problems and the fact that it sits on the aquifer recharge area.

We need to look after our own waste (i.e. no transport out of town). Must learn to reduce waste going to landfill site.

Total commitment by the City to put in place a waste management system based on total recycling/reuse. Purchase a plant to source separate. Implement a program to educate the public on curbside separation.

I would support incineration if it were proven to be clean burning (no toxic gases emitted) and if heat could be used to generate electricity.

The City should put more effort into notifying residents of alternative recycling facilities e.g. depot for boxboard on Wallace Terrace.

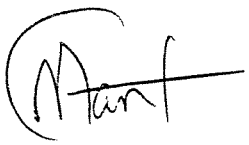
A user pay system should encourage citizens to take responsibility for waste management/reduction.

Working with manufacturers to encourage/legislate the reduction in packaging would also be desirable (may be a provincial/national issue more than municipal). Presumably if new jobs could be created with waste diversion systems there could be provincial/federal job creation $ available.

My response to Question 12 assumes that tipping cost increases (to $65) would reduce the cost of Option No. 5 to close to 2001 levels.

A REUSE CENTRE for all businesses and residents.

All of which is respectfully submitted,



for Pamela Russell, P.Eng.

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APPENDIX A

NEWSPAPER ADVERTISEMENT

City of Sault Ste. Marie

Long Term Solid Waste Management Plan
Waste Diversion

Public Comment Invited

The City of Sault Ste. Marie landfill site is estimated to have sufficient capacity to meet the needs of the community for the next 10 – 12 years. In order to ensure adequate provisions are in place for the management of the future solid waste stream, a study has been commissioned to provide the city with direction on all aspects of its solid waste management system for the next 25 to 40 years.

A four-phased study is being undertaken with the goal to develop a practical, economically feasible, environmentally acceptable and technically competent long term waste management system for the City of Sault Ste. Marie.

The first phase of the study relates to the diversion of solid waste. The City of Sault Ste. Marie is presently diverting approximately 8% of the solid waste stream. This is a relatively low level of diversion compared to other municipalities in the province. A total of five alternative diversion systems and four implementation options have been developed and evaluated and a preliminary preferred diversion system has been selected. The City of Sault Ste. Marie would like to solicit input from the public on the alternative diversion systems considered.

An informal ***Public Open House*** will be held on **Wednesday September 26, 2001 in the Thompson Room at the Civic Centre** (99 Foster Drive) to review the preliminary study materials, and to receive input and comment from interested parties. All members of the Public are welcome to attend at **any time between the hours of 3:00 pm and 7:00 pm on the above noted date**.

The project consultants and city staff will be available to discuss the alternatives considered and to obtain feedback from the public.

Following the meeting further comments are invited, for incorporation into the planning of this project, and will be received at the address noted below until October 26, 2001.

City of Sault Ste. Marie
Civic Centre
99 Foster Drive
Sault Ste. Marie ON P6A 5N1

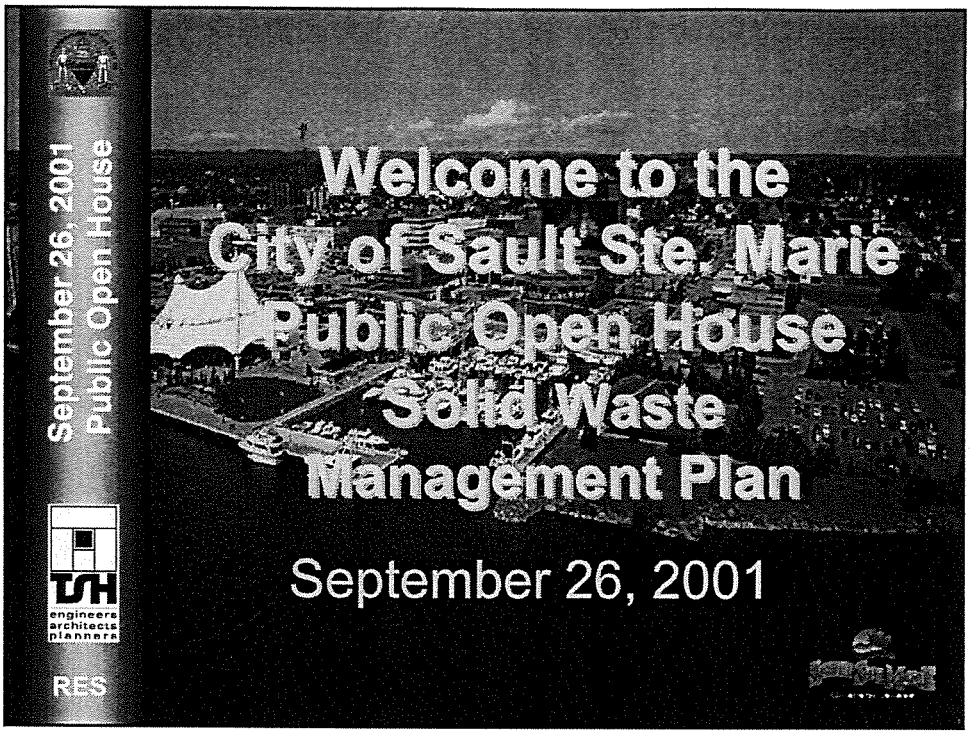
Attention: J. Elliott, P.Eng.

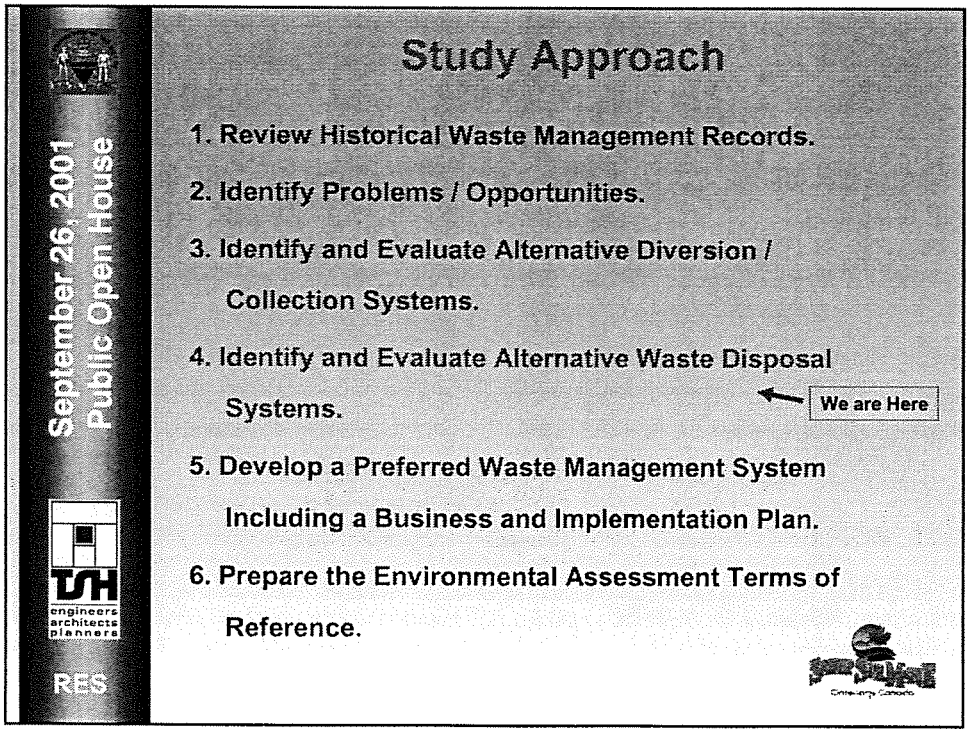
This Notice issued on September 15 and 22, 2001.

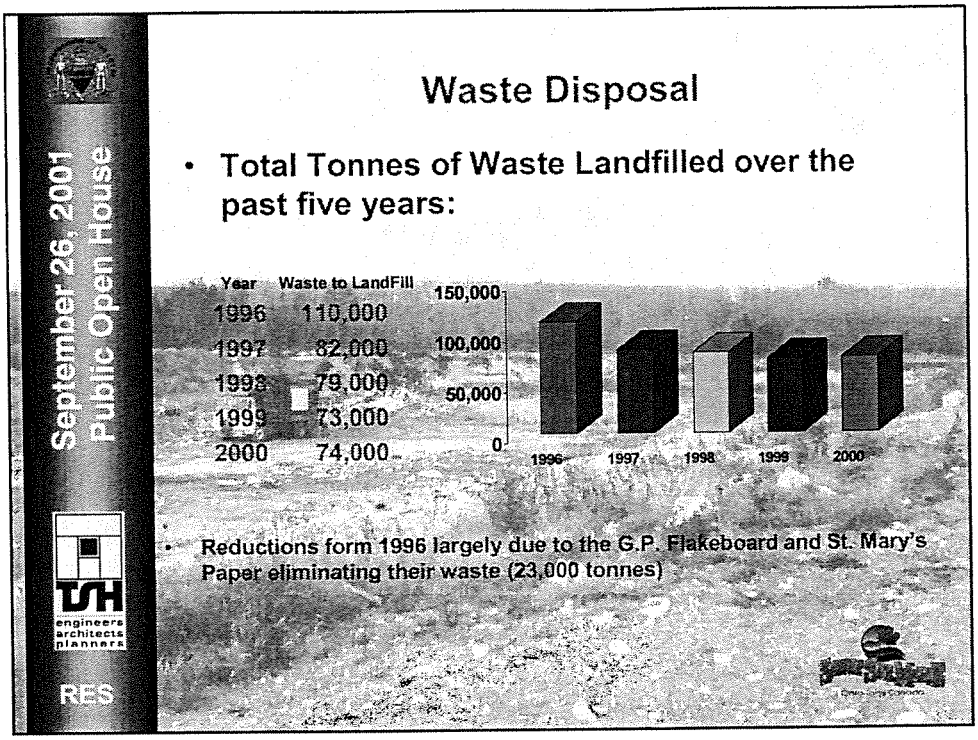
Jim Elliott, P.Eng.
Environmental/Construction Engineer
City of Sault Ste. Marie

APPENDIX B

DISPLAY BOARDS


September 26, 2001
Public Open House
TSH
engineers
architects
planners
RES
Welcome to the
City of Sault Ste. Marie
Public Open House
Solid Waste
Management Plan
September 26, 2001


September 26, 2001
Public Open House
TSH
engineers
architects
planners
RES
Study Approach
1. Review Historical Waste Management Records.
2. Identify Problems / Opportunities.
3. Identify and Evaluate Alternative Diversion / Collection Systems.
4. Identify and Evaluate Alternative Waste Disposal Systems.
We are Here
5. Develop a Preferred Waste Management System Including a Business and Implementation Plan.
6. Prepare the Environmental Assessment Terms of Reference.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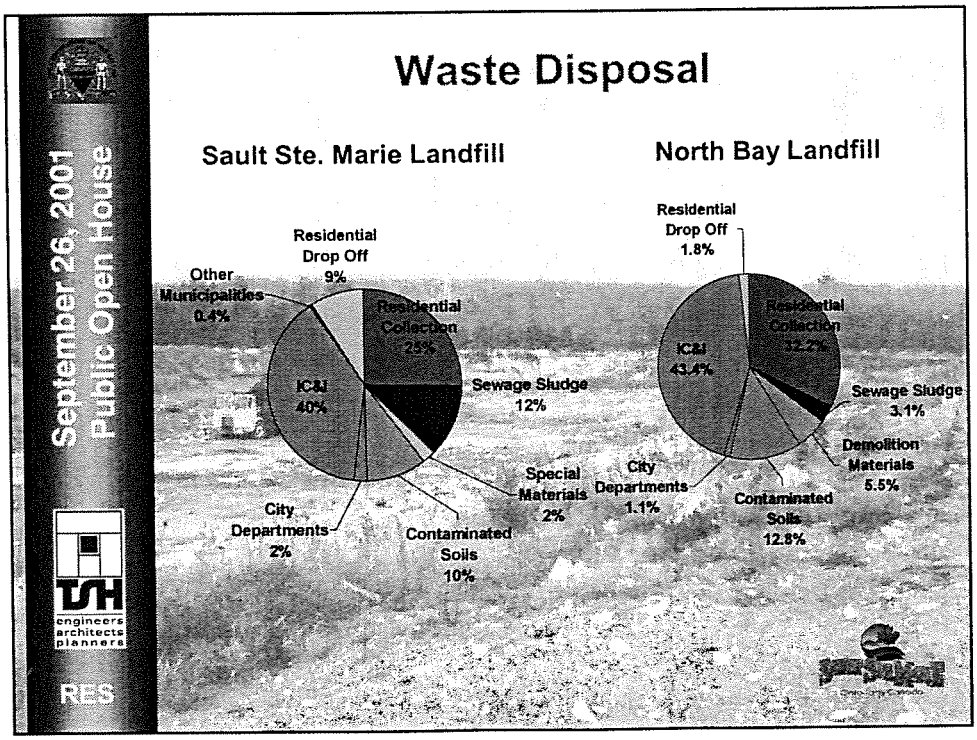
RES
Waste Disposal
• Total Tonnes of Waste Landfilled over the past five years:
Year Waste to LandFill
1996 110,000
1997 82,000
1998 79,000
1999 73,000
2000 74,000
150,000
100,000
50,000
0
1996
1997
1998
1999
2000
• Reductions form 1996 largely due to the G.P. Flakeboard and St. Mary's Paper eliminating their waste (23,000 tonnes)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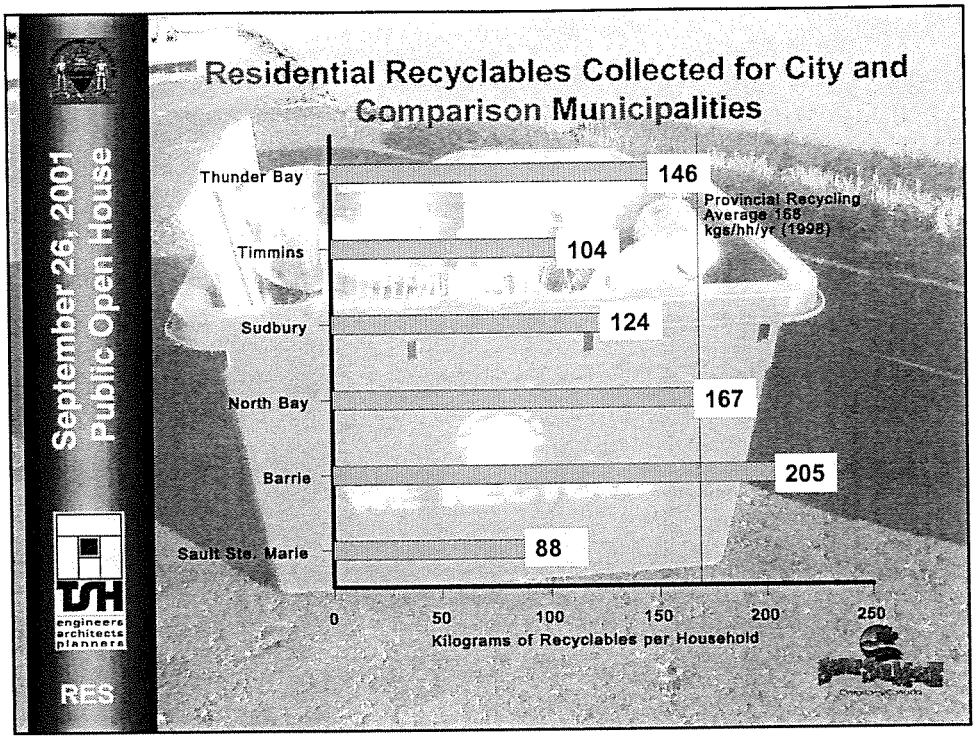
RES
Waste Disposal
Sault Ste. Marie Landfill
Residential Drop Off 9%
Other Municipalities 0.4%
Residential Collection 25%
I&I 40%
Sewage Sludge 12%
Special Materials 2%
City Departments 2%
Contaminated Soils 10%
North Bay Landfill
Residential Drop Off 1.8%
Residential Collection 32.2%
I&I 43.4%
Sewage Sludge 3.1%
Demolition Materials 5.5%
City Departments 1.1%
Contaminated Soils 12.8%


September 26, 2001
Public Open House
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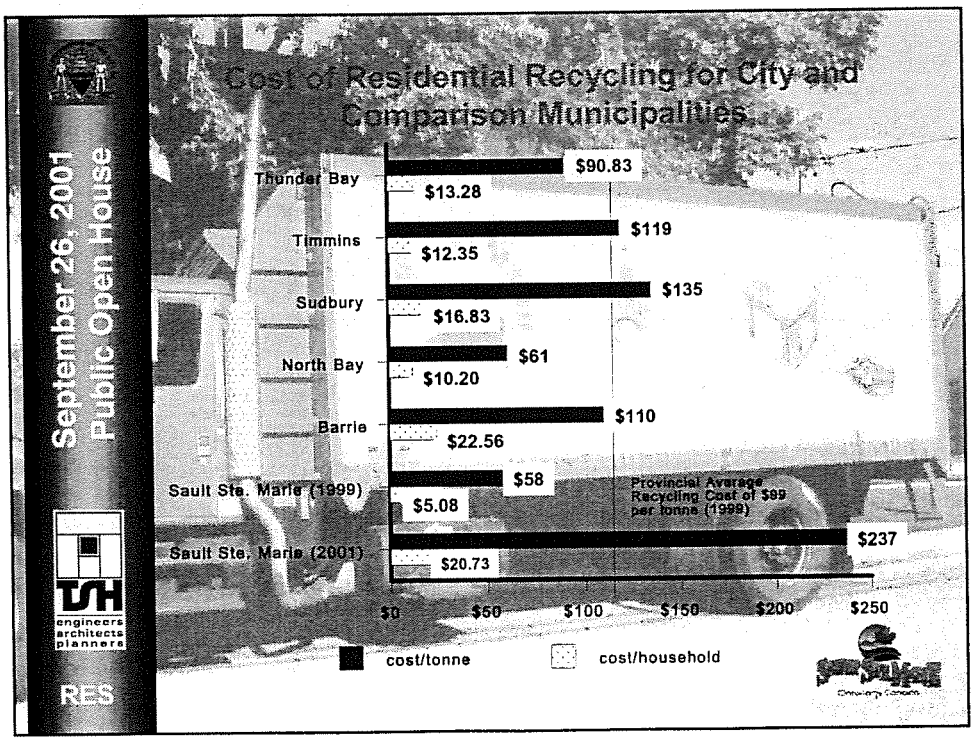
RES
Residential Recyclables Collected for City and Comparison Municipalities
Thunder Bay
146
Provincial Recycling Average 165 kgs/hh/yr (1998)
Timmins
104
Sudbury
124
North Bay
167
Barrie
205
Sault Ste. Marie
88
0
50
100
150
200
250
Kilograms of Recyclables per Household


September 26, 2001
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planners
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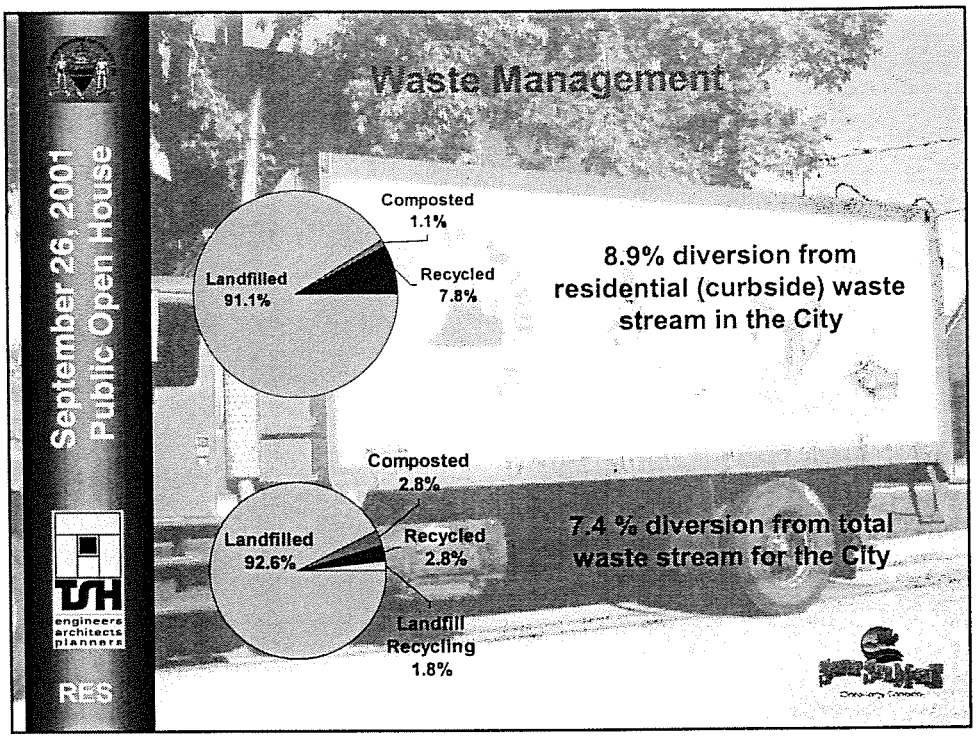
Cost of Residential Recycling for City and Comparison Municipalities
Thunder Bay
$90.83
$13.28
Timmins
$119
$12.35
Sudbury
$135
$16.83
North Bay
$61
$10.20
Barrie
$110
$22.56
Sault Ste. Marie (1999)
$58
$5.08
Provincial Average Recycling Cost of $99 per tonne (1999)
Sault Ste. Marie (2001)
$237
$20.73
$0
$50
$100
$150
$200
$250
cost/tonne
cost/household


September 26, 2001
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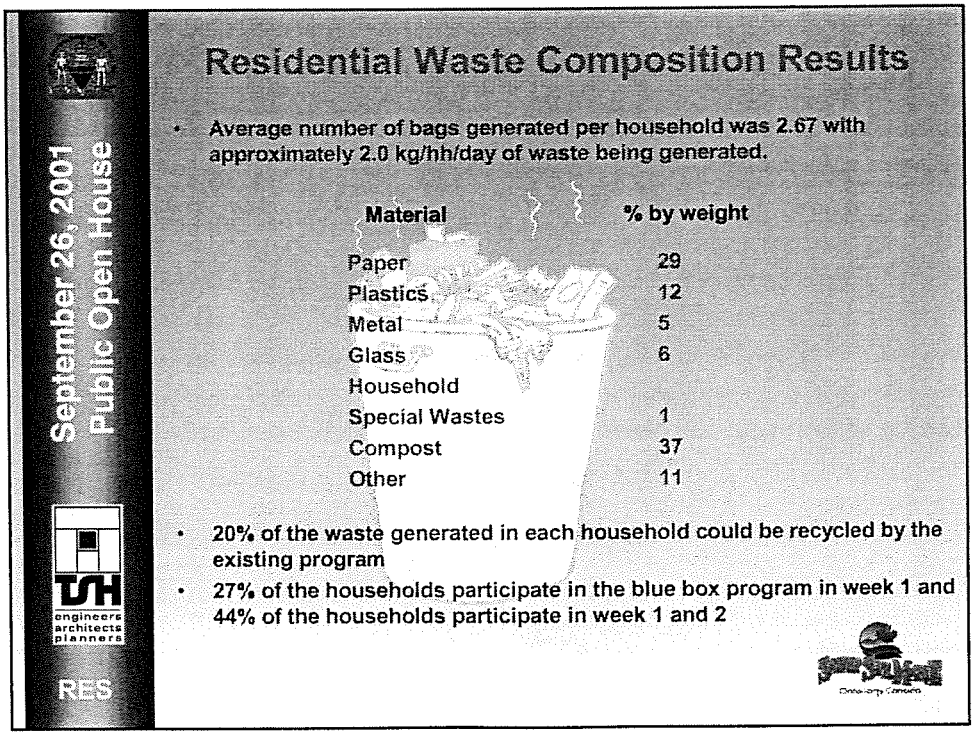
RES
Waste Management
Composted
1.1%
Recycled
7.8%
Landfilled
91.1%
8.9% diversion from residential (curbside) waste stream in the City
Composted
2.8%
Recycled
2.8%
Landfilled
92.6%
Landfill
Recycling
1.8%
7.4 % diversion from total waste stream for the City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Residential Waste Composition Results
• Average number of bags generated per household was 2.67 with approximately 2.0 kg/hh/day of waste being generated.
Material
% by weight
Paper
29
Plastics
12
Metal
5
Glass
6
Household
Special Wastes
1
Compost
37
Other
11
• 20% of the waste generated in each household could be recycled by the existing program
• 27% of the households participate in the blue box program in week 1 and 44% of the households participate in week 1 and 2

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Problems / Opportunities

- Existing landfill will reach capacity in 10-12 years time.
- A low level of diversion is being achieved in the City of Sault Ste. Marie

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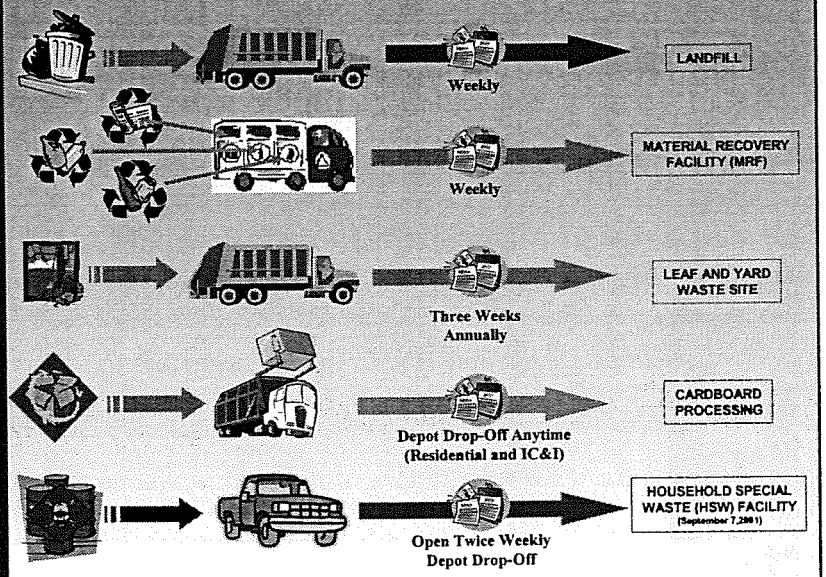
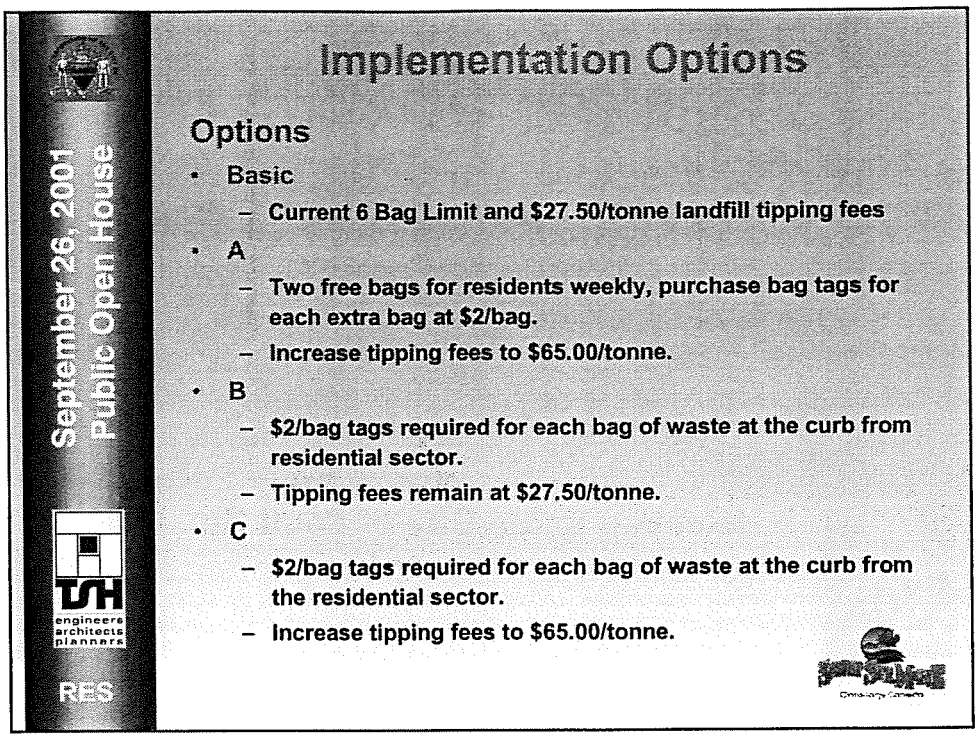
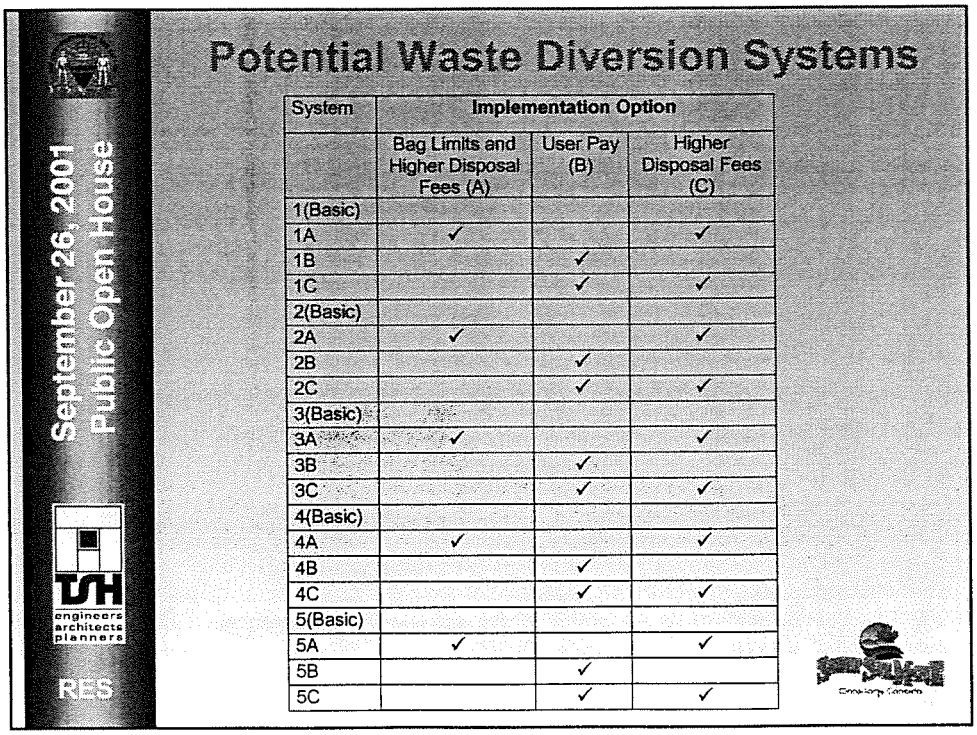
Existing Solid Waste Management System







System	Implementation Option		
	Bag Limits and Higher Disposal Fees (A)	User Pay (B)	Higher Disposal Fees (C)
1(Basic)			
1A	✓		✓
1B		✓	
1C		✓	✓
2(Basic)			
2A	✓		✓
2B		✓	
2C		✓	✓
3(Basic)			
3A	✓		✓
3B		✓	
3C		✓	✓
4(Basic)			
4A	✓		✓
4B		✓	
4C		✓	✓
5(Basic)			
5A	✓		✓
5B		✓	
5C		✓	✓

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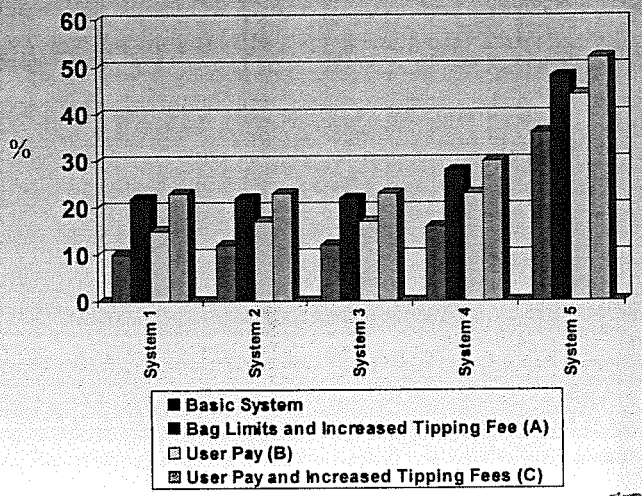
Total Waste Stream Diversion Rates



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Overall System Costs

A financial model was developed to determine the overall cost for the waste management systems.

The model took into account the entire waste management system including:

- **Waste Collection**
- **Landfill Diversion**
- **Waste Disposal**
- **Public Education**
- **Recycling**
- **OCC Recycling**
- **Yard Waste Collection**
- **Yard Waste Composting**
- **Organics Collection**
- **Organics Composting**
- **User Fees**
- **Landfill Tipping Fees**
- **MRF and Composting Plant Tipping Fees**
- **Sale of Recyclables**
- **Sale of Compost**

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Yearly Cost to Operate Systems and Options (no user fees or increased tipping fees) Includes Capital Costs

System (Option)	System Cost Per Year 2001
System 1A	$5,130,000
System 2A	$5,140,000
System 3A	$5,120,000
System 4A	$5,320,000
System 5A	$5,340,000

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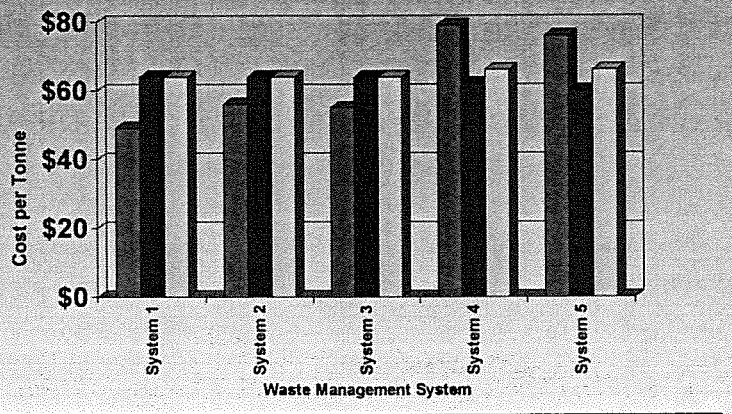
Basic Systems Costs
(i.e. Option A)



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Preliminary Systems Evaluation

Criteria	System				
	1	2	3	4	5
Marketability of Materials and Products	★	★	★	★	★
Compliance with Legislation	★	★	★	★	★
Flexibility	★	★	☆	★	★
Availability and Expertise of the Private Sector	☆	☆	☆	★	★
Partnership Possibilities	★	★	★	★	★
Diversion from Landfill	★	★	★	★	★
Overall System Costs	☆	☆	☆	☆	☆
Public Acceptability					
Overall Evaluation Before Public Input	★	★	★	★	★

★ - Less Favorable
☆ - Neutral
★ - Most Favorable

You are encouraged to provide input to all of the evaluation criteria

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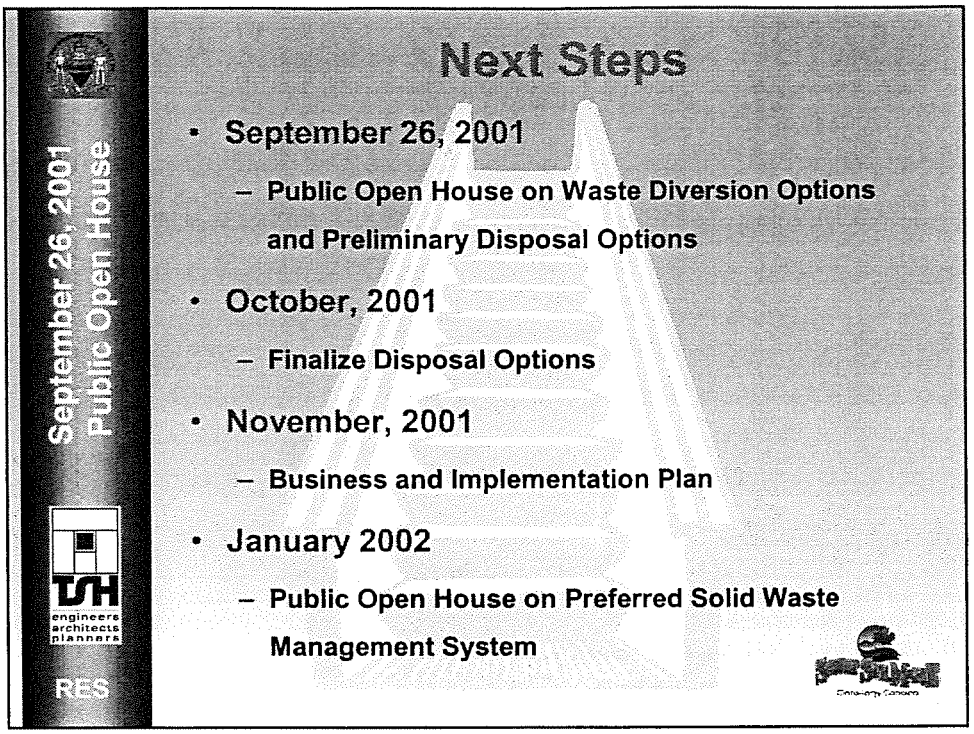
Waste Disposal Options

- The following disposal options are being considered:
  - Incineration
  - New greenfield landfill within City limits
  - New greenfield landfill outside City limits
  - Export of waste to another site in Ontario
  - Export of waste to United States
  - Expansion of existing landfill
  - Landfill mining (reclamation of existing site)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planners
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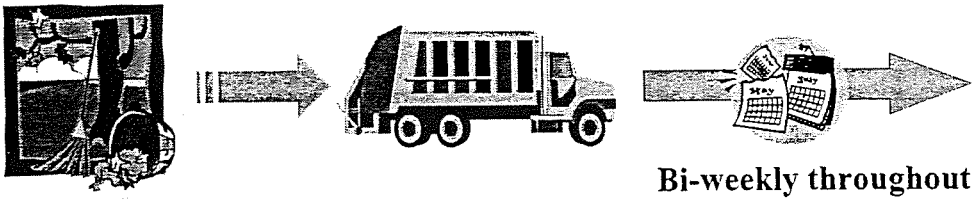
Next Steps
• September 26, 2001
– Public Open House on Waste Diversion Options and Preliminary Disposal Options
• October, 2001
– Finalize Disposal Options
• November, 2001
– Business and Implementation Plan
• January 2002
– Public Open House on Preferred Solid Waste Management System

Alternative Diversion Systems

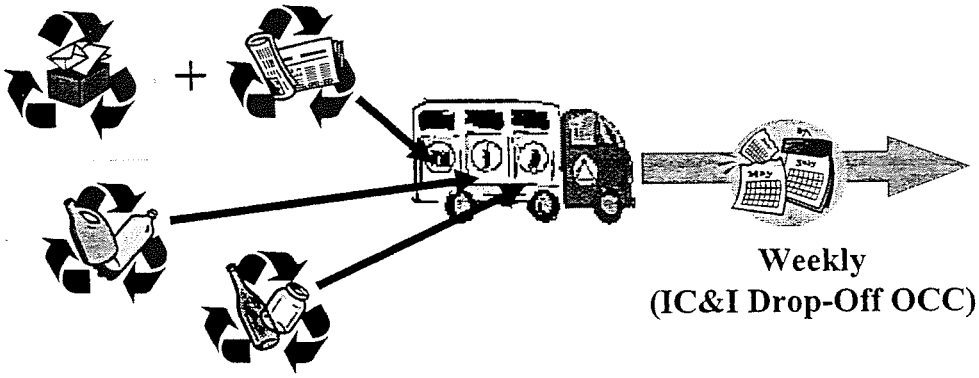
SYSTEM 2 - Increased Yard Waste Collection



Bi-weekly throughout Growing Season

LEAF AND YARD WASTE SITE

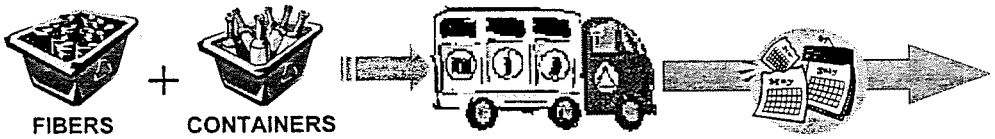
SYSTEM 3 - Curbside Collection of OCC



Weekly (IC&I Drop-Off OCC)

MATERIAL RECOVERY FACILITY (MRF)

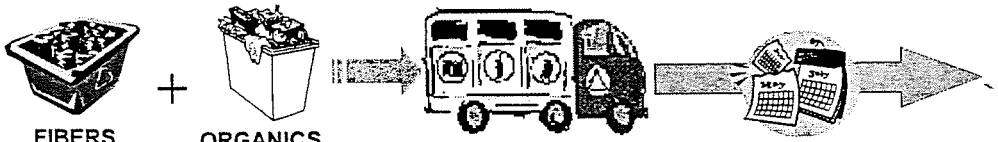
SYSTEM 4 - Recycling of Expanded Materials



Weekly (IC&I Drop-Off)

MATERIAL RECOVERY FACILITY (MRF)

SYSTEM 5 - Curbside Collection of Organic Wastes



Alternate Weekly (IC&I Drop-Off)

MATERIAL RECOVERY FACILITY (MRF) COMPOST PLANT

Alternate Weekly (IC&I Drop-Off)

MATERIAL RECOVERY FACILITY (MRF) COMPOST PLANT

APPENDIX B

OPEN HOUSE REPORT
MARCH 18 AND 19, 2003

City of Sault Ste. Marie

SOLID WASTE MANAGEMENT PLAN

REPORT ON MARCH 18 AND 19 2003 PUBLIC OPEN HOUSES

May 2003

CITY OF SAULT STE. MARIE

SOLID WASTE MANAGEMENT PLAN

REPORT ON MARCH 18 AND 19 2003 PUBLIC OPEN HOUSES

TSH Project No. 38-60219

TSH

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40 Years

Totten Sims Hubicki Associates
523 Wellington Street East,
Sault Ste. Marie, Ontario, Canada P6A 2M4
(705) 942-2612 Fax: (705) 942-3642
E-mail: ssmarie@tsh.ca www.tsh.ca

May 9, 2003

Mr. Don Elliott, P.Eng.
Manager of Construction and Environmental Engineering
City of Sault Ste. Marie
P.O. Box 580
Civic Centre, 99 Foster Drive
Sault Ste. Marie, Ontario
P6A 5N1

Dear Mr. Elliott:

Re: City of Sault Ste. Marie
Solid Waste Management Plan
Report on March 18 and 19 2003 Public Open Houses
TSH Project No. 38-60219-5

We are pleased to submit our report summarizing the input received at the March 18 and 19, 2003 Public Open Houses.

If you have any questions, please do not hesitate to contact the undersigned.

Yours very truly,

for Michael Cant
Manager, Solid Waste

MC/wb
P:\bentleyw\38-60219\03551WE.doc

Encl.
pc: Mr. R. Talvitie, TSH Sault Ste. Marie

CITY OF SAULT STE. MARIE
SOLID WASTE MANAGEMENT PLAN
REPORT ON MARCH 18 AND 19, 2003 PUBLIC OPEN HOUSES

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2.2 Additional Comments on Questionnaire 6

3. ADDITIONAL PUBLIC INPUT 7

LIST OF APPENDICES

Appendix A – Newspaper Advertisement
Appendix B – Display Boards
Appendix C – Questionnaire
Appendix D – Additional Input

EXECUTIVE SUMMARY

On March 18 and 19, 2003, Public Open Houses were held at the John Rhodes Community Centre and Korah Collegiate to present information to the public on the Solid Waste Management Plan and, in particular, the alternative user pay options being considered.

In total, 29 people signed into the meetings and 29 questionnaires were received.

In summary, the results of the questionnaires are as follows:

- all 29 respondents felt waste management was an important issue facing the City;
- 58 percent of the respondents had between 3 and 5 people living in their house;
- 62 percent of the respondents put out 2 or 3 bags of garbage a week;
- 100 percent of the respondents used the yellow and blue boxes on a regular basis;
- 72 percent of respondents reduced the number of large garbage bags produced by one through the blue and yellow box program;
- 57 percent of the respondents support a city-wide composting program;
- 90 percent of the respondents preferred to pay for waste management services through a user fee instead of an increase in property taxes;
- 54 percent of the respondents ranked the following user fee scenario as preferred:
  - 2 bag limit; fee for each bag in excess of that limit;
  - increase gate fee to $4.00 in 2003;
  - increase landfill tipping fees to $65.00/tonne by 2006;
- 92 percent of the respondents ranked the following user fee scenario as the least preferred:
  - increase property taxes by $40.00 - $50.00 per household in 2003;
  - leave gate fee at $2.00/visit;
  - leave tipping fee at $27.50; and
- 76 percent of respondents felt businesses should pay full cost of disposing of their garbage.

CITY OF SAULT STE. MARIE
SOLID WASTE MANAGEMENT PLAN
REPORT ON MARCH 18 AND 19 2003 PUBLIC OPEN HOUSES

1. INTRODUCTION

1.1 Background

As part of the Solid Waste Management Planning Process being undertaken by the City, two reports were presented to Council on February 10, 2003 and included:

- Waste Collection and Disposal Report; and
- Business and Implementation Plan.

The first report entitled ***Waste Collection and Disposal*** detailed the evaluation of seven disposal alternatives and rated them in the following order from most preferred to least preferred:

1) landfill mining;
2) expansion of existing site in Ontario;
3) export to another site in Ontario;
4) export to the United States;
5) greenfield site outside City limits;
6) greenfield site in City limits;
7) Incineration.

The report recommended that the City proceed with an Environmental Assessment to further explore the viability of landfill mining and expansion of the existing site.

The second report entitled ***Business and Implementation Plan*** was prepared to assist the City in preparing for the future expenditures required to establish additional waste disposal capacity, implement new expanded diversion programs and manage environmental controls at the existing site.

The principal conclusions of this report included the recommendation to implement a Partial User Pay system known as System 4 Partial User Pay Option C, which includes the following elements:

- a reduction in the bag limit from six bags per household per week to two bags per household per week commencing in 2003 (the waste audit reported an average of 2.67 bags per household);
- a bag fee of $2.00 per bag for each bag set out in excess of the two bag limit;
- an increase in the landfill gate fee to $4.00 (from $2.00) in 2003, then to $6.00 in 2006; and
- in increase in the tipping fees to $65.00 (from $27.50) per tonne by 2006. This will be done gradually between 2003 and 2006. ($27.50 is the lowest in the Province, the Provincial average is $68.81).

The following was recommended to Council:

- that Council adopt the ***Waste Collection and Disposal*** report recommendation that mining and expansion of the existing site is the preferred solution to the problem of landfill capacity;
- that the City prepare an Environmental Assessment Act Terms of Reference for submission to the Ministry of the Environment recommending that landfill mining and expansion of the existing site be the alternatives assessed in detail to provide future landfill capacity at the site; and
- that Engineering proceed with public consultation to solicit input on the recommendations of the ***Business and Implementation Plan*** and report back to Council for approval of final recommendations.

Council approved the above recommendations and requested that two Public Open Houses be held.

Leading up to the Council meeting on February 10, 2003 and following the Council meeting, a significant amount of interest in the implementation of user fees appeared in the local papers and media websites.

1.2 Public Open Houses

Public Open Houses were held on March 18 and 19, 2003 to present information to the public on the Solid Waste Management Plan and, in particular, the alternative user pay options being considered.

The Open Houses were advertised as follows.

- Sault Star (March 8th and 15th);
- Sault This Week (March 12th);
- Local Community Channel (March 4th to 18th)
- Soo Today.com; and
- local radio stations.

The hours and locations of the Open Houses were as follows:

- March 18, 2003
  3:30 p.m. to 7:30 p.m.
  John Rhodes Community Centre
- March 19, 2003
  4:30 p.m. to 8:30 p.m.
  Korah Collegiate

The Open Houses were staffed by consultants from TSH. Several City representatives were also in attendance.

A number of display boards were available outlining the work that had been completed to date on the waste management study including:

- preferred waste diversion system;
- preliminary results of the pilot co-composting study;
- options for disposal of residential waste;

- projected waste management systems costs;
- alternative methods available to recover the costs; and
- the Environmental Assessment Act Terms of Reference.

Copies of the displays are included in Appendix B.

Nineteen people signed into the March 18 Open House and nine people signed into the March 19 Open House. Attendees were asked to complete a questionnaire so the City could obtain input into the Waste Management Plan. The questionnaire had a total of 12 questions, with space provided for additional comments.

The results of the questionnaires are summarized in Section 2 of this report and Appendix C. Although 29 completed questionnaires were received, not all respondents answered all questions, therefore, the sum of all figures may not always be 29.

2. QUESTIONNAIRES

2.1 Responses to Questionnaire

A total of twelve questions were asked in the questionnaire. Questions 8 and 9 deal directly with the ***Waste Disposal and Collection Report*** and are summarized in Appendix C. The remaining questions are highlighted below:

Survey Question		Total Responses	% of Total Responses
Question 1:	Do you think waste management is an important issue facing the City of Sault Ste. Marie:		
	Yes	29	100
	No	0	0
	Don't' Know	0	0
Question 2:	How many people live in your household and how many bags of waste do you typically set out each week?		
	Number of People in your Household		
	1 Person	4	14
	2 People	8	28
	3 People	7	24
	4 People	9	31
	5 People	1	3
	How many bags set out each week:		
	1 Bag	6	21
	2 Bags	5	17
	3 Bags	14	48
	4 Bags	4	14
	More than 4 Bags	0	0

Survey Question		Total Responses	% of Total Responses
Question 3	Do you currently use your yellow and blue boxes on a regular basis?		
	Yes	29	100
	No	0	0
Question 4	In your estimation, how many large bags of garbage have been reduced through your participation in the blue and yellow box program per week?		
	½ Bag	3	10
	1 Bag	21	72
	2 Bags	4	14
	3 Bags	1	4
Question 5	The City is considering building a composting facility to convert organic waste into compost. If you could have organics (food scraps, yard waste) collected from your curbside each week, would you separate this material into a special container or bag?		
	Yes	19	66
	No	5	17
	Don't Know	5	17
Question 6	Would your answer to Question 5 change if the bag limit were reduced from 6 to 2 bags and bag fees were implemented?		
	Yes	4	15
	No	23	85
Question 10	Would you prefer to pay for waste management services through property taxes or through a fee based on the amount of garbage you generate (i.e. user fee) or a combination of the two (partial user fee?)		
	Property Tax	0	0
	User Fee	17	57
	Partial User Fee	9	30
	Don't Know	2	7
	Other:	2	7
	• None of the above – our current City taxes are high enough to cover waste management! This is a cash grab.		
	• None of the above.		

Survey Question		Total Responses	% of Total Responses
Question 11	The following residential user fees have been discussed. Please rank the options from 1 to 3, with 1 being the most preferred and 3 being the least preferred.		
	A. 2 bag limit with a fee of $2.00/bag for every bag above the limit in 2003 and an increase in landfill gate fee to $4.00/visit in 2003 and an increase in landfill tipping fees to $65/tonne by 2006.	15	54
	B. 4 bag limit in 2003, 3 bag limit in 2004 and 2 bag limit in 2005, with a fee of $2.00/bag for every bag above the limit and an increase in landfill tipping fees to $65/tonne by 2006	8	29
	C. Leave the gate fee at $2.00/visit and the tipping fee at $27.50/tonne and increase property taxes by some $40 to $50 for the average household (i.e. assessed value of $96,000) in 2003.	1	4
	D. Other Reduce bags/household to 4 a week. No extra taxes or costs! There is no relationship in revenue between A and C. A is just a tax grab. 2 bag limit $1.00/bag, gate fee of $4.00, tipping fees of $65.00 or use "A" with extra bags at Christmas and one other time, spring or early summer. Prefer 3 bag limit. 4 bag limit in 2003, 3 bag limit in 2004 and 2 bag limit in 2005, with a fee of $1.00 for every bag above the limit and an increase in landfill gate fee to $3.00 in 2003 and an increase in landfill tipping fees to $48 to $50/tonne by 2006.	4	14
Question 12	Do you think that Businesses should pay the full cost of disposing their garbage?		
	Yes	22	76
	No	6	21
	Don't Know	1	4

2.2 Additional Comments on Questionnaires

A number of respondents took advantage of the opportunity to provide additional comments on the questionnaire. The respondents understanding of the issues and the extent of comments were encouraging. There was a lot of interest expressed on the co-composting study and a number of different opinions on the partial user fee systems proposed.

All of the comments provided by the respondents on the questionnaire are included below:

1. I truly hope your test program (i.e. pilot compost) will continue and be expanded throughout the City. I would use the compostable bags at home for items which do not attract vermin and set for collection those that do (grease, meat, etc.). Really hope Sault Ste. Marie does the right thing here. Let's get on the map for the right reason!

   (Question 10) User Pay – those who are irresponsible about recycling can pay for future impact on environment.

2. Incineration technology is presumably improving and may become a more viable option in the future, perhaps before this 25 year plan is complete.

3. This questionnaire was not designed for dissent from proposals. I do not agree with them. This City has a **rat** problem. People who cannot afford to pay will pile up garbage or dump it elsewhere. More **rats**! I do not agree that dumping will be stopped by by-laws because existing by-laws in many areas are not enforced!

4. The "free" ride is over. It's time we pay for these services as the rest of the Province. Organic diversion should be for winter only as people should be using their gardens. (Question 10) User fee is necessary so that people are constantly reminded of reducing waste.

5. (Question #8) I feel I need more information about mining and concerns about it. I do feel a community needs to deal with its waste so export is a low option. I have concerns about the landfill on the existing site (aquifer recharge area) and the existing leachate problem.

   (Question #10) Education will be vital so people can learn the alternatives and work on changing public mindset. Research into what has worked in other communities (Halifax). Money to make it happen. (Question #12) Should be subsidized to the same extent of residents. Perhaps this will set the precedence for more environmentally friendly business practices. Opportunity to be involved in waste diversion must be provided.

6. A four bag maximum is sufficient. To reduce much more will cause people to dump excess. This City has a terrible history of enforcing its own by-laws so why are we to believe that it will enforce a no dumping one.

7. Bring back compost program.

8. Bring back the compost bags and pails. It took time to train my husband but he finally was getting into the swing of it. Please bring it back!

9. My biggest issue is that I should be able to selectively use my tags (i.e.: if allowed 2 bags per week, then give me 104 tags for use at my discretion. I might go on vacation, or I might just choose to only put my garbage out every two weeks, but I should not be penalized even though I'm within the "total" bag limit.

10. I appreciated the food composting program. Finally got my husbanded trained and you cancelled the program. (Question #9) Instead of rating 1 to 11, may have been easier to check off three most important. (Question #11) Family size should enter into this.

11. As a society we must continue to manage our waste through public and private payment. We've certainly progressed greatly in the last few years. Hope we continue.

12. Concerned with the fees, the garbage will be thrown all over the place, maybe my yard.

13. People dumping garbage in our rural areas is of great concern. It happens now. It will only get worse! Will holiday times still hold the same amount of garbage allowed (Christmas, etc.)

14. I do think that the landfill mining initiative should be revisited for a true cost per tonne.

15. I would like to see (and I do not know how you would do it) some arrangement for blue/yellow boxes for apartments. Also, it is, to me, silly to make people walking their dogs, use a "pooper-scooper", to pick up their (the dogs) messes. We put the mess in a plastic bag that will last on a landfill for years and years. Surely we can come up with a disposable bag for such use. I was pleasantly surprised at the courtesy shown to me, by the people in attendance. They are to be commended.

16. An allowance has to be made for legitimate two family units. Should be double single family unit. Tags should be easily accessed and only used for extra bags. (Question #10) To go user fee would have to know what my current costs are and would those taxes be reduced if total cost was user fee.

17. Families should not be penalized because they have a large number of children; one can assume they will generate more garbage. Blue/yellow box recycling should be extended to all businesses. The hazardous waste depot should be available to business also. It is likely those wastes also end up at the landfill. (Question #10) Perhaps credits can be used for families who cut their garbage bag quantities below minimum requirements; i.e.: credits to encourage recycling. (Question #12) Only if they are given the same opportunity to recycle paper as households; plus other recyclable items.

3. ADDITIONAL PUBLIC INPUT

Following the Open Houses, several letters and proposals were received during the public consultation period. This input is summarized in this section.

One individual took the time to undertake an informal survey of the waste and recyclables being set out along a street in his neighbourhood. That individual also initiated a petition which garnered 131 signatures. The petition generally supported the PAYT principle but suggested that the reduction in bag limits be phased in over a period of three years, with a bag fee of $1.00/bag or container rather than $2.00. Copies of the petition along with the response prepared are included in Appendix D.

Another individual suggested that a system be set up which would establish a number of free garbage bags per person per year. This would be accomplished by determining the number of people that reside at each household in the City and setting the number of free bags at each municipal address per year. The waste collection staff would then record electronically the number of bags of garbage set out at each municipal address. This system would provide a yearly allotment of bags per municipal address. The detailed proposal entitled "Individual Garbage Taxation Based on Accurate Information" can be found in Appendix D.

Four additional letters were received and the comments from these letters are summarized below:

- against the idea of only picking up two bags of garbage only;
- penalizing larger families;
- discriminating against tax paying homeowners when compared to apartment dwellers;
- public places will be littered (two letters);
- one or two bags too drastic a reduction, four bags is reasonable; and
- refuse will be dumped in unwanted places.

Responses not related to the implementation of user fees included the following:

- for a number of years people from outside the City have been using our dump to dispose of their garbage. The dump is for Sault Ste. Marie refuse, supported by our tax dollars and in no way should be used by others; and
- consideration should be given to pelletizing the garbage and using it as a fuel.

APPENDIX A

NEWSPAPER ADVERTISEMENT

City of Sault Ste. Marie

Long Term Solid Waste Management Plan

Public Comment Invited

The City of Sault Ste. Marie landfill site is estimated to have sufficient capacity to meet the needs of the community for the next 10 years. In order to ensure adequate provisions are in place for the management of the future solid waste stream, a study has been commissioned to provide the City with direction on all aspects of its solid waste management system for the next 25 to 40 years.

A four-phased study is being undertaken with the goal to develop a practical, economically feasible, environmentally acceptable and technically competent long term waste management system for the City of Sault Ste. Marie. The principle problems addressed through the study process include the historical low level of diversion, the limited remaining disposal capacity in the existing landfill and generating adequate revenues to fund the projected waste management system costs.

The City of Sault Ste. Marie would like to solicit input from the public on the proposed preferred waste management system and alternative user pay options.

Two informal Public Open Houses will be held to review the preliminary study materials, and to receive input and comment from interested parties.

Date: Tuesday March 18, 2003
Time: 3:30 pm to 7:30 pm
Location: John Rhodes Community Centre
280 Elizabeth Street

Date: Wednesday March 19, 2003
Time: 4:30 pm to 8:30 pm
Location: Korah Collegiate Auditorium
636 Goulais Avenue

The project consultants and city staff will be available to discuss the alternatives considered and to obtain feedback from the public. The study materials will include the preferred waste diversion system, preliminary results relating to the pilot co-composting study, options for the disposal of residual waste once the existing landfill reaches capacity, the projected waste management costs and alternative methods available to recover those costs (property taxes or user fees) and the Environmental Assessment Act Terms of Reference.

Further details may be obtained by contacting the consultant's office:

TSH (Totten Sims Hubicki Associates)
523 Wellington Street East
Sault Ste. Marie ON P6A 2M4

Attention: Rick Talvitie, P.Eng.
Branch Manager

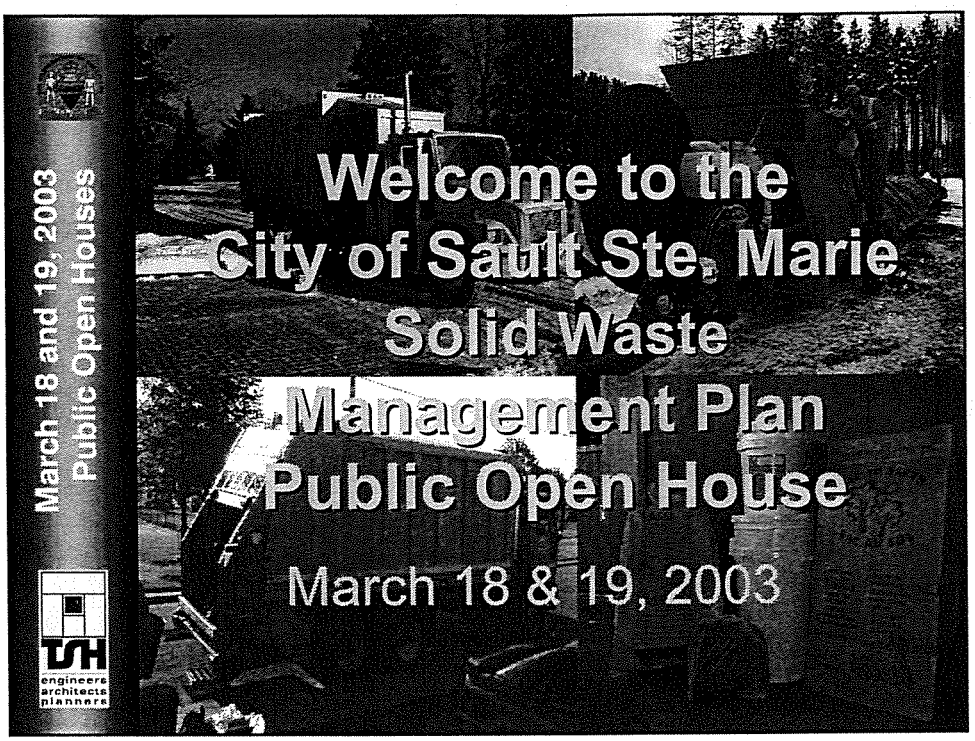
Telephone: 705-942-2612
Email: rtalvitie@tsh.ca

Following the meeting further comments are invited, for incorporation into the planning of this project, and will be received at the address noted above until April 4, 2003.

Don Elliott, P.Eng.
Environmental/Construction Engineer
City of Sault Ste. Marie

APPENDIX B

DISPLAY BOARDS



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Public Open Houses

What am I Supposed to Do ?

- Sign the Attendance Register;
- Pick up an Information Package;
- View the Displays;
- Ask Questions; and
- Complete a Questionnaire / Comment Sheet.

Representatives from the City of Sault Ste Marie and the Engineering Consultant (TSH) are present to answer your questions.

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Study Approach

1. Review Historical Waste Management Records.
2. Identify Problems / Opportunities.
3. Identify and Evaluate Alternative Diversion / Collection Systems.
4. Identify and Evaluate Alternative Waste Disposal Systems.
5. Develop a Preferred Waste Management System Including a Business and Implementation Plan.
6. Prepare the Environmental Assessment Terms of Reference.

We are Here

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Problem Definition

- Existing landfill will reach capacity in approximately 10 years time.
- Historically the diversion level in the City has been very low (ie: 7% – 8%)
- Future waste management costs will increase substantially in order to provide additional disposal capacity and to fund diversion programs
- Additional revenues are required to fund the increased costs

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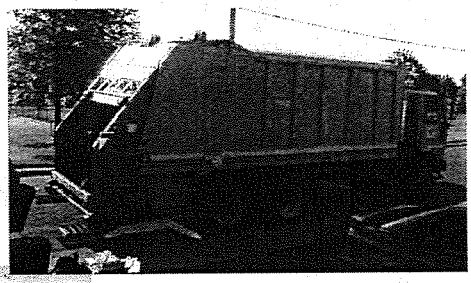
Preferred Waste Management System

Waste Collection and Disposal

Weekly collection of refuse



The refuse is trucked to the landfill on Fifth Line and disposed of.

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Preferred Waste Management System

Enhanced Public Education

- The City hired a Waste Diversion Supervisor in 2000 and Randy Roy recently assumed this role in the fall of 2002 – Randy's responsibilities include public education and working to improve waste diversion
- The recently awarded recycling contract also includes requirements for public education and promotion of diversion activities – The Recycling Contractor is working with Randy on several initiatives

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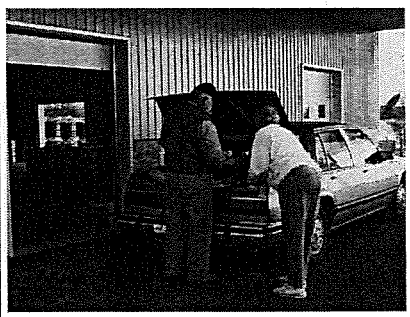
Preferred Waste Management System

Household Special Waste and Re-use Centre



The City established a HSW depot in the fall of 2001 which provides for the diversion of oils, paints, car batteries, anti-freeze, pesticides, etc.

A re-use centre allows for the exchange of items between individuals with the goal of avoiding disposal in the landfill – possible implementation in 2004.

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Preferred Waste Management System

Curb side collection of expanded recyclables and enhanced leaf and yard waste

New recycling contract (blue/yellow boxes) launched in October 2003

Projected 70% - 80% increase in tonnage in 1st year

City is considering enhancing the current leaf and yard waste program to include collection throughout the growing season (May through November)

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Preferred Waste Management System

Pilot Study in Progress - Can we Compost Effectively?

Key Issues to be addressed:

- willingness of residents to participate;
- quantities diverted from landfill;
- effectiveness of various technologies in processing materials; and
- projected costs.

Materials issued to pilot study residents in the Churchill Plaza area

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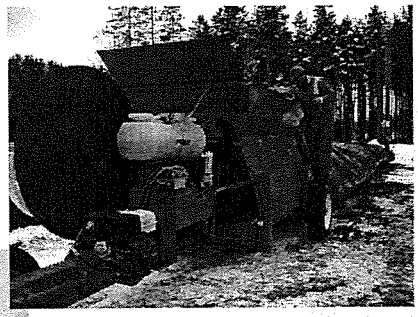
Preferred Waste Management System

Pilot Study in Progress - Can we Compost Effectively?

Aerated static pile technology



Rotating drum

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Preferred Waste Management System

Pilot Study in Progress - Can we Compost Effectively?

- 589 households asked to participate
- 460 households issued a pilot study kit
- 220 households participated on a weekly basis and 96% of these participants would support City-wide implementation
- Estimated quantity of residential organics (kitchen & leaf/yard waste) City-wide = 15,000 tonnes/year
- Pilot study in combination with blue/yellow box program resulted in a reduction in the setout rate from 2.5 bags/hh/wk to 1.15 bags/hh/wk (ie: 54% reduction)
- Quality of compost and City-wide implementation costs are presently being assessed

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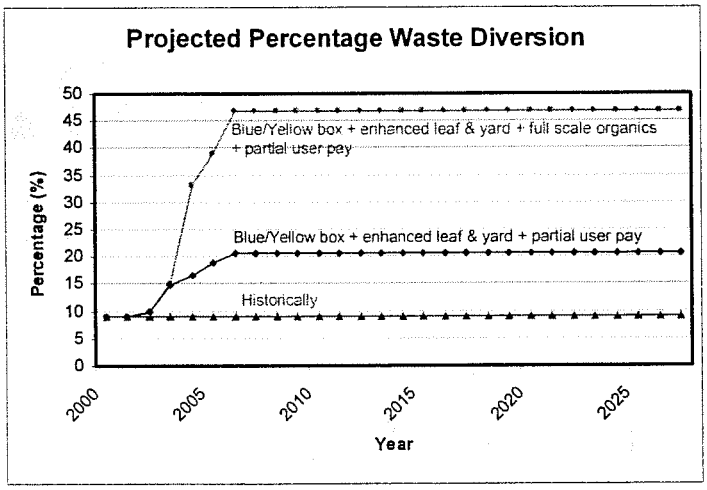
What Do We Hope to Achieve?



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Waste Disposal Options

- The following options are being considered for waste disposal once the landfill reaches capacity:
  - Incineration
  - New greenfield landfill within City limits
  - New greenfield landfill outside City limits
  - Export of waste to another site in Ontario
  - Export of waste to United States
  - Expansion of existing landfill
  - Landfill mining (reclamation of existing site)

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Evaluation of Waste Disposal Options

OVERALL RATING OF WASTE MANAGEMENT OPTIONS

Option	Natural Environment	Social/ Cultural	Technical	Financial	Overall
Incineration	○	●	○	●	●
Greenfield Site in City Limits	○	●	●	○	○
Greenfield Site Outside City Limits	○	●	●	○	○
Export in Ontario	●	○	○	○	○
Export to United States	●	○	○	○	○
Expansion of Existing Landfill	○	●	●	●	●
Landfill Mining	●	●	●	●	●

RANKINGS

● Most Favorable
○ In between
● Least Favorable

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Waste Disposal Recommendations

City submit an Environmental Assessment Terms of Reference to the Ministry of Environment recommending that landfill mining and expansion of the existing site be the alternatives assessed in detail to provide future landfill capacity for the City

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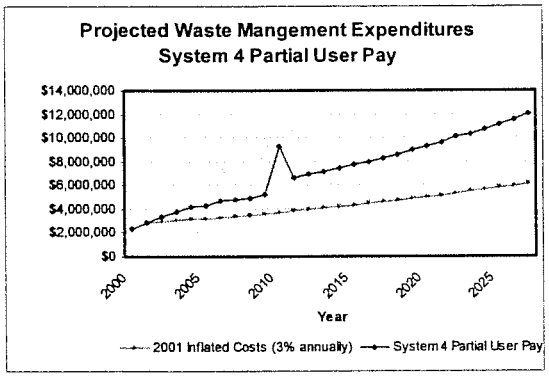
Projected Waste Management Costs



25 Year Totals

$195.9M

$110.4M

- **Future expenditures will increase substantially relative to past expenditures.**
- Increases are largely attributable to the need to establish new disposal capacity and increased diversion costs

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How do we pay for the Increased Costs

- Revenue Sources:
  - **General Tax Levy**
  - **User Fees (tipping fees, gate fees, pay-as-you-throw)**
- The existing waste management system is funded through general tax revenues ($2.0M in 2001) in combination with user fees (ie: tipping fees and gate fees = $1.1M in 2001) = partial user pay system
- How do the user fees charged in Sault Ste. Marie compare to the rest of the Province?

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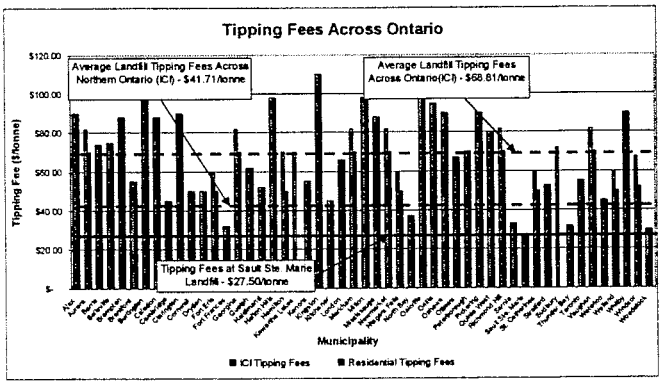
Revenues – Tipping Fees



<u>Conclusion</u>: Tipping fees should be increased to levels consistent with the true costs of disposal and the fees being charged elsewhere in the province.

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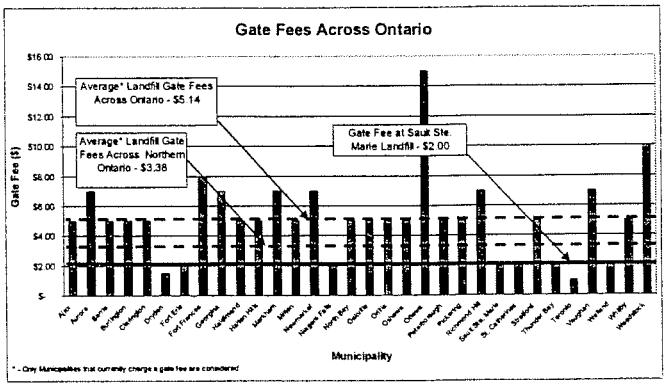
Revenues – Gate Fees



Conclusion: Gate fees should be increased to levels consistent with fees being charged elsewhere in the province and should be integrated with the proposed tipping fee increases

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Revenues – Pay-As-You-Throw (PAYT)

- **What is a PAYT program?** - Each bag of waste setout curbside in excess of the designated bag limit must be paid for in advance (ie: purchase a bag tag and place it on the bag)
- Structured to encourage residents to divert and reduce waste – residents inclined to minimize bag fees through waste reduction & participation in diversion programs
- Natural gas, electricity, municipal water and sewage are all paid for using a similar approach

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SAMPLE PAYT PROGRAMS IN ONTARIO			
Municipality	Bag Limit	Tag Cost	Notes
Barrie	2	$1.00	Charge for extra bags in excess of limit.
Belleville	0	$1.00	Every item requires a bag tag. Pay for each tag.
Brampton	3	$1.00	Charge for extra bags in excess of limit.
Caledon	3	$1.00	Charge for extra bags in excess of limit.
Clarington	3	$1.00	Tag system being implemented next year.
Dryden	0	$1.50	Pay for each tag.
Fort Erie	3	$1.00	Charge for extra bags in excess of limit.
Georgina	0	$1.00	Pay for each tag.
Kawartha Lakes	2	$2.00	Charge for extra bags in excess of limit.
Kenora	0	$2.00	Pay for each tag.
Kingston	3	$2.00	Charge for extra bags in excess of limit.
Markham	3	-	Pick up more tags for no charge – 12 at a time.
Mississauga	3	$1.00	Charge for extra bags in excess of limit.
Niagara Falls	3	$1.00	Charge for extra bags in excess of limit.
Orillia	0.75	$1.50	40 free tags issued to each residence free of charge. Charge for extra tags.
Oshawa	4	$1.00	Charge for extra bags in excess of limit.
Quinte West	0	$2.00	Pay for each tag.
St. Catherines	3	$1.00	Charge for extra bags in excess of limit.
St. Thomas	2	$1.50	Privately run by Green Lane Environmental.
Stratford	0	$1.20	Various rate tag system – depends on size of item.
Welland	3	$1.00	Charge for extra bags in excess of limit.

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Proposed Revenue Structure

- Maintain property tax contribution to waste management near present levels (ie: approx. $2M annually)
- Reduce bag limits from 6 to 2 bags/hh/week
- Implement a bag fee of $2/bag for each bag setout in excess of the 2 bag limit
- Increase tipping fees to $65/tonne by 2006
- Increase the gate fee to $4/visit

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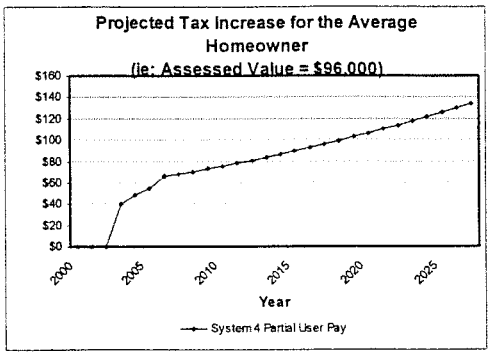
Alternative Revenue Structure Tax Increases



- In lieu of enhancing user fees property taxes would have to increase.
- Initial increase is estimated to be in the range of $40-$50 for the average homeowner
- Over the 25 year planning period the initial increase may triple.

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How do you want to pay for the Increased Costs?

- Please let us know your thoughts on the alternative cost recovery schemes by filling in a questionnaire
- Remember the COSTS will INCREASE and we have to pay for them through ENHANCED USER FEES or INCREASED TAXES.
- DOING NOTHING is NOT an OPTION!

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Next Steps

April 2003
- Assess and summarize public input
- Provide final recommendations to Council together with a summary of the public input

Spring 2003
- Finalize Co-compost Feasibility study

Summer/Fall 2003
- Obtain Ministry of Environment Approval of the Terms of Reference to evaluate disposal alternatives
- Proceed with Environmental Assessment Work
- Implement enhanced user fees or increased taxes subject to Council approval

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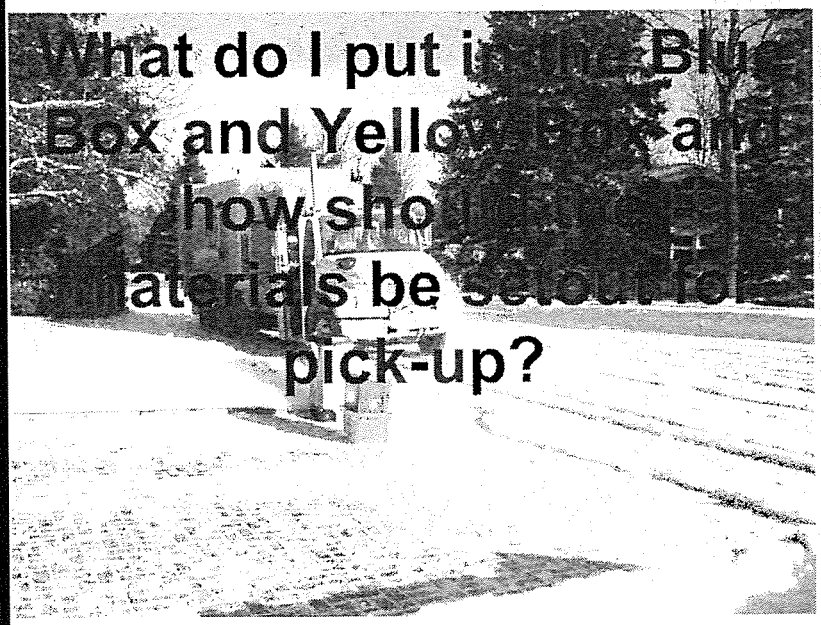

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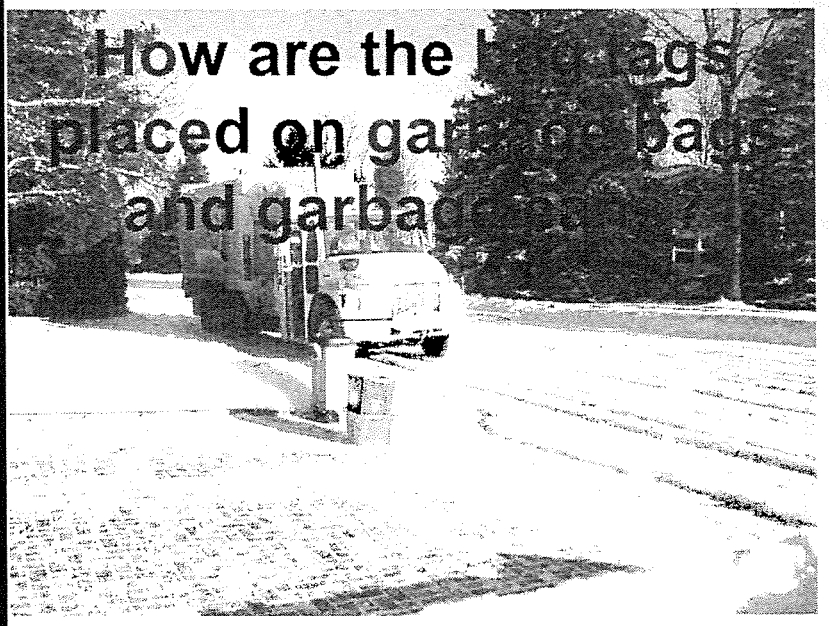
How are the [illegible] placed on garbage bags and garbage [illegible]



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Sample Composting Pilot Study Kit issued to residents that participated

APPENDIX C

QUESTIONNAIRE

Questionnaire Results		
SURVEY QUESTIONS	TOTAL RESPONSES	% OF TOTAL RESPONSES
1. Do you think that waste management is an important issue facing the City of Sault Ste. Marie?		
Yes	29	100
No	0	0
Don't Know	0	0
2. How many people live in your household and how many bags of waste do you typically set out each week?		
Number of people in your household:		
1 person	4	14
2 people	8	28
3 people	7	24
4 people	9	31
5 people	1	3
How many bags set out each week:		
Less than 1 bag	6	21
1 bag	5	17
2 bags	14	48
3 bags	4	14
4 bags	0	0
5 bags	0	0
6 bags	0	0
? Bags	0	0
3. Do you currently use your blue and yellow boxes on a regular basis?		
Yes	29	100
No	0	0

Questionnaire Results		
SURVEY QUESTIONS	TOTAL RESPONSES	% OF TOTAL RESPONSES
4. In your estimation, how many large bags of garbage have been reduced through your participation in the blue and yellow box program per week?		
½ bag	3	10
1 bag	21	72
2 bags	4	14
3 bags	1	3
5. The City is considering building a composting facility to convert organic waste into compost. If you could have organic waste (food scraps, yard waste) collected from your curbside each week, would you separate this material into a special container or bag?		
Yes	19	66
No	5	17
Don't Know	5	17
6. Would your answer to 5 change if the bag limit were reduced from 6 to 2 bags and bag fees were implemented?		
Yes	4	15
No	23	85
7. How would you prefer to manage your organic waste (food scraps, yard waste)?		
Ranked 1st		
Option A: Backyard composter at my home	8	29
Option B: Take it to a composting site in the City	0	0
Option C: Put it in a special container to be picked up at curbside each week	16	57
Option D: Put in with regular garbage to be landfilled	4	14
Ranked 2nd		
Option A: Backyard composter at my home	9	35
Option B: Take it to a composting site in the City	6	23
Option C: Put it in a special container to be picked up at curbside each week	8	31

Questionnaire Results

SURVEY QUESTIONS	TOTAL RESPONSES	% OF TOTAL RESPONSES
Option D: Put in with regular garbage to be landfilled	3	12
Ranked 3rd		
Option A: Backyard composter at my home	3	12
Option B: Take it to a composting site in the City	16	62
Option C: Put it in a special container to be picked up at curbside each week	3	12
Option D: Put in with regular garbage to be landfilled	4	15
Ranked 4th		
Option A: Backyard composter at my home	8	31
Option B: Take it to a composting site in the City	3	12
Option C: Put it in a special container to be picked up at curbside each week	0	0
Option D: Put in with regular garbage to be landfilled	15	58
8. The City landfill is expected to reach capacity in 10 years. How do you think the City should manage its garbage once the existing site is full?		
Ranked 1st		
Option A: Incineration (burning)	6	23
Option B: New landfill in City Limits	1	4
Option C: New landfill outside city limits	2	8
Option D: Export of waste elsewhere in Ontario	0	0
Option E: Export of waste to United States	1	4
Option F: Expansion of existing landfill	6	23
Option G: Landfill mining (rework existing landfill site)	10	38
Ranked 2nd		
Option A: Incineration (burning)	1	4
Option B: New landfill in City Limits	3	11
Option C: New landfill outside city limits	3	11
Option D: Export of waste elsewhere in Ontario	0	0
Option E: Export of waste to United States	0	0
Option F: Expansion of existing landfill	13	46
Option G: Landfill mining (rework existing landfill site)	8	29

Questionnaire Results		
SURVEY QUESTIONS	TOTAL RESPONSES	% OF TOTAL RESPONSES
Ranked 3rd		
Option A: Incineration (burning)	4	15
Option B: New landfill in City Limits	4	15
Option C: New landfill outside city limits	8	30
Option D: Export of waste elsewhere in Ontario	0	0
Option E: Export of waste to United States	2	7
Option F: Expansion of existing landfill	3	11
Option G: Landfill mining (rework existing landfill site)	6	22
Ranked 4th		
Option A: Incineration (burning)	2	8
Option B: New landfill in City Limits	10	38
Option C: New landfill outside city limits	9	35
Option D: Export of waste elsewhere in Ontario	1	4
Option E: Export of waste to United States	0	0
Option F: Expansion of existing landfill	3	12
Option G: Landfill mining (rework existing landfill site)	1	4
Ranked 5th		
Option A: Incineration (burning)	6	25
Option B: New landfill in City Limits	3	13
Option C: New landfill outside city limits	3	13
Option D: Export of waste elsewhere in Ontario	8	33
Option E: Export of waste to United States	1	4
Option F: Expansion of existing landfill	1	4
Option G: Landfill mining (rework existing landfill site)	2	8
Ranked 6th		
Option A: Incineration (burning)	1	4
Option B: New landfill in City Limits	1	4
Option C: New landfill outside city limits	1	4
Option D: Export of waste elsewhere in Ontario	13	54
Option E: Export of waste to United States	8	33

Questionnaire Results		
SURVEY QUESTIONS	TOTAL RESPONSES	% OF TOTAL RESPONSES
Option F: Expansion of existing landfill	0	0
Option G: Landfill mining (rework existing landfill site)	0	0
Ranked 7th		
Option A: Incineration (burning)	7	29
Option B: New landfill in City Limits	2	8
Option C: New landfill outside city limits	0	0
Option D: Export of waste elsewhere in Ontario	2	8
Option E: Export of waste to United States	13	54
Option F: Expansion of existing landfill	0	0
Option G: Landfill mining (rework existing landfill site)	0	0
9. The City has initiated an Environmental Assessment Study which is considering expansion of the existing landfill and landfill mining as the alternative methods to provide long-term disposal capacity for the City. In order to evaluate the options, a number of environmental criteria have been developed.		
Ranked 1st		
Archaeology	0	0
Biology/Forestry	0	0
Design and Operations	0	0
Economics	3	12
Geology/Hydrogeology (groundwater)	14	56
Heritage	0	0
Mining	1	4
Planned Land Use	1	4
Social	0	0
Surface Water	6	24
Transportation	0	0
Ranked 2nd		
Archaeology	0	0
Biology/Forestry	2	8
Design and Operations	0	0

Questionnaire Results		
SURVEY QUESTIONS	TOTAL RESPONSES	% OF TOTAL RESPONSES
Economics	0	0
Geology/Hydrogeology (groundwater)	4	17
Heritage	0	0
Mining	1	4
Planned Land Use	3	13
Social	2	8
Surface Water	10	42
Transportation	2	8
Ranked 3rd		
Archaeology	0	0
Biology/Forestry	7	29
Design and Operations	2	8
Economics	2	8
Geology/Hydrogeology (groundwater)	0	0
Heritage	0	0
Mining	1	4
Planned Land Use	4	17
Social	1	4
Surface Water	4	17
Transportation	3	13
Ranked 4th		
Archaeology	2	9
Biology/Forestry	1	4
Design and Operations	3	13
Economics	5	22
Geology/Hydrogeology (groundwater)	5	22
Heritage	1	4
Mining	0	0
Planned Land Use	1	4
Social	2	9

Questionnaire Results		
SURVEY QUESTIONS	TOTAL RESPONSES	% OF TOTAL RESPONSES
Surface Water	2	9
Transportation	1	4
Ranked 5th		
Archaeology	1	5
Biology/Forestry	3	14
Design and Operations	2	9
Economics	6	27
Geology/Hydrogeology (groundwater)	0	0
Heritage	4	18
Mining	1	5
Planned Land Use	1	5
Social	1	5
Surface Water	2	9
Transportation	1	5
Ranked 6th		
Archaeology	2	9
Biology/Forestry	1	5
Design and Operations	6	27
Economics	2	9
Geology/Hydrogeology (groundwater)	0	0
Heritage	3	14
Mining	1	5
Planned Land Use	1	5
Social	1	5
Surface Water	0	0
Transportation	5	23
Ranked 7th		
Archaeology	2	9
Biology/Forestry	4	17
Design and Operations	1	4

Questionnaire Results		
SURVEY QUESTIONS	TOTAL RESPONSES	% OF TOTAL RESPONSES
Economics	1	4
Geology/Hydrogeology (groundwater)	0	0
Heritage	2	9
Mining	2	9
Planned Land Use	5	22
Social	5	22
Surface Water	0	0
Transportation	1	4
Ranked 8th		
Archaeology	2	9
Biology/Forestry	0	0
Design and Operations	2	9
Economics	1	5
Geology/Hydrogeology (groundwater)	1	5
Heritage	2	9
Mining	3	14
Planned Land Use	7	32
Social	2	9
Surface Water	0	0
Transportation	2	9
Ranked 9th		
Archaeology	1	5
Biology/Forestry	3	14
Design and Operations	0	0
Economics	1	5
Geology/Hydrogeology (groundwater)	0	0
Heritage	2	9
Mining	6	27
Planned Land Use	1	5
Social	5	23

Questionnaire Results		
SURVEY QUESTIONS	TOTAL RESPONSES	% OF TOTAL RESPONSES
Surface Water	0	0
Transportation	3	14
Ranked 10th		
Archaeology	3	13
Biology/Forestry	1	4
Design and Operations	5	22
Economics	0	0
Geology/Hydrogeology (groundwater)	0	0
Heritage	7	30
Mining	2	9
Planned Land Use	0	0
Social	1	4
Surface Water	0	0
Transportation	4	17
Ranked 11th		
Archaeology	9	41
Biology/Forestry	0	0
Design and Operations	1	5
Economics	1	5
Geology/Hydrogeology (groundwater)	0	0
Heritage	2	9
Mining	4	18
Planned Land Use	1	5
Social	3	14
Surface Water	0	0
Transportation	1	5
10. Would you prefer to pay for waste management services through property taxes or through a fee based on the amount of garbage you generate (ie user fee) or a combination of the two (partial user fee?).		
Property Tax	0	0
User Fee	17	57

Questionnaire Results		
SURVEY QUESTIONS	TOTAL RESPONSES	% OF TOTAL RESPONSES
Partial User Fee	9	30
Don't Know	2	7
Other:	2	7
None of the above - our current city taxes are high enough to cover waste management! This is a cash grab.		
None of the above.		
11. The following residential user fees have been discussed. Please rank the three options from 1 to 3 with 1 being the most preferred and 3 being the least preferred.		
Ranked 1st		
A. 2 bag limit with a fee of $2.00/bag for every bag above the limit in 2003 and an increase in landfill gate fee to $4.00/visit in 2003 and an increase in landfill tipping fees to $65/tonne by 2006	15	54
B. 4 bag limit in 2003, 3 bag limit in 2004 and 2 bag limit in 2005, with a fee of $2.00/bag for every bag above the limit and an increase in landfill gate fee to $4.00/visit in 2003 and an increase in landfill tipping fees to $65/tonne by 2006	8	29
C. Leave the gate fee at $2.00/visit and the tipping fee at $27.50/tonne and increase Property Taxes by some $40-$50 for the average household (ie: assessed value of $96,000) in 2003	1	4
D. Other:	4	14
Reduce bags/household to 4 a week. No extra taxes or costs!		
There is no relationship in revenue between A & C. A is just a tax grab.		
2 bag limit $1.00/bag gate fee of $4.00, tipping fees $65.00 or use "A" with extra bags at Christmas and one other time, spring or early summer. Prefer 3 bag limit.		
4 bag limit in 2003, 3 bag limit in 2004 and 2 bag limit in 2005, with a fee of $1.00 for every bag above the limit and an increase in landfill gate fee to $3.00 in 2003 and an increase in landfill tipping feee to $48-$50/tonne by 2006.		
Ranked 2nd		
A. 2 bag limit with a fee of $2.00/bag for every bag above the limit in 2003 and an increase in landfill gate fee to $4.00/visit in 2003 and an increase in landfill tipping fees to $65/tonne by 2006	8	32
B. 4 bag limit in 2003, 3 bag limit in 2004 and 2 bag limit in 2005, with a fee of $2.00/bag for every bag above the limit and an increase in landfill gate fee to $4.00/visit in 2003 and an increase in landfill tipping fees to $65/tonne by 2006	17	68
C. Leave the gate fee at $2.00/visit and the tipping fee at $27.50/tonne and increase Property Taxes by some $40-$50 for the average household (ie: assessed value of $96,000) in 2003	0	0

Questionnaire Results		
SURVEY QUESTIONS	TOTAL RESPONSES	% OF TOTAL RESPONSES
D. Other:	0	0
Ranked 3rd		
A. 2 bag limit with a fee of $2.00/bag for every bag above the limit in 2003 and an increase in landfill gate fee to $4.00/visit in 2003 and an increase in landfill tipping fees to $65/tonne by 2006	2	8
B. 4 bag limit in 2003, 3 bag limit in 2004 and 2 bag limit in 2005, with a fee of $2.00/bag for every bag above the limit and an increase in landfill gate fee to $4.00/visit in 2003 and an increase in landfill tipping fees to $65/tonne by 2006	0	0
C. Leave the gate fee at $2.00/visit and the tipping fee at $27.50/tonne and increase Property Taxes by some $40-$50 for the average household (ie: assessed value of $96,000) in 2003	23	92
D. Other:	0	0
12. Do you think that businesses should pay the full cost of disposing their garbage?		
Yes	22	76
No	6	21
Don't Know	1	3

APPENDIX D

ADDITIONAL INPUT

File 60219
Public Input

April 2, 2003

Dear Consultants

Mr. Michael Cant and Mr. Rick Talvitie
of the engineering and planning firm
Totten Sims Hubicki Associates

RECEIVED
APR 07 2003
TOTTEN SIMS HUBICKI ASSOCIATES
Sault Ste. Marie, Ontario

Re: Council recommends two-bag limit on trash

I first of all would like to commend both of you on your report done on waste management, I was unfortunately not able to attend City Council meeting or either of your two scheduled meetings as I work a 3 – 11 shift, but must thank your staff and you for giving me a copy of the report and the questionnaire survey. I have done your questionnaire, but I would like to address my opinions and concerns in this separate letter.

I am much opposed to the two-bag limit on trash, especially going from a six-bag limit to a two-bag limit all in one year's time. I would like to see the bag limit phased in over three years, with four bags allowed in 2003, three bags in 2004 and two bags in 2005 as was suggested by Ward 1 Councillor Mr. David Orazietti and Ward 2 Councillor Mr. Brady Irwin. Although the two-bag limit doesn't affect me personally since I am a single householder I can manage to live with the two-bag limit. But I wish to express many peoples concerns and hardships that they will be facing going from a six-bag limit to a two-bag limit all in one shot. I don't think this is fair to the public, it's like anything you do or learn whether lifting weights in a gym or running on a track, you can't achieve your goal all in one shot and this is what you are proposing to do in the garbage bag limit going from a six-bag limit to a two-bag limit all in one shot in one year to achieve your goal. You must be patient and give the people time to adjust to the system slowly and give them a chance to make the change over. I know and do realize and agree with you that many of the people are not using their blue box and yellow box and that would certainly cut down on the number of garbage bags used, but by the same token many people are using their blue box and yellow box and still have four bags of garbage at the curb each week. Phasing in the garbage bag limit may also help to alleviate some of the illegal dumping in the city and also the use of backyard garbage burning, to using one of the retailers red bins or their garbage compacters at night time and through the early morning hours.

You are also proposing any more than a two-bag limit will cost you $2 for a bag tag, why not $1, where many of these same people are just getting by each week especially large families and seniors, now an additional $2 bag tag or more depending on the number of bags you need each week. I now I have heard many people say, that's not much to spend, but it adds up when you look at it for a whole year. You have said that the average garbage bag per household is 2.67 bags, which should be rounded off to 3 bags per household, but it's first time in history, I can remember we went down the way to a two-bag limit. Why?

Enclosed with this letter, you will find a petition which I have being doing over the past three weeks from residents or householders, opposed going from a six-bag limit to a two-bag limit in one year, but willing to see the garbage bag limit phased in over 3 years.

I know and realize your concerns that the reduced bag limit is part of a comprehensive plan aimed at squeezing more years of additional life out of the City's landfill but also on the other hand take in consideration and concerns of the residents of the deep cut from a six-bag limit to a two-bag limit all in one year.

Another of my concerns is increasing the landfill gate fee to $4 this year (double the current $2) and to $6 in 2006. I believe you are not only trying to extend the life of the landfill but at the same time trying to raise revenue but why double from $2 to $4 this year where most Northern Ontario cities are charging $3, but you are comparing Sault Ste. Marie to other Cities in the Province and not Northern Ontario Cities in our vicinity. I have heard a rumor, that it was doubled because the machine doesn't take loonies but only takes toonies, how can that be, because loonies came out before toonies and other vending machines like the newspaper can make the adjustment in the machines with different prices from week days to week-end, why can't we do that at the landfill site.

We are going from being the lowest tipping fee of $27.50 in the province to being eighth or ninth highest tipping fee of $65 in the province, and once again you are comparing Sault Ste. Marie to other Cities in the Province rather than comparing Sault Ste. Marie to other Northern Ontario Cities where the tipping fees are $45.

Rick, I did a survey on Monday March 24th at midnight on Wellington St. East from East Street to Gore Street, from residents or householders who had their garbage bags out overnight. Here are the results.

1 Bag of Garbage - 15 Residents
1 Bag of Garbage + Blue Box - 0 Residents
1 Bag of Garbage + Yellow Box - 2 Residents
1 Bag of Garbage + Blue Box + Yellow Box - 0 Residents

2 Bags of Garbage - 9 Residents
2 Bags of Garbage + Blue Box - 1 Resident
2 Bags of Garbage + Yellow Box - 3 Residents
2 Bags of Garbage + Blue Box + Yellow Box - 9 Residents

3 Bags of Garbage - 6 Residents
3 Bags of Garbage + Blue Box - 0 Residents
3 Bags of Garbage + Yellow Box - 6 Residents
3 Bags of Garbage + Blue Box + Yellow Box - 0 Residents

4 Bags of Garbage - 1 Resident
4 Bags of Garbage + Blue Box - 0 Residents
4 Bags of Garbage + Yellow Box - 4 Residents
4 Bags of Garbage + Blue Box + Yellow Box - 6 Residents

5 Bags of Garbage - 1 Resident
5 Bags of Garbage + Blue Box - 0 Residents
5 Bags of Garbage + Yellow Box - 0 Residents
5 Bags of Garbage+ Blue Box + Yellow Box - 0 Residents

6 Bags of Garbage - 6 Residents
6 Bags of Garbage + Blue Box - 0 Residents
6 Bags of Garbage + Yellow Box - 0 Residents
6 Bags of Garbage + Blue Box + Yellow Box - 0 Residents

7 Bags of Garbage - 1 Resident
7 Bags of Garbage + Blue Box - 0 Residents
7 Bags of Garbage + Yellow Box - 0 Residents
7 Bags of Garbage + Blue Box + Yellow Box - 3 Residents

Bags of Garbage + Blue Box + 2 Yellow Boxes - 1 Resident

Bags of Garbage - 2 Residents
Bags of Garbage + Blue Box - 0 Residents
Bags of Garbage + Yellow Box - 0 Residents
Bags of Garbage + Blue Box + Yellow Box - 1 Resident

Bags of Garbage - 1 Resident
Bags of Garbage + Blue Box - 0 Residents
Bags of Garbage + Yellow Box - 0 Residents
Bags of Garbage + Blue Box + Yellow Box - 0 Residents

I and some individuals have various questions, we would like to ask.

1. What happens when you have more than two bags of garbage in a large green container, does it go by bags or containers?
2. What happens to apartment buildings where they have the large green containers and how is the garbage bags justified in the apartment buildings?
3. Is the City going to supply the garbage tags free for the first year and when you purchase the $2 tag are they to be sold separately, in a lot of 10 or as I have heard for one year (put out $208 in one shot, I don't think so? Are the garbage tags going to be sold only at City Hall or also at convenience stores? It may be a hardship for some people who are working Monday to Friday, to get to City Hall or others at night where they realize they need a tag and can't purchase one.
4. What happens to householders right now, who do not have a blue box or yellow box? This has been brought to my attention where people have moved. The people moving out left their boxes behind at the house, but when these same people moved into their new house, they found that the original owners took their boxes with them. Will we be able to get extra blue boxes and yellow boxes, if needed and will there also be a charge for these extra boxes. Can we put out more than one blue or yellow box each week?
5. Is an allowance going to be made during fall, when we have bags of leaves in galore and during Christmas time, is there going to be a limit on the number of garbage bags allowed?

Here is what I believe.

I believe that people will understand the need to significantly reduce, and will embrace the idea, but will need time to get used to it and implement it fully in their daily routine. Any plan must be phased in over a fairly long period of time. The argument is not with the goal but rather the plan to reach the goal. I have also enclosed web pages from Pinellas County Department of Solid Waste Operations that you might like to look at.

Just for the record, the first two bags are NOT free. We already pay for it in our taxes. I wonder what the cost per bag is right now.

I strongly believe that a better job must be done to inform the public what is going on and what it is we are trying to achieve and there is many questions to be answered or unknown what the procedures are, example, can more than one or two yellow boxes be used, how will the tags be sold or given for a one-time basis. Very sad to see that this information was not on a web page under City Hall or City Council giving details to people who may wish information on this subject or to people unable to get out.

But I wish to thank you both once again for a fine presentation on waste management and thank you in advance for your time and consideration in these concerns. I felt it was more appropriate to put it in writing as well as filling out the questionnaire.

Yours sincerely

John Burns

John Burns
[redacted]

March 24, 2003

NOTICE OF PETITION

On Monday February 10, 2003, City Council endorsed a recommendation in favour of the resolution presented and repared by consultant Rick Talvitie of the engineering and planning from Totten Sims Hubicki Associates for a two-bag eekly limit per household starting this year from the six-bag weekly limit now allowed.

Also at that Monday night City Council Meeting a motion from Ward 1 Councillor David Orazietti and Ward 2 Councillor Brady Irwin that would have phased in the bag imits, with four bags allowed in 2003, three bags in 2004 and two bags in 2005. The Orazietti/Irwin phase-in motion lost by 7-6 vote and I feel very strongly that this motion should also of been tabled along with the six bags to two bags.

I the undersigned person on the next page believe it will take some time to get use to and is asking a lot from the residents of Sault Ste. Marie to go from six bags per week to wo bags and I am asking and in favour for the resolution from David Orazietti and Brady Irwin to be once again presented to the consultants and City Council of a phased-in approach in bag limits, with four bags allowed in 2003, three bags in 2004 and two bags in 2005.

When this vote comes to City Council I ask it be a recorded Vote by City Council.

131 Signatures

Individual Garbage Taxation Based on Accurate Information

The Plan

- Establish a number of free bags of garbage per year per person (based on desired landfill utilization)
- Determine the number of people that reside at each municipal address
- Calculate the number of free bags of garbage per year per municipal address (MA). (for each address in the city)

- Have garbage people record, electronically, the number of bags of garbage each MA puts on roadside.
- Give MA owners an official garbage bag "recording sheet" so that they can mark down the number of bags they put at the curbside each week (to confirm discrepancies with the garbage person's record)

- Report to MA owner their projected garbage bag usage and likely additional tax increase OR REDUCTION on an initially frequent and eventual periodic basis.

Disincentives to Cheat

Establish and enforce large fines ($5,000) for:

- putting your garbage at a neighbours curbside without their consent,
- putting trash in any unauthorized area,
- submitting a falsified "recording sheet" for the purposes of reducing your garbage tax/incentive

Behaviour Modification

- Provides financial incentives to reduce waste at the curbside
- Provides financial disincentives to overuse landfill
- Provides financial disincentives to Cheat as outlined above

Costs

- Implementation of electronic recording devices on garbage trucks (mainly a one time capital cost)
- Administration of garbage information:
  - collection of information from garbage trucks
  - distribution of garbage usage reports to MA owners
  - updating of # of MA residents on a continuous basis

Benefits

- Annual garbage limits rather than weekly limits
- Limits based on number of people residing at a MA rather than an arbitrary MA limit
- Financial incentives to reduce landfill usage
- Ease of enforcement because of easy identification of likely cheaters
- No artificial tags, bags, etc... have to be provided by city hall
- MA owner can miss a week of garbage collection and not have to pay financially for it (annual limit)
- MA owner can go way over weekly limit on a particular week as long as they keep the annual limit in mind
- Can use existing MA data to establish number of people at each MA.

[redacted]

engineers
architects
planners
40 Years

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May 16, 2003

Mr. John Burns
[redacted]

Dear Mr. Burns:

Re: City of Sault Ste. Marie
Solid Waste Management Plan
Proposed Pay-As-You-Throw Program
TSH Project No. 60219

We would like to thank you for the time and considerable thought given to the proposed pay-as-you-throw ("PAYT") program that the Waste Management Steering Committee presented to Council in February, 2003. The purpose of this letter is to make some observations regarding your submission and hopefully address the questions that you raised.

Phased-in Approach

It is our understanding that you support the implementation of a PAYT program and a two bag limit but you favour a gradual implementation over a period of three years together with a bag fee of $1 rather than $2. In general we do not have any significant concerns with your proposal as it was something that was contemplated by the Waste Management Steering Committee. The Committee did however conclude that based on the relatively small percentage of homes setting out three or more bags/containers of waste each week there would be a very limited positive impact on the life of the landfill site if a phased-in approach was implemented (refer to the section below entitled "Waste Setout Rates"). It has also been identified in studies completed in other municipalities that have ongoing pay-as-you-throw programs that a $2 bag fee is more successful in encouraging participation in the diversion programs over the longer term.

Based on the Residential Waste Composition Study conducted in 2000 only 13 % of households setout more than four bags and based on the recent City survey this number has been reduced significantly as a result of the recent introduction of the yellow box (ie: 7% in April, 2003). Further information on the impact of a two bag limit is presented in the section below.

Waste Setout Rates

As you indicated, we reported that the average number of bags that were setout curbside in 2000 when we completed a residential waste composition study was 2.67 bags per household per week. We also noted in our presentation to Council that this survey was completed before the introduction of the yellow box and without a pay-as-you-throw program. We anticipate that the recent implementation of

the yellow box program combined with the proposed pay-as-you-throw program will likely result in a reduction of the average setout rate from 2.67 bags per household per week to 2±. The anticipated reduction is attributable to the increased opportunity for diversion (ie: yellow box) and the more efficient disposal/compaction of waste that is common when a pay-as-you-throw program is initiated.

We would like to commend you on the survey of waste and blue/yellow box setout rates that you completed along Wellington Street. We believe that the information collected is important but felt that it would be even more meaningful on a larger scale and with a broader distribution of homes. Therefore the City's Public Works crews completed a similar survey of 4547 homes along various collection routes throughout the City in April 2003. Based on their survey, 2/3 of all homes setout 2 or fewer bags/containers of waste and the remaining 1/3 setout 3 or more. The survey also identified that 56% of homeowners participated in the blue/yellow box program. The Waste Management Steering Committee felt that the level of participation in the blue/yellow box program will likely increase significantly once a PAYT program is implemented. This could mean that the proportion of homeowners that would be impacted by a 2 bag limit will likely be substantially less than 1/3.

Gate Fee

Generally the average resident does not make a significant number of trips to the landfill site each year and we do not anticipate that the proposed gate fee increase to $4 is overly onerous. More importantly however the gate fee must be integrated with the overall waste management revenue structure. The $4 gate fee (which presently applies to the residential sector for loads under 500 kg) will still be well below the actual tipping fee. By 2006 when the gate fee increases to $6 and the weight limit is reduced to 100 kg the gate fee and tipping fee will virtually be fully integrated. It is also important to note that if the gate fee is too low there may be a significant increase in the level of traffic at the landfill site once the pay-as-you-throw program is implemented (ie: individuals will haul waste to the landfill rather than setting it out curbside).

Another important consideration is that the fee charged at many other landfill sites in the outlying areas surrounding Sault Ste. Marie is much higher in many cases relative to the fee charged at our landfill. This results in waste generated in the outlying areas being disposed of in the City landfill because of the low fee. The higher gate fee will help to reduce the level of waste hauled to the City's landfill from residents in the outlying areas.

Comparison of Fees with Other Municipalities

When comparing the fees proposed for Sault Ste. Marie you must keep in mind that you are comparing 2002 tipping fees and gate fees in other municipalities to future fees (ie: 2006) in Sault Ste. Marie. In all likelihood the user fees in other communities will be increasing over the period from 2002 to 2006. We anticipate that the proposed fee structure for Sault Ste. Marie will be very reasonable in comparison to many other municipalities in 2006. You must also keep in mind that we have to generate adequate revenues to pay for the waste management costs that will be incurred in the future. Some of the comparison communities may have significant reserve disposal capacity and/or the costs to operate their diversion programs may be lower. The proposed partial user pay system was developed to be fiscally responsible.

Questions

We would like to address each of the questions raised in your submission. We have used the same numbering system that was used in you correspondence.

Q1. What happens when you have more than two bags of garbage in a large green container, does it go by bags or containers?

A1. The specific implementation approach is currently being discussed with City staff. There will be a restriction on the allowable size of containers. For example you may be allowed to setout two 120 L waste containers but if you have a larger container it will be considered a storage unit and each bag within it will be counted.

Q2. What happens to apartment buildings where they have the large green containers and how is the garbage bags justified in the apartment building?

A2. The implementation strategy for apartment buildings is also being considered. For the smaller apartment buildings where waste is setout curb side, each unit will be allowed to setout two bags/containers. In the larger apartments that use waste hoppers there may be some reductions in the allowable waste limits to ensure equity with the proposed two bag limit for single family residences.

Q3. Is the City going to supply the garbage tags free for the first year and when you purchase the $2 tag are they to be sold separately, in a lot of 10 or as I have heard for one year (put out $208 in one shot, I don't think so?) Are the garbage tags going to be sold only at City Hall or also at convenience stores? It may be a hardship for some people who are working Monday to Friday, to get to City Hall or others at night where they realize they need a tag and can't purchase one.

A3. The Waste Management Steering Committee is recommending that tags will only be required for each bag/container setout in excess of the designated bag limit. Therefore there will be no requirement for any tags on the first two bags/containers that are setout curb side. The tags will likely be sold in lots of 5 or less and will be available at a number of convenient locations which will likely include retailers.

Q4. What happens to householders right now, who do not have a blue box or yellow box? This has been brought to my attention where people have moved. The people moving out left their boxes behind at the house, but when these same people moved into their new house, they found that the original owners took their boxes with them. Will we be able to get extra blue boxes and yellow boxes, if needed and will there also be a charge for these extra boxes. Can we put out more than one blue or yellow box each week?

A4. As you know the City has distributed recycling boxes to each home free of charge. Residents are responsible for their own boxes and they should take them with them when they move. The City is contemplating charging a fee for new boxes in the future in order to avoid misuse of the boxes. Residents are permitted to put out more than one box each week.

Q5. Is an allowance going to be made during fall, when we have bags of leaves in galore and during Christmas time, is there going to be a limit on the number of garbage bags allows?

A5. The City presently has a leaf and yard waste collection program in the fall. The bags setout for the leaf and yard waste program will be collected free of charge (ie: they do not count towards the two bag limit and they will not require tags). Residents can also haul and dispose of their leaf and yard waste at a local composting facility. This service is presently being offered free of charge. The Waste Management Steering Committee is recommending that no changes be made to the bag limits during the Christmas season. Most of the additional waste that is generated during the Christmas season is recyclable (ie: paper, boxboard and cardboard).

Other Comments

You are correct that the first two bags are paid for though our municipal taxes. The question is should those individuals that are setting out two or fewer bags per week be saddled with an increased tax bill to pay for the waste being generated by others? We feel that the system proposed results in a more equitable approach to recovering the costs incurred in developing and operating the waste management system. We also concur with you that if a pay-as-you-throw program is to be successful, public education will be critical. Once a plan has been endorsed by Council a public education plan will have to be implemented and we can assure you that postings will be included on the City's website.

We hope that the information furnished herein has addressed your questions and concerns. The most important thing is that a pay-as-you-throw program is implemented and although we would prefer to see a two bag limit implemented in 2003, we would also be supportive of a phased-in approach.

Yours very truly,

R. Talvitie, P. Eng.
Project Manager

p.c. Mr. D. Elliott, City Engineering
Mr. M. Cant, TSH Whitby

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APPENDIX C

OPEN HOUSE MATERIAL
JULY 3, 2003

RECEIVED
JUL 11 2003
TOTTEN SIMS HUBICKI ASSOCIATES
Sault Ste. Marie, Ontario

CITY OF SAULT STE. MARIE
ENVIRONMENTAL ASSESSMENT TERMS OF REFERENCE
PUBLIC OPEN HOUSE
JULY 3, 2003

In September 2000, the City of Sault Ste. Marie initiated a four-phased Solid Waste Management Planning Process to provide the City with direction on all aspects of its solid waste management system for the next 20 to 40 years. The four phases of the study included:

Phase 1:	Identification of Preferred Waste Diversion System
Phase 2:	Identification of a Preferred Waste Disposal System
Phase 3:	Development of a Business and Implementation Plan
Phase 4:	Development an Environmental Assessment Act Terms of Reference

Phases 1, 2 and 3 have been completed. The final phase (4) is the subject of this Open House.

The Terms of Reference Document is intended to provide guidance to the proponent and all stakeholders to ensure that the Environmental Assessment will be prepared to an acceptable level of detail. The overall purpose of the proposed Environmental Assessment is to assess the potential impacts of expanding and/or mining the existing landfill to provide additional disposal capacity of between 1.5 and 3.0 million tonnes of solid, non-hazardous waste and biosolids.

The potential alternatives to be considered to achieve this are:

- expansion of the existing fill area by going higher;
- expansion of the existing fill area going higher combined with landfill mining;
- expansion of the fill area going higher and wider;
- expansion of the fill area going higher and wider combined with landfill mining;
- landfill mining without expansion.

A number of criteria have been developed to assess the potential environmental impacts of each alternative. The criteria, indicators and rationale are attached in Appendix A.

The Study Team is seeking your input into the relative importance of the different **criteria groups**. The Study Team asks that you assign a relative importance to each of the criteria groups (i.e. high, medium or low). The Study Team wants to understand what factors you believe to be more important and those that are less important.

Assign a rating of high, medium of low by placing checkmark in the appropriate column.

Criteria Group	High	Medium	Low
Archaeology			✓
Biology/Forestry	✓		
Design and Operations	✓		
Economics		✓	
Groundwater (Hydrogeology)	✓		
Heritage			✓
Mining			✓
Planned Land Use			✓
Social			✓
Surface Water	✓		
Transportation		✓	

The Study Team would also like any input you have on the individual **criteria** found in Appendix A. Please provide any comments in the space below.

HYDROGEOLOGY :
MINING AND THEN RECLINING THE OLD SITE COULD IMPROVE FUTURE GROUND WATER QUALITY

DESIGN / SOCIAL :
① POTENTIAL FOR MORE NOISE (DUE TO OPERATIONS ... ESPECIALLY IF EXPANSION IS VERTICAL)
② INCREASED AIR EMISSIONS ... a) METHANE, ETC
b) CO_2 FROM MACHINERY

SURFACE WATER QUALITY ... PROXIMITY OF CANOE CREEK AND ROOT RIVER ... SURFACE RUN-OFF

TSH

TRANSPORTATION: SAFETY WITH TRUCKS TURNING LEFT OFF GREAT NORTHERN ROAD ONTO FIFTH LINE

MINING & THE AVAILABILITY OF "AGGREGATE" TO COVER THE WASTE

#/SOCIAL: WILL THE SITE HAVE TO EXPAND HORIZONTALLY ONTO OTHER ADJACENT PROPERTIES? IN WHICH DIRECTION? HOW WILL THE IMPACT PROPERTY VALUES?

Please submit your comments by August 5, 2003 to:

Rick Talvitie, P.Eng.
TSH
523 Wellington Street East
Sault Ste. Marie, Ontario
P6A 2M8
Telephone: (705) 942-2612
Fax: (705) 942-3642
E-mail: rtalvitie@tsh.ca

Assign a rating of high, medium of low by placing checkmark in the appropriate column.

Criteria Group	High	Medium	Low
Archaeology		✓	
Biology/Forestry		✓	
Design and Operations	✓		
Economics	✓		
Groundwater (Hydrogeology)	✓		
Heritage	✓		
Mining		✓	
Planned Land Use	✓		
Social		✓	
Surface Water	✓		
Transportation	✓		

The Study Team would also like any input you have on the individual **criteria** found in Appendix A. Please provide any comments in the space below.

MINIMIZING ENVIRONMENTAL IMPACT WHILE MAINTAINING ECONOMIC VIABILITY CRITICAL TO SUCCESS.

Please submit your comments by August 5, 2003 to:

Rick Talvitie, P.Eng.
TSH
523 Wellington Street East
Sault Ste. Marie, Ontario
P6A 2M8
Telephone: (705) 942-2612
Fax: (705) 942-3642
E-mail: rtalvitie@tsh.ca

Assign a rating of high, medium of low by placing checkmark in the appropriate column.

Criteria Group	High	Medium	Low
Archaeology			✓
Biology/Forestry	✓		
Design and Operations	✓		
Economics		✓	
Groundwater (Hydrogeology)	✓		
Heritage			✓
Mining		✓	
Planned Land Use		✓	
Social			✓
Surface Water	✓		
Transportation			✓

The Study Team would also like any input you have on the individual **criteria** found in Appendix A. Please provide any comments in the space below.

~~Important~~ Site

I would like to see energy focused put towards waste generation reduction to increase longevity of landfill site ~~and~~ in addition to merely expansion.

TSH

Please submit your comments by August 5, 2003 to:

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Sault Ste. Marie, Ontario
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Telephone: (705) 942-2612
Fax: (705) 942-3642
E-mail: rtalvitie@tsh.ca

Assign a rating of high, medium of low by placing checkmark in the appropriate column.

Criteria Group	High	Medium	Low
Archaeology	✓		
Biology/Forestry		✓	
Design and Operations			
Economics	✓		
Groundwater (Hydrogeology)	✓		
Heritage		✓	
Mining		✓	
Planned Land Use	✓		
Social		✓	
Surface Water	✓		
Transportation	✓		
Business opportunities (new)			✓

The Study Team would also like any input you have on the individual **criteria** found in Appendix A. Please provide any comments in the space below.

1. Assess specific opportunities (ie methane gas collection, landfill mining) to watch for ie: business & revenue generations: - new business opportunities

2. long term vision - identify best location for new site (20+ years).

3. Continue efforts to divert and don't be afraid to expedite timeframes.

TSH

4. Review commercial/industrial waste collection for weight/area (eg. apartments, etc.).

5. If possible promote burn & pick opportunities to local market place.

6. Review Cement/burn opportunities - criteria?

Good luck guys

Please submit your comments by August 5, 2003 to:

Rick Talvitie, P.Eng.
TSH
523 Wellington Street East
Sault Ste. Marie, Ontario
P6A 2M8
Telephone: (705) 942-2612
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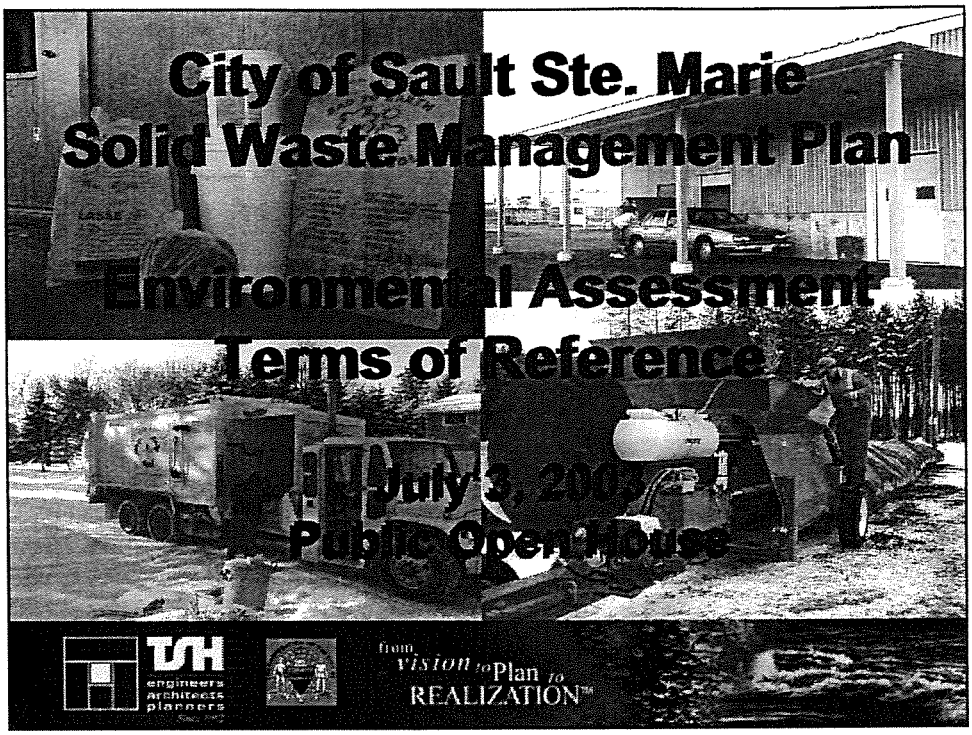


WHAT AM I SUPPOSED TO DO ?

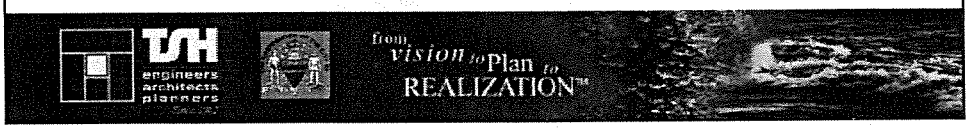
- Sign the Attendance Register;
- Pick up an Information Package;
- View the Displays;
- Ask Questions; and
- Complete a Questionnaire / Comment Sheet.

Representatives from the City of Sault Ste Marie and the Engineering Consultant (TSH) are present to answer your questions.

TSH
engineers
architects
planners
from vision to Plan to REALIZATION™

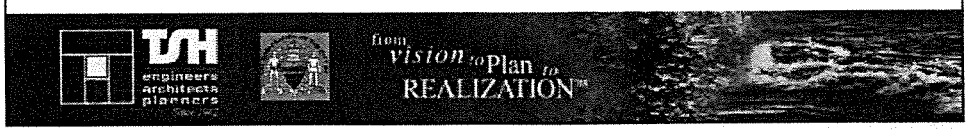
STUDY APPROACH

1. Review Historical Waste Management Records.
2. Identify Problems / Opportunities.
3. Identify and Evaluate Alternative Diversion / Collection Systems.
4. Identify and Evaluate Alternative Waste Disposal Systems.
5. Develop a Preferred Waste Management System Including a Business and Implementation Plan.
6. Prepare the Environmental Assessment Terms of Reference Document. ← We are Here



PROBLEM DEFINITION

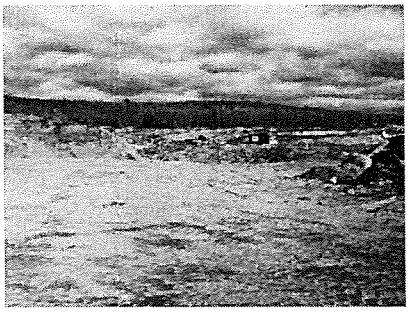
- Existing landfill will reach capacity in approximately 10 years.
- Historically the diversion level in the City has been very low (ie: 7%-8%).
- Additional revenues are required to fund the projected future increased system costs



PREFERRED WASTE MANAGEMENT SYSTEM

Waste Collection and Disposal

Weekly collection of refuse



The refuse is trucked to the landfill on Fifth Line and disposed of

PREFERRED WASTE MANAGEMENT SYSTEM

Enhanced Public Education

- The City hired a Waste Diversion Supervisor in 2000 and Randy Roy recently assumed this role in the fall of 2002 – Randy's responsibilities include public education and working to improve waste diversion
- The recently awarded recycling contract also includes requirements for public education and promotion of diversion activities – The Recycling Contractor is working with Randy on several initiatives

PREFERRED WASTE MANAGEMENT SYSTEM

Household Special Waste and Re-use Centre

The City established a HSW depot in the fall of 2001 which provides for the diversion of oils, paints, car batteries, anti-freeze, pesticides, etc.

A re-use centre allows for the exchange of items between individuals with the goal of avoiding disposal in the landfill – possible implementation in 2004.

PREFERRED WASTE MANAGEMENT SYSTEM

Curbside Collection of Expanded Recyclables and Enhanced Leaf and Yard Waste

New recycling contract (blue/yellow boxes) launched in October 2002

Projected 70% - 80% increase in tonnage in 1st year

City is considering enhancing the current leaf and yard waste program to include collection throughout the growing season (May through November)

PREFERRED WASTE MANAGEMENT SYSTEM

Pilot Study in Progress - Can we Compost Effectively?

Key Issues to be addressed:

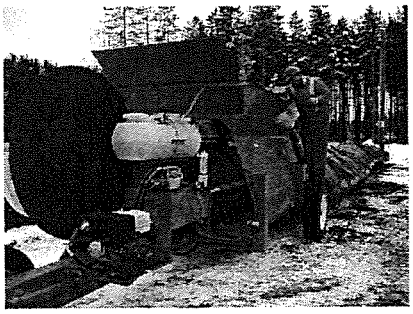
- willingness of residents to participate;
- quantities diverted from landfill;
- effectiveness of various technologies in processing materials; and
- projected costs.

Materials issued to pilot study residents in the Churchill Plaza area

PREFERRED WASTE MANAGEMENT SYSTEM

Pilot Study in Progress - Can we Compost Effectively?

Rotating drum



Aerated static pile technology

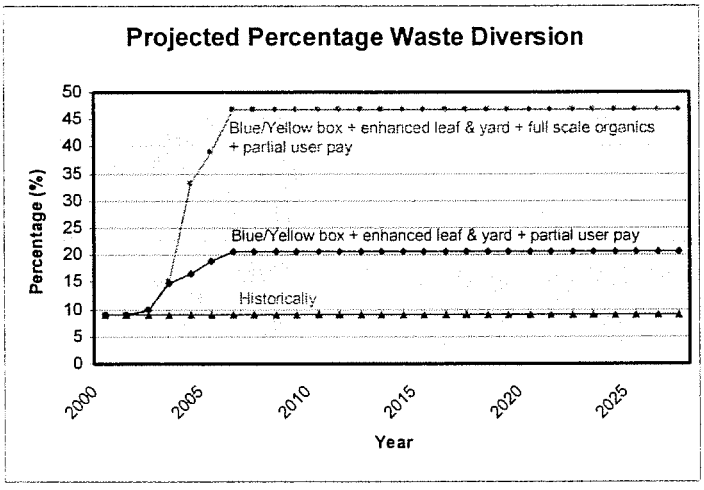
PREFERRED WASTE MANAGEMENT SYSTEM

Pilot Study in Progress - Can we Compost Effectively?

- 589 households asked to participate
- 460 households issued pilot study kit
- 220 households participated on a weekly basis and 96% of these participants would support City-wide implementation
- Estimated quantity of residential organics (kitchen & leaf/yard waste) City-wide = 15,000 tonnes/year
- Pilot study in combination with blue/yellow box program resulted in a reduction in the setout rate from 2.5 bags/hh/wk to 1.15 bags/hh/wk (ie: 54% reduction)
- Quality of compost and City-wide implementation costs are presently being assessed

TSH engineers architects planners
from vision to Plan to REALIZATION™

WHAT DO WE HOPE TO ACHIEVE?



TSH engineers architects planners
from vision to Plan to REALIZATION™

WASTE DISPOSAL OPTIONS

- The following options were considered for waste disposal once the landfill reaches capacity:
  - Incineration
  - New greenfield landfill within City limits
  - New greenfield landfill outside City limits
  - Export of waste to another site in Ontario
  - Export of waste to United States
  - Expansion of existing landfill
  - Landfill mining (reclamation of existing site)

EVALUATION OF WASTE DISPOSAL OPTIONS

OVERALL RATING OF WASTE MANAGEMENT OPTIONS

Option	Natural Environment	Social/ Cultural	Technical	Financial	Overall
Incineration	○	●	○	●	●
Greenfield Site in City Limits	○	●	●	○	○
Greenfield Site Outside City Limits	○	●	●	○	○
Export in Ontario	●	○	○	○	○
Export to United States	●	○	○	○	○
Expansion of Existing Landfill	○	●	●	●	●
Landfill Mining	●	●	●	●	●

● Most Favorable ○ In between ● Least Favorable

- Landfill mining and expansion identified as the preferred options.

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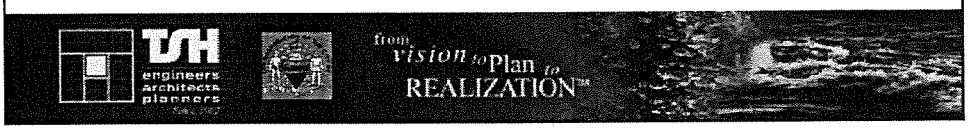
from vision to Plan to REALIZATION™

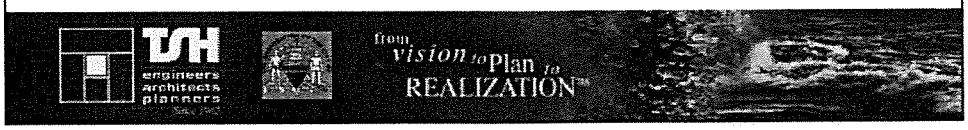
POTENTIAL EXPANSION / MINING ALTERNATIVES

- Expansion of the existing fill area by going higher
- Expansion of the existing fill area going higher combined with landfill mining
- Expansion of the fill area going higher and wider
- Expansion of the fill area going higher and wider combined with landfill mining
- Landfill mining without expansion



COMPARATIVE CRITERIA GROUPS

- Archeology
- Biology / Forestry
- Design and Operations
- Economics
- Geology / Hydrogeology
- Heritage
- Mining
- Planned Land Use
- Social
- Surface Water
- Transportation



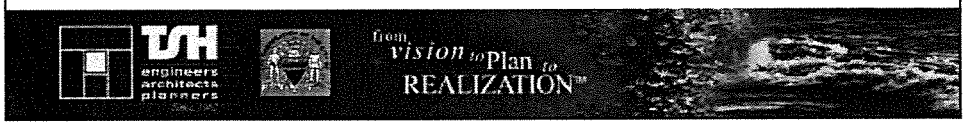
COMPARATIVE CRITERIA

Archeology

- Compare potential for impacts on known archeological resources "on-site".

Biology / Forestry

- Compare potential for loss or disruption to terrestrial systems "on-site" and "off-site".
- Compare potential for loss or disruption of aquatic systems "on-site" and "off-site".
- Compare potential for disruption to terrestrial and aquatic communities in the vicinity of the site.



COMPARATIVE CRITERIA

Design and Operations

- Compare impacts on on-going operation and maintenance of the landfill site.
- Compare potential for flexibility of site operation.
- Compare potential to obtain cover material.

COMPARATIVE CRITERIA

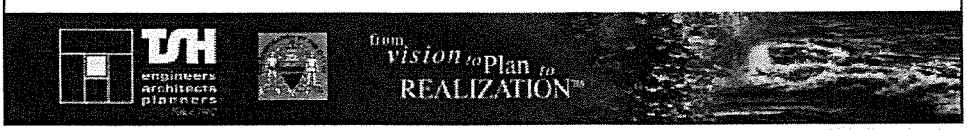
Economic

- Compare potential for displacement of businesses and employees located "on-site" and "off-site".
- Comparative potential for lifetime cost of facility (i.e. development, operating, closure, hauling, ect.).

COMPARATIVE CRITERIA

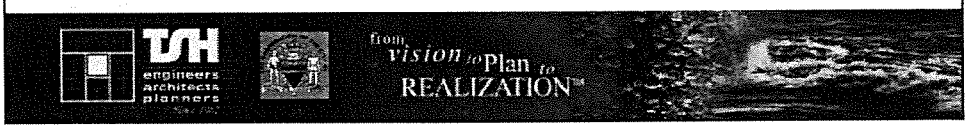
Geology / Hydrogeology

- Compare potential for site to provide natural protection from leachate impacts.
- Compare potential for predicting groundwater migration pathways.
- Compare potential for impacting / disrupting groundwater supplies / resources.
- Compare potential for improvement to existing groundwater conditions.



Heritage

- Compare potential for removal of "on-site" heritage and landscapes.
- Compare potential for disruption of "off-site" heritage features and landscapes.



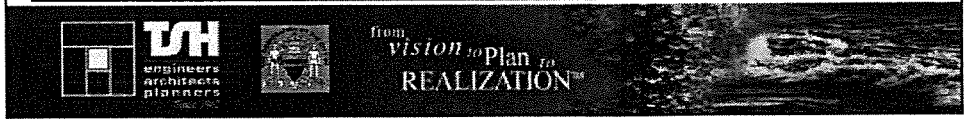
COMPARATIVE CRITERIA

Mining / Aggregate

- Compare the potential for loss of or disruption to future mineral / aggregate extraction operations "on-site".
- Compare the potential for loss of or disruption to future mineral / aggregate extraction operations "off-site". Presence of known mineral / aggregate potential off-site.

Surface Water

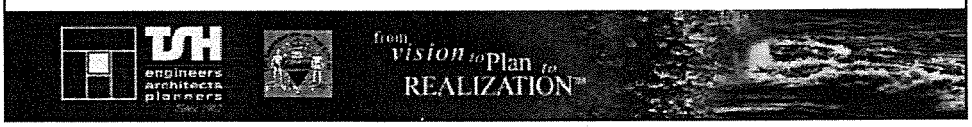
- Compare potential for impairment of surface water quality.
- Compare potential flood hazard.



COMPARATIVE CRITERIA

Social

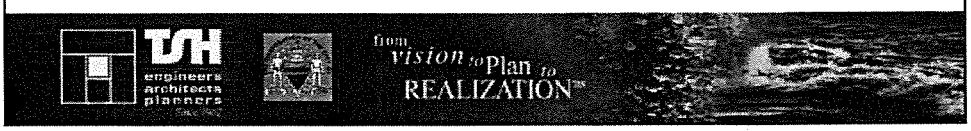
- Compare potential for displacement of residents living "on-site".
- Compare potential for disruption of residents "off-site".
- Compare potential for displacement of institutional, community and recreational features located "on-site".
- Compare potential for disruption of institutional, community and recreation features "off-site".
- Compare potential for disruption to communities.
- Compare potential for displacement of private property.



COMPARATIVE CRITERIA

Transportation

- Compare potential for impacts to traffic safety along waste haul routes.
- Compare potential for impacts to traffic along waste haul routes.



APPENDIX D

PROJECT NOTIFICATION

City of Sault Ste. Marie

Long Term Solid Waste Management Plan
Draft Environmental Assessment Terms of Reference Document

Public Comment Invited

Waste management services in the City of Sault Ste. Marie include a combination of waste diversion and disposal. In recent years the City has enhanced its diversion activities substantially with the establishment of the hazardous waste facility, expansion of the dry recyclables collection, phased reduction in bag limits and expanded and increased user fees. The City of Sault Ste. Marie landfill site is estimated to have sufficient capacity to meet the needs of the community for the next 10 years. In order to ensure adequate provisions are in place for the management of the future solid waste stream, the City is proposing to undertake an Environmental Assessment to identify alternative ways and means of managing the solid waste stream for the next 25 to 40 years.

A Draft Environmental Assessment Terms of Reference document has been prepared to identify the process, tasks and activities that will be undertaken in completing an Environmental Assessment. The purpose of the Environmental Assessment is to rationalize the need for additional disposal capacity, identify alternative ways and means of disposing of solid waste, evaluate the alternatives, solicit public input on the alternatives and the evaluation methodology, and ultimately identify the preferred method for future waste disposal. Suitable mitigating measures will also be identified to address potential environmental impacts associated with the preferred disposal method.

The City of Sault Ste. Marie would like to solicit input from the public on the Draft Environmental Assessment Terms of Reference document.

An informal Public Open House will be held to receive input and comment from interested parties.

Date: Tuesday July 13, 2004
Time: 3:00 pm to 7:00 pm
Location: Biggings Room
Civic Centre,
99 Foster Drive

The Draft Environmental Assessment Terms of Reference document is available for viewing on the City of Sault Ste. Marie website. It can be accessed at www.city.sault-ste-marie.on.ca.

The project consultant and city staff will be available to discuss the Draft Environmental Assessment Terms of Reference document and the overall waste management plan. The study materials will also include the preferred waste diversion system, results from the pilot co-composting study, options for the disposal of residual waste once the existing landfill reaches capacity, and existing and future user fees.

Further details may be obtained by contacting the consultant's office:

TSH (Totten Sims Hubicki Associates)
523 Wellington Street East

Sault Ste. Marie ON P6A 2M4

Attention: Rick Talvitie, P.Eng.
Branch Manager

Telephone: 705-942-2612
Email: rtalvitie@tsh.ca

Following the meeting further comments are invited, for incorporation into the planning of this project, and will be received at the address noted above until August 31, 2004.

This Notice issued on July 3, 7 and 10th.

Don Elliott, P.Eng.
Manager of Construction and Environmental Engineering
City of Sault Ste. Marie

APPENDIX E

OPEN HOUSE MATERIAL
JULY 13, 2004

CITY OF SAULT STE. MARIE
ENVIRONMENTAL ASSESSMENT TERMS OF REFERENCE
PUBLIC OPEN HOUSE
JULY 13, 2004

In September 2000, the City of Sault Ste. Marie initiated a four-phased Solid Waste Management Planning Process to provide the City with direction on all aspects of its solid waste management system for the next 20 to 40 years. The four phases of the study included:

Phase 1:	Identification of Preferred Waste Diversion System
Phase 2:	Identification of a Preferred Waste Disposal System
Phase 3:	Development of a Business and Implementation Plan
Phase 4:	Preparation of an Environmental Assessment Act Terms of Reference Document

Phases 1, 2 and 3 have been completed. The final phase (4) is the subject of this Open House.

The EA Planning Process

Although the City is pursuing opportunities for increased diversion, additional disposal capacity will be needed. New disposal capacity requires approval under the Environmental Assessment Act. The two key steps in the EA process are:

- The preparation of a Terms of Reference; and
- The preparation of the EA.

The Draft Terms of Reference presents the process the City plans to follow during the EA to identify a preferred method of disposal. The final Terms of Reference will reflect input received from the community and government agencies.

The EA will identify and evaluate "alternatives to" which are functionally different ways of dealing with the waste disposal need; and alternative methods which are different ways of doing the same activity (e.g. alternative designs or locations). Once selected, the preferred disposal method is described and measures are identified to avoid or minimize any potential effects.

Waste Management "Alternatives To"

A key component of the EA process is consideration of "alternatives to" . The City proposes to consider the following ways of addressing future waste disposal need:

- Increased Waste Diversion
- Incineration
- Greenfield landfill within City limits
- Greenfield landfill outside City limits
- Export of Waste to a disposal facility in Ontario
- Export of Waste to a disposal facility in the United States
- Do nothing

Have we considered all the "alternatives to"? What other "alternatives to" do you suggest?

These alternatives will be compared using criteria that will capture their potential for impact on the natural and socio-economic environments as well as technical consideration and costs. This evaluation will not be site specific. The proposed criteria for evaluating "alternatives to" are listed below.

PROPOSED EVALUATION CRITERIA – "ALTERNATIVES TO" EVALUATION	
Criterion	Definition
Compliance with Regulations and Policies	Addresses the ability of the "alternative to" meet all applicable regulations and policies that affect the planning, design and construction, operation and decommissioning of the alternative.
Environmental Acceptability	Addresses the potential for environmental effects associated with the alternative and the ability of the "alternative to" be approved as an environmentally acceptable option. It represents both natural environmental and social/cultural considerations.
Ability of City to Implement the Alternative	Considers whether the City has the ability and mandate to implement the alternative.
Flexibility of the System	Considers whether the alternative could respond to changes in the waste stream that could come about as a result of such things as increased diversion, changes in the economy or fluctuations in waste quantities.
Capability of Managing Waste Quantities and Qualities	Considers whether the alternative could handle the identified waste stream.
Proven Technical Capability	Considers whether the alternative has been proven through approval of similar facilities and years of successful operating experience in Ontario and other jurisdictions.
Economic/Cost	Considers the lifecycle cost of the alternative.

Do you have any comments on the "alternatives to" evaluation criteria?

Alternative Methods Evaluation

Once a preferred way of providing disposal is identified, different methods of delivering this alternative will be identified and evaluated e.g. alternative sites and alternative designs. The alternative methods will be evaluated using the criteria below.

PROPOSED EVALUATION CRITERIA FOR ALTERNATIVE METHODS	
Criteria Group	Proposed Evaluation Criteria
Natural Environment	• Compare potential for displacement or disruption of terrestrial features. • Compare potential for displacement or disruption of aquatic features. • Compare potential for effects on groundwater resources. • Compare potential for effects on surface water resources.
Social-Cultural Environment	• Compare potential for displacement or disruption to residents. • Compare potential for displacement or disruption to community features. • Compare potential for impact on future land use plans. • Compare potential for displacement or disruption of heritable or archaeological resources
Economics	• Compare potential for displacement or disruption to existing businesses. • Compare potential for impacts on agriculture/forestry/ mining industry.
Cost	• Compare potential lifecycle cost of alternative.
Technical Considerations	• Compare potential for providing necessary service.

Do you have any comments on the alternatives method evaluation criteria?.

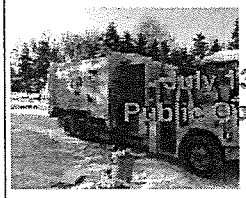
Do you have any comments or questions on the June 2004 Draft Environmental Assessment Terms of Reference Document.

Copies of the Draft Terms of Reference Document are available online at www.city.sault-ste-marie.on.ca on the City Information Page.

Please submit your comments by August 31, 2004 to:

Rick Talvitie, P.Eng.
TSH
523 Wellington Street East
Sault Ste. Marie, Ontario
P6A 2M8
Telephone: (705) 942-2612
Fax: (705) 942-3642
E-mail: rtalvitie@tsh.ca

City of Sault Ste. Marie
Solid Waste Management Plan
Environmental Assessment
Terms of Reference



July 13, 2004
Public Open House

WHAT AM I SUPPOSED TO DO ?

- Sign the Attendance Register;
- Pick up an Information Package;
- View the Displays;
- Ask Questions; and
- Complete a Questionnaire / Comment Sheet.

Representatives from the City of Sault Ste Marie and the Engineering Consultant (TSH) are present to answer your questions.

STUDY APPROACH

1. Review Historical Waste Management Records.
2. Identify Problems / Opportunities.
3. Identify and Evaluate Alternative Diversion / Collection Systems.
4. Identify and Evaluate Alternative Waste Disposal Systems.
5. Develop a Preferred Waste Management System Including a Business and Implementation Plan.
6. Prepare the Environmental Assessment Terms of Reference Document.

We are Here

City of Sault Ste. Marie Solid Waste Management Plan
Environmental Assessment Terms of Reference

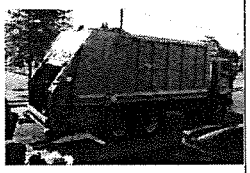
PROBLEM DEFINITION

- Existing landfill will reach capacity in approximately 10 years.
- Historically residential diversion level in the City has been very low (i.e. 8%).
- Additional revenues are required to fund the projected future increased system costs

Public Open House
July 13, 2004

PREFERRED WASTE MANAGEMENT SYSTEM
Waste Collection and Disposal

Weekly collection of refuse



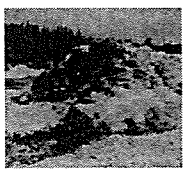
The refuse is trucked to the landfill on Fifth Line and disposed of

PREFERRED WASTE MANAGEMENT SYSTEM
Curbside Collection of Expanded Recyclables and Enhanced Leaf and Yard Waste

New recycling contract (blue/yellow boxes) launched in October 2002

Residential Diversion rate increased from 8% to 28%

City is considering enhancing the current leaf and yard waste program to include collection throughout the growing season (May through November)



PREFERRED WASTE MANAGEMENT SYSTEM
Enhanced Public Education

- The City hired a Waste Diversion Supervisor in 2000 and responsibilities include public education and working to improve waste diversion
- The new recycling contract also includes requirements for public education and promotion of diversion activities – The Recycling Contractor is working with City on several initiatives

City of Sault Ste. Marie Solid Waste Management Plan
Environmental Assessment Terms of Reference

PREFERRED WASTE MANAGEMENT SYSTEM
Household Special Waste and Re-use Centre

The City established a HSW depot in the fall of 2001 which provides for the diversion of oils, paints, car batteries, anti-freeze, pesticides, etc.

A re-use centre allows for the exchange of items between individuals with the goal of avoiding disposal in the landfill – possible implementation in 2005.

Public Open House
July 13, 2004

PREFERRED WASTE MANAGEMENT SYSTEM
Pilot Composting Study- Can we Compost Effectively?

Key Issues addressed:

- willingness of residents to participate;
- quantities diverted from landfill;
- effectiveness of various technologies in processing materials; and
- projected costs.

Materials issued to pilot study residents in the Churchill Plaza area

PREFERRED WASTE MANAGEMENT SYSTEM
Pilot Study in Progress - Can we Compost Effectively?

Rotating drum technology

Aerated static pile technology

PREFERRED WASTE MANAGEMENT SYSTEM
Pilot Study in Progress - Can we Compost Effectively?

- 460 households issued pilot study kit
- 220 households participated on a weekly basis and 96% of these participants would support City-wide implementation
- Estimated quantity of residential organics (kitchen & leaf/yard waste) City-wide = 15,000 tonnes/year
- Pilot study in combination with blue/yellow box program resulted in a reduction in the setout rate from 2.5 bags/hh/wk to 1.15 bags/hh/wk (i.e.: 54% reduction)

City of Sault Ste. Marie Solid Waste Management Plan
Environmental Assessment Terms of Reference

PREFERRED WASTE MANAGEMENT SYSTEM
Pilot Study in Progress - Can we Compost Effectively?

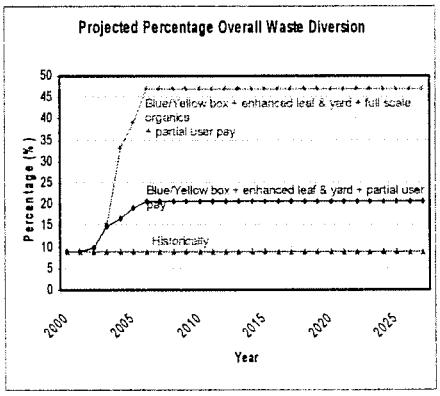
- Recommended the City not compost residential, IC&I and bisolids at this time. Factors that may influence this recommendation in the future include:
  - Changes in the compost standards in the province
  - Province imposes a ban on landfilling residential organics and/or biosolids

IMPLEMENTATION SCHEDULE

- Increase Landfill Gate Fee to $4.00/visit Sept 1, 2003.
- Increased Tipping Fee to $40/tonne Sept 1, 2003.
- Reduced Bag Limit to 4 units per hhld/week Jan 1, 2004.
- Charge Fee of $2.00 per bag in excess of bag limit Jan 1, 2004.
- Reduced Bag Limit to 3 units per hhld/week March 1, 2004.
- Reduce bag limit to 2 units per hhld/week Jan 1, 2005.
- Increase Tipping Fee to $55/tonne Jan 1, 2005.
- Increase Gate Fee to $6.00/visit Jan 1, 2006.
- Increase Tipping Fee to $65/tonne Jan 1, 2006.

City of Sault Ste. Marie Solid Waste Management Plan
Environmental Assessment Terms of Reference

WHAT DO WE HOPE TO ACHIEVE?

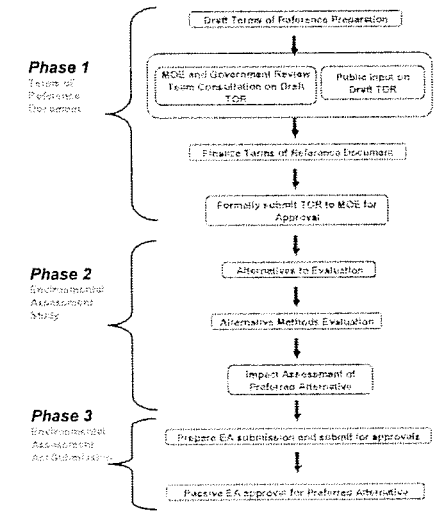


Public Open House
July 13, 2004

Environmental Assessment

- After diversion still require disposal capacity
- The Environmental Assessment Act must be followed for new disposal capacity
- EA Process is a decision making process that takes all aspects of the environment into account
- Carried out in two steps:
  - Terms of Reference
  - EA Preparation

Environmental Assessment Work Plan



Purpose of Terms of Reference

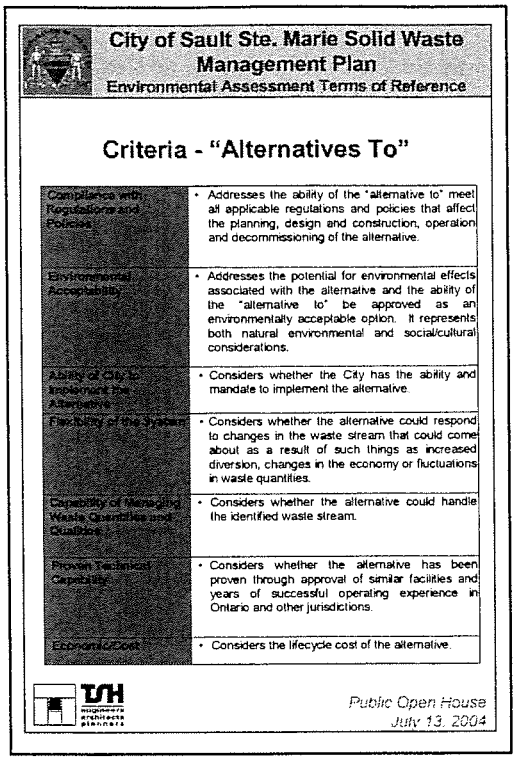
- Establish the scope and approach that will be followed for the disposal EA
- Address the full requirements of the EA Act

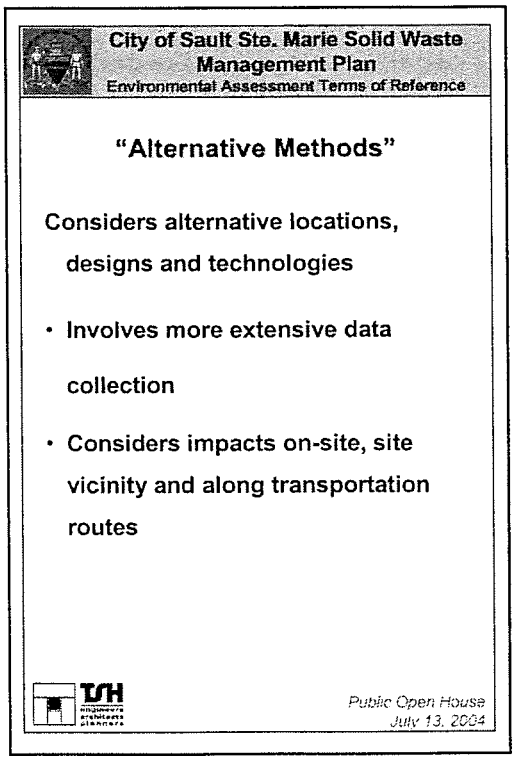
Purpose of the Undertaking

- To provide long term environmentally sound disposal capacity for solid, non-hazardous residential, ICI, C&D waste and biosolids

"Alternatives To"

- Increased Waste Diversion
- Incineration
- Greenfield landfill within City limits
- Greenfield landfill outside the City limits
- Export of Waste to a disposal facility in Ontario
- Export of waste to a disposal facility in the USA
- Expansion and/or mining of the existing site
- Do nothing


City of Sault Ste. Marie Solid Waste Management Plan
Environmental Assessment Terms of Reference
Criteria - "Alternatives To"
Compliance with Regulations and Policies
• Addresses the ability of the "alternative to" meet all applicable regulations and policies that affect the planning, design and construction, operation and decommissioning of the alternative.
Environmental Acceptability
• Addresses the potential for environmental effects associated with the alternative and the ability of the "alternative to" be approved as an environmentally acceptable option. It represents both natural environmental and social/cultural considerations.
Ability of City to Implement the Alternative
• Considers whether the City has the ability and mandate to implement the alternative.
Flexibility of the System
• Considers whether the alternative could respond to changes in the waste stream that could come about as a result of such things as increased diversion, changes in the economy or fluctuations in waste quantities.
Capability of Managing Waste Quantities and Qualities
• Considers whether the alternative could handle the identified waste stream.
Proven Technical Capability
• Considers whether the alternative has been proven through approval of similar facilities and years of successful operating experience in Ontario and other jurisdictions.
Economic/Cost
• Considers the lifecycle cost of the alternative.
TSH
Public Open House
July 13, 2004


City of Sault Ste. Marie Solid Waste Management Plan
Environmental Assessment Terms of Reference
"Alternative Methods"
Considers alternative locations, designs and technologies
• Involves more extensive data collection
• Considers impacts on-site, site vicinity and along transportation routes
TSH
Public Open House
July 13, 2004

Criteria – Alternative Methods

Natural Environment	• Compare potential for displacement or disruption of terrestrial features
	• Compare potential for displacement or disruption of aquatic features
	• Compare potential for effects on groundwater resources
	• Compare potential for effects on surface water resources
Social-Cultural Environment	• Compare potential for displacement or disruption to residents
	• Compare potential for displacement or disruption to community features
	• Compare potential for impact on future land use plans
	• Compare potential for displacement or disruption of heritage or archaeological resources
Economics	• Compare potential for displacement or disruption to existing businesses
	• Compare potential for effects on agriculture/forestry/mining industry
Cost	• Compare potential cost of alternative
Technical	• Compare potential for providing necessary service

Alternative Methods - Evaluation

- Data Collection to determine potential effects
- Ranking of Alternatives
- Ranking of Criteria/criteria groups
- Comparative evaluation highlighting tradeoffs
- Decision on preferred alternative

Detailed Assessment of the Solution

- The preferred disposal solution will be:
  - Described at a conceptual level
  - Assessed in detail to determine potential effects and identify mitigation
- Assessment includes construction, operation, closure/post closure
- Mitigation strategy to minimize potential effects is identified

Summary of First Nation Consultation

TABLE 2
CITY OF SAULT STE. MARIE SOLID WASTE MANAGEMENT PLAN
ENVIRONMENTAL ASSESSMENT TERMS OF REFERENCE ("ToR")
SUMMARY OF FIRST NATION CONSULTATION

Organization	Contact	Date Contacted	Remarks
Batchewana First Nation (BFN) **(Note: the ToR and Consultation report were initially forwarded to BFN on March 2, 2005)**	Joe Corbiere Acting Band Manager	May 12, 2005	Questioned whether BFN had an opportunity to review the ToR document that was sent to them in March/05. Mr. Corbiere indicated that he was not aware of the document. TSH agreed to forward another copy for his review. TSH also suggested that a meeting be arranged in approximately one week's time to discuss the document.
		May 13, 2005	Copies of ToR and associated Consultation report were delivered by courier to BFN.
		May 17-18, 2005	Called several times but Mr. Corbiere was unavailable.
		May 19,2005	Left a message for Mr. Corbiere.
		May 20, 2005	Left a message for Mr. Corbiere.
		May 25, 2005	Left a message for Mr. Corbiere.
		May 26, 2005	Left a message for Mr. Corbiere. Mr. Corbiere returned my call and a meeting was arranged for June 3, 2005.
		June 3, 2005	Rick Talvitie (TSH) and Don Elliott (City SSM Engineering) conducted a meeting with Joe Corbiere and Agnus Lidstone of BFN (refer to the attached meeting report).
		June 15, 2005	Faxed a copy of a DRAFT meeting report for comments.
		June 22, 2005	Contacted Mr. Corbiere to obtain his feedback on the DRAFT meeting report. He indicated he had not seen the report. We re-faxed the DRAFT report.
		June 24, 2005	Left message for Joe Corbiere.
		June 28, 2005	Left message for Joe Corbiere.
		June 30, 2005	Left message for Joe Corbiere.
		July 6, 2005	Left message for Joe Corbiere. Mr. Corbiere called me back and forwarded his comments relating to the meeting report (copy attached).

TABLE 2
CITY OF SAULT STE. MARIE SOLID WASTE MANAGEMENT PLAN
ENVIRONMENTAL ASSESSMENT TERMS OF REFERENCE ("ToR")
SUMMARY OF FIRST NATION CONSULTATION

Organization	Contact	Date Contacted	Remarks
Garden River First Nation (GRFN) **(Note: the ToR and Consultation report were initially forwarded to GRFN on March 2, 2005)**	Caroline Barry, CEO	May 12, 2005	Questioned whether GRFN had an opportunity to review the ToR document that was sent to them in March/05. Ms. Barry indicated that she was not aware of the document. TSH agreed to forward another copy for her review. TSH also suggested that a meeting be arranged in approximately one week's time to discuss the document.
		May 13, 2005	Copies of ToR and associated Consultation report were delivered by courier to GRFN.
		May 17, 2005	Ms. Barry acknowledged receipt of the second copy of the document and agreed to contact TSH once she had an opportunity to review it.
		May 25, 2005	Left a message for Ms. Barry.
		May 26, 2005	Left a message for Ms. Barry. Ms. Barry returned my call and suggested that I call her on June 1 after their budget deliberations were completed.
		June 1, 2005	Left a message for Ms. Barry. Ms. Barry returned my call but I was unavailable.
		June 2, 2005	Arranged a meeting for June 3, 2005.
		June 3, 2005	Rick Talvitie (TSH) and Don Elliott (City SSM Engineering) conducted a meeting with Caroline Barry of GRFN (refer to the attached meeting report).
		June 15, 2005	Faxed a copy of a DRAFT meeting report for comments.
		June 22, 2005	Contacted Ms. Barry to obtain her feedback on the DRAFT meeting report. She indicated that it was a good summary and agreed to respond in writing.
		July 7, through July 27, 2005	Exchanged messages with Ms. Barry on numerous occasions and discussed their outstanding reply on several occasions.
		July 27, 2005	Received a written reply.

TABLE 2
CITY OF SAULT STE. MARIE SOLID WASTE MANAGEMENT PLAN
ENVIRONMENTAL ASSESSMENT TERMS OF REFERENCE ("ToR")
SUMMARY OF FIRST NATION CONSULTATION

Organization	Contact	Date Contacted	Remarks
Association of Iroquois and Allied Indians (AIAI) **(Note: the ToR and Consultation report were initially forwarded to AIAI on March 2, 2005)**	Ms. Rolanda Relijah (519-434-2761)	June 22, 2005

TABLE 2
CITY OF SAULT STE. MARIE SOLID WASTE MANAGEMENT PLAN
ENVIRONMENTAL ASSESSMENT TERMS OF REFERENCE ("ToR")
SUMMARY OF FIRST NATION CONSULTATION

Organization	Contact	Date Contacted	Remarks
		June 22, 2005	Arranged a meeting for June 24, 2005 to discuss the contents of the ToR and associated Consultation report.
		June 24, 2005	Called to confirm our meeting. Michelle returned my call and based on her brief review of the ToR she indicated that Brent McHale (781-3394) should be involved in the meeting.
		June 24, 2005	Contacted Brent McHale and left a message.
		June 28, 2005	Contacted Brent McHale and arranged a meeting for June 30 at 10:00 am.
		June 28, 2005	Left message for Michelle Dale to confirm whether June 30 at 10:00 am is suitable.
		June 29, 2005	Contacted Brent McHale and Michelle Dale and revised the meeting time to 9:15 am.
		July 12, 2005	Issued a meeting report to Michele Dale.
		July 18 through to July 27, 2005	Exchanged messages with Ms. Dale on numerous occasions and discussed their outstanding reply on several occasions.
		July 27, 2005	Sent an email message requesting a response by the end of the week.
		July 28, 2005	Received an email response.
Ontario Métis Aboriginal Association	Germaine Elliott (946-5900)	June 16, 2005	Advised that TSH would like to provide a copy of the ToR document to solicit any input or comments they may have. We were advised to submit the report to Germaine Elliott.
		June 17, 2005	Delivered copies of the ToR and associated Consultation report.
		June 22, 2005	Left a message for Germaine Elliott.
		June 23, 2005	Left a message for Germaine Elliott.
		June 24, 2005	Left a message for Germaine Elliott.
		June 28, 2005	Left a message for Germaine Elliott.

TABLE 2
CITY OF SAULT STE. MARIE SOLID WASTE MANAGEMENT PLAN
ENVIRONMENTAL ASSESSMENT TERMS OF REFERENCE ("ToR")
SUMMARY OF FIRST NATION CONSULTATION

Organization	Contact	Date Contacted	Remarks
			Germaine called me back and we arranged to meet at 3:00 pm.
		July 12, 2005	Issued a meeting report.
		July 18 through to July 27, 2005	Exchanged messages with Ms. Dale on numerous occasions and discussed their outstanding reply on several occasions.
		July 27, 2005	Sent an email message requesting a response by the end of the week.
		July 28, 2005	Received an email response.

Appendix E

Project Contact Lists and Initial Newsletter/Notice

SAULT STE. MARIE WASTE DISPOSAL EA CONTACT LIST				
Agency / Company	**Name**	**Address**	**Phone**	**Fax**
Consulting Team				
Dillon Consulting Ltd.	Gary Komar Project Manager for EA Work	235 Yorkland Blvd. Suite 800 Toronto, Ontario M2J 4Y8	416-229-4647	416-229-4692
Dillon Consulting Ltd.	Karla Kolli EA Coordinator	235 Yorkland Blvd. Suite 800 Toronto, Ontario M2J 4Y8	416-229-4647	416-229-4692
Dillon Consulting Ltd.	Jim McLachlan Project Manager for Annual Engineering	235 Yorkland Blvd. Suite 800 Toronto, Ontario M2J 4Y8	416-229-4647	416-229-4692
TSH Engineers Architects and Planner	Rick Talvitie, P. Eng.	523 Wellington Street East Sault Ste. Marie, Ontario P6A 2M4	705-942-2612	705-942-3642
TSH Engineers Architects and Planner	Chris Visser	300 Water Street Whitby, Ontario L1N 9J2	905-668-4021 Ext. 2337	905-668-0221
City of Sault Ste. Marie				
NOTE: Mayor and Council will change after November Municipal Election				
City of Sault Ste. Marie Mayors Department	Mayor John Rowswell	99 Foster Drive Sault Ste. Marie, Ontario P6A 5N1	705-759-5344	705-541-7171
City of Sault Ste. Marie Councillors	Councillor Steve Butland Ward 1	40 Angelina Ave. Sault Ste. Marie, Ontario P6A 4C6	705-949-1909	705-253-5031
	Councillor James Caicco Ward 1	256 Carlbert Street Sault Ste. Marie, Ontario P6A 5E1	705-945-6232	705-945-9759
	Councillor Terry Sheehan Ward 2	147 Alexandra Street Sault Ste. Marie, Ontario P6A 1J5	705-949-1130	705-946-1107

SAULT STE. MARIE WASTE DISPOSAL EA CONTACT LIST				
Agency / Company	**Name**	**Address**	**Phone**	**Fax**
	Councillor Jody Curran Ward 2	11 Summit Avenue Sault Ste. Marie, Ontario P6B 2S2	705-949-0339	705-949-5754
	Councillor Bryan Hayes Ward 3	829 Pine Street Sault Ste. Marie, Ontario P6B 3G2	705-253-6520	705-253-9269
	Councillor Pat Mick Ward 3	50 Corey Avenue Sault Ste. Marie, Ontario P6B 4G5	705-254-6914	705-254-5003
	Councillor Neil DelBianco Ward 4	47 Grandhaven Crescent Sault Ste. Marie, Ontario P6B 3Y4	705-942-5098 (home & fax)	705-942-5098 (home & fax)
	Councillor Lou Turco Ward 4	22 Albert Street West Sault Ste. Marie, Ontario P6A 1B3	705-253-4070	705-945-0037
	Councillor Ward 5			
	Councillor David Celetti Ward 5	5 Raymond Street Sault Ste. Marie, Ontario P6C 2E5	705-759-0804	705-759-0804
	Councillor Jason Collins Ward 6	1376 Third Line West Sault Ste. Marie, Ontario P6A 6K4	705-256-8738	705-256-7654
	Councillor Frank Manzo Ward 6	660 Base Line Sault Ste. Marie, Ontario P6A 5K6	705-945-9971 (home & fax)	
City of Sault Ste. Marie Engineering and Planning Dept.	Jerry Dolcetti, Commissioner of Engineering and Planning	99 Foster Drive Sault Ste. Marie, Ontario P6A 5N1	705-759-5384	705-541-7165
City of Sault Ste. Marie Engineering Department	Don Elliott, P. Eng.	99 Foster Drive Sault Ste. Marie, Ontario P6A 5N1	705-759-5329	705-541-7165

SAULT STE. MARIE WASTE DISPOSAL EA CONTACT LIST				
Agency / Company	**Name**	**Address**	**Phone**	**Fax**
City of Sault Ste. Marie Engineering Department	Susan Hamilton Beach, P. Eng.	99 Foster Drive Sault Ste. Marie, Ontario P6A 5N1	705-759-5385	705-541-7165
City of Sault Ste. Marie Engineering Department	Catherine Taddo, P. Eng.	99 Foster Drive Sault Ste. Marie, Ontario P6A 5N1	705-759-5378	705-541-7165
City of Sault Ste. Marie Planning Department	Don McConnell	99 Foster Drive Sault Ste. Marie, Ontario P6A 5N1	705-759-5368	705-541-7165
Sault Ste. Marie Public Works Center	Pat McAuley, P. Eng.	128 Sackville Road Sault Ste. Marie, Ontario P6B 4T6	705-759-5207	705-541-7010
Sault Ste. Marie Public Works Center	Jim Elliott, P. Eng.	128 Sackville Road Sault Ste. Marie, Ontario P6B 4T6	705-759-5206	705-541-7010
Sault Ste. Marie Public Works Center	Monty Pinder	128 Sackville Road Sault Ste. Marie, Ontario P6B 4T6	705-541-7087	705-541-7010
Sault Ste. Marie Public Works Center	Mark Joseph	128 Sackville Road Sault Ste. Marie, Ontario P6B 4T6	705-541-7089	705-541-7010
Sault Ste. Marie Public Works Center	Randy Roy	128 Sackville Road Sault Ste. Marie, Ontario P6B 4T6	705-759-5201	705-541-7010
Waste Industry				
Municipal Waste and Recycling	Stan Weiss	9 Industrial Road Blind River, Ontario P0R 1B0	705-849-0426	705-849-0427
And-Son Contracting		803 Great Northern Road Sault Ste. Marie, Ontario P6A 5K7	705-256-8376	

SAULT STE. MARIE WASTE DISPOSAL EA CONTACT LIST				
Agency / Company	**Name**	**Address**	**Phone**	**Fax**
Green Circle Environmental / Sault Ste. Marie Disposal	John Martella	86 Sackville Road Sault Ste. Marie, Ontario P6B 4T6	705-945-7554	705-945-7857
J&B Security Shredding & Recycling		395 Korah Road Sault Ste. Marie, Ontario P6C 4H5	705-256-2148	705-256-2979
Traders Metal Co. Ltd.		131 Yates Street, Box 459 Sault Ste. Marie, Ontario P6A 5M1	705-759-1090	
Waste Management		120 Industrial Court A Sault Ste. Marie, Ontario P6B 5W6	705-254-5050	
Waste Tech	Kevin McLeod	830 Third Line West Sault Ste. Marie, Ontario P6C 6K9	705-542-4556	
Canadian Diabetes Clothesline Program		1639 Lasalle Blvd., 2nd Fl. Sudbury, Ontario P3A 1Z8	705-256-6712	705-524-8702
Recycling Matters		253 Bruce Street Sault Ste. Marie, Ontario P6B 1P3	705-945-1030	
Soo Tire Recyclers		79 Robin Street Sault Ste. Marie, Ontario P6A 5Y4	705-949-8473	
Environmental Committees				
Environmental Monitoring Committee	Kathy Lemieux lemieux.composting@sympatico.ca	764 Black Road Sault Ste. Marie, Ontario P6A 6J8	705-942-2750	
	Andrea Welz back.motion@on.aibn.com	200 Case Road Sault Ste. Marie, Ontario P6A 6J8	705-942-3119	

SAULT STE. MARIE WASTE DISPOSAL EA CONTACT LIST				
Agency / Company	**Name**	**Address**	**Phone**	**Fax**
	Ian Thompson ian.thompson@nrcan.gc.ca	982 Fifth Line East Sault Ste. Marie, Ontario P6A 5K7	705-256-1730	
	Ministry of the Environment Lilian Keen lilian.keen@ene.gov.on.ca	289 Bay Street, 3rd Floor Sault Ste. Marie, Ontario P6A 1W7	705-942-6354	705-942-6327
	Sault Ste. Marie Region Conservation Authority Rhonda Bateman rbateman@ssmrca.ca	1100 Fifth Line East Sault Ste. Marie, Ontario P6A 5K7	705-946-8530	705-946-8533
	Rosina MacDonald macrosina@shaw.ca	165 Old Hwy. 17 North Sault Ste. Marie, Ontario P6A 5K7	705-759-8640	
	Steve Butland s.butland@cityssm.on.ca	40 Angelina Ave. Sault Ste. Marie, Ontario P6A 4C6	705-949-1909	705-253-5031
Federal Agencies				
Canadian Environmental Assessment Agency Ontario Region	Cathy Hainsworth Senior Program Officer	55 St. Clair Avenue East 9th Floor Toronto, Ontario M4T 1M2		
Department of Indian Affairs and Northern Development Canada Environmental and Natural Resources Lands and Trusts Services	John Highman Acting Manager	25 St. Clair Avenue East 5th Floor Toronto, Ontario M4T 1M2		
Indian and Northern Affairs Canada Comprehensive Claims Branch Claims East of Manitoba	Louis Trepanier Director	10 Wellington Street Room 1610 Gatineau, Quebec K1A 0H4	416-994-1121	416-963-3109

SAULT STE. MARIE WASTE DISPOSAL EA CONTACT LIST				
Agency / Company	**Name**	**Address**	**Phone**	**Fax**
Environment Canada EA Section, Ontario Region	Rob Dobos	867 Lakeshore Road Burlington, Ontario L7R 4A6		
Fisheries and Oceans Canada Fish Habitat Management	Paul Savoie Impact Assessment Biologist	3027 Harvester Road Unit 304 Burlington, Ontario L7R 4K3	905-336-4697	905-336-4819
Fisheries and Oceans Canada Great Lakes Forestry Centre	Jennifer Hallett Fish Habitat Biologist	1219 Queen Street East Sault Ste. Marie, Ontario P6A 2E5	705-941-2009	705-941-2013
Transport Canada	Civil Aviation Ontario Region	4900 Yonge Street, Suite 400 Toronto, ON M2N 6A5	(416) 952-0230 1-888-231-2330	
Airport Sault Ste. Marie		R.R. #1, Box #1 Sault Ste. Marie, Ontario P6A 5K6	705-779-3031	
Provincial Agencies				
Ministry of the Environment Environment Assessment and Approvals Branch	Terri Rogers Project Officer Environment Assessment and Approvals Branch	2 St. Clair Avenue West Toronto, Ontario, Floor 12A M4V 1L5	416-314-8001	416-314-8452
Ministry of the Environment District Office	Rod Stewart	289 Bay Street, 3rd Floor Sault Ste. Marie, Ontario P6A 1W7	705-942-6384	705-942-6327
Ministry of the Environment Northern Region	Paula Allen Environmental Planner/EA Coordinator Technical Support Section	199 Larch Street Suite 1201 Sudbury, Ontario P3E 5P9	705-564-3273	705-564-4180

SAULT STE. MARIE WASTE DISPOSAL EA CONTACT LIST				
Agency / Company	**Name**	**Address**	**Phone**	**Fax**
Ministry of Agriculture and Food Engineering and Technology	Ray Valaitis Rural Planner	1 Stone Road West 2nd Floor SW Guelph, Ontario N1G 4Y2	519-826-3352	519-826-3259
Ministry of Culture Heritage Operations	Andrew Hinshelwood Heritage Planner	400 University Ave. 4th Fl. Toronto, Ontario M7A 2R9		
Ministry of Tourism and Recreation	Elaine Lynch, Manager	435 James Street South Suite 334 Thunder Bay, Ontario P7E 6E3		
Ministry of Municipal Affairs and Housing Community Planning and Development	Heather Robertson, Manager	159 Cedar Street, Suite 401 Sudbury, Ontario P3E 6A5	705-564-0120	705-564-6819
Ministry of Natural Resources	Janice Christian	64 Church Street Sault Ste. Marie, Ontario P6A 3H3	705-949-1231	705-949-6450
Ministry of Northern Development and Mines	Robert J. Fraser Regional Land Use Geologist Tom Herndon Northern Development Advisor	Whitney Block, Room 5630 99 Wellesley Street West Toronto, Ontario M7A 1W3	416-327-0629	416-327-0665
Ministry of Transportation Engineering Office	Ray Mantha Manager	477 McKeown Avenue Suite 3011 North Bay, Ontario P1B 9S9	705-472-7900	
Ministry of Transportation District Office	Maurice Kukoraitis	70 Foster Drive, 4th Floor Sault Ste. Marie, Ontario P6A 6V4	705-945-6611	705-945-6830
Ministry of Energy Energy Supply and Competition Branch	Jocelyn Schaffer Economist	880 Bay Street, 3rd Floor Toronto, Ontario M7A 2C1		

SAULT STE. MARIE WASTE DISPOSAL EA CONTACT LIST				
Agency / Company	**Name**	**Address**	**Phone**	**Fax**
Ministry of Health and Long Term Care	Alex Timmins	900 Bay Street, Suite M1-57 MacDonald Block Toronto, Ontario M7A 1R3	416-314-5518	416-314-8721
Office of the Chief Medical Officer of Health and Assistant Deputy Minister	Dr. Sheila Basrur, Chief Medical Officer of Health and Assistant Deputy Minister	Hepburn Block 80 Grosvenor Street, 11th Fl. Toronto, Ontario M7A 1R3		
Municipal Agencies				
Sault Ste. Marie Region Conservation Authority	Linda Whalen, Manager	1100 Fifth Line East Sault Ste. Marie, Ontario P6A 5K7	705-946-8530	705-946-8533
Sault North Planning Board	Doug Kinney	669 Wellington Street East Sault Ste. Marie, Ontario P6A 2M6	705-254-6649	705-946-4286
Algoma Health Unit	Dr. Allan Northan Officer of Health	99 Foster Drive, 6th Floor Sault Ste. Marie, Ontario P6A 5X6	705-759-5287	705-759-1534
Economic Development Corporation	Norm Jaehrling Economic Development Officer	99 Foster Drive, 4th Floor Sault Ste. Marie, Ontario P6A 5N1	705-759-5432	705-759-2185
Clean North	Peter McLarty	736-A Queen Street East Sault Ste. Marie, Ontario P6A 2A9	705-945-1573	
Algoma District School Board	Central Plant Office Chris Deller, Manager	190 Northern Ave. E. Sault Ste. Marie, ON P6B 4H6	705-945-7308	705-759-2811
Huron-Superior Catholic District School Board		90 Ontario Avenue Sault Ste. Marie, Ontario P6B 6G7	705-945-5400	705-945-5575

SAULT STE. MARIE WASTE DISPOSAL EA CONTACT LIST				
Agency / Company	**Name**	**Address**	**Phone**	**Fax**
City of Sault Ste. Marie Fire Department	Fire Hall No. 1	72 Tancred Street Sault Ste. Marie, Ontario P6A 2W1	705-949-3335	705-949-2341
City of Sault Ste. Marie Police Department	Sergeant G.T. Burmaster	580 Second Line East Sault Ste. Marie, Ontario P6B 4K1	705-949-6300	705-759-7820
PUC Services Inc.	Claudio Stefano	765 Queen Street East Sault Ste. Marie, Ontario P6A 2A8	705-759-6541	705-759-6553
Bell Canada	Jon Lang	690 Second Line East Sault Ste. Marie, Ontario P6A 4K3	705-759-7124	705-942-3557
Union Gas	Don Harvey	10 Industrial Court A Sault Ste. Marie, Ontario P6B 5W6	705-759-8481	705-759-2950
Shaw Communications	Kevin Twentyman	23 Manitou Drive Sault Ste. Marie, Ontario P6A 6G9	705-759-2177	705-946-4773
Brookfield Power	Ms. Leslie Smith Environmental and Communication Specialist	2 Sackville Road Sault Ste. Marie, Ontario P6B 6J6	705-759-7600	705-759-7706
Chamber of Commerce	Mr. Robert Dumanski, President	334 Bay Street Sault Ste. Marie, Ontario P6A 1X1	705-949-7152	705-759-8166
Sault Trailblazers Snowmobile Club	Darrell Maahs, President	68 Old Garden River Road Sault Ste. Marie, Ontario P6B 5A4	705-759-0023	705-759-9971
Sault Ste. Marie Public Library	Main Branch	50 East Street Sault Ste. Marie, Ontario P6A 3C3	705-759-5230	

SAULT STE. MARIE WASTE DISPOSAL EA CONTACT LIST				
Agency / Company	**Name**	**Address**	**Phone**	**Fax**
	Churchill Branch	301 Lake Street Sault Ste. Marie, Ontario P6A 4B5	705-759-5248	
	Korah Branch	496 Second Line Sault Ste. Marie, Ontario P6C 2K4	705-759-5249	
Township of Prince Municipal Office Library		3042 Second Line West Sault Ste. Marie, Ontario P6A 6K4	705-779-3653	
First Nations				
Ontario Secretariate for Aboriginal Affairs	Corporate Aboriginal Policy and Management Branch Policy Analysis and Project Management Section Richard Saunders, Director	720 Bay Street, 4th Floor Toronto, Ontario M5G 2K1	416-326-4740	416-326-4017
Batchewana First Nation	Joe Corbiere	236 Frontenac Street Sault Ste. Marie, Ontario P6A 5K9	705-759-0914	75-759-9171
Garden River First Nation	Caroline Barry	7 Shingwauk Street, RR #4 Sault Ste. Marie, Ontario P6A 5K9	705-946-6300	705-945-1415
Anishinabek/Union of Ontario Indians Nipissing First Nation	Allan Dokis Intergovernmental Affairs Director	P.O. Box 711 North Bay, Ontario P1B 8J8		
Association of Iroquois and Allied Indians		387 Princess Street London, Ontario N6B 2A7	519-434-2761	519-679-1653
Ontario Metis Aboriginal Association	Jermaine Elliott	452 Albert Street East, 2nd Floor Sault Ste. Marie, Ontario P6A 2J8		

SAULT STE. MARIE WASTE DISPOSAL EA CONTACT LIST				
Agency / Company	**Name**	**Address**	**Phone**	**Fax**
Metis Nation of Ontario	Michelle Dale	26 Queen Street East Sault Ste. Marie, Ontario P6A 1Y3		
Public Input				
	Kyle Malo	25 Bristol Place Sault Ste. Marie, Ontario P6A 6L9	705-257-0095	
	Hans J. Siemers	349 Second Avenue Sault Ste. Marie, Ontario P6C 4N4	705-946-8569	

Property Owners

1000 m

Powerhouse Racing Products Limited
RR 3
309 Fifth Line E
Sault Ste. Marie, Ontario
P6A 5K8

Sherwood Sylvia Patricia T
Sherwood Bruce Frederick
RR 3
775 Old Goulais Bay Rd
Sault Ste. Marie, Ontario
P6A 5K8

Gagnon Lois Ann
Keene Lloyd Charles
759 Old Goulais Bay Rd
Sault Ste. Marie, Ontario
P6A 5K8

Lofstrom Lisa
32 Powley Rd.
Sault Ste. Marie, Ontario
P6A 5K7

Pettenuzzo Mark Keith
80 Grandville Crescent
Sault Ste. Marie, Ontario
P6B 5P9

Fragomeni Vito Cosimo
Fragomeni Rita
124A Turner Avenue
Sault Ste. Marie, Ontario
P6C 4S2

Schryer Catherine Colleen
Schryer Jason Joseph
1012 Old Goulais Bay Rd.
RR 3
Sault Ste. Marie, Ontario
P6A 5K8

MacQuarrie Donald D
28 Cathcart St. Apt. 3
Sault Ste. Marie, Ontario
P6A 1E1

McBride Miles Owen
RR 3
64 Harris St
Sault Ste. Marie, Ontario
P6A 5K8

Symboluk Mary Linda
Symboluk Harry David Walter
15 Jemmette Street
Sault Ste. Marie, Ontario
P6A 5W9

Groskleg Jennifer Louise
Groskleg Albert Norman
RR 3
1028 Old Goulais Bay Rd
Sault Ste. Marie, Ontario
P6A 5K8

Ebare Lawrence Desire
RR 1 Stn Main
Goulais River, Ontario
P0S 1E0

Farrell Bernard Joseph
Farrell Susan Ellen Kaarina
RR 3
275 Brule Rd.
Sault Ste. Marie, Ontario
P6A 5K8

Foggia Angelo
Fleming Lisa
205-434 McNabb Street
Sault Ste. Marie, Ontario
P6B 1Z3

Klesh Terry Joseph
750 Fifth Line East
RR 2
Sault Ste. Marie, Ontario
P6A 5K7

Tier Margaret Rose Delma
Tier John
RR 2
146 Schultz Side Rd
Sault Ste. Marie, Ontario
P6A 5K7

Richards Brenda Lee
Richards Gerald James
RR 2
168 Old Highway 17 N
Sault Ste. Marie, Ontario
P6A 5K7

Esposito Janice Elizabeth
Esposito John Ralph
RR 2
64 Schultz Side Rd.
Sault Ste. Marie, Ontario
P6A 5K7

Brooks Alison
Jacob Michel Zenon
651 Fifth Line E
RR 2
Sault Ste. Marie, Ontario
P6A 5K7

MacDonald Lorna B
RR 2
1433 Great Northern Rd
Sault Ste. Marie, Ontario
P6A 5K7

Ministry of Transportation
Property Section
615 James St. South
Thunder Bay, Ontario
P7E 6P6

Pioneer Construction Inc.
3319 Kingsway
P.O. Box 2370 Stn A
Sudbury, Ontario
P3A 4S8

Boulet Elsie Romanie
Boulet Emile J
RR 3
523 Fifth Line E
Sault Ste. Marie, Ontario
P6A 5K8

Nolan Lloyd Clement
Nolan Irene Eleanora
RR 2
689 Fifth Line E
Sault Ste. Marie, Ontario
P6A 5K7

Lethbridge Dorothy Ann
Lethbridge Eldon Ralph
RR 3
799 Old Goulais Bay Road
Sault Ste. Marie, Ontario
P6A 5K8

Henson Pauline Marie
Henson Gerald Jack
577 Fifth Line E
RR 3
Sault Ste. Marie, Ontario
P6A 5K8

Folz Alfred Henry Lucian
RR 6
42 Heywood Dr.
Sault Ste. Marie, Ontario
P6A 6K4

Nuxoll Sharen Maureen
Nuxoll Alphonse Hubert
RR 3
427 Fifth Line E
Sault Ste. Marie, Ontario
P6A 5K8

Holmberg Birgit Adriana
Perkins Helga Hedwig Birke
RR 6
64 Mount Pleasant Crt.
Sault Ste. Marie, Ontario
P6A 6K4

Development Company Limited
Clearview Heights
2125 Great Northern Road
Sault Ste. Marie, Ontario
P6A 5K7

Hahn Laura Lisa
RR 2
136 Old Highway 17 N
Sault Ste. Marie, Ontario
P6A 5K7

Teller Walker Brian
Teller Beverly Susan
RR 3
72 Harris St
Sault Ste. Marie, Ontario
P6A 5K8

Moreau Marianne Irene
Moreau Arthur Robert
88 Wawanosh Ave
Sault Ste. Marie, Ontario
P6B 3W5

Foisy Paul Fern
700 Old Goulais Bay Rd.
RR 3
Sault Ste. Marie, Ontario
P6A 5K8

Maplewood Golf Course Inc.
c/o 189 Bruce Street
Sault Ste. Marie, Ontario
P6A 2Y1

Cocchiola Giovanni
Cocchiola Guiseppina
30 Texas Ave.
Sault Ste. Marie, Ontario
P6A 4Y8

Devoe Michael William
Devoe Deborah
RR 3
743 Old Goulais Bay Rd
Sault Ste. Marie, Ontario
P6A 5K8

Meyers Jacob Joseph
Meyers Twylia Elizabeth
RR 3
807 Old Goulais Bay Rd.
Sault Ste. Marie, Ontario
P6A 5K8

DiTommaso Fausto
DiTommaso Arnaldo
P.O. Box 69 Stn Main
Sault Ste. Marie, Ontario
P6A 5L2

Cartmill Anna Katharine
Cartmill David Vincent
RR 2
76 Schultz Side Rd.
Sault Ste. Marie, Ontario
P6A 5K7

Parker Joyce
224 Turner Avenue
Sault Ste. Marie, Ontario
P6C 4S7

Overland Albert Gabriel
RR 3
1093 Old Goulais Bay Road
Sault Ste. Marie, Ontario
P6A 5K8

Young Goldie Lillian
Young Arnold Bernard
RR 2, Box 1, Comp 7
Powley Road
Sault Ste. Marie, Ontario
P6A 5K7

Davidson Ronald William
Bertrand Rhea
RR 3
1237 Old Goulais Bay Rd.
Sault Ste. Marie, Ontario
P6A 5K8

Sherwood Clifford
Sherwood Judith A
RR 3
699 Old Goulais Bay Rd
Sault Ste. Marie, Ontario
P6A 5K8

Campbell Ethel Marie
Wigmore Gary Peter
RR 2
743 Fifth Line E
Sault Ste. Marie, Ontario
P6A 5K7

Manchester Mae Elizabeth
RR 2
50 Schultz Side Rd
Sault Ste. Marie, Ontario
P6A 5K7

Lillington Ryan Dustin
Kennedy Jill Suzanne
797 Fifth Line E
Sault Ste. Marie, Ontario
P6A 5K7

Ellwood Robinson Limited
2075 Great Northern Road
Sault Ste. Marie, Ontario
P6A 5K7

Olar Rodney Alexander
12 Niagara Drive
Sault Ste. Marie, Ontario
P6B 4L6

Vorlicek Rudy
Vorlicek Lise
RR 2
711 Fifth Line E
Sault Ste. Marie, Ontario
P6A 5K7

Pauli Robert John
Pauli Cristina Lees
41 Ditommaso Court
Sault Ste. Marie, Ontario
P6A 5K7

Franz William James
Franz Lennie Cherek
RR 2
1587 Great Northern Rd.
Sault Ste. Marie, Ontario
P6A 5K7

705851Ontario Limited
c/o Mr. Kreuczverg
2000 Islington Ave. Suite 211
Etobicoke, Ontario
M9P 3S7

Spironello Julia
Spironello John Anthony
P.O. Box 1809 Stn Main
Wawa, Ontario
P0S 1K0

Fortin Claudette M
Fortin Gerard Sylvester
RR 2
4 Powley Rd
Sault Ste. Marie, Ontario
P6A 5K7

Brandes Aggregates Limited
2125 Great Northern Road
Sault Ste. Marie, Ontario
P6A 5K7

Young Dean Anthony
RR 2
124 Schultz Side Rd.
Sault Ste. Marie, Ontario
P6A 5K7

Sherlock Kathleen Louise
Sherlock Francis Wright
RR 3
735 Old Goulais Bay Rd.
Sault Ste. Marie, Ontario
P6A 5K8

Weir Harvey Francis
Weir Michelle Marguerite
1195 Old Goulais Bay Rd.
RR 3
Sault Ste. Marie, Ontario
P6A 5K8

Wilkins Michael Raymond
Wilkins Terri Ann
RR 3
263 Fifth Line E
Sault Ste. Marie, Ontario
P6A 5K8

St. Onge Mary Elaine
St. Onge Joseph Rene Henry
268 Fifth Line E
Sault Ste. Marie, Ontario
P6A 5K8

Abernot Brian James
RR 3
580 Old Goulais Bay Road
Sault Ste. Marie, Ontario
P6A 5K8

Corbett Richmond Lorne
Corbett Patricia
RR 3
71 Harris Street
Sault Ste. Marie, Ontario
P6A 5K8

Ontario Realty Corporation
c/o ORC Property Tax Dept.
11th Floor Ferguson Block
77 Wellesley Street West
Toronto, Ontario
M7A 2G3

Giunti Fiore
Giunti Laurie Jane
RR 2
47 Powley Rd.
Sault Ste. Marie, Ontario
P6A 5K7

DiPasquale Barbara May
DiPasquale Richard Raymond
RR 2
783 Fifth Line E
Sault Ste. Marie, Ontario
P6A 5K7

Maitland Ellen Shirley
Maitland Gary Ralph
RR 3
32 Harris St.
Sault Ste. Marie, Ontario
P6A 5K8

Greco Donna Louisa
Greco Lorenzo
RR 3
63 Harris St.
Sault Ste. Marie, Ontario
P6A 5K8

Possamai Patrick Paul
RR 3
1050 Old Goulais Bay Rd.
Sault Ste. Marie, Ontario
P6A 5K8

Rathwell Ian Kenneth
RR 2
641 Fifth Line E
Sault Ste. Marie, Ontario
P6A 5K7

Ladouceur William Albert Jr.
RR 3
1200 Old Goulais Bay Rd.
Sault Ste. Marie, Ontario
P6A 5K8

Kraemer Janice Barbara
Kraemer Uwe Harry
RR 3
764 Old Goulais Bay Rd
Sault Ste. Marie, Ontario
P6A 5K8

Willet Catherine Leane
Willet Darcy Ross
RR 3
104 Harris St.
Sault Ste. Marie, Ontario
P6A 5K8

Drouillard Linda Marie
Drouillard Raymond Aurele
RR 2
1719 Great Northern Rd.
Sault Ste. Marie, Ontario
P6A 5K7

Caswell Donald Patrick
RR 2
1765 Great Northern Rd.
Sault Ste. Marie, Ontario
P6A 5K7

(Canada) Corp
Mid-Canada Communications
699 Frood Rd.
Sudbury, Ontario
P3C 5A3

Palumbo Rita
223 Fourth Line East
Sault Ste. Marie, Ontario
P6A 5K8

Farrell John Robert
Lewis Linda G
RR 3
310 Fifth Line E
Sault Ste. Marie, Ontario
P6A 5K8

Walker Michael Frederick
Walker Wendy Mae
RR 3
678 Old Goulais Bay Road
Sault Ste. Marie, Ontario
P6A 5K8

Morley Harry Warren
RR 3
1165 Old Goulais Bay Rd.
Sault Ste. Marie, Ontario
P6A 5K8

McQueen Robert Frederick
1088 Lake Street
Sault Ste. Marie, Ontario
P6B 6B7

Ireland Rhonda May
Ireland William Terry
RR 3
751 Old Goulais Bay Rd.
Sault Ste. Marie, Ontario
P6A 5K8

Pariseau-Wilding Mary Louise
84 White Oak Dr. W
Sault Ste. Marie, Ontario
P6C 2H8

Hilsinger Donna Marie
Lapointe Roger Joseph
RR 2
32 Ditommaso Crt.
Sault Ste. Marie, Ontario
P6A 5K7

Teen Challenge Farm Inc.
P.O. Box 777 Stn Main
London, Ontario
N6P 1R6

Maitland Ray Elmer
RR 3
1124 Old Goulais Bay Rd.
Sault Ste. Marie, Ontario
P6A 5K8

Wright Cynthia Marie
Wright Terry Charles
RR 3
592 Old Goulais Bay Rd
Sault Ste. Marie, Ontario
P6A 5K8

Merritt Jennifer
RR 3
691 Old Goulais Bay Rd.
Sault Ste. Marie, Ontario
P6A 5K8

Hilderley Steve
Hilderley Brenda
RR 3
768 Old Goulais Bay Rd.
Sault Ste. Marie, Ontario
P6A 5K8

Bernard Sherry Heather
RR 2
834 Fifth Line East
Sault Ste. Marie, Ontario
P6A 5K7

Whalen Vittoria Marie
RR 2
775 Fifth Line E
Sault Ste. Marie, Ontario
P6A 5K7

Senko Edward Peter
Senko Maryanne
RR 3
39 Harris St.
Sault Ste. Marie, Ontario
P6A 5K8

Linley Harry Bert
239 Gloucester St.
Sault Ste. Marie, Ontario
P6A 1N6

Atikinson Randy Henry
Atikinson Ingrid Lynn
RR 2
55 Old Highway 17 N
Sault Ste. Marie, Ontario
P6A 5K7

Molinaro Brian Raymond
Ladouceur Rachael Marie
RR 2
160 Old Highway 17N
Sault Ste. Marie, Ontario
P6A 5K7

Westman Gladys Margaret
Westman Russell Wayne
821 Fifth Line E
RR 2
Sault Ste. Marie, Ontario
P6A 5K7

Fantham Robbie Lloyde
Fantham Marsha Lynn
RR 3
303 Fifth Line E
Sault Ste. Marie, Ontario
P6A 5K8

Guignard Lisa Ann
RR 3
707 Old Goulais Bay Rd.
Sault Ste. Marie, Ontario
P6A 5K8

Billingsley Scot William
Jones Stephanie Rose
236 Old Hwy. 17 N
RR 2
Sault Ste. Marie, Ontario
P6A 5K7

Johnson Barbara Ann
Johnson Bruce John
RR 2
810 Fifth Line E
Sault Ste. Marie, Ontario
P6A 5K7

Hunter Deborah
Hunter Darwin James
RR 3
564 Fifth Line E
Sault Ste. Marie, Ontario
P6A 5K*

Artuso Derinda
Artuso Robert
RR 3
784 Old Goulais Bay Rd
Sault Ste. Marie, Ontario
P6A 5K8

Boston Ross Norman
Boston Karen Joan
11 Coronation Street
Sault Ste. Marie, Ontario
P6A 5K8

Socchia Jacklene
Socchia Stephen
RR 3
103 Harris St.
Sault Ste. Marie, Ontario
P6A 5K8

Skagen Bryan Carl
181 Johnson Ave.
Sault Ste. Marie, Ontario
P6C 2V4

Johnson John Pearson
103 Estelle St.
Sault Ste. Marie, Ontario
P6C 2C3

Deans Travis John
RR 3
783 Old Goulais Bay Rd.
Sault Ste. Marie, Ontario
P6A 5K8

MacDonald Joyce Madeline
MacDonald Larry Dale
RR 3
1208 Old Goulais Bay Rd
Sault Ste. Marie, Ontario
P6A 5K8

McCurry James John
McCurry Eva Lillian
Root River Trailer Park
35 Charlotte Dr.
Sault Ste. Marie, Ontario
P6B 5S6

Deplonty Wilma Louise
Deplonty Herbert Arthur
RR 2 Box 1 Comp 6
8 Powley Rd.
Sault Ste. Marie, Ontario
P6A 5K7

882237 Ontario Limited
2075 Great Northern Road
Sault Ste. Marie, Ontario
P6 5K7

Lucio Beatrice
RR 2
145 Old Highway 17 N
Sault Ste. Marie, Ontario
P6A 5K7

Premo Theresa Rose
RR 3
267 Fifth Line E
Sault Ste. Marie, Ontario
P6A 5K8

Possamai Theresa Margaret
Ryan Terrance William
RR 3
1000 Old Goulais Bay Rd.
Sault Ste. Marie, Ontario
P6A 5K8

Pister Susan Margaret
Pister Kenneth Ronald
RR3
31 Harris St.
Sault Ste. Marie, Ontario
P6A 5K8

Middleton Barbara Ann
Middleton James Garnet
RR 3
88 Harris St.
Sault Ste. Marie, Ontario
P6A 5K8

Nowitski Walter John
RR 2
20 Powley Rd.
Sault Ste. Marie, Ontario
P6A 5K7

Burns Joseph Odilon
RR 3
628 Old Goulais Bay Rd.
Sault Ste. Marie, Ontario
P6A 5K8

Enterprises Limited
Bernt Gilbertson
RR 1
Richards Landing, Ontario
P0R 1J0

Kuisma Ursula
Kuisma Arthur Torsti
RR 2
813 Fifth Line E
Sault Ste. Marie, Ontario
P6A 5K7

McLarty Anne Margaret
McLarty Peter John
RR 2
755 Fifth Line E
Sault Ste. Marie, Ontario
P6A 5K7

Morettin Donald Jame
RR 3
998 Old Goulais Bay Rd.
Sault Ste. Marie, Ontario
P6A 5K8

Harvbar Investments Company Limited
c/o Richard Barsanti
Root River Golf Club
145 Heavenor St.
Sault Ste. Marie, Ontario
P6A 3L3

Glenview Cabins Inc.
c/o 115 River Road
Sault Ste. Marie, Ontario
P6A 6C3

Dave Smith Limited
Smith David Wayne
8 Kingsmount Blvd.
Sault Ste. Marie, Ontario
P6B 3L8

Koski Sandra
1277 Old Goulais Bay Rd.
RR 3
Sault Ste. Marie, Ontario
P6A 5K8

Algoma Central Railway Inc.
Property
277 Front St. W, 8th Floor
Toronto, Ontario
M5V 2X7

Mount Carol
Mount Glynn Robert
RR 2
791 Fifth Line E
Sault Ste. Marie, Ontario
P6A 5K7

Digby Glenda L
Digby Keith S
652 Old Goulais Bay Rd.
Sault Ste. Marie, Ontario
P6A 5K8

Novakuske Mary Margaret
RR 3
618 Old Goulais Bay Road
Sault Ste. Marie, Ontario
P6A 5K8

Maitland Gladys
RR 3
1102 Old Goulais Bay Rd.
Sault Ste. Marie, Ontario
P6A 5K8

Premo June Gail
RR 3
263 Fifth Line E
Sault Ste. Marie, Ontario
P6A 5K8

Maitland Gary Ralph
Maitland Ellen Shirley
RR 3
32 Harris St.
Sault Ste. Marie, Ontario
P6A 5K8

Avery Michael Wade
RR 3
55 Harris St.
Sault Ste. Marie, Ontario
P6A 5K8

Perhonen Maria
Perhonen Roy
RR 2
787 Fifth Line E
Sault Ste. Marie, Ontario
P6A 5K7

Harvey John Lawrence
Harvey Daisy Annabel
RR 2
144 Old Highway 17 N
Sault Ste. Marie, Ontario
P6A 5K7

Caswell Tammy Joyce
1247 Old Goulais Bay Rd.
RR 3
Sault Ste. Marie, Ontario
P6A 5K8

Davieaux Leanne Patricia
Davieaux Larry Eugene
RR 3
265 Fifth Line E
Sault Ste. Marie, Ontario
P6A 5K8

Quesnele Richard Joseph
Quesnele Rosemary Diane
RR 3
56 Harris St.
Sault Ste. Marie, Ontario
P6A 5K8

Nirkkola Timothy Patrick
RR 2
246 Old Highway 17 N
Sault Ste. Marie, Ontario
P6A 5K7

Zwolski Roman Andrzej
Zwolski Jolanta Maria
RR 3
95 Harris St.
Sault Ste. Marie, Ontario
P6A 5K8

Paulin Mary Louise
Paulin Leo
RR 3
302 Fifth Line E
Sault Ste. Marie, Ontario
P6A 5K8

Phillips Fannie
Great Northern Retirement Home
Room 309
760 Great Northern Road
Sault Ste. Marie, Ontario
P6A 5K7

Behrens Tracy Dawn
Behrens Alfred William
RR 3
668 Old Goulais Bay Rd.
Sault Ste. Marie, Ontario
P6A 5K8

Jackson Kelly Anne
Jackson Michael Lawrence
RR 2
185 Old Highway 17 N
Sault Ste. Marie, Ontario
P6A 5K7

Soo Septic Service Limited
151 Anglican Church Rd.
RR 2 Stn Main
Goulais River, Ontario
P0S 1E0

Maitland Howard John
RR 6
801 Leigh's Bay Rd.
Sault Ste. Marie, Ontario
P6A 6K4

Dupuis Pauline Ruth
Dupuis Timothy Joseph
RR 3
756 Old Goulais Bay Rd.
Sault Ste. Marie, Ontario
P6A 5K8

Marceau Andre George
RR 3
1692 Peoples Rd.
Sault Ste. Marie, Ontario
P6A 5K8

Holotuk Francine Nicole
Moulder Kathy Lynn
125 Old Highway 17 N
RR 2
Sault Ste. Marie, Ontario
P6A 5K7

Pino Mario
68 Reid Street
Sault Ste. Marie, Ontario
P6B 4T7

Ladouceur Dale Alfred
RR 3
719 Old Goulais Bay Rd.
Sault Ste. Marie, Ontario
P6A 5K8

Possamai Donna Kay
Possamai Ross Frederick
RR 3
369 Fifth Line East
Sault Ste. Marie, Ontario
P6A 5K8

Brandow Maurice A
Brandow Bertha B
18 Holden St.
Sault Ste. Marie, Ontario
P6C 3A8

Zimbaro Elvira Mary
644 Old Goulais Bay Rd.
RR 3
Sault Ste. Marie, Ontario
P6A 5K8

China Cheryl Hope
China Arleen Marie
57 Woodhurst Dr.
Sault Ste. Marie, Ontario
P6C 5Z5

Campbell Douglas
MacDonald Wendy
1110 Old Goulais Bay Rd.
RR 3
Sault Ste. Marie, Ontario
P6A 5K8

Leach Curtis Robert
RR 3
96 Harris St.
Sault Ste. Marie, Ontario
P6A 5K8

Bozowskyi Darryl William
RR 3
1184 Old Goulais Bay Road
Sault Ste. Marie, Ontario
P6A 5K8

D'Angelo Teresa Anne
D'Angelo Joseph
95 Westridge Rd.
Sault Ste. Marie, Ontario
P6C 5W7

Robinson Esther Estate
c/o Wilfred Cohen
P.O. Box 459 Stn Main
Sault Ste. Marie, Ontario
P6A 5M1

Farrell Edna
Farrell Robert Stephan
776 Old Goulais Bay Rd.
RR 3
Sault Ste. Marie, Ontario
P6A 5K8

Fisher Mark Lee
Bostelaar Anne Marie
225 Fifth Line E
RR 3
Sault Ste. Marie, Ontario
P6A 5K8

Slater Gail Margaret
Slater Roger Frederick
RR 3
744 Old Goulais Bay Rd
Sault Ste. Marie, Ontario
P6A 5K8

Kuuskman Mary
Kuuskman Peter
RR 3
600 Old Goulais Bay Rd.
Sault Ste. Marie, Ontario
P6A 5K8

Possamai Karen Irene
Possamai Patrick
791 Old Goulais Bay Rd.
RR 3
Sault Ste. Marie, Ontario
P6A 5K8

Barbeau Stephen Paul
Barbeau Margaret Ellen
RR 3
816 Old Goulais Bay Rd.
Sault Ste. Marie, Ontario
P6A 5K8

McAllister Susan Irene
McAllister James Alexander
RR 3
1192 Old Goulais Bay Rd.
Sault Ste. Marie, Ontario
P6A 5K8

Lacelle Michael Herbert
RR 2
16 Powley Rd.
Sault Ste. Marie, Ontario
P6A 5K7

D'Orazio Phyllis Evelyn
D'Orazio Glen Arthur
RR 2
152 Old Highway 17 N
Sault Ste. Marie, Ontario
P6A 5K7

Gauthier Tina Marie
McGonegal Jeffrey Francis
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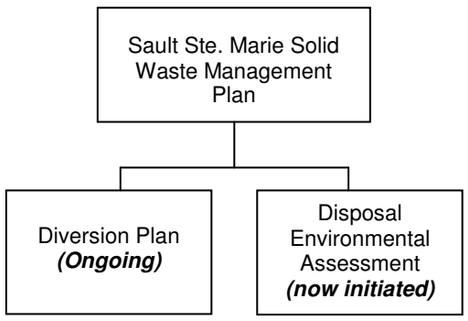
Solid Waste Disposal Environmental Assessment

Newsletter No.1, October 2006

Sault Ste. Marie Begins the Disposal Environmental Assessment (EA)

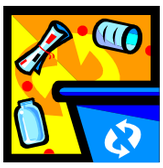
In September 2005 the Minister of the Environment approved the Environmental Assessment Terms of Reference (EA TOR) for the Sault Ste. Marie Solid Waste Management Plan. The EA TOR documents the process that will be followed to determine the preferred method for managing solid waste in Sault Ste. Marie for the next 20 to 40 years. In addition to the disposal EA, the Sault Ste. Marie Solid Waste Management Plan includes a significant diversion component.

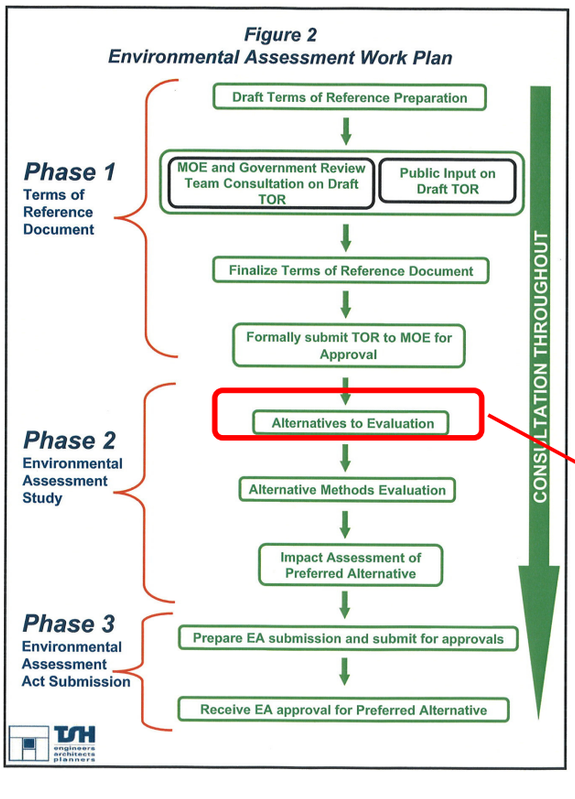
A copy of the EA TOR is attached for your reference.



Diversion Update

The City of Sault Ste. Marie's waste diversion program currently includes collection and recycling of fibers and containers (ie: curbside yellow and blue box program); bi-weekly collection and composting of leaf and yard waste; a household hazardous waste depot; and segregation and recycling of metals, white goods, tires, and clean wood and brush at the solid waste landfill at 402 Fifth Line East. In 2005, the City limited residential waste setout to 2 bags/containers per week per household. Tags for additional waste bags or containers must be purchased. The residential waste diversion program diverted approximately 32% of residential waste from the landfill in 2005. This is a significant increase compared to the 8% diverted in 2000!





The EA Process Overview

The Environmental Assessment for disposal capacity includes three key phases. The first phase was completed with the submission and approval of the EA Terms of Reference. We are now initiating the second phase: the Environmental Assessment Study itself. The last phase is submission of the EA documentation to the Ministry of the Environment and the subsequent government and public review and approval period. It is anticipated that the whole process will take until early 2009.

WE ARE HERE

The City has retained a team of consultants including Totten Sims Hubicki Associates and Dillon Consulting Limited to assist them in the preparation of the Waste Disposal EA.

TSH engineers architects planners

DILLON CONSULTING

Next EA Steps: "Alternatives To" Evaluation

The next key step in the EA process is to evaluate functionally different ways of addressing the need for additional waste disposal capacity in Sault Ste. Marie, (ie. the "alternatives to"). As documented in the EA TOR, the alternatives being considered are as follows:

- Increased 3R's (reduce, reuse, recycle);
- Incineration & High Heat Processes;
- Landfill;
- Export Waste Outside Service Area;
- Do nothing.

Contact Us

Your input on this project is important to us. If you would like further information or to send comments, ask questions or be added to our mailing list, please contact us:

Mr. Rick Talvitie, P.Eng
Project Manager
Totten Sims Hubicki
523 Wellington Street East,
Sault Ste. Marie, Ontario
P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
Email: rtalvitie@tsh.ca

Mrs. Susan Hamilton-Beach, P.Eng.
Director of Engineering Services
City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive,
Sault Ste. Marie, Ontario
P6A 5N1
Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on.ca

The evaluation of "alternatives to" will be carried out at a general level. Specific locations and technologies for the above mentioned alternatives will not be included in this step but will be considered in the next step (ie. alternative methods evaluation).

In the EA Terms of Reference, criteria were proposed for the evaluation of the "alternatives to". The proposed criteria for the evaluation of "alternatives to" are listed below.

- Compliance with regulations and policies (addresses the ability to meet all applicable regulations and policies);
- Environmental acceptability (addresses potential environmental affects of the alternative);
- Ability of the City to implement the alternative (considers whether the City has the ability and mandate to implement the alternative);
- Flexibility of the system (considers whether the alternative can respond to changes in the waste stream);
- Capability of managing waste quantities and qualities (considers whether the alternative could handle the identified waste stream);
- Proven technical capability (considers whether the alternative has been proven successful in other experiences in Ontario or other jurisdictions); and
- Economic/Cost (considers the relative cost differences among the alternatives)

Keeping You Informed

This newsletter is part of a series that will be ongoing during this project to keep you aware of the status of the Solid Waste Management Plan. Contact information is provided should you wish more detailed information.

In addition to the newsletter, opportunities to become involved in the project will include workshops, and public open houses. Information will also be regularly posted on the City web site.

We look forward to receiving your input during this important study!

If you would prefer to receive future information and notifications via email please forward your email address to nirwin@tsh.ca. Please include the title "City of SSM Waste Disposal EA" in your email message.

AECOM

Appendix F

Public Input Session – June 26, 2007

Solid Waste Disposal Environmental Assessment PUBLIC INPUT SESSION No. 1

Sault Ste. Marie Conducts First Public Input Session!

Are you interested in discussing the alternatives and criteria that will be used to compare and select a preferred approach to dispose of waste in Sault Ste. Marie, Prince Township and Batchewana First Nation's Rankin Reserve? If so, we encourage you to attend this public input session!

You're Invited!

Date: Tuesday June 26, 2007
Time: 6:00 pm to 9:00 pm
Location: Civic Centre – Russ Ramsay Room

Please join us!

The City of Sault Ste. Marie is holding a public input session for the Solid Waste Disposal Environmental Assessment to discuss both diversion and disposal of solid waste.

We will update you on the City's achievements in increasing waste diversion and discuss with you the alternative approaches that are being considered to dispose of the residual solid waste. A principle objective of the session is to confirm the alternatives that are being considered (ie: increased 3R's, landfill, incineration and high heat processes, export and do-nothing) and to discuss the criteria that will be used to compare the alternatives.

Information on waste quantities, the alternatives and the evaluation criteria can be found in two working papers prepared for this session titled "Waste Quantity Projections and Existing Environment Profile" and "Alternatives To the Undertaking". These working papers can be downloaded from the City of Sault Ste. Marie website (http://www.cityssm.on.ca/) or viewed at the locations noted below commencing on June 19th.

TSH Engineers Architects and Planners	523 Wellington Street
Civic Centre Engineering and Planning	99 Foster Drive, 5th Floor
Public Works and Transportation	128 Sackville Road
Main Library	50 East Street
Churchill Branch Library	301 Lake Street
Korah Branch Library	496 Second Line
Township of Prince Municipal Office	3042 Second Line West
Batchewana First Nation	236 Frontenac Street
Garden River First Nation	7 Shingwauk Street
Metis Nation of Ontario Office	26 Queen Street East
Missanabie Cree Office	559 Queen Street East

We also encourage you to contact the individuals noted below if you have any specific questions.

Mr. Rick Talvitie, P.Eng
Project Manager
Totten Sims Hubicki (TSH)
523 Wellington Street East,
Sault Ste. Marie, Ontario
P6A 2M4
Phone: 705-942-2612
Fax: 705-942-3642
Email: rtalvitie@tsh.ca

Mrs. Susan Hamilton-Beach, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
99 Foster Drive,
Sault Ste. Marie, Ontario
P6A 5N1
Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on.ca

Information pertaining to this session is available on the City of Sault Ste. Marie website at: http://www.cityssm.on.ca/. Hardcopies can also be obtained by contacting TSH at 705-942-2612.

We look forward to seeing you on June 26th!

TSH engineers architects planners

DILLON CONSULTING

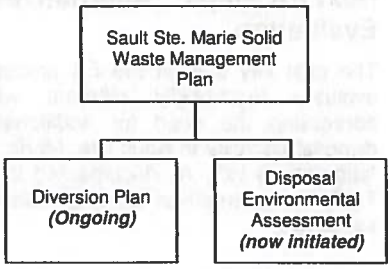
Solid Waste Disposal Environmental Assessment

Newsletter No.1, October 2006

Sault Ste. Marie Begins the Disposal Environmental Assessment (EA)

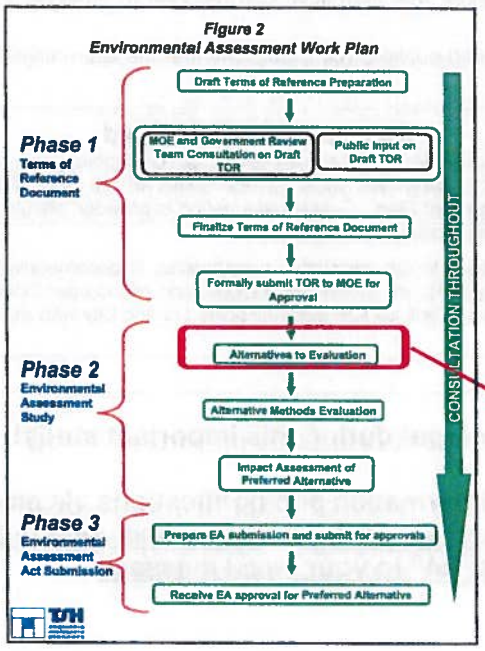
In September 2005 the Minister of the Environment approved the Environmental Assessment Terms of Reference (EA TOR) for the Sault Ste. Marie Solid Waste Management Plan. The EA TOR documents the process that will be followed to determine the preferred method for managing solid waste in Sault Ste. Marie for the next 20 to 40 years. In addition to the disposal EA, the Sault Ste. Marie Solid Waste Management Plan includes a significant diversion component.

A copy of the EA TOR is attached for your reference.



Diversion Update

The City of Sault Ste. Marie's waste diversion program currently includes collection and recycling of fibers and containers (ie: curbside yellow and blue box program); bi-weekly collection and composting of leaf and yard waste; a household hazardous waste depot; and segregation and recycling of metals, white goods, tires, and clean wood and brush at the solid waste landfill at 402 Fifth Line East. In 2005, the City limited residential waste setout to 2 bags/containers per week per household. Tags for additional waste bags or containers must be purchased. The residential waste diversion program diverted approximately 32% of residential waste from the landfill in 2005. This is a significant increase compared to the 8% diverted in 2000!



The EA Process Overview

The Environmental Assessment for disposal capacity includes three key phases. The first phase was completed with the submission and approval of the EA Terms of Reference. We are now initiating the second phase: the Environmental Assessment Study itself. The last phase is submission of the EA documentation to the Ministry of the Environment and the subsequent government and public review and approval period. It is anticipated that the whole process will take until early 2009.

WE ARE HERE

The City has retained a team of consultants including Totten Sims Hubicki Associates and Dillon Consulting Limited to assist them in the preparation of the Waste Disposal EA.

TSH engineers architects planners

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Next EA Steps: "Alternatives To" Evaluation

The next key step in the EA process is to evaluate functionally different ways of addressing the need for additional waste disposal capacity in Sault Ste. Marie, (ie. the "alternatives to"). As documented in the EA TOR, the alternatives being considered are as follows:

- Increased 3R's (reduce, reuse, recycle);
- Incineration & High Heat Processes;
- Landfill;
- Export Waste Outside Service Area;
- Do nothing.

Contact Us

Your input on this project is important to us. If you would like further information or to send comments, ask questions or be added to our mailing list, please contact us:

Mr. Rick Talvitie, P.Eng
Project Manager
Totten Sims Hubicki
523 Wellington Street East,
Sault Ste. Marie, Ontario
P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
Email: rtalvitie@tsh.ca

Mrs. Susan Hamilton-Beach, P.Eng.
Director of Engineering Services
City of Sault Ste. Marie
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99 Foster Drive,
Sault Ste. Marie, Ontario
P6A 5N1

Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on.ca

The evaluation of "alternatives to" will be carried out at a general level. Specific locations and technologies for the above mentioned alternatives will not be included in this step but will be considered in the next step (ie. alternative methods evaluation).

In the EA Terms of Reference, criteria were proposed for the evaluation of the "alternatives to". The proposed criteria for the evaluation of "alternatives to" are listed below.

- Compliance with regulations and policies (addresses the ability to meet all applicable regulations and policies);
- Environmental acceptability (addresses potential environmental affects of the alternative);
- Ability of the City to implement the alternative (considers whether the City has the ability and mandate to implement the alternative);
- Flexibility of the system (considers whether the alternative can respond to changes in the waste stream);
- Capability of managing waste quantities and qualities (considers whether the alternative could handle the identified waste stream);
- Proven technical capability (considers whether the alternative has been proven successful in other experiences in Ontario or other jurisdictions); and
- Economic/Cost (considers the relative cost differences among the alternatives)

Keeping You Informed

This newsletter is part of a series that will be ongoing during this project to keep you aware of the status of the Solid Waste Management Plan. Contact information is provided should you wish more detailed information.

In addition to the newsletter, opportunities to become involved in the project will include workshops, and public open houses. Information will also be regularly posted on the City web site.

We look forward to receiving your input during this important study!

If you would prefer to receive future information and notifications via email please forward your email address to nirwin@tsh.ca. Please include the title "City of SSM Waste Disposal EA" in your email message.

TSH engineers architects planners

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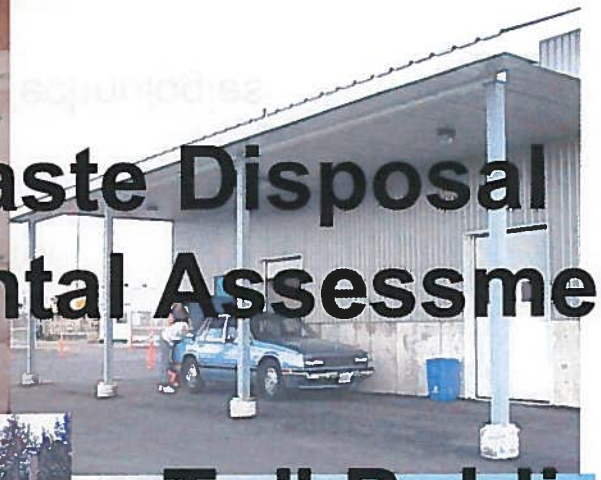
WELCOME!



Solid Waste Disposal Environmental Assessment

"Alternatives To" Public Input Session

Project Team

Proponent – City of Sault Ste. Marie

Susan Hamilton-Beach – Project Lead

Consultant Team

TSH Associates - Lead Consultant
Rick Talvitie – Consultant Project Manager

Dillon Consulting
Karla Kolli – EA Coordinator

Genivar
Janine Ralph – Thermal Technologies

Planning Advisory Services
Bill Wierzbicki - Land Use Planning

Woodland Heritage Services
Luke Dalla Bona - Archaeology/Heritage

Objectives of the Session

- Obtain input on alternatives and the criteria for evaluation
- Obtain input on the relative importance of evaluation criteria
- Presentation information will include:
  - Waste management planning
  - Update on diversion success in Sault Ste. Marie
  - The EA process for disposal
  - Alternatives To
  - Evaluation criteria
  - Next steps

Waste Management Planning

- City has prepared a comprehensive waste management plan over the last 6 years
- The "Plan" addresses waste diversion opportunities and waste disposal needs
- City has focused attention on Waste Diversion since 2001 with significant success

Waste Management Planning

To determine the preferred way to meet the waste management needs of the community over the next 20 to 40 years

Diversion

Reducing the amount of waste requiring disposal

Disposal

Preferred way to manage remaining waste

Waste Management Services

DILLON CONSULTING

Weekly

LANDFILL

+

Weekly

MATERIAL RECOVERY FACILITY (MRF)

Bi-weekly throughout Growing Season

LEAF AND YARD WASTE SITE

Open Twice Weekly Depot Drop-Off

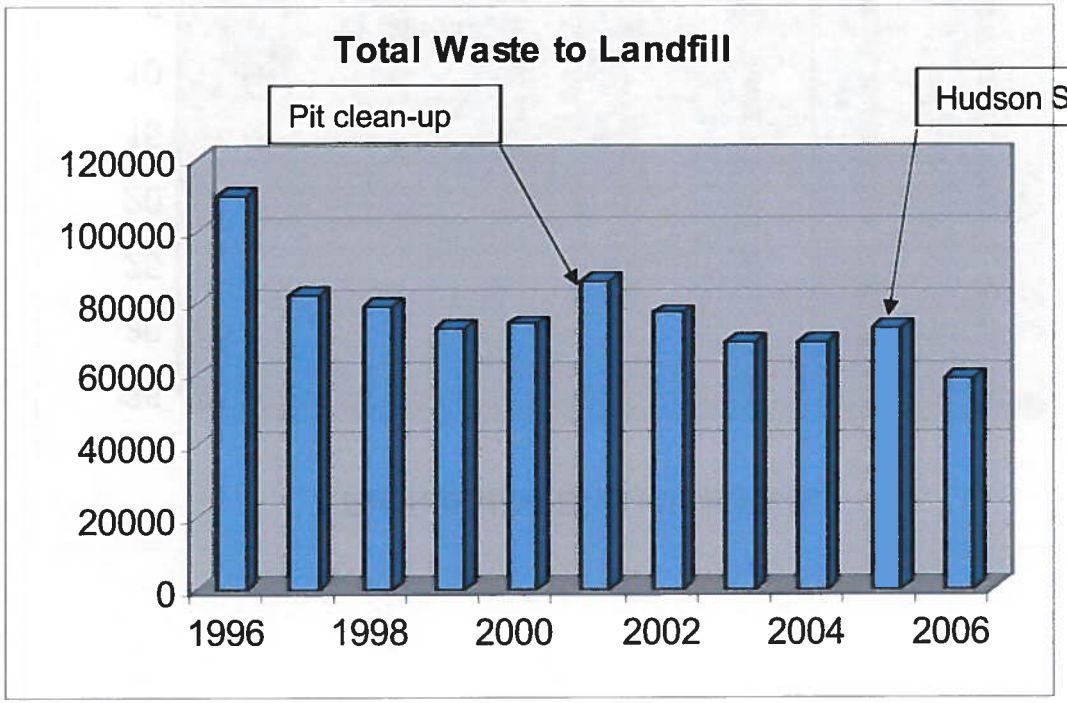
HOUSEHOLD SPECIAL WASTE (HSW) FACILITY (PENDING)

Waste Management Services

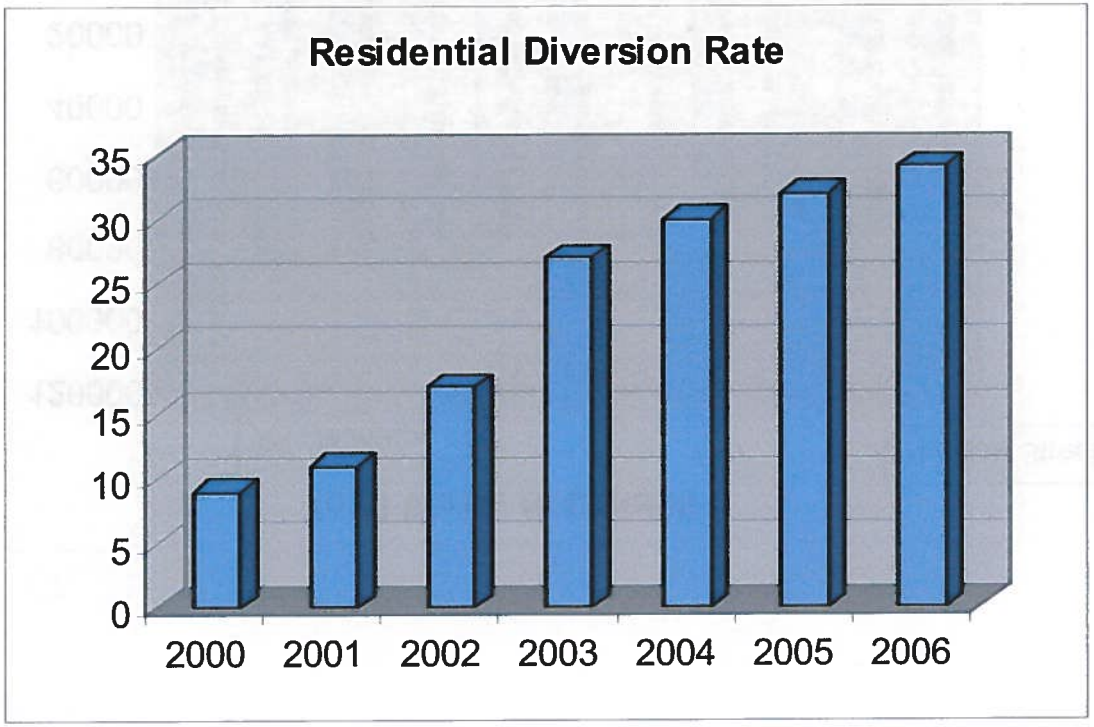
Other Recycling Opportunities

- Diversion at the Landfill (recyclables, tires, white goods, metals, clean wood waste/brush)
- Clean North Sponsored Events (Christmas Trees, Waste Electrical and Electronic Equipment)
- Private Sector Businesses
- Grocery Bags
- Deposit/Return
- Backyard Composters

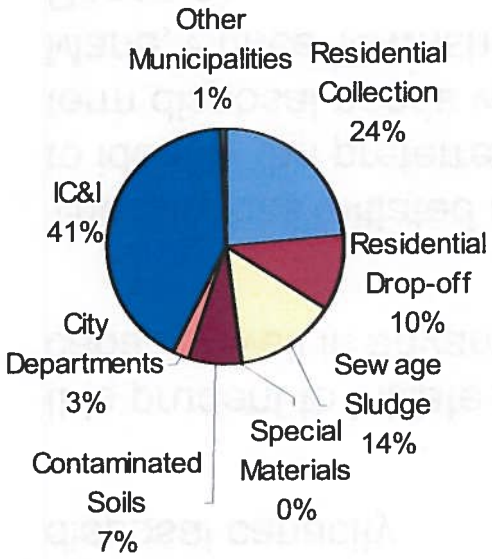
Accomplishments



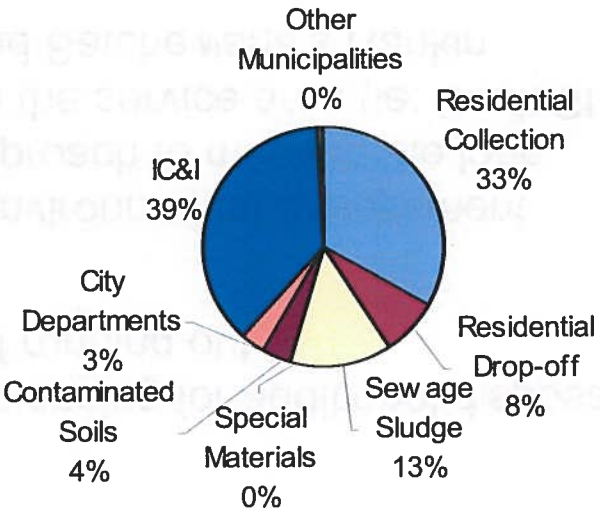
Accomplishments



Landfilled Waste Composition



2006



1999

Project Need

- The City landfill has an estimated 11 years of remaining disposal capacity
- It is prudent to initiate the planning for additional disposal capacity well in advance of running out
- The City has initiated an Environmental Assessment to identify the preferred approach to meeting the long term disposal needs within the service area (ie: Sault Ste. Marie, Prince Township and Batchewana's Rankin Reserve)

What is an EA?

Purpose = ***"protect the environment and quality of life of the people of the province; and facilitate the wise management of the natural resources of the province"***.

It requires anyone who plans a project that could have a significant effect on the natural, social or economic environment to present the project for examination. The EA process serves several important purposes by:

- Allowing projects to receive input from a wide variety of sources, including the federal, provincial and municipal levels of government, stakeholders and the public.
- Identifying potential problems prior to construction
- Promoting good environmental planning practices
- Improving community acceptance
- Better protecting the environment

The EA Process

Phase 1
Terms of Reference Document

Phase 2
Environmental Assessment Study

Phase 3
Environmental Assessment Act Submission

- Draft Terms of Reference Preparation
- MOE and Government Review Team Consultation on Draft TOR
- Public Input on Draft TOR
- Finalize Terms of Reference Document
- Formally submit TOR to MOE for Approval
- We are here
- Alternatives to Evaluation
- Alternative Methods Evaluation
- Impact Assessment of Preferred Alternative
- Prepare EA submission and submit for approvals
- Receive EA approval for Preferred Alternative

"Alternatives To"

- Increased Waste Diversion
- Incineration and High Heat Processes
- Landfill
- Export of Waste Outside the Service Area
- Do nothing

Increased Waste Diversion

- City is currently achieving a 34% residential waste diversion rate.
- Under this alternative the diversion rate would be enhanced further through one or more of the following initiatives:
  - Improving existing practices with existing established programs
  - Additional materials in the "blue/yellow box" program
  - Initiating a household organics collection and processing program
  - Establishing a biosolids (ie: sewage sludge) management program
- Challenges to the implementation of increased 3R's include cost and current composting regulations
- Generally considered to have a positive impact on the environment.
- Some potential for nuisance impacts (e.g. trucks, noise, odour) associated with the facility
- Cost for this alternative is approximately $40 to $160/tonne

Incineration and High Heat

- Conventional combustion technologies or high heat processes (gasification, pyrolisis)
- Generates heat that can generate steam/electricity (best located near facility where steam can be used directly)
- Not suitable for all wastes (eg. biosolids or contaminated soil)
- Typically sized for residential waste stream only which reflects a consistent and reliable feedstock (ie: 20,000 to 24,000 tpy)
- Process residues comprising 30% by weight and 10% by volume also require landfilling
- A small proportion of the residues is "hazardous"
- One incinerator in Ontario; a few new facilities being considered; examples in other jurisdictions
- Can meet provincial air quality requirements; some nuisance effects may be associated with facility (e.g. air, trucks, noise, dust)
- Tipping fee required to recover lifecycle costs (ie. capital and operating) in the range of $110 to $180 per tonne for incineration; and $135 to 220 for high heat processes)

Landfill

- New capacity through expansion or new site
- Site would be engineered with liner/leachate management and landfill gas management
- Most common solid waste disposal method in Ontario
- Engineered facilities can meet provincial ground and surface water quality requirements
- Residual nuisance effects can include ground/surface water, odour, noise, dust, visual intrusion, truck traffic
- Flexible to changes in the waste stream
- Tipping fee required to recover lifecycle costs (ie. capital and operating) in the range of $40-75 per tonne (Current Sault Ste. Marie tipping fee is $65/tonne)

Export

- There is a growing view in Ontario that the need for waste disposal should be handled in Province (recent Policy Statement on Waste Management Planning)
- Requires a transfer station(s) where waste would be loaded on large transport vehicles to be taken to the final disposal site.
- Added environmental effects = additional fuel consumption and air emissions, wear and tear on roads, disruption effects to local residents and users of the haul routes.
- Few export locations (Michigan, Espanola)
- Approximate cost range $75 to $95 per tonne (based on a $65 tipping fee).

Evaluation Criteria

Criterion	Definition
Compliance with Regulations and Policies	Addresses the ability of the "alternative to" to meet all applicable regulations and policies that affect the planning, design and construction, operation and decommissioning of the alternative.
Environmental Acceptability	Addresses the potential for environmental effects associated with the alternative and the ability of the "alternative to" to be approved as an environmentally acceptable option. It represents both natural environment and social/cultural considerations.
Ability of City to Implement the Alternative	Considers whether the City has the ability and mandate to implement the alternative.
Flexibility of the System	Considers whether the alternative could respond to changes in the waste stream that could come about as a result of such things as increased diversion, changes in the economy or fluctuations in waste quantities and types.
Capability of Managing Waste Quantities and Qualities	Considers whether the alternative could handle the identified waste stream.
Proven Technical Capability	Considers whether the alternative has been proven through approval of similar facilities and years of successful operating experience in Ontario and other jurisdictions.
Economic/Cost	Considers the lifecycle cost of the alternative.

Next Steps

Phase 2
Environmental Assessment Study

- Alternatives to Evaluation
- Alternative Methods Evaluation
- Impact Assessment of Preferred Alternative

- Completion of the "Alternatives To" Evaluation:
  - Incorporate input on "alternatives to" and criteria
  - Use this information to evaluate "alternatives to"
  - Recommend a preferred alternative to for Sault Ste. Marie

- Next key EA Step – Alternative Methods Evaluation

Schedule

- Report the results of the "Alternatives To" evaluation – approximately 2 months
- Public input session to discuss alternatives methods evaluation – approximately 6 months time
- Submission of EA document to MOE – Fall, 2008

City of Sault Ste Marie
Solid Waste Disposal Environmental Assessment

"Alternatives To" Public Input Session
PARTICIPANT WORKBOOK (June 2007)

If you are unable to attend, please submit a completed workbook by July 20, 2007 to TSH (refer to page 7)

TSH engineers architects planners

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City of Sault Ste Marie
Solid Waste Disposal Environmental Assessment

June 26, 2007; 6:00 pm to 9:00 pm

AGENDA

6:00	Welcome, Introductions and Agenda Review
6:10	Presentations, Overview Questions and Input Required
6:30	Discussion *Solid Waste Disposal EA* - "Alternatives to" Evaluation
7:45	Beverage Break
8:00	Reporting on Discussion Results
8:15	Next Steps and Closing Remarks
8:20 to 9:00	Additional Time if needed for any item
9:00	Adjourn

* * * * * * * * * * * * * * * * *

NOTE: This workbook is intended to be read in combination with the "Alternatives To the Undertaking" Draft Working Paper, and the "Waste Quantity Projections and Existing Environment Profile" Draft Working Paper

engineers architects planners
DILLON CONSULTING

Solid Waste Disposal EA
" ALTERNATIVES TO" EVALUATION

The "alternatives to" being considered include:

- Increased Waste Diversion
- Incineration and High Heat Processes
- Landfill
- Export of Waste Outside the Service Area
- Do nothing

The following are the evaluation criteria or things that will be considered when we evaluate these "alternatives" to select a preferred alternative for Sault Ste. Marie:

Criterion	Definition
Compliance with Regulations and Policies	Addresses the ability of the "alternative to" to meet all applicable regulations and policies that affect the planning, design and construction, operation and decommissioning of the alternative.
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Economic/Cost	Considers the lifecycle cost of the alternative.

June, 2007 – Public Input Session

1. Are there additional alternatives or evaluation criteria you think should be considered?

   _____

   _____

   _____

2. In the presentation and the "Alternatives To" report we provided information on the advantages and disadvantages of each of the alternatives. Are there any advantages or disadvantages you feel we missed?

Alternatives	Please list any advantages that were missed	Please list any disadvantages that were missed
Increased Waste Diversion		
Incineration and High Heat Processes		
Landfill		
Export of Waste Outside the Service Area		
Do nothing		

3. Based on your understanding of the alternatives, are there any that you feel clearly should be excluded from serious consideration? Please indicate why?

June, 2007 – Public Input Session

4. Of the remaining alternatives, how well do you feel each meets the intention of the evaluation criteria. For example, for the first criterion – compliance with regulations and policies, do the alternatives totally comply, comply to most but not all, don't comply at all. Please use the following table to show us your opinions.

   - fill in the alternatives you are looking at across the top and color in the circles to represent the extent you feel the alternative meets the intent of the criterion. A full circle means completely meets the criterion; an empty circle means does not meet it at all

Criterion					
Compliance with Regulations and Policies	○	○	○	○	○
Environmental Acceptability	○	○	○	○	○
Ability of City to Implement the Alternative	○	○	○	○	○
Flexibility of the System	○	○	○	○	○
Capability of Managing Waste Quantities and Qualities	○	○	○	○	○
Proven Technical Capability	○	○	○	○	○
Economic/Cost	○	○	○	○	○

TSH engineers architects planners
DILLON CONSULTING

5. In your opinion, should all the criteria be considered equally in the evaluation or are there some criteria that you feel are more important or less important? If so, explain why and fill in the table.

Criteria	**Relative Importance** - *color in the circles to reflect the relative importance of the criterion in comparison to the other criteria. A full circle reflects the most important criterion; an empty circle means the least important criterion*
Compliance with Regulations and Policies	○
Environmental Acceptability	○
Ability of City to Implement the Alternative	○
Flexibility of the System	○
Capability of Managing Waste Quantities and Qualities	○
Proven Technical Capability	○
Economic/Cost	○

Other Key Issues/Additional Comments

6. Do you have any other issues or additional comments you would like to make?

_____

_____

_____

_____

_____

_____

_____

_____

PLEASE RETURN completed workbooks by July 20, 2007 to:

TSH Associates
523 Wellington Street East,
Sault Ste. Marie, Ontario
P6A 2M4

Attention: Rick Talvitie, P.Eng.

Thank you!

Please add me to the mailing list:

Name: _____

Address: _____

Phone: _____

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AECOM

Appendix G

Public Input Session – August 9, 2007

City of Sault Ste. Marie
Solid Waste Disposal
Environmental Assessment
PUBLIC OPEN HOUSE No. 1

Sault Ste. Marie Conducts First Public Open House in Garden River!

Are you interested in discussing the alternatives and criteria that will be used to compare and select a preferred approach to dispose of waste in Sault Ste. Marie, Prince Township and Batchewana First Nation's Rankin Reserve? If so, we encourage you to attend this public open house!

You're Invited!

Date: Thursday, August 9, 2007
Time: Drop by anytime between 4:00 pm and 7:00 pm
Location: Garden River Community Center

Please Join Us!

The City of Sault Ste. Marie is holding a public open house for the Solid Waste Disposal Environmental Assessment to discuss both diversion and disposal of solid waste.

We will update you on the City's achievements in increasing waste diversion and discuss with you the alternative approaches that are being considered to dispose of the residual solid waste. A principle objective of the session is to confirm the alternatives that are being considered (ie: increased 3R's, landfill, incineration and high heat processes, export and do-nothing) and to discuss the criteria that will be used to compare the alternatives.

Information on waste quantities, the alternatives and the evaluation criteria can be found in two working papers prepared for this session titled "Waste Quantity Projections and Existing Environment Profile" and "Alternatives To the Undertaking". These working papers can be downloaded from the City of Sault Ste. Marie website (http://www.cityssm.on.ca/Open_Page.aspx?ID=639&deptid=1) or viewed at the Garden River First Nation Band Office (7 Shingwauk Street).

We also encourage you to contact the individuals noted below if you have any specific questions.

Mr. Rick Talvitie, P.Eng
Project Manager
Totten Sims Hubicki (TSH)
523 Wellington Street East,
Sault Ste. Marie, Ontario
P6A 2M4
Phone: 705-942-2612
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Mrs. Susan Hamilton Beach, P.Eng.
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City of Sault Ste. Marie
99 Foster Drive,
Sault Ste. Marie, Ontario
P6A 5N1
Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on.ca

Further information pertaining to the open house is available on the City of Sault Ste. Marie website at: http://www.cityssm.on.ca/Open_Page.aspx?ID=639&deptid=1. Hardcopies of the posted information can also be obtained by contacting TSH at 705-942-2612.

We look forward to seeing you on August 9th!

TSH engineers architects planners

DILLON CONSULTING

City of Sault Ste Marie
Solid Waste Disposal Environmental Assessment

"Alternatives To" Public Open House
PARTICIPANT WORKBOOK (August 2007)

If you are unable to attend, please submit a completed workbook or comments by August 24, 2007 to TSH (refer to page 7)

TSH engineers architects planners

DILLON CONSULTING

August, 2007 – Public Open House

This workbook is intended to be read in combination with the "Alternatives To the Undertaking" Draft Working Paper, and the "Waste Quantity Projections and Existing Environment Profile" Draft Working Paper. You are encouraged to complete the workbook and/or provide comments in the space provided on the last page.

Solid Waste Disposal EA
" ALTERNATIVES TO" EVALUATION

The "alternatives to" being considered include:

- Increased Waste Diversion
- Incineration and High Heat Processes
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- Export of Waste Outside the Service Area
- Do nothing

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August, 2007 – Public Open House

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_____

_____

_____

2. In the presentation and the "Alternatives To" report we provided information on the advantages and disadvantages of each of the alternatives. Are there any advantages or disadvantages you feel we missed?

Alternatives	**Please list any advantages that were missed**	**Please list any disadvantages that were missed**
Increased Waste Diversion		
Incineration and High Heat Processes		
Landfill		
Export of Waste Outside the Service Area		
Do nothing		

August, 2007 – Public Open House

3. Based on your understanding of the alternatives, are there any that you feel clearly should be excluded from serious consideration? Please indicate why?

TSH engineers architects planners
DILLON CONSULTING

August, 2007 – Public Open House

4. Of the remaining alternatives, how well do you feel each meets the intention of the evaluation criteria. For example, for the first criterion – compliance with regulations and policies, do the alternatives totally comply, comply to most but not all, don't comply at all. Please use the following table to show us your opinions.

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Flexibility of the System	○	○	○	○	○
Capability of Managing Waste Quantities and Qualities	○	○	○	○	○
Proven Technical Capability	○	○	○	○	○
Economic/Cost	○	○	○	○	○

TSH engineers architects planners
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5. In your opinion, should all the criteria be considered equally in the evaluation or are there some criteria that you feel are more important or less important? If so, explain why and fill in the table.

Criteria	**Relative Importance** - *color in the circles to reflect the relative importance of the criterion in comparison to the other criteria. A full circle reflects the most important criterion; an empty circle means the least important criterion*
Compliance with Regulations and Policies	○
Environmental Acceptability	○
Ability of City to Implement the Alternative	○
Flexibility of the System	○
Capability of Managing Waste Quantities and Qualities	○
Proven Technical Capability	○
Economic/Cost	○

Other Key Issues/Additional Comments

6. Do you have any other issues or additional comments you would like to make?

_____

_____

_____

_____

_____

_____

_____

PLEASE RETURN completed workbooks by August 24, 2007 to:

TSH Associates
523 Wellington Street East,
Sault Ste. Marie, Ontario
P6A 2M4

Attention: Rick Talvitie, P.Eng.

Thank you!

Please add me to the mailing list:

Name: _____

Address: _____

Phone: _____

TSH engineers architects planners
DILLON CONSULTING

AECOM

Appendix H

Public Input Session – June 3, 2010

THE CITY OF SAULT STE. MARIE

Notice of Public Information Centre

SOLID WASTE DISPOSAL ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its residual municipal solid waste. Work to date has included a thorough review of a number of waste management alternatives including increased waste diversion, incineration/high heat process, landfill, export waste and "do nothing". To identify a preferred waste management method, the alternatives were comparatively evaluated using the following seven criteria:

1. Compliance with current regulations and policies;
2. Environmental acceptability;
3. The ability of the City of Sault Ste. Marie to implement the preferred alternative;
4. Flexibility of the system;
5. Capability of managing waste quality and quantity;
6. Proven technical capacity; and
7. Cost.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative for the City has been identified as **increased waste diversion and landfilling of the residual waste**.

Residents currently divert approximately 34% of their waste from disposal and the City will continue to provide opportunities to improve on this diversion rate. The remaining 66% of residential waste and industrial, commercial and institutional wastes currently goes to the City landfill. In addition to the City's current diversion, the City has entered into a contract with a private corporation for the annual supply of 12,500 metric tonnes of municipal solid waste. This corporation intends to construct and operate a 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility will reduce the quantity of residual waste requiring disposal.

The results of the Environmental Assessment work completed to date suggest that landfill remains the most appropriate disposal option for the City's residual waste. Landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and recovered to generate electricity, landfills can manage the entire residual waste stream, are flexible to changes in waste quality and quantities and are cost effective.

PUBLIC INFORMATION CENTRE

A Public Information Centre is being held to provide an opportunity for you to discuss the project progress and have your questions or concerns addressed.

Date:	Thursday, June 3, 2010
Location:	Thompson Room Civic Centre, 99 Foster Drive
Time:	3:30pm to 7:30 pm

THE NEXT STEPS

Over the summer the project team will be looking at options for landfilling residual waste. This work will include consideration of opportunities to expand the existing landfill or establish a new landfill site. In the Fall of 2010, we will be looking for public input on landfill options.

If you have any questions related to the study, please contact:

Mr. Rick Talvitie, P. Eng.
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
E-mail: rick.talvitie@aecom.com

Mrs. Susan Hamilton Beach, P. Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580, 99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on.ca

If you would like to receive future information and notifications via email, please forward your email address to nancy.maahs@aecom.com. Please include the title "City of SSM Waste Disposal EA" in your message.

SOLID WASTE DISPOSAL
ENVIRONMENTAL ASSESSMENT

Newsletter No.2, May 2010

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its residual municipal solid waste. In the evaluation of "Alternatives To the Undertaking", a thorough review of different waste management alternatives including increased waste diversion, incineration/high heat processes, landfill, export waste outside the service area, and "do-nothing" was completed. To identify a preferred waste management method, the alternatives were comparatively evaluated using the following seven criteria:

1. Compliance with current regulations and policies;
2. Environmental acceptability;
3. The ability of the City of Sault Ste. Marie to implement the preferred alternative;
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6. Proven technical capacity; and
7. Cost.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative for the City has been identified as **increased waste diversion and landfilling of the residual waste.**

DIVERSION UPDATE

The residential waste diversion program diverted approximately 34% of residential waste from the landfill in 2009. This shows consistent progress when compared to the 9% diverted in 2000! The City of Sault Ste. Marie's waste diversion program currently includes weekly curbside collection and recycling of paper products in the yellow box and containers in the blue box; bi-weekly collection and composting of leaf and yard waste throughout the growing season (April through November); a household special waste facility at 115 Industrial Park Crescent; landfill bans and segregation and recycling of metals, white goods, tires, and clean wood and brush at the landfill at 402 Fifth Line East. Since 2006, the City has limited residential waste setout to 2 bags/containers per week per household. Tags for additional waste bags or containers must be purchased. The City diversion programs are also supplemented by diversion initiatives undertaken by the private sector and special interest groups.

The City is also currently assessing the feasibility of diverting municipal biosolids (sewage sludge) from disposal.

PUBLIC INFORMATION CENTRE

A Public Information Centre is being held to provide an opportunity for you to discuss the project progress and have your questions or concerns addressed.

Date: Thursday, June 3, 2010

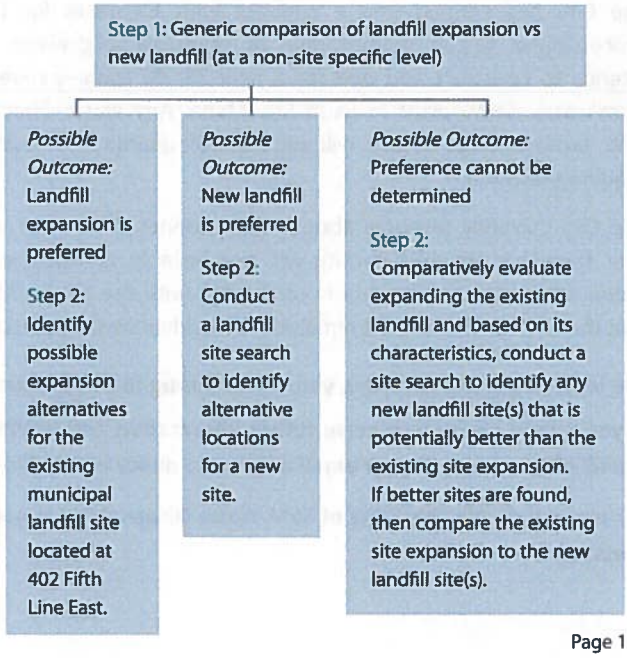
Location: Thompson Room
Civic Centre, 99 Foster Drive

Time: 3:30 pm to 7:30 pm

WHAT'S NEXT?

The results of the Environmental Assessment work completed to date suggest that landfill remains the most appropriate disposal option for the City's residual waste. Landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and recovered to generate electricity, landfills can manage the entire residual waste stream, are flexible to changes in waste quality and quantities and are cost effective.

Following the "Alternatives To" evaluation, the next step in the EA process for a landfill facility is the identification and evaluation of "Alternative Methods" of landfilling. This can include both alternative locations and alternative designs as illustrated in the flow chart below. We will be looking for public input on landfill options in the Fall of 2010.



SOLID WASTE DISPOSAL
ENVIRONMENTAL ASSESSMENT

Newsletter No.2, May 2010

ABOUT THE ENVIRONMENTAL ASSESSMENT (EA) PROCESS

The Environmental Assessment for disposal capacity includes three key phases. The first phase was completed with the submission and approval of the EA Terms of Reference. We are currently working within the second phase: the Environmental Assessment Study itself. The last phase is submission of the EA documentation to the Ministry of the Environment and the subsequent government and public review and approval period. It is anticipated that the whole process will take until late 2012.

In September 2005 the Minister of the Environment approved the Environmental Assessment Terms of Reference (EA TOR) for the Sault Ste. Marie Solid Waste Management Plan. The EA TOR documents the process that will be followed to determine the preferred method for managing solid waste in Sault Ste. Marie for the next 20 to 40 years. In addition to the disposal EA, the Sault Ste. Marie Solid Waste Management Plan includes a significant diversion component.

Keep up-to-date on the EA Study at the City of Sault Ste. Marie's website: http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1

ELEMENTA ENERGY-FROM-WASTE FACILITY

In 2007, an energy-from-waste (EFW) developer known as The Elementa Group (Elementa) constructed a pilot steam reformation plant that would convert municipal solid waste into a char and synthetic gas (or "syngas") that can be used to generate electricity.

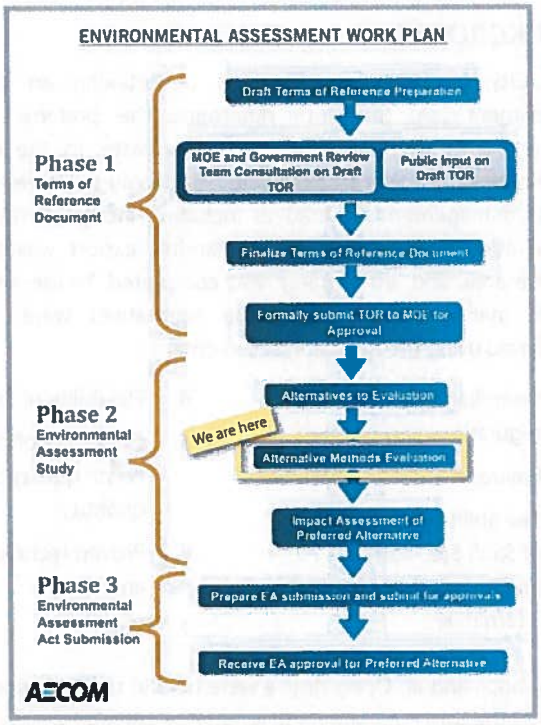
The City has entered into a contract with Elementa for the annual processing of 12,500 metric tonnes of municipal solid waste. Elementa intends to construct and operate a new 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility in the future will reduce the quantity of residual waste requiring disposal.

The City currently disposes about 60,000 tonnes of residual waste each year therefore; the EFW facility will not be able to manage the City's entire waste stream. The City is continuing with the EA study to ensure that the City can process the remainder of residual waste generated.

We look forward to receiving your input during this important study!

If you would prefer to receive future information and notifications via email, please forward your email address to nancy.maahs@aecom.com.

Please include the title "City of SSM Waste Disposal EA" in your message.



CONTACT US

Your input on this project is important to us. If you would like further information or to send comments, ask questions or be added to our mailing list, please contact us:

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
Email: rick.talvitie@aecom.com

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Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on

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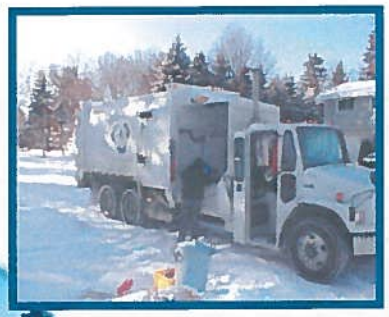
Solid Waste Disposal Environmental Assessment

WELCOME to the
Public Information Centre



THE CORPORATION OF THE CITY OF SAULT STE. MARIE CANADA

June 2010

Objectives of the Public Information Centre

- Provide an update on waste management planning in the City
- Provide an overview of the Environmental Assessment process
- Review the solid waste disposal alternatives considered during the Environmental Assessment process
- Present the preferred waste management alternative
- Provide the next steps in the Environmental Assessment process
- Answer your questions

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Waste Management Planning

- In September 2000, the City initiated a Solid Waste Management Plan
- The Plan addressed waste diversion opportunities and waste disposal needs
- City has focused attention on waste diversion since 2001 with significant success.
- Waste diversion has increased from 9% in 2000 to **34% in 2009**!

Waste Management Planning

To determine the preferred way to meet the waste management needs of the community over the next 20 to 40 years

Diversion

Reducing the amount of waste requiring disposal

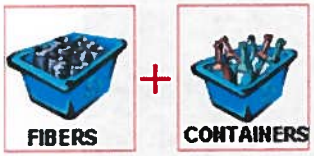
Disposal

Preferred way to manage remaining waste

THE CORPORATION OF THE CITY OF SAULT STE. MARIE CANADA

Waste Management Services

RECYCLING



Weekly

MATERIAL RECOVERY FACILITY (MRF)

LEAF AND YARD WASTE

Bi-weekly throughout Growing Season

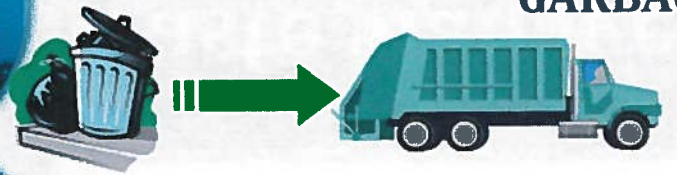
LEAF AND YARD WASTE SITE

HOUSEHOLD SPECIAL WASTE

Open Twice Weekly Depot Drop-Off

HOUSEHOLD SPECIAL WASTE (HSW) FACILITY (PENDING)

GARBAGE



Weekly

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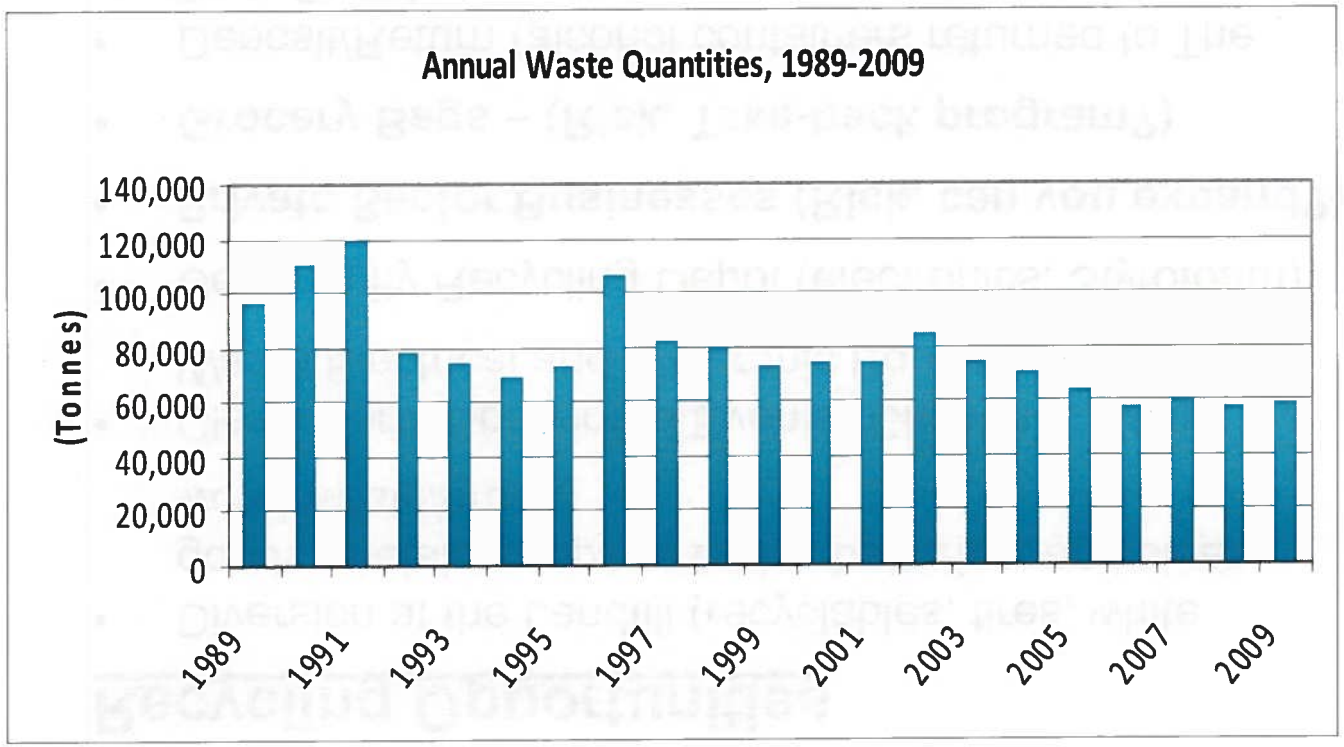
Waste Management Services

Recycling Opportunities

- Diversion at the Landfill (recyclables, tires, white goods, metals, propane tanks, batteries, and clean wood waste/brush)
- Clean North Sponsored Events (Christmas Trees, Waste Electrical and Electronic Equipment)
- Community Recycling Depot (electronics, Styrofoam)
- **Private Sector Businesses (Rick, can you expand?)**
- **Grocery Bags – (Rick, Take-back program?)**
- Deposit/Return (alcohol containers returned to The Beer Store)
- Distribution of Backyard Composters

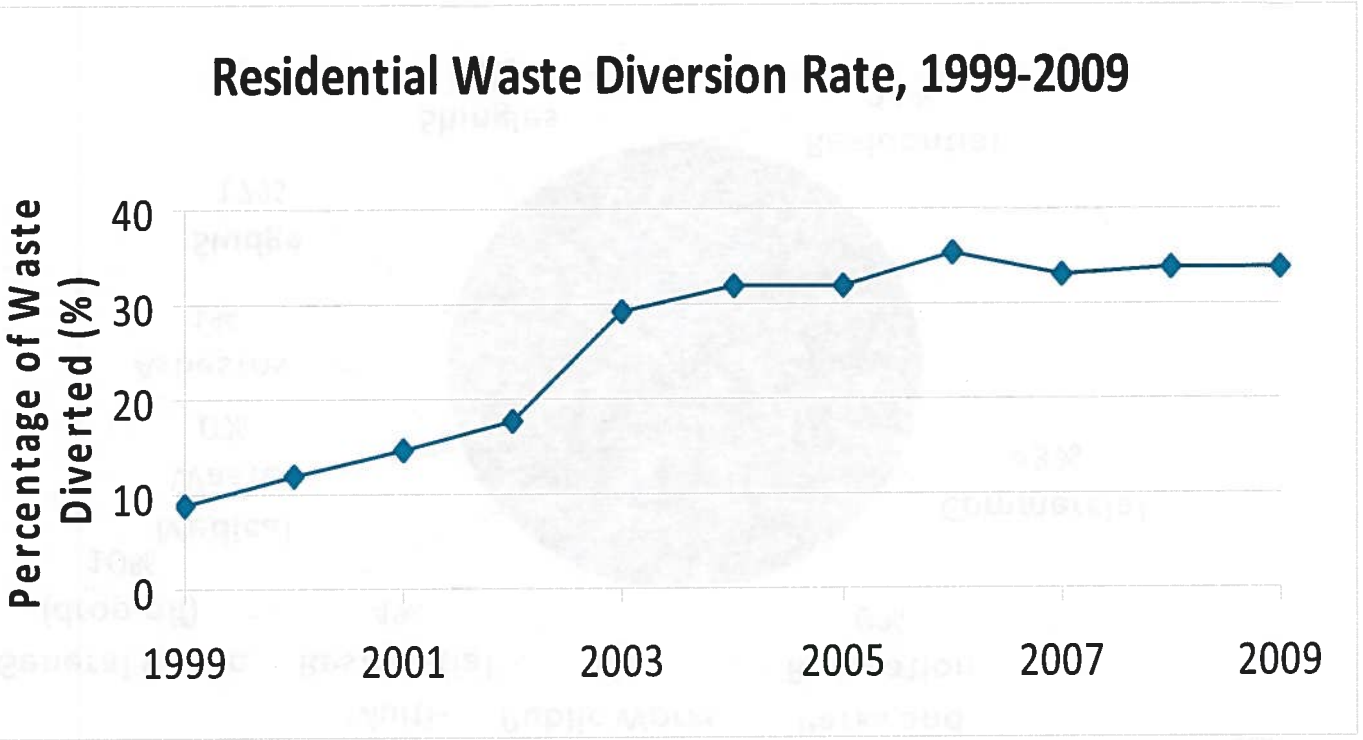
THE CORPORATION OF THE CITY OF SAULT STE. MARIE CANADA

Accomplishments



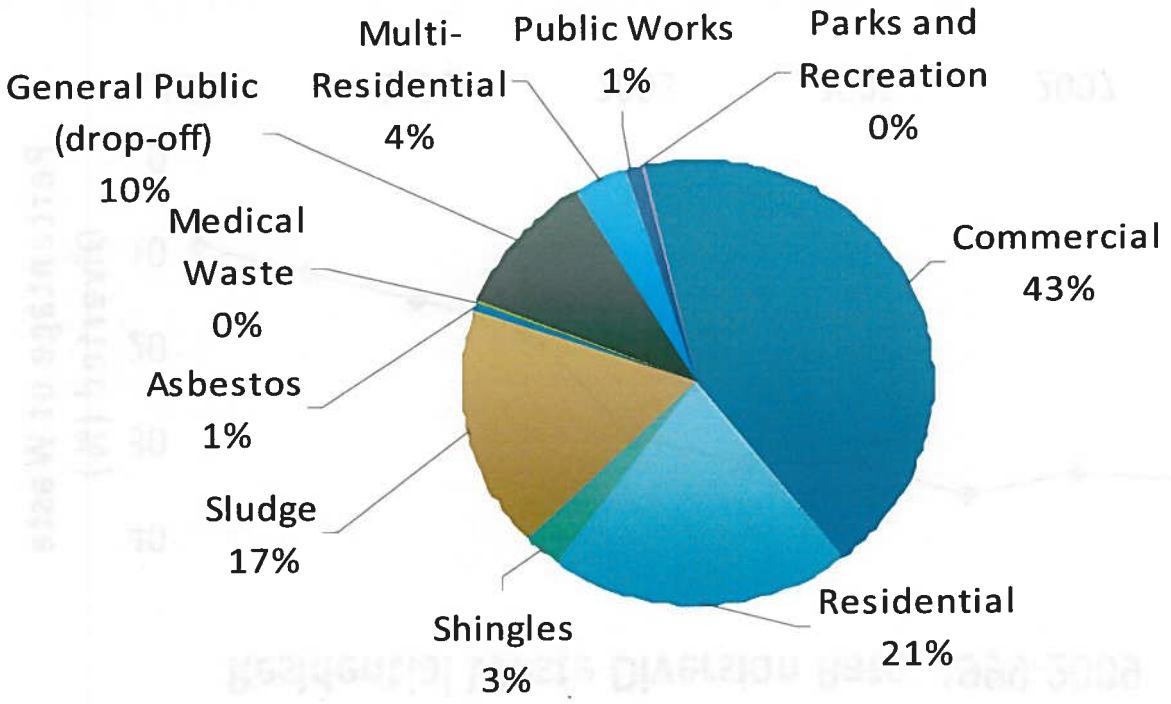
Reduced total waste disposed from 119,000 tonnes in 1991 to 59,000 tonnes in 2009!

Accomplishments



Increased residential diversion rate from 9% in 2000 to 34% in 2009.

Landfilled Waste Composition



2009

Project Need

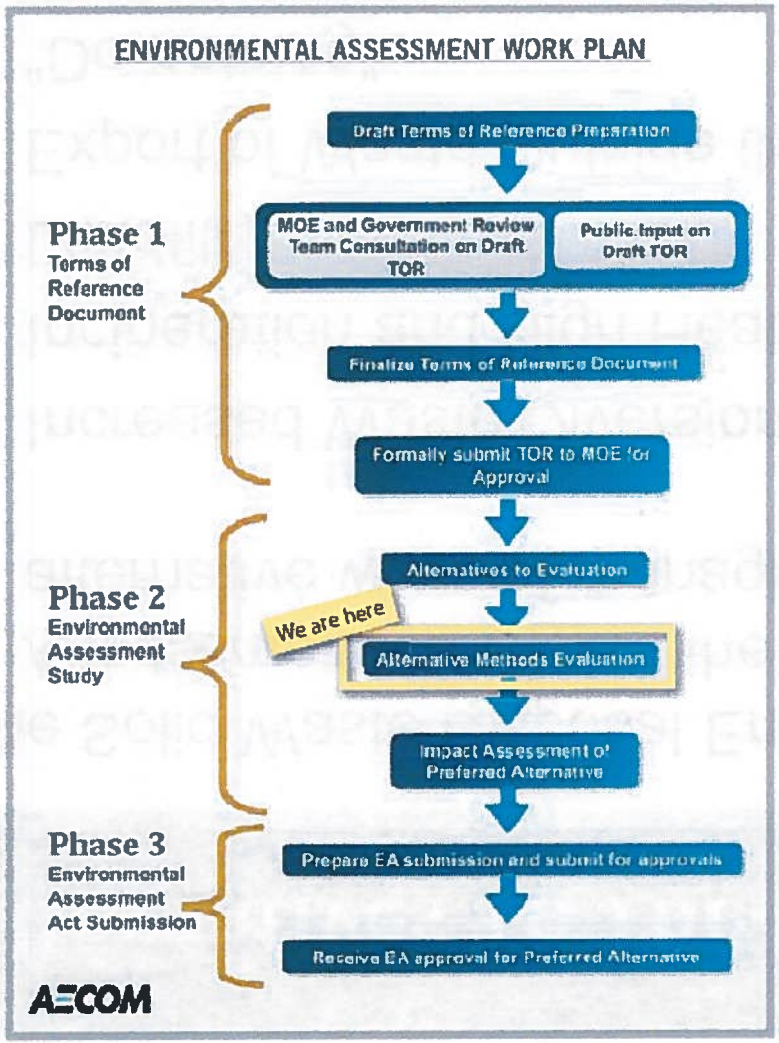
- The City landfill has an estimated 7 years of remaining disposal capacity
- Despite significant success in enhancing waste diversion, additional disposal capacity is required
- It is prudent to plan for additional disposal capacity well in advance of capacity running out
- The Environmental Assessment process is being used to identify the preferred way to meet the long term disposal needs within the service area
  (Sault Ste. Marie, Prince Township and Batchewana's Rankin Reserve)

What is an EA?

Purpose = *"to protect the environment and quality of life of the people of the province; and facilitate the wise management of the natural resources of the province".*

- The *Environmental Assessment Act, 1990* requires anyone who plans a project that could have a significant effect on the natural, social or economic environment to present the project for examination. The EA process serves several important purposes:
  - Allowing projects to receive input from a wide variety of sources, including the federal, provincial and municipal levels of government, stakeholders and the public.
  - Identifying potential problems prior to construction
  - Promoting good environmental planning practices
  - Improving community acceptance
  - Better protecting the environment

The EA Process



Consultation on alternative ways to manage waste ("Alternatives to") included

- Public Input Session and meetings with First Nations in June/July of 2007
- Today's Public Information Centre

Figure to be revised

Alternatives To The Undertaking

The Solid Waste Disposal Environmental Assessment considers the following alternative ways of managing waste:

- Increased Waste Diversion
- Incineration and High Heat Processes
- Landfill
- Export of Waste Outside the Service Area
- "Do-nothing"

Increased Waste Diversion

- City is currently achieving a 34% residential waste diversion rate.
- The diversion rate would be enhanced through improving existing programs and increasing the variety of materials diverted (recyclables, household organics, biosolids)
- Benefits
  - Less waste to dispose of
- Challenges
  - Current composting regulations
  - Potential for nuisances (e.g. trucks, noise, odour associated with processing facilities)
  - Even with aggressive diversion rates, additional disposal capacity is still required.
- Cost: Approximately $40 to $160 per tonne for household organics, $100 to $150 per tonne for additional collection and processing of recyclables

Incineration and High Heat Processes

- Conventional combustion technologies or high heat processes used to generate steam/electricity
- Pilot scale high heat facility currently operating in Sault Ste. Marie; a few other examples in Ontario
- Facilities are required to meet strict provincial groundwater, surface water and air quality standards
- Benefits
  - Generation of electricity
- Challenges
  - Typically sized for residential waste stream only; not suitable for all wastes (e.g. biosolids or contaminated soil)
  - Process residues also require landfilling; a small proportion of the residues are "hazardous"
  - Potential for nuisances (e.g. trucks, noise, odour associated with the facility)
- Cost: Approximately $110 to $170 per tonne for incineration and high heat processes

Landfill

- New capacity through expansion or new site
- Most common solid waste disposal method in Ontario
- Landfill facilities are required to meet strict provincial groundwater, surface water and air quality standards
- Site would be engineered with liner, leachate management and landfill gas management systems to minimize environmental impacts
- Benefits
  - Flexible to changes in the waste stream
  - Landfill gas could be burned to produce electricity
- Challenges
  - Potential for nuisances (e.g. trucks, noise, odour, dust, visual intrusion)
- Cost: Approximately $70-80 per tonne

Export of Waste

- Export of waste to a disposal facility outside of the municipality
- Growing view that waste should be managed as close to the source of generation as possible (recent Ministry of the Environment Policy Statement on Waste Management Planning)
- Challenges
  - Requires a transfer station where waste would be loaded on large transport vehicles to be taken to the final disposal site
  - Added environmental effects include additional fuel consumption and air emissions, wear and tear on roads, disruption effects to local residents and users of the haul routes
  - Long term liability concerns
  - Few export locations (Michigan, Espanola) – Michigan closing its border to Ontario residential waste on December 31, 2010
- Cost: Approximately $80 to $90 per tonne (based on a $70 - $80 tipping fee)

"Do-Nothing"

- The base case scenario
- By approximately 2017, the City of Sault Ste. Marie landfill would be at capacity and the City would no longer be able to fulfil their mandate to provide residential waste disposal capacity

Evaluation Criteria

Criterion	Definition
Compliance with Regulations and Policies	Addresses the ability of the "alternative to" to meet all applicable regulations and policies that affect the planning, design and construction, operation and decommissioning of the alternative.
Environmental Acceptability	Addresses the potential for environmental effects associated with the alternative and the ability of the "alternative to" to be approved as an environmentally acceptable option. It represents both natural environment and social/cultural considerations.
Ability of City to Implement the Alternative	Considers whether the City has the ability and mandate to implement the alternative.
Flexibility of the System	Considers whether the alternative could respond to changes in the waste stream that could come about as a result of such things as increased diversion, changes in the economy or fluctuations in waste quantities and types.
Capability of Managing Waste Quantities and Qualities	Considers whether the alternative could handle the identified waste stream.
Proven Technical Capability	Considers whether the alternative has been proven through approval of similar facilities and years of successful operating experience in Ontario and other jurisdictions.
Economic/Cost	Considers the lifecycle cost of the alternative.

Evaluation of Alternatives

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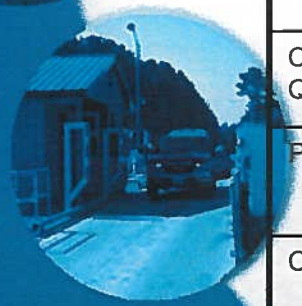

The alternatives were compared based on the evaluation criteria.

The darker color shows preference for the alternative.

Criterion	Increase Waste Diversion	Landfill	Incineration/ High Heat Processes	Export	Do Nothing
Compliance with Regulations and Policies					
Environmental Acceptability					
Ability of the City to Implement Alternative					
Flexibility of the System					
Capability of Managing Waste Quantities and Qualities					
Proven Technical Capability					
Cost					

Preferred Solution

- On the basis of the evaluation criteria, the preferred solution for solid waste disposal is a combination of **increased diversion and landfill.** Feedback during the consultation process supported this conclusion.

- Advantages
  - Complies with relevant regulations and policies
  - Cost effective
  - Landfill can manage the entire waste stream
  - Most flexible to changes in the waste stream
  - Landfill gas can be collected and recovered to generate electricity

- Support of incineration/high heat processes has also been received
  - The City has incorporated this process by endorsing an agreement with Elementa (private sector energy-from-waste propoponent) to send a portion of waste to their facility in Sault Ste. Marie.

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Next Steps

- The City will continue to investigate ways to improve their waste diversion system.
- The next step in the EA process is to identify Alternative Methods of providing additional landfill capacity. This step will include the following:
  - Comparison of the advantages and disadvantages of expanding the existing landfill site or identifying a new landfill site
  - Comparing specific site options
- We will be looking for public input on the Alternative Methods in the Fall of 2010

THE CORPORATION OF THE CITY OF SAULT STE. MARIE CANADA

Contact Us

Your input on this project is important to us!

If you would like further information or to send comments or questions please contact us:

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4
Phone: 705-942-2612
Fax: 705-942-3642
Email: rick.talvitie@aecom.com

Mrs. Susan Hamilton Beach, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1
Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on

Comment forms have been provided to record your comments on the information presented today. Please complete your form and drop it off or send it in.

To subscribe to the Project Newsletter, please email Nancy Maahs at Nancy.maahs@aecom.com

AECOM
523 Wellington Street East
Sault Ste. Marie, ON, Canada P6A 2M4
www.aecom.com

705 942 2612 tel
705 942 3642 fax

Minutes of Meeting

Date of Meeting	June 8, 2010	Start Time	Project Number 60395
Project Name	Solid Waste Management Environmental Assessment		
Location	Garden River First Nation		
Regarding	Solid Waste Management EA in Sault Ste. Marie		
Attendees	Mrs. S. Hamilton Beach, City of Sault Ste. Marie Engineering Mr. R. Talvitie, AECOM Garden River First Nation Council Garden River First Nation Staff		
Distribution			
Minutes Prepared By	Rick Talvitie		

PLEASE NOTE: **If this report does not agree with your records of the meeting, or if there are any omissions, please advise, otherwise we will assume the contents to be correct.**

	Action
1.0 INTRODUCTION	
Rick Talvitie "RT" (AECOM) and Susan Hamilton Beach "SHB" (City Engineering) attended a Garden River First Nation Band Council working meeting on June 8, 2010. The objectives of the visit included: • Provide an update on waste management planning in the City; • Provide an overview of the Environmental Assessment process ; • Review the solid waste management alternatives considered during the Environmental Assessment process; • Present the preferred waste management alternative; • Provide the next steps in the Environmental Assessment process; and • Answer questions.	Info.
Prior to initiating the power point presentation a request was made by a Band Councillor to confirm that the presentation represents "information sharing" and is not intended to be "consultation". RT explained that the presentation is intended to be part of the City's consultation process for this project. The intention is to provide Band Council with the necessary information regarding the Waste Management Environmental Assessment to assist them in providing comments on the proposed undertaking.	Info.
Band Council members reiterated that they are prepared to listen to the presentation provided the presenters acknowledge that the session is being undertaken to share	Info.

information only. SHB noted that although similar undertakings in the City of Sault Ste. Marie are considered consultation she acknowledged that the minutes can reflect that we are engaged in information sharing.	
2.0 EXISTING LANDFILL OPERATIONS Prior to the power point presentation a Band Councilor noted that GRFN has concerns with potential adverse impacts the existing landfill may have on the Root River. The Root River is located adjacent to the City's landfill and ultimately discharges to the St. Mary's River which flows through GRFN.	Info.
RT noted that this is an important question as it provides an opportunity to provide Band Council with a better understanding of the controls and monitoring activities at the City's landfill. RT explained that the City's landfill is an engineered site with the following environmental controls and monitoring activities: • Groundwater flows from the north to the south, south east and south west. A leachate collector is located along the south and south eastern periphery of the site and a series of 10 purge wells are located along the western boundary (ie. downstream end of the landfill) which collect potentially contaminated groundwater (ie. leachate) and conveys it to a pumping station and ultimately to the City's west end sewage treatment plant. • To assess groundwater quality compliance at property boundaries some 70 to 80 ground water monitoring wells have been established within and adjacent to the site to assess ground water quality. Approximately 40 – 50 of these wells are sampled and analyzed three times each year and a report is prepared annually documenting the results. The site is required to meet stringent Ministry of Environment compliance criteria at the property boundary. • Five surface water stations are also sampled and analyzed several times each year. Two of the stations are located upstream and three are downstream of the site. The results are compared to the Provincial Surface Water Quality Objectives and documented each year in the annual report. • The aquatic biological community is also sampled at five locations (2 upstream and 3 downstream) to assess the health of these communities. The upstream results are compared with the downstream results. • The existing passive landfill gas flares are presently being upgraded to an active landfill gas collection system. The methane gas will be burned in a central flare and may be used to generate electricity in the future.	Info.
The information gathered each year is analyzed and a report is submitted to the Ministry of Environment.	Info.

3.0 WASTE MANAGEMENT EA SHB and RT completed a power point presentation to update Band Council on the status of the City's Waste Management Environmental Assessment. A copy of the power point slides is attached for reference. The following comments/questions were noted: • Concerned with impacts to surface water quality as outlined in Section 2 of this meeting report. • Suggested that the City/AECOM contact Sue Chiblow (sue@coo.org) of Chiefs of Ontario. Sue's role is to assist Ontario First Nations in identifying potential concerns with Environmental projects. RT noted that the next phase of the project will be completed throughout the summer and fall. A Public Information Centre or workshop will likely be conducted in the City of Sault Ste. Marie in the fall to solicit input on alternative methods of landfilling. RT noted that a similar open house could be conducted in Garden River if desired. SHB and RT thanked Band Council for their time and interest in the project.	 AECOM AECOM Info. Info.

AECOM

Appendix I

Public Input Session –
April 19, 2011

THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. In the evaluation of "Alternatives To the Undertaking", a thorough review of different waste management alternatives including increased waste diversion, incineration/high heat processes, landfill, export waste outside the service area, and "do-nothing" was completed. To identify a preferred approach to managing waste, the alternatives were comparatively evaluated using the following seven criteria:

1. Compliance with current regulations and policies;
2. Environmental acceptability;
3. The ability of the City of Sault Ste. Marie to implement the preferred alternative;
4. Flexibility of the system;
5. Capability of managing waste quality and quantity;
6. Proven technical capacity; and
7. Cost.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste. The preferred alternative was presented at an Open House in June, 2010.

NEXT STEPS

The next step consists of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. This step will provide initial focus to the search for additional landfill capacity.

A preliminary evaluation of these alternatives has been completed by the project team. We are now seeking input from the general public and stakeholders regarding the evaluation criteria considered and the preliminary findings.

PUBLIC INPUT SESSION

If you are interested in discussing the alternatives and criteria that will be used to compare and select a preferred approach to landfilling residual waste in Sault Ste. Marie, Prince Township and Batchewana First Nation's Rankin Reserve, we encourage you to attend this public input session!

We will provide you with background information, update you on the City's achievements in increasing waste diversion and discuss with you the alternative approaches to landfilling residual solid waste.

Background documents including the working paper to be discussed at the public input session entitled "Solid Waste Management Environmental Assessment - Alternative Methods – Step 1 (Landfill Expansion versus Development of a New Site)" are available on the City's website at **http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1**. Hardcopies of the working paper can also be obtained by contacting AECOM at 705-942-2612 or viewed at the locations noted below commencing on April 11th.

AECOM Canada Ltd.	523 Wellington Street
Civic Centre Engineering and Planning	99 Foster Drive, 5th Flr.
Public Works and Transportation	128 Sackville Road
Main Library	50 East Street
Churchill Branch Library	301 Lake Street
Korah Branch Library	496 Second Line
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Batchewana First Nation	236 Frontenac Street
Garden River First Nation	7 Shingwauk Street
Metis Nation of Ontario Office	26 Queen Street East
Missanabie Cree Office	559 Queen Street East

CONTACT US

We also encourage you to contact the individuals noted below if you have any specific questions.

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Mrs. Susan Hamilton Beach, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1
Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on.ca

YOU'RE INVITED!

Date: Tuesday April 19, 2011
Location: Civic Centre – Russ Ramsay Room
Time: 6:30 pm to 9:00 pm

Refreshments to be provided.

If you cannot attend the public input session in person, we still want to hear from you! Just go to the City's website (http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1), review the Alternatives Method - Step 1 Report and fill out our online questionnaire. A link to the online questionnaire is provided on the City's website.

THE CITY OF SAULT STE. MARIE

NOTICE OF PUBLIC INPUT SESSION

SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. In the evaluation of "Alternatives To the Undertaking", a thorough review of different waste management alternatives including increased waste diversion, incineration/high heat processes, landfill, export waste outside the service area, and "do-nothing" was completed. To identify a preferred approach to managing waste, the alternatives were comparatively evaluated using the following seven criteria:

1. Compliance with current regulations and policies;
2. Environmental acceptability;
3. The ability of the City of Sault Ste. Marie to implement the preferred alternative;
4. Flexibility of the system;
5. Capability of managing waste quality and quantity;
6. Proven technical capacity; and
7. Cost.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste. The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the entire residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

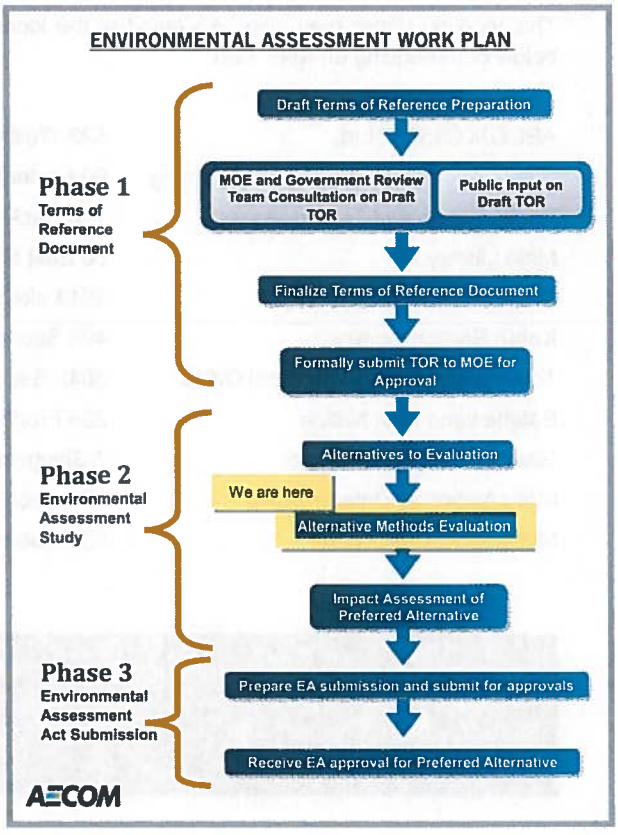
The flexibility of the preferred alternative is particularly important given the City's contract with The Elementa Group (an energy-from-waste service provider) for the annual processing of at least 12,500 metric tonnes of municipal solid waste. Elementa intends to construct and operate a new 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility in the future will reduce the quantity of residual waste requiring disposal in a landfill.

NEXT STEPS

The City remains committed to investigating, implementing and supporting programs to increase waste diversion through 3Rs initiatives. Since the implementation of 3Rs initiatives does not require Environmental Assessment (EA) Act approval, the EA study is now focusing on alternative methods of landfilling residual waste. The key objective of this phase of the study is to find an environmentally suitable location for the development of additional landfill capacity.

The first step to be completed in this phase consists of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. This step will provide initial focus to the search for additional landfill capacity.

A preliminary evaluation of these alternatives has been completed by the project team. We are now seeking input from the general public and Stakeholders regarding the evaluation criteria considered and the preliminary findings.



THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

PUBLIC INPUT SESSION

If you are interested in discussing the alternatives and criteria that will be used to compare and select a preferred approach to landfilling residual waste in Sault Ste. Marie, Prince Township and Batchewana First Nation's Rankin Reserve, we encourage you to attend this public input session!

We will provide you with background information, update you on the City's achievements in increasing waste diversion and discuss with you the alternative approaches to landfilling residual solid waste. A principle objective of the session is to confirm whether the City should focus its efforts to obtain additional disposal capacity by expanding an existing landfill site or finding a location for a new site.

Background information documenting the work completed to date is available on the City website at **http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1**. In addition, the alternatives and the evaluation criteria currently being considered are also available on the website in a working paper prepared for this session titled "Solid Waste Management Environmental Assessment - Alternative Methods – Step 1 (Landfill Expansion versus Development of a New Site).

This working paper may also be viewed at the locations noted below commencing on April 11th.

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Solid Waste Management Environmental Assessment

WELCOME to the
Public Input Session

THE CORPORATION OF THE CITY OF SAULT STE. MARIE CANADA

April, 2011

Agenda

- Record your name and contact information on the sign-in sheet.
- Consultant presentation.
- Question and Answer period.
- Refreshment break.
- Break out into working groups to complete workbooks.
- Wrap-up/Summary

Objectives of the Public Input Session

- Provide an update on waste management planning activities and results
- Review project need
- Provide an overview of the Environmental Assessment process and where we are at in the process
- Present the criteria and approach used in the evaluation of a new site versus expansion of an existing site
- Present the preliminary results of the evaluation completed by the project team
- Solicit input on the evaluation and preliminary findings
- Solicit input on the evaluation criteria to be used in the next steps
- Identify the next steps in the EA process
- Answer your questions

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Waste Management Planning

Waste Management Planning

To determine the preferred way to meet the waste management needs of the community over the next 20 to 40 years

Diversion

Reducing the amount of waste requiring disposal

Disposal

Preferred way to manage residual waste

- In September 2000, the City initiated a Solid Waste Management Plan
- The Plan addressed waste diversion opportunities and waste disposal needs
- City focused attention on diversion (ie. 3Rs - reduce/ reuse/ recycle) over the last decade with significant success.
- Waste diversion has increased from 9% in 1999 to **34% in 2009**!

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Principle Waste Management Services

AECOM

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RECYCLING

+

MATERIAL RECOVERY FACILITY (MRF)

LEAF AND YARD WASTE

LEAF AND YARD WASTE SITE

HOUSEHOLD SPECIAL WASTE

HOUSEHOLD SPECIAL WASTE (HSW) FACILITY

GARBAGE

LANDFILL

THE CORPORATION OF THE CITY OF SAULT STE. MARIE CANADA

Waste Management Services

Diversion Opportunities

- Diversion at the Landfill (recyclables, tires (OTS), white goods, metals, propane tanks, batteries, and clean wood waste/brush)
- Clean North Sponsored Events (eg.Christmas Trees)
- Community Recycling Depot (WEEE, styrofoam)
- Habitat for Humanity Restore (reusable items)
- Grocery Bags – "Say yes to reuse and recycle"
- Discount for refillable coffee cups at City venues
- Deposit/Return (alcohol containers returned to The LCBO/Beer Store)
- Distribution of Backyard Composters
- Other private sector businesses

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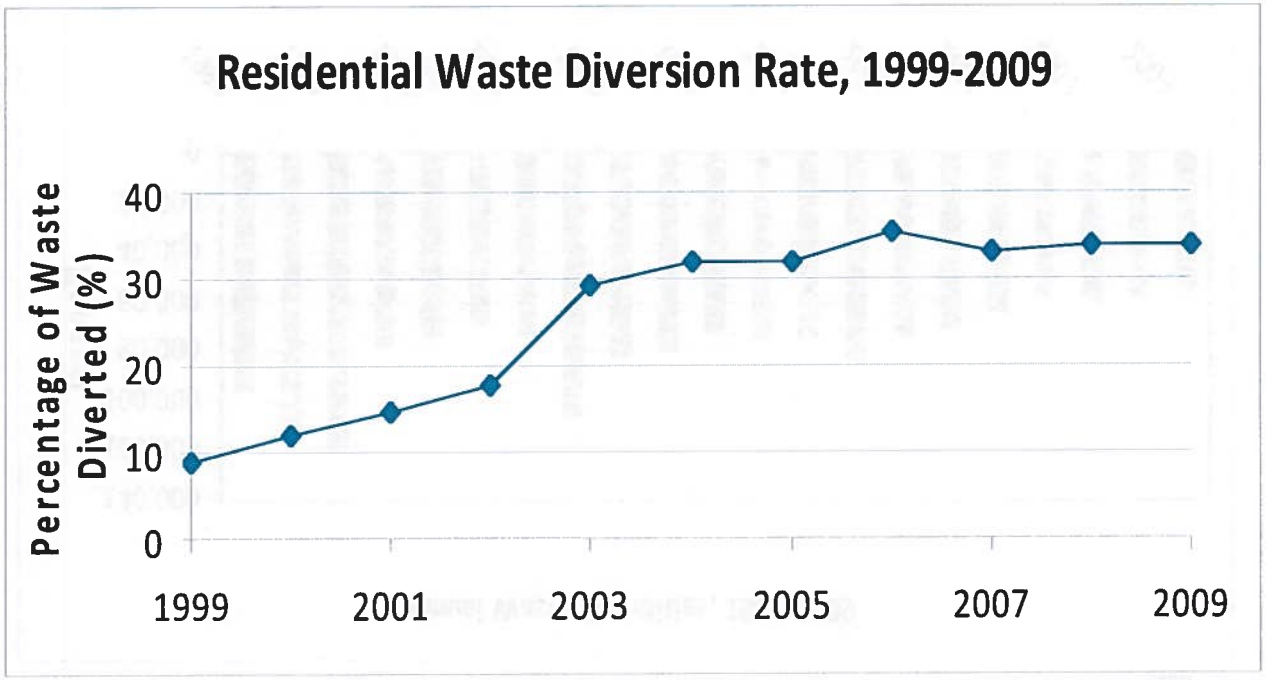
Accomplishments



Increased residential diversion rate from 9% in 1999 to 34% in 2009.

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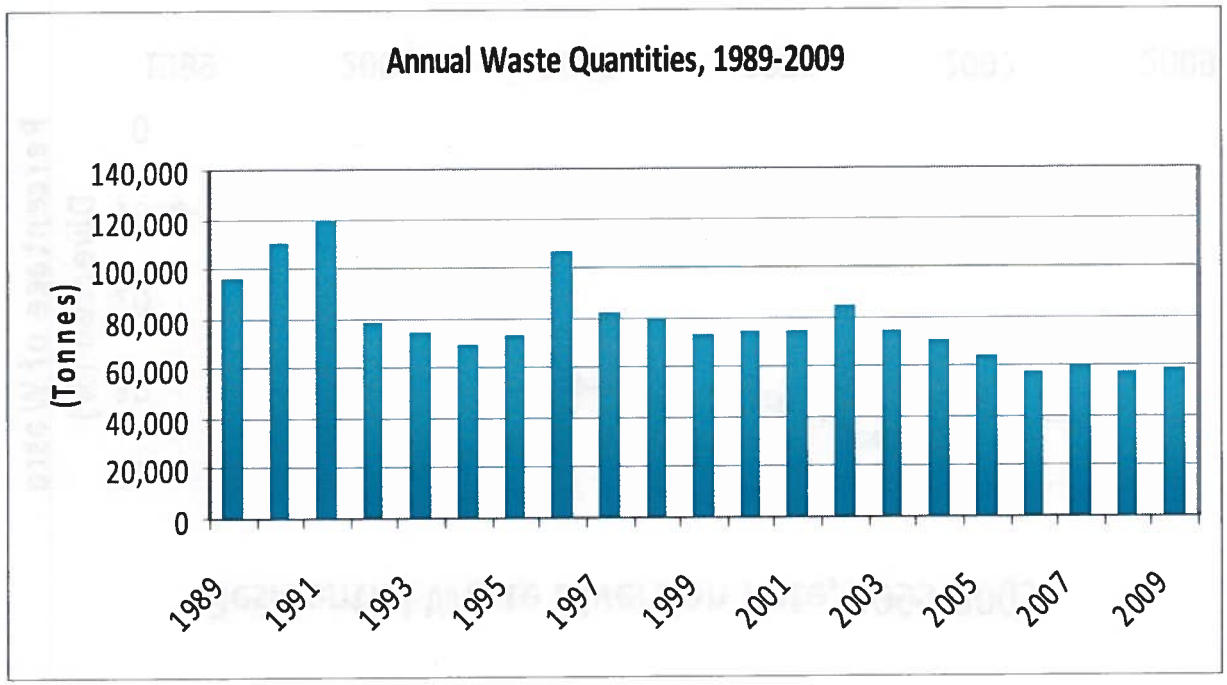
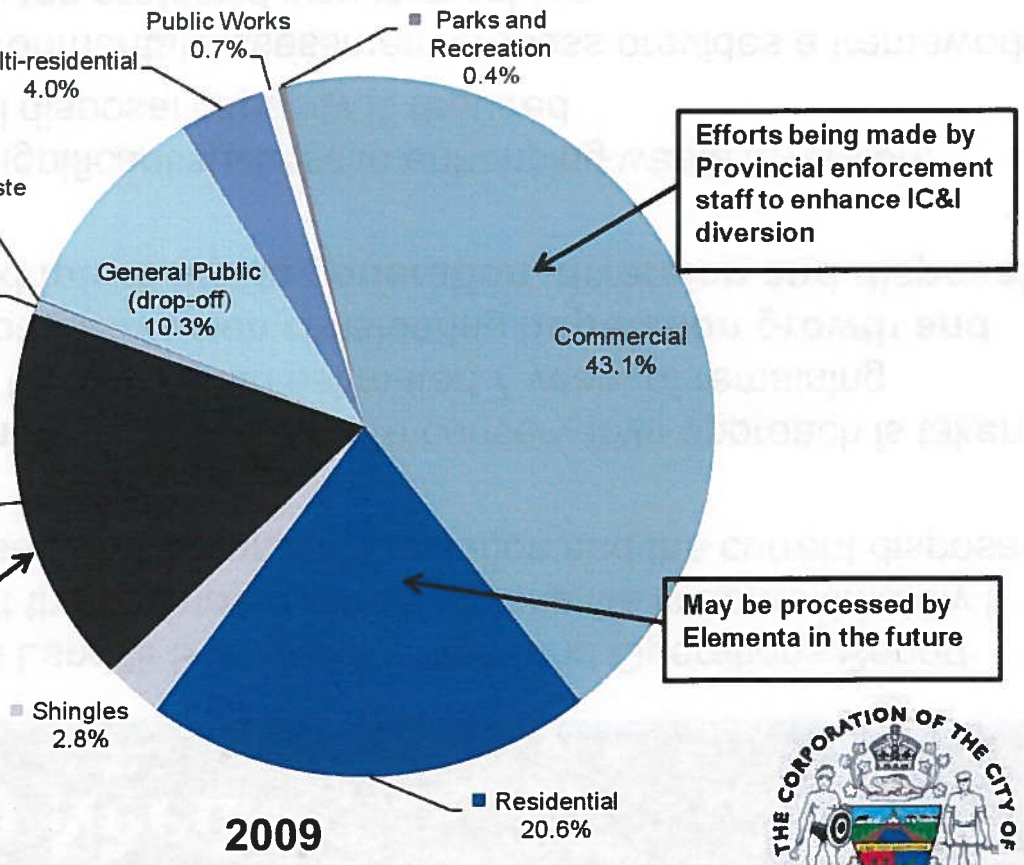
Accomplishments



Reduced total waste disposed from more than 70,000 tonnes between 1989 to 2004 (max. of 119,000 tonnes) to less than 60,000 tonnes over the last 4 years!

Landfilled Waste Composition



Efforts being made by Provincial enforcement staff to enhance IC&I diversion

Studying alternative management options

May be processed by Elementa in the future

In addition to the above, approximately 9,900 tonnes of street sweepings and contaminated soil were managed at the site

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Project Need

- The 2010 Landfill Site Development and Operations Report noted that the estimated remaining site life is approximately 9 years based on a stagnant population and the current disposal rates
- For Planning purposes a more conservative approach is taken - the City landfill has an estimated 7 years of remaining disposal capacity when considering **population growth and estimated future waste generation, diversion and disposal rates**
- Despite significant success in enhancing waste diversion, additional disposal capacity is required
- The Environmental Assessment process provides a framework to identify the preferred way to meet the long term disposal needs within the service area in a transparent manner

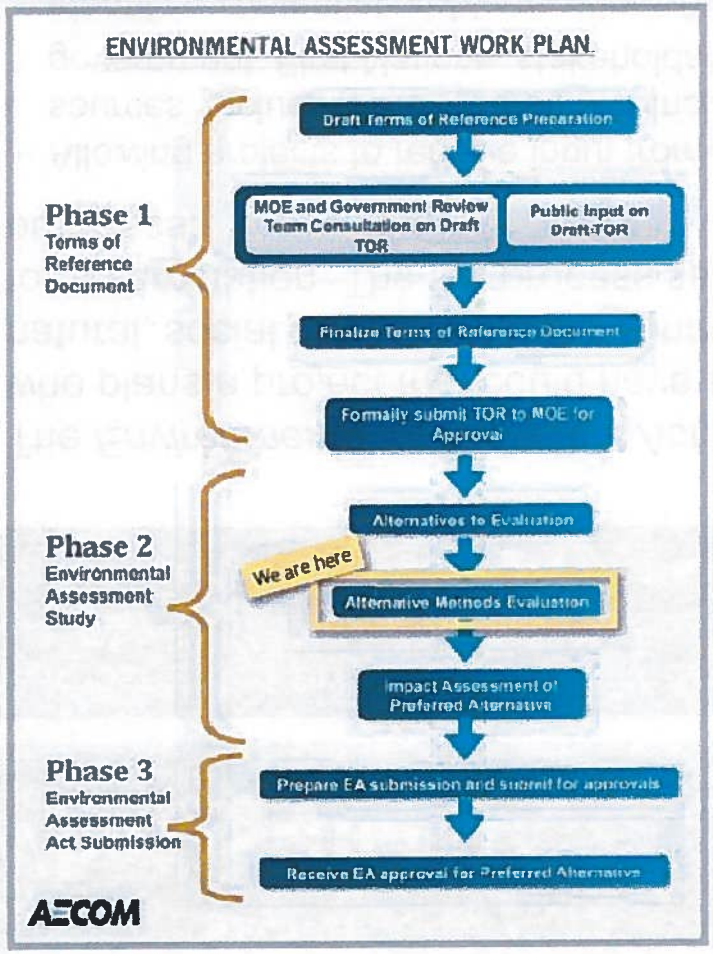
THE CORPORATION OF THE CITY OF SAULT STE. MARIE CANADA

What is an EA?

Purpose = *"to protect the environment and quality of life of the people of the province; and facilitate the wise management of the natural resources of the province".*

- The *Environmental Assessment Act, 1990* requires anyone who plans a project that could have a significant effect on the natural, social or economic environment to present the project for examination. The EA process serves several important purposes:
  - Allowing projects to receive input from a wide variety of sources, including the federal, provincial and municipal levels of government, First Nations, stakeholders and the public.
  - Identifying potential problems prior to construction
  - Promoting good environmental planning practices
  - Improving community acceptance
  - Better protecting the environment

The EA Process



Consultation on the ToR and alternative ways to manage waste ("Alternatives to") included:

- Newsletters
- Public Input Sessions and meetings with First Nations and other stakeholders in the summer/fall of 2007
- Public Information Center and meetings with First Nations and other stakeholders in the summer of 2010

Phase 2 - "Alternatives To" - Conclusion

The preferred long-term approach to managing waste in SSM is:

- Increased 3Rs (Reduce/Reuse/Recycle)
- Landfilling residual waste

Why?

- Can comply with regulations and policies
- City is experienced with these waste management initiatives
- Flexible to changes in the waste stream (eg. population, waste generation, diversion)
- Can accept most residual waste from a Waste-to-Energy facility
- Cost efficient

The EA will now focus on identifying and evaluating alternative methods of landfilling waste (ie. alternative locations and designs)

Alternative Methods of Landfilling

Common to Both

- Capacity required = 2.3 million tonnes
- Leachate and landfill gas management to be provided

Expansion

- Horizontal and/or vertical expansion and/or landfill mining
- Likely overlap a portion of an existing disposal footprint
- Site area likely less than 50 Ha

New Site

- Minimum site area required = 50Ha
- Continued maintenance and monitoring of closed site

Evaluation of Alternative Methods

Step 1:
Generic comparison of landfill expansion vs. new landfill (at a non-site specific level)

Possible Outcome:	Possible Outcome:	Possible Outcome:
Landfill expansion is preferred	New landfill is preferred	Preference cannot be determined
Step 2:	**Step 2:**	**Step 2:**
Identify possible expansion alternatives for the existing municipal landfill site located at 402 Fifth Line East.	Conduct a landfill site search to identify alternative locations for a new site.	Conduct a site search to identify any new landfill site(s) that is(are) potentially better than the existing site expansion. If better sites are found, then comparatively evaluate expanding the existing landfill to the new landfill site(s).

The Alternative Methods evaluation is completed in a two-step process.

Evaluation Criteria Groups

Criterion	Definition
Natural Environment	Addresses the potential for displacement and/or disruption of natural environmental features (terrestrial features, aquatic features, ground water and surface water)
Social Cultural Environment	Addresses the potential for displacement and/or disruption of social/cultural environmental features (residents, community features, future land use plans, heritage and archaeological resources, public health and safety)
Economics	Addresses the potential for displacement and/or disruption of businesses and resources (agriculture, forestry, mining)
Cost	Considers the lifecycle cost of the alternative.
Technical Considerations	Considers whether the alternative can provide the necessary service and assesses the ease of obtaining approval.
Transportation	Considers the impacts of traffic volumes accessing the site and potential impacts to the airport and the movement of farm equipment.

Evaluation of Alternatives

Criterion	Expand an Existing Site	Develop a New Landfill Site
Natural Environment	Less potential to displace terrestrial and aquatic features based on smaller land area required.	Greater potential to displace terrestrial and aquatic features based on larger land area required.
Social Cultural Environment	Less potential to displace residents, community features and heritage/archaeological resources based on smaller land area required. Mutual adaptation including impact management has been occurring over the operating life of the existing landfill.	Greater potential to displace residents, community features and heritage/archaeological resources based on larger land area required. Would likely be disrupting a new community and some disruption would likely continue in the vicinity of the existing site.
Economics	Less potential to displace businesses and resources based on smaller land area required. Mutual adaptation including impact management has been occurring over the operating life of the existing landfill.	Greater potential to displace businesses and resources based on larger land area required.
Cost	Likely lower (existing infrastructure, monitoring systems, site knowledge, approvals, property)	Likely higher
Technical Considerations	Likely lower level of effort and fewer challenges to obtain approval.	Need to establish a high level of knowledge and understanding of the site.
Transportation	No significant differences.	No significant differences.

Preliminary Preferred Method

- On the basis of the **preliminary** evaluation, the preferred method of landfilling waste = expansion of an existing site.

- Key Advantages
  - Likely less potential for displacement and disruption
  - Only one landfill site to manage and maintain
  - Cost effective
  - Community adaptation
  - Likely fewer challenges in gaining approvals

Next Steps

- Solicit community and stakeholder input on the preliminary preferred alternative – do you agree/disagree – why?
- Solicit input on the evaluation criteria to be used for Step 2 – comparing site specific options
- Re-assess (if needed) and finalize the Step 1 evaluation based on input received
- Announce the preferred Step 1 - Alternative Method
- Continue with Step 2 – comparing site specific options
- Continue to investigate ways to improve waste diversion

Contact Us

Your input on this project is important to us!

If you would like further information or to send comments or questions please contact us:

Mr. Rick Talvitie, P.Eng
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523 Wellington Street East,
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To subscribe to the Project Newsletter, please email Nancy Maahs at Nancy.maahs@aecom.com

THE CITY OF SAULT STE. MARIE

PUBLIC INPUT SESSION

PARTICIPANT WORKBOOK

SOLID WASTE MANAGEMENT
ENVIRONMENTAL ASSESSMENT

Tuesday April 19, 2011

AGENDA

6:30 - 6:40 pm	Take attendance
6:40– 7:10 pm	Consultant presentation
7:10 – 7:30 pm	Question and answer period
7:30 – 7:45 pm	Break
7:45 – 8:45 pm	Break out into working groups and complete workbooks/questionnaires
8:45 – 9:00 pm	Wrap-up / summary

* * * * * * * * * * * * * *

This workbook is intended to be read in combination with the
Alternative Methods - Step 1 Report
(Landfill Expansion versus Development of a New Landfill Site)
DRAFT Working Paper.

The report can be viewed on the City's website
http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1

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Introduction

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. To date, we have completed a thorough review of different ways to manage waste including increased waste diversion, incineration/high heat processes, landfill, export of waste outside the service area, and "do-nothing". The City has decided to pursue a combination of increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.

The next phase in the EA Study is to find an environmentally suitable location for the development of additional landfill capacity. Generally, there are two ways to develop additional landfill capacity – site a new landfill or expand an existing landfill. So our first step is to compare the advantages and disadvantages of these two landfill development alternatives.

A preliminary evaluation of these two alternatives has been completed by the project team. You can review this preliminary evaluation in the document Alternative Methods – Step 1 (Landfill Expansion Versus Development of a New Landfill Site) Draft Working Paper that is posted on the City of Sault Ste. Marie's website.

We are now seeking your input on this preliminary evaluation. We are also seeking your input on the criteria to be used in the next step of the project which will involve the comparison of specific sites.

Please complete this workbook to provide us with your input on this important project.

1. The following table shows the key differences we have identified between the development of a new landfill and the expansion of an existing landfill. These differences are based on general characteristics as no specific sites have been considered. Please provide us your comments on the key differences (for more detail on the comparison please refer to Table 3.2 in the *Alternative Methods – Step 1 (Landfill Expansion Versus Development of a New Landfill Site) Draft Working Paper*).

Key Differences	Please Provide Your Comments
Potential for displacement – A new landfill site generally requires more land than a landfill expansion, and therefore has greater potential for displacement of environmental and social features (assuming similar site characteristics).	
Potential for disruption – Both alternatives have similar potential to result in nuisance effects such as noise, dust, odour and truck traffic.	
A new landfill site has the potential to disrupt a new community that currently does not experience potential negative effects from a landfill. A new site will require ongoing maintenance and monitoring of the closed site for a significant period of time (e.g. 50 years±) in addition to the operations at the new site. For the expansion of an existing site, a degree of mutual adaptation between landfill operations and the local community occurs over the years of operating existing landfills.	

Key Differences

Please Provide Your Comments

Lifecycle cost - The comparative cost of developing and operating a landfill expansion can be expected to be less than the cost of developing and operating a new landfill.

Site development costs for an expansion will most likely be comparatively less as an expansion can likely make use of some of the infrastructure.

A new site would likely require more investigation to gain the understanding of the site geology and hydrogeology needed for approvals.

Property costs would likely be higher for a new site since more property is required.

A new site will result in the addition of a new facility for which the City must develop, operate, monitor and manage. Leachate and landfill gas management, monitoring, maintenance and reporting will continue to be required at the existing closed site for many years. This will result in added costs compared to a site expansion.

Key Differences

Please Provide Your Comments

Ease of obtaining approval and providing service – It is anticipated that the knowledge and understanding and the level of comfort or certainty established over time with an existing landfill, will most likely result in a lower level of effort and fewer challenges to be overcome in gaining approvals in comparison to a new site.

Any differences we have missed? – Please let us know if you feel there are key differences between the development of a new site and the expansion of an existing site that we have missed.

2. The preliminary conclusion of the work completed to date is that the City should focus resources on exploring a possible expansion of an existing landfill rather than find a new landfill site in the City of Sault Ste. Marie. Do you agree with this preliminary conclusion?

Please explain.

3. The next step of the EA involves comparing specific sites. The following lists the proposed criteria for the evaluation of alternative methods. Specific indicators or ways to evaluate the alternatives under the criteria are also listed.

   We are looking for your comments on whether anything has been missed or whether changes should be made.

Criteria Group /Criteria	Indicators	Anything Missing? Any Suggested Changes?
NATURAL ENVIRONMENT		
Compare potential for displacement or disruption[1] of terrestrial features	• Area and significance of terrestrial features on site that would be displaced. • Area and significance of terrestrial features off-site that may experience disruption effects during operation. • Area and significance of terrestrial features along haul route that might experience disruption effects during operation.	

[1] Disruption includes consideration of nuisance effects.

Criteria Group /Criteria	Indicators	Anything Missing? Any Suggested Changes?
Compare potential for displacement or disruption of aquatic features	• Amount and significance of aquatic habitat on-site that would be displaced or disrupted. • Amount and significance of aquatic habitat off-site that may be disrupted during operation. • Amount and significance of aquatic habitat along access route that might experience disruption effects during operation.	
Compare potential for effects on groundwater resources	• Presence and significance of groundwater resources. • Lateral extent, thickness and relative permeability of attenuation layer. • Predictability of hydrogeologic environment.	

Criteria Group /Criteria	Indicators	Anything Missing? Any Suggested Changes?
Compare potential for effects on surface water resources	• Number of watersheds receiving surface water from site. • Number of watercourses crossing the site and upstream drainage areas.	
SOCIO-CULTURAL ENVIRONMENT		
Compare potential for displacement or disruption to residents	• Number of residences on-site who would be displaced. • Number of residences off-site who may experience disruption effects (e.g. noise, dust, odour) during operation. • Number of residences along the haul route that might experience disruption effects during operation. • Character of the community in the vicinity of the site and potential for impact on that character.	

Criteria Group /Criteria	Indicators	Anything Missing? Any Suggested Changes?
Compare potential for displacement or disruption to community features (e.g. parks, recreational facilities)	• Number and type of community features on-site that would be displaced. • Number and type of community features off-site that may experience disruption effects (e.g. noise, dust, odour) during operation. • Number and type of community features along the haul route that might experience disruption effects during operation.	
Compare potential for impact on future land use plans	• Area and designation of land to be displaced on-site. • Area and designation of land to be disrupted off-site. • Area and designation of land to be disrupted along haul route • Change in land use character compared to existing designations.	

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Criteria Group /Criteria	Indicators	Anything Missing? Any Suggested Changes?
Compare potential for displacement or disruption of heritage or archaeological resources	• Presence of known archaeological resources on-site. • Number of built heritage or cultural landscape features on-site that would be displaced. • Number of built heritage or cultural landscape features off-site that might be disrupted. • Number of built heritage or cultural landscape features along the haul route that might be disrupted.	
Compare potential for impacts to public health and safety (air quality, noise and dust)	• Ability to meet provincial regulations	

Criteria Group /Criteria	Indicators	Anything Missing? Any Suggested Changes?
ECONOMICS		
Compare potential for displacement or disruption to existing businesses	• Number, type and sensitivity of businesses on-site that would be displaced. • Number, type and sensitivity of businesses off-site that might experience disruption effects during operation. • Number, type and sensitivity of businesses along the haul route that might experience disruption effects during operation.	

Criteria Group /Criteria	Indicators	Anything Missing? Any Suggested Changes?
Compare potential for displacement or disruption on agriculture/forestry/ mining resources	• Area of on-site agriculture/forestry or mining industry resources that would be displaced. • Area of off-site agriculture/forestry or mining industry resources that might experience disruption effects during operation. • Area of agriculture/forestry or mining industry resources along the haul route that might experience disruption effects during operation.	
COST		
Compare potential lifecycle cost of alternative	• Estimated lifecycle cost of landfill. • Estimated lifecycle cost of waste haulage from waste centroid.	

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Criteria Group /Criteria	Indicators	Anything Missing? Any Suggested Changes?
TECHNICAL CONSIDERATIONS		
Compare potential for providing necessary service	Ease of site development. Effects on existing /proposed landfill infrastructure.	
TRANSPORTATION		
Compare potential for affects on airports	Distance from Sault Ste. Marie airport.	
Compare potential for affects on traffic volumes	Annual truck kilometres travelled and character of roadway (i.e. single lane one direction, multi-lane). Annual number of trucks travelling through intersections.	

Criteria Group /Criteria	Indicators	Anything Missing? Any Suggested Changes?
Compare potential for impacts of haulage truck traffic on the movement of farm equipment	Annual number of trucks travelling through agricultural areas.	

4. Do you have any additional comments you would like to make?

PLEASE RETURN completed workbooks by May 20, 2011

To: Mr. Rick Talvitie, P.Eng

Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4
Phone: 705-942-2612
Fax: 705-942-3642
Email: rick.talvitie@aecom.com

Please add me to the mailing list:

Name:

_____

Address:

_____

Phone:

_____

Email:

_____

DILLON CONSULTING AECOM

THE CITY OF SAULT STE. MARIE

APRIL 19, 2011 PUBLIC INPUT SESSION

SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

COMMENT SHEET

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. To date, we have completed a thorough review of different ways to manage waste including increased waste diversion, incineration/high heat processes, landfill, export of waste outside the service area, and "do-nothing". The City has decided to pursue a combination of increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.

The next phase in the EA Study is to find an environmentally suitable location for the development of additional landfill capacity. Generally, there are two ways to develop additional landfill capacity – site a new landfill or expand an existing landfill. So our first step is to compare the advantages and disadvantages of these two landfill development alternatives.

A preliminary evaluation of these two alternatives has been completed by the project team. You can review this preliminary evaluation in the document **Alternative Methods – Step 1 (Landfill Expansion Versus Development of a New Landfill Site) Draft Working Paper** that is posted on the City of Sault Ste. Marie's website.

We are now seeking your input on this preliminary evaluation. We are also seeking your input on the criteria to be used in the next step of the project which will involve the comparison of specific sites. We have developed an online survey and hardcopy workbook to assist in obtaining your feedback. However, if you are unable to complete the full workbook or online survey we would appreciate any comments that you may have.

Please provide your comments on the back of this comment sheet or submit them by email. Please include **"City of SSM Waste Management EA – Comments"** in the subject line of your email message.

PLEASE RETURN completed comment sheets by May 20, 2011

To: **Mr. Rick Talvitie, P.Eng**
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4
Phone: 705-942-2612
Fax: 705-942-3642
Email: rick.talvitie@aecom.com

Comments

Please add me to the mailing list:

Name: _____

Address: _____

Phone: _____

Email: _____

AECOM

Appendix J

Public Input Session – March 6, 2012

THE CITY OF SAULT STE. MARIE

NOTICE OF PUBLIC INPUT SESSION

SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. To date significant progress has been made.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and **the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.** The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the entire residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

In April, 2011 a Public Input Session was held to present the non-site specific landfill alternatives being considered. **The evaluation and response from consultation concluded that an expansion of an existing landfill is generally preferred over construction of a new site.**

The study noted that an expansion requires less land, displaces fewer people and/or social/natural features, disrupts fewer people (ie. one site versus two sites creating nuisance impacts), costs less, typically encounters fewer challenges in gaining technical approvals, and reduces the number of facilities the City must manage.

CURRENT ACTIVITIES

Presently the project team is focusing on **the best approach to expand the existing landfill site at 402 Fifth Line East in the City of Sault Ste. Marie.** Expansion options have been developed that make the best use of the existing site characteristics and the area available to expand. Options considered include horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining (excavate previously disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) or a combination of these methodologies.

A preliminary evaluation of the expansion options has been completed by the project team. **We are now seeking input from the Community, government agencies, stakeholders, and First Nations regarding the evaluation criteria considered and the preliminary findings.**

PUBLIC INPUT SESSION

If you are interested in discussing the expansion options, the criteria used in the evaluation and the preliminary findings, we encourage you to attend the upcoming public input session!

We will provide you with background information, update you on the City's achievements in increasing waste diversion and discuss, with you, the expansion options. **The principle objective of the public consultation is to identify a preferred expansion strategy for the existing landfill site.**

The expansion options, the evaluation criteria, and the project team's preliminary evaluation are also available on the City's website (**www.cityssm.on.ca - View City Hall Bulletins – Public Input Session – Solid Waste Management**) in a working paper prepared for this session titled "Solid Waste Management Environmental Assessment - Alternative Methods – Step 2 (Identification and Comparison of Expansion Options). This working paper may also be viewed at the locations noted below commencing on February 21, 2012.

AECOM Canada Ltd.	523 Wellington Street
Civic Centre Engineering and Planning	99 Foster Drive, 5th Flr.
Public Works and Transportation	128 Sackville Road
Main Library	50 East Street
Churchill Branch Library	301 Lake Street
Korah Branch Library	496 Second Line
Township of Prince Municipal Office	3042 Second Line West
Batchewana First Nation	236 Frontenac Street
Garden River First Nation	7 Shingwauk Street
Metis Nation of Ontario Office	26 Queen Street East
Missanabie Cree Office	559 Queen Street East

CONTACT US

We also encourage you to contact the individuals noted below if you have any specific questions.

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
Email: rick.talvitie@aecom.com

Ms. Catherine Taddo, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5380
Fax: (705) 541-7165
Email: c.taddo@cityssm.on.ca

YOU'RE INVITED!

Date: Tuesday, March 6, 2012

Location: Civic Centre – Russ Ramsay Room

Time: 3:30PM to 7:30PM

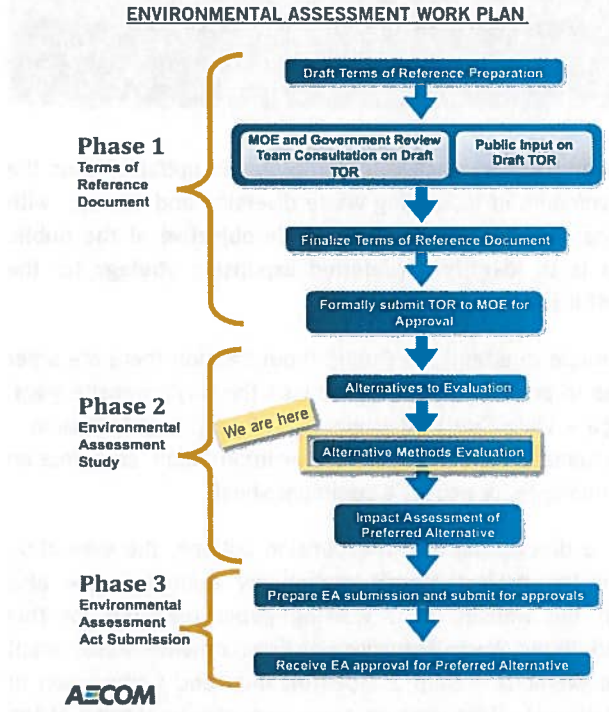
Refreshments to be provided.

If you cannot attend the public input session in person, we still want to hear from you! Just go to the City's website www.cityssm.on.ca - View City Hall Bulletins – Public Input Session – Solid Waste Management review the Alternatives Method – Step 2 Report and fill out our online questionnaire or comment sheet. A link to the online questionnaire is provided on the City's website.

THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

ENVIRONMENTAL ASSESSMENT (EA) PROCESS

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. The EA Process is a transparent decision-making process used to promote good environmental planning by assessing potential effects of certain activities or projects on the natural and human environment. There are several phases and tasks involved in completing an EA as outlined in the graphic below.



The City is currently mid-way through Phase 2 of the EA Process and is interested in obtaining your input related to the current activities.

BACKGROUND

Phase 1 of the EA process included public consultation and culminated with the Ministry of Environments approval of the project Terms of Reference (ToR) in 2005. The ToR provides a framework or roadmap for completing the EA and summarizes the tasks and activities to be undertaken by the proponent.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the **preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.** The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the entire residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

The flexibility of the preferred alternative is particularly important given the City's contract with The Elementa Group (an energy-from-waste service provider) for the annual processing of at least 12,500 metric tonnes of municipal solid waste. Elementa is currently negotiating an energy purchase agreement and intends to construct and operate a new 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility in the future will reduce the quantity of residual waste requiring disposal in a landfill.

The City remains committed to investigating, implementing and supporting programs to increase waste diversion through 3Rs initiatives. Since the implementation of 3Rs initiatives does not require Environmental Assessment (EA) Act approval, the EA study is now focusing on alternative methods of landfilling residual waste. The key objective of this phase of the study is to find an environmentally suitable location for the development of additional landfill capacity.

The first step in this phase consisted of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. To identify a preferred approach to landfilling waste, the alternatives were compared using the following six criteria groups:

1. Natural environment;
2. Social-Cultural environment;
3. Economic environment;
4. Cost;
5. Technical considerations; and
6. Transportation.

A Public Input Session was held in April, 2011 to present the landfill alternatives being considered. **The evaluation and response from consultation concluded that an expansion of an existing landfill is generally preferred over construction of a new site.**

The study noted that an expansion requires less land, displaces fewer people and/or social/natural features, disrupts fewer people (ie. one site versus two sites creating nuisance impacts), costs less, typically encounters fewer challenges in gaining technical approvals, and reduces the number of facilities the City must manage.

THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

CURRENT ACTIVITIES

The second step in the Alternative Methods task focuses on the best approach to expand the existing landfill site at 402 Fifth Line East in the City of Sault Ste. Marie. Expansion options have been developed that make the best use of the existing site characteristics and the area available to expand. Options considered include horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining (excavate previously disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) or a combination of these methodologies.

A preliminary evaluation of the expansion options has been completed by the project team. We are now seeking input from the Community, government agencies, stakeholders, and First Nations regarding the evaluation criteria considered and the preliminary findings.

CONTACT US

You may also contact the Consultant Project Manager or the City's Land Development and Environmental Engineer by email, mail or telephone if you have questions or would like additional information.

Mr. Rick Talvitie, P.Eng
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523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

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HOW CAN I PROVIDE INPUT?

If you are interested in discussing the expansion options, the criteria used in the evaluation and the preliminary findings we encourage you to attend the upcoming public input session!

YOU'RE INVITED!

Date: Tuesday, March 6, 2012
Location: Civic Centre – 99 Foster Drive
Russ Ramsay Room
Time: 3:30PM to 7:30PM

Refreshments to be provided.

We will provide you with background information update you on the City's achievements in increasing waste diversion and discuss, with you, the expansion options. **The principle objective of the public consultation is to identify a preferred expansion strategy for the existing landfill site.**

If you are unable to attend the Public Input Session there are other opportunities to provide input. Please visit the City's website **www.cityssm.on.ca** - View City Hall Bulletins – Public Input Session – Solid Waste Management to obtain further information, complete an online questionnaire, or access a comment sheet.

In addition, a description of the expansion options, the evaluation criteria, and the project team's preliminary evaluation are also available on the website in a working paper prepared for this session titled "Solid Waste Management Environmental Assessment - Alternative Methods – Step 2 (Identification and Comparison of Expansion Options). This working paper may also be viewed at the locations noted below commencing on February 21, 2012.

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Metis Nation of Ontario Office	26 Queen Street East
Missanabie Cree Office	559 Queen Street East

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Solid Waste Management Environmental Assessment

WELCOME to the
Public Input Session

THE CORPORATION OF THE CITY OF SAULT STE. MARIE CANADA

March, 2012

What Should I Do?

- Record your name and contact information on the sign-in sheet.
- Review the handouts and presentation boards with the project team.
- Ask questions and offer your opinions and suggestions.
- Record your comments and opinions on a comment sheet or send us an email or complete a questionnaire (available at this session or online through the City's website on Waste Management EA webpage).

Your input is important to us!

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Public Input Session Objectives

- Provide you with an update on waste management planning activities and results;
- Review project need;
- Provide an overview of the Environmental Assessment process and where we are at in the process;
- Present the criteria and approach used in the evaluation of site expansion options;
- Present the preliminary results of the evaluation completed by the project team;
- **Solicit input on the evaluation and preliminary findings;**
- Identify the next steps in the EA process; and
- Answer your questions.

THE CORPORATION OF THE CITY OF SAULT STE. MARIE CANADA

Waste Management Planning

Waste Management Planning

To determine the preferred way to meet the waste management needs of the community over the next 25 to 40 years

Diversion (3Rs)

Reducing the amount of waste requiring disposal

Disposal

Preferred way to manage residual waste

- In September 2000, the City initiated a Solid Waste Management Plan.
- The Plan addressed waste diversion opportunities and waste disposal needs.
- City initially focused attention on diversion (i.e. 3Rs - reduce/ reuse/ recycle) with significant success.

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Waste Diversion Opportunities

- Curbside blue/yellow box collection program.
- Diversion at the Landfill (recyclables, tires (OTS), white goods, metals, propane tanks, batteries, and clean wood waste/brush).
- Clean North Sponsored Events (eg.Christmas Trees).
- Community Recycling Depot (WEEE, styrofoam).
- Habitat for Humanity Restore (reusable items).
- Grocery Bags – "Say yes to reuse and recycle".
- Discount for refillable coffee cups at City venues.
- Deposit/Return (alcohol containers returned to the Beer Store).
- Distribution of Backyard Composters.
- Other private sector businesses.

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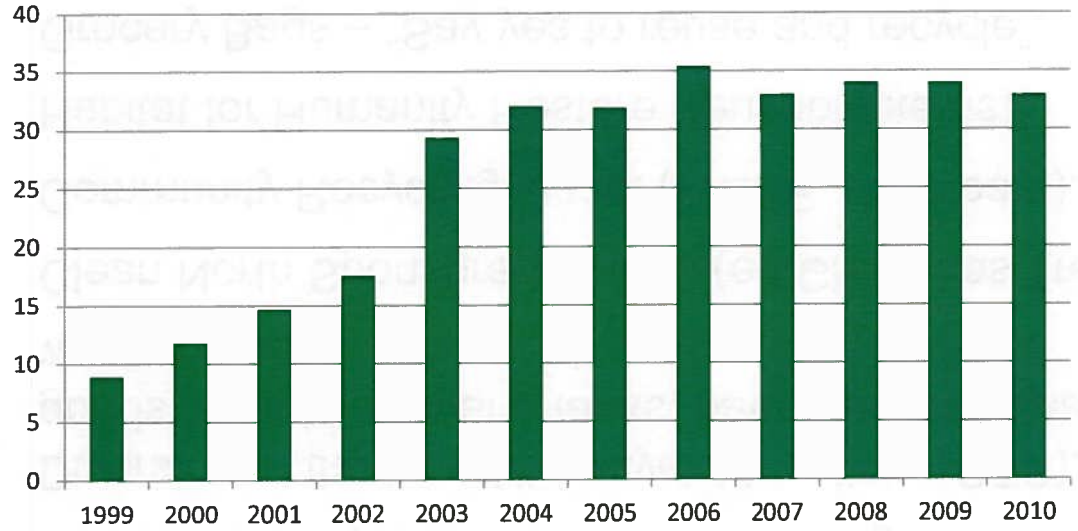
Accomplishments

Residential Waste Diversion Rate (1999 to 2010)
(Perecntage %)



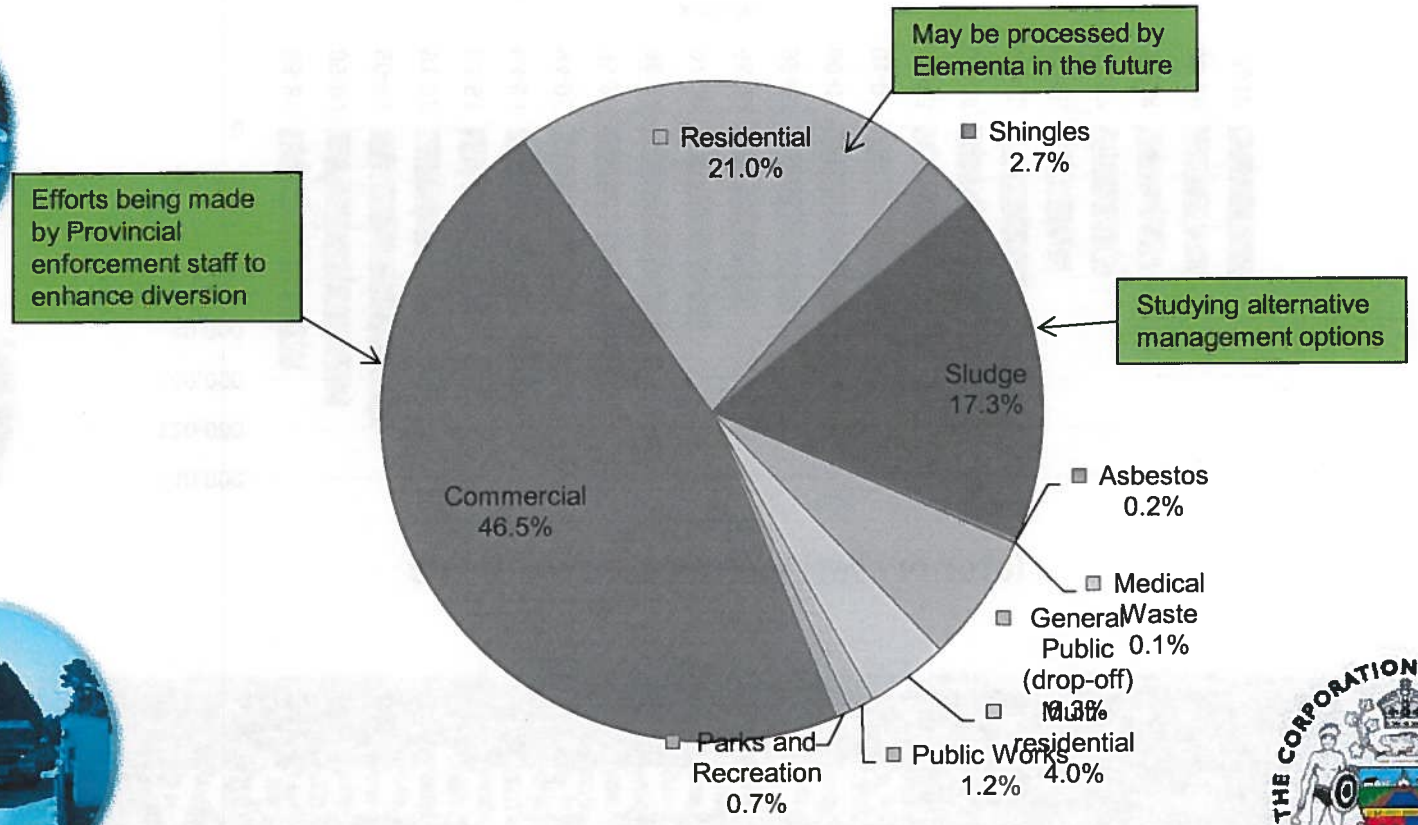
Increased residential diversion rate from 9% in 1999 to 33% to 35% in recent years

Accomplishments

Reduced total waste disposed from more than 70,000 tonnes between 1989 to 2004 (max. of 119,000 tonnes) to less than 60,000 tonnes over the last 5 years!

Other Diversion Initiatives

2010 Landfilled Waste Types (Total = 59,969 tonnes)



Project Need

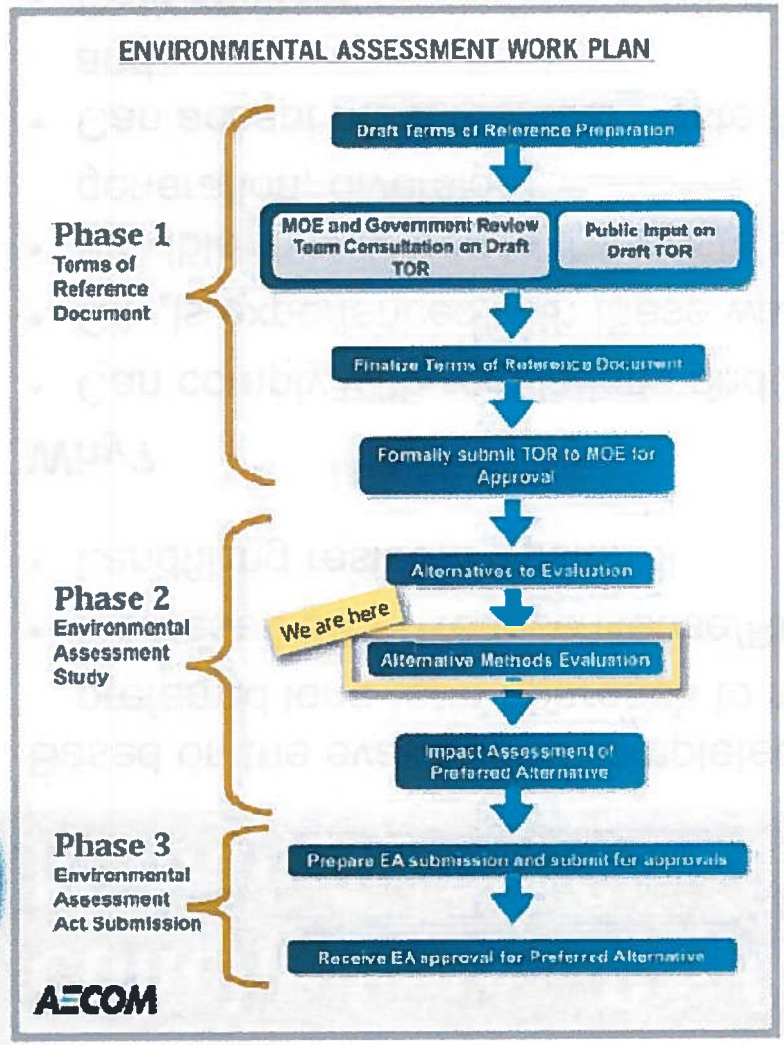
- **The estimated remaining service life of the existing landfill is 7 to 10 years depending on future population changes, in-situ subsidence and waste generation, diversion and disposal rates. The low end of this range is used for planning purposes.**
- Despite significant success in enhancing waste diversion, additional disposal capacity is required.
- The Environmental Assessment process provides a framework to identify the preferred way to meet long term disposal needs within the service area in a transparent and traceable manner.

What is an EA?

Purpose = *"to protect the environment and quality of life of the people of the province; and facilitate the wise management of the natural resources of the province".*

- The EA Process is a transparent decision-making process used to promote good environmental planning by assessing potential effects of certain activities or projects on the natural and human environment. The EA process serves several important purposes:
  - Allowing projects to receive input from a wide variety of sources, including the federal, provincial and municipal levels of government, First Nations, stakeholders and the public.
  - Identifying potential problems prior to construction
  - Promoting good environmental planning practices
  - Improving community acceptance
  - Better protecting the environment

The EA Process



Consultation to date has included:

- Newsletters
- Public Input Sessions and meetings with First Nations and other stakeholders in the summer/fall of 2007
- Public Information Center and meetings with First Nations and other stakeholders in the summer of 2010
- Public Input Session and correspondence with First Nations and other stakeholders in the spring of 2011

Conclusions – Preferred Waste Management Strategy

Based on the evaluations completed and public input received the preferred long-term approach to managing waste in SSM is:

- Increased 3Rs (Reduce/Reuse/Recycle); and
- Landfilling residual waste.

Why?

- Can comply with regulations and policies;
- City is experienced with these waste management initiatives;
- Flexible to changes in the waste stream (e.g. population, waste generation, diversion);
- Can accept most residual waste from a Waste-to-Energy facility; and
- Cost efficient.

The next step of the EA will focus on identifying and evaluating alternative methods of landfilling waste (i.e. alternative locations and designs).

Evaluation of Alternative Landfilling Methods

Step 1: Generic comparison of landfill expansion vs. new landfill (at a non-site specific level)

Possible Outcome:	Possible Outcome:	Possible Outcome:
Landfill expansion is preferred	New landfill is preferred	Preference cannot be determined
Step 2: Identify possible expansion alternatives for the existing municipal landfill site located at 402 Fifth Line East.	**Step 2:** Conduct a landfill site search to identify alternative locations for a new site.	**Step 2:** Conduct a site search to identify any new landfill site(s) that is(are) potentially better than the existing site expansion. If better sites are found, then comparatively evaluate expanding the existing landfill to the new landfill site(s).

The Alternative Methods evaluation is completed in a two-step process.

Conclusions – Preferred Method of Landfilling

Based on the evaluations completed and the public input received the preferred method of landfilling waste is **expansion of an existing site.**

Why?

- Likely less potential for displacement and disruption;
- Only one landfill site to manage and maintain;
- Cost effective;
- Community adaptation has occurred; and
- Likely fewer challenges in gaining approvals.

The EA will now focus on how to best expand the existing site.

Evaluation of Expansion Options

- Expansion options have been developed that make the best use of the existing site characteristics and the area available to expand.
- Options considered include horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining (excavate existing disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) or a combination of these methodologies.
- The evaluation has been completed using a two-step approach:
  - Step 1 – identify a preferred expansion area and shape;
  - Step 2 – assess the pros and cons of incorporating landfill mining.

Overview of Expansion Options

Option 1 – West Expansion

- Geometry - neat extension of existing site – landfill mass to be approximately 2m higher relative to existing site - most efficient geometry.
- Average excavation depth in west expansion area = 18m.
- Expansion area to be lined and horizontal collector installed at west limit to replace PW's.
- Includes drainage layer over existing waste in overlap area to promote drainage to the newly lined area.
- Enhanced compaction required (30%) to meet target capacity (2.3M tonnes).
- Need to replace/relocate some of the core infrastructure (e.g. public drop-off, maintenance garage, scales and scale house).
- Adequate soil generated for daily, interim final cover.

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Overview of Expansion Options

Option 2 – North and West Expansion A

- Geometry – somewhat awkward – landfill mass to be approximately 4m higher relative to existing site.
- Average excavation depth in west expansion area = 18m.
- Expansion area to be lined and horizontal collector installed at west limit to replace PW's.
- Includes liner over existing waste in areas of overlap.
- Meets target capacity (2.3M tonnes) at current waste densities.
- Most core infrastructure (e.g. public drop-off, maintenance garage, scales and scale house) maintained.
- Adequate soil generated for daily, interim and final cover.

THE CORPORATION OF THE CITY OF SAULT STE. MARIE CANADA

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Overview of Expansion Options

Option 3 – North and West Expansion B

- Geometry – enhanced relative to Option 2 – landfill mass to be approximately 4m higher relative to existing site.
- Average excavation depth in west expansion area = 11m.
- Expansion area to be lined and horizontal collector installed at west limit to replace PW's.
- Includes liner over existing waste in areas of overlap.
- Meets target capacity (2.3M tonnes) at current waste densities.
- Need to replace/relocate some of the core infrastructure (e.g. public drop-off, maintenance garage, scales and scale house)
- Adequate soil generated for daily, interim and final cover.

THE CORPORATION OF THE CITY OF SAULT STE. MARIE CANADA

Overview of Expansion Options

Option 4 – West and South Expansion

- Geometry – two new distinct landforms - similar in height to existing disposal site.
- Average excavation depth in west expansion area = 18m.
- Expansion area to be lined and horizontal collector installed at west limit (Note: existing PW's could be maintained if desired).
- Enhanced compaction required (30%) to meet target capacity (2.3M tonnes).
- Impacts Elementa pilot facility and landfill gas blower/flare station.
- Adequate soil generated for daily, interim and final cover.

Evaluation Criteria Groups

Criterion	Definition
Natural Environment	Addresses the potential for displacement and/or disruption of natural environmental features (terrestrial features, aquatic features, ground water and surface water)
Social Cultural Environment	Addresses the potential for displacement and/or disruption of social/cultural environmental features (residents, community features, future land use plans, heritage and archaeological resources, public health and safety)
Economics	Addresses the potential for displacement and/or disruption of existing businesses and resources (agriculture, forestry, mining)
Cost	Considers the lifecycle cost of the alternative.
Technical Considerations	Considers technical aspects of each option including impacts on existing site infrastructure and ease of site development.
Transportation	Considers the impacts of traffic volumes accessing the site and potential impacts to the airport and the movement of farm equipment.

Evaluation of Expansion Options – Footprint Configuration

Criteria Group	Option 1 - West Expansion	Option 2 – West and North Expansion A	Option 3 – West and North Expansion B	Option 4 – West and South Expansion
Natural Environment	Second	First	First	Third
Social-Cultural Environment	First	First	First	Second
Economics	First	First	First	Second
Cost	First	First	Third	Second
Technical Considerations	Third	Second	First	Fourth
Transportation	Equal	Equal	Equal	Equal
OVERALL	**THIRD**	**SECOND**	**FIRST**	**FOURTH**

- Although higher in cost, **Option 3** is ranked first by the project team based on enhanced groundwater controls, ease of site development and improved storm water management relative to Option 2.

What are your thoughts and opinions?

Overview of Expansion Options

Option 3 – North and West Expansion B + Mining

- Consideration was given to adding a landfill mining component to the preliminary preferred expansion footprint.
- Mining involves excavation of previously disposed waste and cover material. Mined waste is fed through screens which separates coarse waste from fine materials. Recyclables are separated and sent for processing, remaining residual waste disposed of in the disposal site and fines (primarily sand) are stockpiled for use as cover.
- Mining to be completed in the western portion of the existing disposal footprint (i.e. west of the natural groundwater divide).
- Enhanced mitigation of western ground water flow.
- Potential for increased odours during mining period (estimated to be two years).

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Evaluation of Expansion Options – With or Without Landfill Mining

Criteria Group	Option 3 – West and North Expansion B	Option 3 with Landfill Mining
Natural Environment	Second	First
Social-Cultural Environment	First	Second
Economics	First	Second
Cost	First	Second
Technical Considerations	First	Second
Transportation	Equal	Equal
OVERALL	**SECOND**	**FIRST**

- **Option 3 with landfill mining** is ranked higher overall based on the projected long term improvements to ground water quality in comparison to the shorter term nuisance impacts (e.g. odour) associated with its implementation

What are your thoughts and opinions?

THE CORPORATION OF THE CITY OF SAULT STE. MARIE CANADA

Preliminary Preferred Option

- On the basis of the **preliminary** evaluation, the preliminary preferred expansion option = Option 3 - North and West Expansion B with Landfill Mining.

- Key advantages relative to other options include:
  - Site development (i.e. geometry and storm water management) enhanced relative to Options 2 and 4.
  - Reduced average excavation depth in west expansion area (i.e.11m).
  - Includes a liner beneath the waste within the western portion of the existing disposal footprint enhancing long term ground water quality.
  - Includes a liner over existing waste in areas of overlap to further enhance ground water quality.
  - Meets target capacity at current estimated waste densities.

Next Steps

- Solicit governmental, community First Nation and stakeholder input on the preliminary preferred expansion option – do you agree/disagree – why?
- Re-assess (if needed) and finalize the Step 2 evaluation based on input received
- Announce the preferred Step 2 - Alternative Method (i.e. preferred expansion option)
- Initiate a detailed impact assessment for the preferred option
- Continue to investigate ways to improve waste diversion through 3Rs initiatives

Contact Us

Your input on this project is important to us!

If you would like further information or to send comments or questions please contact us:

Mr. Rick Talvitie, P.Eng
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To subscribe to the Project Newsletter, please email Nancy Maahs at Nancy.maahs@aecom.com

THE CITY OF SAULT STE. MARIE

MARCH 6, 2012 PUBLIC INPUT SESSION

SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

COMMENT SHEET

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. To date, we have completed a thorough review of different ways to manage waste including increased waste diversion, incineration/high heat processes, landfill, export of waste outside the service area, and "do-nothing". The City decided to pursue a combination of increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.

The next phase in the EA Study involved finding an environmentally suitable location for the development of additional landfill capacity and we looked at developing a new landfill or expanding an existing landfill. The evaluation and input received through the spring 2011 public consultation activities concluded that an expansion of an existing landfill is generally preferred.

Now we are focusing on the best way to expand the existing landfill site at 402 Fifth Line East in the City of Sault Ste. Marie. We looked at expanding the landfill by increasing the footprint area, and/or increasing the height of the landfill, and/or mining some of the existing waste.

We have completed a preliminary evaluation of the expansion options which can be reviewed in the working paper **Solid Waste Management Environmental Assessment - Alternative Methods – Step 2 (Identification and Comparison of Expansion Options)** that is posted on the City of Sault Ste. Marie's website. You are also encouraged to view the **Project Newsletter** and/or the March 6th **Public Input Session displays** which are also available on the City's website.

We want your input! You can provide comments in one of three ways:

1. Using this comment sheet;
2. Sending the project team an email (see email address below) - please include **"City of SSM Waste Management EA – Comments"** in the subject line of your email message; or
3. Filling out the online survey available on the City's website.

PLEASE RETURN completed comment sheets by April 6, 2012

To: Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4
Phone: 705-942-2612
Fax: 705-942-3642
Email: rick.talvitie@aecom.com

Comments

Please add me to the mailing list:

Name: _____

Address: _____

Phone: _____

Email: _____

AECOM

Appendix K

Public Input Session –
February 9, 2016

THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. To date significant progress has been made.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and **the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.** The preferred alternative was presented at an Open House in June, 2010.

The study noted:

- landfills can be designed and operated to comply with regulations and policies;
- landfill gas can be collected and flared or recovered to generate electricity;
- landfills can manage the entire residual waste stream;
- landfills are flexible to changes in waste quality and quantities; and
- landfilling is cost effective.

In April, 2011 a Public Input Session was held to present the non-site specific landfill alternatives being considered. **The evaluation, which considered responses from consultation, concluded that an expansion of an existing landfill is generally preferred over construction of a new site.**

The study noted:

- an expansion requires less land;
- displaces fewer people and/or social/natural features;
- disrupts fewer people (i.e. one site versus two sites creating nuisance impacts);
- costs less;
- typically encounters fewer challenges in gaining technical approvals; and
- reduces the number of facilities the City must manage.

In March 2012 a Public Input Session was held to present the preliminary preferred approach to expanding the existing landfill at 402 Fifth Line East in the City of Sault Ste. Marie. **The evaluation, which considered responses from consultation, concluded that an expansion is best accommodated with a moderate increase in the height of the waste together with and expansion of the disposal footprint to the north and west. The preferred option also includes landfill mining (excavate existing disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) in the western portion of the existing disposal footprint to enhance groundwater protection. All mined and expansion areas will include the construction of a liner beneath the waste to collect leachate (precipitation contaminated as it filters through waste) and ultimately direct it to the City's sewage treatment plant for treatment.**

CURRENT ACTIVITIES

Presently the project team is focusing on **completing an impact assessment for the preferred expansion option.** The impact assessment includes expertise from numerous disciplines and focusses on potential impacts to the natural and human environments associated with the construction and operation of the proposed expansion. Careful attention is given to best management practices to mitigate potential impacts.

We are now seeking input from the Community, government agencies, stakeholders, and First Nations regarding the results of our impact assessment work and the proposed mitigation measures.

PUBLIC INPUT SESSION

If you are interested in discussing the impact assessment work, we encourage you to attend the upcoming public open house! We will provide you with background information and discuss with you, the preferred site expansion option and the results of the impact assessment work.

CONTACT US

We also encourage you to contact the individuals noted below if you have any specific questions.

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4
Phone: 705-942-2612
Fax: 705-942-3642
Email: rick.talvitie@aecom.com

Ms. Catherine Taddo, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1
Phone: (705) 759-5380
Fax: (705) 541-7165
Email: c.taddo@cityssm.on.ca

YOU'RE INVITED!

Date: Tuesday February 9, 2016
Location: Civic Centre – Russ Ramsay Room
Time: 3:30 pm to 7:30 pm

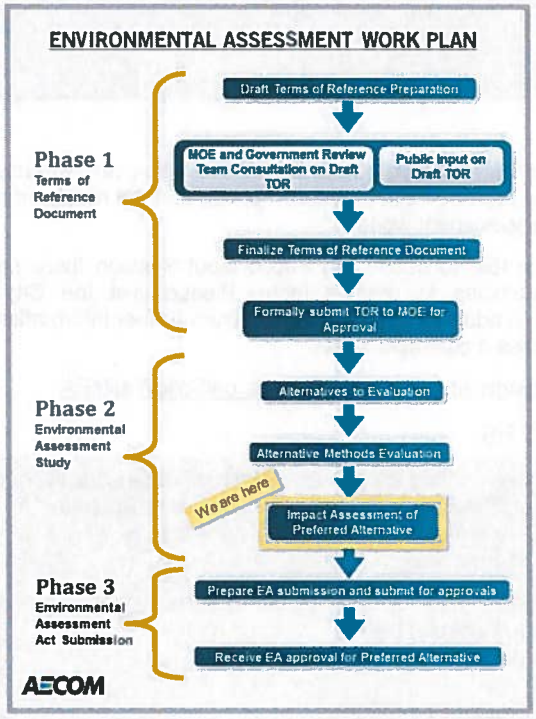
Refreshments to be provided.

If you cannot attend the public open house, we still want to hear from you! Just go to the project webpage (address provided below) to review the project reference material and fill out a comment sheet or simply send us an email (email addresses provided above). Project webpage address: saultstemarie.ca/SolidWasteEA

THE CITY OF SAULT STE. MARIE
JANUARY, 2016 NEWSLETTER
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

ENVIRONMENTAL ASSESSMENT (EA) PROCESS

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. The EA Process is a transparent decision-making process used to promote good environmental planning by assessing potential effects of certain activities or projects on the natural and human environment. There are several phases and tasks involved in completing an EA as outlined in the graphic below.



The City is finalizing Phase 2 of the EA Process and is currently preparing the EA submission. **We are interested in obtaining your input related to the current activities.**

BACKGROUND

Phase 1 of the EA process included public consultation and culminated with the Ministry of Environment and Climate Change's (MOECC) approval of the project Terms of Reference (ToR) in 2005. The ToR provides a framework or roadmap for completing the EA and summarizes the tasks and activities to be undertaken by the proponent.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and **the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.** The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

The City remains committed to investigating, implementing and supporting programs to increase waste diversion through 3Rs initiatives. Since the implementation of 3Rs initiatives does not require EA Act approval, the EA study turned its focus to alternative methods of landfilling residual waste. The key objective of this phase of the study is to find an environmentally suitable location for the development of additional landfill capacity.

The first step in this phase consisted of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. To identify a preferred approach to landfilling waste, the alternatives were compared using the following seven criteria groups:

1. Natural environment
2. Social-cultural environment
3. Economic environment
4. Flexibility of the system
5. Capability of managing waste quality and quantity
6. Proven technical capacity
7. Cost

A Public Input Session was held in April, 2011 to present the landfill alternatives being considered. **The evaluation and response from consultation concluded that an expansion of an existing landfill is generally preferred over construction of a new site.**

The study noted that an expansion requires less land, displaces fewer people and/or social/natural features, disrupts fewer people (i.e., one site versus two sites creating nuisance impacts), costs less, typically encounters fewer challenges in gaining technical approvals, and reduces the number of facilities the City must manage.

The second step in the Alternative Methods task focused on the best approach to expand the City's existing landfill site at 402 Fifth Line East by identifying and comparatively evaluating site expansion alternatives. Options considered included horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining (excavate previously disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) or a combination of these methodologies. A Public Input Session was held March, 2012 to obtain feedback on the evaluation criteria and the preliminary findings.

The evaluation and response from consultation concluded the preferred site expansion alternative consists of a modest increase in the height of the waste, an expansion of the disposal footprint to the west and north and mining a portion of the existing waste to enhance groundwater quality. All mined and expansion areas will include the

SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

construction of a liner beneath the waste to collect leachate (precipitation contaminated as it filters through waste) and ultimately direct it to the City's sewage treatment plant for treatment.

Current Activities

The last part of Phase 2 involves assessing the potential impacts of the conceptual design and planned operation of the preferred site expansion alternative and identification of suitable mitigating measures. Multiple disciplines were involved to assess the various potential impacts of the expansion on site, off site, in the vicinity and along the access route. The access route was considered to be along Fifth Line from Highway 17 to the site (which is the same route used today). Measures to reduce or eliminate potential effects on the environment were recommended.

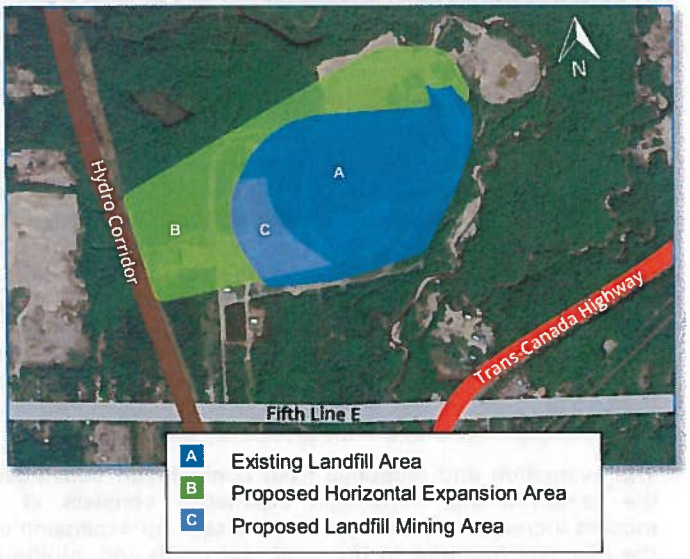
The disciplines that were involved include:

Natural Environment
- Biology
- Geology / hydrogeology
- Surface water

Socio-Cultural Environment
- Cultural (archaeology and heritage)
- Social
- Planned land use
- Visual
- Atmospheric (dust, noise, air quality)

Economic
- Businesses
- Transportation

Conceptual Layout of Proposed Landfill Expansion Area



HOW CAN I PROVIDE INPUT?

We will be hosting a Public Open House where you will learn about the results of the impact assessment work and we will ask for your feedback. If you are interested in discussing the project, we encourage you to attend the upcoming public open house!

YOU'RE INVITED!

Date:	*Tuesday, February 9, 2016*
Location:	*Civic Centre – 99 Foster Drive* *Russ Ramsay Room*
Time:	*3:30 pm to 7:30 pm*

Refreshments to be provided.

We will provide you with background information and discuss, with you, the preferred site expansion option and the results from the impact assessment work.

If you are unable to attend the Public Input Session there are other opportunities to provide input. Please visit the City's website at the address noted below to obtain further information, and / or access a comment sheet.

Project webpage address: saultstemarie.ca/SolidWasteEA

CONTACT US

You may also contact the Consultant Project Manager or the City's Land Development and Environmental Engineer by email, mail or telephone if you have questions or would like additional information.

Mr. Rick Talvitie, P.Eng.
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Email: rick.talvitie@aecom.com

Ms. Catherine Taddo, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580, 99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5380
Email: c.taddo@cityssm.on.ca

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Solid Waste Management Environmental Assessment

WELCOME to the **Open House**

THE CORPORATION OF THE CITY OF SAULT STE. MARIE CANADA

January, 2016

What Should I Do?

- Record your name and contact information on the sign-in sheet.
- Review the handouts and presentation boards with the project team.
- Ask questions and offer your opinions and suggestions.
- Record your comments and opinions on a comment sheet or send us an email or complete a questionnaire (available at this session or online through the City's website on Waste Management EA webpage).

Your input is important to us!

Objectives of the Open House

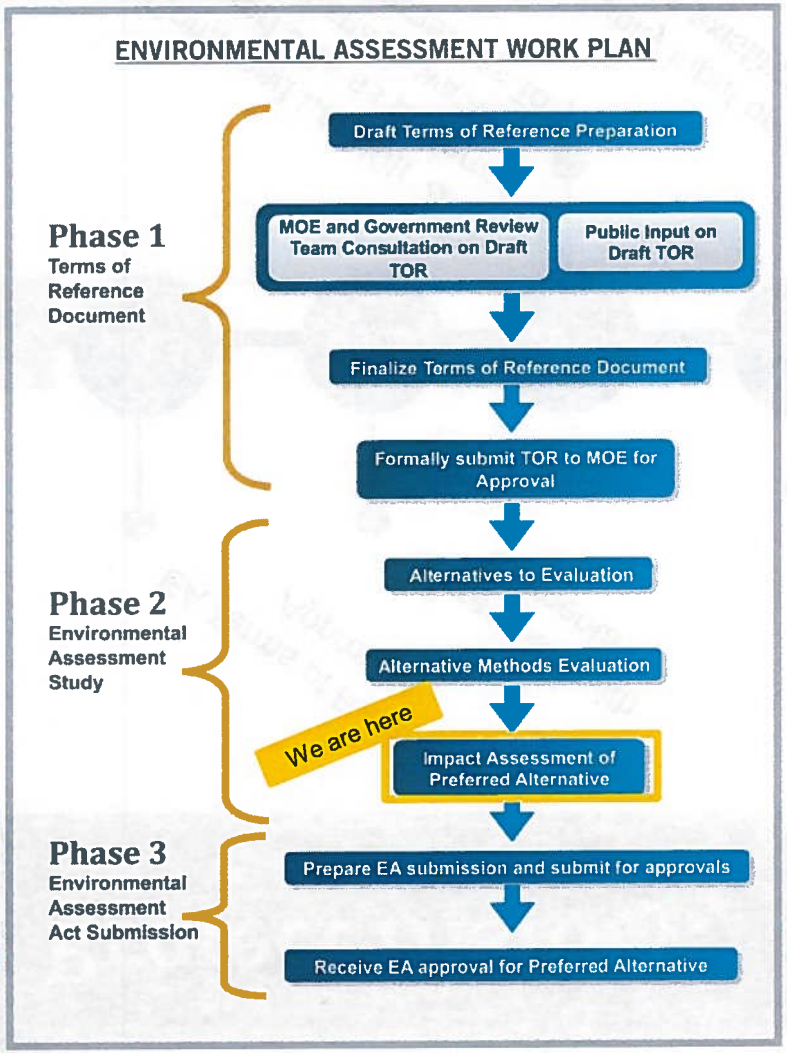
- Summarize the steps completed to date;
- Present the conclusions and recommendations from the Impact Assessment work for the preferred landfill expansion option;
- Answer questions;
- Solicit input and comments; and
- Identify next steps including the project timing.

What is an EA?

Purpose = *"to protect the environment and quality of life of the people of the province; and facilitate the wise management of the natural resources of the province".*

- The EA Process is a transparent decision-making process used to promote good environmental planning by assessing potential effects of certain activities or projects on the natural and human environment. The EA process serves several important purposes:
  - Allowing projects to receive input from a wide variety of sources, including the federal, provincial and municipal levels of government, First Nations, stakeholders and the public.
  - Identifying potential problems prior to construction
  - Promoting good environmental planning practices
  - Improving community acceptance
  - Better protecting the environment

The EA Process



Consultation to date has included:

- Newsletters
- Public Input Sessions and meetings with First Nations and other stakeholders in the summer/fall of 2007
- Public Information Center and meetings with First Nations and other stakeholders in the summer of 2010
- Public Input Session and correspondence with First Nations and other stakeholders in April 2011
- Public Input Session and correspondence with First Nations and other stakeholders in March 2012

Project History

Diversion Improvements

2005
- EA Terms of Reference Approved

2009
- Agreement with Elementa

2010
- Confirmed **Landfill & Increased 3Rs** as preferred way to manage waste (EA Step – "Alternatives To")

2012
- Confirmed **landfill expansion** as the preferred landfill method (EA Step – "Alternative Methods")
- Obtained community input on ways to expand the existing landfill (EA Step – "Alternative Methods")

2016

Seeking community input on:
- Proposed mitigation to minimize potential effects on the environment and community

Landfill & Increased 3Rs - Rationale

EA Step – "Alternatives to" Conclusion

Based on the results of the evaluation and input received the preferred long-term approach to managing waste in SSM is:

- Increased 3Rs (Reduce/Reuse/Recycle); and
- Landfilling residual waste.

Why?

- Can comply with regulations and policies.
- City is experienced with these waste management initiatives.
- Flexible to changes in the waste stream (e.g. population, waste generation, diversion).
- Can accept non-hazardous residual waste from a Waste-to-Energy facility.
- Cost efficient.

Landfill Expansion - Rationale

EA Step – "Alternative Methods" Conclusion

Based on the results of the evaluation and input received the preferred method of landfilling waste = expansion of an existing site.

Why?

- Likely less potential for displacement and disruption.
- Only one landfill site to manage and maintain.
- Cost effective.
- Community adaptation.
- Likely fewer challenges in gaining approvals.

North and West Expansion with Mining – Rationale

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EA Step – "Alternative Methods" Conclusion

Based on the results of the evaluation and input received, the preferred expansion option = Option 3 - North and West Expansion B with Landfill Mining.

Why?

- Site development (i.e. geometry and storm water management) enhanced relative to Options 2 and 4.
- Reduced average excavation depth in west expansion area (i.e.11m).
- Includes a liner beneath the waste within the western portion of the existing disposal footprint enhancing long term ground water quality.
- Includes a liner over existing waste in areas of overlap to further enhance ground water quality.
- Meets target capacity at current estimated waste densities.

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Preferred Option

A Existing Landfill Area
B Proposed Horizontal Expansion Area
C Proposed Landfill Mining Area

Impact Assessment

What is it?

- Focused investigation and analysis to identify potential impacts to the environment resulting from the construction or changes in the operation of the expanded landfill.
- Also includes consideration of potential opportunities for enhanced mitigation that otherwise would not likely be implemented in the absence of the proposed expansion.

Impact Assessment

- The detailed impact assessment required expertise in the following disciplines:
  - ✓ Biology (terrestrial and aquatic);
  - ✓ Geotechnical;
  - ✓ Groundwater;
  - ✓ Atmospheric (acoustic and air quality);
  - ✓ Surface water;
  - ✓ Socio-economic;
  - ✓ Visual;
  - ✓ Traffic;
  - ✓ Archaeological/cultural; and
  - ✓ Planned land use.

Impact Assessment – Biology

The proposed expansion will require the removal of approximately12.7 ha on-site woodland and meadow vegetation.

Mitigation/Enhancements

- Erosion and sediment control (e.g. use silt fences to reduce risk of soil washing into watercourses)
- Woodland edge management (e.g. avoid using heavy machinery over roots of edge trees)
- Wildlife impact management during construction (e.g. avoiding bird nesting seasons when clearing)
- Environmental monitoring of proposed mitigation measures during construction
- Reforestation.

Potential Impact

- It is anticipated that the overall natural environment impact will be minimal.

Impact Assessment – Geotechnical

Review existing data and complete a geotechnical field investigation including test hole drilling, soil sampling and analyses to support engineering studies and stability assessments for possible landfill configurations.

Conclusions and Recommendations

- Bearing capacity of foundation soil is adequate.
- Waste settlement in the range of 10%-25% should be expected.
- Install 2 reinforcement layers (eg. geogrid) to protect liner.
- Incorporate settlement monitoring in initial cell(s) to provide guidance for the design of remaining cells.
- Maximum excavation side slope = 3H:1V.
- Maximum landfill waste slopes = 4:1 for 10m height, 5:1 for heights 10m-15m and 6:1 for heights >15m.

Impact Assessment – Groundwater

Leachate from landfills has the potential to contaminate groundwater; as such MOECC has strict groundwater criteria that must be met at all sites. It is noted that the expansion is outside of the wellhead protection zones established for the municipal groundwater supply.

Mitigation/Enhancements

- New expansion will be fully engineered with a liner and leachate collection system.
- Frequent groundwater and surface water monitoring will be undertaken and reported to MOECC.

Potential Impact

- With mitigation in place the expansion is expected to meet MOECC requirements and have minimal impact to groundwater.
- The proposed landfill mining has the benefit of being able to improve historical groundwater contamination on the west side of the existing fill area.

Impact Assessment – Noise

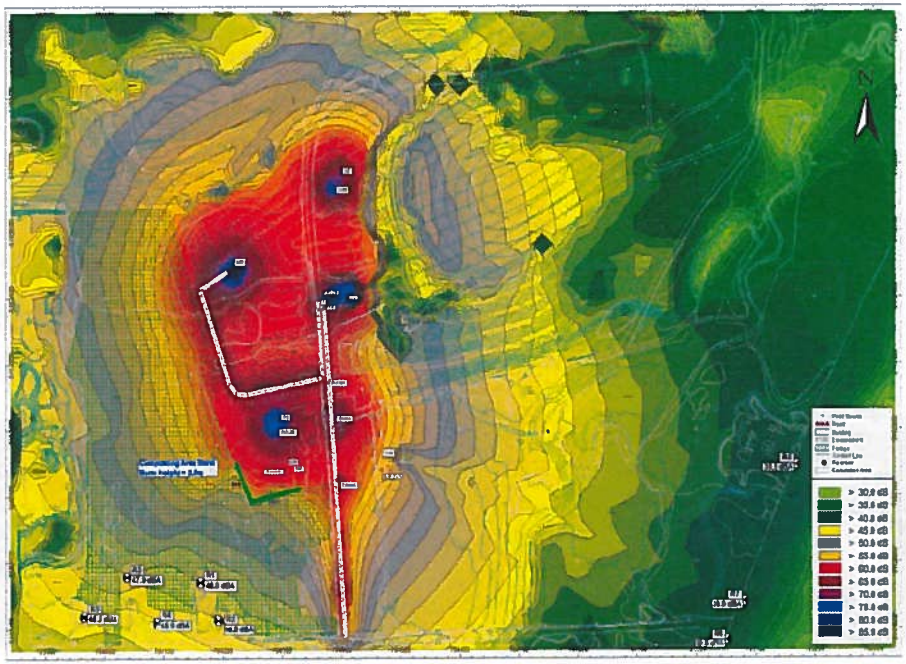
The noise assessment considered the potential impact of the worst-case noise emission scenarios on 8 receptors. MOECC Noise Guidelines for Landfills require that noise should be equal to or less than 50 dBA at these receptors.

Mitigation/Enhancement

- A 2.5 metre high berm around the proposed compost pad is planned to reduce noise from activities in this area

Potential Impact

Noise from the site is anticipated to be within the MOECC noise guidelines.



Impact Assessment – Air Quality

Typical Pollutants from landfill operations include nitrogen oxide from combustion of fuel and dust and finer particulate matter from the movement of vehicles. The air quality analysis looked at worst case scenarios to assess the potential for these contaminants.

Mitigation/Enhancements

- Best management practices were assumed in the assessment including:
  - Equipment will comply with up-to-date emissions standards
  - Dust mitigation practices such as watering will be used where necessary

Potential Impact

- No exceedances of MOECC air quality criteria are predicted.

Impact Assessment – Odour

Landfill sites, especially landfill mining has potential to cause odour effects.

Mitigation/Enhancements

- Staged expansion of landfill gas management system.
- Odour control spray system/ portable deodorizing system.
- Construction of a biosolids processing facility.
- Development of an Odour Management Plan for landfill mining including activities such as:
  - Management of operations based on meteorological conditions
  - Daily inspections to adjust and refine mining operations
  - Bypass screening of waste for highly odorous material
  - Use of chemical and biological treatment to reduce odour
  - Use of periphery odour misting system
  - Minimize size of active excavation
  - Cover applied to excavated area at the end of the day

Potential Impact

- It is anticipated that odour may occur during landfill mining. The City of Sault Ste. Marie will work with the community to minimize odour effects to the extent possible. A complaint procedure will be put in place.

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DILLON CONSULTING

Impact Assessment – Surface Water

The site expansion could result in increased peak storm water flows in receiving rivers and creeks and adversely impact water quality. The surface water assessment considered major storm events and developed an effective storm water management plan to protect water quality.

Mitigation/Enhancements

- Storm water to be collected in ditches adjacent to the perimeter road and conveyed to four storm water ponds to remove a minimum 80% total suspended solids.
- Ponds will also provide emergency leachate/spill containment.
- No increase in peak flows in Canon Creek or Root River.
- Regular inflow monitoring for contaminants will be undertaken by operations staff.

Potential Impact

- No impact on peak flows and potential to enhance quality relative to existing conditions.

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Impact Assessment – Socio-Economic

Complete studies and solicit input to understand and address potential effects on residents and businesses associated with the proposed expansion (i.e. displacement, disruption, nuisances, community character).

Mitigation/Enhancements

- Key local concerns include vermin/wildlife and odour.
- Vermin/wildlife management plan to be included in Design and Operations Report.
- Odour mitigation will be enhanced relative to current activities – refer to odour impact assessment.

Potential Impact

- Based on the feedback received and the results of impact assessment studies (eg. air quality, noise, traffic) effects are not expected to be significant relative to current levels provided mitigation is implemented.

Impact Assessment – Visual

The proposed expansion may impact the visual landscape in the site vicinity and beyond.

Mitigation/Enhancements

- No significant impact is anticipated due to the existing effective vegetative screening at and adjacent to the site.
- Proposed mitigation includes berms and vegetative buffers to further obscure the landform.
- Vegetative cap to be provided on final landform.
- Some reforestation proposed to compensate for removal of vegetation.

Potential Impact

- No significant change on the visual landscape is anticipated.

Impact Assessment – Traffic

The expansion could impact, traffic volumes, types, safety and the transportation network.

Mitigation/Enhancements

- Modest changes in traffic during construction and the operating life.
- Fifth Line/ Hwy.17 intersection geometrics, although adequate, are not ideal.
- Complete clearing, removal/relocation of signs to maximize sight lines from Fifth Line approaches.
- Maintain flashing amber/reduce speed sign and hidden intersection signage on Hwy.17 approaches to Fifth Line.
- Maintain left and through prohibitions for trucks and buses from Fifth Line approaches.
- Complete technical review to identify further enhancements.

Potential Impact

- Limited overall impact on the transportation network.
- Potential to enhance Hwy.17/Fifth Line safety.

Impact Assessment – Cultural

Portions of the landfill site were identified in the Official Plan as having potential for archaeological resources.

Mitigation/Enhancements

- Conducted a Phase 1 and 2 archaeological assessment to further explore the potential for on-site archaeological resources.
- Field work was completed by a licensed Archaeologist and no archaeological sites were found.

Potential Impact

- The report concludes no further archaeological assessments are required for this property.

Impact Assessment – Land Use

There are policies and guidelines that address land uses in the vicinity of landfills and on the City's groundwater recharge area. The assessment considered all policy and guideline requirements.

Mitigation/Enhancements

- 18 properties including within existing Area of Influence (AOI).
- 12 additional properties (8 sensitive) within the expanded AOI.
- Completed focused studies as required by MOECC Guidelines and City's Official Plan to assess impacts to sensitive uses and natural and heritage resources.
- Future development/redevelopment in the area will consider MOECC AOI guidelines.
- Rezoning SW portion of property to be undertaken following EA Act approval.

Potential Impact

- Potential impacts and mitigation are included with the individual impact assessment reports.

Next Steps

- Review all input received and modify impact mitigation as needed.
- Prepare the Design and Operation Report for the site.
- Prepare Environmental Assessment Document.
- Issue the EA Report including the D&O report to the MOECC.

THE CITY OF SAULT STE. MARIE

FEBRUARY 9, 2016 PUBLIC OPEN HOUSE

SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

COMMENT SHEET

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. To date, we have completed a thorough review of different ways to manage waste including increased waste diversion, incineration/high heat processes, landfill, export of waste outside the service area, and "do-nothing". The City decided to pursue a combination of increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.

The next phase in the EA Study involved finding an environmentally suitable location for the development of additional landfill capacity and we looked at developing a new landfill or expanding an existing landfill. The evaluation and input received through the spring 2011 public consultation activities concluded that an expansion of an existing landfill is generally preferred.

We then focused on the best way to expand the existing landfill site at 402 Fifth Line East in the City of Sault Ste. Marie. We looked at expanding the landfill by increasing the footprint area, and/or increasing the height of the landfill, and/or mining some of the existing waste. The evaluation and input received through the spring 2012 public consultation activities concluded that an expansion would best be accommodated with a moderate increase in the height of the waste together with an expansion of the disposal footprint to the north and west. The preferred option also includes landfill mining (excavate existing disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) in the western portion of the existing disposal footprint to enhance groundwater protection. All mined and expansion areas will include the construction of a liner beneath the waste to collect leachate (precipitation contaminated as it filters through waste) and ultimately direct it to the City's sewage treatment plant for treatment.

Since that time the team has focused attention on completing an impact assessment for the preferred design option which requires expertise in various disciplines to identify and assess potential impacts on the natural and human environments that may result from the construction and operation of the proposed expansion. Careful attention is given to best management practices to mitigate potential impacts. More information is available on the project webpage (Address = saultstemarie.ca/SolidWasteEA) including **background reports**, the most recent **Project Newsletter** and the February 9, 2016 **Public Open House displays**.

We want your input! You can provide comments in one of two ways:

1. Using this comment sheet (SPACE is provided on the BACK for comments); or
2. Sending the project team an email (see email address below) - please include **"City of SSM Waste Management EA – Comments"** in the subject line of your email message.

PLEASE RETURN completed comment sheets by March 11, 2016

To: **Mr. Rick Talvitie, P.Eng**
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4
Phone: 705-942-2612
Fax: 705-942-3642
Email: rick.talvitie@aecom.com

Questions:

Do you have any concerns about the potential for impacts from the proposed expansion?

Are there any additional mitigation measures you would like to see put into place?

Other Comments:

Please add me to the mailing list:

Name: _____

Address: _____

Phone: _____

Email: _____

Appendix L

Stakeholder Consultation Summary Tables and Supporting Documentation

COMMUNITIES

Description of Communication	Date	Comments / Questions / Issues	Response / How Addressed (EA Reference)	Reference Material	Outstanding Issues to be Addressed
Township of Prince					
• Newsletter No. 1 – Notice of Commencement of Phase 2 of the EA process	October, 2006	• No comments were received		Solid Waste Disposal Environmental Assessment Newsletter No. 1, October 2006 - Appendix L	
• Correspondence – Letter mailed to Township of Prince (Anne Mitchell) notifying the Twp. of the upcoming Public Input Session in Sault Ste. Marie and inviting participation from Community members. Included for distribution were digital and hard copies of the Notice of Public Input Session being conducted to provide updates on diversion improvements and to discuss "Alternatives To" and criteria to be used in the evaluation.	June 13, 2007	• No comments were received		Letter to Township of Prince from R. Talvitie regarding Notice of Public Input Session No. 1, June 13, 2007 – Appendix L	
• Correspondence – Email follow up with Township of Prince representative (Anne Mitchell) t the June 13, 2007 letter requesting Notices to be posted in prominent locations and encouraging attendance at the Public Input Session.	June 15, 2007	• No comments were received		Email to Prince Township from R. Talvitie dated June 15, 2007 – Appendix L	
• Public Input Session No. 1 - First public open house to provide updates on diversion improvements and to discuss "Alternatives To" and criteria to be used in the evaluation.	June 26, 2007	• No comments were received		Records from June 26, 2007 PIC – Appendix F	
• Correspondence – Newsletter No. 2 and Notice of Public Input Session – Project update and information regarding the upcoming June 3, 2010 PIC which is intended to identify the preferred "Alternative To", discuss the project progress and have questions or concerns addressed.	May, 2010	• No comments were received		Solid Waste Disposal Environmental Assessment Newsletter No. 2, May 2010, and Notice of Public Information Centre – Appendix L	
• Correspondence – Email to Prince Township representative (Brianna Coughlin) providing Newsletter No. 2 and inviting the Community to the June 3rd PIC. Requested that they post notices of the PIC in their Community and on their website.	May 21, 2010	• No comments were received		Email dated May 21, 2010 to Township of Prince from R. Talvitie – Appendix L	

• Correspondence – Notice of Public Input Session – Project update and information regarding the upcoming April 19, 2011 PIC No. 3 which is intended to solicit input and feedback on the alternative approaches to landfilling residual waste (i.e. expand existing disposal site versus a new site.	April, 2011	• No comments received.		Solid Waste Management Environmental Assessment Notice of Public Input Session, April, 2011 – Appendix L	
• Correspondence – Email to Prince Township representative (B. Coughlin) informing of the upcoming April 19th PIC and inviting community members. Encouraged posting of PIC Notices at prominent locations in the Community and on the Township's website. Noted that a copy of the "Solid Waste Management Environmental Assessment – Alternative Methods – Step 1 (Landfill Expansion versus Development of a New Site) report will be delivered to make available for viewing at the Township office.	April 8, 2011	• No comments were received.		Email dated April 8, 2011 to Township of Prince from R. Talvitie – Appendix L	
• Public Input Session No. 3 - Conducted to provide an opportunity to discuss project progress, solicit input and feedback on the alternative approaches to landfilling residual waste (i.e. expand existing disposal site versus a new site) and to address questions or concerns.	April 19, 2011	• No comments were received.		Records from April 19, 2011 PIC – Appendix I	
• Correspondence – Notice of Public Input Session – Project update and information regarding the upcoming March 6, 2012 PIC which is intended to solicit input and feedback on the alternative approaches to expanding the existing disposal site.	February, 2012	• No comments received.		Solid Waste Disposal Environmental Assessment Notice of Public Input Session dated February, 2012 – Appendix L	
• Correspondence – Email from R. Talvitie to Prince Township representative (Peggy Greco) updating on status of project, advising that the latest report would be delivered to the Municipal office and requesting it be made available to residents and advising that the report is available digitally on the City of SSM's website. Attachments included the most recent Newsletter and Notice of upcoming PIC for posting on the Municipal website and/or printed and posted in prominent locations throughout the Community. It was noted that several copies of the Notice would also be dropped off for posting.	February 22, 2012	• No comments were received.		Email dated February 22, 2012 to Township of Prince from R. Talvitie – Appendix L	
• Public Information Centre No. 4 - Conducted to discuss project progress and to solicit input and feedback on a preferred expansion strategy for the existing landfill site.	March 6, 2012	• No comments were received.		Records from March 6, 2012 PIC – Appendix J	

• Correspondence – Newsletter and Notice advising of February 9, 2016 Public Input Centre No. 5 intended to discuss project progress and solicit input and feedback on the impact assessment work.	January, 2016	• No comments were received.		Solid Waste Disposal Environmental Assessment January 2016 Newsletter and Notice of Public Input Session – Appendix L	
• Correspondence – Letter to Prince Township representative (P. Greco) from R. Talvitie updating project status and requesting input and feedback on the impact assessment reports. Also advised of upcoming February 9, 2016 PIC and offered to meet with Municipal staff.	January 26, 2016	• No comments were received.		Letter dated January 26, 2016 to Peggy Greco, Prince Township from R. Talvitie – Appendix L	
• Public Input Session No. 5 - Conducted to discuss project progress and to solicit input and feedback on the impact assessment work.	February 9, 2016	• No comments were received.		Records from February 9, 2016 PIC – Appendix K	
• Correspondence – Letter to Prince Township representative (P. Grego) from R. Talvitie notifying and requesting input on the Draft EA. Provided the Notice of the Draft EA and requested the Notice be shared with Township residents. Notification was also provided that the Draft EA Report could be viewed on the City's website and link to the website was provided. An offer was also made to meet in person to discuss project details.	May 17, 2017	• No comments were received.			Letter dated May 17, 2017 to P. Grego (Prince Township) from R. Talvitie – Appendix L

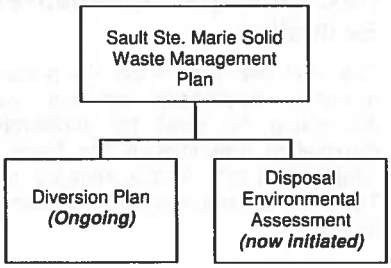
Solid Waste Disposal Environmental Assessment

Newsletter No.1, October 2006

Sault Ste. Marie Begins the Disposal Environmental Assessment (EA)

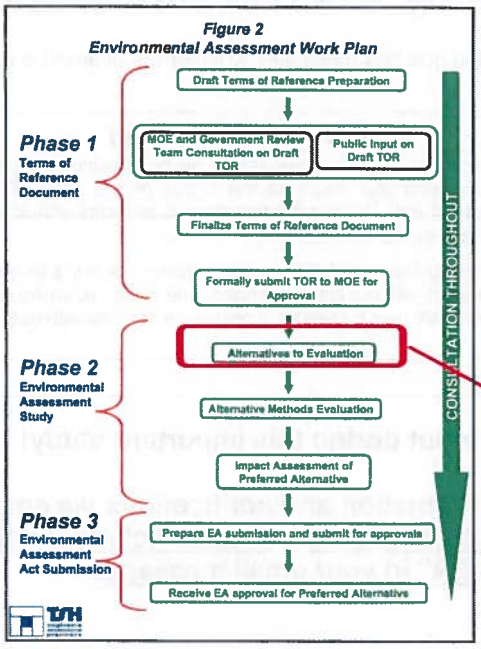
In September 2005 the Minister of the Environment approved the Environmental Assessment Terms of Reference (EA TOR) for the Sault Ste. Marie Solid Waste Management Plan. The EA TOR documents the process that will be followed to determine the preferred method for managing solid waste in Sault Ste. Marie for the next 20 to 40 years. In addition to the disposal EA, the Sault Ste. Marie Solid Waste Management Plan includes a significant diversion component.

A copy of the EA TOR is attached for your reference.



Diversion Update

The City of Sault Ste. Marie's waste diversion program currently includes collection and recycling of fibers and containers (ie: curbside yellow and blue box program); bi-weekly collection and composting of leaf and yard waste; a household hazardous waste depot; and segregation and recycling of metals, white goods, tires, and clean wood and brush at the solid waste landfill at 402 Fifth Line East. In 2005, the City limited residential waste setout to 2 bags/containers per week per household. Tags for additional waste bags or containers must be purchased. The residential waste diversion program diverted approximately 32% of residential waste from the landfill in 2005. This is a significant increase compared to the 8% diverted in 2000!



The EA Process Overview

The Environmental Assessment for disposal capacity includes three key phases. The first phase was completed with the submission and approval of the EA Terms of Reference. We are now initiating the second phase: the Environmental Assessment Study itself. The last phase is submission of the EA documentation to the Ministry of the Environment and the subsequent government and public review and approval period. It is anticipated that the whole process will take until early 2009.

WE ARE HERE

The City has retained a team of consultants including Totten Sims Hubicki Associates and Dillon Consulting Limited to assist them in the preparation of the Waste Disposal EA.

TSH engineers architects planners

DILLON CONSULTING

Next EA Steps: "Alternatives To" Evaluation

The next key step in the EA process is to evaluate functionally different ways of addressing the need for additional waste disposal capacity in Sault Ste. Marie, (ie. the "alternatives to"). As documented in the EA TOR, the alternatives being considered are as follows:

- Increased 3R's (reduce, reuse, recycle);
- Incineration & High Heat Processes;
- Landfill;
- Export Waste Outside Service Area;
- Do nothing.

Contact Us

Your input on this project is important to us. If you would like further information or to send comments, ask questions or be added to our mailing list, please contact us:

Mr. Rick Talvitie, P.Eng
Project Manager
Totten Sims Hubicki
523 Wellington Street East,
Sault Ste. Marie, Ontario
P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
Email: rtalvitie@tsh.ca

Mrs. Susan Hamilton-Beach, P.Eng.
Director of Engineering Services
City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive,
Sault Ste. Marie, Ontario
P6A 5N1

Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on.ca

The evaluation of "alternatives to" will be carried out at a general level. Specific locations and technologies for the above mentioned alternatives will not be included in this step but will be considered in the next step (ie. alternative methods evaluation).

In the EA Terms of Reference, criteria were proposed for the evaluation of the "alternatives to". The proposed criteria for the evaluation of "alternatives to" are listed below.

- Compliance with regulations and policies (addresses the ability to meet all applicable regulations and policies);
- Environmental acceptability (addresses potential environmental affects of the alternative);
- Ability of the City to implement the alternative (considers whether the City has the ability and mandate to implement the alternative);
- Flexibility of the system (considers whether the alternative can respond to changes in the waste stream);
- Capability of managing waste quantities and qualities (considers whether the alternative could handle the identified waste stream);
- Proven technical capability (considers whether the alternative has been proven successful in other experiences in Ontario or other jurisdictions); and
- Economic/Cost (considers the relative cost differences among the alternatives)

Keeping You Informed

This newsletter is part of a series that will be ongoing during this project to keep you aware of the status of the Solid Waste Management Plan. Contact information is provided should you wish more detailed information.

In addition to the newsletter, opportunities to become involved in the project will include workshops, and public open houses. Information will also be regularly posted on the City web site.

We look forward to receiving your input during this important study!

If you would prefer to receive future information and notifications via email please forward your email address to nirwin@tsh.ca. Please include the title "City of SSM Waste Disposal EA" in your email message.

TSH engineers architects planners

DILLON CONSULTING

June 13, 2007

Ann Mitchell, Administrator
Township of Prince
3042 Second Line West
Sault Ste. Marie, Ontario
P6A 6K4

Dear Ms. Mitchell:

Re: City of Sault Ste. Marie
Solid Waste Management EA
TSH Project No. 60395

The City of Sault Ste. Marie is proceeding with the first public input session for the Solid Waste Management Plan Environmental Assessment. Details pertaining to the session are included in the attached Notice.

We will be advertising this Public Input session through various forms within the City of Sault Ste. Marie and adjacent communities. We are encouraging direct participation of Prince Township residents. We have enclosed 10 copies of the Notice for posting at prominent locations within your community.

We have also included a digital copy for posting on your website.

In the event that you feel there are other effective means of notifying members of your community of this session please let us know.

We are hopeful that there will be broad representation of various interest groups and communities at the event.

We look forward to seeing members from your community at our event.

Yours very truly,

R. Talvitie, P. Eng.
Project Manager

c.c. Susan Hamilton-Beach
Karla Kolli

Talvitie, Rick

From: Rick Talvitie
Sent: June 15, 2007 12:24 PM
To: 'annmitchell@twp.prince.on.ca'
Cc: 'Susan Hamilton Beach'
Subject: City of Sault Ste. Marie Waste Disposal EA

Hi Ann,

I am just following up on the Notice of the Public input session that was couriered to you earlier this week. The City is undertaking a public input session on June 26th (details are provided in the Notices provided to you). The general public within Sault Ste. Marie and adjacent communities are encouraged to attend. We are hopeful that you will post the notices in prominent locations including your website (ie: digital copy was also provided).

Let me know if there is anything we can do to further assist you in notifying your residents.

Thank you.

Rick Talvitie, P.Eng.
Branch Manager
TSH
523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4
Phone: 705-942-2612
Fax: 705-942-3642
This electronic transmission, including any attachments, may contain personal information whose collection and use is regulated by the Personal Information Protection and Electronic Documents Act S.C. 2000 c. 5 (the "Act"). The use of such personal information except in compliance with the Act is strictly prohibited. If you have received this electronic transmission in error, or do not agree to comply with the Act, please notify us immediately by telephone or by Reply to Sender function and delete the message and any attachments from your computer without making a copy.

Solid Waste Disposal Environmental Assessment PUBLIC INPUT SESSION No. 1

Sault Ste. Marie Conducts First Public Input Session!

Are you interested in discussing the alternatives and criteria that will be used to compare and select a preferred approach to dispose of waste in Sault Ste. Marie, Prince Township and Batchewana First Nation's Rankin Reserve? If so, we encourage you to attend this public input session!

You're Invited!

Date: Tuesday June 26, 2007
Time: 6:00 pm to 9:00 pm
Location: Civic Centre – Russ Ramsay Room

Please join us!

The City of Sault Ste. Marie is holding a public input session for the Solid Waste Disposal Environmental Assessment to discuss both diversion and disposal of solid waste.

We will update you on the City's achievements in increasing waste diversion and discuss with you the alternative approaches that are being considered to dispose of the residual solid waste. A principle objective of the session is to confirm the alternatives that are being considered (ie: increased 3R's, landfill, incineration and high heat processes, export and do-nothing) and to discuss the criteria that will be used to compare the alternatives.

Information on waste quantities, the alternatives and the evaluation criteria can be found in two working papers prepared for this session titled "Waste Quantity Projections and Existing Environment Profile" and "Alternatives To the Undertaking". These working papers can be downloaded from the City of Sault Ste. Marie website (http://www.cityssm.on.ca/) or viewed at the locations noted below commencing on June 19th.

TSH Engineers Architects and Planners	523 Wellington Street
Civic Centre Engineering and Planning	99 Foster Drive, 5th Floor
Public Works and Transportation	128 Sackville Road
Main Library	50 East Street
Churchill Branch Library	301 Lake Street
Korah Branch Library	496 Second Line
Township of Prince Municipal Office	3042 Second Line West
Batchewana First Nation	236 Frontenac Street
Garden River First Nation	7 Shingwauk Street
Metis Nation of Ontario Office	26 Queen Street East
Missanabie Cree Office	559 Queen Street East

We also encourage you to contact the individuals noted below if you have any specific questions.

Mr. Rick Talvitie, P.Eng
Project Manager
Totten Sims Hubicki (TSH)
523 Wellington Street East,
Sault Ste. Marie, Ontario
P6A 2M4
Phone: 705-942-2612
Fax: 705-942-3642
Email: rtalvitie@tsh.ca

Mrs. Susan Hamilton-Beach, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
99 Foster Drive,
Sault Ste. Marie, Ontario
P6A 5N1
Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on.ca

Information pertaining to this session is available on the City of Sault Ste. Marie website at: http://www.cityssm.on.ca/. Hardcopies can also be obtained by contacting TSH at 705-942-2612.

We look forward to seeing you on June 26th!

TSH engineers architects planners

DILLON CONSULTING

SOLID WASTE DISPOSAL
ENVIRONMENTAL ASSESSMENT

Newsletter No.2, May 2010

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its residual municipal solid waste. In the evaluation of "Alternatives To the Undertaking", a thorough review of different waste management alternatives including increased waste diversion, incineration/high heat processes, landfill, export waste outside the service area, and "do-nothing" was completed. To identify a preferred waste management method, the alternatives were comparatively evaluated using the following seven criteria:

1. Compliance with current regulations and policies;
2. Environmental acceptability;
3. The ability of the City of Sault Ste. Marie to implement the preferred alternative;
4. Flexibility of the system;
5. Capability of managing waste quality and quantity;
6. Proven technical capacity; and
7. Cost.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative for the City has been identified as **increased waste diversion and landfilling of the residual waste.**

DIVERSION UPDATE

The residential waste diversion program diverted approximately 34% of residential waste from the landfill in 2009. This shows consistent progress when compared to the 9% diverted in 2000! The City of Sault Ste. Marie's waste diversion program currently includes weekly curbside collection and recycling of paper products in the yellow box and containers in the blue box; bi-weekly collection and composting of leaf and yard waste throughout the growing season (April through November); a household special waste facility at 115 Industrial Park Crescent; landfill bans and segregation and recycling of metals, white goods, tires, and clean wood and brush at the landfill at 402 Fifth Line East. Since 2006, the City has limited residential waste setout to 2 bags/containers per week per household. Tags for additional waste bags or containers must be purchased. The City diversion programs are also supplemented by diversion initiatives undertaken by the private sector and special interest groups.

The City is also currently assessing the feasibility of diverting municipal biosolids (sewage sludge) from disposal.

PUBLIC INFORMATION CENTRE

A Public Information Centre is being held to provide an opportunity for you to discuss the project progress and have your questions or concerns addressed.

Date: Thursday, June 3, 2010

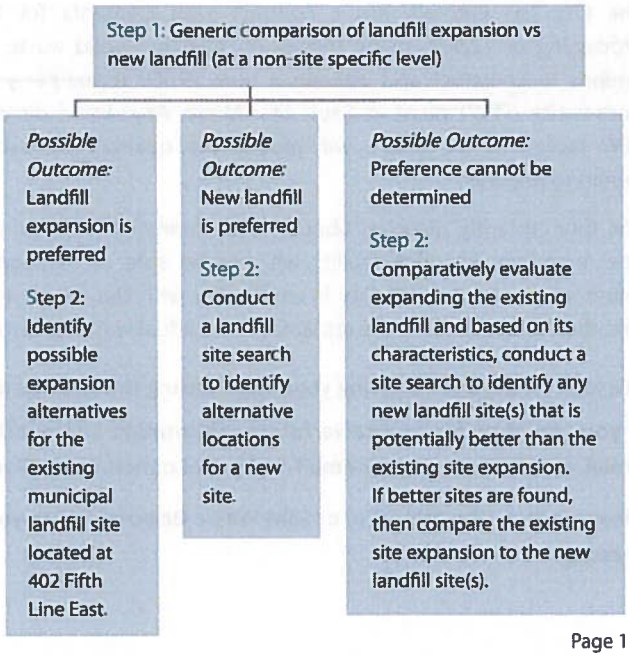
Location: Thompson Room
Civic Centre, 99 Foster Drive

Time: 3:30 pm to 7:30 pm

WHAT'S NEXT?

The results of the Environmental Assessment work completed to date suggest that landfill remains the most appropriate disposal option for the City's residual waste. Landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and recovered to generate electricity, landfills can manage the entire residual waste stream, are flexible to changes in waste quality and quantities and are cost effective.

Following the "Alternatives To" evaluation, the next step in the EA process for a landfill facility is the identification and evaluation of "Alternative Methods" of landfilling. This can include both alternative locations and alternative designs as illustrated in the flow chart below. We will be looking for public input on landfill options in the Fall of 2010.



SOLID WASTE DISPOSAL
ENVIRONMENTAL ASSESSMENT

Newsletter No.2, May 2010

ABOUT THE ENVIRONMENTAL ASSESSMENT (EA) PROCESS

The Environmental Assessment for disposal capacity includes three key phases. The first phase was completed with the submission and approval of the EA Terms of Reference. We are currently working within the second phase: the Environmental Assessment Study itself. The last phase is submission of the EA documentation to the Ministry of the Environment and the subsequent government and public review and approval period. It is anticipated that the whole process will take until late 2012.

In September 2005 the Minister of the Environment approved the Environmental Assessment Terms of Reference (EA TOR) for the Sault Ste. Marie Solid Waste Management Plan. The EA TOR documents the process that will be followed to determine the preferred method for managing solid waste in Sault Ste. Marie for the next 20 to 40 years. In addition to the disposal EA, the Sault Ste. Marie Solid Waste Management Plan includes a significant diversion component.

Keep up-to-date on the EA Study at the City of Sault Ste. Marie's website: http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1

ELEMENTA ENERGY-FROM-WASTE FACILITY

In 2007, an energy-from-waste (EFW) developer known as The Elementa Group (Elementa) constructed a pilot steam reformation plant that would convert municipal solid waste into a char and synthetic gas (or "syngas") that can be used to generate electricity.

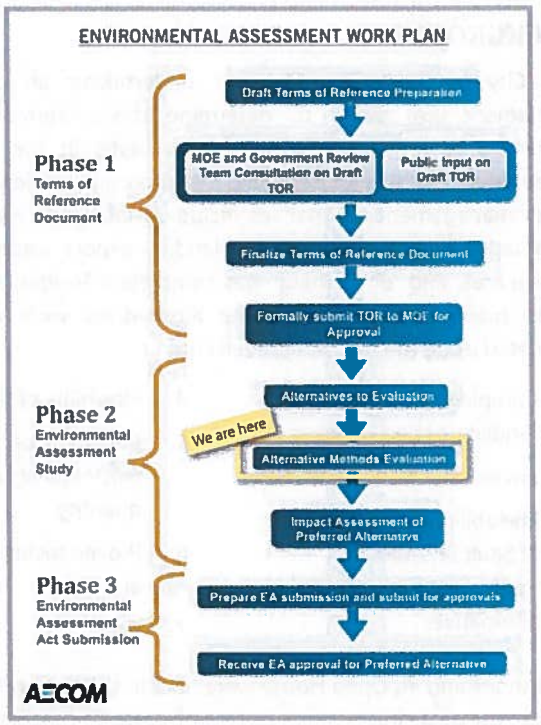
The City has entered into a contract with Elementa for the annual processing of 12,500 metric tonnes of municipal solid waste. Elementa intends to construct and operate a new 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility in the future will reduce the quantity of residual waste requiring disposal.

The City currently disposes about 60,000 tonnes of residual waste each year therefore; the EFW facility will not be able to manage the City's entire waste stream. The City is continuing with the EA study to ensure that the City can process the remainder of residual waste generated.

We look forward to receiving your input during this important study!

If you would prefer to receive future information and notifications via email, please forward your email address to nancy.maahs@aecom.com.

Please include the title "City of SSM Waste Disposal EA" in your message.



CONTACT US

Your input on this project is important to us. If you would like further information or to send comments, ask questions or be added to our mailing list, please contact us:

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
Email: rick.talvitie@aecom.com

Mrs. Susan Hamilton Beach, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on

THE CITY OF SAULT STE. MARIE

Notice of Public Information Centre

SOLID WASTE DISPOSAL ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its residual municipal solid waste. Work to date has included a thorough review of a number of waste management alternatives including increased waste diversion, incineration/high heat process, landfill, export waste and "do nothing". To identify a preferred waste management method, the alternatives were comparatively evaluated using the following seven criteria:

1. Compliance with current regulations and policies;
2. Environmental acceptability;
3. The ability of the City of Sault Ste. Marie to implement the preferred alternative;
4. Flexibility of the system;
5. Capability of managing waste quality and quantity;
6. Proven technical capacity; and
7. Cost.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative for the City has been identified as **increased waste diversion and landfilling of the residual waste**.

Residents currently divert approximately 34% of their waste from disposal and the City will continue to provide opportunities to improve on this diversion rate. The remaining 66% of residential waste and industrial, commercial and institutional wastes currently goes to the City landfill. In addition to the City's current diversion, the City has entered into a contract with a private corporation for the annual supply of 12,500 metric tonnes of municipal solid waste. This corporation intends to construct and operate a 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility will reduce the quantity of residual waste requiring disposal.

The results of the Environmental Assessment work completed to date suggest that landfill remains the most appropriate disposal option for the City's residual waste. Landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and recovered to generate electricity, landfills can manage the entire residual waste stream, are flexible to changes in waste quality and quantities and are cost effective.

PUBLIC INFORMATION CENTRE

A Public Information Centre is being held to provide an opportunity for you to discuss the project progress and have your questions or concerns addressed.

Date: Thursday, June 3, 2010
Location: Thompson Room
Civic Centre, 99 Foster Drive
Time: 3:30pm to 7:30 pm

THE NEXT STEPS

Over the summer the project team will be looking at options for landfilling residual waste. This work will include consideration of opportunities to expand the existing landfill or establish a new landfill site. In the Fall of 2010, we will be looking for public input on landfill options.

If you have any questions related to the study, please contact:

Mr. Rick Talvitie, P. Eng.
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
E-mail: rick.talvitie@aecom.com

Mrs. Susan Hamilton Beach, P. Eng.
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City of Sault Ste. Marie
P.O. Box 580, 99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on.ca

If you would like to receive future information and notifications via email, please forward your email address to nancy.maahs@aecom.com. Please include the title "City of SSM Waste Disposal EA" in your message.

Talvitie, Rick

From: Talvitie, Rick
Sent: May 21, 2010 3:33 PM
To: bcoughlin@twp.prince.on.ca
Cc: Susan Hamilton Beach; Kolli, Karla
Subject: City of Sault Ste. Marie Waste Disposal EA

Hi Brianna,

Our firm is currently assisting the City of Sault Ste. Marie in undertaking their Solid Waste Disposal Environmental Assessment.

We are now planning to conduct an open house in the City of Sault Ste. Marie to announce the preferred alternative to manage solid waste. Attached is Newsletter No. 2 and a Notice of the upcoming Public Information Centre. The Newsletter highlights the work completed to date, the current status of the EA, the preferred alternative and the work that will be undertaken in the coming months.

We are anxious to get as much public involvement as possible. Could you please post copies of the attached Notice in prominent locations in your community? Also, if possible we would appreciate having the notice posted on your website. If you would prefer to have one of our staff members post the notices in your community please let me know.

We look forward to hearing from you and the residents of your community.

Regards,

SSM_Newsletter 05-21-2010.pdf

SSM_PICNotice May 19 2010 FINA...

Rick Talvitie, P. Eng.
Manager, Sault Ste. Marie Office
D 705.942.2612
rick.talvitie@aecom.com

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523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4
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THE CITY OF SAULT STE. MARIE

NOTICE OF PUBLIC INPUT SESSION

SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. In the evaluation of "Alternatives To the Undertaking", a thorough review of different waste management alternatives including increased waste diversion, incineration/high heat processes, landfill, export waste outside the service area, and "do-nothing" was completed. To identify a preferred approach to managing waste, the alternatives were comparatively evaluated using the following seven criteria:

1. Compliance with current regulations and policies;
2. Environmental acceptability;
3. The ability of the City of Sault Ste. Marie to implement the preferred alternative;
4. Flexibility of the system;
5. Capability of managing waste quality and quantity;
6. Proven technical capacity; and
7. Cost.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste. The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the entire residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

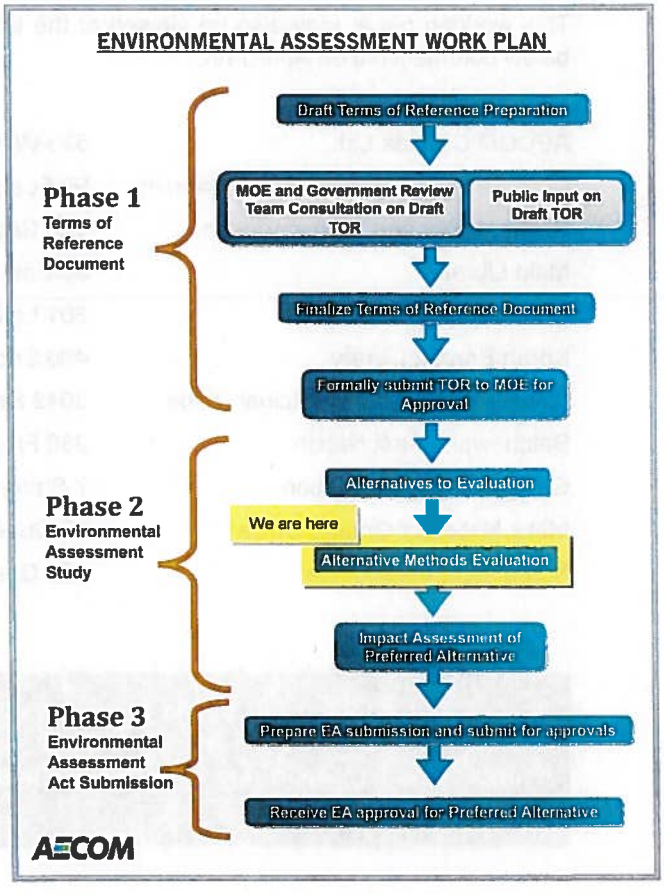
The flexibility of the preferred alternative is particularly important given the City's contract with The Elementa Group (an energy-from-waste service provider) for the annual processing of at least 12,500 metric tonnes of municipal solid waste. Elementa intends to construct and operate a new 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility in the future will reduce the quantity of residual waste requiring disposal in a landfill.

NEXT STEPS

The City remains committed to investigating, implementing and supporting programs to increase waste diversion through 3Rs initiatives. Since the implementation of 3Rs initiatives does not require Environmental Assessment (EA) Act approval, the EA study is now focusing on alternative methods of landfilling residual waste. The key objective of this phase of the study is to find an environmentally suitable location for the development of additional landfill capacity.

The first step to be completed in this phase consists of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. This step will provide initial focus to the search for additional landfill capacity.

A preliminary evaluation of these alternatives has been completed by the project team. We are now seeking input from the general public and Stakeholders regarding the evaluation criteria considered and the preliminary findings.



THE CITY OF SAULT STE. MARIE

NOTICE OF PUBLIC INPUT SESSION

SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

PUBLIC INPUT SESSION

If you are interested in discussing the alternatives and criteria that will be used to compare and select a preferred approach to landfilling residual waste in Sault Ste. Marie, Prince Township and Batchewana First Nation's Rankin Reserve, we encourage you to attend this public input session!

We will provide you with background information, update you on the City's achievements in increasing waste diversion and discuss with you the alternative approaches to landfilling residual solid waste. A principle objective of the session is to confirm whether the City should focus its efforts to obtain additional disposal capacity by expanding an existing landfill site or finding a location for a new site.

Background information documenting the work completed to date is available on the City website at **http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1**.
In addition, the alternatives and the evaluation criteria currently being considered are also available on the website in a working paper prepared for this session titled "Solid Waste Management Environmental Assessment - Alternative Methods – Step 1 (Landfill Expansion versus Development of a New Site).

This working paper may also be viewed at the locations noted below commencing on April 11th.

AECOM Canada Ltd.	523 Wellington Street
Civic Centre Engineering and Planning	99 Foster Drive, 5th Flr.
Public Works and Transportation	128 Sackville Road
Main Library	50 East Street
Churchill Branch Library	301 Lake Street
Korah Branch Library	496 Second Line
Township of Prince Municipal Office	3042 Second Line West
Batchewana First Nation	236 Frontenac Street
Garden River First Nation	7 Shingwauk Street
Metis Nation of Ontario Office	26 Queen Street East
Missanabie Cree Office	559 Queen Street East

YOU'RE INVITED!

Date:	Tuesday April 19, 2011
Location:	Civic Centre – Russ Ramsay Room
Time:	6:30 pm to 9:00 pm

Refreshments to be provided.

CONTACT US

We also encourage you to contact the individuals noted below if you have any specific questions.

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
Email: rick.talvitie@aecom.com

Mrs. Susan Hamilton Beach, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on.ca

Information pertaining to this session is available on the City of Sault Ste. Marie website at: **http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1**.
Hardcopies can also be obtained by contacting AECOM at 705-942-2612.

If you cannot attend the public input session in person, we still want to hear from you! Just go to the City's website (http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1), review the Alternatives Method - Step 1 Report and fill out our online questionnaire. A link to the online questionnaire is provided on the City's website.

THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. In the evaluation of "Alternatives to the Undertaking", a thorough review of different waste management alternatives including increased waste diversion, incineration/high heat processes, landfill, export waste outside the service area, and "do-nothing" was completed.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste. The preferred alternative was presented at an Open House in June, 2010.

NEXT STEPS

The next step consists of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. This step will provide initial focus to the search for additional landfill capacity.

A preliminary evaluation of these alternatives has been completed by the project team. We are now seeking input from the general public and stakeholders regarding the evaluation criteria considered and the preliminary findings.

PUBLIC INPUT SESSION

If you are interested in discussing the alternatives and criteria that will be used to compare and select a preferred approach to landfilling residual waste in Sault Ste. Marie, Prince Township and Batchewana First Nation's Rankin Reserve, we invite you to attend this public input session.

We will provide background information, update you on the City's achievements in increasing waste diversion and discuss the alternative approaches to landfilling residual solid waste.

Background documents including the working paper to be discussed at the public input session entitled "Solid Waste Management Environmental Assessment - Alternative Methods – Step 1 (Landfill Expansion versus Development of a New Site)" are available on the City's website at **www.cityssm.on.ca – Click City Hall Bulletins – Public Input Session – Solid Waste Management.**

CONTACT US

We encourage you to contact the individuals below if you have questions.

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
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YOU'RE INVITED!

Date: Tuesday, April 19, 2011

Location: Civic Centre, 99 Foster Dr.
Russ Ramsay Board Room

Time: 6:30 to 9:00 p.m.

Refreshments provided.

If you cannot attend the public input session, we still want to hear from you! Go to the City's website www.cityssm.on.ca (Click City Hall Bulletins – Public Input Session – Solid Waste Management) to review the Alternatives Method - Step 1 Report and fill out the online questionnaire.

Talvitie, Rick

From: Talvitie, Rick
Sent: April 8, 2011 10:22 AM
To: bcoughlin@twp.prince.on.ca
Cc: Kolli, Karla; Susan Hamilton Beach; Varghese, Betsy
Subject: City of Sault Ste. Marie Waste Management EA - Public Input Session
Attachments: SSM_Newsletter 1page.pdf

Good Morning Brianna,

The City is continuing to move forward with a Waste Management Environmental Assessment (EA).

I have attached a Newsletter for your information and reference which explains the current status of the project. The attached Notice also references a **Public Input Session that is scheduled for April 19, 2011**.

We would like to take this opportunity to invite members of your community to attend this public input session. The upcoming session is also being advertised through various media in advance of the event.

We encourage as much participation as possible and are hopeful that there will be some representation from your Community at the upcoming event. We have attached a Notice of the Public Input Session for your information and use. We encourage you to post this Notice on your website and download, print and post the Notice in prominent locations in your Community.

We will also deliver, on April 11th, a hard copy of the "Solid Waste Management Environmental Assessment – Alternative Methods – Step 1 (Landfill Expansion versus Development of a New Site)" which we ask you to make available for viewing at the Municipal office.

We are hopeful that there will be broad representation of various interest groups and communities at the event.

We look forward to seeing representation from your community on April 19th!

Regards,

Rick Talvitie, P. Eng.
Manager, Sault Ste. Marie Office
rick.talvitie@aecom.com

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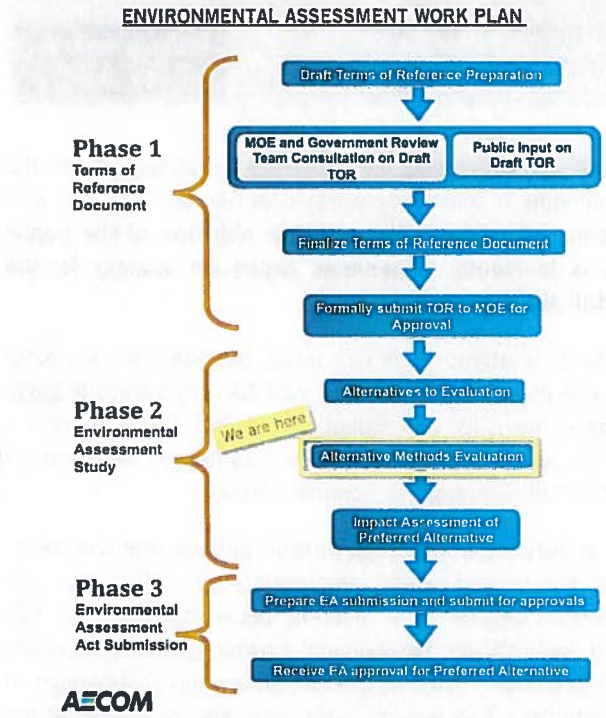
THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

ENVIRONMENTAL ASSESSMENT (EA) PROCESS

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. The EA Process is a transparent decision-making process used to promote good environmental planning by assessing potential effects of certain activities or projects on the natural and human environment. There are several phases and tasks involved in completing an EA as outlined in the graphic below.



The City is currently mid-way through Phase 2 of the EA Process and is interested in obtaining your input related to the current activities.

BACKGROUND

Phase 1 of the EA process included public consultation and culminated with the Ministry of Environments approval of the project Terms of Reference (ToR) in 2005. The ToR provides a framework or roadmap for completing the EA and summarizes the tasks and activities to be undertaken by the proponent.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the **preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.** The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the entire residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

The flexibility of the preferred alternative is particularly important given the City's contract with The Elementa Group (an energy-from-waste service provider) for the annual processing of at least 12,500 metric tonnes of municipal solid waste. Elementa is currently negotiating an energy purchase agreement and intends to construct and operate a new 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility in the future will reduce the quantity of residual waste requiring disposal in a landfill.

The City remains committed to investigating, implementing and supporting programs to increase waste diversion through 3Rs initiatives. Since the implementation of 3Rs initiatives does not require Environmental Assessment (EA) Act approval, the EA study is now focusing on alternative methods of landfilling residual waste. The key objective of this phase of the study is to find an environmentally suitable location for the development of additional landfill capacity.

The first step in this phase consisted of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. To identify a preferred approach to landfilling waste, the alternatives were compared using the following six criteria groups:

1. Natural environment;
2. Social-Cultural environment;
3. Economic environment;
4. Cost;
5. Technical considerations; and
6. Transportation.

A Public Input Session was held in April, 2011 to present the landfill alternatives being considered. **The evaluation and response from consultation concluded that an expansion of an existing landfill is generally preferred over construction of a new site.**

The study noted that an expansion requires less land, displaces fewer people and/or social/natural features, disrupts fewer people (ie. one site versus two sites creating nuisance impacts), costs less, typically encounters fewer challenges in gaining technical approvals, and reduces the number of facilities the City must manage.

THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

CURRENT ACTIVITIES

The second step in the Alternative Methods task focuses on the best approach to expand the existing landfill site at 402 Fifth Line East in the City of Sault Ste. Marie. Expansion options have been developed that make the best use of the existing site characteristics and the area available to expand. Options considered include horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining (excavate previously disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) or a combination of these methodologies.

A preliminary evaluation of the expansion options has been completed by the project team. We are now seeking input from the Community, government agencies, stakeholders, and First Nations regarding the evaluation criteria considered and the preliminary findings.

CONTACT US

You may also contact the Consultant Project Manager or the City's Land Development and Environmental Engineer by email, mail or telephone if you have questions or would like additional information.

Mr. Rick Talvitie, P.Eng
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AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

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Ms. Catherine Taddo, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5380
Fax: (705) 541-7165
Email: c.taddo@cityssm.on.ca

HOW CAN I PROVIDE INPUT?

If you are interested in discussing the expansion options, the criteria used in the evaluation and the preliminary findings we encourage you to attend the upcoming public input session!

YOU'RE INVITED!

Date: Tuesday, March 6, 2012
Location: Civic Centre – 99 Foster Drive
Russ Ramsay Room
Time: 3:30PM to 7:30PM

Refreshments to be provided.

We will provide you with background information update you on the City's achievements in increasing waste diversion and discuss, with you, the expansion options. **The principle objective of the public consultation is to identify a preferred expansion strategy for the existing landfill site.**

If you are unable to attend the Public Input Session there are other opportunities to provide input. Please visit the City's website **www.cityssm.on.ca** - View City Hall Bulletins – Public Input Session – Solid Waste Management to obtain further information, complete an online questionnaire, or access a comment sheet.

In addition, a description of the expansion options, the evaluation criteria, and the project team's preliminary evaluation are also available on the website in a working paper prepared for this session titled "Solid Waste Management Environmental Assessment – Alternative Methods – Step 2 (Identification and Comparison of Expansion Options). This working paper may also be viewed at the locations noted below commencing on February 21, 2012.

AECOM Canada Ltd.	523 Wellington Street
Civic Centre Engineering and Planning	99 Foster Drive, 5th Flr.
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THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. To date significant progress has been made.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and **the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.** The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the entire residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

In April, 2011 a Public Input Session was held to present the non-site specific landfill alternatives being considered. **The evaluation and response from consultation concluded that an expansion of an existing landfill is generally preferred over construction of a new site.**

The study noted that an expansion requires less land, displaces fewer people and/or social/natural features, disrupts fewer people (ie. one site versus two sites creating nuisance impacts), costs less, typically encounters fewer challenges in gaining technical approvals, and reduces the number of facilities the City must manage.

CURRENT ACTIVITIES

Presently the project team is focusing on **the best approach to expand the existing landfill site at 402 Fifth Line East in the City of Sault Ste. Marie.** Expansion options have been developed that make the best use of the existing site characteristics and the area available to expand. Options considered include horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining (excavate previously disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) or a combination of these methodologies.

A preliminary evaluation of the expansion options has been completed by the project team. **We are now seeking input from the Community, government agencies, stakeholders, and First Nations regarding the evaluation criteria considered and the preliminary findings.**

PUBLIC INPUT SESSION

If you are interested in discussing the expansion options, the criteria used in the evaluation and the preliminary findings, we encourage you to attend the upcoming public input session!

We will provide you with background information, update you on the City's achievements in increasing waste diversion and discuss, with you, the expansion options. **The principle objective of the public consultation is to identify a preferred expansion strategy for the existing landfill site.**

The expansion options, the evaluation criteria, and the project team's preliminary evaluation are also available on the City's website (**www.cityssm.on.ca - View City Hall Bulletins – Public Input Session – Solid Waste Management**) in a working paper prepared for this session titled "Solid Waste Management Environmental Assessment - Alternative Methods – Step 2 (Identification and Comparison of Expansion Options). This working paper may also be viewed at the locations noted below commencing on February 21, 2012.

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CONTACT US

We also encourage you to contact the individuals noted below if you have any specific questions.

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
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Ms. Catherine Taddo, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
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99 Foster Drive,
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Phone: (705) 759-5380
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Email: c.taddo@cityssm.on.ca

YOU'RE INVITED!

Date: Tuesday, March 6, 2012
Location: Civic Centre – Russ Ramsay Room
Time: 3:30PM to 7:30PM

Refreshments to be provided.

If you cannot attend the public input session in person, we still want to hear from you! Just go to the City's website www.cityssm.on.ca - View City Hall Bulletins – Public Input Session – Solid Waste Management review the Alternatives Method – Step 2 Report and fill out our online questionnaire or comment sheet. A link to the online questionnaire is provided on the City's website.

AECOM

DILLON CONSULTING

Solid Waste Management Environmental Assessment

COUNCIL PRESENTATION

THE CORPORATION OF THE CITY OF SAULT STE MARIE CANADA

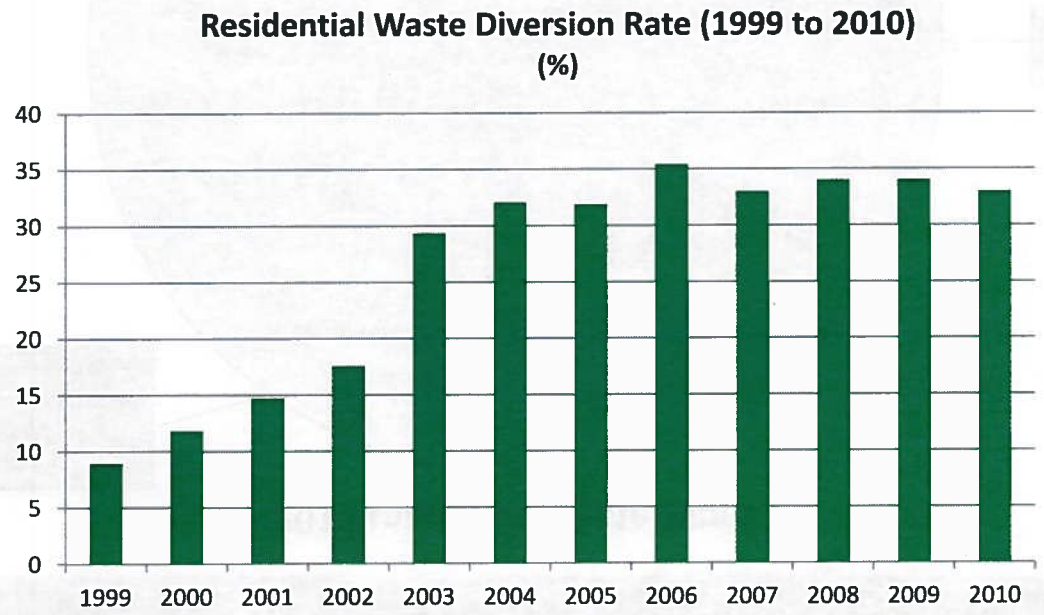
March, 2012

Objectives of the Presentation

- Provide Council and residents with an update on waste management planning activities and results;
- Review project need;
- Provide an overview of the Environmental Assessment process and where we are at in the process;
- Present the criteria and approach used in the evaluation of site expansion options;
- Present the preliminary results of the evaluation completed by the project team;
- Identify the next steps in the EA process; and
- Answer your questions.

Project History - Diversion

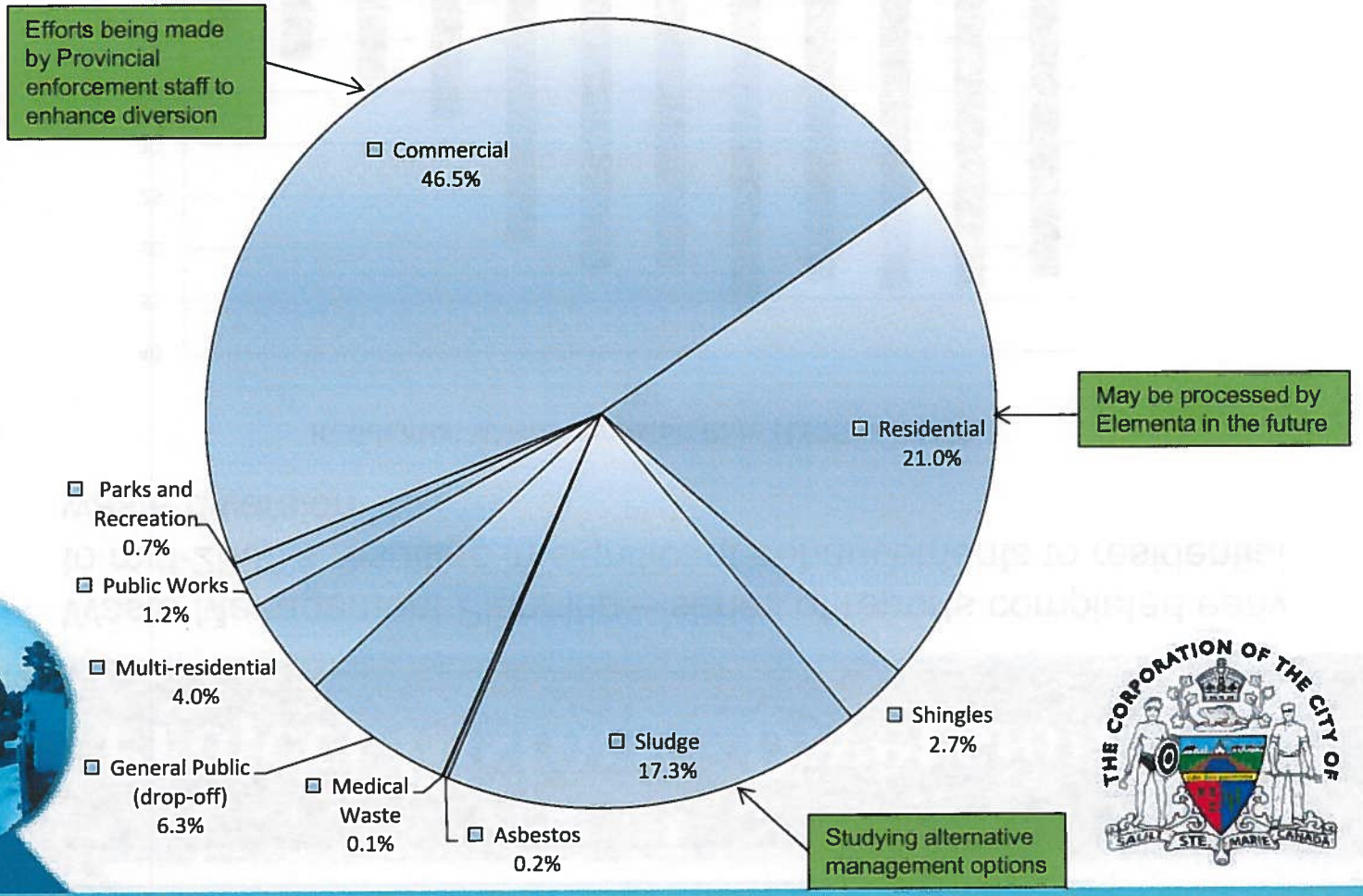
- Waste Management Planning – series of reports completed early to mid-2000's resulting in significant enhancements to residential waste diversion



Increased residential diversion rate from 9% in 1999 to 33% to 35% in recent years

Project History - Diversion

2010 Landfilled Waste Types



Project History - Project Need

- **The estimated remaining service life of the existing landfill is 7 to 10 years depending on future population changes, in-situ subsidence and waste generation, diversion and disposal rates. The low end of this range is used for planning purposes.**
- Despite significant success in enhancing waste diversion, additional disposal capacity is required.

What is an EA?

Purpose = *"to protect the environment and quality of life of the people of the province; and facilitate the wise management of the natural resources of the province".*

- The EA Process is a transparent decision-making process used to promote good environmental planning by assessing potential effects of certain activities or projects on the natural and human environment. The EA process serves several important purposes:
  - Allowing projects to receive input from a wide variety of sources, including the federal, provincial and municipal levels of government, First Nations, stakeholders and the public.
  - Identifying potential problems prior to construction
  - Promoting good environmental planning practices
  - Improving community acceptance
  - Better protecting the environment

AECOM

DILLON CONSULTING

Project History

- MOE approval of EA ToR in late 2005
- EA work initiated by AECOM/Dillon – summer 2006
- "Alternatives To" (functionally different ways of managing waste) work completed and public consultation undertaken in summer of 2007
- Late 2008 to spring 2010 - Project delayed to allow time for the Enquest pilot project to mature
- Fall 2009 - City endorses waste supply agreement with Elementa
- City approval to resume EA process - Elementa will generate residual waste and is unable to manage the entire waste disposal quantity
- Spring 2010 – announced the preferred "Alternative To"

THE CORPORATION OF THE CITY OF SAULT STE. MARIE CANADA

Project History – Selected "Alternative TO"

Based on the results of the evaluation and input received the preferred long-term approach to managing waste in SSM is:

- Increased 3Rs (Reduce/Reuse/Recycle)
- Landfilling residual waste

Why?

- Can comply with regulations and policies
- City is experienced with these waste management initiatives
- Flexible to changes in the waste stream (e.g. population, waste generation, diversion)
- Can accept most residual waste from a Waste-to-Energy facility
- Cost efficient

The EA will now focus on identifying and evaluating alternative methods of landfilling waste (i.e. alternative locations and designs)

AECOM

DILLON CONSULTING

Project History

- Conducted a Public Information Session in June 2010 to announce the selected Alternative To
- Initiated the Alternative Methods Phase (alternative locations and designs)
- Completed a generic non-site specific evaluation of developing a new landfill versus expanding an existing site (Step 1)
- Consulted with the public in the spring of 2011regarding the generic options

THE CORPORATION OF THE CITY OF SAULT STE. MARIE CANADA

Project History – Preferred Landfilling Method

Based on the results of the evaluation and input received the preferred method of landfilling waste = expansion of an existing site

Why?

- Likely less potential for displacement and disruption
- Only one landfill site to manage and maintain
- Cost effective
- Community adaptation
- Likely fewer challenges in gaining approvals

The EA will now focus on how to best expand the existing site

Overview of Expansion Options

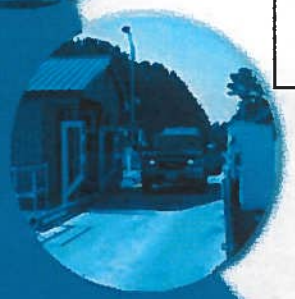
- Expansion options have been developed that make the best use of the existing site characteristics and the area available to expand.
- Options considered include horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining or a combination of these methodologies.
- All options include enhancements to better control groundwater quality related to the existing site.
- Some options require replacement/relocation of existing on-site infrastructure and some require enhanced compaction to provide the target disposal capacity

Evaluation of Expansion Options

- The evaluation has been completed using a two-step approach:
  - Step 1 – identify a preferred expansion area and shape;
  - Step 2 – assess the pros and cons of incorporating landfill mining.
- Mining involves excavation of previously disposed waste and cover material. Mined waste is fed through screens which separates coarse waste from fine materials. Recyclables are separated and sent for processing, remaining residual waste disposed of in the disposal site and fines (primarily sand) are stockpiled for use as cover.

Evaluation Criteria Groups

Criterion	Definition
Natural Environment	Addresses the potential for displacement and/or disruption of natural environmental features (terrestrial features, aquatic features, ground water and surface water)
Social Cultural Environment	Addresses the potential for displacement and/or disruption of social/cultural environmental features (residents, community features, future land use plans, heritage and archaeological resources, public health and safety)
Economics	Addresses the potential for displacement and/or disruption of existing businesses and resources (agriculture, forestry, mining)
Cost	Considers the lifecycle cost of the alternative.
Technical Considerations	Considers technical aspects of each option including impacts on existing site infrastructure and ease of site development.
Transportation	Considers the impacts of traffic volumes accessing the site and potential impacts to the airport and the movement of farm equipment.

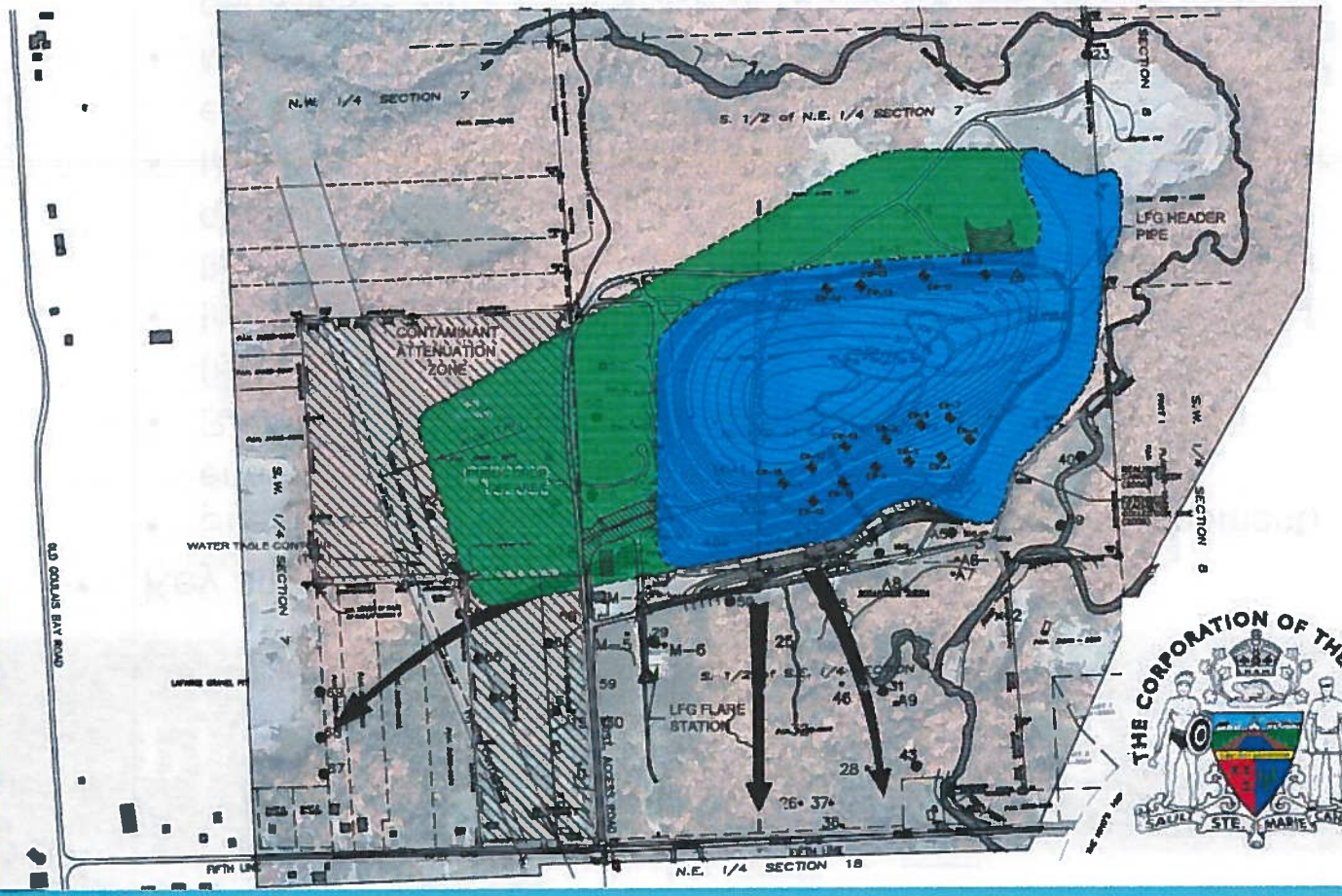


Evaluation of Expansion Options

- Data collection and analysis
- Technical disciplines initially compare options relative to each other and rank them under each criterion
- Present the evaluation in a table or matrix format with the rationale for the rankings
- Present to the public and solicit input from community members, stakeholders, First Nations, and governmental agencies
- Make adjustments to the evaluation based on input received
- Select a preferred option

Preliminary Preferred Expansion Option

- On the basis of the **preliminary** evaluation, the preliminary preferred expansion option is presented below



Preliminary Preferred Option

- Key advantages relative to other options include:
  - Site development (i.e. geometry and storm water management) enhanced relative to Options 2 and 4.
  - Reduced average excavation depth in west expansion area (i.e.11m).
  - Includes a liner beneath the waste within the western portion of the existing disposal footprint enhancing long term groundwater quality.
  - Includes a liner over existing waste in areas of overlap to further enhance groundwater quality.
  - Meets target capacity at current estimated waste densities.

Next Steps

- Solicit governmental, community First Nation and stakeholder input on the preliminary preferred expansion option – do you agree/disagree – why?
- Re-assess (if needed) and finalize the Step 2 evaluation based on input received
- Announce the preferred Step 2 - Alternative Method (i.e. preferred expansion option)
- Initiate a detailed impact assessment for the preferred option
- Continue to investigate ways to improve waste diversion through 3Rs initiatives

Talvitie, Rick

From: Talvitie, Rick
Sent: February 22, 2012 1:21 PM
To: 'pgreco@twp.prince.on.ca'
Cc: Maahs, Nancy
Subject: City of Sault Ste. Marie Waste Management EA
Attachments: March 2012 NEWSLETTER.pdf; March 2012 1page NOTICE.pdf

Good Afternoon Peggy,

The Township of Prince is included is included in our Study area for the above referenced project.

I just wanted to let you know that we plan to drop off, later today or tomorrow, our latest report related to the above project. Please make this report available to your residents at the Municipal office. This report is also available digitally on the City's website. I have attached for your reference and information the following additional items:

- A Newsletter which provides a historical overview of the project.
- A Notice of an upcoming Public Input Session which can be posted on your website and/or printed and posted in prominent locations in your Community – We will also drop off several copies that can be posted on bulletin boards if you wish.

Let me know if you have any questions.

Regards,

Rick Talvitie, P. Eng.
Manager, Sault Ste. Marie Office
rick.talvitie@aecom.com

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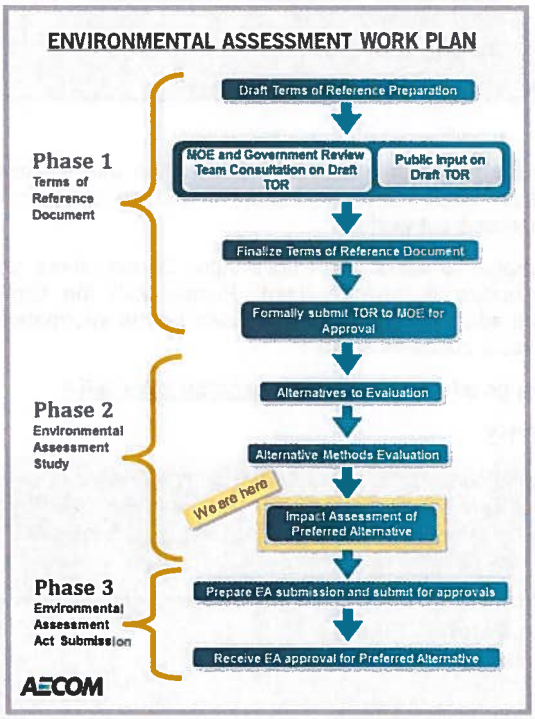
523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4
T 705.942.2612 F 705.942.3642
www.aecom.com

THE CITY OF SAULT STE. MARIE
JANUARY, 2016 NEWSLETTER
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

ENVIRONMENTAL ASSESSMENT (EA) PROCESS

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. The EA Process is a transparent decision-making process used to promote good environmental planning by assessing potential effects of certain activities or projects on the natural and human environment. There are several phases and tasks involved in completing an EA as outlined in the graphic below.



The City is finalizing Phase 2 of the EA Process and is currently preparing the EA submission. **We are interested in obtaining your input related to the current activities.**

BACKGROUND

Phase 1 of the EA process included public consultation and culminated with the Ministry of Environment and Climate Change's (MOECC) approval of the project Terms of Reference (ToR) in 2005. The ToR provides a framework or roadmap for completing the EA and summarizes the tasks and activities to be undertaken by the proponent.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and **the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.** The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

The City remains committed to investigating, implementing and supporting programs to increase waste diversion through 3Rs initiatives. Since the implementation of 3Rs initiatives does not require EA Act approval, the EA study turned its focus to alternative methods of landfilling residual waste. The key objective of this phase of the study is to find an environmentally suitable location for the development of additional landfill capacity.

The first step in this phase consisted of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. To identify a preferred approach to landfilling waste, the alternatives were compared using the following seven criteria groups:

1.	Natural environment	5.	Capability of managing waste quality and quantity
2.	Social-cultural environment	6.	Proven technical capacity
3.	Economic environment	7.	Cost
4.	Flexibility of the system		

A Public Input Session was held in April, 2011 to present the landfill alternatives being considered. **The evaluation and response from consultation concluded that an expansion of an existing landfill is generally preferred over construction of a new site.**

The study noted that an expansion requires less land, displaces fewer people and/or social/natural features, disrupts fewer people (i.e., one site versus two sites creating nuisance impacts), costs less, typically encounters fewer challenges in gaining technical approvals, and reduces the number of facilities the City must manage.

The second step in the Alternative Methods task focused on the best approach to expand the City's existing landfill site at 402 Fifth Line East by identifying and comparatively evaluating site expansion alternatives. Options considered included horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining (excavate previously disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) or a combination of these methodologies. A Public Input Session was held March, 2012 to obtain feedback on the evaluation criteria and the preliminary findings.

The evaluation and response from consultation concluded the preferred site expansion alternative consists of a modest increase in the height of the waste, an expansion of the disposal footprint to the west and north and mining a portion of the existing waste to enhance groundwater quality. All mined and expansion areas will include the

construction of a liner beneath the waste to collect leachate (precipitation contaminated as it filters through waste) and ultimately direct it to the City's sewage treatment plant for treatment.

Current Activities

The last part of Phase 2 involves assessing the potential impacts of the conceptual design and planned operation of the preferred site expansion alternative and identification of suitable mitigating measures. Multiple disciplines were involved to assess the various potential impacts of the expansion on site, off site, in the vicinity and along the access route. The access route was considered to be along Fifth Line from Highway 17 to the site (which is the same route used today). Measures to reduce or eliminate potential effects on the environment were recommended.

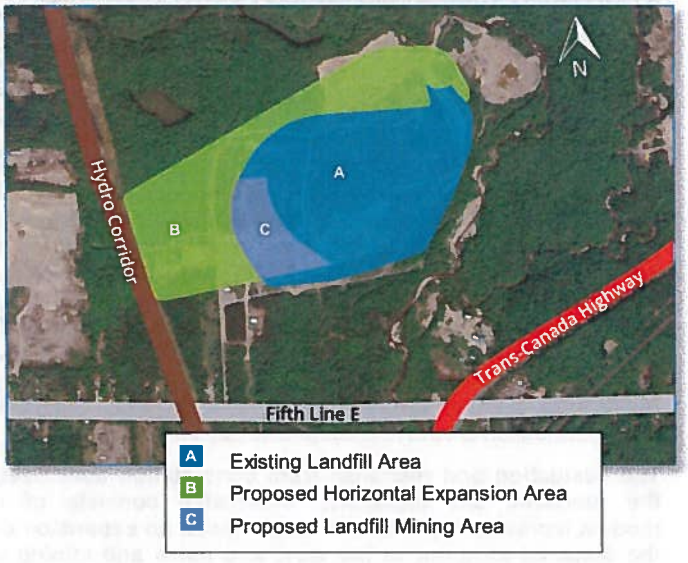
The disciplines that were involved include:

Natural Environment
- Biology
- Geology / hydrogeology
- Surface water

Socio-Cultural Environment
- Cultural (archaeology and heritage)
- Social
- Planned land use
- Visual
- Atmospheric (dust, noise, air quality)

Economic
- Businesses
- Transportation

Conceptual Layout of Proposed Landfill Expansion Area



HOW CAN I PROVIDE INPUT?

We will be hosting a Public Open House where you will learn about the results of the impact assessment work and we will ask for your feedback. If you are interested in discussing the project, we encourage you to attend the upcoming public open house!

YOU'RE INVITED!

Date:	*Tuesday, February 9, 2016*
Location:	*Civic Centre – 99 Foster Drive* *Russ Ramsay Room*
Time:	*3:30 pm to 7:30 pm*

Refreshments to be provided.

We will provide you with background information and discuss, with you, the preferred site expansion option and the results from the impact assessment work.

If you are unable to attend the Public Input Session there are other opportunities to provide input. Please visit the City's website at the address noted below to obtain further information, and / or access a comment sheet.

Project webpage address: saultstemarie.ca/SolidWasteEA

CONTACT US

You may also contact the Consultant Project Manager or the City's Land Development and Environmental Engineer by email, mail or telephone if you have questions or would like additional information.

Mr. Rick Talvitie, P.Eng.
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Email: rick.talvitie@aecom.com

Ms. Catherine Taddo, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580, 99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

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Email: c.taddo@cityssm.on.ca

THE CITY OF SAULT STE. MARIE

NOTICE OF PUBLIC INPUT SESSION

SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. To date significant progress has been made.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and **the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.** The preferred alternative was presented at an Open House in June, 2010.

The study noted:

- landfills can be designed and operated to comply with regulations and policies;
- landfill gas can be collected and flared or recovered to generate electricity;
- landfills can manage the entire residual waste stream;
- landfills are flexible to changes in waste quality and quantities; and
- landfilling is cost effective.

In April, 2011 a Public Input Session was held to present the non-site specific landfill alternatives being considered. **The evaluation, which considered responses from consultation, concluded that an expansion of an existing landfill is generally preferred over construction of a new site.**

The study noted:

- an expansion requires less land;
- displaces fewer people and/or social/natural features;
- disrupts fewer people (i.e. one site versus two sites creating nuisance impacts);
- costs less;
- typically encounters fewer challenges in gaining technical approvals; and
- reduces the number of facilities the City must manage.

In March 2012 a Public Input Session was held to present the preliminary preferred approach to expanding the existing landfill at 402 Fifth Line East in the City of Sault Ste. Marie. **The evaluation, which considered responses from consultation, concluded that an expansion is best accommodated with a moderate increase in the height of the waste together with and expansion of the disposal footprint to the north and west. The preferred option also includes landfill mining (excavate existing disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) in the western portion of the existing disposal footprint to enhance groundwater protection. All mined and expansion areas will include the construction of a liner beneath the waste to collect leachate (precipitation contaminated as it filters through waste) and ultimately direct it to the City's sewage treatment plant for treatment.**

CURRENT ACTIVITIES

Presently the project team is focusing on **completing an impact assessment for the preferred expansion option.** The impact assessment includes expertise from numerous disciplines and focusses on potential impacts to the natural and human environments associated with the construction and operation of the proposed expansion. Careful attention is given to best management practices to mitigate potential impacts.

We are now seeking input from the Community, government agencies, stakeholders, and First Nations regarding the results of our impact assessment work and the proposed mitigation measures.

PUBLIC INPUT SESSION

If you are interested in discussing the impact assessment work, we encourage you to attend the upcoming public open house! We will provide you with background information and discuss with you, the preferred site expansion option and the results of the impact assessment work.

CONTACT US

We also encourage you to contact the individuals noted below if you have any specific questions.

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4
Phone: 705-942-2612
Fax: 705-942-3642
Email: rick.talvitie@aecom.com

Ms. Catherine Taddo, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1
Phone: (705) 759-5380
Fax: (705) 541-7165
Email: c.taddo@cityssm.on.ca

YOU'RE INVITED!

Date: Tuesday February 9, 2016

Location: Civic Centre – Russ Ramsay Room

Time: 3:30 pm to 7:30 pm

Refreshments to be provided.

If you cannot attend the public open house, we still want to hear from you! Just go to the project webpage (address provided below) to review the project reference material and fill out a comment sheet or simply send us an email (email addresses provided above). Project webpage address: saultstemarie.ca/SolidWasteEA

AECOM
523 Wellington Street East
Sault Ste. Marie, ON, Canada P6A 2M4
www.aecom.com

705 942 2612 tel
705 942 3642 fax

January 26, 2016

Peggy Greco, CAO / Clerk-Treasurer
Prince Township Municipal Office
3042 Second Line West
Prince Township, ON
P6A 6K4

Dear Ms. Greco:

Project No: 60117627 (60395)

Regarding: City of Sault Ste. Marie
Waste Management Environmental Assessment
Impact Assessment for the Preferred Expansion Option

The City of Sault Ste. Marie continues to move forward with its Waste Management Environmental Assessment (EA). We last contacted you in February, 2012. To date, a considerable level of study has been completed in developing and assessing the preferred approach to managing waste in the City of Sault Ste. Marie. The work completed to date has resulted in the following observations:

- The preferred approach to managing waste in the future is through increased waste diversion (ie. 3R's - reduction, reuse and recycling) and landfilling any remaining residual waste.
- The preferred approach to landfilling residual waste is an expansion of the existing City owned and operated disposal site located at 402 Fifth Line East in the City of Sault Ste. Marie.
- The preferred expansion option incorporates a moderate increase in the height or elevation of the waste and an expansion of the disposal footprint to the north and west of the existing footprint. The preferred option also includes landfill mining within the western portion of the existing disposal footprint to enhance groundwater protection. This process involves excavating existing disposed waste and cover material, recovering earthen material or "fines" and returning the waste to the disposal footprint. All mined and expansion areas will include the construction of a liner beneath the waste to collect leachate (precipitation contaminated as it filters through waste) and direct it to the City's sewage treatment plant for treatment. The existing disposal footprint and proposed mining and expansion areas are highlighted in a figure in the attached Newsletter.

We have now completed a detailed impact assessment for the preferred expansion option. The detailed impact assessment is a focussed investigation and analysis to identify potential environmental impacts resulting from the construction or operational changes associated with the proposed expansion. The impact assessment also considered opportunities for enhanced mitigation that otherwise would not likely be implemented in the absence of the proposed expansion.

Eleven reports were prepared which included expertise in the following disciplines:

- Biology (terrestrial and aquatic)
- Geotechnical
- Groundwater
- Atmospheric (acoustic and air quality)
- Surface water
- Socio-economic
- Visual
- Traffic
- Archaeological/Cultural
- Planned land use

We are now seeking input from Government agencies, stakeholders, First Nations and the general public regarding the impact assessment work. We would like to obtain as much input as possible from your residents. **We will be conducting a public open house in Sault Ste. Marie as outlined below. Everyone is welcome to attend.** We have attached a Notice of the Public Input Session which can be printed or copied and posted in prominent locations that are typically accessed by your residents. In addition, we encourage you to post the Notice on your website.

You are also encouraged to view the **Project Newsletter**, and the February 9th **Public Open House displays**. Copies of these documents are attached for your information and reference. These documents are also available electronically on the City's website at saultstemarie.ca/SolidWasteEA.

Details of the Public Open House to be held in Sault Ste. Marie are provided below:

Location:	Russ Ramsay Room, Civic Centre, 99 Foster Drive
Date/Time:	Tuesday, February 9, 2016 - 3:30 pm to 7:30pm
Format:	Open House - come any time between the times noted, view the displays, ask questions of the project team and provide input at the open house or at a later date.

If you are unable to attend the February 9th session we also encourage community input through other means. Please review the project materials at the link provided above and access a comment sheet to provide feedback or simply send the project team an email (nancy.maahs@aecom.com). Please include "**City of SSM Waste Management EA – Comments**" in the subject line of your email message. We have also included a copy of the comment sheet that can be reproduced for use by your residents if desired.

We would appreciate receiving your input by March 11, 2016.

As always, we would also be pleased to meet with you at your convenience to discuss the project details. Please contact our office by telephone or email to arrange a meeting.

Sincerely,
AECOM Canada Ltd.

Rick Talvitie, P. Eng.
Project Manager
RT:nm
Encl.

cc: C. Taddo, City Engineering
K. Kolli, Dillon Consulting

AECOM
523 Wellington Street East 705 942 2612 tel
Sault Ste. Marie, ON, Canada P6A 2M4 705 942 3642 fax
www.aecom.com

May 17, 2017

Peggy Greco, CAO / Clerk-Treasurer
Prince Township Municipal Office
3042 Second Line West
Prince Township, ON
P6A 6K4

Dear Ms. Greco:

Project No: 60117627 (60395)

Regarding: City of Sault Ste. Marie
DRAFT Waste Management Environmental Assessment Report

The City of Sault Ste. Marie is continuing to move forward with its Waste Management Environmental Assessment. We last contacted you in January, 2016 when we completed an impact assessment for the preferred landfill expansion option.

To date, a considerable level of study has been completed in developing and assessing the preferred approach to managing waste in and around the City of Sault Ste. Marie. The work completed to date has resulted in the following observations:

- The preferred approach to managing waste in the future is through increased waste diversion (ie. 3R's - reduction, reuse and recycling) and landfilling any remaining residual waste.
- The preferred approach to landfilling residual waste is an expansion of the existing City owned and operated disposal site located at 402 Fifth Line East in the City of Sault Ste. Marie.
- The preferred expansion option incorporates a moderate increase in the height or elevation of the waste and an expansion of the disposal footprint to the north and west of the existing footprint. The preferred option also includes landfill mining within the western portion of the existing disposal footprint to enhance groundwater protection. This process involves excavating existing disposed waste and cover material, recovering recyclables and earthen material or "fines" and returning the waste to the disposal footprint. All mined and expansion areas will include the construction of a liner beneath the waste to collect leachate (precipitation contaminated as it filters through waste) and direct it to the City's sewage treatment plant for treatment. The existing disposal footprint and proposed mining and expansion areas are highlighted in a figure in the attached Notice.

The City has now completed a Draft Environmental Assessment Report to document the project. This document explains the decision making process, results of the studies and input received

through the consultation process. Details of the proposed landfill expansion, potential impacts to the environment and commitment to mitigate these impacts is also included in the Draft EA.

We are now seeking input from Government agencies, stakeholders, Aboriginal Communities and the general public regarding the Draft Report. We have attached a Notice of the Draft EA completion and we encourage you to share this Notice with your residents.

The Draft EA report is available electronically on the City's website at saultstemarie.ca/SolidWasteEA. In addition we could also provide a hardcopy of the report but it is quite lengthy.

We would appreciate receiving your input by July 7, 2017.

As always, we would also be pleased to meet with you at your convenience to discuss the project details. Please contact our office by telephone or email to arrange a meeting.

Sincerely,
AECOM Canada Ltd.

Rick Talvitie, P. Eng.
Project Manager
RT:nm
Encl.

cc: C. Taddo, City Engineering
K. Kolli, Dillon Consulting

AGENCIES

Description of Communication	Date	Comments / Questions / Issues	Response / How Addressed	Where Addressed in the EA	Reference Material	Outstanding Issues to be Addressed
Indian and Northern Affairs Canada (INAC)						
• Correspondence – Notice of Public Input Session No. 1 - First public open house conducted to provide updates on diversion improvements and to discuss "Alternatives To" and criteria to be used in the evaluation.	June, 2007	• No comments received.			Notice of Public Input Session No. 1 – Appendix L	
• Correspondence – Email to INAC representative (Miranda Lesperance) in response to INAC email dated June 29, 2007 thanking them for the various information sources they provided and advising of past and current consultation being undertaken with First Nation Communities.	July 3, 2007	• No comments received.			Email dated July 3, 2007 to Miranda Lesperance, INAC from R. Talvitie – Appendix L	
• Correspondence – Newsletter No. 2 and Notice of Public Input Session – Project update and information regarding the upcoming June 3, 2010 PIC which is intended to identify the preferred "Alternative To", discuss the project progress and have questions or concerns addressed.	May, 2010	• No comments received.			Solid Waste Disposal Environmental Assessment Newsletter No. 2, May 2010, and Notice of Public Information Centre – Appendix L	
• Public Input Session No. 2 – Conducted to communicate the preferred "Alternative To" and provide an opportunity to discuss the project progress and have questions or concerns addressed.	June 3, 2010	• No comments received.			Records from June 3, 2010 PIC No. 2 – Appendix H	
• Correspondence – Notice of Public Input Session – Project update and information regarding the upcoming April 19, 2011 PIC No. 3 which is intended to solicit input and feedback on the alternative approaches to landfilling residual waste (i.e. expand existing disposal site versus a new site.	April, 2011	• No comments received.			Solid Waste Management Environmental Assessment Notice of Public Input Session, April, 2011 – Appendix L	
• Public Input Session No. 3 - Conducted to provide an opportunity to discuss project progress, solicit input and feedback on the alternative approaches to landfilling residual waste (i.e. expand existing disposal site versus a new site) and to address questions or concerns.	April 19, 2011	• No comments received.			Records from April 19, 2011 PIC – Appendix I	

Description of Communication	Date	Comments / Questions / Issues	Response / How Addressed	Where Addressed in the EA	Reference Material	Outstanding Issues to be Addressed
• Correspondence – Notice of Public Input Session – Project update and information regarding the upcoming March 6, 2012 PIC which is intended to solicit input and feedback on the alternative approaches to expanding the existing disposal site.	February, 2012	• No comments received.			Solid Waste Disposal Environmental Assessment Notice of Public Input Session dated February, 2012 – Appendix L	
• Public Information Centre No. 4 - Conducted to discuss project progress and to solicit input and feedback on a preferred expansion strategy for the existing landfill site.	March 6, 2012	• No comments received.			Records from March 6, 2012 PIC – Appendix J	
• Correspondence – Newsletter and Notice advising of February 9, 2016 Public Input Centre No. 5 intended to discuss project progress and solicit input and feedback on the impact assessment work.	January, 2016	• No comments received.			Solid Waste Disposal Environmental Assessment January 2016 Newsletter and Notice of Public Input Session – Appendix L	
• Public Input Session No. 5 - Conducted to discuss project progress and to solicit input and feedback on the impact assessment work.	February 9, 2016	• No comments received.			Records from February 9, 2016 PIC – Appendix K	

Solid Waste Disposal Environmental Assessment PUBLIC INPUT SESSION No. 1

Sault Ste. Marie Conducts First Public Input Session!

Are you interested in discussing the alternatives and criteria that will be used to compare and select a preferred approach to dispose of waste in Sault Ste. Marie, Prince Township and Batchewana First Nation's Rankin Reserve? If so, we encourage you to attend this public input session!

You're Invited!

Date: Tuesday June 26, 2007
Time: 6:00 pm to 9:00 pm
Location: Civic Centre – Russ Ramsay Room

Please join us!

The City of Sault Ste. Marie is holding a public input session for the Solid Waste Disposal Environmental Assessment to discuss both diversion and disposal of solid waste.

We will update you on the City's achievements in increasing waste diversion and discuss with you the alternative approaches that are being considered to dispose of the residual solid waste. A principle objective of the session is to confirm the alternatives that are being considered (ie: increased 3R's, landfill, incineration and high heat processes, export and do-nothing) and to discuss the criteria that will be used to compare the alternatives.

Information on waste quantities, the alternatives and the evaluation criteria can be found in two working papers prepared for this session titled "Waste Quantity Projections and Existing Environment Profile" and "Alternatives To the Undertaking". These working papers can be downloaded from the City of Sault Ste. Marie website (http://www.cityssm.on.ca/) or viewed at the locations noted below commencing on June 19th.

TSH Engineers Architects and Planners	523 Wellington Street
Civic Centre Engineering and Planning	99 Foster Drive, 5th Floor
Public Works and Transportation	128 Sackville Road
Main Library	50 East Street
Churchill Branch Library	301 Lake Street
Korah Branch Library	496 Second Line
Township of Prince Municipal Office	3042 Second Line West
Batchewana First Nation	236 Frontenac Street
Garden River First Nation	7 Shingwauk Street
Metis Nation of Ontario Office	26 Queen Street East
Missanabie Cree Office	559 Queen Street East

We also encourage you to contact the individuals noted below if you have any specific questions.

Mr. Rick Talvitie, P.Eng
Project Manager
Totten Sims Hubicki (TSH)
523 Wellington Street East,
Sault Ste. Marie, Ontario
P6A 2M4
Phone: 705-942-2612
Fax: 705-942-3642
Email: rtalvitie@tsh.ca

Mrs. Susan Hamilton-Beach, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
99 Foster Drive,
Sault Ste. Marie, Ontario
P6A 5N1
Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on.ca

Information pertaining to this session is available on the City of Sault Ste. Marie website at: http://www.cityssm.on.ca/. Hardcopies can also be obtained by contacting TSH at 705-942-2612.

We look forward to seeing you on June 26th!

TSH engineers architects planners

DILLON CONSULTING

Talvitie, Rick

From: Rick Talvitie
Sent: July 3, 2007 10:31 AM
To: 'Miranda Lesperance'
Cc: s.hamiltonbeach@cityssm.on.ca; 'Kolli, Karla'
Subject: RE: SAULT STE. MARIE SOLID WASTE DISPOSAL EA

Miranda,

Thank you for the various information sources that you provided.

At the onset of this project we arranged meetings with Batchewana First Nation, Garden River First Nation, Métis Nation of Ontario and the Missinabie Cree. We established communication with each of these communities/organizations early in the process and continue to maintain an open dialogue with them as the study progresses. We are also hoping to arrange separate consultation events in Batchewana and Garden River First Nations later this month.

We will continue to inform you and the above noted communities/organizations of further opportunities for input as the study progresses.

Regards,

Rick Talvitie, P.Eng.
Branch Manager
TSH
523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4
Phone: 705-942-2612
Fax: 705-942-3642
This electronic transmission, including any attachments, may contain personal information whose collection and use is regulated by the Personal Information Protection and Electronic Documents Act S.C. 2000 c. 5 (the "Act"). The use of such personal information except in compliance with the Act is strictly prohibited. If you have received this electronic transmission in error, or do not agree to comply with the Act, please notify us immediately by telephone or by Reply to Sender function and delete the message and any attachments from your computer without making a copy.
-----Original Message-----
From: Miranda Lesperance [mailto:lesperancem@inac-ainc.gc.ca]
Sent: June 29, 2007 12:01 PM
To: Rick Talvitie
Cc: s.hamiltonbeach@cityssm.on.ca
Subject: SAULT STE. MARIE SOLID WASTE DISPOSAL EA

Good Morning,

Please find attached Indian and Northern Affairs Canada's response your notice of June 2007 regarding the Sault Ste. Marie Solid Waste Disposal EA.

Should you require a signed copy of the response, please do not hesitate to contact me.

Thank you for the opportunity to comment on this project.

Sincerely,

Miranda Lesperance
Environment Officer
Environment Unit
INAC - Ontario Region
25 St. Clair Ave E 8th Floor
Toronto, ON M4T 1M2
Phone (416) 973-5899
Fax (416) 954-4328

SOLID WASTE DISPOSAL
ENVIRONMENTAL ASSESSMENT

Newsletter No.2, May 2010

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its residual municipal solid waste. In the evaluation of "Alternatives To the Undertaking", a thorough review of different waste management alternatives including increased waste diversion, incineration/high heat processes, landfill, export waste outside the service area, and "do-nothing" was completed. To identify a preferred waste management method, the alternatives were comparatively evaluated using the following seven criteria:

1. Compliance with current regulations and policies;
2. Environmental acceptability;
3. The ability of the City of Sault Ste. Marie to implement the preferred alternative;
4. Flexibility of the system;
5. Capability of managing waste quality and quantity;
6. Proven technical capacity; and
7. Cost.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative for the City has been identified as **increased waste diversion and landfilling of the residual waste.**

DIVERSION UPDATE

The residential waste diversion program diverted approximately 34% of residential waste from the landfill in 2009. This shows consistent progress when compared to the 9% diverted in 2000! The City of Sault Ste. Marie's waste diversion program currently includes weekly curbside collection and recycling of paper products in the yellow box and containers in the blue box; bi-weekly collection and composting of leaf and yard waste throughout the growing season (April through November); a household special waste facility at 115 Industrial Park Crescent; landfill bans and segregation and recycling of metals, white goods, tires, and clean wood and brush at the landfill at 402 Fifth Line East. Since 2006, the City has limited residential waste setout to 2 bags/containers per week per household. Tags for additional waste bags or containers must be purchased. The City diversion programs are also supplemented by diversion initiatives undertaken by the private sector and special interest groups.

The City is also currently assessing the feasibility of diverting municipal biosolids (sewage sludge) from disposal.

PUBLIC INFORMATION CENTRE

A Public Information Centre is being held to provide an opportunity for you to discuss the project progress and have your questions or concerns addressed.

Date: Thursday, June 3, 2010

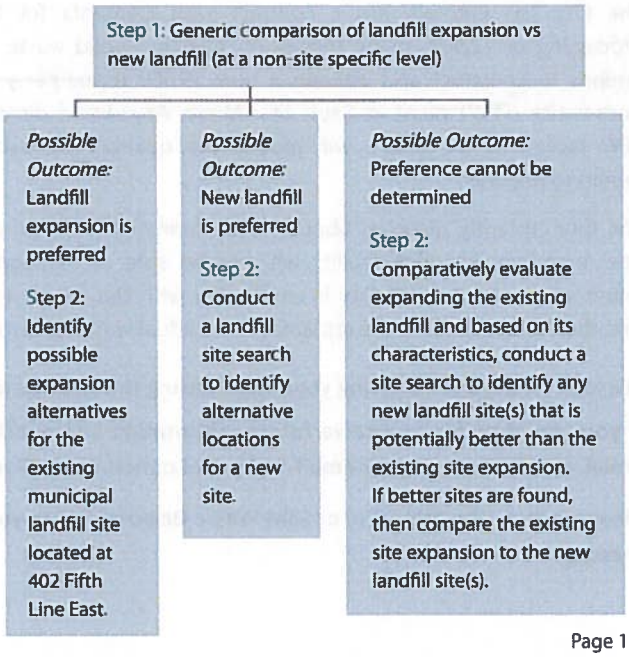
Location: Thompson Room
Civic Centre, 99 Foster Drive

Time: 3:30 pm to 7:30 pm

WHAT'S NEXT?

The results of the Environmental Assessment work completed to date suggest that landfill remains the most appropriate disposal option for the City's residual waste. Landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and recovered to generate electricity, landfills can manage the entire residual waste stream, are flexible to changes in waste quality and quantities and are cost effective.

Following the "Alternatives To" evaluation, the next step in the EA process for a landfill facility is the identification and evaluation of "Alternative Methods" of landfilling. This can include both alternative locations and alternative designs as illustrated in the flow chart below. We will be looking for public input on landfill options in the Fall of 2010.



SOLID WASTE DISPOSAL
ENVIRONMENTAL ASSESSMENT

Newsletter No.2, May 2010

ABOUT THE ENVIRONMENTAL ASSESSMENT (EA) PROCESS

The Environmental Assessment for disposal capacity includes three key phases. The first phase was completed with the submission and approval of the EA Terms of Reference. We are currently working within the second phase: the Environmental Assessment Study itself. The last phase is submission of the EA documentation to the Ministry of the Environment and the subsequent government and public review and approval period. It is anticipated that the whole process will take until late 2012.

In September 2005 the Minister of the Environment approved the Environmental Assessment Terms of Reference (EA TOR) for the Sault Ste. Marie Solid Waste Management Plan. The EA TOR documents the process that will be followed to determine the preferred method for managing solid waste in Sault Ste. Marie for the next 20 to 40 years. In addition to the disposal EA, the Sault Ste. Marie Solid Waste Management Plan includes a significant diversion component.

Keep up-to-date on the EA Study at the City of Sault Ste. Marie's website: http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1

ELEMENTA ENERGY-FROM-WASTE FACILITY

In 2007, an energy-from-waste (EFW) developer known as The Elementa Group (Elementa) constructed a pilot steam reformation plant that would convert municipal solid waste into a char and synthetic gas (or "syngas") that can be used to generate electricity.

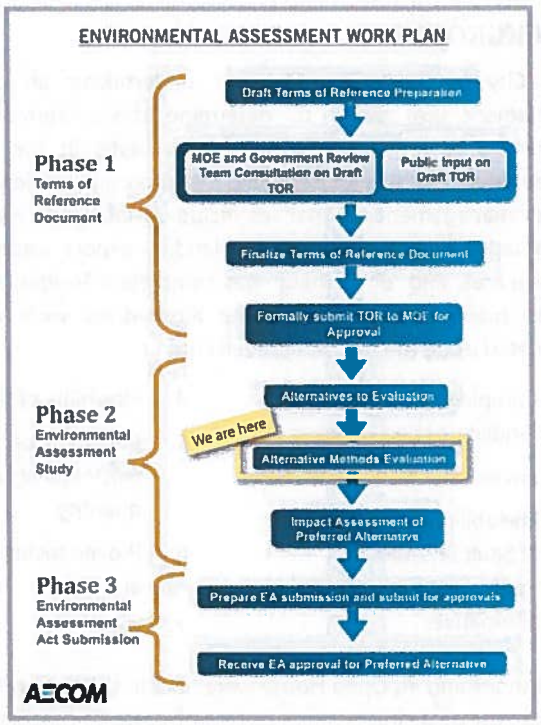
The City has entered into a contract with Elementa for the annual processing of 12,500 metric tonnes of municipal solid waste. Elementa intends to construct and operate a new 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility in the future will reduce the quantity of residual waste requiring disposal.

The City currently disposes about 60,000 tonnes of residual waste each year therefore; the EFW facility will not be able to manage the City's entire waste stream. The City is continuing with the EA study to ensure that the City can process the remainder of residual waste generated.

We look forward to receiving your input during this important study!

If you would prefer to receive future information and notifications via email, please forward your email address to nancy.maahs@aecom.com.

Please include the title "City of SSM Waste Disposal EA" in your message.



CONTACT US

Your input on this project is important to us. If you would like further information or to send comments, ask questions or be added to our mailing list, please contact us:

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
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Mrs. Susan Hamilton Beach, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

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Email: s.hamiltonbeach@cityssm.on

THE CITY OF SAULT STE. MARIE

Notice of Public Information Centre

SOLID WASTE DISPOSAL ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its residual municipal solid waste. Work to date has included a thorough review of a number of waste management alternatives including increased waste diversion, incineration/high heat process, landfill, export waste and "do nothing". To identify a preferred waste management method, the alternatives were comparatively evaluated using the following seven criteria:

1. Compliance with current regulations and policies;
2. Environmental acceptability;
3. The ability of the City of Sault Ste. Marie to implement the preferred alternative;
4. Flexibility of the system;
5. Capability of managing waste quality and quantity;
6. Proven technical capacity; and
7. Cost.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative for the City has been identified as **increased waste diversion and landfilling of the residual waste**.

Residents currently divert approximately 34% of their waste from disposal and the City will continue to provide opportunities to improve on this diversion rate. The remaining 66% of residential waste and industrial, commercial and institutional wastes currently goes to the City landfill. In addition to the City's current diversion, the City has entered into a contract with a private corporation for the annual supply of 12,500 metric tonnes of municipal solid waste. This corporation intends to construct and operate a 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility will reduce the quantity of residual waste requiring disposal.

The results of the Environmental Assessment work completed to date suggest that landfill remains the most appropriate disposal option for the City's residual waste. Landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and recovered to generate electricity, landfills can manage the entire residual waste stream, are flexible to changes in waste quality and quantities and are cost effective.

PUBLIC INFORMATION CENTRE

A Public Information Centre is being held to provide an opportunity for you to discuss the project progress and have your questions or concerns addressed.

Date: Thursday, June 3, 2010
Location: Thompson Room
Civic Centre, 99 Foster Drive
Time: 3:30pm to 7:30 pm

THE NEXT STEPS

Over the summer the project team will be looking at options for landfilling residual waste. This work will include consideration of opportunities to expand the existing landfill or establish a new landfill site. In the Fall of 2010, we will be looking for public input on landfill options.

If you have any questions related to the study, please contact:

Mr. Rick Talvitie, P. Eng.
Project Manager
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523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
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THE CITY OF SAULT STE. MARIE

NOTICE OF PUBLIC INPUT SESSION

SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. In the evaluation of "Alternatives To the Undertaking", a thorough review of different waste management alternatives including increased waste diversion, incineration/high heat processes, landfill, export waste outside the service area, and "do-nothing" was completed. To identify a preferred approach to managing waste, the alternatives were comparatively evaluated using the following seven criteria:

1. Compliance with current regulations and policies;
2. Environmental acceptability;
3. The ability of the City of Sault Ste. Marie to implement the preferred alternative;
4. Flexibility of the system;
5. Capability of managing waste quality and quantity;
6. Proven technical capacity; and
7. Cost.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste. The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the entire residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

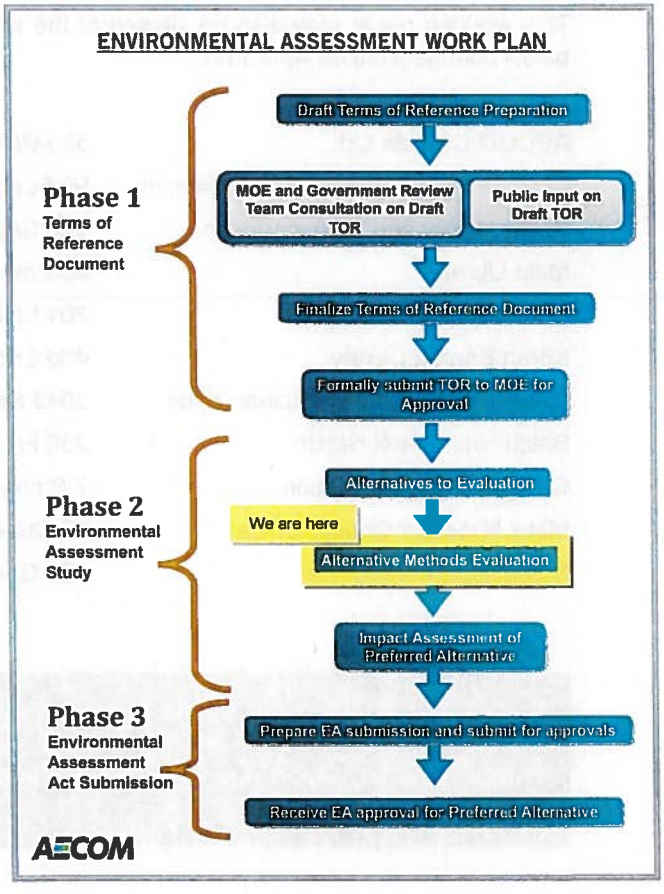
The flexibility of the preferred alternative is particularly important given the City's contract with The Elementa Group (an energy-from-waste service provider) for the annual processing of at least 12,500 metric tonnes of municipal solid waste. Elementa intends to construct and operate a new 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility in the future will reduce the quantity of residual waste requiring disposal in a landfill.

NEXT STEPS

The City remains committed to investigating, implementing and supporting programs to increase waste diversion through 3Rs initiatives. Since the implementation of 3Rs initiatives does not require Environmental Assessment (EA) Act approval, the EA study is now focusing on alternative methods of landfilling residual waste. The key objective of this phase of the study is to find an environmentally suitable location for the development of additional landfill capacity.

The first step to be completed in this phase consists of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. This step will provide initial focus to the search for additional landfill capacity.

A preliminary evaluation of these alternatives has been completed by the project team. We are now seeking input from the general public and Stakeholders regarding the evaluation criteria considered and the preliminary findings.



THE CITY OF SAULT STE. MARIE

NOTICE OF PUBLIC INPUT SESSION

SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

PUBLIC INPUT SESSION

If you are interested in discussing the alternatives and criteria that will be used to compare and select a preferred approach to landfilling residual waste in Sault Ste. Marie, Prince Township and Batchewana First Nation's Rankin Reserve, we encourage you to attend this public input session!

We will provide you with background information, update you on the City's achievements in increasing waste diversion and discuss with you the alternative approaches to landfilling residual solid waste. A principle objective of the session is to confirm whether the City should focus its efforts to obtain additional disposal capacity by expanding an existing landfill site or finding a location for a new site.

Background information documenting the work completed to date is available on the City website at **http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1**.
In addition, the alternatives and the evaluation criteria currently being considered are also available on the website in a working paper prepared for this session titled "Solid Waste Management Environmental Assessment - Alternative Methods – Step 1 (Landfill Expansion versus Development of a New Site).

This working paper may also be viewed at the locations noted below commencing on April 11th.

AECOM Canada Ltd.	523 Wellington Street
Civic Centre Engineering and Planning	99 Foster Drive, 5th Flr.
Public Works and Transportation	128 Sackville Road
Main Library	50 East Street
Churchill Branch Library	301 Lake Street
Korah Branch Library	496 Second Line
Township of Prince Municipal Office	3042 Second Line West
Batchewana First Nation	236 Frontenac Street
Garden River First Nation	7 Shingwauk Street
Metis Nation of Ontario Office	26 Queen Street East
Missanabie Cree Office	559 Queen Street East

YOU'RE INVITED!

Date:	Tuesday April 19, 2011
Location:	Civic Centre – Russ Ramsay Room
Time:	6:30 pm to 9:00 pm

Refreshments to be provided.

CONTACT US

We also encourage you to contact the individuals noted below if you have any specific questions.

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
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Sault Ste. Marie, ON, P6A 2M4

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Email: s.hamiltonbeach@cityssm.on.ca

Information pertaining to this session is available on the City of Sault Ste. Marie website at: **http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1**.
Hardcopies can also be obtained by contacting AECOM at 705-942-2612.

If you cannot attend the public input session in person, we still want to hear from you! Just go to the City's website (http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1), review the Alternatives Method - Step 1 Report and fill out our online questionnaire. A link to the online questionnaire is provided on the City's website.

THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. In the evaluation of "Alternatives to the Undertaking", a thorough review of different waste management alternatives including increased waste diversion, incineration/high heat processes, landfill, export waste outside the service area, and "do-nothing" was completed.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste. The preferred alternative was presented at an Open House in June, 2010.

NEXT STEPS

The next step consists of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. This step will provide initial focus to the search for additional landfill capacity.

A preliminary evaluation of these alternatives has been completed by the project team. We are now seeking input from the general public and stakeholders regarding the evaluation criteria considered and the preliminary findings.

PUBLIC INPUT SESSION

If you are interested in discussing the alternatives and criteria that will be used to compare and select a preferred approach to landfilling residual waste in Sault Ste. Marie, Prince Township and Batchewana First Nation's Rankin Reserve, we invite you to attend this public input session.

We will provide background information, update you on the City's achievements in increasing waste diversion and discuss the alternative approaches to landfilling residual solid waste.

Background documents including the working paper to be discussed at the public input session entitled "Solid Waste Management Environmental Assessment - Alternative Methods – Step 1 (Landfill Expansion versus Development of a New Site)" are available on the City's website at **www.cityssm.on.ca – Click City Hall Bulletins – Public Input Session – Solid Waste Management.**

CONTACT US

We encourage you to contact the individuals below if you have questions.

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Email: s.hamiltonbeach@cityssm.on.ca

YOU'RE INVITED!

Date: Tuesday, April 19, 2011

Location: Civic Centre, 99 Foster Dr.
Russ Ramsay Board Room

Time: 6:30 to 9:00 p.m.

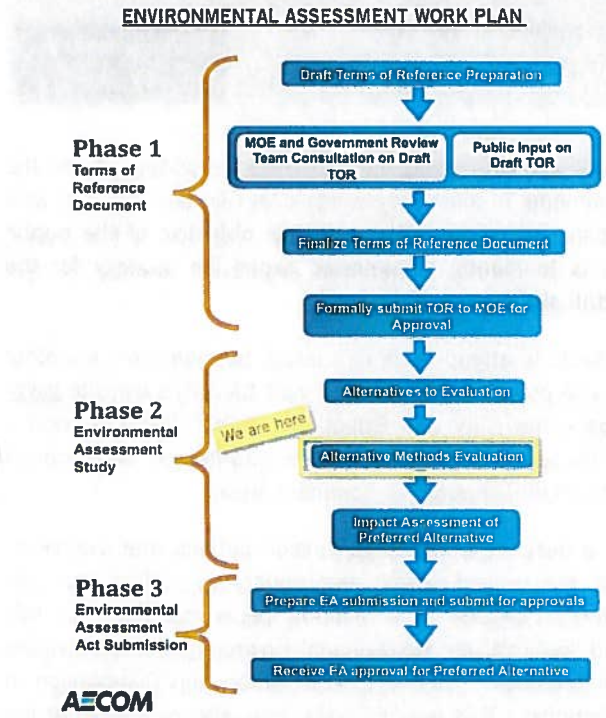
Refreshments provided.

If you cannot attend the public input session, we still want to hear from you! Go to the City's website www.cityssm.on.ca (Click City Hall Bulletins – Public Input Session – Solid Waste Management) to review the Alternatives Method - Step 1 Report and fill out the online questionnaire.

THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

ENVIRONMENTAL ASSESSMENT (EA) PROCESS

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. The EA Process is a transparent decision-making process used to promote good environmental planning by assessing potential effects of certain activities or projects on the natural and human environment. There are several phases and tasks involved in completing an EA as outlined in the graphic below.



The City is currently mid-way through Phase 2 of the EA Process and is interested in obtaining your input related to the current activities.

BACKGROUND

Phase 1 of the EA process included public consultation and culminated with the Ministry of Environments approval of the project Terms of Reference (ToR) in 2005. The ToR provides a framework or roadmap for completing the EA and summarizes the tasks and activities to be undertaken by the proponent.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the **preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.** The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the entire residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

The flexibility of the preferred alternative is particularly important given the City's contract with The Elementa Group (an energy-from-waste service provider) for the annual processing of at least 12,500 metric tonnes of municipal solid waste. Elementa is currently negotiating an energy purchase agreement and intends to construct and operate a new 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility in the future will reduce the quantity of residual waste requiring disposal in a landfill.

The City remains committed to investigating, implementing and supporting programs to increase waste diversion through 3Rs initiatives. Since the implementation of 3Rs initiatives does not require Environmental Assessment (EA) Act approval, the EA study is now focusing on alternative methods of landfilling residual waste. The key objective of this phase of the study is to find an environmentally suitable location for the development of additional landfill capacity.

The first step in this phase consisted of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. To identify a preferred approach to landfilling waste, the alternatives were compared using the following six criteria groups:

1. Natural environment;
2. Social-Cultural environment;
3. Economic environment;
4. Cost;
5. Technical considerations; and
6. Transportation.

A Public Input Session was held in April, 2011 to present the landfill alternatives being considered. **The evaluation and response from consultation concluded that an expansion of an existing landfill is generally preferred over construction of a new site.**

The study noted that an expansion requires less land, displaces fewer people and/or social/natural features, disrupts fewer people (ie. one site versus two sites creating nuisance impacts), costs less, typically encounters fewer challenges in gaining technical approvals, and reduces the number of facilities the City must manage.

THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

CURRENT ACTIVITIES

The second step in the Alternative Methods task focuses on the best approach to expand the existing landfill site at 402 Fifth Line East in the City of Sault Ste. Marie. Expansion options have been developed that make the best use of the existing site characteristics and the area available to expand. Options considered include horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining (excavate previously disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) or a combination of these methodologies.

A preliminary evaluation of the expansion options has been completed by the project team. We are now seeking input from the Community, government agencies, stakeholders, and First Nations regarding the evaluation criteria considered and the preliminary findings.

CONTACT US

You may also contact the Consultant Project Manager or the City's Land Development and Environmental Engineer by email, mail or telephone if you have questions or would like additional information.

Mr. Rick Talvitie, P.Eng
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AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

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Fax: 705-942-3642
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Ms. Catherine Taddo, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5380
Fax: (705) 541-7165
Email: c.taddo@cityssm.on.ca

HOW CAN I PROVIDE INPUT?

If you are interested in discussing the expansion options, the criteria used in the evaluation and the preliminary findings we encourage you to attend the upcoming public input session!

YOU'RE INVITED!

Date: Tuesday, March 6, 2012
Location: Civic Centre – 99 Foster Drive
Russ Ramsay Room
Time: 3:30PM to 7:30PM

Refreshments to be provided.

We will provide you with background information update you on the City's achievements in increasing waste diversion and discuss, with you, the expansion options. **The principle objective of the public consultation is to identify a preferred expansion strategy for the existing landfill site.**

If you are unable to attend the Public Input Session there are other opportunities to provide input. Please visit the City's website **www.cityssm.on.ca** - View City Hall Bulletins – Public Input Session – Solid Waste Management to obtain further information, complete an online questionnaire, or access a comment sheet.

In addition, a description of the expansion options, the evaluation criteria, and the project team's preliminary evaluation are also available on the website in a working paper prepared for this session titled "Solid Waste Management Environmental Assessment – Alternative Methods – Step 2 (Identification and Comparison of Expansion Options). This working paper may also be viewed at the locations noted below commencing on February 21, 2012.

AECOM Canada Ltd.	523 Wellington Street
Civic Centre Engineering and Planning	99 Foster Drive, 5th Flr.
Public Works and Transportation	128 Sackville Road
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THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. To date significant progress has been made.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and **the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.** The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the entire residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

In April, 2011 a Public Input Session was held to present the non-site specific landfill alternatives being considered. **The evaluation and response from consultation concluded that an expansion of an existing landfill is generally preferred over construction of a new site.**

The study noted that an expansion requires less land, displaces fewer people and/or social/natural features, disrupts fewer people (ie. one site versus two sites creating nuisance impacts), costs less, typically encounters fewer challenges in gaining technical approvals, and reduces the number of facilities the City must manage.

CURRENT ACTIVITIES

Presently the project team is focusing on **the best approach to expand the existing landfill site at 402 Fifth Line East in the City of Sault Ste. Marie.** Expansion options have been developed that make the best use of the existing site characteristics and the area available to expand. Options considered include horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining (excavate previously disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) or a combination of these methodologies.

A preliminary evaluation of the expansion options has been completed by the project team. **We are now seeking input from the Community, government agencies, stakeholders, and First Nations regarding the evaluation criteria considered and the preliminary findings.**

PUBLIC INPUT SESSION

If you are interested in discussing the expansion options, the criteria used in the evaluation and the preliminary findings, we encourage you to attend the upcoming public input session!

We will provide you with background information, update you on the City's achievements in increasing waste diversion and discuss, with you, the expansion options. **The principle objective of the public consultation is to identify a preferred expansion strategy for the existing landfill site.**

The expansion options, the evaluation criteria, and the project team's preliminary evaluation are also available on the City's website (**www.cityssm.on.ca - View City Hall Bulletins – Public Input Session – Solid Waste Management**) in a working paper prepared for this session titled "Solid Waste Management Environmental Assessment - Alternative Methods – Step 2 (Identification and Comparison of Expansion Options). This working paper may also be viewed at the locations noted below commencing on February 21, 2012.

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Phone: (705) 759-5380
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Email: c.taddo@cityssm.on.ca

YOU'RE INVITED!

Date: Tuesday, March 6, 2012
Location: Civic Centre – Russ Ramsay Room
Time: 3:30PM to 7:30PM

Refreshments to be provided.

If you cannot attend the public input session in person, we still want to hear from you! Just go to the City's website www.cityssm.on.ca - View City Hall Bulletins – Public Input Session – Solid Waste Management review the Alternatives Method – Step 2 Report and fill out our online questionnaire or comment sheet. A link to the online questionnaire is provided on the City's website.

AECOM

DILLON CONSULTING

Solid Waste Management Environmental Assessment

COUNCIL PRESENTATION

THE CORPORATION OF THE CITY OF SAULT STE MARIE CANADA

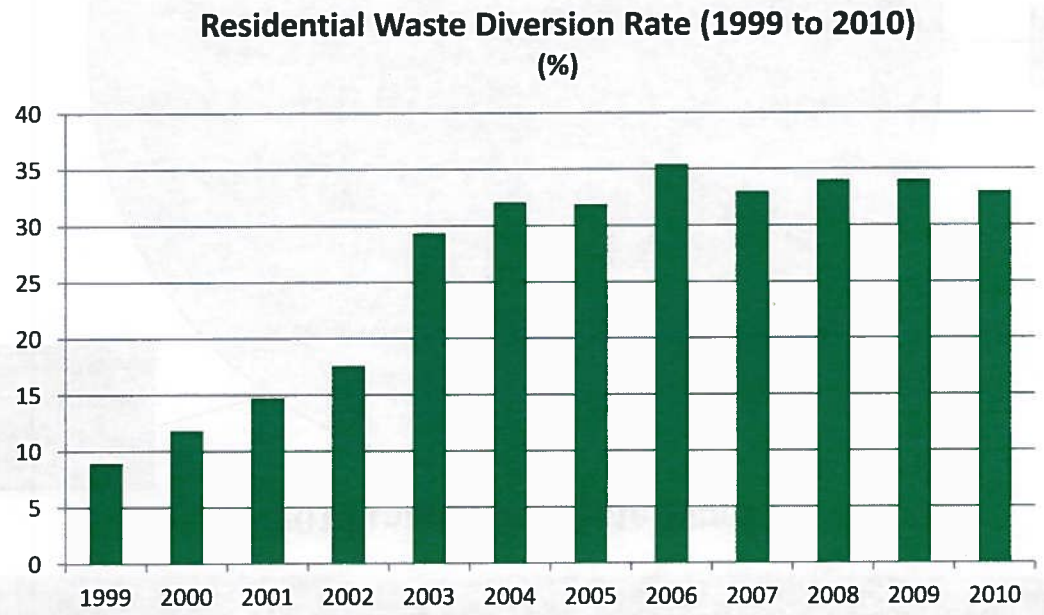
March, 2012

Objectives of the Presentation

- Provide Council and residents with an update on waste management planning activities and results;
- Review project need;
- Provide an overview of the Environmental Assessment process and where we are at in the process;
- Present the criteria and approach used in the evaluation of site expansion options;
- Present the preliminary results of the evaluation completed by the project team;
- Identify the next steps in the EA process; and
- Answer your questions.

Project History - Diversion

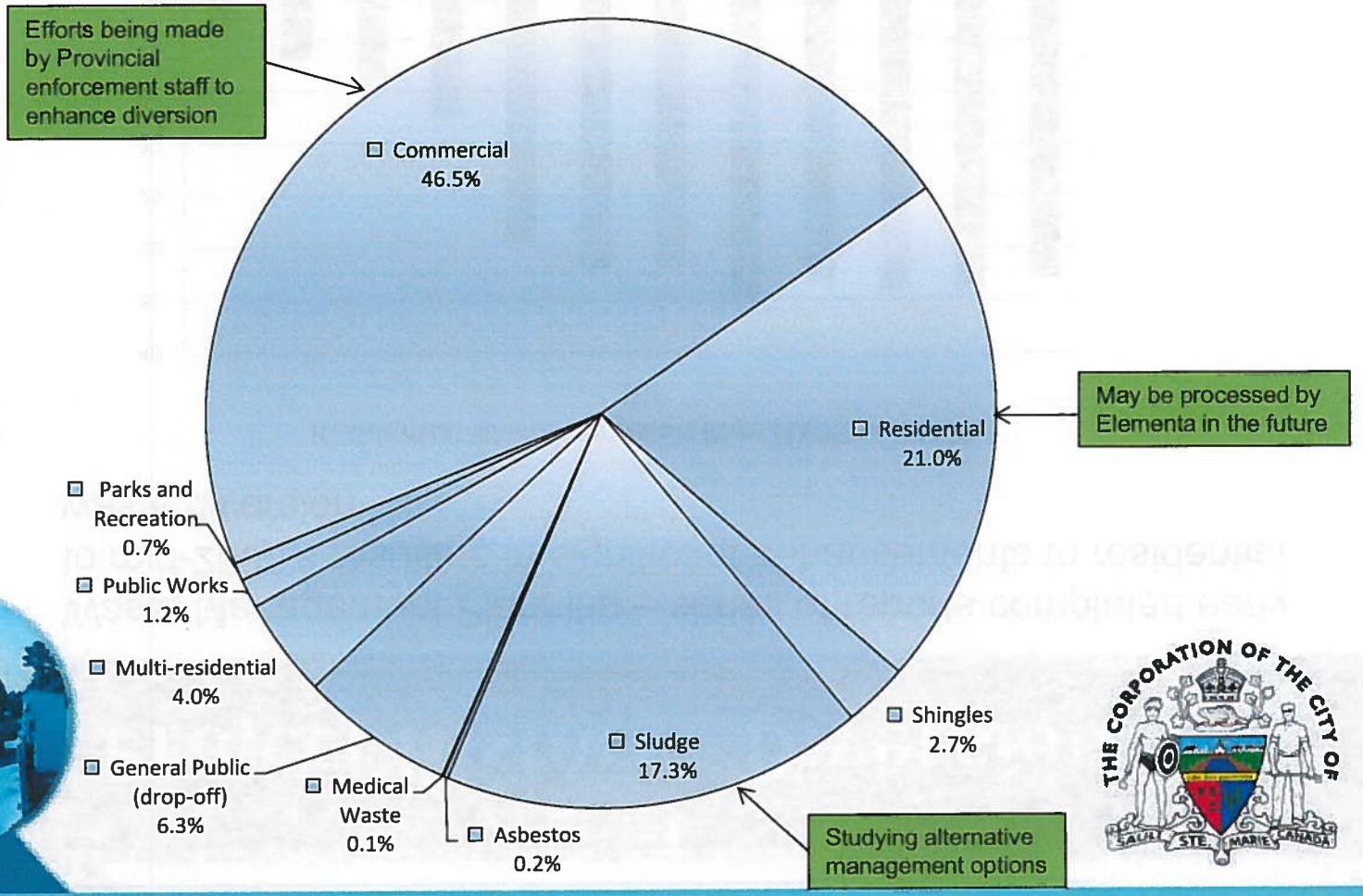
- Waste Management Planning – series of reports completed early to mid-2000's resulting in significant enhancements to residential waste diversion



Increased residential diversion rate from 9% in 1999 to 33% to 35% in recent years

Project History - Diversion

2010 Landfilled Waste Types



Project History - Project Need

- **The estimated remaining service life of the existing landfill is 7 to 10 years depending on future population changes, in-situ subsidence and waste generation, diversion and disposal rates. The low end of this range is used for planning purposes.**
- Despite significant success in enhancing waste diversion, additional disposal capacity is required.

What is an EA?

Purpose = *"to protect the environment and quality of life of the people of the province; and facilitate the wise management of the natural resources of the province".*

- The EA Process is a transparent decision-making process used to promote good environmental planning by assessing potential effects of certain activities or projects on the natural and human environment. The EA process serves several important purposes:
  - Allowing projects to receive input from a wide variety of sources, including the federal, provincial and municipal levels of government, First Nations, stakeholders and the public.
  - Identifying potential problems prior to construction
  - Promoting good environmental planning practices
  - Improving community acceptance
  - Better protecting the environment

AECOM

DILLON CONSULTING

Project History

- MOE approval of EA ToR in late 2005
- EA work initiated by AECOM/Dillon – summer 2006
- "Alternatives To" (functionally different ways of managing waste) work completed and public consultation undertaken in summer of 2007
- Late 2008 to spring 2010 - Project delayed to allow time for the Enquest pilot project to mature
- Fall 2009 - City endorses waste supply agreement with Elementa
- City approval to resume EA process - Elementa will generate residual waste and is unable to manage the entire waste disposal quantity
- Spring 2010 – announced the preferred "Alternative To"

THE CORPORATION OF THE CITY OF SAULT STE. MARIE CANADA

Project History – Selected "Alternative TO"

Based on the results of the evaluation and input received the preferred long-term approach to managing waste in SSM is:

- Increased 3Rs (Reduce/Reuse/Recycle)
- Landfilling residual waste

Why?

- Can comply with regulations and policies
- City is experienced with these waste management initiatives
- Flexible to changes in the waste stream (e.g. population, waste generation, diversion)
- Can accept most residual waste from a Waste-to-Energy facility
- Cost efficient

The EA will now focus on identifying and evaluating alternative methods of landfilling waste (i.e. alternative locations and designs)

AECOM

DILLON CONSULTING

Project History

- Conducted a Public Information Session in June 2010 to announce the selected Alternative To
- Initiated the Alternative Methods Phase (alternative locations and designs)
- Completed a generic non-site specific evaluation of developing a new landfill versus expanding an existing site (Step 1)
- Consulted with the public in the spring of 2011regarding the generic options

THE CORPORATION OF THE CITY OF SAULT STE. MARIE CANADA

Project History – Preferred Landfilling Method

Based on the results of the evaluation and input received the preferred method of landfilling waste = expansion of an existing site

Why?

- Likely less potential for displacement and disruption
- Only one landfill site to manage and maintain
- Cost effective
- Community adaptation
- Likely fewer challenges in gaining approvals

The EA will now focus on how to best expand the existing site

Overview of Expansion Options

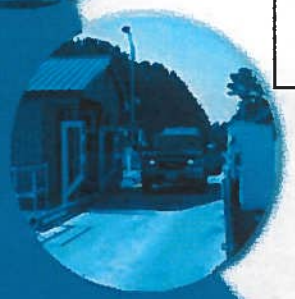
- Expansion options have been developed that make the best use of the existing site characteristics and the area available to expand.
- Options considered include horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining or a combination of these methodologies.
- All options include enhancements to better control groundwater quality related to the existing site.
- Some options require replacement/relocation of existing on-site infrastructure and some require enhanced compaction to provide the target disposal capacity

Evaluation of Expansion Options

- The evaluation has been completed using a two-step approach:
  - Step 1 – identify a preferred expansion area and shape;
  - Step 2 – assess the pros and cons of incorporating landfill mining.
- Mining involves excavation of previously disposed waste and cover material. Mined waste is fed through screens which separates coarse waste from fine materials. Recyclables are separated and sent for processing, remaining residual waste disposed of in the disposal site and fines (primarily sand) are stockpiled for use as cover.

Evaluation Criteria Groups

Criterion	Definition
Natural Environment	Addresses the potential for displacement and/or disruption of natural environmental features (terrestrial features, aquatic features, ground water and surface water)
Social Cultural Environment	Addresses the potential for displacement and/or disruption of social/cultural environmental features (residents, community features, future land use plans, heritage and archaeological resources, public health and safety)
Economics	Addresses the potential for displacement and/or disruption of existing businesses and resources (agriculture, forestry, mining)
Cost	Considers the lifecycle cost of the alternative.
Technical Considerations	Considers technical aspects of each option including impacts on existing site infrastructure and ease of site development.
Transportation	Considers the impacts of traffic volumes accessing the site and potential impacts to the airport and the movement of farm equipment.

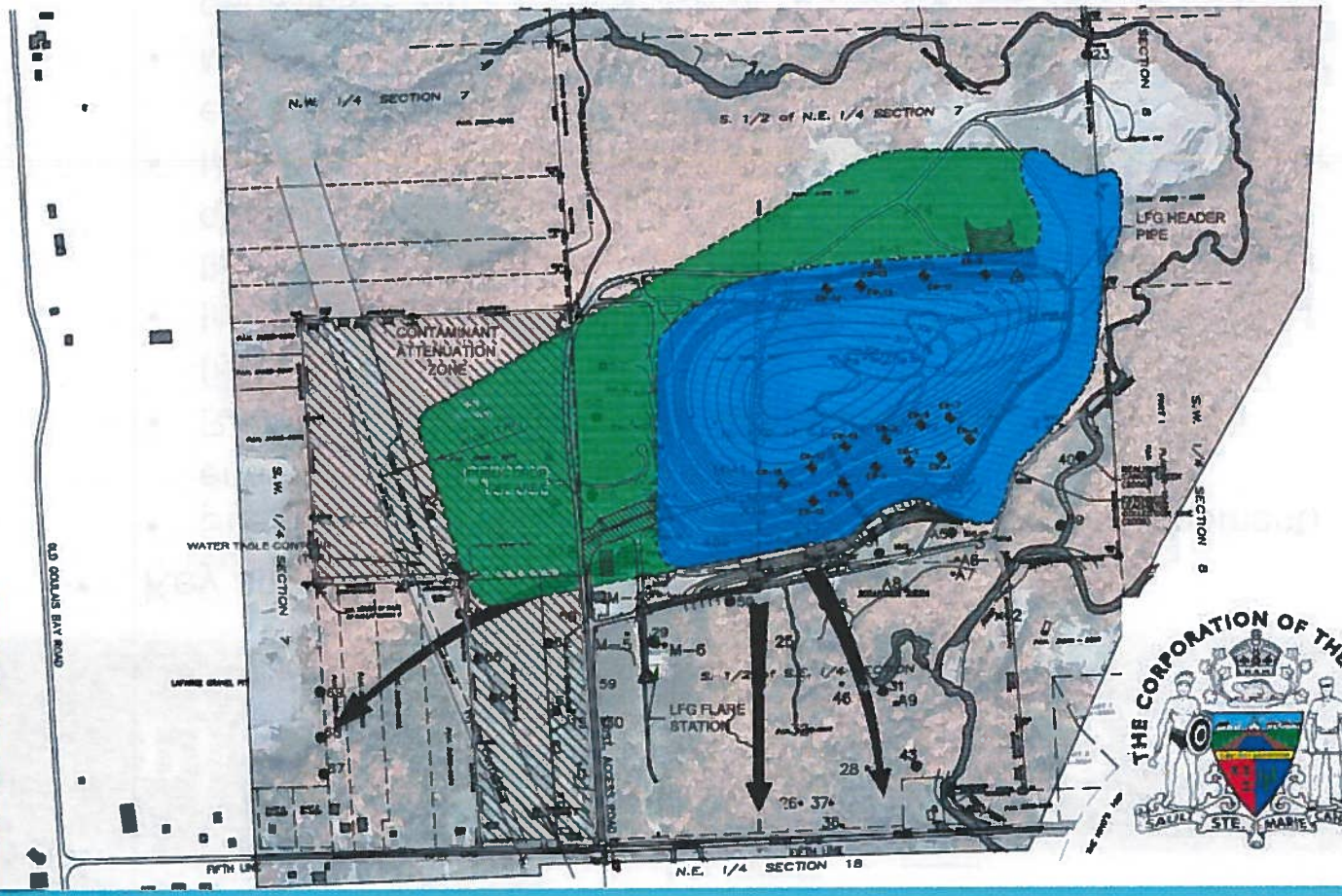


Evaluation of Expansion Options

- Data collection and analysis
- Technical disciplines initially compare options relative to each other and rank them under each criterion
- Present the evaluation in a table or matrix format with the rationale for the rankings
- Present to the public and solicit input from community members, stakeholders, First Nations, and governmental agencies
- Make adjustments to the evaluation based on input received
- Select a preferred option

Preliminary Preferred Expansion Option

- On the basis of the **preliminary** evaluation, the preliminary preferred expansion option is presented below



Preliminary Preferred Option

- Key advantages relative to other options include:
  - Site development (i.e. geometry and storm water management) enhanced relative to Options 2 and 4.
  - Reduced average excavation depth in west expansion area (i.e.11m).
  - Includes a liner beneath the waste within the western portion of the existing disposal footprint enhancing long term groundwater quality.
  - Includes a liner over existing waste in areas of overlap to further enhance groundwater quality.
  - Meets target capacity at current estimated waste densities.

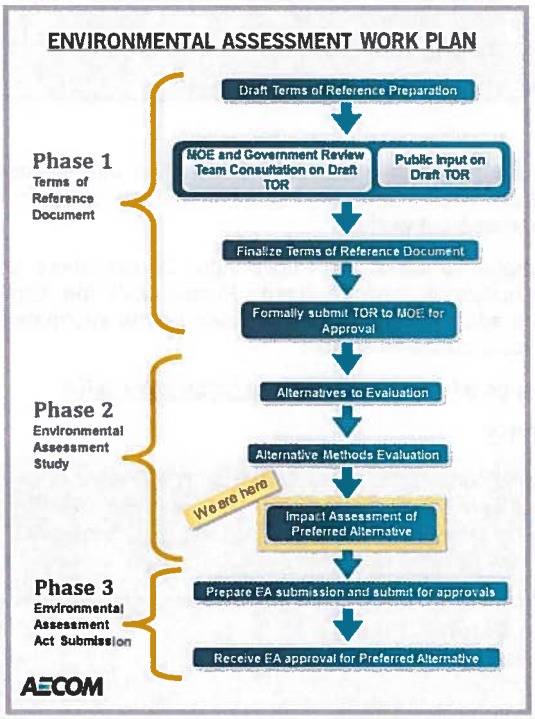
Next Steps

- Solicit governmental, community First Nation and stakeholder input on the preliminary preferred expansion option – do you agree/disagree – why?
- Re-assess (if needed) and finalize the Step 2 evaluation based on input received
- Announce the preferred Step 2 - Alternative Method (i.e. preferred expansion option)
- Initiate a detailed impact assessment for the preferred option
- Continue to investigate ways to improve waste diversion through 3Rs initiatives

THE CITY OF SAULT STE. MARIE
JANUARY, 2016 NEWSLETTER
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

ENVIRONMENTAL ASSESSMENT (EA) PROCESS

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. The EA Process is a transparent decision-making process used to promote good environmental planning by assessing potential effects of certain activities or projects on the natural and human environment. There are several phases and tasks involved in completing an EA as outlined in the graphic below.



The City is finalizing Phase 2 of the EA Process and is currently preparing the EA submission. **We are interested in obtaining your input related to the current activities.**

BACKGROUND

Phase 1 of the EA process included public consultation and culminated with the Ministry of Environment and Climate Change's (MOECC) approval of the project Terms of Reference (ToR) in 2005. The ToR provides a framework or roadmap for completing the EA and summarizes the tasks and activities to be undertaken by the proponent.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and **the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.** The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

The City remains committed to investigating, implementing and supporting programs to increase waste diversion through 3Rs initiatives. Since the implementation of 3Rs initiatives does not require EA Act approval, the EA study turned its focus to alternative methods of landfilling residual waste. The key objective of this phase of the study is to find an environmentally suitable location for the development of additional landfill capacity.

The first step in this phase consisted of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. To identify a preferred approach to landfilling waste, the alternatives were compared using the following seven criteria groups:

1.	Natural environment	5.	Capability of managing waste quality and quantity
2.	Social-cultural environment	6.	Proven technical capacity
3.	Economic environment	7.	Cost
4.	Flexibility of the system		

A Public Input Session was held in April, 2011 to present the landfill alternatives being considered. **The evaluation and response from consultation concluded that an expansion of an existing landfill is generally preferred over construction of a new site.**

The study noted that an expansion requires less land, displaces fewer people and/or social/natural features, disrupts fewer people (i.e., one site versus two sites creating nuisance impacts), costs less, typically encounters fewer challenges in gaining technical approvals, and reduces the number of facilities the City must manage.

The second step in the Alternative Methods task focused on the best approach to expand the City's existing landfill site at 402 Fifth Line East by identifying and comparatively evaluating site expansion alternatives. Options considered included horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining (excavate previously disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) or a combination of these methodologies. A Public Input Session was held March, 2012 to obtain feedback on the evaluation criteria and the preliminary findings.

The evaluation and response from consultation concluded the preferred site expansion alternative consists of a modest increase in the height of the waste, an expansion of the disposal footprint to the west and north and mining a portion of the existing waste to enhance groundwater quality. All mined and expansion areas will include the

construction of a liner beneath the waste to collect leachate (precipitation contaminated as it filters through waste) and ultimately direct it to the City's sewage treatment plant for treatment.

Current Activities

The last part of Phase 2 involves assessing the potential impacts of the conceptual design and planned operation of the preferred site expansion alternative and identification of suitable mitigating measures. Multiple disciplines were involved to assess the various potential impacts of the expansion on site, off site, in the vicinity and along the access route. The access route was considered to be along Fifth Line from Highway 17 to the site (which is the same route used today). Measures to reduce or eliminate potential effects on the environment were recommended.

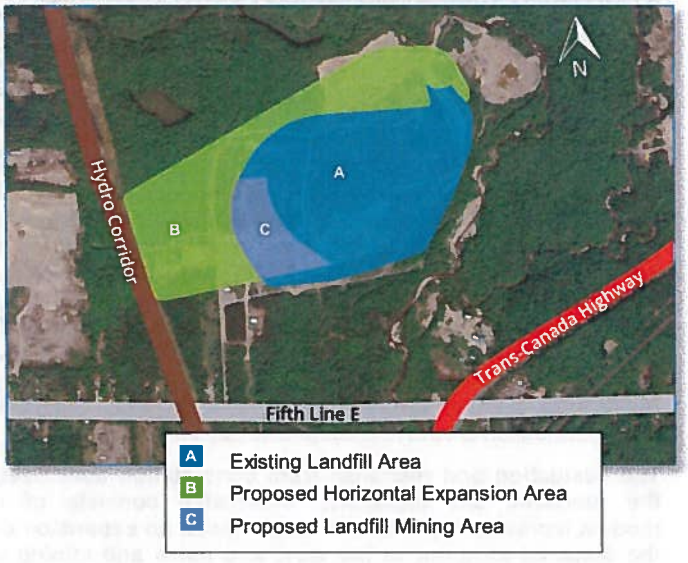
The disciplines that were involved include:

Natural Environment
- Biology
- Geology / hydrogeology
- Surface water

Socio-Cultural Environment
- Cultural (archaeology and heritage)
- Social
- Planned land use
- Visual
- Atmospheric (dust, noise, air quality)

Economic
- Businesses
- Transportation

Conceptual Layout of Proposed Landfill Expansion Area



HOW CAN I PROVIDE INPUT?

We will be hosting a Public Open House where you will learn about the results of the impact assessment work and we will ask for your feedback. If you are interested in discussing the project, we encourage you to attend the upcoming public open house!

YOU'RE INVITED!

Date:	*Tuesday, February 9, 2016*
Location:	*Civic Centre – 99 Foster Drive* *Russ Ramsay Room*
Time:	*3:30 pm to 7:30 pm*

Refreshments to be provided.

We will provide you with background information and discuss, with you, the preferred site expansion option and the results from the impact assessment work.

If you are unable to attend the Public Input Session there are other opportunities to provide input. Please visit the City's website at the address noted below to obtain further information, and / or access a comment sheet.

Project webpage address: saultstemarie.ca/SolidWasteEA

CONTACT US

You may also contact the Consultant Project Manager or the City's Land Development and Environmental Engineer by email, mail or telephone if you have questions or would like additional information.

Mr. Rick Talvitie, P.Eng.
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Email: rick.talvitie@aecom.com

Ms. Catherine Taddo, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580, 99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5380
Email: c.taddo@cityssm.on.ca

THE CITY OF SAULT STE. MARIE

NOTICE OF PUBLIC INPUT SESSION

SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. To date significant progress has been made.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and **the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.** The preferred alternative was presented at an Open House in June, 2010.

The study noted:

- landfills can be designed and operated to comply with regulations and policies;
- landfill gas can be collected and flared or recovered to generate electricity;
- landfills can manage the entire residual waste stream;
- landfills are flexible to changes in waste quality and quantities; and
- landfilling is cost effective.

In April, 2011 a Public Input Session was held to present the non-site specific landfill alternatives being considered. **The evaluation, which considered responses from consultation, concluded that an expansion of an existing landfill is generally preferred over construction of a new site.**

The study noted:

- an expansion requires less land;
- displaces fewer people and/or social/natural features;
- disrupts fewer people (i.e. one site versus two sites creating nuisance impacts);
- costs less;
- typically encounters fewer challenges in gaining technical approvals; and
- reduces the number of facilities the City must manage.

In March 2012 a Public Input Session was held to present the preliminary preferred approach to expanding the existing landfill at 402 Fifth Line East in the City of Sault Ste. Marie. **The evaluation, which considered responses from consultation, concluded that an expansion is best accommodated with a moderate increase in the height of the waste together with and expansion of the disposal footprint to the north and west. The preferred option also includes landfill mining (excavate existing disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) in the western portion of the existing disposal footprint to enhance groundwater protection. All mined and expansion areas will include the construction of a liner beneath the waste to collect leachate (precipitation contaminated as it filters through waste) and ultimately direct it to the City's sewage treatment plant for treatment.**

CURRENT ACTIVITIES

Presently the project team is focusing on **completing an impact assessment for the preferred expansion option.** The impact assessment includes expertise from numerous disciplines and focusses on potential impacts to the natural and human environments associated with the construction and operation of the proposed expansion. Careful attention is given to best management practices to mitigate potential impacts.

We are now seeking input from the Community, government agencies, stakeholders, and First Nations regarding the results of our impact assessment work and the proposed mitigation measures.

PUBLIC INPUT SESSION

If you are interested in discussing the impact assessment work, we encourage you to attend the upcoming public open house! We will provide you with background information and discuss with you, the preferred site expansion option and the results of the impact assessment work.

CONTACT US

We also encourage you to contact the individuals noted below if you have any specific questions.

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4
Phone: 705-942-2612
Fax: 705-942-3642
Email: rick.talvitie@aecom.com

Ms. Catherine Taddo, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1
Phone: (705) 759-5380
Fax: (705) 541-7165
Email: c.taddo@cityssm.on.ca

YOU'RE INVITED!

Date: Tuesday February 9, 2016

Location: Civic Centre – Russ Ramsay Room

Time: 3:30 pm to 7:30 pm

Refreshments to be provided.

If you cannot attend the public open house, we still want to hear from you! Just go to the project webpage (address provided below) to review the project reference material and fill out a comment sheet or simply send us an email (email addresses provided above). Project webpage address: saultstemarie.ca/SolidWasteEA

Ontario Realty Corporation (ORC) / Infrastructure Ontario						
• Correspondence – Email to Ontario Realty Corporation (ORC) representative (Julius Lindsay) in response to ORC email dated July 10, 2007 thanking them for providing input on their Class EA process and provided update on "Alternatives To" and advised of the next phase where potential sites to facilitate the preferred disposal alternative(s) will be reviewed. Advised that ORC will be contacted should one or more sites involve ORC managed properties and notified that process requirements will align with ORC process requirements.	July 11, 2007	• No comments received.			Email dated July 11, 2007 to Julius Lindsay, ORC from R. Talvitie – Appendix L	
• Correspondence – Newsletter No. 2 and Notice of Public Input Session – Project update and information regarding the upcoming June 3, 2010 PIC which is intended to identify the preferred "Alternative To", discuss the project progress and have questions or concerns addressed.	May, 2010	• No comments received.			Solid Waste Disposal Environmental Assessment Newsletter No. 2, May 2010, and Notice of Public Information Centre – Appendix L	
• Public Input Session No. 2 – Conducted to communicate the preferred "Alternative To" and provide an opportunity to discuss the project progress and have questions or concerns addressed.	June 3, 2010	• No comments received.			Records from June 3, 2010 PIC No. 2 – Appendix H	
• Correspondence – Letter from ORC representative (Lisa Myslicki) to Susan Hamilton-Beach acknowledging receipt of May, 2010 Notice of Public Input Session and outlining ORC's interest in the project and requesting mapping of the study area.	June 15, 2010	• Interested in any potential impacts to ORC-managed property. • Requested copy of Draft EA report for review, comment and discussion if project directly affects any ORC managed property. • Requested mapping showing the project location to confirm whether ORC has any properties in the vicinity of the proposed project.			Letter dated June 15, 2010 from Ontario Realty Corporation (L. Myslicki) to Susan Hamilton Beach, City of Sault Ste. Marie – Appendix L	
• Correspondence – Notice of Public Input Session – Project update and information regarding the upcoming April 19, 2011 PIC No. 3 which is intended to solicit input and feedback on the alternative approaches to landfilling residual waste (i.e. expand existing disposal site versus a new site.	April, 2011	• No comment received.			Solid Waste Management Environmental Assessment Notice of Public Input Session, April, 2011 – Appendix L	

• Public Input Session No. 3 - Conducted to provide an opportunity to discuss project progress, solicit input and feedback on the alternative approaches to landfilling residual waste (i.e. expand existing disposal site versus a new site) and to address questions or concerns.	April 19, 2011	• No comments received.			Records from April 19, 2011 PIC – Appendix I	
• Correspondence – Letter from Infrastructure Ontario (IO) representative (Lisa Myslicki) to R. Talvitie and S. Hamilton-Beach acknowledging receipt of April, 2011 Notice of Public Input Session and outlining IO's interest in the project and requesting mapping of the study area. Response email provided by R. Talvitie to IO representative (L. Myslicki) and copy to Hoeun Heng of IO advising no required land acquisitions have been identified to-date and the IO will be kept apprised as the project progresses.	July 13, 2011 and September 6, 2011	• Interested in any potential impacts to IO-managed properties. • Requested copy of Draft EA report for review, comment and discussion if project directly affects any ORC managed property. • Requested mapping showing the project location to confirm whether IO has any properties in the vicinity of the proposed project.	• At this time we have not identified any required land acquisitions. As we continue with this process we will be identifying area lands that may be impacted by a site expansion. As we get further into this process we will inventory the potentially impacted land owners. Should we identify IO lands that may be impacted we will provide relevant plans and details of the various alternatives and potential impacts for your consideration.	Noted at several locations in the EA that the proposed project is to be undertaken within existing City-owned properties (refer Section 1.3). The proposed project includes a contingency to expand the contaminant attenuation zone (CAZ) to the south-west of the disposal footprint if needed in the future. No ORC managed properties are included in the contingency scenario (refer to Section 8.3).	Letter dated July 13, 2011 from Infrastructure Ontario (L. Myslicki) to R. Talvitie and S. Hamilton-Beach and email dated September 6, 2011 to Infrastructure Ontario (L. Myslicki and copy to H. Heng) from R. Talvitie – Appendix L	
• Correspondence – Notice of Public Input Session – Project update and information regarding the upcoming March 6, 2012 PIC which is intended to solicit input and feedback on the alternative approaches to expanding the existing disposal site.	February, 2012	• No comments received.			Solid Waste Disposal Environmental Assessment Notice of Public Input Session February, 2012 – Appendix L	
• Public Information Centre No. 4 - Conducted to discuss project progress and to solicit input and feedback on a preferred expansion strategy for the existing landfill site.	March 6, 2012	• No comments received.			Records from March 6, 2012 PIC – Appendix J	
• Correspondence – Newsletter and Notice advising of February 9, 2016 Public Input Centre No. 5 intended to discuss project progress and solicit input and feedback on the impact assessment work.	January, 2016	• No comments received.			Solid Waste Disposal Environmental Assessment January 2016 Newsletter and Notice of Public Input Session – Appendix L	
• Public Input Session No. 5 - Conducted to discuss project progress and to solicit input and feedback on the impact assessment work.	February 9, 2016	• No comments received.			Records from February 9, 2016 PIC – Appendix K	

Talvitie, Rick

From: Rick Talvitie
Sent: July 11, 2007 9:25 AM
To: 'Lindsay, Julius (ORC)'
Cc: 's.hamiltonbeach@cityssm.on.ca'; 'kkolli@dillon.ca'
Subject: RE: Solid Waste Disposal Environmental Assessment

Hi Julius,

Thank you for taking the time to provide input. We will continue to keep you apprised throughout the process through periodic notices and invitations to public consultation events. To date we have been looking at "Alternatives To" (ie: different ways of managing solid waste) at a generic level. In the next phase of the process we will begin looking at potential sites to facilitate the preferred disposal alternative(s). We will continue to keep you apprised regardless of the sites that are subject to more intensive study. In the event however that one or more sites involve ORC managed properties we will contact ORC directly and arrange a meeting as early as possible in the study process.

Thank you also for providing information regarding ORC's Class EA process. In the event that one or more of the triggers are satisfied we will ensure our process requirements are integrated with your process requirements.

Thanks again for your letter.

Regards,

Rick Talvitie, P.Eng.
Branch Manager
TSH
523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4
Phone: 705-942-2612
Fax: 705-942-3642
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From: Lindsay, Julius (ORC) [mailto:Julius.Lindsay@orc.gov.on.ca]
Sent: July 10, 2007 4:31 PM
To: Rick Talvitie; s.hamiltonbeach@cityssm.on.ca
Subject: Solid Waste Disposal Environmental Assessment

Please See attached.

Julius Lindsay
Reporting Specialist
Professional Services
Ontario Realty Corporation

SOLID WASTE DISPOSAL
ENVIRONMENTAL ASSESSMENT

Newsletter No.2, May 2010

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its residual municipal solid waste. In the evaluation of "Alternatives To the Undertaking", a thorough review of different waste management alternatives including increased waste diversion, incineration/high heat processes, landfill, export waste outside the service area, and "do-nothing" was completed. To identify a preferred waste management method, the alternatives were comparatively evaluated using the following seven criteria:

1. Compliance with current regulations and policies;
2. Environmental acceptability;
3. The ability of the City of Sault Ste. Marie to implement the preferred alternative;
4. Flexibility of the system;
5. Capability of managing waste quality and quantity;
6. Proven technical capacity; and
7. Cost.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative for the City has been identified as **increased waste diversion and landfilling of the residual waste.**

DIVERSION UPDATE

The residential waste diversion program diverted approximately 34% of residential waste from the landfill in 2009. This shows consistent progress when compared to the 9% diverted in 2000! The City of Sault Ste. Marie's waste diversion program currently includes weekly curbside collection and recycling of paper products in the yellow box and containers in the blue box; bi-weekly collection and composting of leaf and yard waste throughout the growing season (April through November); a household special waste facility at 115 Industrial Park Crescent; landfill bans and segregation and recycling of metals, white goods, tires, and clean wood and brush at the landfill at 402 Fifth Line East. Since 2006, the City has limited residential waste setout to 2 bags/containers per week per household. Tags for additional waste bags or containers must be purchased. The City diversion programs are also supplemented by diversion initiatives undertaken by the private sector and special interest groups.

The City is also currently assessing the feasibility of diverting municipal biosolids (sewage sludge) from disposal.

PUBLIC INFORMATION CENTRE

A Public Information Centre is being held to provide an opportunity for you to discuss the project progress and have your questions or concerns addressed.

Date: Thursday, June 3, 2010

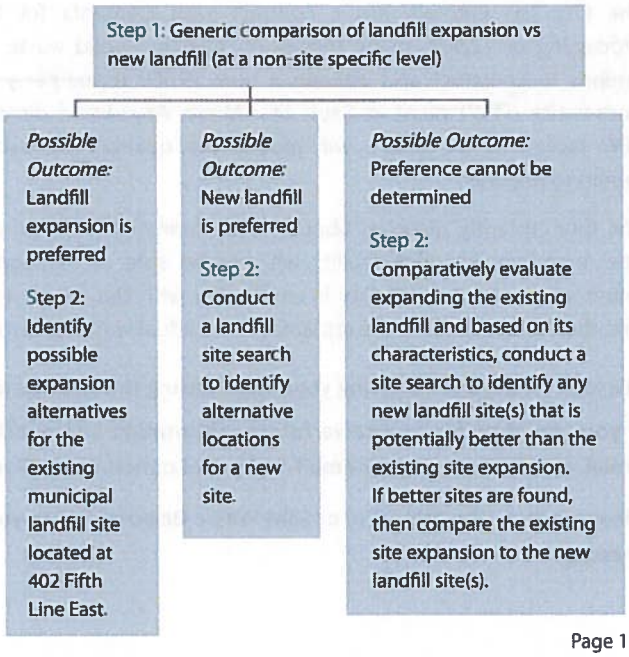
Location: Thompson Room
Civic Centre, 99 Foster Drive

Time: 3:30 pm to 7:30 pm

WHAT'S NEXT?

The results of the Environmental Assessment work completed to date suggest that landfill remains the most appropriate disposal option for the City's residual waste. Landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and recovered to generate electricity, landfills can manage the entire residual waste stream, are flexible to changes in waste quality and quantities and are cost effective.

Following the "Alternatives To" evaluation, the next step in the EA process for a landfill facility is the identification and evaluation of "Alternative Methods" of landfilling. This can include both alternative locations and alternative designs as illustrated in the flow chart below. We will be looking for public input on landfill options in the Fall of 2010.



SOLID WASTE DISPOSAL
ENVIRONMENTAL ASSESSMENT

Newsletter No.2, May 2010

ABOUT THE ENVIRONMENTAL ASSESSMENT (EA) PROCESS

The Environmental Assessment for disposal capacity includes three key phases. The first phase was completed with the submission and approval of the EA Terms of Reference. We are currently working within the second phase: the Environmental Assessment Study itself. The last phase is submission of the EA documentation to the Ministry of the Environment and the subsequent government and public review and approval period. It is anticipated that the whole process will take until late 2012.

In September 2005 the Minister of the Environment approved the Environmental Assessment Terms of Reference (EA TOR) for the Sault Ste. Marie Solid Waste Management Plan. The EA TOR documents the process that will be followed to determine the preferred method for managing solid waste in Sault Ste. Marie for the next 20 to 40 years. In addition to the disposal EA, the Sault Ste. Marie Solid Waste Management Plan includes a significant diversion component.

Keep up-to-date on the EA Study at the City of Sault Ste. Marie's website: http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1

ELEMENTA ENERGY-FROM-WASTE FACILITY

In 2007, an energy-from-waste (EFW) developer known as The Elementa Group (Elementa) constructed a pilot steam reformation plant that would convert municipal solid waste into a char and synthetic gas (or "syngas") that can be used to generate electricity.

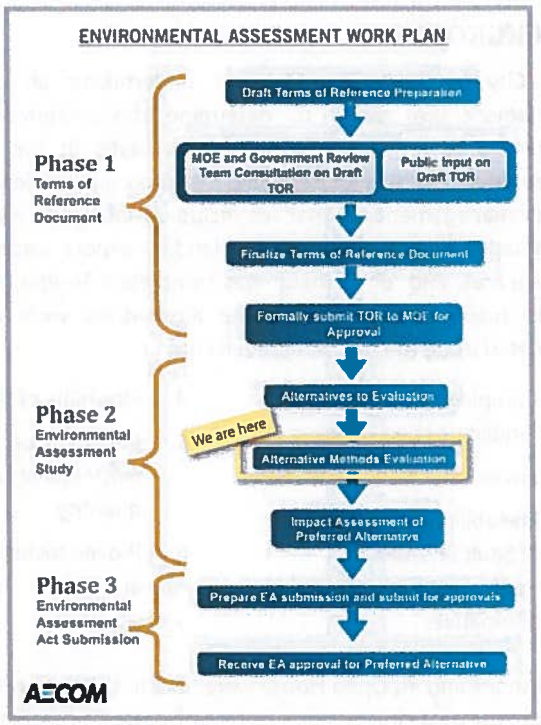
The City has entered into a contract with Elementa for the annual processing of 12,500 metric tonnes of municipal solid waste. Elementa intends to construct and operate a new 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility in the future will reduce the quantity of residual waste requiring disposal.

The City currently disposes about 60,000 tonnes of residual waste each year therefore; the EFW facility will not be able to manage the City's entire waste stream. The City is continuing with the EA study to ensure that the City can process the remainder of residual waste generated.

We look forward to receiving your input during this important study!

If you would prefer to receive future information and notifications via email, please forward your email address to nancy.maahs@aecom.com.

Please include the title "City of SSM Waste Disposal EA" in your message.



CONTACT US

Your input on this project is important to us. If you would like further information or to send comments, ask questions or be added to our mailing list, please contact us:

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
Email: rick.talvitie@aecom.com

Mrs. Susan Hamilton Beach, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on

THE CITY OF SAULT STE. MARIE

Notice of Public Information Centre

SOLID WASTE DISPOSAL ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its residual municipal solid waste. Work to date has included a thorough review of a number of waste management alternatives including increased waste diversion, incineration/high heat process, landfill, export waste and "do nothing". To identify a preferred waste management method, the alternatives were comparatively evaluated using the following seven criteria:

1. Compliance with current regulations and policies;
2. Environmental acceptability;
3. The ability of the City of Sault Ste. Marie to implement the preferred alternative;
4. Flexibility of the system;
5. Capability of managing waste quality and quantity;
6. Proven technical capacity; and
7. Cost.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative for the City has been identified as **increased waste diversion and landfilling of the residual waste**.

Residents currently divert approximately 34% of their waste from disposal and the City will continue to provide opportunities to improve on this diversion rate. The remaining 66% of residential waste and industrial, commercial and institutional wastes currently goes to the City landfill. In addition to the City's current diversion, the City has entered into a contract with a private corporation for the annual supply of 12,500 metric tonnes of municipal solid waste. This corporation intends to construct and operate a 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility will reduce the quantity of residual waste requiring disposal.

The results of the Environmental Assessment work completed to date suggest that landfill remains the most appropriate disposal option for the City's residual waste. Landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and recovered to generate electricity, landfills can manage the entire residual waste stream, are flexible to changes in waste quality and quantities and are cost effective.

PUBLIC INFORMATION CENTRE

A Public Information Centre is being held to provide an opportunity for you to discuss the project progress and have your questions or concerns addressed.

Date: Thursday, June 3, 2010
Location: Thompson Room
Civic Centre, 99 Foster Drive
Time: 3:30pm to 7:30 pm

THE NEXT STEPS

Over the summer the project team will be looking at options for landfilling residual waste. This work will include consideration of opportunities to expand the existing landfill or establish a new landfill site. In the Fall of 2010, we will be looking for public input on landfill options.

If you have any questions related to the study, please contact:

Mr. Rick Talvitie, P. Eng.
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
E-mail: rick.talvitie@aecom.com

Mrs. Susan Hamilton Beach, P. Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580, 99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on.ca

If you would like to receive future information and notifications via email, please forward your email address to nancy.maahs@aecom.com. Please include the title "City of SSM Waste Disposal EA" in your message.

Ontario Realty Corporation
Société immobilière de l'Ontario

One Dundas Street West, Suite 2000, Toronto, ON M5G 2L5
1, rue Dundas Ouest, bureau 2000, Toronto, ON M5G 2L5

June 15, 2010

To Ms. Susan Hamilton Beach

RE: **Solid Waste Disposal Environmental Assessment**

Thank you for circulating Ontario Realty Corporation (ORC) on your Notice of Public Information Centre. The ORC is the strategic manager of the government's real property with a mandate of maintaining and optimizing value of the portfolio, while ensuring real estate decisions reflect public policy objectives of the government.

As you may be aware, ORC is responsible for managing real property that is owned by the Ministry of Energy and Infrastructure (MEI). Our preliminary review of your notice and supporting information indicates that ORC-managed property may be directly in the study area. As a result, your proposal may have the potential to impact properties and/or the activities of tenants present on ORC-managed lands. Please note that as no map has been provided, ORC cannot provide detailed information about the location of ORC managed properties. More information required in order to determine if ORC managed lands will be impacted.

Potential Negative Impacts to ORC Tenants and Lands

General Impacts

Negative environmental impacts associated with the project design and construction, such as the potential for dewatering, dust, noise and vibration impacts, and impacts to natural heritage features/habitat and functions, should be avoided and/or appropriately mitigated in accordance with applicable regulations best practices and Ministry of Natural Resources (MNR) and Ministry of the Environment (MOE) standards. Avoidance and mitigation options that characterize baseline conditions and quantify the potential impacts should be present as part of the EA project file. Details of appropriate mitigation, contingency plans and triggers for implementing contingency plans should also be present.

Impacts to Land holdings

Negative impacts to land holdings, such as the taking of developable parcels of ORC managed land or fragmentation of utility or transportation corridors, should be avoided. If the potential for such impacts is present as part of this undertaking, you should contact the undersigned to discuss these issues at the earliest possible stage of your study.

If takings are suggested as part of any alternative these should be appropriately mapped and quantified within EA report documentation. In addition, details of appropriate mitigation and or next steps related to compensation for any required takings should be

present. ORC requests circulation of the draft EA report prior to finalization if potential impacts to ORC-managed lands are present as part of this study.

Heritage Management Process & Class Environmental Assessment (EA) Process

Should the proposed activities impact cultural heritage features, on ORC managed lands, a request to examine cultural heritage issues which can include the cultural landscape, archaeology and places of sacred and secular value could be required. The Ontario Realty Corporation Heritage Management Process should be used for identifying and conserving heritage properties in the provincial portfolio (this document can be downloaded from the Heritage section of our website: http://www.ontariorealty.ca/What-We-Do/Heritage.htm). Through this process, ORC identifies, communicates and conserves the values of its heritage places. In addition, the Class EA ensures that ORC considers the potential effects of proposed undertakings on the environment, including cultural heritage.

Potential Triggers Related to MEI's Class EA

The ORC is required to follow the MEI Class Environmental Assessment Process for Realty Activities Not Related to Electricity Projects (MEI Class EA). The MEI Class EA applies to a wide range of realty and planning activities including leasing or letting, planning approvals, dispostion, granting of easements, demolition and property maintenance/repair. For details on the ORC Class EA please visit the Environment and Heritage page of our website found at http://www.ontariorealty.ca/AssetFactory.aspx?did=2240

If the MEI Class EA is triggered, and deferral to another ministry's or agency's Class EA or individual EA is requested, the alternative EA will be subject to a critical review prior to approval for any signoff of a deferral by the proponent. The alternative EA needs to fulfill the minimum criteria of the MEI Class EA. When evaluating an alternative EA there must be explicit reference to the corresponding undertaking in the MEI Class EA (*e.g.,* if the proponent identifies the need to acquire land owned by MEI, then "acquisition of MEI-owned land", or similar statement, must be referenced in the EA document). Furthermore, sufficient levels of consultation with MEI's/ORC's specific stakeholders, such as the Ontario Ministry of Natural Resources, must be documented with the relevant information corresponding to MEI's/ORC's undertaking and the associated maps. In addition to archaeological and heritage reports, a Phase I Environmental Site Assessment (ESA), on ORC lands should also be incorporated into the alternative EA study. Deficiencies in any of these requirements could result in an inability to defer to the alternative EA study and require completing MEI's Class EA prior to commencement of the proposed undertaking.

In summary, the purchase of MEI-owned/ORC-managed lands or disposal of rights and responsibilities (e.g. easement) for ORC-managed lands triggers the application of the

MEI Class EA. If any of these realty activities affecting ORC-managed lands are being proposed as part of any alternative, please contact the Sales and Marketing Group through ORC's main line (Phone: 416-327-3937, Toll Free: 1-877-863-9672), and contact the undersigned at your earliest convenience to discuss next steps.

Specific Comments

If an EA for this project is currently being undertaken and the undertaking directly affects all or in part any ORC-managed property, please send the undersigned a copy of the Individual EA report and allow sufficient time (minimum of 30 calendar days) for comments and discussion prior to finalizing the report to ensure that all MEI Class EA requirements can be met through the EA study.

Concluding Comments

Thank you for the opportunity to provide initial comments on this undertaking. Please ensure that mapping is provided to ORC at your earliest convenience to determine if ORC managed properties are in the study area. If you have any questions on the above I can be reached at the contacts below.

Sincerely,

L. Myslicki

Lisa Myslicki
Environmental Coordinator
Ontario Realty Corporation - Professional Services
1 Dundas Street West,
Suite 2000, Toronto, Ontario
M5G 2L5
(416) 212-3768
lisa.myslicki@ontariorealty.ca

THE CITY OF SAULT STE. MARIE

NOTICE OF PUBLIC INPUT SESSION

SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. In the evaluation of "Alternatives To the Undertaking", a thorough review of different waste management alternatives including increased waste diversion, incineration/high heat processes, landfill, export waste outside the service area, and "do-nothing" was completed. To identify a preferred approach to managing waste, the alternatives were comparatively evaluated using the following seven criteria:

1. Compliance with current regulations and policies;
2. Environmental acceptability;
3. The ability of the City of Sault Ste. Marie to implement the preferred alternative;
4. Flexibility of the system;
5. Capability of managing waste quality and quantity;
6. Proven technical capacity; and
7. Cost.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste. The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the entire residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

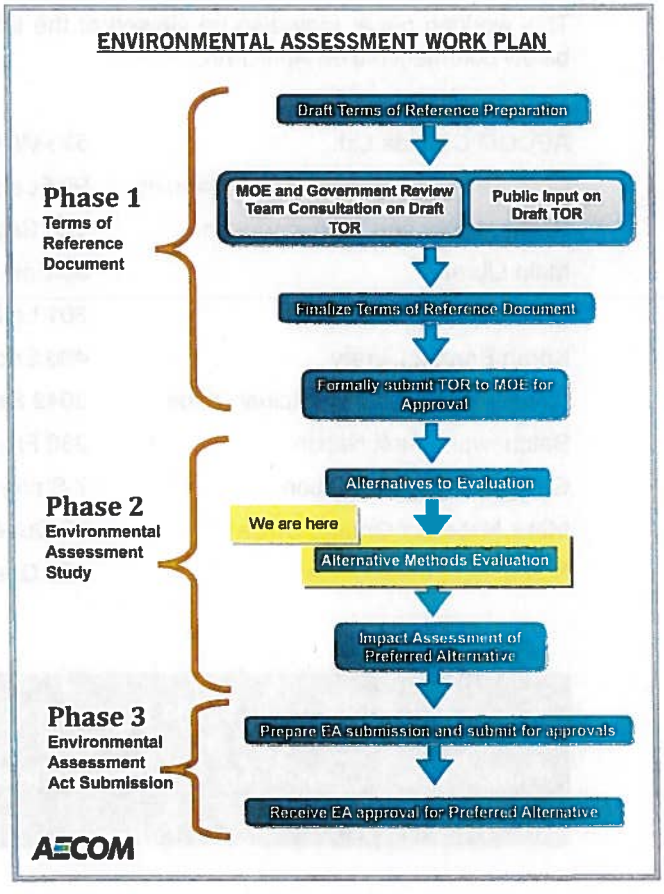
The flexibility of the preferred alternative is particularly important given the City's contract with The Elementa Group (an energy-from-waste service provider) for the annual processing of at least 12,500 metric tonnes of municipal solid waste. Elementa intends to construct and operate a new 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility in the future will reduce the quantity of residual waste requiring disposal in a landfill.

NEXT STEPS

The City remains committed to investigating, implementing and supporting programs to increase waste diversion through 3Rs initiatives. Since the implementation of 3Rs initiatives does not require Environmental Assessment (EA) Act approval, the EA study is now focusing on alternative methods of landfilling residual waste. The key objective of this phase of the study is to find an environmentally suitable location for the development of additional landfill capacity.

The first step to be completed in this phase consists of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. This step will provide initial focus to the search for additional landfill capacity.

A preliminary evaluation of these alternatives has been completed by the project team. We are now seeking input from the general public and Stakeholders regarding the evaluation criteria considered and the preliminary findings.



THE CITY OF SAULT STE. MARIE

NOTICE OF PUBLIC INPUT SESSION

SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

PUBLIC INPUT SESSION

If you are interested in discussing the alternatives and criteria that will be used to compare and select a preferred approach to landfilling residual waste in Sault Ste. Marie, Prince Township and Batchewana First Nation's Rankin Reserve, we encourage you to attend this public input session!

We will provide you with background information, update you on the City's achievements in increasing waste diversion and discuss with you the alternative approaches to landfilling residual solid waste. A principle objective of the session is to confirm whether the City should focus its efforts to obtain additional disposal capacity by expanding an existing landfill site or finding a location for a new site.

Background information documenting the work completed to date is available on the City website at **http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1**.
In addition, the alternatives and the evaluation criteria currently being considered are also available on the website in a working paper prepared for this session titled "Solid Waste Management Environmental Assessment - Alternative Methods – Step 1 (Landfill Expansion versus Development of a New Site).

This working paper may also be viewed at the locations noted below commencing on April 11th.

AECOM Canada Ltd.	523 Wellington Street
Civic Centre Engineering and Planning	99 Foster Drive, 5th Flr.
Public Works and Transportation	128 Sackville Road
Main Library	50 East Street
Churchill Branch Library	301 Lake Street
Korah Branch Library	496 Second Line
Township of Prince Municipal Office	3042 Second Line West
Batchewana First Nation	236 Frontenac Street
Garden River First Nation	7 Shingwauk Street
Metis Nation of Ontario Office	26 Queen Street East
Missanabie Cree Office	559 Queen Street East

YOU'RE INVITED!

Date:	Tuesday April 19, 2011
Location:	Civic Centre – Russ Ramsay Room
Time:	6:30 pm to 9:00 pm

Refreshments to be provided.

CONTACT US

We also encourage you to contact the individuals noted below if you have any specific questions.

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
Email: rick.talvitie@aecom.com

Mrs. Susan Hamilton Beach, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on.ca

Information pertaining to this session is available on the City of Sault Ste. Marie website at: **http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1**.
Hardcopies can also be obtained by contacting AECOM at 705-942-2612.

If you cannot attend the public input session in person, we still want to hear from you! Just go to the City's website (http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1), review the Alternatives Method - Step 1 Report and fill out our online questionnaire. A link to the online questionnaire is provided on the City's website.

THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. In the evaluation of "Alternatives to the Undertaking", a thorough review of different waste management alternatives including increased waste diversion, incineration/high heat processes, landfill, export waste outside the service area, and "do-nothing" was completed.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste. The preferred alternative was presented at an Open House in June, 2010.

NEXT STEPS

The next step consists of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. This step will provide initial focus to the search for additional landfill capacity.

A preliminary evaluation of these alternatives has been completed by the project team. We are now seeking input from the general public and stakeholders regarding the evaluation criteria considered and the preliminary findings.

PUBLIC INPUT SESSION

If you are interested in discussing the alternatives and criteria that will be used to compare and select a preferred approach to landfilling residual waste in Sault Ste. Marie, Prince Township and Batchewana First Nation's Rankin Reserve, we invite you to attend this public input session.

We will provide background information, update you on the City's achievements in increasing waste diversion and discuss the alternative approaches to landfilling residual solid waste.

Background documents including the working paper to be discussed at the public input session entitled "Solid Waste Management Environmental Assessment - Alternative Methods – Step 1 (Landfill Expansion versus Development of a New Site)" are available on the City's website at **www.cityssm.on.ca – Click City Hall Bulletins – Public Input Session – Solid Waste Management.**

CONTACT US

We encourage you to contact the individuals below if you have questions.

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
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Mrs. Susan Hamilton Beach, P.Eng.
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City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on.ca

YOU'RE INVITED!

Date: Tuesday, April 19, 2011

Location: Civic Centre, 99 Foster Dr.
Russ Ramsay Board Room

Time: 6:30 to 9:00 p.m.

Refreshments provided.

If you cannot attend the public input session, we still want to hear from you! Go to the City's website www.cityssm.on.ca (Click City Hall Bulletins – Public Input Session – Solid Waste Management) to review the Alternatives Method - Step 1 Report and fill out the online questionnaire.

Ontario
Infrastructure Ontario

One Dundas Street West, Suite 2000, Toronto, ON M5G 2L5
1, rue Dundas Ouest, bureau 2000, Toronto, ON M5G 2L5

July 13, 2011

To Mr. Rick Talvitie and Mrs. S. Hamilton Beach

RE: **Solid Waste Management Environmental Assessment**

Thank you for circulating Infrastructure Ontario (formerly the Ontario Realty Corporation) on your Notice of Public Input Session. Infrastructure Ontario (IO) is the strategic manager of the government's real property with a mandate of maintaining and optimizing value of the portfolio, while ensuring real estate decisions reflect public policy objectives of the government.

As you may be aware, IO is responsible for managing real property that is owned by the Ministry of Infrastructure (MOI). Our preliminary review of your notice and supporting information indicates that IO-managed property may be directly in the study area. As a result, your proposal may have the potential to impact properties and/or the activities of tenants present on IO-managed lands. Please note that as no map has been provided, IO cannot provide detailed information about the location of IO managed properties. More information is needed about the study area.

Potential Negative Impacts to IO Tenants and Lands

General Impacts

Negative environmental impacts associated with the project design and construction, such as the potential for dewatering, dust, noise and vibration impacts, and impacts to natural heritage features/habitat and functions, should be avoided and/or appropriately mitigated in accordance with applicable regulations best practices and Ministry of Natural Resources (MNR) and Ministry of the Environment (MOE) standards. Avoidance and mitigation options that characterize baseline conditions and quantify the potential impacts should be present as part of the EA project file. Details of appropriate mitigation, contingency plans and triggers for implementing contingency plans should also be present.

Impacts to Land holdings

Negative impacts to land holdings, such as the taking of developable parcels of IO managed land or fragmentation of utility or transportation corridors, should be avoided. If the potential for such impacts is present as part of this undertaking, you should contact the undersigned to discuss these issues at the earliest possible stage of your study.

If takings are suggested as part of any alternative these should be appropriately mapped and quantified within EA report documentation. In addition, details of appropriate mitigation and or next steps related to compensation for any required takings should be

present. IO requests circulation of the draft EA report prior to finalization if potential impacts to IO-managed lands are present as part of this study.

Heritage Management Process & Class Environmental Assessment (EA) Process

Should the proposed activities impact cultural heritage features, on IO managed lands, a request to examine cultural heritage issues which can include the cultural landscape, archaeology and places of sacred and secular value could be required. The Infrastructure Ontario Heritage Management Process should be used for identifying and conserving heritage properties in the provincial portfolio (this document can be downloaded from the Heritage section of our website: http://www.ontariorealty.ca/What-We-Do/Heritage.htm). Through this process, IO identifies, communicates and conserves the values of its heritage places. In addition, the Class EA ensures that IO considers the potential effects of proposed undertakings on the environment, including cultural heritage.

Potential Triggers Related to MOI's Class EA

The IO is required to follow the MOI Class Environmental Assessment Process for Realty Activities Not Related to Electricity Projects (MOI Class EA). The MOI Class EA applies to a wide range of realty and planning activities including leasing or letting, planning approvals, dispostion, granting of easements, demolition and property maintenance/repair. For details on the IO Class EA please visit the Environment and Heritage page of our website found at http://www.ontariorealty.ca/AssetFactory.aspx?did=2240

If the MOI Class EA is triggered, and deferral to another ministry's or agency's Class EA or individual EA is requested, the alternative EA will be subject to a critical review prior to approval for any signoff of a deferral by the proponent. The alternative EA needs to fulfill the minimum criteria of the MOI Class EA. When evaluating an alternative EA there must be explicit reference to the corresponding undertaking in the MOI Class EA (*e.g.,* if the proponent identifies the need to acquire land owned by MOI, then "acquisition of MOI-owned land", or similar statement, must be referenced in the EA document). Furthermore, sufficient levels of consultation with MOI's/IO's specific stakeholders, such as the Ontario Ministry of Natural Resources, must be documented with the relevant information corresponding to MOI's/IO's undertaking and the associated maps. In addition to archaeological and heritage reports, a Phase I Environmental Site Assessment (ESA), on IO lands should also be incorporated into the alternative EA study. Deficiencies in any of these requirements could result in an inability to defer to the alternative EA study and require completing MOI's Class EA prior to commencement of the proposed undertaking.

In summary, the purchase of MOI-owned/IO-managed lands or disposal of rights and responsibilities (e.g. easement) for IO-managed lands triggers the application of the MOI Class EA. If any of these realty activities affecting IO-managed lands are being proposed as part of any alternative, please contact the Sales and Marketing Group through IO's

main line (Phone: 416-327-3937, Toll Free: 1-877-863-9672), and contact the undersigned at your earliest convenience to discuss next steps.

Specific Comments

If an EA for this project is currently being undertaken and the undertaking directly affects all or in part any IO-managed property, please send the undersigned a copy of the Individual EA report and allow sufficient time (minimum of 30 calendar days) for comments and discussion prior to finalizing the report to ensure that all MOI Class EA requirements can be met through the EA study.

Concluding Comments

Thank you for the opportunity to provide initial comments on this undertaking. Please ensure that mapping is provided to IO at your earliest convenience to determine if IO managed properties are in the study area. I sincerely apologize for the timeliness of this reply. If you have any questions on the above I can be reached at the contacts below.

Sincerely,

L. Myslicki

Lisa Myslicki
Environmental Coordinator
Infrastructure Ontario - Professional Services
1 Dundas Street West,
Suite 2000, Toronto, Ontario
M5G 2L5
(416) 212-3768
lisa.myslicki@infrastructureontario.ca

Talvitie, Rick

From: Talvitie, Rick
Sent: September 6, 2011 1:55 PM
To: 'lisa.myslicki@infrastructureontario.ca'
Cc: 'Catherine Taddo'; Kolli, Karla; 'Hoeun.Heng@infrastructureontario.ca'
Subject: City of Sault Ste. Marie Waste Management EA

Hi Lisa,

I am confirming receipt of your letter dated July 13, 2011.

All of the work completed up to and including the April, 2011 open house was completed in a generic manner without considering specific sites. Since that time we have initiated an investigation of conceptual expansion alternatives for the existing waste disposal site. At this time we have not identified any required land acquisition. As we continue with this process we will be indentifying area lands that may be impacted by a site expansion. As we get further into this process we will inventory the potentially impacted land owners. Should we identify Infrastructure Ontario lands that may be impacted we will provide relevant plans and details of the various alternatives and potential impacts for your consideration.

In the meantime, if you have any questions or require further clarification please contact the undersigned.

Regards,

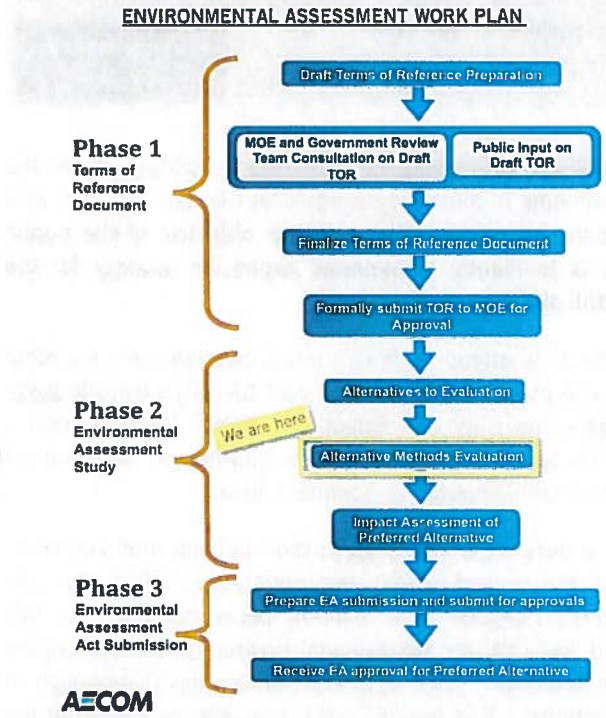
Rick Talvitie, P. Eng.
Manager, Sault Ste. Marie Office
rick.talvitie@aecom.com

AECOM
523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4
T 705.942.2612 F 705.942.3642
www.aecom.com

THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

ENVIRONMENTAL ASSESSMENT (EA) PROCESS

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. The EA Process is a transparent decision-making process used to promote good environmental planning by assessing potential effects of certain activities or projects on the natural and human environment. There are several phases and tasks involved in completing an EA as outlined in the graphic below.



The City is currently mid-way through Phase 2 of the EA Process and is interested in obtaining your input related to the current activities.

BACKGROUND

Phase 1 of the EA process included public consultation and culminated with the Ministry of Environments approval of the project Terms of Reference (ToR) in 2005. The ToR provides a framework or roadmap for completing the EA and summarizes the tasks and activities to be undertaken by the proponent.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the **preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.** The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the entire residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

The flexibility of the preferred alternative is particularly important given the City's contract with The Elementa Group (an energy-from-waste service provider) for the annual processing of at least 12,500 metric tonnes of municipal solid waste. Elementa is currently negotiating an energy purchase agreement and intends to construct and operate a new 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility in the future will reduce the quantity of residual waste requiring disposal in a landfill.

The City remains committed to investigating, implementing and supporting programs to increase waste diversion through 3Rs initiatives. Since the implementation of 3Rs initiatives does not require Environmental Assessment (EA) Act approval, the EA study is now focusing on alternative methods of landfilling residual waste. The key objective of this phase of the study is to find an environmentally suitable location for the development of additional landfill capacity.

The first step in this phase consisted of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. To identify a preferred approach to landfilling waste, the alternatives were compared using the following six criteria groups:

1. Natural environment;
2. Social-Cultural environment;
3. Economic environment;
4. Cost;
5. Technical considerations; and
6. Transportation.

A Public Input Session was held in April, 2011 to present the landfill alternatives being considered. **The evaluation and response from consultation concluded that an expansion of an existing landfill is generally preferred over construction of a new site.**

The study noted that an expansion requires less land, displaces fewer people and/or social/natural features, disrupts fewer people (ie. one site versus two sites creating nuisance impacts), costs less, typically encounters fewer challenges in gaining technical approvals, and reduces the number of facilities the City must manage.

THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

CURRENT ACTIVITIES

The second step in the Alternative Methods task focuses on the best approach to expand the existing landfill site at 402 Fifth Line East in the City of Sault Ste. Marie. Expansion options have been developed that make the best use of the existing site characteristics and the area available to expand. Options considered include horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining (excavate previously disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) or a combination of these methodologies.

A preliminary evaluation of the expansion options has been completed by the project team. We are now seeking input from the Community, government agencies, stakeholders, and First Nations regarding the evaluation criteria considered and the preliminary findings.

CONTACT US

You may also contact the Consultant Project Manager or the City's Land Development and Environmental Engineer by email, mail or telephone if you have questions or would like additional information.

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
Email: rick.talvitie@aecom.com

Ms. Catherine Taddo, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5380
Fax: (705) 541-7165
Email: c.taddo@cityssm.on.ca

HOW CAN I PROVIDE INPUT?

If you are interested in discussing the expansion options, the criteria used in the evaluation and the preliminary findings we encourage you to attend the upcoming public input session!

YOU'RE INVITED!

Date: Tuesday, March 6, 2012
Location: Civic Centre – 99 Foster Drive
Russ Ramsay Room
Time: 3:30PM to 7:30PM

Refreshments to be provided.

We will provide you with background information update you on the City's achievements in increasing waste diversion and discuss, with you, the expansion options. **The principle objective of the public consultation is to identify a preferred expansion strategy for the existing landfill site.**

If you are unable to attend the Public Input Session there are other opportunities to provide input. Please visit the City's website **www.cityssm.on.ca** - View City Hall Bulletins – Public Input Session – Solid Waste Management to obtain further information, complete an online questionnaire, or access a comment sheet.

In addition, a description of the expansion options, the evaluation criteria, and the project team's preliminary evaluation are also available on the website in a working paper prepared for this session titled "Solid Waste Management Environmental Assessment – Alternative Methods – Step 2 (Identification and Comparison of Expansion Options). This working paper may also be viewed at the locations noted below commencing on February 21, 2012.

AECOM Canada Ltd.	523 Wellington Street
Civic Centre Engineering and Planning	99 Foster Drive, 5th Flr.
Public Works and Transportation	128 Sackville Road
Main Library	50 East Street
Churchill Branch Library	301 Lake Street
Korah Branch Library	496 Second Line
Township of Prince Municipal Office	3042 Second Line West
Batchewana First Nation	236 Frontenac Street
Garden River First Nation	7 Shingwauk Street
Metis Nation of Ontario Office	26 Queen Street East
Missanabie Cree Office	559 Queen Street East

THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. To date significant progress has been made.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and **the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.** The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the entire residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

In April, 2011 a Public Input Session was held to present the non-site specific landfill alternatives being considered. **The evaluation and response from consultation concluded that an expansion of an existing landfill is generally preferred over construction of a new site.**

The study noted that an expansion requires less land, displaces fewer people and/or social/natural features, disrupts fewer people (ie. one site versus two sites creating nuisance impacts), costs less, typically encounters fewer challenges in gaining technical approvals, and reduces the number of facilities the City must manage.

CURRENT ACTIVITIES

Presently the project team is focusing on **the best approach to expand the existing landfill site at 402 Fifth Line East in the City of Sault Ste. Marie.** Expansion options have been developed that make the best use of the existing site characteristics and the area available to expand. Options considered include horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining (excavate previously disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) or a combination of these methodologies.

A preliminary evaluation of the expansion options has been completed by the project team. **We are now seeking input from the Community, government agencies, stakeholders, and First Nations regarding the evaluation criteria considered and the preliminary findings.**

PUBLIC INPUT SESSION

If you are interested in discussing the expansion options, the criteria used in the evaluation and the preliminary findings, we encourage you to attend the upcoming public input session!

We will provide you with background information, update you on the City's achievements in increasing waste diversion and discuss, with you, the expansion options. **The principle objective of the public consultation is to identify a preferred expansion strategy for the existing landfill site.**

The expansion options, the evaluation criteria, and the project team's preliminary evaluation are also available on the City's website (**www.cityssm.on.ca - View City Hall Bulletins – Public Input Session – Solid Waste Management**) in a working paper prepared for this session titled "Solid Waste Management Environmental Assessment - Alternative Methods – Step 2 (Identification and Comparison of Expansion Options). This working paper may also be viewed at the locations noted below commencing on February 21, 2012.

AECOM Canada Ltd.	523 Wellington Street
Civic Centre Engineering and Planning	99 Foster Drive, 5th Flr.
Public Works and Transportation	128 Sackville Road
Main Library	50 East Street
Churchill Branch Library	301 Lake Street
Korah Branch Library	496 Second Line
Township of Prince Municipal Office	3042 Second Line West
Batchewana First Nation	236 Frontenac Street
Garden River First Nation	7 Shingwauk Street
Metis Nation of Ontario Office	26 Queen Street East
Missanabie Cree Office	559 Queen Street East

CONTACT US

We also encourage you to contact the individuals noted below if you have any specific questions.

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
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Land Development and Environmental Engineer
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P.O. Box 580
99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5380
Fax: (705) 541-7165
Email: c.taddo@cityssm.on.ca

YOU'RE INVITED!

Date: Tuesday, March 6, 2012
Location: Civic Centre – Russ Ramsay Room
Time: 3:30PM to 7:30PM

Refreshments to be provided.

If you cannot attend the public input session in person, we still want to hear from you! Just go to the City's website www.cityssm.on.ca - View City Hall Bulletins – Public Input Session – Solid Waste Management review the Alternatives Method – Step 2 Report and fill out our online questionnaire or comment sheet. A link to the online questionnaire is provided on the City's website.

AECOM

DILLON CONSULTING

Solid Waste Management Environmental Assessment

COUNCIL PRESENTATION

THE CORPORATION OF THE CITY OF SAULT STE MARIE CANADA

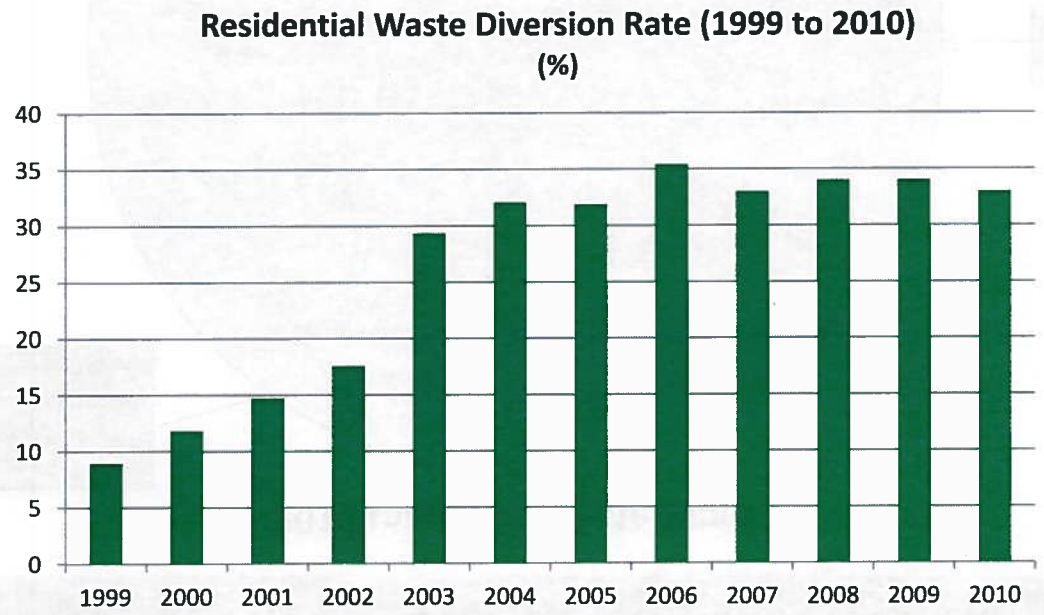
March, 2012

Objectives of the Presentation

- Provide Council and residents with an update on waste management planning activities and results;
- Review project need;
- Provide an overview of the Environmental Assessment process and where we are at in the process;
- Present the criteria and approach used in the evaluation of site expansion options;
- Present the preliminary results of the evaluation completed by the project team;
- Identify the next steps in the EA process; and
- Answer your questions.

Project History - Diversion

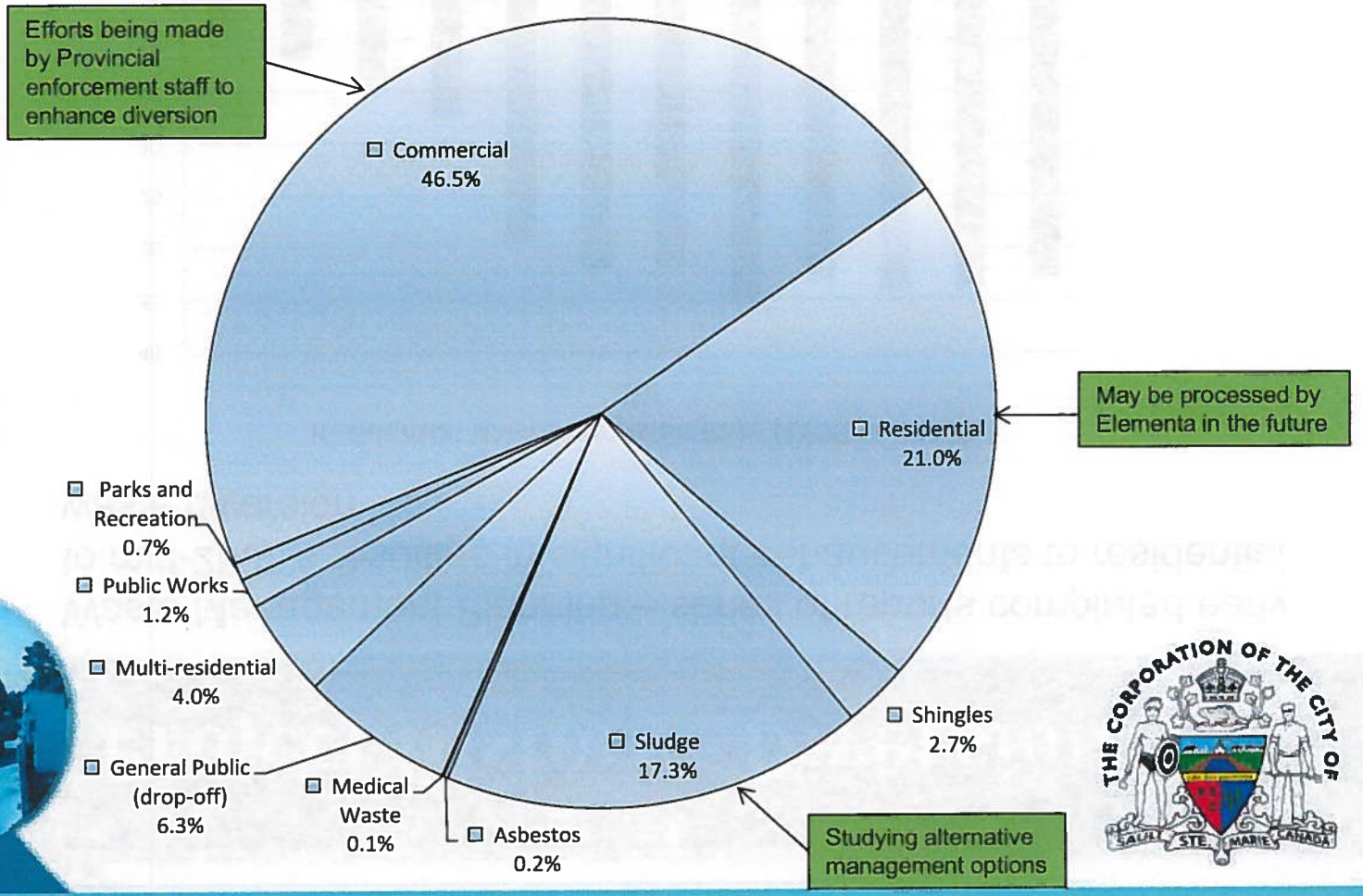
- Waste Management Planning – series of reports completed early to mid-2000's resulting in significant enhancements to residential waste diversion



Increased residential diversion rate from 9% in 1999 to 33% to 35% in recent years

Project History - Diversion

2010 Landfilled Waste Types



Project History - Project Need

- **The estimated remaining service life of the existing landfill is 7 to 10 years depending on future population changes, in-situ subsidence and waste generation, diversion and disposal rates. The low end of this range is used for planning purposes.**
- Despite significant success in enhancing waste diversion, additional disposal capacity is required.

What is an EA?

Purpose = *"to protect the environment and quality of life of the people of the province; and facilitate the wise management of the natural resources of the province".*

- The EA Process is a transparent decision-making process used to promote good environmental planning by assessing potential effects of certain activities or projects on the natural and human environment. The EA process serves several important purposes:
  - Allowing projects to receive input from a wide variety of sources, including the federal, provincial and municipal levels of government, First Nations, stakeholders and the public.
  - Identifying potential problems prior to construction
  - Promoting good environmental planning practices
  - Improving community acceptance
  - Better protecting the environment

AECOM

DILLON CONSULTING

Project History

- MOE approval of EA ToR in late 2005
- EA work initiated by AECOM/Dillon – summer 2006
- "Alternatives To" (functionally different ways of managing waste) work completed and public consultation undertaken in summer of 2007
- Late 2008 to spring 2010 - Project delayed to allow time for the Enquest pilot project to mature
- Fall 2009 - City endorses waste supply agreement with Elementa
- City approval to resume EA process - Elementa will generate residual waste and is unable to manage the entire waste disposal quantity
- Spring 2010 – announced the preferred "Alternative To"

THE CORPORATION OF THE CITY OF SAULT STE. MARIE CANADA

Project History – Selected "Alternative TO"

Based on the results of the evaluation and input received the preferred long-term approach to managing waste in SSM is:

- Increased 3Rs (Reduce/Reuse/Recycle)
- Landfilling residual waste

Why?

- Can comply with regulations and policies
- City is experienced with these waste management initiatives
- Flexible to changes in the waste stream (e.g. population, waste generation, diversion)
- Can accept most residual waste from a Waste-to-Energy facility
- Cost efficient

The EA will now focus on identifying and evaluating alternative methods of landfilling waste (i.e. alternative locations and designs)

AECOM

DILLON CONSULTING

Project History

- Conducted a Public Information Session in June 2010 to announce the selected Alternative To
- Initiated the Alternative Methods Phase (alternative locations and designs)
- Completed a generic non-site specific evaluation of developing a new landfill versus expanding an existing site (Step 1)
- Consulted with the public in the spring of 2011regarding the generic options

THE CORPORATION OF THE CITY OF SAULT STE. MARIE CANADA

Project History – Preferred Landfilling Method

Based on the results of the evaluation and input received the preferred method of landfilling waste = expansion of an existing site

Why?

- Likely less potential for displacement and disruption
- Only one landfill site to manage and maintain
- Cost effective
- Community adaptation
- Likely fewer challenges in gaining approvals

The EA will now focus on how to best expand the existing site

Overview of Expansion Options

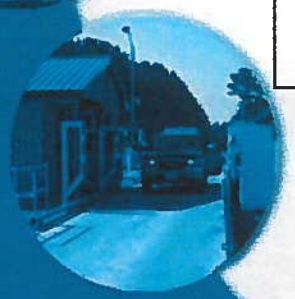
- Expansion options have been developed that make the best use of the existing site characteristics and the area available to expand.
- Options considered include horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining or a combination of these methodologies.
- All options include enhancements to better control groundwater quality related to the existing site.
- Some options require replacement/relocation of existing on-site infrastructure and some require enhanced compaction to provide the target disposal capacity

Evaluation of Expansion Options

- The evaluation has been completed using a two-step approach:
  - Step 1 – identify a preferred expansion area and shape;
  - Step 2 – assess the pros and cons of incorporating landfill mining.
- Mining involves excavation of previously disposed waste and cover material. Mined waste is fed through screens which separates coarse waste from fine materials. Recyclables are separated and sent for processing, remaining residual waste disposed of in the disposal site and fines (primarily sand) are stockpiled for use as cover.

Evaluation Criteria Groups

Criterion	Definition
Natural Environment	Addresses the potential for displacement and/or disruption of natural environmental features (terrestrial features, aquatic features, ground water and surface water)
Social Cultural Environment	Addresses the potential for displacement and/or disruption of social/cultural environmental features (residents, community features, future land use plans, heritage and archaeological resources, public health and safety)
Economics	Addresses the potential for displacement and/or disruption of existing businesses and resources (agriculture, forestry, mining)
Cost	Considers the lifecycle cost of the alternative.
Technical Considerations	Considers technical aspects of each option including impacts on existing site infrastructure and ease of site development.
Transportation	Considers the impacts of traffic volumes accessing the site and potential impacts to the airport and the movement of farm equipment.

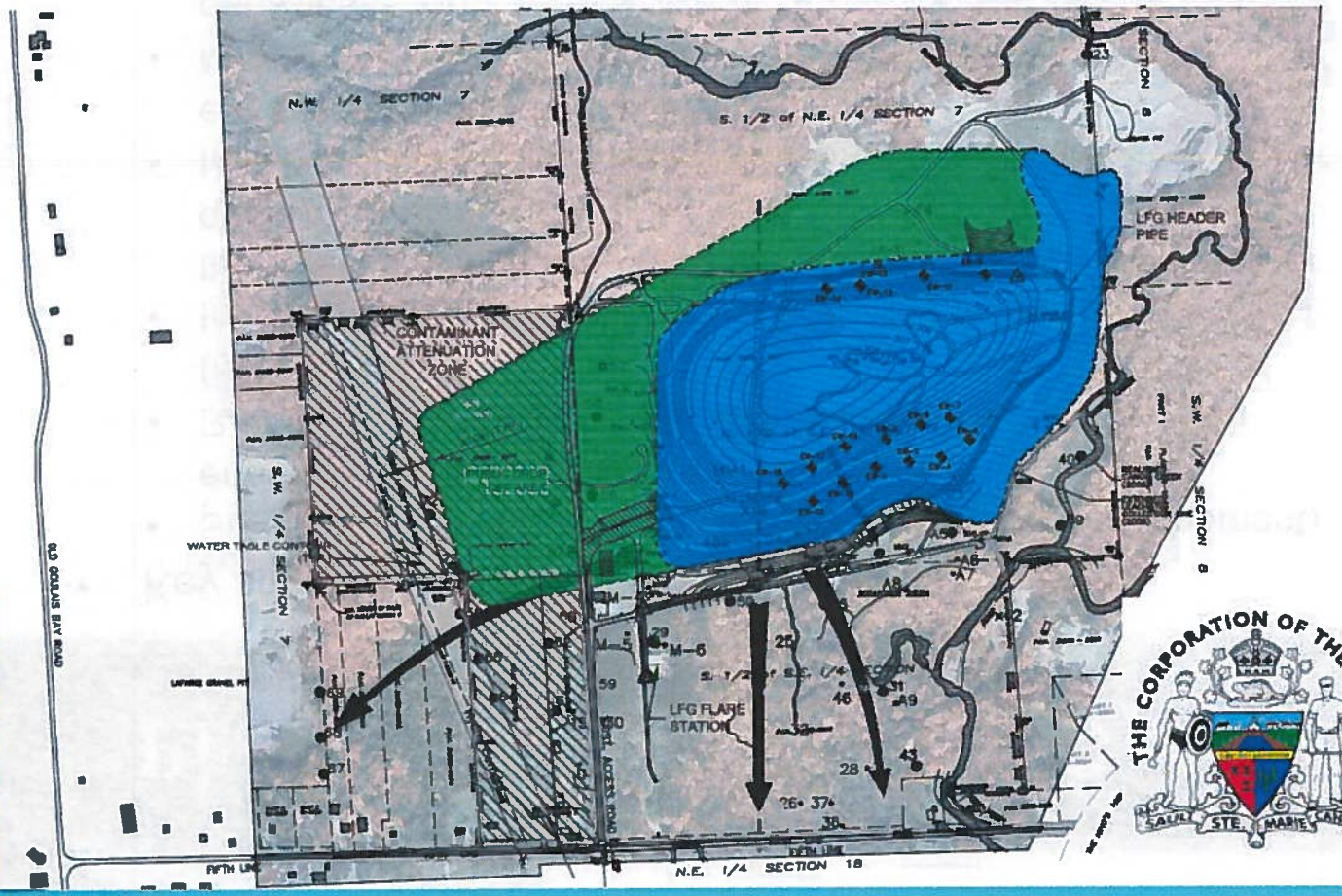


Evaluation of Expansion Options

- Data collection and analysis
- Technical disciplines initially compare options relative to each other and rank them under each criterion
- Present the evaluation in a table or matrix format with the rationale for the rankings
- Present to the public and solicit input from community members, stakeholders, First Nations, and governmental agencies
- Make adjustments to the evaluation based on input received
- Select a preferred option

Preliminary Preferred Expansion Option

- On the basis of the **preliminary** evaluation, the preliminary preferred expansion option is presented below



Preliminary Preferred Option

- Key advantages relative to other options include:
  - Site development (i.e. geometry and storm water management) enhanced relative to Options 2 and 4.
  - Reduced average excavation depth in west expansion area (i.e.11m).
  - Includes a liner beneath the waste within the western portion of the existing disposal footprint enhancing long term groundwater quality.
  - Includes a liner over existing waste in areas of overlap to further enhance groundwater quality.
  - Meets target capacity at current estimated waste densities.

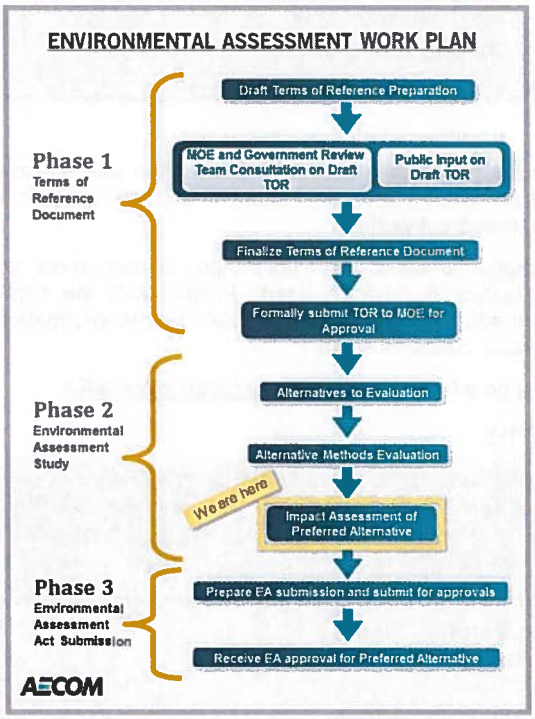
Next Steps

- Solicit governmental, community First Nation and stakeholder input on the preliminary preferred expansion option – do you agree/disagree – why?
- Re-assess (if needed) and finalize the Step 2 evaluation based on input received
- Announce the preferred Step 2 - Alternative Method (i.e. preferred expansion option)
- Initiate a detailed impact assessment for the preferred option
- Continue to investigate ways to improve waste diversion through 3Rs initiatives

THE CITY OF SAULT STE. MARIE
JANUARY, 2016 NEWSLETTER
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

ENVIRONMENTAL ASSESSMENT (EA) PROCESS

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. The EA Process is a transparent decision-making process used to promote good environmental planning by assessing potential effects of certain activities or projects on the natural and human environment. There are several phases and tasks involved in completing an EA as outlined in the graphic below.



The City is finalizing Phase 2 of the EA Process and is currently preparing the EA submission. **We are interested in obtaining your input related to the current activities.**

BACKGROUND

Phase 1 of the EA process included public consultation and culminated with the Ministry of Environment and Climate Change's (MOECC) approval of the project Terms of Reference (ToR) in 2005. The ToR provides a framework or roadmap for completing the EA and summarizes the tasks and activities to be undertaken by the proponent.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and **the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.** The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

The City remains committed to investigating, implementing and supporting programs to increase waste diversion through 3Rs initiatives. Since the implementation of 3Rs initiatives does not require EA Act approval, the EA study turned its focus to alternative methods of landfilling residual waste. The key objective of this phase of the study is to find an environmentally suitable location for the development of additional landfill capacity.

The first step in this phase consisted of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. To identify a preferred approach to landfilling waste, the alternatives were compared using the following seven criteria groups:

1.	Natural environment	5.	Capability of managing waste quality and quantity
2.	Social-cultural environment	6.	Proven technical capacity
3.	Economic environment	7.	Cost
4.	Flexibility of the system		

A Public Input Session was held in April, 2011 to present the landfill alternatives being considered. **The evaluation and response from consultation concluded that an expansion of an existing landfill is generally preferred over construction of a new site.**

The study noted that an expansion requires less land, displaces fewer people and/or social/natural features, disrupts fewer people (i.e., one site versus two sites creating nuisance impacts), costs less, typically encounters fewer challenges in gaining technical approvals, and reduces the number of facilities the City must manage.

The second step in the Alternative Methods task focused on the best approach to expand the City's existing landfill site at 402 Fifth Line East by identifying and comparatively evaluating site expansion alternatives. Options considered included horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining (excavate previously disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) or a combination of these methodologies. A Public Input Session was held March, 2012 to obtain feedback on the evaluation criteria and the preliminary findings.

The evaluation and response from consultation concluded the preferred site expansion alternative consists of a modest increase in the height of the waste, an expansion of the disposal footprint to the west and north and mining a portion of the existing waste to enhance groundwater quality. All mined and expansion areas will include the

construction of a liner beneath the waste to collect leachate (precipitation contaminated as it filters through waste) and ultimately direct it to the City's sewage treatment plant for treatment.

Current Activities

The last part of Phase 2 involves assessing the potential impacts of the conceptual design and planned operation of the preferred site expansion alternative and identification of suitable mitigating measures. Multiple disciplines were involved to assess the various potential impacts of the expansion on site, off site, in the vicinity and along the access route. The access route was considered to be along Fifth Line from Highway 17 to the site (which is the same route used today). Measures to reduce or eliminate potential effects on the environment were recommended.

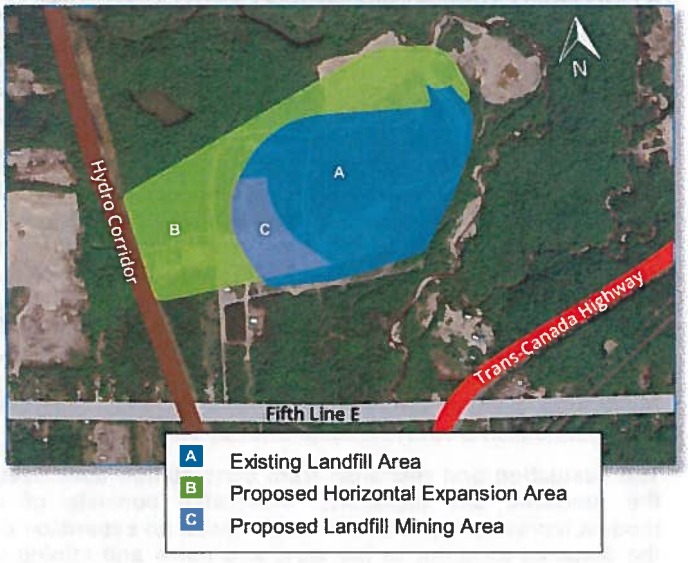
The disciplines that were involved include:

Natural Environment
- Biology
- Geology / hydrogeology
- Surface water

Socio-Cultural Environment
- Cultural (archaeology and heritage)
- Social
- Planned land use
- Visual
- Atmospheric (dust, noise, air quality)

Economic
- Businesses
- Transportation

Conceptual Layout of Proposed Landfill Expansion Area



HOW CAN I PROVIDE INPUT?

We will be hosting a Public Open House where you will learn about the results of the impact assessment work and we will ask for your feedback. If you are interested in discussing the project, we encourage you to attend the upcoming public open house!

YOU'RE INVITED!

Date:	*Tuesday, February 9, 2016*
Location:	*Civic Centre – 99 Foster Drive* *Russ Ramsay Room*
Time:	*3:30 pm to 7:30 pm*

Refreshments to be provided.

We will provide you with background information and discuss, with you, the preferred site expansion option and the results from the impact assessment work.

If you are unable to attend the Public Input Session there are other opportunities to provide input. Please visit the City's website at the address noted below to obtain further information, and / or access a comment sheet.

Project webpage address: saultstemarie.ca/SolidWasteEA

CONTACT US

You may also contact the Consultant Project Manager or the City's Land Development and Environmental Engineer by email, mail or telephone if you have questions or would like additional information.

Mr. Rick Talvitie, P.Eng.
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523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

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Email: rick.talvitie@aecom.com

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Land Development and Environmental Engineer
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Sault Ste. Marie, ON, P6A 5N1

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THE CITY OF SAULT STE. MARIE

NOTICE OF PUBLIC INPUT SESSION

SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. To date significant progress has been made.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and **the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.** The preferred alternative was presented at an Open House in June, 2010.

The study noted:

- landfills can be designed and operated to comply with regulations and policies;
- landfill gas can be collected and flared or recovered to generate electricity;
- landfills can manage the entire residual waste stream;
- landfills are flexible to changes in waste quality and quantities; and
- landfilling is cost effective.

In April, 2011 a Public Input Session was held to present the non-site specific landfill alternatives being considered. **The evaluation, which considered responses from consultation, concluded that an expansion of an existing landfill is generally preferred over construction of a new site.**

The study noted:

- an expansion requires less land;
- displaces fewer people and/or social/natural features;
- disrupts fewer people (i.e. one site versus two sites creating nuisance impacts);
- costs less;
- typically encounters fewer challenges in gaining technical approvals; and
- reduces the number of facilities the City must manage.

In March 2012 a Public Input Session was held to present the preliminary preferred approach to expanding the existing landfill at 402 Fifth Line East in the City of Sault Ste. Marie. **The evaluation, which considered responses from consultation, concluded that an expansion is best accommodated with a moderate increase in the height of the waste together with and expansion of the disposal footprint to the north and west. The preferred option also includes landfill mining (excavate existing disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) in the western portion of the existing disposal footprint to enhance groundwater protection. All mined and expansion areas will include the construction of a liner beneath the waste to collect leachate (precipitation contaminated as it filters through waste) and ultimately direct it to the City's sewage treatment plant for treatment.**

CURRENT ACTIVITIES

Presently the project team is focusing on **completing an impact assessment for the preferred expansion option.** The impact assessment includes expertise from numerous disciplines and focusses on potential impacts to the natural and human environments associated with the construction and operation of the proposed expansion. Careful attention is given to best management practices to mitigate potential impacts.

We are now seeking input from the Community, government agencies, stakeholders, and First Nations regarding the results of our impact assessment work and the proposed mitigation measures.

PUBLIC INPUT SESSION

If you are interested in discussing the impact assessment work, we encourage you to attend the upcoming public open house! We will provide you with background information and discuss with you, the preferred site expansion option and the results of the impact assessment work.

CONTACT US

We also encourage you to contact the individuals noted below if you have any specific questions.

Mr. Rick Talvitie, P.Eng
Project Manager
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Phone: (705) 759-5380
Fax: (705) 541-7165
Email: c.taddo@cityssm.on.ca

YOU'RE INVITED!

Date: Tuesday February 9, 2016

Location: Civic Centre – Russ Ramsay Room

Time: 3:30 pm to 7:30 pm

Refreshments to be provided.

If you cannot attend the public open house, we still want to hear from you! Just go to the project webpage (address provided below) to review the project reference material and fill out a comment sheet or simply send us an email (email addresses provided above). Project webpage address: saultstemarie.ca/SolidWasteEA

Transport Canada – Environmental Assessment Coordinator						
• Correspondence – Newsletter No. 2 and Notice of Public Input Session – Project update and information regarding the upcoming June 3, 2010 PIC which is intended to identify the preferred "Alternative To", discuss the project progress and have questions or concerns addressed.	May, 2010	• No comments received.			Solid Waste Disposal Environmental Assessment Newsletter No. 2, May 2010, and Notice of Public Information Centre – Appendix L	
• Correspondence – Email from Transport Canada (Environmental Assessment Co-ordinator) outlining requirements for approval under the Navigable Waters Protection Act and the Railway Safety Act. Links were provided for the Railway Safety Act and Notice of Railway Works Regulations and a Navigable Waters Protection Program Application Guide was also provided.	May 27, 2010	• No comments received.			Email dated May 27, 2010 from Transport Canada (EnviroOnt) to R. Talvitie and copy of Navigable Water protection Act Application Guide – Appendix L	
• Public Input Session No. 2 – Conducted to communicate the preferred "Alternative To" and provide an opportunity to discuss the project progress and have questions or concerns addressed.	June 3, 2010	• No comments received.			Records from June 3, 2010 PIC No. 2 – Appendix H	
• Correspondence – Notice of Public Input Session – Project update and information regarding the upcoming April 19, 2011 PIC No. 3 which is intended to solicit input and feedback on the alternative approaches to landfilling residual waste (i.e. expand existing disposal site versus a new site.	April, 2011	• No comments received.			Solid Waste Management Environmental Assessment Notice of Public Input Session, April, 2011 – Appendix L	
• Public Input Session No. 3 - Conducted to provide an opportunity to discuss project progress, solicit input and feedback on the alternative approaches to landfilling residual waste (i.e. expand existing disposal site versus a new site) and to address questions or concerns.	April 19, 2011	• No comments received.			Records from April 19, 2011 PIC – Appendix I	
• Correspondence – Notice of Public Input Session – Project update and information regarding the upcoming March 6, 2012 PIC which is intended to solicit input and feedback on the alternative approaches to expanding the existing disposal site.	February, 2012	• No comments received			Solid Waste Disposal Environmental Assessment Notice of Public Input Session February, 2012 – Appendix L	

• Public Information Centre No. 4 - Conducted to discuss project progress and to solicit input and feedback on a preferred expansion strategy for the existing landfill site.	March 6, 2012	• No comments received.			Records from March 6, 2012 PIC – Appendix J	
• Correspondence – Newsletter and Notice advising of February 9, 2016 Public Input Centre No. 5 intended to discuss project progress and solicit input and feedback on the impact assessment work.	January, 2016	• No comments received.			Solid Waste Disposal Environmental Assessment January 2016 Newsletter and Notice of Public Input Session – Appendix L	
• Public Input Session No. 5 - Conducted to discuss project progress and to solicit input and feedback on the impact assessment work.	February 9, 2016	• No comments received.			Records from February 9, 2016 PIC – Appendix K	

SOLID WASTE DISPOSAL
ENVIRONMENTAL ASSESSMENT

Newsletter No.2, May 2010

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its residual municipal solid waste. In the evaluation of "Alternatives To the Undertaking", a thorough review of different waste management alternatives including increased waste diversion, incineration/high heat processes, landfill, export waste outside the service area, and "do-nothing" was completed. To identify a preferred waste management method, the alternatives were comparatively evaluated using the following seven criteria:

1. Compliance with current regulations and policies;
2. Environmental acceptability;
3. The ability of the City of Sault Ste. Marie to implement the preferred alternative;
4. Flexibility of the system;
5. Capability of managing waste quality and quantity;
6. Proven technical capacity; and
7. Cost.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative for the City has been identified as **increased waste diversion and landfilling of the residual waste.**

DIVERSION UPDATE

The residential waste diversion program diverted approximately 34% of residential waste from the landfill in 2009. This shows consistent progress when compared to the 9% diverted in 2000! The City of Sault Ste. Marie's waste diversion program currently includes weekly curbside collection and recycling of paper products in the yellow box and containers in the blue box; bi-weekly collection and composting of leaf and yard waste throughout the growing season (April through November); a household special waste facility at 115 Industrial Park Crescent; landfill bans and segregation and recycling of metals, white goods, tires, and clean wood and brush at the landfill at 402 Fifth Line East. Since 2006, the City has limited residential waste setout to 2 bags/containers per week per household. Tags for additional waste bags or containers must be purchased. The City diversion programs are also supplemented by diversion initiatives undertaken by the private sector and special interest groups.

The City is also currently assessing the feasibility of diverting municipal biosolids (sewage sludge) from disposal.

PUBLIC INFORMATION CENTRE

A Public Information Centre is being held to provide an opportunity for you to discuss the project progress and have your questions or concerns addressed.

Date: Thursday, June 3, 2010

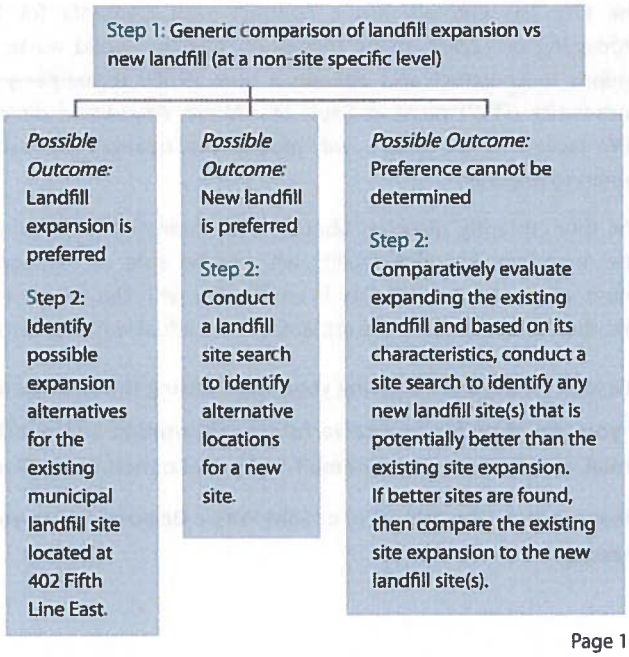
Location: Thompson Room
Civic Centre, 99 Foster Drive

Time: 3:30 pm to 7:30 pm

WHAT'S NEXT?

The results of the Environmental Assessment work completed to date suggest that landfill remains the most appropriate disposal option for the City's residual waste. Landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and recovered to generate electricity, landfills can manage the entire residual waste stream, are flexible to changes in waste quality and quantities and are cost effective.

Following the "Alternatives To" evaluation, the next step in the EA process for a landfill facility is the identification and evaluation of "Alternative Methods" of landfilling. This can include both alternative locations and alternative designs as illustrated in the flow chart below. We will be looking for public input on landfill options in the Fall of 2010.



SOLID WASTE DISPOSAL
ENVIRONMENTAL ASSESSMENT

Newsletter No.2, May 2010

ABOUT THE ENVIRONMENTAL ASSESSMENT (EA) PROCESS

The Environmental Assessment for disposal capacity includes three key phases. The first phase was completed with the submission and approval of the EA Terms of Reference. We are currently working within the second phase: the Environmental Assessment Study itself. The last phase is submission of the EA documentation to the Ministry of the Environment and the subsequent government and public review and approval period. It is anticipated that the whole process will take until late 2012.

In September 2005 the Minister of the Environment approved the Environmental Assessment Terms of Reference (EA TOR) for the Sault Ste. Marie Solid Waste Management Plan. The EA TOR documents the process that will be followed to determine the preferred method for managing solid waste in Sault Ste. Marie for the next 20 to 40 years. In addition to the disposal EA, the Sault Ste. Marie Solid Waste Management Plan includes a significant diversion component.

Keep up-to-date on the EA Study at the City of Sault Ste. Marie's website: http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1

ELEMENTA ENERGY-FROM-WASTE FACILITY

In 2007, an energy-from-waste (EFW) developer known as The Elementa Group (Elementa) constructed a pilot steam reformation plant that would convert municipal solid waste into a char and synthetic gas (or "syngas") that can be used to generate electricity.

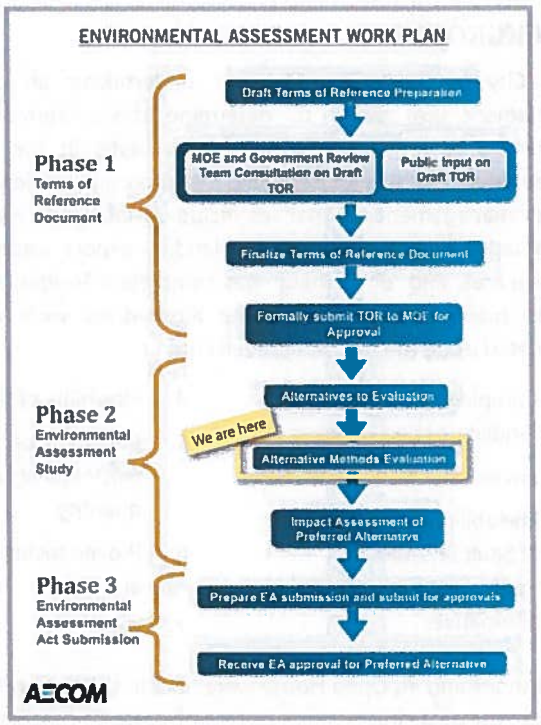
The City has entered into a contract with Elementa for the annual processing of 12,500 metric tonnes of municipal solid waste. Elementa intends to construct and operate a new 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility in the future will reduce the quantity of residual waste requiring disposal.

The City currently disposes about 60,000 tonnes of residual waste each year therefore; the EFW facility will not be able to manage the City's entire waste stream. The City is continuing with the EA study to ensure that the City can process the remainder of residual waste generated.

We look forward to receiving your input during this important study!

If you would prefer to receive future information and notifications via email, please forward your email address to nancy.maahs@aecom.com.

Please include the title "City of SSM Waste Disposal EA" in your message.



CONTACT US

Your input on this project is important to us. If you would like further information or to send comments, ask questions or be added to our mailing list, please contact us:

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
Email: rick.talvitie@aecom.com

Mrs. Susan Hamilton Beach, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on

THE CITY OF SAULT STE. MARIE

Notice of Public Information Centre

SOLID WASTE DISPOSAL ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its residual municipal solid waste. Work to date has included a thorough review of a number of waste management alternatives including increased waste diversion, incineration/high heat process, landfill, export waste and "do nothing". To identify a preferred waste management method, the alternatives were comparatively evaluated using the following seven criteria:

1. Compliance with current regulations and policies;
2. Environmental acceptability;
3. The ability of the City of Sault Ste. Marie to implement the preferred alternative;
4. Flexibility of the system;
5. Capability of managing waste quality and quantity;
6. Proven technical capacity; and
7. Cost.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative for the City has been identified as **increased waste diversion and landfilling of the residual waste**.

Residents currently divert approximately 34% of their waste from disposal and the City will continue to provide opportunities to improve on this diversion rate. The remaining 66% of residential waste and industrial, commercial and institutional wastes currently goes to the City landfill. In addition to the City's current diversion, the City has entered into a contract with a private corporation for the annual supply of 12,500 metric tonnes of municipal solid waste. This corporation intends to construct and operate a 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility will reduce the quantity of residual waste requiring disposal.

The results of the Environmental Assessment work completed to date suggest that landfill remains the most appropriate disposal option for the City's residual waste. Landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and recovered to generate electricity, landfills can manage the entire residual waste stream, are flexible to changes in waste quality and quantities and are cost effective.

PUBLIC INFORMATION CENTRE

A Public Information Centre is being held to provide an opportunity for you to discuss the project progress and have your questions or concerns addressed.

Date: Thursday, June 3, 2010
Location: Thompson Room
Civic Centre, 99 Foster Drive
Time: 3:30pm to 7:30 pm

THE NEXT STEPS

Over the summer the project team will be looking at options for landfilling residual waste. This work will include consideration of opportunities to expand the existing landfill or establish a new landfill site. In the Fall of 2010, we will be looking for public input on landfill options.

If you have any questions related to the study, please contact:

Mr. Rick Talvitie, P. Eng.
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
E-mail: rick.talvitie@aecom.com

Mrs. Susan Hamilton Beach, P. Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580, 99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on.ca

If you would like to receive future information and notifications via email, please forward your email address to nancy.maahs@aecom.com. Please include the title "City of SSM Waste Disposal EA" in your message.

Talvitie, Rick

From: EnviroOnt [EnviroOnt@tc.gc.ca]
Sent: May 27, 2010 2:51 PM
To: Talvitie, Rick; s.hamiltonbeach@cityssm.on
Subject: Solid Waste Disposal, Sault Ste. Marie, EA 1471
Attachments: NWP_App_Guide_EN.pdf

Thank you for your letter regarding the above referenced environmental assessment. Please in future forward correspondence on this environmental assessment to the undersigned.

We have reviewed the information, and note the following:

Transport Canada is responsible for the administration of the *Navigable Waters Protection Act,* which prohibits the construction or placement of any "works" in navigable waters without first obtaining approval. If any of the related project elements or activities related may cross or affect a potentially navigable waterway, you are requested to prepare and submit an application in accordance with the requirements as outlined in the attached Application Guide. Any questions about the NWPA application process should be directed to the Navigable Waters Protection Program at 1-866-821-6631 or NWPontario-PENontario@tc.gc.ca.

<<NWP_App_Guide_EN.pdf>>

Transport Canada is also responsible for the administration of the *Railway Safety Act* to ensure the safe operation of railways. The Act addresses the construction and alteration of railway works, the operation and maintenance of railway equipment and certain non-railway operations affecting railway safety. Pursuant to the Notice of *Railway Works Regulations,* the project proponent will be required to give notice of the proposed project to the following persons: the railway whose line is to be crossed, the municipality in which the crossing works are to be located and the authority having responsibility for the road in question. An approval may be required for certain railway works that depart from engineering standards set under the regulations or where an objection has been filed against the work. Any questions about the *Railway Safety Act* and the Notice of *Railway Works Regulations* should be directed to Luciano Martin, Manager of Engineering, at (416) 973-2326.

You may also wish to review the Act and Regulations by accessing the following Internet sites:

Railway Safety Act: http://www.tc.gc.ca/acts-regulations/acts/1985s4-32/menu.htm

Notice of Railway Works Regulations: http://laws.justice.gc.ca/en/SOR-91-103/

Please note that certain approvals under the *Navigable Waters Protection Act* or *Railway Safety Act* trigger the requirement for a federal environmental assessment under the Canadian Environmental Assessment Act. You may therefore wish to consider incorporating CEAA requirements into your provincial environmental assessment.

Regards,

Environmental Assessment Coordinator
Transport Canada, Ontario Region
Environment & Engineering (PHE)
4900 Yonge St., 4th Fl., Toronto, ON M2N 6A5
Email: EnviroOnt@tc.gc.ca

Please consider the environment before printing this email.

Introduction

The ***Navigable Waters Protection Act (Act)*** protects the public right to boat freely on waterways in Canada. The Act and its regulations:

- Require the pre-approval of structures (known as ***works***) to be placed in, on, over, under, through, or across any navigable waters; and
- Provide a legal framework for dealing with obstacles and obstructions to navigation.

The Act was updated on March 12, 2009. You can find the Act and its regulations online at: http://laws.justice.gc.ca/en/N-22/

Transport Canada's (TC) **Marine Safety, Navigable Waters Protection Program** works to:

- Protect the public right of navigation
- Ensure safety for the shared use of Canada's waterways; and
- Consider any impacts proposed works might have on the environment.

Navigable Waterways are any natural or man-made bodies of water (rivers, lakes, canals, etc.) that can be used by vessels to work, move freight, travel or enjoy pleasure activities – even if they were created for purposes other than navigation.

Get the Facts

What is a Minor Water?

Before starting construction, repairs or changes, owners should find out if their work is on a minor water or a navigable waterway. To determine if the waterway is minor you may refer to the *Minor Works and Waters (Navigable Waters Protection Act) Order* at http://www.tc.gc.ca/marinesafety/oep/nwpp/minorworks/menu.htm.

What is a work?

A work includes:

- Any man-made structure, devise or thing, temporary or permanent, that may limit or prevent boating; and
- Any fill dumped into, or materials being dug from, the bed of navigable water that may limit or prevent boating.

What is a minor work?

Some works, called minor works, that **will not limit or prevent boating**, do not require TC approval. However, they must be placed, built and maintained according to the Minor Works and Waters (NWPA) Order. If they aren't, owners may be fined.

Minor works include:

- Winter Crossings
- Water Intakes
- Pipeline Crossings
- Docks & Boathouses
- Submarine (underwater) Cables
- Aerial Cables
- Erosion Protection Works
- Dredging

Get Your Project Approved

All works, except those listed as minor works under the *Order*, must be approved by Transport Canada. TC approval is proof that your planned work will not limit or prevent boating.

Contact TC for approval **well before your desired start date**. This will give us time to review your project and respond.

Remember: You must request and get any local building or other permits you may need **before** you begin your work.

Approval process

Step One: Apply.

1. Prepare a letter or application form that includes the information set out in Table 1, below;
2. Include a map and directions indicating the exact location of the worksite;
3. Include onsite, upstream and downstream photos of the waterway.
4. Mail your letter and supporting documents to:

Transport Canada, Navigable Waters Protection Office
100 Front Street South,
Sarnia, Ontario N7T 2M4

Table 1 - Information and Application Requirements

Please provide as much of the following information as possible as missing information may delay your review. Pay particular attention to the mandatory information listed in Section D - Summary of Supporting Documents.

Application Section A:	• Your name and address, phone, number, fax and email address. • Contractor/consultant/agent (if any) address, phone, number, fax and email addresses
Application Section B **Work Site Location and Description:**	• Legal site description (lot, concession, county/township or city/town, etc) and 911 address (if any). • Name of the owner(s) of property immediately upland to the work site (note that you may require written consent to do the work). • Six copies of a key map showing the exact location of the work site. • One copy of written directions to the site. • The latitude and longitude of the work site, if known. • Legal and/or local name of waterway. • Photos taken at, upstream and downstream of the work site. • Canadian Hydrographic Service (CHS) navigation chart number (if known). • National Traffic System (NTS) topographic map numbers (if known). • A photocopy of your water lot lease or permit. • The ordinary high water mark, the normal summer water elevation or chart datum at the work site (if known). • Average width and depth of the waterway at the work site. • Known boating uses of the waterway, i.e. traveling, moving freight, work or pleasure.
Application Section C **Description of Work:**	• A detailed description of the work, including: o method of construction; o equipment and material used; o operating plans; o debris management plans; and o any temporary works (berm, cofferdam, road, signage, portage, etc) required for the project. • Six copies of drawings of the work (top-down plan view and side-on profile view) including: o structure dimensions; o shoreline shape; o water depths; and o near by structures. • Any Environmental Assessment documents and information you have. • Your proposed building or project schedule (with start and end dates). • Status of the work at the time of application (existing, proposed, rebuilding, repairs, etc). • Original date the existing work was constructed, if this is a repair or rebuild, and the date of any previous approvals. • Name of any other agencies you have submitted these plans to.
NOTE	Transport Canada must receive at minimum the following information to process your application. **Missing information may lead to delays.**

(Continued)

Table 1 - Information and Application Requirements

Application Section D **Summary of Supporting Documents:**	❑ Your name, address, phone, number, fax and email address. ❑ If an agency is acting on your behalf, provide Agency Applicant and name, address, phone, number, fax and email address. ❑ Legal site description (lot, concession, county/township or city/town, etc). If the work site has been assigned a 911 address, provide this as well. ❑ Six copies of a key map showing the exact location of the work site. ❑ A photocopy of your water lot lease or permit. ❑ Photos taken at, upstream and downstream of the work site. ❑ The ordinary high water mark, the normal summer water elevation or chart datum at the work site. ❑ A detailed description of the work, including method of construction, equipment and material used, operating plans, debris management plans and any temporary works (berm, cofferdam, road, signage, portage, etc) required for the project. ❑ Six copies of drawings of the work (top-down plan view and side-on profile view) including structure dimensions, shoreline shape, water depths and near by structures.

Step Two: Wait for a response.

Transport Canada reviews proposed works based on information you provide, on-site assessment of the waterway and potential impacts to navigation. Once its review is complete, TC may issue an approval if the impacts to navigation can be lessened. The approval may include conditions you must meet.

The complete Transport Canada review can take some time because you may be asked to:

- Provide more information;
- Meet a Transport Canada official on site;
- Deposit plans after confirmation to proceed,
- Notify the public of the proposed work and allow one month for comments, and
- Support an environmental assessment of the work as per the under *Canadian Environmental Assessment Act (CEAA).*

Step Three: Receive a response.

If / When you receive an Approval Document, you must:

- Read it carefully. It may include conditions that you must meet or time limits you must respect.
- Keep a copy of the Approval Document on the work site at all times.
- Meet all conditions of approval.
- Expect a TC official inspect your site to make sure you are meeting all conditions of approval.
- Write to TC when your work is done.

Table 2 – The Approval Process – Step by Step

1. Verify if the waterway is subject to the *Minor Works and Waters (Navigable Waters Protection Act) Order* or is a navigable waterway.

2. Verify if the work is subject to the *Minor Works and Waters (Navigable Waters Protection Act) Order* or is subject to application and review under the Act.

3. Complete and sign the application form and send it to Transport Canada with supporting documents listed in Table 1 (above) to the following address:

Transport Canada, Navigable Waters Protection Office
100 Front Street South,Sarnia, Ontario N7T 2M4

Include six copies of the drawings and key map showing location of the work site.

4. Be prepared to attend an on-site meeting with Transport Canada officials, or if asked, to provide more information.

5. If notified by Transport Canada, deposit one set of drawings and the supporting documents at the nearest Land Registry or Land Titles Office. Have one set of drawings certified by the Registrar and return it to Transport Canada with the Registrar's certificate, signature and deposit number.

6. If notified by Transport Canada, advertise your work project in the legal section, if possible. We will send you a sample ad, complete instructions and a blank Statutory Declaration of Advertising. When you have advertised your project:

- Have the "Statutory Declaration of Advertising" witnessed by a Commissioner of Oaths and return it to Transport Canada with 1 copy of the advertisements.
- Allow one month for comments from the public before starting to build.

NOTE: The advertising process may have to be repeated if done too soon, if information is missing or if project plans change.

7. If asked, provide Transport Canada with any additional information needed for the environmental assessment.

8. When you receive your Approval from Transport Canada, read it carefully and note any conditions of approval. Also, look for any time limits for starting and completing the work as well as how long the Approval Document is valid.

9. Build your work, fulfilling all conditions of the Approval Document. Keep a copy of the Approval on the work site at all times during construction. Transport Canada officials may conduct on-site inspection(s) to ensure conditions are being met.

10. Notify Transport Canada in writing when the work is completed.

11. TC officials may inspect your finished work to make sure that it is built according to plan and meets the conditions of approval. **You** must:

- Meet all conditions of approval;
- Take any measures required by the environmental assessment.
- Make sure to keep the work up to the standard of its approved plans.

Notes: You are responsible to:
a. Complete the work according to plans approved by Transport Canada;
b. Fulfill conditions of approval, as set out in the Approval Document issued by Transport Canada;
c. Implement any environmental protection measures identified under *Canadian Environmental Assessment Act.*

NOTE: ***This guide explains the Navigable Waters Protection Act application and approval process. If anything in this Guide differs from the Act, comply with the Act.***

For further information about Transport Canada's Navigable Waters Protection Program please feel free to visit us at http://www.tc.gc.ca/eng/marinesafety/oep-nwpp-menu-1978.htm.

Canada

Navigable Waters Protection Act
Request for Project Review

This is my first request for a NWPP review for this project.	
Yes ☐	No ☐

Section A — Your Contact Information

Your full name:		
Mailing Address:		
Street Address (if not the same):		
City/Town:	Province/Territory:	Postal Code:
Tel. No. (Home):	Tel. No. (Work):	Tel. No.: (Other)
Fax No:	E-mail Address:	
Name of Contractor/Consultant/Agent (if any):		
Mailing Address:		
Street Address (if not the same):		
City/Town:	Province/Territory:	Postal Code:
Tel. No. (Home)	Tel. No. (Work):	Tel No. (Other)
Fax No:	E-mail Address:	

Section B — Site location and description

Name of Nearest City, Town, Village:	Municipality / District / County:
Legal site description (lot, concession, county/township, city/town, etc.) and 911 address, if any:	
Access road or directions to Proposed Work Site (route number, highway series number or street name/number if urban area, etc.)	
Legal and/or local name of waterway:	Description of waterway (Note: Enclose photographs):
CHS navigation chart and NTS topographic map numbers (if available):	Water lot Lease or Permit (if any):
Average width and depth of waterway at or near the project site:	Known navigation and waterway use (recreational and commercial):

Section C — Basic Project Description

What is the proposed project? *(dock, dam, bridge, aquaculture site, etc.)* **Note:** *You must attach detailed description and plans of work.*

Proposed project Start and End dates:	Status of the Project (circle one): New Existing Addition Repair Other (explain)
Building plans (describe methods, temporary works, etc.):	

Section D — Required Supporting Documents and Information

Documents:	**Information:**
• A detailed written description of your project • A Map showing exactly where the project site is. • Drawings – plan view (top down) and profile view (side on) including structure dimensions, shoreline shape and any nearby structures. • Environmental Assessment documents and information. • Onsite, upstream and downstream photos.	• Description of any temporary works related to the project (i.e. portage, signage, berms, cofferdams, roads, etc.). • Original building date of an existing work and any previous approvals. • Latitude and Longitude of the work site. • Upland property owner's name (if you are not the upland property owner, you may need their written consent) • Names of other agencies you have submitted plans to.

Date:	**Signature:**
For NWPP Use only:	
NWPA #:	

THE CITY OF SAULT STE. MARIE

NOTICE OF PUBLIC INPUT SESSION

SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. In the evaluation of "Alternatives To the Undertaking", a thorough review of different waste management alternatives including increased waste diversion, incineration/high heat processes, landfill, export waste outside the service area, and "do-nothing" was completed. To identify a preferred approach to managing waste, the alternatives were comparatively evaluated using the following seven criteria:

1. Compliance with current regulations and policies;
2. Environmental acceptability;
3. The ability of the City of Sault Ste. Marie to implement the preferred alternative;
4. Flexibility of the system;
5. Capability of managing waste quality and quantity;
6. Proven technical capacity; and
7. Cost.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste. The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the entire residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

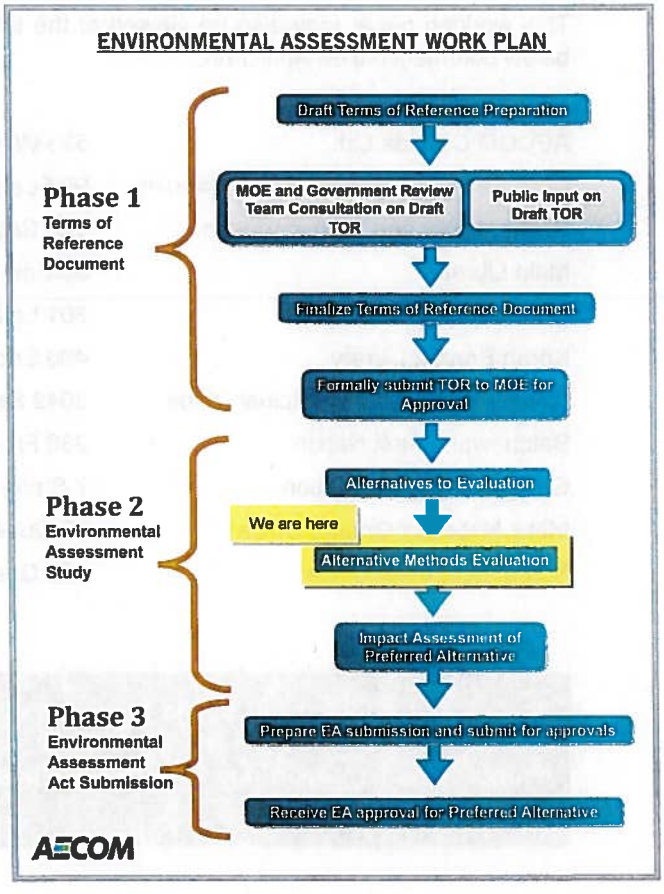
The flexibility of the preferred alternative is particularly important given the City's contract with The Elementa Group (an energy-from-waste service provider) for the annual processing of at least 12,500 metric tonnes of municipal solid waste. Elementa intends to construct and operate a new 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility in the future will reduce the quantity of residual waste requiring disposal in a landfill.

NEXT STEPS

The City remains committed to investigating, implementing and supporting programs to increase waste diversion through 3Rs initiatives. Since the implementation of 3Rs initiatives does not require Environmental Assessment (EA) Act approval, the EA study is now focusing on alternative methods of landfilling residual waste. The key objective of this phase of the study is to find an environmentally suitable location for the development of additional landfill capacity.

The first step to be completed in this phase consists of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. This step will provide initial focus to the search for additional landfill capacity.

A preliminary evaluation of these alternatives has been completed by the project team. We are now seeking input from the general public and Stakeholders regarding the evaluation criteria considered and the preliminary findings.



THE CITY OF SAULT STE. MARIE

NOTICE OF PUBLIC INPUT SESSION

SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

PUBLIC INPUT SESSION

If you are interested in discussing the alternatives and criteria that will be used to compare and select a preferred approach to landfilling residual waste in Sault Ste. Marie, Prince Township and Batchewana First Nation's Rankin Reserve, we encourage you to attend this public input session!

We will provide you with background information, update you on the City's achievements in increasing waste diversion and discuss with you the alternative approaches to landfilling residual solid waste. A principle objective of the session is to confirm whether the City should focus its efforts to obtain additional disposal capacity by expanding an existing landfill site or finding a location for a new site.

Background information documenting the work completed to date is available on the City website at **http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1**.
In addition, the alternatives and the evaluation criteria currently being considered are also available on the website in a working paper prepared for this session titled "Solid Waste Management Environmental Assessment - Alternative Methods – Step 1 (Landfill Expansion versus Development of a New Site).

This working paper may also be viewed at the locations noted below commencing on April 11th.

AECOM Canada Ltd.	523 Wellington Street
Civic Centre Engineering and Planning	99 Foster Drive, 5th Flr.
Public Works and Transportation	128 Sackville Road
Main Library	50 East Street
Churchill Branch Library	301 Lake Street
Korah Branch Library	496 Second Line
Township of Prince Municipal Office	3042 Second Line West
Batchewana First Nation	236 Frontenac Street
Garden River First Nation	7 Shingwauk Street
Metis Nation of Ontario Office	26 Queen Street East
Missanabie Cree Office	559 Queen Street East

YOU'RE INVITED!

Date:	Tuesday April 19, 2011
Location:	Civic Centre – Russ Ramsay Room
Time:	6:30 pm to 9:00 pm

Refreshments to be provided.

CONTACT US

We also encourage you to contact the individuals noted below if you have any specific questions.

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
Email: rick.talvitie@aecom.com

Mrs. Susan Hamilton Beach, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on.ca

Information pertaining to this session is available on the City of Sault Ste. Marie website at: **http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1**.
Hardcopies can also be obtained by contacting AECOM at 705-942-2612.

If you cannot attend the public input session in person, we still want to hear from you! Just go to the City's website (http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1), review the Alternatives Method - Step 1 Report and fill out our online questionnaire. A link to the online questionnaire is provided on the City's website.

THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. In the evaluation of "Alternatives to the Undertaking", a thorough review of different waste management alternatives including increased waste diversion, incineration/high heat processes, landfill, export waste outside the service area, and "do-nothing" was completed.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste. The preferred alternative was presented at an Open House in June, 2010.

NEXT STEPS

The next step consists of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. This step will provide initial focus to the search for additional landfill capacity.

A preliminary evaluation of these alternatives has been completed by the project team. We are now seeking input from the general public and stakeholders regarding the evaluation criteria considered and the preliminary findings.

PUBLIC INPUT SESSION

If you are interested in discussing the alternatives and criteria that will be used to compare and select a preferred approach to landfilling residual waste in Sault Ste. Marie, Prince Township and Batchewana First Nation's Rankin Reserve, we invite you to attend this public input session.

We will provide background information, update you on the City's achievements in increasing waste diversion and discuss the alternative approaches to landfilling residual solid waste.

Background documents including the working paper to be discussed at the public input session entitled "Solid Waste Management Environmental Assessment - Alternative Methods – Step 1 (Landfill Expansion versus Development of a New Site)" are available on the City's website at **www.cityssm.on.ca – Click City Hall Bulletins – Public Input Session – Solid Waste Management.**

CONTACT US

We encourage you to contact the individuals below if you have questions.

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
Email: rick.talvitie@aecom.com

Mrs. Susan Hamilton Beach, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on.ca

YOU'RE INVITED!

Date: Tuesday, April 19, 2011

Location: Civic Centre, 99 Foster Dr.
Russ Ramsay Board Room

Time: 6:30 to 9:00 p.m.

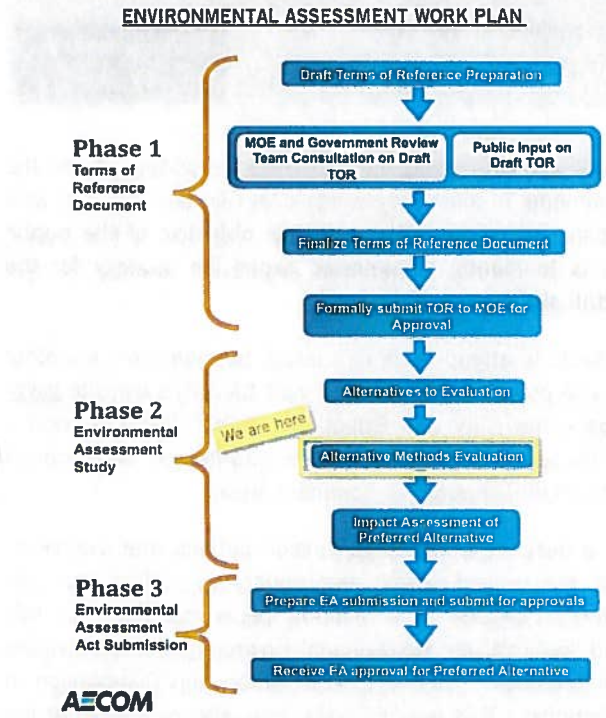
Refreshments provided.

If you cannot attend the public input session, we still want to hear from you! Go to the City's website www.cityssm.on.ca (Click City Hall Bulletins – Public Input Session – Solid Waste Management) to review the Alternatives Method - Step 1 Report and fill out the online questionnaire.

THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

ENVIRONMENTAL ASSESSMENT (EA) PROCESS

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. The EA Process is a transparent decision-making process used to promote good environmental planning by assessing potential effects of certain activities or projects on the natural and human environment. There are several phases and tasks involved in completing an EA as outlined in the graphic below.



The City is currently mid-way through Phase 2 of the EA Process and is interested in obtaining your input related to the current activities.

BACKGROUND

Phase 1 of the EA process included public consultation and culminated with the Ministry of Environments approval of the project Terms of Reference (ToR) in 2005. The ToR provides a framework or roadmap for completing the EA and summarizes the tasks and activities to be undertaken by the proponent.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the **preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.** The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the entire residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

The flexibility of the preferred alternative is particularly important given the City's contract with The Elementa Group (an energy-from-waste service provider) for the annual processing of at least 12,500 metric tonnes of municipal solid waste. Elementa is currently negotiating an energy purchase agreement and intends to construct and operate a new 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility in the future will reduce the quantity of residual waste requiring disposal in a landfill.

The City remains committed to investigating, implementing and supporting programs to increase waste diversion through 3Rs initiatives. Since the implementation of 3Rs initiatives does not require Environmental Assessment (EA) Act approval, the EA study is now focusing on alternative methods of landfilling residual waste. The key objective of this phase of the study is to find an environmentally suitable location for the development of additional landfill capacity.

The first step in this phase consisted of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. To identify a preferred approach to landfilling waste, the alternatives were compared using the following six criteria groups:

1. Natural environment;
2. Social-Cultural environment;
3. Economic environment;
4. Cost;
5. Technical considerations; and
6. Transportation.

A Public Input Session was held in April, 2011 to present the landfill alternatives being considered. **The evaluation and response from consultation concluded that an expansion of an existing landfill is generally preferred over construction of a new site.**

The study noted that an expansion requires less land, displaces fewer people and/or social/natural features, disrupts fewer people (ie. one site versus two sites creating nuisance impacts), costs less, typically encounters fewer challenges in gaining technical approvals, and reduces the number of facilities the City must manage.

THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

CURRENT ACTIVITIES

The second step in the Alternative Methods task focuses on the best approach to expand the existing landfill site at 402 Fifth Line East in the City of Sault Ste. Marie. Expansion options have been developed that make the best use of the existing site characteristics and the area available to expand. Options considered include horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining (excavate previously disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) or a combination of these methodologies.

A preliminary evaluation of the expansion options has been completed by the project team. We are now seeking input from the Community, government agencies, stakeholders, and First Nations regarding the evaluation criteria considered and the preliminary findings.

CONTACT US

You may also contact the Consultant Project Manager or the City's Land Development and Environmental Engineer by email, mail or telephone if you have questions or would like additional information.

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

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Fax: 705-942-3642
Email: rick.talvitie@aecom.com

Ms. Catherine Taddo, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5380
Fax: (705) 541-7165
Email: c.taddo@cityssm.on.ca

HOW CAN I PROVIDE INPUT?

If you are interested in discussing the expansion options, the criteria used in the evaluation and the preliminary findings we encourage you to attend the upcoming public input session!

YOU'RE INVITED!

Date: Tuesday, March 6, 2012
Location: Civic Centre – 99 Foster Drive
Russ Ramsay Room
Time: 3:30PM to 7:30PM

Refreshments to be provided.

We will provide you with background information update you on the City's achievements in increasing waste diversion and discuss, with you, the expansion options. **The principle objective of the public consultation is to identify a preferred expansion strategy for the existing landfill site.**

If you are unable to attend the Public Input Session there are other opportunities to provide input. Please visit the City's website **www.cityssm.on.ca** - View City Hall Bulletins – Public Input Session – Solid Waste Management to obtain further information, complete an online questionnaire, or access a comment sheet.

In addition, a description of the expansion options, the evaluation criteria, and the project team's preliminary evaluation are also available on the website in a working paper prepared for this session titled "Solid Waste Management Environmental Assessment – Alternative Methods – Step 2 (Identification and Comparison of Expansion Options). This working paper may also be viewed at the locations noted below commencing on February 21, 2012.

AECOM Canada Ltd.	523 Wellington Street
Civic Centre Engineering and Planning	99 Foster Drive, 5th Flr.
Public Works and Transportation	128 Sackville Road
Main Library	50 East Street
Churchill Branch Library	301 Lake Street
Korah Branch Library	496 Second Line
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Batchewana First Nation	236 Frontenac Street
Garden River First Nation	7 Shingwauk Street
Metis Nation of Ontario Office	26 Queen Street East
Missanabie Cree Office	559 Queen Street East

THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. To date significant progress has been made.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and **the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.** The preferred alternative was presented at an Open House in June, 2010.

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In April, 2011 a Public Input Session was held to present the non-site specific landfill alternatives being considered. **The evaluation and response from consultation concluded that an expansion of an existing landfill is generally preferred over construction of a new site.**

The study noted that an expansion requires less land, displaces fewer people and/or social/natural features, disrupts fewer people (ie. one site versus two sites creating nuisance impacts), costs less, typically encounters fewer challenges in gaining technical approvals, and reduces the number of facilities the City must manage.

CURRENT ACTIVITIES

Presently the project team is focusing on **the best approach to expand the existing landfill site at 402 Fifth Line East in the City of Sault Ste. Marie.** Expansion options have been developed that make the best use of the existing site characteristics and the area available to expand. Options considered include horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining (excavate previously disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) or a combination of these methodologies.

A preliminary evaluation of the expansion options has been completed by the project team. **We are now seeking input from the Community, government agencies, stakeholders, and First Nations regarding the evaluation criteria considered and the preliminary findings.**

PUBLIC INPUT SESSION

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We will provide you with background information, update you on the City's achievements in increasing waste diversion and discuss, with you, the expansion options. **The principle objective of the public consultation is to identify a preferred expansion strategy for the existing landfill site.**

The expansion options, the evaluation criteria, and the project team's preliminary evaluation are also available on the City's website (**www.cityssm.on.ca - View City Hall Bulletins – Public Input Session – Solid Waste Management**) in a working paper prepared for this session titled "Solid Waste Management Environmental Assessment - Alternative Methods – Step 2 (Identification and Comparison of Expansion Options). This working paper may also be viewed at the locations noted below commencing on February 21, 2012.

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AECOM

DILLON CONSULTING

Solid Waste Management Environmental Assessment

COUNCIL PRESENTATION

THE CORPORATION OF THE CITY OF SAULT STE MARIE CANADA

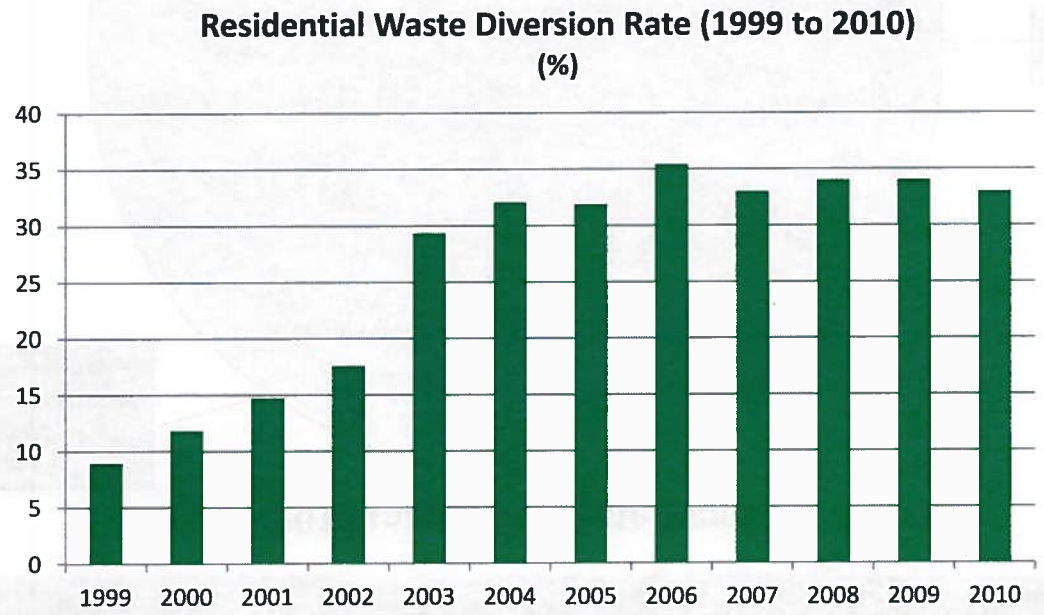
March, 2012

Objectives of the Presentation

- Provide Council and residents with an update on waste management planning activities and results;
- Review project need;
- Provide an overview of the Environmental Assessment process and where we are at in the process;
- Present the criteria and approach used in the evaluation of site expansion options;
- Present the preliminary results of the evaluation completed by the project team;
- Identify the next steps in the EA process; and
- Answer your questions.

Project History - Diversion

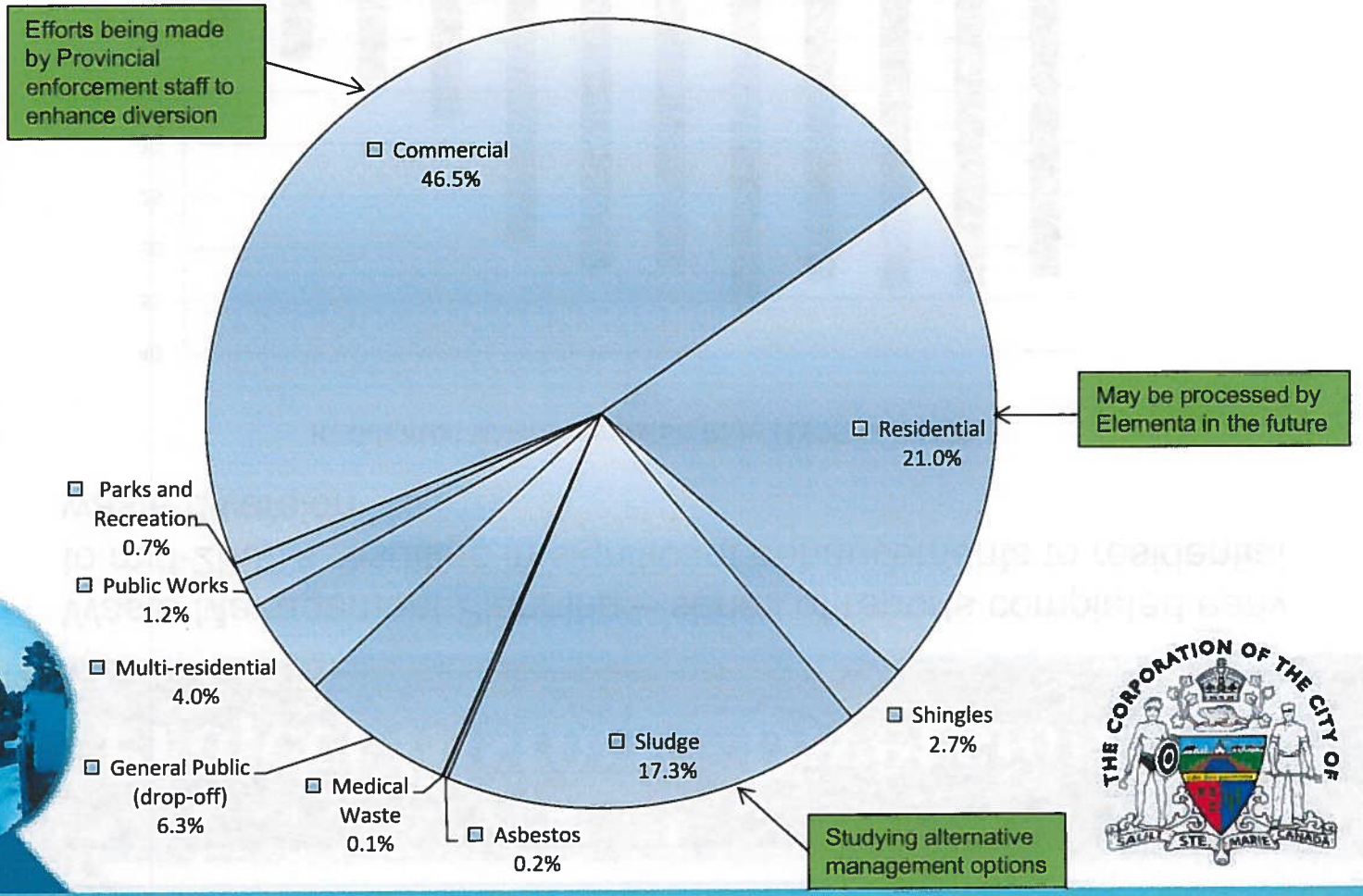
- Waste Management Planning – series of reports completed early to mid-2000's resulting in significant enhancements to residential waste diversion



Increased residential diversion rate from 9% in 1999 to 33% to 35% in recent years

Project History - Diversion

2010 Landfilled Waste Types



Project History - Project Need

- **The estimated remaining service life of the existing landfill is 7 to 10 years depending on future population changes, in-situ subsidence and waste generation, diversion and disposal rates. The low end of this range is used for planning purposes.**
- Despite significant success in enhancing waste diversion, additional disposal capacity is required.

What is an EA?

Purpose = *"to protect the environment and quality of life of the people of the province; and facilitate the wise management of the natural resources of the province".*

- The EA Process is a transparent decision-making process used to promote good environmental planning by assessing potential effects of certain activities or projects on the natural and human environment. The EA process serves several important purposes:
  - Allowing projects to receive input from a wide variety of sources, including the federal, provincial and municipal levels of government, First Nations, stakeholders and the public.
  - Identifying potential problems prior to construction
  - Promoting good environmental planning practices
  - Improving community acceptance
  - Better protecting the environment

AECOM

DILLON CONSULTING

Project History

- MOE approval of EA ToR in late 2005
- EA work initiated by AECOM/Dillon – summer 2006
- "Alternatives To" (functionally different ways of managing waste) work completed and public consultation undertaken in summer of 2007
- Late 2008 to spring 2010 - Project delayed to allow time for the Enquest pilot project to mature
- Fall 2009 - City endorses waste supply agreement with Elementa
- City approval to resume EA process - Elementa will generate residual waste and is unable to manage the entire waste disposal quantity
- Spring 2010 – announced the preferred "Alternative To"

THE CORPORATION OF THE CITY OF SAULT STE. MARIE CANADA

Project History – Selected "Alternative TO"

Based on the results of the evaluation and input received the preferred long-term approach to managing waste in SSM is:

- Increased 3Rs (Reduce/Reuse/Recycle)
- Landfilling residual waste

Why?

- Can comply with regulations and policies
- City is experienced with these waste management initiatives
- Flexible to changes in the waste stream (e.g. population, waste generation, diversion)
- Can accept most residual waste from a Waste-to-Energy facility
- Cost efficient

The EA will now focus on identifying and evaluating alternative methods of landfilling waste (i.e. alternative locations and designs)

AECOM

DILLON CONSULTING

Project History

- Conducted a Public Information Session in June 2010 to announce the selected Alternative To
- Initiated the Alternative Methods Phase (alternative locations and designs)
- Completed a generic non-site specific evaluation of developing a new landfill versus expanding an existing site (Step 1)
- Consulted with the public in the spring of 2011regarding the generic options

THE CORPORATION OF THE CITY OF SAULT STE. MARIE CANADA

Project History – Preferred Landfilling Method

Based on the results of the evaluation and input received the preferred method of landfilling waste = expansion of an existing site

Why?

- Likely less potential for displacement and disruption
- Only one landfill site to manage and maintain
- Cost effective
- Community adaptation
- Likely fewer challenges in gaining approvals

The EA will now focus on how to best expand the existing site

Overview of Expansion Options

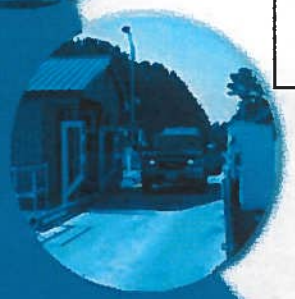
- Expansion options have been developed that make the best use of the existing site characteristics and the area available to expand.
- Options considered include horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining or a combination of these methodologies.
- All options include enhancements to better control groundwater quality related to the existing site.
- Some options require replacement/relocation of existing on-site infrastructure and some require enhanced compaction to provide the target disposal capacity

Evaluation of Expansion Options

- The evaluation has been completed using a two-step approach:
  - Step 1 – identify a preferred expansion area and shape;
  - Step 2 – assess the pros and cons of incorporating landfill mining.
- Mining involves excavation of previously disposed waste and cover material. Mined waste is fed through screens which separates coarse waste from fine materials. Recyclables are separated and sent for processing, remaining residual waste disposed of in the disposal site and fines (primarily sand) are stockpiled for use as cover.

Evaluation Criteria Groups

Criterion	Definition
Natural Environment	Addresses the potential for displacement and/or disruption of natural environmental features (terrestrial features, aquatic features, ground water and surface water)
Social Cultural Environment	Addresses the potential for displacement and/or disruption of social/cultural environmental features (residents, community features, future land use plans, heritage and archaeological resources, public health and safety)
Economics	Addresses the potential for displacement and/or disruption of existing businesses and resources (agriculture, forestry, mining)
Cost	Considers the lifecycle cost of the alternative.
Technical Considerations	Considers technical aspects of each option including impacts on existing site infrastructure and ease of site development.
Transportation	Considers the impacts of traffic volumes accessing the site and potential impacts to the airport and the movement of farm equipment.

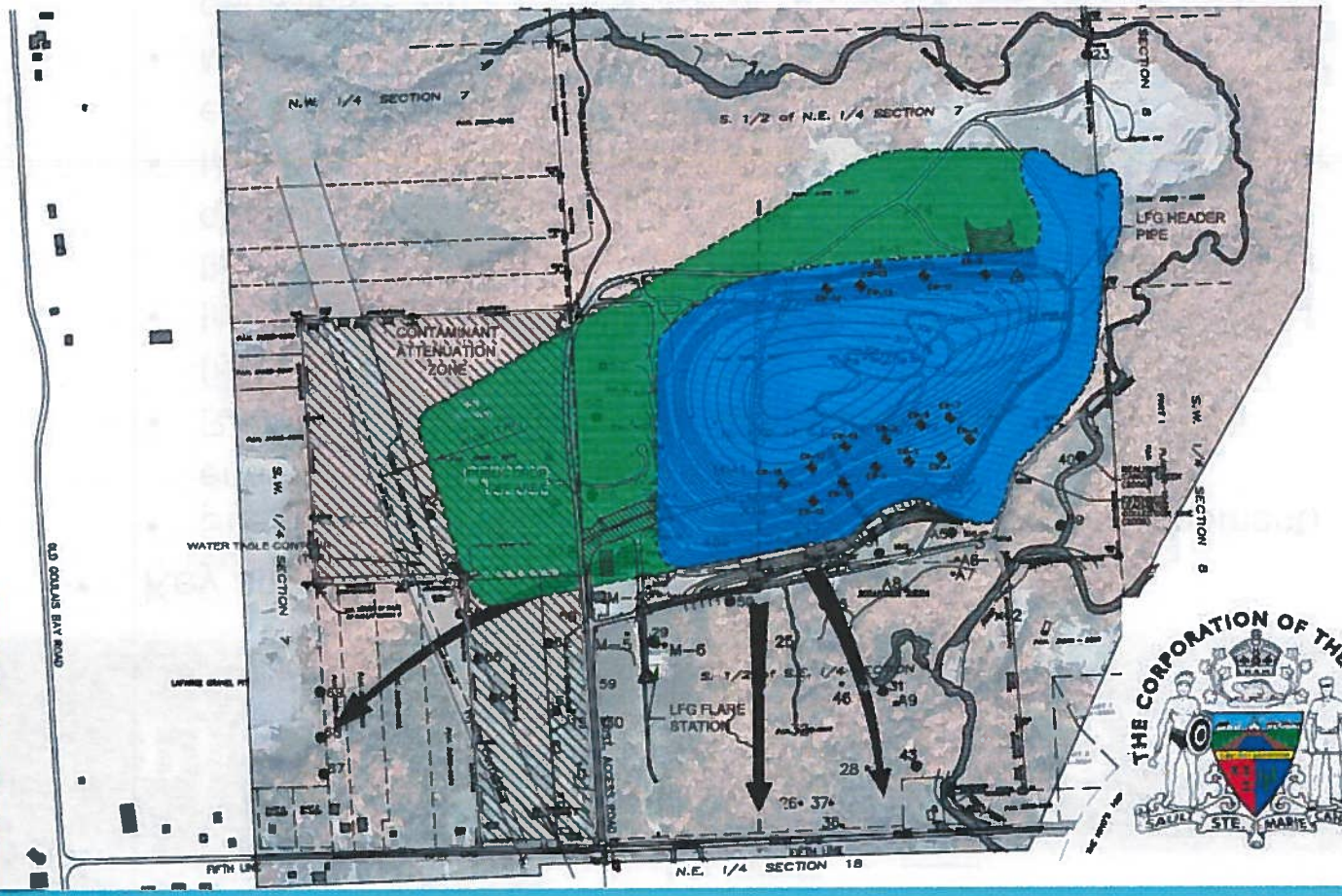


Evaluation of Expansion Options

- Data collection and analysis
- Technical disciplines initially compare options relative to each other and rank them under each criterion
- Present the evaluation in a table or matrix format with the rationale for the rankings
- Present to the public and solicit input from community members, stakeholders, First Nations, and governmental agencies
- Make adjustments to the evaluation based on input received
- Select a preferred option

Preliminary Preferred Expansion Option

- On the basis of the **preliminary** evaluation, the preliminary preferred expansion option is presented below



Preliminary Preferred Option

- Key advantages relative to other options include:
  - Site development (i.e. geometry and storm water management) enhanced relative to Options 2 and 4.
  - Reduced average excavation depth in west expansion area (i.e.11m).
  - Includes a liner beneath the waste within the western portion of the existing disposal footprint enhancing long term groundwater quality.
  - Includes a liner over existing waste in areas of overlap to further enhance groundwater quality.
  - Meets target capacity at current estimated waste densities.

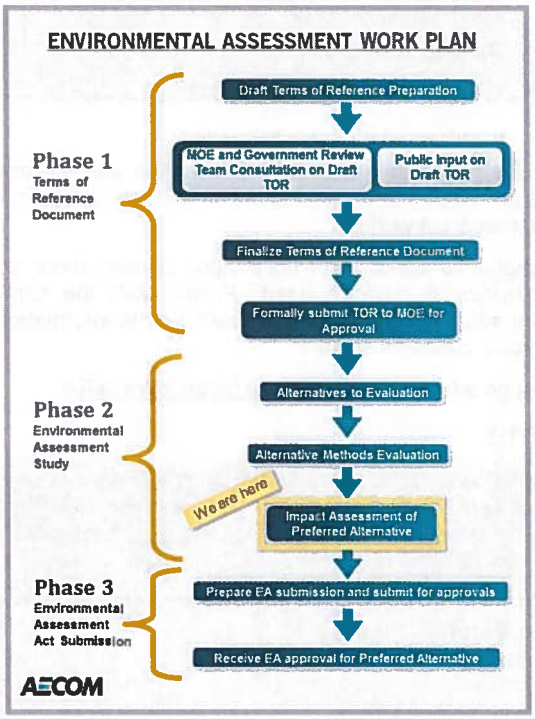
Next Steps

- Solicit governmental, community First Nation and stakeholder input on the preliminary preferred expansion option – do you agree/disagree – why?
- Re-assess (if needed) and finalize the Step 2 evaluation based on input received
- Announce the preferred Step 2 - Alternative Method (i.e. preferred expansion option)
- Initiate a detailed impact assessment for the preferred option
- Continue to investigate ways to improve waste diversion through 3Rs initiatives

THE CITY OF SAULT STE. MARIE
JANUARY, 2016 NEWSLETTER
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

ENVIRONMENTAL ASSESSMENT (EA) PROCESS

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. The EA Process is a transparent decision-making process used to promote good environmental planning by assessing potential effects of certain activities or projects on the natural and human environment. There are several phases and tasks involved in completing an EA as outlined in the graphic below.



The City is finalizing Phase 2 of the EA Process and is currently preparing the EA submission. **We are interested in obtaining your input related to the current activities.**

BACKGROUND

Phase 1 of the EA process included public consultation and culminated with the Ministry of Environment and Climate Change's (MOECC) approval of the project Terms of Reference (ToR) in 2005. The ToR provides a framework or roadmap for completing the EA and summarizes the tasks and activities to be undertaken by the proponent.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and **the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.** The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

The City remains committed to investigating, implementing and supporting programs to increase waste diversion through 3Rs initiatives. Since the implementation of 3Rs initiatives does not require EA Act approval, the EA study turned its focus to alternative methods of landfilling residual waste. The key objective of this phase of the study is to find an environmentally suitable location for the development of additional landfill capacity.

The first step in this phase consisted of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. To identify a preferred approach to landfilling waste, the alternatives were compared using the following seven criteria groups:

1.	Natural environment	5.	Capability of managing waste quality and quantity
2.	Social-cultural environment	6.	Proven technical capacity
3.	Economic environment	7.	Cost
4.	Flexibility of the system		

A Public Input Session was held in April, 2011 to present the landfill alternatives being considered. **The evaluation and response from consultation concluded that an expansion of an existing landfill is generally preferred over construction of a new site.**

The study noted that an expansion requires less land, displaces fewer people and/or social/natural features, disrupts fewer people (i.e., one site versus two sites creating nuisance impacts), costs less, typically encounters fewer challenges in gaining technical approvals, and reduces the number of facilities the City must manage.

The second step in the Alternative Methods task focused on the best approach to expand the City's existing landfill site at 402 Fifth Line East by identifying and comparatively evaluating site expansion alternatives. Options considered included horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining (excavate previously disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) or a combination of these methodologies. A Public Input Session was held March, 2012 to obtain feedback on the evaluation criteria and the preliminary findings.

The evaluation and response from consultation concluded the preferred site expansion alternative consists of a modest increase in the height of the waste, an expansion of the disposal footprint to the west and north and mining a portion of the existing waste to enhance groundwater quality. All mined and expansion areas will include the

construction of a liner beneath the waste to collect leachate (precipitation contaminated as it filters through waste) and ultimately direct it to the City's sewage treatment plant for treatment.

Current Activities

The last part of Phase 2 involves assessing the potential impacts of the conceptual design and planned operation of the preferred site expansion alternative and identification of suitable mitigating measures. Multiple disciplines were involved to assess the various potential impacts of the expansion on site, off site, in the vicinity and along the access route. The access route was considered to be along Fifth Line from Highway 17 to the site (which is the same route used today). Measures to reduce or eliminate potential effects on the environment were recommended.

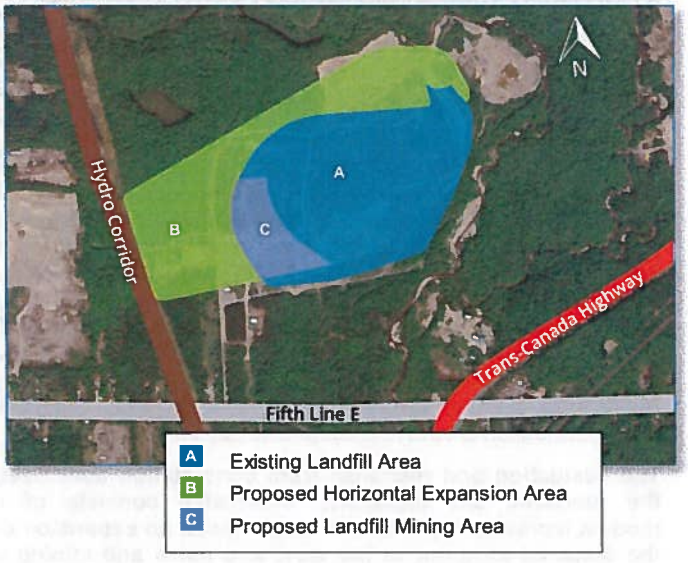
The disciplines that were involved include:

Natural Environment
- Biology
- Geology / hydrogeology
- Surface water

Socio-Cultural Environment
- Cultural (archaeology and heritage)
- Social
- Planned land use
- Visual
- Atmospheric (dust, noise, air quality)

Economic
- Businesses
- Transportation

Conceptual Layout of Proposed Landfill Expansion Area



HOW CAN I PROVIDE INPUT?

We will be hosting a Public Open House where you will learn about the results of the impact assessment work and we will ask for your feedback. If you are interested in discussing the project, we encourage you to attend the upcoming public open house!

YOU'RE INVITED!

Date:	*Tuesday, February 9, 2016*
Location:	*Civic Centre – 99 Foster Drive* *Russ Ramsay Room*
Time:	*3:30 pm to 7:30 pm*

Refreshments to be provided.

We will provide you with background information and discuss, with you, the preferred site expansion option and the results from the impact assessment work.

If you are unable to attend the Public Input Session there are other opportunities to provide input. Please visit the City's website at the address noted below to obtain further information, and / or access a comment sheet.

Project webpage address: saultstemarie.ca/SolidWasteEA

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THE CITY OF SAULT STE. MARIE

NOTICE OF PUBLIC INPUT SESSION

SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

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- disrupts fewer people (i.e. one site versus two sites creating nuisance impacts);
- costs less;
- typically encounters fewer challenges in gaining technical approvals; and
- reduces the number of facilities the City must manage.

In March 2012 a Public Input Session was held to present the preliminary preferred approach to expanding the existing landfill at 402 Fifth Line East in the City of Sault Ste. Marie. **The evaluation, which considered responses from consultation, concluded that an expansion is best accommodated with a moderate increase in the height of the waste together with and expansion of the disposal footprint to the north and west. The preferred option also includes landfill mining (excavate existing disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) in the western portion of the existing disposal footprint to enhance groundwater protection. All mined and expansion areas will include the construction of a liner beneath the waste to collect leachate (precipitation contaminated as it filters through waste) and ultimately direct it to the City's sewage treatment plant for treatment.**

CURRENT ACTIVITIES

Presently the project team is focusing on **completing an impact assessment for the preferred expansion option.** The impact assessment includes expertise from numerous disciplines and focusses on potential impacts to the natural and human environments associated with the construction and operation of the proposed expansion. Careful attention is given to best management practices to mitigate potential impacts.

We are now seeking input from the Community, government agencies, stakeholders, and First Nations regarding the results of our impact assessment work and the proposed mitigation measures.

PUBLIC INPUT SESSION

If you are interested in discussing the impact assessment work, we encourage you to attend the upcoming public open house! We will provide you with background information and discuss with you, the preferred site expansion option and the results of the impact assessment work.

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Refreshments to be provided.

If you cannot attend the public open house, we still want to hear from you! Just go to the project webpage (address provided below) to review the project reference material and fill out a comment sheet or simply send us an email (email addresses provided above). Project webpage address: saultstemarie.ca/SolidWasteEA

Ministry of Tourism and Culture						
• Correspondence – Newsletter No. 2 and Notice of Public Input Session – Project update and information regarding the upcoming June 3, 2010 PIC which is intended to identify the preferred “Alternative To”, discuss the project progress and have questions or concerns addressed.	May, 2010	• No comments received.			Solid Waste Disposal Environmental Assessment Newsletter No. 2, May 2010, and Notice of Public Information Centre – Appendix L	
• Public Input Session No. 2 – Conducted to communicate the preferred “Alternative To” and provide an opportunity to discuss the project progress and have questions or concerns addressed.	June 3, 2010	• No comments received			Records from June 3, 2010 PIC No. 2 – Appendix H	
• Correspondence – Notice of Public Input Session – Project update and information regarding the upcoming April 19, 2011 PIC No. 3 which is intended to solicit input and feedback on the alternative approaches to landfilling residual waste (i.e. expand existing disposal site versus a new site.	April, 2011	• Interest in the conservation of cultural heritage resources including archaeological resources, built heritage and cultural heritage landscapes.		Proposed expansion is confined to existing City-owned site much of which has been disturbed. Cultural heritage resources are considered in the evaluation of options in Section 5.2 and addressed for the preferred option in Section 7.3.1	Newsletter April, 2011 – Appendix B and Email dated May 5, 2011 from Ministry of Tourism and Culture to R. Talvitie – Appendix L	
• Public Input Session No. 3 - Conducted to provide an opportunity to discuss project progress, solicit input and feedback on the alternative approaches to landfilling residual waste (i.e. expand existing disposal site versus a new site) and to address questions or concerns.	April 19, 2011	• No comments received.			Records from April 19, 2011 PIC – Appendix I	
• Correspondence – Notice of Public Input Session – Project update and information regarding the upcoming March 6, 2012 PIC which is intended to solicit input and feedback on the alternative approaches to expanding the existing disposal site.	May 5, 2011	• Provided “Screening for Impacts to Built Heritage and Cultural Heritage Landscapes” form for completion and return along with any additional relevant information including photographs and site plans in order to identify potential heritage resources with the study area. • Provided “Criteria for Determining Archaeological Potential” form in order to determine whether an archaeological assessment by an archaeologist licensed under the Ontario Heritage Act will be required for this project.		Impact assessment report was completed for the preferred option which is included as an Appendix to the EA and summarized in Section 7.3.1.	Email dated May 5, 2011 from the Ministry of Tourism and Culture (T. Wagner) to R. Talvitie and Screening for Impacts to Built Heritage and Cultural Heritage Landscapes form and Criteria for Determining Archaeological Potential form – Appendix L	
• Correspondence – Notice of Public Input Session – Project update and information regarding the upcoming March 6, 2012 PIC which is intended to solicit input and feedback on the alternative approaches to expanding the existing disposal site.	February, 2012	• No comments received.			Solid Waste Disposal Environmental Assessment Notice of Public Input Session February, 2012 – Appendix L	

• Public Information Centre No. 4 - Conducted to discuss project progress and to solicit input and feedback on a preferred expansion strategy for the existing landfill site.	March 6, 2012	• No comments received.			Records from March 6, 2012 PIC – Appendix J	
• Correspondence – Newsletter and Notice advising of February 9, 2016 Public Input Centre No. 5 intended to discuss project progress and solicit input and feedback on the impact assessment work.	January, 2016	• No comments received.			Solid Waste Disposal Environmental Assessment January 2016 Newsletter and Notice of Public Input Session – Appendix L	
• Public Input Session No. 5 - Conducted to discuss project progress and to solicit input and feedback on the impact assessment work.	February 9, 2016	• No comments received.			Records from February 9, 2016 PIC – Appendix K	

SOLID WASTE DISPOSAL
ENVIRONMENTAL ASSESSMENT

Newsletter No.2, May 2010

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its residual municipal solid waste. In the evaluation of "Alternatives To the Undertaking", a thorough review of different waste management alternatives including increased waste diversion, incineration/high heat processes, landfill, export waste outside the service area, and "do-nothing" was completed. To identify a preferred waste management method, the alternatives were comparatively evaluated using the following seven criteria:

1. Compliance with current regulations and policies;
2. Environmental acceptability;
3. The ability of the City of Sault Ste. Marie to implement the preferred alternative;
4. Flexibility of the system;
5. Capability of managing waste quality and quantity;
6. Proven technical capacity; and
7. Cost.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative for the City has been identified as **increased waste diversion and landfilling of the residual waste.**

DIVERSION UPDATE

The residential waste diversion program diverted approximately 34% of residential waste from the landfill in 2009. This shows consistent progress when compared to the 9% diverted in 2000! The City of Sault Ste. Marie's waste diversion program currently includes weekly curbside collection and recycling of paper products in the yellow box and containers in the blue box; bi-weekly collection and composting of leaf and yard waste throughout the growing season (April through November); a household special waste facility at 115 Industrial Park Crescent; landfill bans and segregation and recycling of metals, white goods, tires, and clean wood and brush at the landfill at 402 Fifth Line East. Since 2006, the City has limited residential waste setout to 2 bags/containers per week per household. Tags for additional waste bags or containers must be purchased. The City diversion programs are also supplemented by diversion initiatives undertaken by the private sector and special interest groups.

The City is also currently assessing the feasibility of diverting municipal biosolids (sewage sludge) from disposal.

PUBLIC INFORMATION CENTRE

A Public Information Centre is being held to provide an opportunity for you to discuss the project progress and have your questions or concerns addressed.

Date: Thursday, June 3, 2010

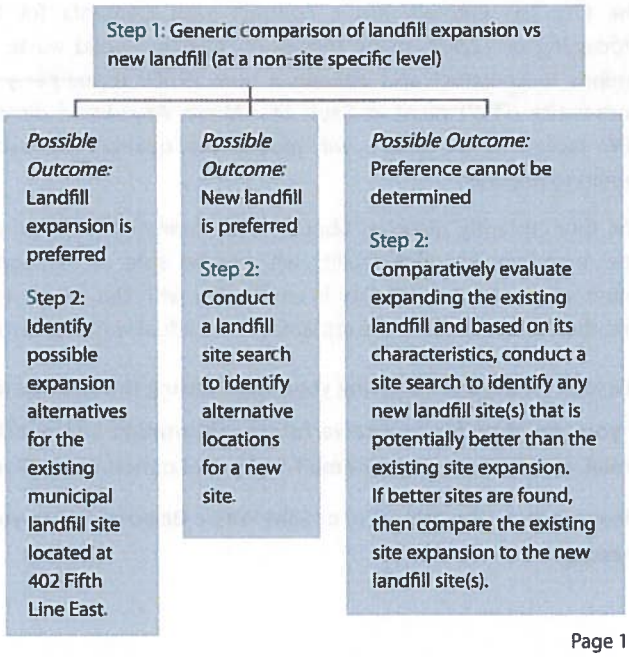
Location: Thompson Room
Civic Centre, 99 Foster Drive

Time: 3:30 pm to 7:30 pm

WHAT'S NEXT?

The results of the Environmental Assessment work completed to date suggest that landfill remains the most appropriate disposal option for the City's residual waste. Landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and recovered to generate electricity, landfills can manage the entire residual waste stream, are flexible to changes in waste quality and quantities and are cost effective.

Following the "Alternatives To" evaluation, the next step in the EA process for a landfill facility is the identification and evaluation of "Alternative Methods" of landfilling. This can include both alternative locations and alternative designs as illustrated in the flow chart below. We will be looking for public input on landfill options in the Fall of 2010.



SOLID WASTE DISPOSAL
ENVIRONMENTAL ASSESSMENT

Newsletter No.2, May 2010

ABOUT THE ENVIRONMENTAL ASSESSMENT (EA) PROCESS

The Environmental Assessment for disposal capacity includes three key phases. The first phase was completed with the submission and approval of the EA Terms of Reference. We are currently working within the second phase: the Environmental Assessment Study itself. The last phase is submission of the EA documentation to the Ministry of the Environment and the subsequent government and public review and approval period. It is anticipated that the whole process will take until late 2012.

In September 2005 the Minister of the Environment approved the Environmental Assessment Terms of Reference (EA TOR) for the Sault Ste. Marie Solid Waste Management Plan. The EA TOR documents the process that will be followed to determine the preferred method for managing solid waste in Sault Ste. Marie for the next 20 to 40 years. In addition to the disposal EA, the Sault Ste. Marie Solid Waste Management Plan includes a significant diversion component.

Keep up-to-date on the EA Study at the City of Sault Ste. Marie's website: http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1

ELEMENTA ENERGY-FROM-WASTE FACILITY

In 2007, an energy-from-waste (EFW) developer known as The Elementa Group (Elementa) constructed a pilot steam reformation plant that would convert municipal solid waste into a char and synthetic gas (or "syngas") that can be used to generate electricity.

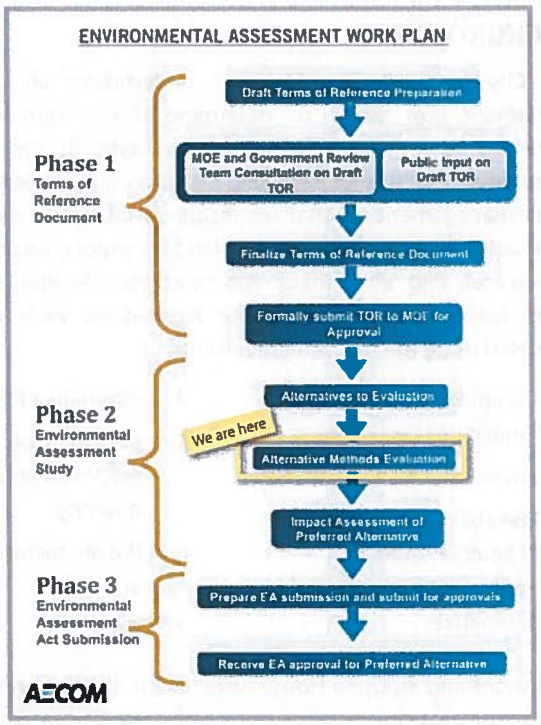
The City has entered into a contract with Elementa for the annual processing of 12,500 metric tonnes of municipal solid waste. Elementa intends to construct and operate a new 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility in the future will reduce the quantity of residual waste requiring disposal.

The City currently disposes about 60,000 tonnes of residual waste each year therefore; the EFW facility will not be able to manage the City's entire waste stream. The City is continuing with the EA study to ensure that the City can process the remainder of residual waste generated.

We look forward to receiving your input during this important study!

If you would prefer to receive future information and notifications via email, please forward your email address to nancy.maahs@aecom.com.

Please include the title "City of SSM Waste Disposal EA" in your message.



CONTACT US

Your input on this project is important to us. If you would like further information or to send comments, ask questions or be added to our mailing list, please contact us:

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
Email: rick.talvitie@aecom.com

Mrs. Susan Hamilton Beach, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

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Email: s.hamiltonbeach@cityssm.on

THE CITY OF SAULT STE. MARIE

Notice of Public Information Centre

SOLID WASTE DISPOSAL ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its residual municipal solid waste. Work to date has included a thorough review of a number of waste management alternatives including increased waste diversion, incineration/high heat process, landfill, export waste and "do nothing". To identify a preferred waste management method, the alternatives were comparatively evaluated using the following seven criteria:

1. Compliance with current regulations and policies;
2. Environmental acceptability;
3. The ability of the City of Sault Ste. Marie to implement the preferred alternative;
4. Flexibility of the system;
5. Capability of managing waste quality and quantity;
6. Proven technical capacity; and
7. Cost.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative for the City has been identified as **increased waste diversion and landfilling of the residual waste**.

Residents currently divert approximately 34% of their waste from disposal and the City will continue to provide opportunities to improve on this diversion rate. The remaining 66% of residential waste and industrial, commercial and institutional wastes currently goes to the City landfill. In addition to the City's current diversion, the City has entered into a contract with a private corporation for the annual supply of 12,500 metric tonnes of municipal solid waste. This corporation intends to construct and operate a 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility will reduce the quantity of residual waste requiring disposal.

The results of the Environmental Assessment work completed to date suggest that landfill remains the most appropriate disposal option for the City's residual waste. Landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and recovered to generate electricity, landfills can manage the entire residual waste stream, are flexible to changes in waste quality and quantities and are cost effective.

PUBLIC INFORMATION CENTRE

A Public Information Centre is being held to provide an opportunity for you to discuss the project progress and have your questions or concerns addressed.

Date: Thursday, June 3, 2010
Location: Thompson Room
Civic Centre, 99 Foster Drive
Time: 3:30pm to 7:30 pm

THE NEXT STEPS

Over the summer the project team will be looking at options for landfilling residual waste. This work will include consideration of opportunities to expand the existing landfill or establish a new landfill site. In the Fall of 2010, we will be looking for public input on landfill options.

If you have any questions related to the study, please contact:

Mr. Rick Talvitie, P. Eng.
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
E-mail: rick.talvitie@aecom.com

Mrs. Susan Hamilton Beach, P. Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580, 99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on.ca

If you would like to receive future information and notifications via email, please forward your email address to nancy.maahs@aecom.com. Please include the title "City of SSM Waste Disposal EA" in your message.

THE CITY OF SAULT STE. MARIE

NOTICE OF PUBLIC INPUT SESSION

SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. In the evaluation of "Alternatives To the Undertaking", a thorough review of different waste management alternatives including increased waste diversion, incineration/high heat processes, landfill, export waste outside the service area, and "do-nothing" was completed. To identify a preferred approach to managing waste, the alternatives were comparatively evaluated using the following seven criteria:

1. Compliance with current regulations and policies;
2. Environmental acceptability;
3. The ability of the City of Sault Ste. Marie to implement the preferred alternative;
4. Flexibility of the system;
5. Capability of managing waste quality and quantity;
6. Proven technical capacity; and
7. Cost.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste. The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the entire residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

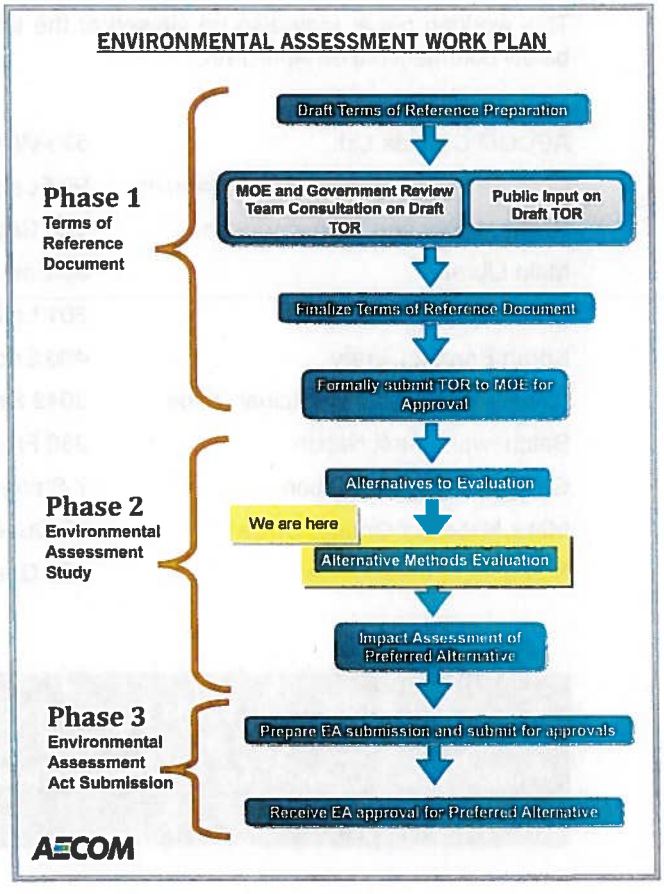
The flexibility of the preferred alternative is particularly important given the City's contract with The Elementa Group (an energy-from-waste service provider) for the annual processing of at least 12,500 metric tonnes of municipal solid waste. Elementa intends to construct and operate a new 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility in the future will reduce the quantity of residual waste requiring disposal in a landfill.

NEXT STEPS

The City remains committed to investigating, implementing and supporting programs to increase waste diversion through 3Rs initiatives. Since the implementation of 3Rs initiatives does not require Environmental Assessment (EA) Act approval, the EA study is now focusing on alternative methods of landfilling residual waste. The key objective of this phase of the study is to find an environmentally suitable location for the development of additional landfill capacity.

The first step to be completed in this phase consists of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. This step will provide initial focus to the search for additional landfill capacity.

A preliminary evaluation of these alternatives has been completed by the project team. We are now seeking input from the general public and Stakeholders regarding the evaluation criteria considered and the preliminary findings.



THE CITY OF SAULT STE. MARIE

NOTICE OF PUBLIC INPUT SESSION

SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

PUBLIC INPUT SESSION

If you are interested in discussing the alternatives and criteria that will be used to compare and select a preferred approach to landfilling residual waste in Sault Ste. Marie, Prince Township and Batchewana First Nation's Rankin Reserve, we encourage you to attend this public input session!

We will provide you with background information, update you on the City's achievements in increasing waste diversion and discuss with you the alternative approaches to landfilling residual solid waste. A principle objective of the session is to confirm whether the City should focus its efforts to obtain additional disposal capacity by expanding an existing landfill site or finding a location for a new site.

Background information documenting the work completed to date is available on the City website at **http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1**.
In addition, the alternatives and the evaluation criteria currently being considered are also available on the website in a working paper prepared for this session titled "Solid Waste Management Environmental Assessment - Alternative Methods – Step 1 (Landfill Expansion versus Development of a New Site).

This working paper may also be viewed at the locations noted below commencing on April 11th.

AECOM Canada Ltd.	523 Wellington Street
Civic Centre Engineering and Planning	99 Foster Drive, 5th Flr.
Public Works and Transportation	128 Sackville Road
Main Library	50 East Street
Churchill Branch Library	301 Lake Street
Korah Branch Library	496 Second Line
Township of Prince Municipal Office	3042 Second Line West
Batchewana First Nation	236 Frontenac Street
Garden River First Nation	7 Shingwauk Street
Metis Nation of Ontario Office	26 Queen Street East
Missanabie Cree Office	559 Queen Street East

YOU'RE INVITED!

Date:	Tuesday April 19, 2011
Location:	Civic Centre – Russ Ramsay Room
Time:	6:30 pm to 9:00 pm

Refreshments to be provided.

CONTACT US

We also encourage you to contact the individuals noted below if you have any specific questions.

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
Email: rick.talvitie@aecom.com

Mrs. Susan Hamilton Beach, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on.ca

Information pertaining to this session is available on the City of Sault Ste. Marie website at: **http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1**.
Hardcopies can also be obtained by contacting AECOM at 705-942-2612.

If you cannot attend the public input session in person, we still want to hear from you! Just go to the City's website (http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1), review the Alternatives Method - Step 1 Report and fill out our online questionnaire. A link to the online questionnaire is provided on the City's website.

THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. In the evaluation of "Alternatives to the Undertaking", a thorough review of different waste management alternatives including increased waste diversion, incineration/high heat processes, landfill, export waste outside the service area, and "do-nothing" was completed.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste. The preferred alternative was presented at an Open House in June, 2010.

NEXT STEPS

The next step consists of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. This step will provide initial focus to the search for additional landfill capacity.

A preliminary evaluation of these alternatives has been completed by the project team. We are now seeking input from the general public and stakeholders regarding the evaluation criteria considered and the preliminary findings.

PUBLIC INPUT SESSION

If you are interested in discussing the alternatives and criteria that will be used to compare and select a preferred approach to landfilling residual waste in Sault Ste. Marie, Prince Township and Batchewana First Nation's Rankin Reserve, we invite you to attend this public input session.

We will provide background information, update you on the City's achievements in increasing waste diversion and discuss the alternative approaches to landfilling residual solid waste.

Background documents including the working paper to be discussed at the public input session entitled "Solid Waste Management Environmental Assessment - Alternative Methods – Step 1 (Landfill Expansion versus Development of a New Site)" are available on the City's website at **www.cityssm.on.ca – Click City Hall Bulletins – Public Input Session – Solid Waste Management.**

CONTACT US

We encourage you to contact the individuals below if you have questions.

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

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99 Foster Drive,
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Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on.ca

YOU'RE INVITED!

Date: Tuesday, April 19, 2011

Location: Civic Centre, 99 Foster Dr.
Russ Ramsay Board Room

Time: 6:30 to 9:00 p.m.

Refreshments provided.

If you cannot attend the public input session, we still want to hear from you! Go to the City's website www.cityssm.on.ca (Click City Hall Bulletins – Public Input Session – Solid Waste Management) to review the Alternatives Method - Step 1 Report and fill out the online questionnaire.

Talvitie, Rick

From: Wagner, Teresa (MTC) [Teresa.Wagner@ontario.ca]
Sent: May 5, 2011 6:36 PM
To: Talvitie, Rick
Cc: s.hamiltonbeach@cityssm.on
Subject: City of Sault Ste. Marie Solid Waste Management Environmental Assessment
Attachments: Archaeological Potential Checklist MTC February 2011.pdf; BuiltHeritage-CHL-Checklist-MTC-Nov2010.pdf

Dear Mr. Talvitie,
On April 13, 2011 the Ministry of Tourism and Culture received the Notice of Public Input Session for the above-mentioned project.

As part of the Environmental Assessment process, the Ministry of Tourism and Culture (MTC) has an interest in the conservation of cultural heritage resources including archaeological resources, built heritage resources and cultural heritage landscapes. As a result, MTC would like to remain informed of this project's progression throughout the EA process.

The purpose of the Ontario Environmental Assessment Act is to provide for the protection, conservation and wise management of Ontario's environment. The Act defines environment in a broad sense that includes natural, social, cultural, economic and built environments. This broad definition of the environment makes the assessment of the impact of the undertaking on cultural heritage resources part of the standard environmental assessment process in Ontario. Environmental assessments made under the EA Act therefore assess and address the impact of the undertaking on cultural heritage resources.

Archaeology
Attached is MTC's Checklist for Determining Archaeological Potential, which identifies characteristics of the property that indicate whether archaeological resources might be present and/or impacted. Please return the completed checklist to me in order to determine whether an archaeological assessment by an archaeologist licensed under the Ontario Heritage Act will be recommended for this project.

Built Heritage and Cultural Heritage Landscape
In addition, in order to determine the existing cultural conditions, known and potential built heritage resources and cultural heritage landscapes should be identified. It is suggested that you contact the City Clerk to determine if there are any properties that have been listed or designated under the *Ontario Heritage Act*. I have also attached our Ministry's standard checklist for identifying potential heritage resources within the study area. When completing this checklist, you should contact the municipal heritage committee or any relevant community heritage organizations.

Please return the completed checklist to me, with any additional relevant information, including photographs and site plans, so that MTC could further advise on any cultural heritage assessment work that will be necessary.

Please do not hesitate to contact me if you have any questions.
<<Archaeological Potential Checklist MTC February 2011.pdf>> <<BuiltHeritage-CHL-Checklist-MTC-Nov2010.pdf>>

Best regards,

Teresa B. Wagner

A/Heritage Planner
Ministry of Tourism and Culture
Programs & Services Branch
401 Bay St. Suite 1700
Toronto, Ontario
M7A 0A7
Tel.: 416-314-7147
Fax: 416-212-1802
email: Teresa.Wagner@ontario.ca

Please consider the environment before printing this e-mail.

Screening for Impacts to Built Heritage and Cultural Heritage Landscapes

This checklist is intended to help proponents determine whether their project could affect known or potential cultural heritage resources. The completed checklist should be returned to the appropriate Heritage Planner or Heritage Advisor at the Ministry of Tourism and Culture.

Step 1 – Screening for Recognized Cultural Heritage Value

YES	NO	Unknown	
❑	❑	❑	1. Is the subject property designated or adjacent* to a property designated under the *Ontario Heritage Act*?
❑	❑	❑	2. Is the subject property listed on the municipal heritage register or a provincial register/list? (e.g. Ontario Heritage Bridge List)
❑	❑	❑	3. Is the subject property within or adjacent to a Heritage Conservation District?
❑	❑	❑	4. Does the subject property have an Ontario Heritage Trust easement or is it adjacent to such a property?
❑	❑	❑	5. Is there a provincial or federal plaque on or near the subject property?
❑	❑	❑	6. Is the subject property a National Historic Site?
❑	❑	❑	7. Is the subject property recognized or valued by an Aboriginal community?

Step 2 – Screening Potential Resources

YES	NO	Unknown	
			Built heritage resources
			1. Does the subject property or an adjacent property contain any buildings or structures **over forty years old**† that are:
❑	❑	❑	▪ Residential structures (e.g. house, apartment building, shanty or trap line shelter)
❑	❑	❑	▪ Farm buildings (e.g. barns, outbuildings, silos, windmills)
❑	❑	❑	▪ Industrial, commercial or institutional buildings (e.g. a factory, school, etc.)
❑	❑	❑	▪ Engineering works (e.g. bridges, water or communications towers, roads, water/sewer systems, dams, earthworks, etc.)
❑	❑	❑	▪ Monuments or Landmark Features (e.g. cairns, statues, obelisks, fountains, reflecting pools, retaining walls, boundary or claim markers, etc.)
❑	❑	❑	2. Is the subject property or an adjacent property associated with a known architect or builder?
❑	❑	❑	3. Is the subject property or an adjacent property associated with a person or event of historic interest?
❑	❑	❑	4. When the municipal heritage planner was contacted regarding potential cultural heritage value of the subject property, did they express interest or concern?
YES	NO	Unknown	**Cultural heritage landscapes**
			5. Does the subject property contain landscape features such as:
❑	❑	❑	▪ Burial sites and/or cemeteries
❑	❑	❑	▪ Parks or gardens
❑	❑	❑	▪ Quarries, mining, industrial or farming operations
❑	❑	❑	▪ Canals
❑	❑	❑	▪ Prominent natural features that could have special value to people (such as waterfalls, rocky outcrops, large specimen trees, caves, etc.)
❑	❑	❑	▪ Evidence of other human-made alterations to the natural landscape (such as trails, boundary or way-finding markers, mounds, earthworks, cultivation, non-native species, etc.)
❑	❑	❑	6. Is the subject property within a Canadian Heritage River watershed?
❑	❑	❑	7. Is the subject property near the Rideau Canal Corridor UNESCO World Heritage Site?
❑	❑	❑	8. Is there any evidence from documentary sources (e.g., local histories, a local recognition program, research studies, previous heritage impact assessment reports, etc.) or local knowledge or Aboriginal oral history, associating the subject property/ area with historic events, activities or persons?

Note:

If the answer is "yes" to any question in Step 1, proceed to Step 3.

The following resources can assist in answering questions in Step 1:

Municipal Clerk or Planning Department – Information on properties designated under the Ontario Heritage Act (individual properties or Heritage Conservation Districts) and properties listed on a Municipal Heritage register.

Ontario Heritage Trust – Contact the OHT directly regarding easement properties. A list of OHT plaques can be found on the website: Ontario Heritage Trust

Parks Canada – A list of National Historic Sites can be found on the website: Parks Canada

Ministry of Tourism and Culture – The Ontario Heritage Properties Database includes close to 8000 identified heritage properties. Note while this database is a valuable resource, it has not been updated since 2005, and therefore is not comprehensive or exhaustive. Ontario Heritage Properties Database

Local or Provincial archives

Local heritage organizations*, such as the municipal heritage committee, historical society, local branch of the Architectural Conservancy of Ontario, etc.*

Consideration should also be given to obtaining oral evidence of CHRs. For example, in many Aboriginal communities, an important means of maintaining knowledge of cultural heritage resources is through oral tradition.

If the answer is "yes" to any question in Step 2, an evaluation of cultural heritage value is required. If cultural heritage resources are identified, proceed to Step 3.

If the answer to any question in Step 1 or to questions 2-4, 6-8 in Step 2, is "unknown", further research is required.

If the answer is "yes" to any of the questions in Step 3, a heritage impact assessment is required.

If uncertainty exists at any point, the services of a qualified person should be retained to assist in completing this checklist. All cultural heritage evaluation reports and heritage impact assessment reports must be prepared by a qualified person. Qualified persons means individuals (professional engineers, architects, archaeologists, etc.) having relevant, recent experience in the identification and conservation of cultural heritage resources. Appropriate evaluation involves gathering and recording information about the property sufficient to understand and substantiate its heritage value; determining cultural heritage value or interest based on the advice of qualified persons and with appropriate community input. If the property meets the criteria in Ontario Regulation 9/06 under the Ontario Heritage Act, it is a cultural heritage resource.

† The 40 year old threshold is an indicator of potential when conducting a preliminary survey for identification of cultural heritage resources. While the presence of a built feature that is 40 or more years old does not automatically signify cultural heritage value, it does make it more likely that the property could have cultural heritage value or interest. Similarly, if all the built features on a property are less than 40 years old, this does not automatically mean the property has no cultural heritage value. Note that age is not a criterion for designation under the *Ontario Heritage Act*.

Step 3 – Screening for Potential Impacts

YES	NO	Will the proposed undertaking/project involve or result in any of the following potential impacts to the subject property or an adjacent* property?
❑	❑	**Destruction, removal or relocation** of any, or part of any, heritage attribute or feature.
❑	❑	**Alteration** (which means a change in any manner and includes restoration, renovation, repair or disturbance).
❑	❑	**Shadows** created that alter the appearance of a heritage attribute or change the exposure or visibility of a natural feature or plantings, such as a garden.
❑	❑	**Isolation** of a heritage attribute from its surrounding environment, context or a significant relationship.
❑	❑	**Direct or indirect obstruction** of significant views or vistas from, within, or to a built or natural heritage feature.
❑	❑	**A change in land use** such as rezoning a battlefield from open space to residential use, allowing new development or site alteration to fill in the formerly open spaces.
❑	❑	**Soil disturbance** such as a change in grade, or an alteration of the drainage pattern, or excavation, etc.

* For the purposes of evaluating potential impacts of development and site alteration "adjacent" means: contiguous properties as well as properties that are separated from a heritage property by narrow strip of land used as a public or private road, highway, street, lane, trail, right-of way, walkway, green space, park, and/or easement or as otherwise defined in the municipal official plan.

Ministry of Tourism and Culture
Criteria for Determining Archaeological Potential

A Checklist for the Non-Specialist

Feature of Archaeological Potential	Yes	No	Unknown
1. Known archaeological sites within 300 m of property	❑	❑	❑

Physical Features	Yes	No	Unknown
2. Water on or near the property If yes, what kind of water?	❑	❑	❑
a) Primary water source (lake, river, large creek, etc) ▪ within 300 m, OR ▪ 50 m for properties in northern Ontario and Canadian Shield terrain*	❑	❑	❑
b) Secondary water source (stream, spring, marsh, swamp, etc) ▪ within 300 m, OR ▪ 50 m for properties in northern Ontario and Canadian Shield terrain*	❑	❑	❑
c) Past water source (beach ridge, river bed, relic creek, ancient shoreline, etc) ▪ within 300 m, OR ▪ 150 m for properties in northern Ontario and Canadian Shield terrain*	❑	❑	❑
3. Elevated topography on property (knolls, drumlins, eskers, plateaus, etc)	❑	❑	❑
4. Pockets of sandy soil in a clay or rocky area on property	❑	❑	❑
5. Distinctive land formations on property (mounds, caverns, waterfalls, peninsulas, etc)	❑	❑	❑

Cultural Features	Yes	No	Unknown
6. Known burial site or cemetery on or adjacent to the property (cemetery is registered with the Cemeteries Regulation Unit)	❑	❑	❑
7. Food or scarce resource harvest areas on property (traditional fishing locations, agricultural/berry extraction areas, etc)	❑	❑	❑
8. Indications of early Euro-Canadian settlement within 300 m of property (monuments, cemeteries, structures, etc)	❑	❑	❑
9. Early historic transportation routes within 100 m of property (historic road, trail, portage, rail corridor, etc)	❑	❑	❑

Property-specific Information	Yes	No	Unknown
10. Property is designated and/or listed under the *Ontario Heritage Act* (municipal register and lands described in Reg. 875 of the *Ontario Heritage Act*)	❑	❑	❑
11. Local knowledge of archaeological potential of property (from aboriginal communities, heritage organisations, municipal heritage committees, etc)	❑	❑	❑
12. Recent ground disturbance† (post-1960, extensive and deep land alterations)	❑	❑	❑

The entire property should be screened for archaeological potential, not only the footprint where work is proposed.

*Northern Ontario is defined as Manitoulin Island, the Districts of Muskoka, Haliburton and Nipissing, and areas to the north. The Canadian Shield is defined as the area of Ontario underlain by the Precambrian Shield.

† Archaeological potential can be determined not to be present for either the entire property or a part(s) of it when the area under consideration has been subject to extensive and deep land alterations that have severely damaged the integrity of any archaeological resources. This is commonly referred to as 'disturbed' or 'disturbance', and may include: quarrying, major landscaping involving grading below topsoil, building footprints, sewage and infrastructure development. Activities such as agricultural cultivation, gardening, minor grading and landscaping do not necessarily affect archaeological potential.

Scoring the results:

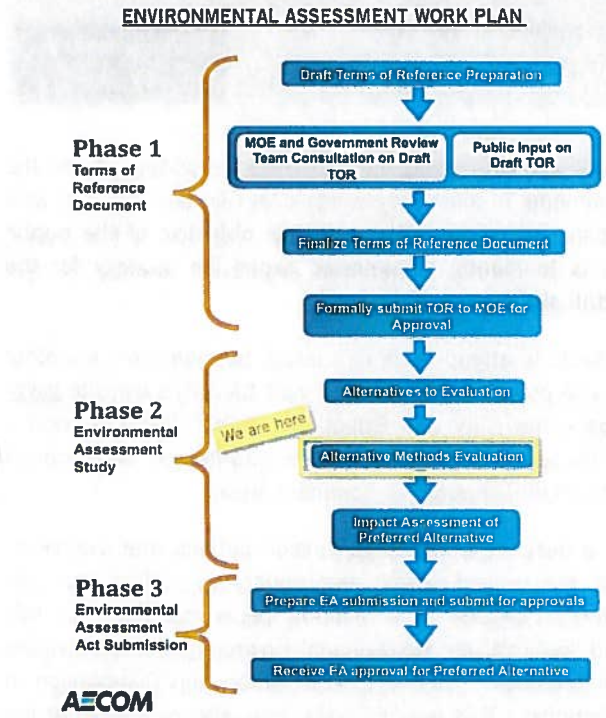
If **Yes** to any of **1**, **2a-c**, **6** or **11**	→ archaeological potential is **determined** – assessment is required
If **Yes** to two or more of **3 to 5 or 7-10**	→ archaeological potential is **determined** – assessment is required
If **Yes** to **12** or **No** to **1 to 10**	→ **low** archaeological potential is **determined** – assessment may or may not be required (depending on answers from 1-11)
If 3 or more **Unknown**	→ more research is required **(See note below for more information)**

Note: If archaeological potential features are unknown, a professional archaeologist licensed under the *Ontario Heritage Act* should be retained to carry out a minimum Stage 1 archaeological assessment report confirming potential or low potential. All reports are to be in compliance with provincial archaeological assessment standards and guidelines.

THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

ENVIRONMENTAL ASSESSMENT (EA) PROCESS

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. The EA Process is a transparent decision-making process used to promote good environmental planning by assessing potential effects of certain activities or projects on the natural and human environment. There are several phases and tasks involved in completing an EA as outlined in the graphic below.



The City is currently mid-way through Phase 2 of the EA Process and is interested in obtaining your input related to the current activities.

BACKGROUND

Phase 1 of the EA process included public consultation and culminated with the Ministry of Environments approval of the project Terms of Reference (ToR) in 2005. The ToR provides a framework or roadmap for completing the EA and summarizes the tasks and activities to be undertaken by the proponent.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the **preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.** The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the entire residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

The flexibility of the preferred alternative is particularly important given the City's contract with The Elementa Group (an energy-from-waste service provider) for the annual processing of at least 12,500 metric tonnes of municipal solid waste. Elementa is currently negotiating an energy purchase agreement and intends to construct and operate a new 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility in the future will reduce the quantity of residual waste requiring disposal in a landfill.

The City remains committed to investigating, implementing and supporting programs to increase waste diversion through 3Rs initiatives. Since the implementation of 3Rs initiatives does not require Environmental Assessment (EA) Act approval, the EA study is now focusing on alternative methods of landfilling residual waste. The key objective of this phase of the study is to find an environmentally suitable location for the development of additional landfill capacity.

The first step in this phase consisted of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. To identify a preferred approach to landfilling waste, the alternatives were compared using the following six criteria groups:

1. Natural environment;
2. Social-Cultural environment;
3. Economic environment;
4. Cost;
5. Technical considerations; and
6. Transportation.

A Public Input Session was held in April, 2011 to present the landfill alternatives being considered. **The evaluation and response from consultation concluded that an expansion of an existing landfill is generally preferred over construction of a new site.**

The study noted that an expansion requires less land, displaces fewer people and/or social/natural features, disrupts fewer people (ie. one site versus two sites creating nuisance impacts), costs less, typically encounters fewer challenges in gaining technical approvals, and reduces the number of facilities the City must manage.

THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

CURRENT ACTIVITIES

The second step in the Alternative Methods task focuses on the best approach to expand the existing landfill site at 402 Fifth Line East in the City of Sault Ste. Marie. Expansion options have been developed that make the best use of the existing site characteristics and the area available to expand. Options considered include horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining (excavate previously disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) or a combination of these methodologies.

A preliminary evaluation of the expansion options has been completed by the project team. We are now seeking input from the Community, government agencies, stakeholders, and First Nations regarding the evaluation criteria considered and the preliminary findings.

CONTACT US

You may also contact the Consultant Project Manager or the City's Land Development and Environmental Engineer by email, mail or telephone if you have questions or would like additional information.

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

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Fax: 705-942-3642
Email: rick.talvitie@aecom.com

Ms. Catherine Taddo, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5380
Fax: (705) 541-7165
Email: c.taddo@cityssm.on.ca

HOW CAN I PROVIDE INPUT?

If you are interested in discussing the expansion options, the criteria used in the evaluation and the preliminary findings we encourage you to attend the upcoming public input session!

YOU'RE INVITED!

Date: Tuesday, March 6, 2012
Location: Civic Centre – 99 Foster Drive
Russ Ramsay Room
Time: 3:30PM to 7:30PM

Refreshments to be provided.

We will provide you with background information update you on the City's achievements in increasing waste diversion and discuss, with you, the expansion options. **The principle objective of the public consultation is to identify a preferred expansion strategy for the existing landfill site.**

If you are unable to attend the Public Input Session there are other opportunities to provide input. Please visit the City's website **www.cityssm.on.ca** - View City Hall Bulletins – Public Input Session – Solid Waste Management to obtain further information, complete an online questionnaire, or access a comment sheet.

In addition, a description of the expansion options, the evaluation criteria, and the project team's preliminary evaluation are also available on the website in a working paper prepared for this session titled "Solid Waste Management Environmental Assessment – Alternative Methods – Step 2 (Identification and Comparison of Expansion Options). This working paper may also be viewed at the locations noted below commencing on February 21, 2012.

AECOM Canada Ltd.	523 Wellington Street
Civic Centre Engineering and Planning	99 Foster Drive, 5th Flr.
Public Works and Transportation	128 Sackville Road
Main Library	50 East Street
Churchill Branch Library	301 Lake Street
Korah Branch Library	496 Second Line
Township of Prince Municipal Office	3042 Second Line West
Batchewana First Nation	236 Frontenac Street
Garden River First Nation	7 Shingwauk Street
Metis Nation of Ontario Office	26 Queen Street East
Missanabie Cree Office	559 Queen Street East

THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. To date significant progress has been made.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and **the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.** The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the entire residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

In April, 2011 a Public Input Session was held to present the non-site specific landfill alternatives being considered. **The evaluation and response from consultation concluded that an expansion of an existing landfill is generally preferred over construction of a new site.**

The study noted that an expansion requires less land, displaces fewer people and/or social/natural features, disrupts fewer people (ie. one site versus two sites creating nuisance impacts), costs less, typically encounters fewer challenges in gaining technical approvals, and reduces the number of facilities the City must manage.

CURRENT ACTIVITIES

Presently the project team is focusing on **the best approach to expand the existing landfill site at 402 Fifth Line East in the City of Sault Ste. Marie.** Expansion options have been developed that make the best use of the existing site characteristics and the area available to expand. Options considered include horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining (excavate previously disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) or a combination of these methodologies.

A preliminary evaluation of the expansion options has been completed by the project team. **We are now seeking input from the Community, government agencies, stakeholders, and First Nations regarding the evaluation criteria considered and the preliminary findings.**

PUBLIC INPUT SESSION

If you are interested in discussing the expansion options, the criteria used in the evaluation and the preliminary findings, we encourage you to attend the upcoming public input session!

We will provide you with background information, update you on the City's achievements in increasing waste diversion and discuss, with you, the expansion options. **The principle objective of the public consultation is to identify a preferred expansion strategy for the existing landfill site.**

The expansion options, the evaluation criteria, and the project team's preliminary evaluation are also available on the City's website (**www.cityssm.on.ca - View City Hall Bulletins – Public Input Session – Solid Waste Management**) in a working paper prepared for this session titled "Solid Waste Management Environmental Assessment - Alternative Methods – Step 2 (Identification and Comparison of Expansion Options). This working paper may also be viewed at the locations noted below commencing on February 21, 2012.

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Phone: (705) 759-5380
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Email: c.taddo@cityssm.on.ca

YOU'RE INVITED!

Date: Tuesday, March 6, 2012
Location: Civic Centre – Russ Ramsay Room
Time: 3:30PM to 7:30PM

Refreshments to be provided.

If you cannot attend the public input session in person, we still want to hear from you! Just go to the City's website www.cityssm.on.ca - View City Hall Bulletins – Public Input Session – Solid Waste Management review the Alternatives Method – Step 2 Report and fill out our online questionnaire or comment sheet. A link to the online questionnaire is provided on the City's website.

AECOM

DILLON CONSULTING

Solid Waste Management Environmental Assessment

COUNCIL PRESENTATION

THE CORPORATION OF THE CITY OF SAULT STE MARIE CANADA

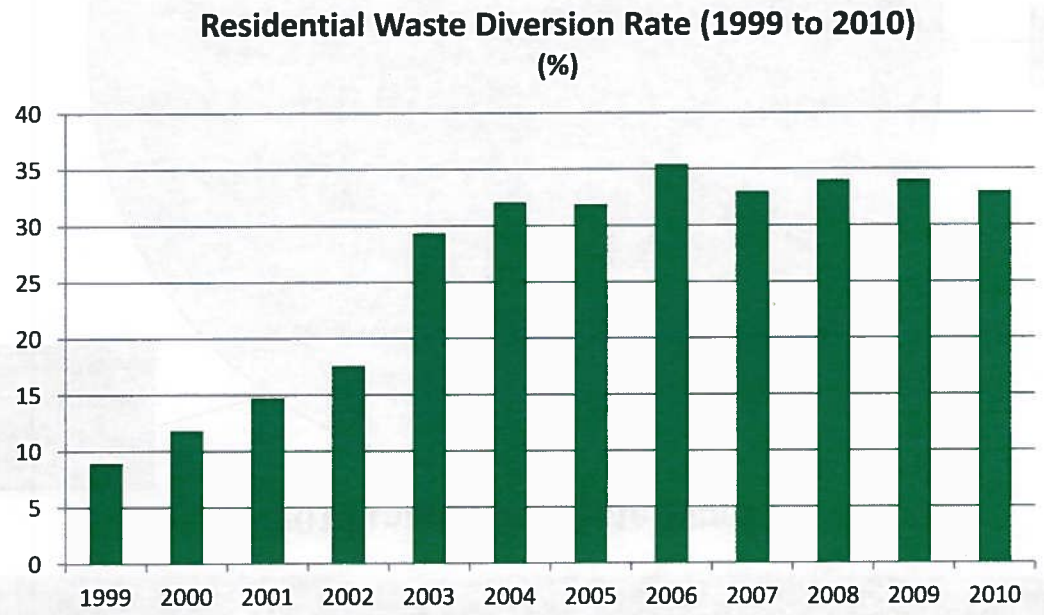
March, 2012

Objectives of the Presentation

- Provide Council and residents with an update on waste management planning activities and results;
- Review project need;
- Provide an overview of the Environmental Assessment process and where we are at in the process;
- Present the criteria and approach used in the evaluation of site expansion options;
- Present the preliminary results of the evaluation completed by the project team;
- Identify the next steps in the EA process; and
- Answer your questions.

Project History - Diversion

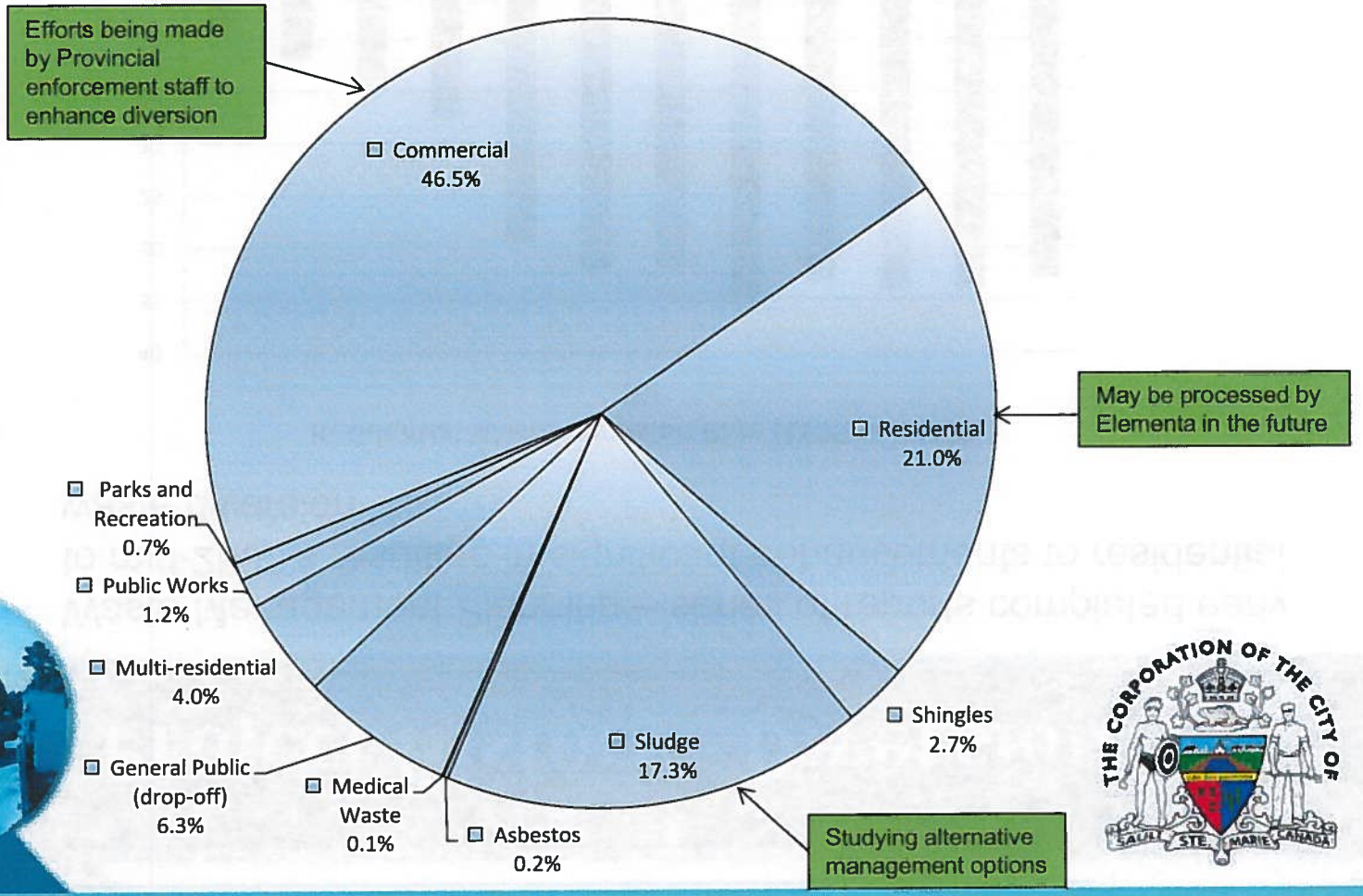
- Waste Management Planning – series of reports completed early to mid-2000's resulting in significant enhancements to residential waste diversion



Increased residential diversion rate from 9% in 1999 to 33% to 35% in recent years

Project History - Diversion

2010 Landfilled Waste Types



Project History - Project Need

- **The estimated remaining service life of the existing landfill is 7 to 10 years depending on future population changes, in-situ subsidence and waste generation, diversion and disposal rates. The low end of this range is used for planning purposes.**
- Despite significant success in enhancing waste diversion, additional disposal capacity is required.

What is an EA?

Purpose = *"to protect the environment and quality of life of the people of the province; and facilitate the wise management of the natural resources of the province".*

- The EA Process is a transparent decision-making process used to promote good environmental planning by assessing potential effects of certain activities or projects on the natural and human environment. The EA process serves several important purposes:
  - Allowing projects to receive input from a wide variety of sources, including the federal, provincial and municipal levels of government, First Nations, stakeholders and the public.
  - Identifying potential problems prior to construction
  - Promoting good environmental planning practices
  - Improving community acceptance
  - Better protecting the environment

AECOM

DILLON CONSULTING

Project History

- MOE approval of EA ToR in late 2005
- EA work initiated by AECOM/Dillon – summer 2006
- "Alternatives To" (functionally different ways of managing waste) work completed and public consultation undertaken in summer of 2007
- Late 2008 to spring 2010 - Project delayed to allow time for the Enquest pilot project to mature
- Fall 2009 - City endorses waste supply agreement with Elementa
- City approval to resume EA process - Elementa will generate residual waste and is unable to manage the entire waste disposal quantity
- Spring 2010 – announced the preferred "Alternative To"

THE CORPORATION OF THE CITY OF SAULT STE. MARIE CANADA

Project History – Selected "Alternative TO"

Based on the results of the evaluation and input received the preferred long-term approach to managing waste in SSM is:

- Increased 3Rs (Reduce/Reuse/Recycle)
- Landfilling residual waste

Why?

- Can comply with regulations and policies
- City is experienced with these waste management initiatives
- Flexible to changes in the waste stream (e.g. population, waste generation, diversion)
- Can accept most residual waste from a Waste-to-Energy facility
- Cost efficient

The EA will now focus on identifying and evaluating alternative methods of landfilling waste (i.e. alternative locations and designs)

AECOM

DILLON CONSULTING

Project History

- Conducted a Public Information Session in June 2010 to announce the selected Alternative To
- Initiated the Alternative Methods Phase (alternative locations and designs)
- Completed a generic non-site specific evaluation of developing a new landfill versus expanding an existing site (Step 1)
- Consulted with the public in the spring of 2011regarding the generic options

THE CORPORATION OF THE CITY OF SAULT STE. MARIE CANADA

Project History – Preferred Landfilling Method

Based on the results of the evaluation and input received the preferred method of landfilling waste = expansion of an existing site

Why?

- Likely less potential for displacement and disruption
- Only one landfill site to manage and maintain
- Cost effective
- Community adaptation
- Likely fewer challenges in gaining approvals

The EA will now focus on how to best expand the existing site

Overview of Expansion Options

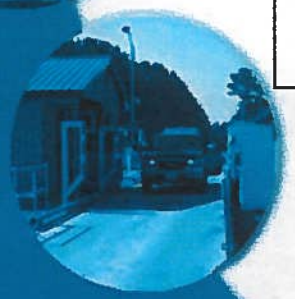
- Expansion options have been developed that make the best use of the existing site characteristics and the area available to expand.
- Options considered include horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining or a combination of these methodologies.
- All options include enhancements to better control groundwater quality related to the existing site.
- Some options require replacement/relocation of existing on-site infrastructure and some require enhanced compaction to provide the target disposal capacity

Evaluation of Expansion Options

- The evaluation has been completed using a two-step approach:
  - Step 1 – identify a preferred expansion area and shape;
  - Step 2 – assess the pros and cons of incorporating landfill mining.
- Mining involves excavation of previously disposed waste and cover material. Mined waste is fed through screens which separates coarse waste from fine materials. Recyclables are separated and sent for processing, remaining residual waste disposed of in the disposal site and fines (primarily sand) are stockpiled for use as cover.

Evaluation Criteria Groups

Criterion	Definition
Natural Environment	Addresses the potential for displacement and/or disruption of natural environmental features (terrestrial features, aquatic features, ground water and surface water)
Social Cultural Environment	Addresses the potential for displacement and/or disruption of social/cultural environmental features (residents, community features, future land use plans, heritage and archaeological resources, public health and safety)
Economics	Addresses the potential for displacement and/or disruption of existing businesses and resources (agriculture, forestry, mining)
Cost	Considers the lifecycle cost of the alternative.
Technical Considerations	Considers technical aspects of each option including impacts on existing site infrastructure and ease of site development.
Transportation	Considers the impacts of traffic volumes accessing the site and potential impacts to the airport and the movement of farm equipment.

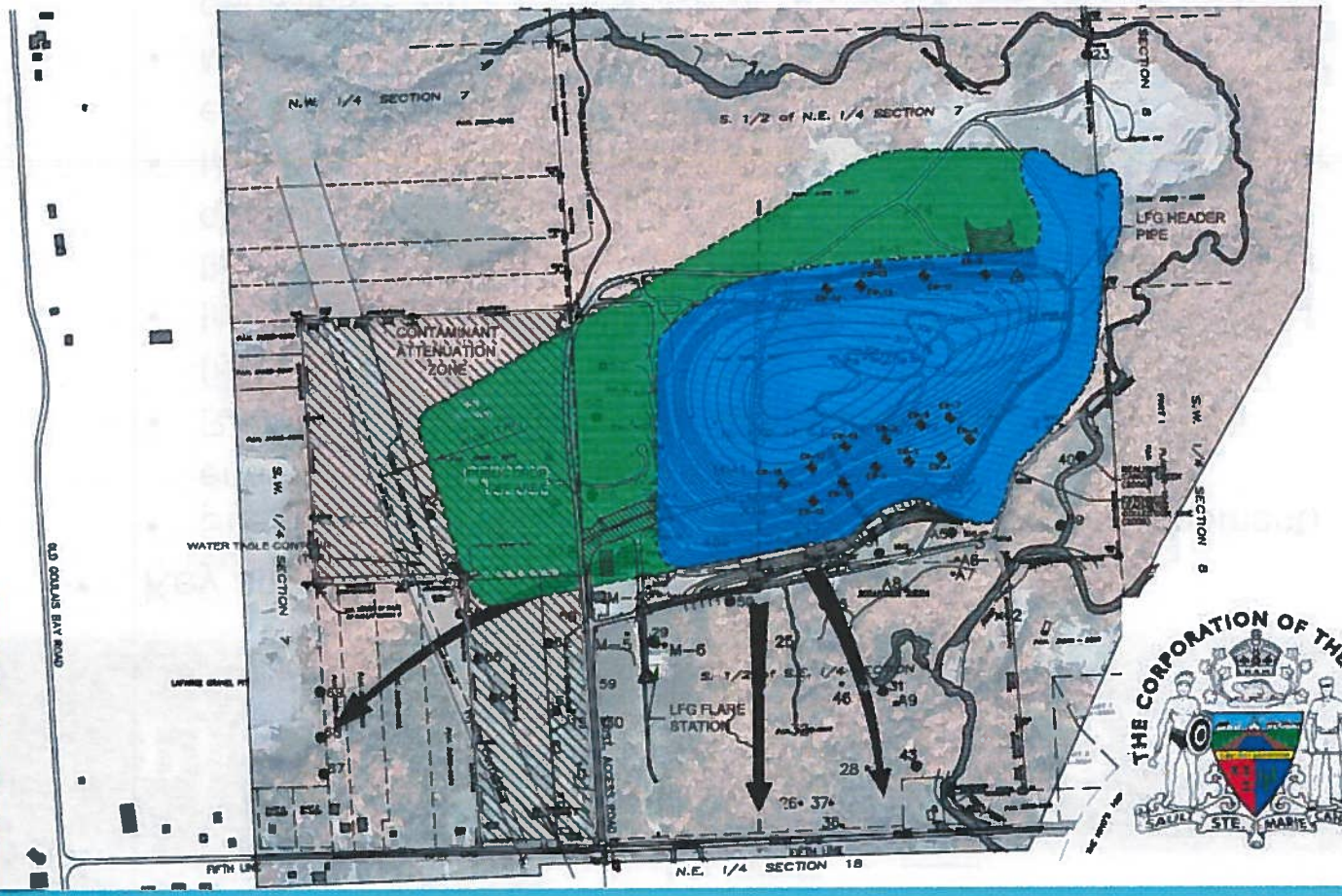


Evaluation of Expansion Options

- Data collection and analysis
- Technical disciplines initially compare options relative to each other and rank them under each criterion
- Present the evaluation in a table or matrix format with the rationale for the rankings
- Present to the public and solicit input from community members, stakeholders, First Nations, and governmental agencies
- Make adjustments to the evaluation based on input received
- Select a preferred option

Preliminary Preferred Expansion Option

- On the basis of the **preliminary** evaluation, the preliminary preferred expansion option is presented below



Preliminary Preferred Option

- Key advantages relative to other options include:
  - Site development (i.e. geometry and storm water management) enhanced relative to Options 2 and 4.
  - Reduced average excavation depth in west expansion area (i.e.11m).
  - Includes a liner beneath the waste within the western portion of the existing disposal footprint enhancing long term groundwater quality.
  - Includes a liner over existing waste in areas of overlap to further enhance groundwater quality.
  - Meets target capacity at current estimated waste densities.

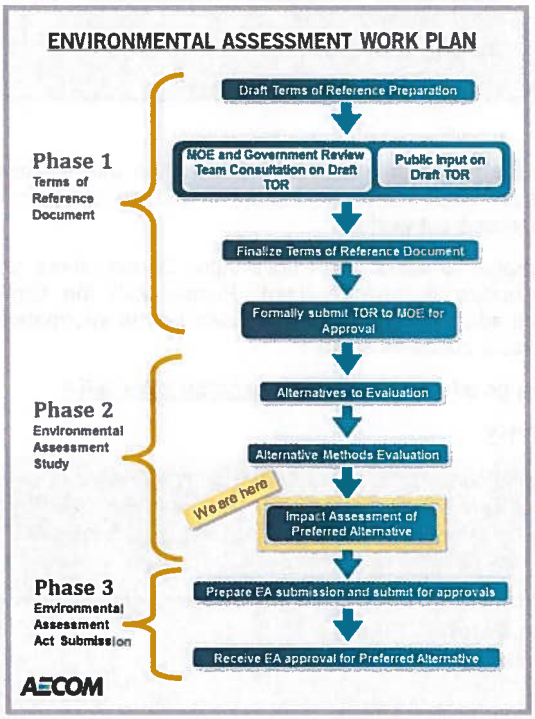
Next Steps

- Solicit governmental, community First Nation and stakeholder input on the preliminary preferred expansion option – do you agree/disagree – why?
- Re-assess (if needed) and finalize the Step 2 evaluation based on input received
- Announce the preferred Step 2 - Alternative Method (i.e. preferred expansion option)
- Initiate a detailed impact assessment for the preferred option
- Continue to investigate ways to improve waste diversion through 3Rs initiatives

THE CITY OF SAULT STE. MARIE
JANUARY, 2016 NEWSLETTER
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

ENVIRONMENTAL ASSESSMENT (EA) PROCESS

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. The EA Process is a transparent decision-making process used to promote good environmental planning by assessing potential effects of certain activities or projects on the natural and human environment. There are several phases and tasks involved in completing an EA as outlined in the graphic below.



The City is finalizing Phase 2 of the EA Process and is currently preparing the EA submission. **We are interested in obtaining your input related to the current activities.**

BACKGROUND

Phase 1 of the EA process included public consultation and culminated with the Ministry of Environment and Climate Change's (MOECC) approval of the project Terms of Reference (ToR) in 2005. The ToR provides a framework or roadmap for completing the EA and summarizes the tasks and activities to be undertaken by the proponent.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and **the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.** The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

The City remains committed to investigating, implementing and supporting programs to increase waste diversion through 3Rs initiatives. Since the implementation of 3Rs initiatives does not require EA Act approval, the EA study turned its focus to alternative methods of landfilling residual waste. The key objective of this phase of the study is to find an environmentally suitable location for the development of additional landfill capacity.

The first step in this phase consisted of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. To identify a preferred approach to landfilling waste, the alternatives were compared using the following seven criteria groups:

1.	Natural environment	5.	Capability of managing waste quality and quantity
2.	Social-cultural environment	6.	Proven technical capacity
3.	Economic environment	7.	Cost
4.	Flexibility of the system		

A Public Input Session was held in April, 2011 to present the landfill alternatives being considered. **The evaluation and response from consultation concluded that an expansion of an existing landfill is generally preferred over construction of a new site.**

The study noted that an expansion requires less land, displaces fewer people and/or social/natural features, disrupts fewer people (i.e., one site versus two sites creating nuisance impacts), costs less, typically encounters fewer challenges in gaining technical approvals, and reduces the number of facilities the City must manage.

The second step in the Alternative Methods task focused on the best approach to expand the City's existing landfill site at 402 Fifth Line East by identifying and comparatively evaluating site expansion alternatives. Options considered included horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining (excavate previously disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) or a combination of these methodologies. A Public Input Session was held March, 2012 to obtain feedback on the evaluation criteria and the preliminary findings.

The evaluation and response from consultation concluded the preferred site expansion alternative consists of a modest increase in the height of the waste, an expansion of the disposal footprint to the west and north and mining a portion of the existing waste to enhance groundwater quality. All mined and expansion areas will include the

construction of a liner beneath the waste to collect leachate (precipitation contaminated as it filters through waste) and ultimately direct it to the City's sewage treatment plant for treatment.

Current Activities

The last part of Phase 2 involves assessing the potential impacts of the conceptual design and planned operation of the preferred site expansion alternative and identification of suitable mitigating measures. Multiple disciplines were involved to assess the various potential impacts of the expansion on site, off site, in the vicinity and along the access route. The access route was considered to be along Fifth Line from Highway 17 to the site (which is the same route used today). Measures to reduce or eliminate potential effects on the environment were recommended.

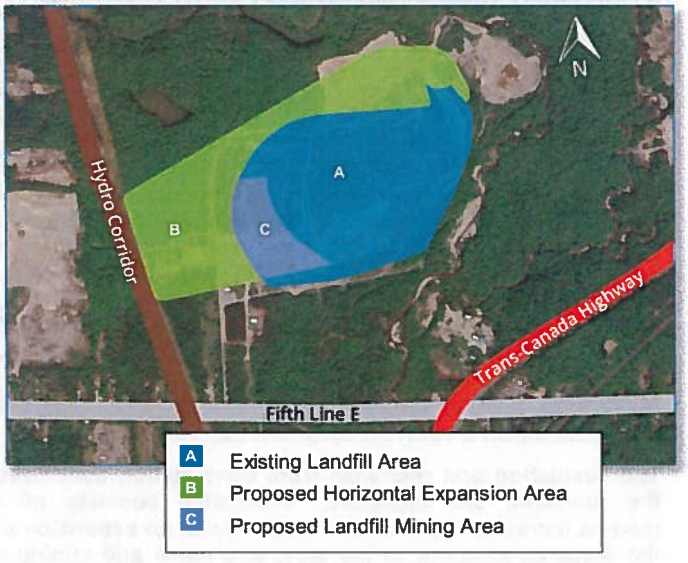
The disciplines that were involved include:

Natural Environment
- Biology
- Geology / hydrogeology
- Surface water

Socio-Cultural Environment
- Cultural (archaeology and heritage)
- Social
- Planned land use
- Visual
- Atmospheric (dust, noise, air quality)

Economic
- Businesses
- Transportation

Conceptual Layout of Proposed Landfill Expansion Area



HOW CAN I PROVIDE INPUT?

We will be hosting a Public Open House where you will learn about the results of the impact assessment work and we will ask for your feedback. If you are interested in discussing the project, we encourage you to attend the upcoming public open house!

YOU'RE INVITED!

Date:	*Tuesday, February 9, 2016*
Location:	*Civic Centre – 99 Foster Drive* *Russ Ramsay Room*
Time:	*3:30 pm to 7:30 pm*

Refreshments to be provided.

We will provide you with background information and discuss, with you, the preferred site expansion option and the results from the impact assessment work.

If you are unable to attend the Public Input Session there are other opportunities to provide input. Please visit the City's website at the address noted below to obtain further information, and / or access a comment sheet.

Project webpage address: saultstemarie.ca/SolidWasteEA

CONTACT US

You may also contact the Consultant Project Manager or the City's Land Development and Environmental Engineer by email, mail or telephone if you have questions or would like additional information.

Mr. Rick Talvitie, P.Eng.
Project Manager
AECOM
523 Wellington Street East,
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Phone: 705-942-2612
Email: rick.talvitie@aecom.com

Ms. Catherine Taddo, P.Eng.
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THE CITY OF SAULT STE. MARIE

NOTICE OF PUBLIC INPUT SESSION

SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. To date significant progress has been made.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and **the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.** The preferred alternative was presented at an Open House in June, 2010.

The study noted:

- landfills can be designed and operated to comply with regulations and policies;
- landfill gas can be collected and flared or recovered to generate electricity;
- landfills can manage the entire residual waste stream;
- landfills are flexible to changes in waste quality and quantities; and
- landfilling is cost effective.

In April, 2011 a Public Input Session was held to present the non-site specific landfill alternatives being considered. **The evaluation, which considered responses from consultation, concluded that an expansion of an existing landfill is generally preferred over construction of a new site.**

The study noted:

- an expansion requires less land;
- displaces fewer people and/or social/natural features;
- disrupts fewer people (i.e. one site versus two sites creating nuisance impacts);
- costs less;
- typically encounters fewer challenges in gaining technical approvals; and
- reduces the number of facilities the City must manage.

In March 2012 a Public Input Session was held to present the preliminary preferred approach to expanding the existing landfill at 402 Fifth Line East in the City of Sault Ste. Marie. **The evaluation, which considered responses from consultation, concluded that an expansion is best accommodated with a moderate increase in the height of the waste together with and expansion of the disposal footprint to the north and west. The preferred option also includes landfill mining (excavate existing disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) in the western portion of the existing disposal footprint to enhance groundwater protection. All mined and expansion areas will include the construction of a liner beneath the waste to collect leachate (precipitation contaminated as it filters through waste) and ultimately direct it to the City's sewage treatment plant for treatment.**

CURRENT ACTIVITIES

Presently the project team is focusing on **completing an impact assessment for the preferred expansion option.** The impact assessment includes expertise from numerous disciplines and focusses on potential impacts to the natural and human environments associated with the construction and operation of the proposed expansion. Careful attention is given to best management practices to mitigate potential impacts.

We are now seeking input from the Community, government agencies, stakeholders, and First Nations regarding the results of our impact assessment work and the proposed mitigation measures.

PUBLIC INPUT SESSION

If you are interested in discussing the impact assessment work, we encourage you to attend the upcoming public open house! We will provide you with background information and discuss with you, the preferred site expansion option and the results of the impact assessment work.

CONTACT US

We also encourage you to contact the individuals noted below if you have any specific questions.

Mr. Rick Talvitie, P.Eng
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Phone: (705) 759-5380
Fax: (705) 541-7165
Email: c.taddo@cityssm.on.ca

YOU'RE INVITED!

Date: Tuesday February 9, 2016

Location: Civic Centre – Russ Ramsay Room

Time: 3:30 pm to 7:30 pm

Refreshments to be provided.

If you cannot attend the public open house, we still want to hear from you! Just go to the project webpage (address provided below) to review the project reference material and fill out a comment sheet or simply send us an email (email addresses provided above). Project webpage address: saultstemarie.ca/SolidWasteEA

Sault Ste. Marie Region Conservation Authority						
• Correspondence – Newsletter No. 2 and Notice of Public Input Session – Project update and information regarding the upcoming June 3, 2010 PIC which is intended to identify the preferred “Alternative To”, discuss the project progress and have questions or concerns addressed.	May, 2010	• No comments received.			Solid Waste Disposal Environmental Assessment Newsletter No. 2, May 2010, and Notice of Public Information Centre – Appendix L	
• Public Input Session No. 2 – Conducted to communicate the preferred “Alternative To” and provide an opportunity to discuss the project progress and have questions or concerns addressed.	June 3, 2010	• No comments received.			Records from June 3, 2010 PIC No. 2 – Appendix H	
• Correspondence – Notice of Public Input Session – Project update and information regarding the upcoming April 19, 2011 PIC No. 3 which is intended to solicit input and feedback on the alternative approaches to landfilling residual waste (i.e. expand existing disposal site versus a new site.	April, 2011	• No comments received.			Solid Waste Management Environmental Assessment Notice of Public Input Session, April, 2011 – Appendix L	
• Public Input Session No. 3 - Conducted to provide an opportunity to discuss project progress, solicit input and feedback on the alternative approaches to landfilling residual waste (i.e. expand existing disposal site versus a new site) and to address questions or concerns.	April 19, 2011	• No comments received.			Records from April 19, 2011 PIC – Appendix I	
• Correspondence – Notice of Public Input Session – Project update and information regarding the upcoming March 6, 2012 PIC which is intended to solicit input and feedback on the alternative approaches to expanding the existing disposal site.	February, 2012	• No comments received			Solid Waste Disposal Environmental Assessment Notice of Public Input Session February, 2012 – Appendix L	
• Public Information Centre No. 4 - Conducted to discuss project progress and to solicit input and feedback on a preferred expansion strategy for the existing landfill site.	March 6, 2012	• No comments received.			Records from March 6, 2012 PIC – Appendix J	
• Correspondence – Letter Rhonda Bateman, Sault Ste. Marie Region Source Protection Committee (SPC) from R. Talvitie reiterating points made during a March 5, 2012 presentation to the Source protection Committee and addressing comments identified in a letter from the SPC dated April 12, 2012.	June 5, 2012	• Consideration should be given by the City of SSM and the PUC to petition the expansion of the current Provincial Groundwater Monitoring Network (PGMN). This expansion could allow for additional groundwater quality and quantity monitoring away from the landfill. This additional monitoring capability would increase the predictability of any potential threat of off-site contamination and allow	• The City has an extensive network of monitors within and immediately adjacent to the landfill site. We agree that it would be beneficial to establish monitors elsewhere within the City and upstream of PUC’s production wells to assess groundwater	Historical groundwater protection and monitoring results are incorporated in the annual monitoring reports and the proposed groundwater protection enhancements, future monitoring and contingency measures are addressed in Sections 6.6.3, 7.2.2, 8.1.1 and 8.3	Letter dated June 5, 2012 to Rhonda Bateman, Sault Ste. Marie Region Source Protection Committee from R. Talvitie – Appendix L	

		the operators of the municipal drinking water distribution network to have ample notice of any impending issues.	quality changes, trends and potential impacts. This would allow for early identification of potential problems from a wide variety of potential sources of contamination and allow adequate lead time to take action. We fully support petitioning the expansion of the PGMN. We will continue to keep the SPC informed of project progress and future opportunities for public input.			
• Correspondence – Newsletter and Notice advising of February 9, 2016 Public Input Centre No. 5 intended to discuss project progress and solicit input and feedback on the impact assessment work.	January, 2016	• No comments received.			Solid Waste Disposal Environmental Assessment January 2016 Newsletter and Notice of Public Input Session – Appendix L	
• Public Input Session No. 5 - Conducted to discuss project progress and to solicit input and feedback on the impact assessment work.	February 9, 2016	• No comments received.			Records from February 9, 2016 PIC – Appendix K	

SOLID WASTE DISPOSAL
ENVIRONMENTAL ASSESSMENT

Newsletter No.2, May 2010

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its residual municipal solid waste. In the evaluation of "Alternatives To the Undertaking", a thorough review of different waste management alternatives including increased waste diversion, incineration/high heat processes, landfill, export waste outside the service area, and "do-nothing" was completed. To identify a preferred waste management method, the alternatives were comparatively evaluated using the following seven criteria:

1. Compliance with current regulations and policies;
2. Environmental acceptability;
3. The ability of the City of Sault Ste. Marie to implement the preferred alternative;
4. Flexibility of the system;
5. Capability of managing waste quality and quantity;
6. Proven technical capacity; and
7. Cost.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative for the City has been identified as **increased waste diversion and landfilling of the residual waste.**

DIVERSION UPDATE

The residential waste diversion program diverted approximately 34% of residential waste from the landfill in 2009. This shows consistent progress when compared to the 9% diverted in 2000! The City of Sault Ste. Marie's waste diversion program currently includes weekly curbside collection and recycling of paper products in the yellow box and containers in the blue box; bi-weekly collection and composting of leaf and yard waste throughout the growing season (April through November); a household special waste facility at 115 Industrial Park Crescent; landfill bans and segregation and recycling of metals, white goods, tires, and clean wood and brush at the landfill at 402 Fifth Line East. Since 2006, the City has limited residential waste setout to 2 bags/containers per week per household. Tags for additional waste bags or containers must be purchased. The City diversion programs are also supplemented by diversion initiatives undertaken by the private sector and special interest groups.

The City is also currently assessing the feasibility of diverting municipal biosolids (sewage sludge) from disposal.

PUBLIC INFORMATION CENTRE

A Public Information Centre is being held to provide an opportunity for you to discuss the project progress and have your questions or concerns addressed.

Date: Thursday, June 3, 2010

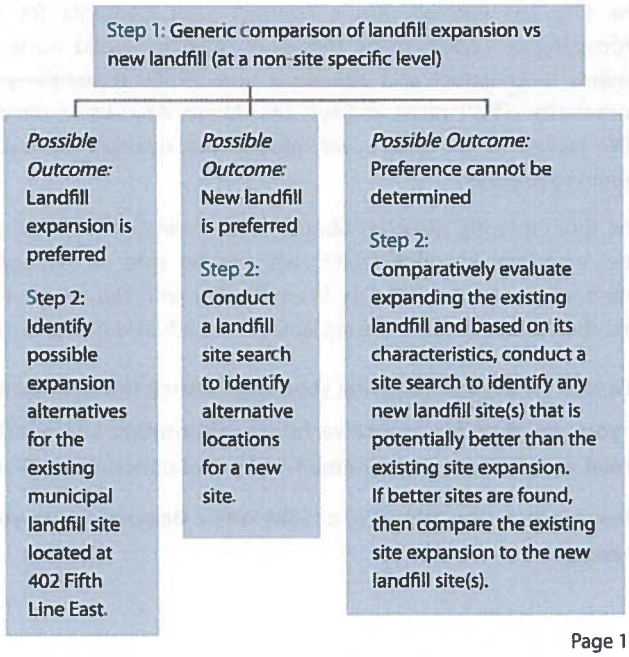
Location: Thompson Room
Civic Centre, 99 Foster Drive

Time: 3:30 pm to 7:30 pm

WHAT'S NEXT?

The results of the Environmental Assessment work completed to date suggest that landfill remains the most appropriate disposal option for the City's residual waste. Landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and recovered to generate electricity, landfills can manage the entire residual waste stream, are flexible to changes in waste quality and quantities and are cost effective.

Following the "Alternatives To" evaluation, the next step in the EA process for a landfill facility is the identification and evaluation of "Alternative Methods" of landfilling. This can include both alternative locations and alternative designs as illustrated in the flow chart below. We will be looking for public input on landfill options in the Fall of 2010.



SOLID WASTE DISPOSAL
ENVIRONMENTAL ASSESSMENT

Newsletter No.2, May 2010

ABOUT THE ENVIRONMENTAL ASSESSMENT (EA) PROCESS

The Environmental Assessment for disposal capacity includes three key phases. The first phase was completed with the submission and approval of the EA Terms of Reference. We are currently working within the second phase: the Environmental Assessment Study itself. The last phase is submission of the EA documentation to the Ministry of the Environment and the subsequent government and public review and approval period. It is anticipated that the whole process will take until late 2012.

In September 2005 the Minister of the Environment approved the Environmental Assessment Terms of Reference (EA TOR) for the Sault Ste. Marie Solid Waste Management Plan. The EA TOR documents the process that will be followed to determine the preferred method for managing solid waste in Sault Ste. Marie for the next 20 to 40 years. In addition to the disposal EA, the Sault Ste. Marie Solid Waste Management Plan includes a significant diversion component.

Keep up-to-date on the EA Study at the City of Sault Ste. Marie's website: http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1

ELEMENTA ENERGY-FROM-WASTE FACILITY

In 2007, an energy-from-waste (EFW) developer known as The Elementa Group (Elementa) constructed a pilot steam reformation plant that would convert municipal solid waste into a char and synthetic gas (or "syngas") that can be used to generate electricity.

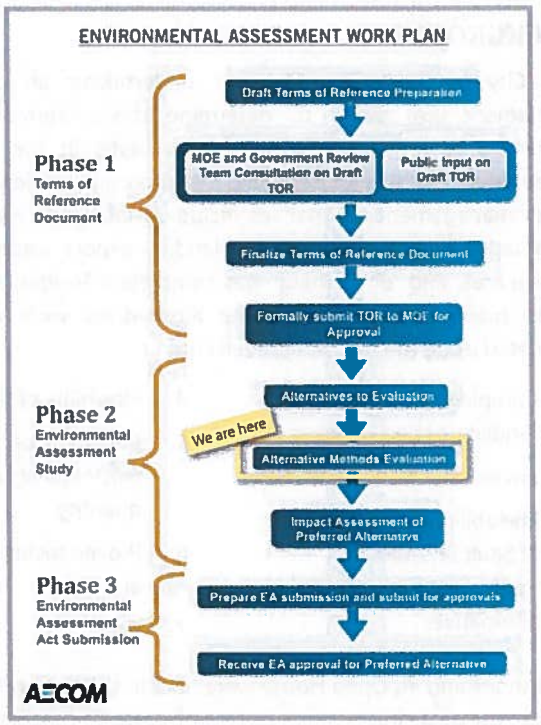
The City has entered into a contract with Elementa for the annual processing of 12,500 metric tonnes of municipal solid waste. Elementa intends to construct and operate a new 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility in the future will reduce the quantity of residual waste requiring disposal.

The City currently disposes about 60,000 tonnes of residual waste each year therefore; the EFW facility will not be able to manage the City's entire waste stream. The City is continuing with the EA study to ensure that the City can process the remainder of residual waste generated.

We look forward to receiving your input during this important study!

If you would prefer to receive future information and notifications via email, please forward your email address to nancy.maahs@aecom.com.

Please include the title "City of SSM Waste Disposal EA" in your message.



CONTACT US

Your input on this project is important to us. If you would like further information or to send comments, ask questions or be added to our mailing list, please contact us:

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523 Wellington Street East,
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Email: rick.talvitie@aecom.com

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Land Development and Environmental Engineer
City of Sault Ste. Marie
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THE CITY OF SAULT STE. MARIE

Notice of Public Information Centre

SOLID WASTE DISPOSAL ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its residual municipal solid waste. Work to date has included a thorough review of a number of waste management alternatives including increased waste diversion, incineration/high heat process, landfill, export waste and "do nothing". To identify a preferred waste management method, the alternatives were comparatively evaluated using the following seven criteria:

1. Compliance with current regulations and policies;
2. Environmental acceptability;
3. The ability of the City of Sault Ste. Marie to implement the preferred alternative;
4. Flexibility of the system;
5. Capability of managing waste quality and quantity;
6. Proven technical capacity; and
7. Cost.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative for the City has been identified as **increased waste diversion and landfilling of the residual waste**.

Residents currently divert approximately 34% of their waste from disposal and the City will continue to provide opportunities to improve on this diversion rate. The remaining 66% of residential waste and industrial, commercial and institutional wastes currently goes to the City landfill. In addition to the City's current diversion, the City has entered into a contract with a private corporation for the annual supply of 12,500 metric tonnes of municipal solid waste. This corporation intends to construct and operate a 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility will reduce the quantity of residual waste requiring disposal.

The results of the Environmental Assessment work completed to date suggest that landfill remains the most appropriate disposal option for the City's residual waste. Landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and recovered to generate electricity, landfills can manage the entire residual waste stream, are flexible to changes in waste quality and quantities and are cost effective.

PUBLIC INFORMATION CENTRE

A Public Information Centre is being held to provide an opportunity for you to discuss the project progress and have your questions or concerns addressed.

Date: Thursday, June 3, 2010
Location: Thompson Room
Civic Centre, 99 Foster Drive
Time: 3:30pm to 7:30 pm

THE NEXT STEPS

Over the summer the project team will be looking at options for landfilling residual waste. This work will include consideration of opportunities to expand the existing landfill or establish a new landfill site. In the Fall of 2010, we will be looking for public input on landfill options.

If you have any questions related to the study, please contact:

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If you would like to receive future information and notifications via email, please forward your email address to nancy.maahs@aecom.com. Please include the title "City of SSM Waste Disposal EA" in your message.

THE CITY OF SAULT STE. MARIE

NOTICE OF PUBLIC INPUT SESSION

SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. In the evaluation of "Alternatives To the Undertaking", a thorough review of different waste management alternatives including increased waste diversion, incineration/high heat processes, landfill, export waste outside the service area, and "do-nothing" was completed. To identify a preferred approach to managing waste, the alternatives were comparatively evaluated using the following seven criteria:

1. Compliance with current regulations and policies;
2. Environmental acceptability;
3. The ability of the City of Sault Ste. Marie to implement the preferred alternative;
4. Flexibility of the system;
5. Capability of managing waste quality and quantity;
6. Proven technical capacity; and
7. Cost.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste. The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the entire residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

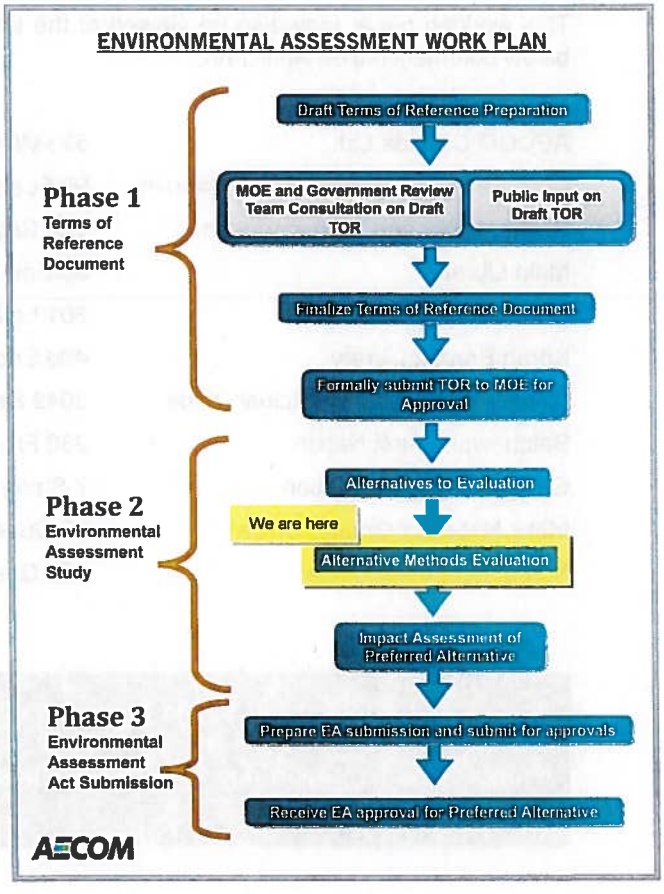
The flexibility of the preferred alternative is particularly important given the City's contract with The Elementa Group (an energy-from-waste service provider) for the annual processing of at least 12,500 metric tonnes of municipal solid waste. Elementa intends to construct and operate a new 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility in the future will reduce the quantity of residual waste requiring disposal in a landfill.

NEXT STEPS

The City remains committed to investigating, implementing and supporting programs to increase waste diversion through 3Rs initiatives. Since the implementation of 3Rs initiatives does not require Environmental Assessment (EA) Act approval, the EA study is now focusing on alternative methods of landfilling residual waste. The key objective of this phase of the study is to find an environmentally suitable location for the development of additional landfill capacity.

The first step to be completed in this phase consists of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. This step will provide initial focus to the search for additional landfill capacity.

A preliminary evaluation of these alternatives has been completed by the project team. We are now seeking input from the general public and Stakeholders regarding the evaluation criteria considered and the preliminary findings.



THE CITY OF SAULT STE. MARIE

NOTICE OF PUBLIC INPUT SESSION

SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

PUBLIC INPUT SESSION

If you are interested in discussing the alternatives and criteria that will be used to compare and select a preferred approach to landfilling residual waste in Sault Ste. Marie, Prince Township and Batchewana First Nation's Rankin Reserve, we encourage you to attend this public input session!

We will provide you with background information, update you on the City's achievements in increasing waste diversion and discuss with you the alternative approaches to landfilling residual solid waste. A principle objective of the session is to confirm whether the City should focus its efforts to obtain additional disposal capacity by expanding an existing landfill site or finding a location for a new site.

Background information documenting the work completed to date is available on the City website at **http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1**.
In addition, the alternatives and the evaluation criteria currently being considered are also available on the website in a working paper prepared for this session titled "Solid Waste Management Environmental Assessment - Alternative Methods – Step 1 (Landfill Expansion versus Development of a New Site).

This working paper may also be viewed at the locations noted below commencing on April 11th.

AECOM Canada Ltd.	523 Wellington Street
Civic Centre Engineering and Planning	99 Foster Drive, 5th Flr.
Public Works and Transportation	128 Sackville Road
Main Library	50 East Street
Churchill Branch Library	301 Lake Street
Korah Branch Library	496 Second Line
Township of Prince Municipal Office	3042 Second Line West
Batchewana First Nation	236 Frontenac Street
Garden River First Nation	7 Shingwauk Street
Metis Nation of Ontario Office	26 Queen Street East
Missanabie Cree Office	559 Queen Street East

YOU'RE INVITED!

Date:	Tuesday April 19, 2011
Location:	Civic Centre – Russ Ramsay Room
Time:	6:30 pm to 9:00 pm

Refreshments to be provided.

CONTACT US

We also encourage you to contact the individuals noted below if you have any specific questions.

Mr. Rick Talvitie, P.Eng
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Information pertaining to this session is available on the City of Sault Ste. Marie website at: **http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1**.
Hardcopies can also be obtained by contacting AECOM at 705-942-2612.

If you cannot attend the public input session in person, we still want to hear from you! Just go to the City's website (http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1), review the Alternatives Method - Step 1 Report and fill out our online questionnaire. A link to the online questionnaire is provided on the City's website.

THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. In the evaluation of "Alternatives to the Undertaking", a thorough review of different waste management alternatives including increased waste diversion, incineration/high heat processes, landfill, export waste outside the service area, and "do-nothing" was completed.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste. The preferred alternative was presented at an Open House in June, 2010.

NEXT STEPS

The next step consists of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. This step will provide initial focus to the search for additional landfill capacity.

A preliminary evaluation of these alternatives has been completed by the project team. We are now seeking input from the general public and stakeholders regarding the evaluation criteria considered and the preliminary findings.

PUBLIC INPUT SESSION

If you are interested in discussing the alternatives and criteria that will be used to compare and select a preferred approach to landfilling residual waste in Sault Ste. Marie, Prince Township and Batchewana First Nation's Rankin Reserve, we invite you to attend this public input session.

We will provide background information, update you on the City's achievements in increasing waste diversion and discuss the alternative approaches to landfilling residual solid waste.

Background documents including the working paper to be discussed at the public input session entitled "Solid Waste Management Environmental Assessment - Alternative Methods – Step 1 (Landfill Expansion versus Development of a New Site)" are available on the City's website at **www.cityssm.on.ca – Click City Hall Bulletins – Public Input Session – Solid Waste Management.**

CONTACT US

We encourage you to contact the individuals below if you have questions.

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Email: s.hamiltonbeach@cityssm.on.ca

YOU'RE INVITED!

Date: Tuesday, April 19, 2011

Location: Civic Centre, 99 Foster Dr.
Russ Ramsay Board Room

Time: 6:30 to 9:00 p.m.

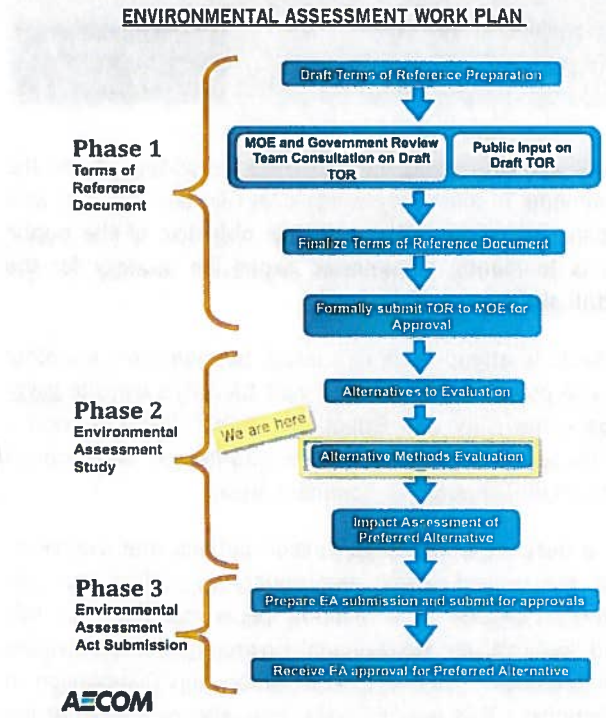
Refreshments provided.

If you cannot attend the public input session, we still want to hear from you! Go to the City's website www.cityssm.on.ca (Click City Hall Bulletins – Public Input Session – Solid Waste Management) to review the Alternatives Method - Step 1 Report and fill out the online questionnaire.

THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

ENVIRONMENTAL ASSESSMENT (EA) PROCESS

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. The EA Process is a transparent decision-making process used to promote good environmental planning by assessing potential effects of certain activities or projects on the natural and human environment. There are several phases and tasks involved in completing an EA as outlined in the graphic below.



The City is currently mid-way through Phase 2 of the EA Process and is interested in obtaining your input related to the current activities.

BACKGROUND

Phase 1 of the EA process included public consultation and culminated with the Ministry of Environments approval of the project Terms of Reference (ToR) in 2005. The ToR provides a framework or roadmap for completing the EA and summarizes the tasks and activities to be undertaken by the proponent.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the **preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.** The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the entire residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

The flexibility of the preferred alternative is particularly important given the City's contract with The Elementa Group (an energy-from-waste service provider) for the annual processing of at least 12,500 metric tonnes of municipal solid waste. Elementa is currently negotiating an energy purchase agreement and intends to construct and operate a new 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility in the future will reduce the quantity of residual waste requiring disposal in a landfill.

The City remains committed to investigating, implementing and supporting programs to increase waste diversion through 3Rs initiatives. Since the implementation of 3Rs initiatives does not require Environmental Assessment (EA) Act approval, the EA study is now focusing on alternative methods of landfilling residual waste. The key objective of this phase of the study is to find an environmentally suitable location for the development of additional landfill capacity.

The first step in this phase consisted of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. To identify a preferred approach to landfilling waste, the alternatives were compared using the following six criteria groups:

1. Natural environment;
2. Social-Cultural environment;
3. Economic environment;
4. Cost;
5. Technical considerations; and
6. Transportation.

A Public Input Session was held in April, 2011 to present the landfill alternatives being considered. **The evaluation and response from consultation concluded that an expansion of an existing landfill is generally preferred over construction of a new site.**

The study noted that an expansion requires less land, displaces fewer people and/or social/natural features, disrupts fewer people (ie. one site versus two sites creating nuisance impacts), costs less, typically encounters fewer challenges in gaining technical approvals, and reduces the number of facilities the City must manage.

THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

CURRENT ACTIVITIES

The second step in the Alternative Methods task focuses on the best approach to expand the existing landfill site at 402 Fifth Line East in the City of Sault Ste. Marie. Expansion options have been developed that make the best use of the existing site characteristics and the area available to expand. Options considered include horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining (excavate previously disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) or a combination of these methodologies.

A preliminary evaluation of the expansion options has been completed by the project team. We are now seeking input from the Community, government agencies, stakeholders, and First Nations regarding the evaluation criteria considered and the preliminary findings.

CONTACT US

You may also contact the Consultant Project Manager or the City's Land Development and Environmental Engineer by email, mail or telephone if you have questions or would like additional information.

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
Email: rick.talvitie@aecom.com

Ms. Catherine Taddo, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5380
Fax: (705) 541-7165
Email: c.taddo@cityssm.on.ca

HOW CAN I PROVIDE INPUT?

If you are interested in discussing the expansion options, the criteria used in the evaluation and the preliminary findings we encourage you to attend the upcoming public input session!

YOU'RE INVITED!

Date: Tuesday, March 6, 2012
Location: Civic Centre – 99 Foster Drive
Russ Ramsay Room
Time: 3:30PM to 7:30PM

Refreshments to be provided.

We will provide you with background information update you on the City's achievements in increasing waste diversion and discuss, with you, the expansion options. **The principle objective of the public consultation is to identify a preferred expansion strategy for the existing landfill site.**

If you are unable to attend the Public Input Session there are other opportunities to provide input. Please visit the City's website **www.cityssm.on.ca** - View City Hall Bulletins – Public Input Session – Solid Waste Management to obtain further information, complete an online questionnaire, or access a comment sheet.

In addition, a description of the expansion options, the evaluation criteria, and the project team's preliminary evaluation are also available on the website in a working paper prepared for this session titled "Solid Waste Management Environmental Assessment – Alternative Methods – Step 2 (Identification and Comparison of Expansion Options). This working paper may also be viewed at the locations noted below commencing on February 21, 2012.

AECOM Canada Ltd.	523 Wellington Street
Civic Centre Engineering and Planning	99 Foster Drive, 5th Flr.
Public Works and Transportation	128 Sackville Road
Main Library	50 East Street
Churchill Branch Library	301 Lake Street
Korah Branch Library	496 Second Line
Township of Prince Municipal Office	3042 Second Line West
Batchewana First Nation	236 Frontenac Street
Garden River First Nation	7 Shingwauk Street
Metis Nation of Ontario Office	26 Queen Street East
Missanabie Cree Office	559 Queen Street East

THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. To date significant progress has been made.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and **the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.** The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the entire residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

In April, 2011 a Public Input Session was held to present the non-site specific landfill alternatives being considered. **The evaluation and response from consultation concluded that an expansion of an existing landfill is generally preferred over construction of a new site.**

The study noted that an expansion requires less land, displaces fewer people and/or social/natural features, disrupts fewer people (ie. one site versus two sites creating nuisance impacts), costs less, typically encounters fewer challenges in gaining technical approvals, and reduces the number of facilities the City must manage.

CURRENT ACTIVITIES

Presently the project team is focusing on **the best approach to expand the existing landfill site at 402 Fifth Line East in the City of Sault Ste. Marie.** Expansion options have been developed that make the best use of the existing site characteristics and the area available to expand. Options considered include horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining (excavate previously disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) or a combination of these methodologies.

A preliminary evaluation of the expansion options has been completed by the project team. **We are now seeking input from the Community, government agencies, stakeholders, and First Nations regarding the evaluation criteria considered and the preliminary findings.**

PUBLIC INPUT SESSION

If you are interested in discussing the expansion options, the criteria used in the evaluation and the preliminary findings, we encourage you to attend the upcoming public input session!

We will provide you with background information, update you on the City's achievements in increasing waste diversion and discuss, with you, the expansion options. **The principle objective of the public consultation is to identify a preferred expansion strategy for the existing landfill site.**

The expansion options, the evaluation criteria, and the project team's preliminary evaluation are also available on the City's website (**www.cityssm.on.ca - View City Hall Bulletins – Public Input Session – Solid Waste Management**) in a working paper prepared for this session titled "Solid Waste Management Environmental Assessment - Alternative Methods – Step 2 (Identification and Comparison of Expansion Options). This working paper may also be viewed at the locations noted below commencing on February 21, 2012.

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CONTACT US

We also encourage you to contact the individuals noted below if you have any specific questions.

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YOU'RE INVITED!

Date: Tuesday, March 6, 2012
Location: Civic Centre – Russ Ramsay Room
Time: 3:30PM to 7:30PM

Refreshments to be provided.

If you cannot attend the public input session in person, we still want to hear from you! Just go to the City's website www.cityssm.on.ca - View City Hall Bulletins – Public Input Session – Solid Waste Management review the Alternatives Method – Step 2 Report and fill out our online questionnaire or comment sheet. A link to the online questionnaire is provided on the City's website.

AECOM

DILLON CONSULTING

Solid Waste Management Environmental Assessment

COUNCIL PRESENTATION

THE CORPORATION OF THE CITY OF SAULT STE MARIE CANADA

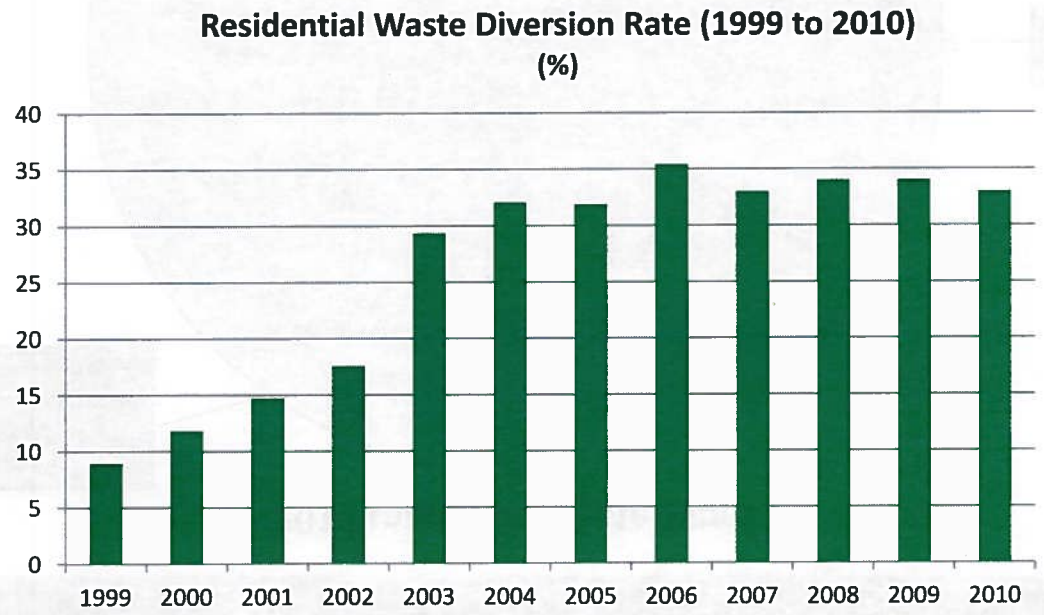
March, 2012

Objectives of the Presentation

- Provide Council and residents with an update on waste management planning activities and results;
- Review project need;
- Provide an overview of the Environmental Assessment process and where we are at in the process;
- Present the criteria and approach used in the evaluation of site expansion options;
- Present the preliminary results of the evaluation completed by the project team;
- Identify the next steps in the EA process; and
- Answer your questions.

Project History - Diversion

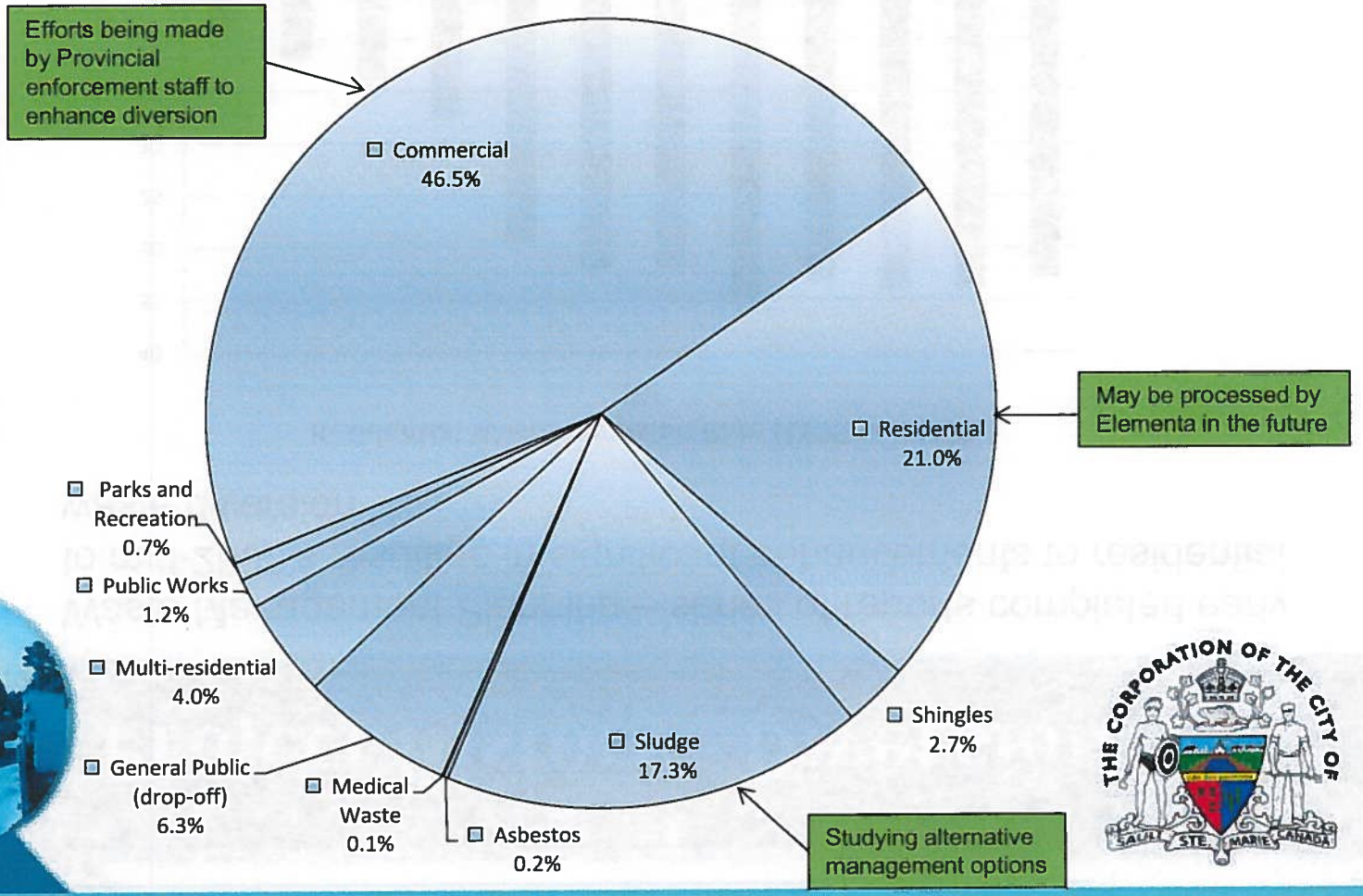
- Waste Management Planning – series of reports completed early to mid-2000's resulting in significant enhancements to residential waste diversion



Increased residential diversion rate from 9% in 1999 to 33% to 35% in recent years

Project History - Diversion

2010 Landfilled Waste Types



Project History - Project Need

- **The estimated remaining service life of the existing landfill is 7 to 10 years depending on future population changes, in-situ subsidence and waste generation, diversion and disposal rates. The low end of this range is used for planning purposes.**
- Despite significant success in enhancing waste diversion, additional disposal capacity is required.

What is an EA?

Purpose = *"to protect the environment and quality of life of the people of the province; and facilitate the wise management of the natural resources of the province".*

- The EA Process is a transparent decision-making process used to promote good environmental planning by assessing potential effects of certain activities or projects on the natural and human environment. The EA process serves several important purposes:
  - Allowing projects to receive input from a wide variety of sources, including the federal, provincial and municipal levels of government, First Nations, stakeholders and the public.
  - Identifying potential problems prior to construction
  - Promoting good environmental planning practices
  - Improving community acceptance
  - Better protecting the environment

AECOM

DILLON CONSULTING

Project History

- MOE approval of EA ToR in late 2005
- EA work initiated by AECOM/Dillon – summer 2006
- "Alternatives To" (functionally different ways of managing waste) work completed and public consultation undertaken in summer of 2007
- Late 2008 to spring 2010 - Project delayed to allow time for the Enquest pilot project to mature
- Fall 2009 - City endorses waste supply agreement with Elementa
- City approval to resume EA process - Elementa will generate residual waste and is unable to manage the entire waste disposal quantity
- Spring 2010 – announced the preferred "Alternative To"

THE CORPORATION OF THE CITY OF SAULT STE. MARIE CANADA

Project History – Selected "Alternative TO"

Based on the results of the evaluation and input received the preferred long-term approach to managing waste in SSM is:

- Increased 3Rs (Reduce/Reuse/Recycle)
- Landfilling residual waste

Why?

- Can comply with regulations and policies
- City is experienced with these waste management initiatives
- Flexible to changes in the waste stream (e.g. population, waste generation, diversion)
- Can accept most residual waste from a Waste-to-Energy facility
- Cost efficient

The EA will now focus on identifying and evaluating alternative methods of landfilling waste (i.e. alternative locations and designs)

AECOM

DILLON CONSULTING

Project History

- Conducted a Public Information Session in June 2010 to announce the selected Alternative To
- Initiated the Alternative Methods Phase (alternative locations and designs)
- Completed a generic non-site specific evaluation of developing a new landfill versus expanding an existing site (Step 1)
- Consulted with the public in the spring of 2011regarding the generic options

THE CORPORATION OF THE CITY OF SAULT STE. MARIE CANADA

Project History – Preferred Landfilling Method

Based on the results of the evaluation and input received the preferred method of landfilling waste = expansion of an existing site

Why?

- Likely less potential for displacement and disruption
- Only one landfill site to manage and maintain
- Cost effective
- Community adaptation
- Likely fewer challenges in gaining approvals

The EA will now focus on how to best expand the existing site

Overview of Expansion Options

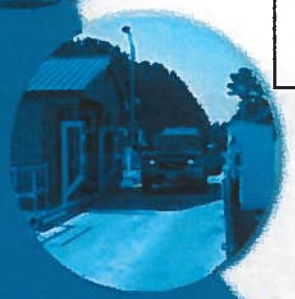
- Expansion options have been developed that make the best use of the existing site characteristics and the area available to expand.
- Options considered include horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining or a combination of these methodologies.
- All options include enhancements to better control groundwater quality related to the existing site.
- Some options require replacement/relocation of existing on-site infrastructure and some require enhanced compaction to provide the target disposal capacity

Evaluation of Expansion Options

- The evaluation has been completed using a two-step approach:
  - Step 1 – identify a preferred expansion area and shape;
  - Step 2 – assess the pros and cons of incorporating landfill mining.
- Mining involves excavation of previously disposed waste and cover material. Mined waste is fed through screens which separates coarse waste from fine materials. Recyclables are separated and sent for processing, remaining residual waste disposed of in the disposal site and fines (primarily sand) are stockpiled for use as cover.

Evaluation Criteria Groups

Criterion	Definition
Natural Environment	Addresses the potential for displacement and/or disruption of natural environmental features (terrestrial features, aquatic features, ground water and surface water)
Social Cultural Environment	Addresses the potential for displacement and/or disruption of social/cultural environmental features (residents, community features, future land use plans, heritage and archaeological resources, public health and safety)
Economics	Addresses the potential for displacement and/or disruption of existing businesses and resources (agriculture, forestry, mining)
Cost	Considers the lifecycle cost of the alternative.
Technical Considerations	Considers technical aspects of each option including impacts on existing site infrastructure and ease of site development.
Transportation	Considers the impacts of traffic volumes accessing the site and potential impacts to the airport and the movement of farm equipment.

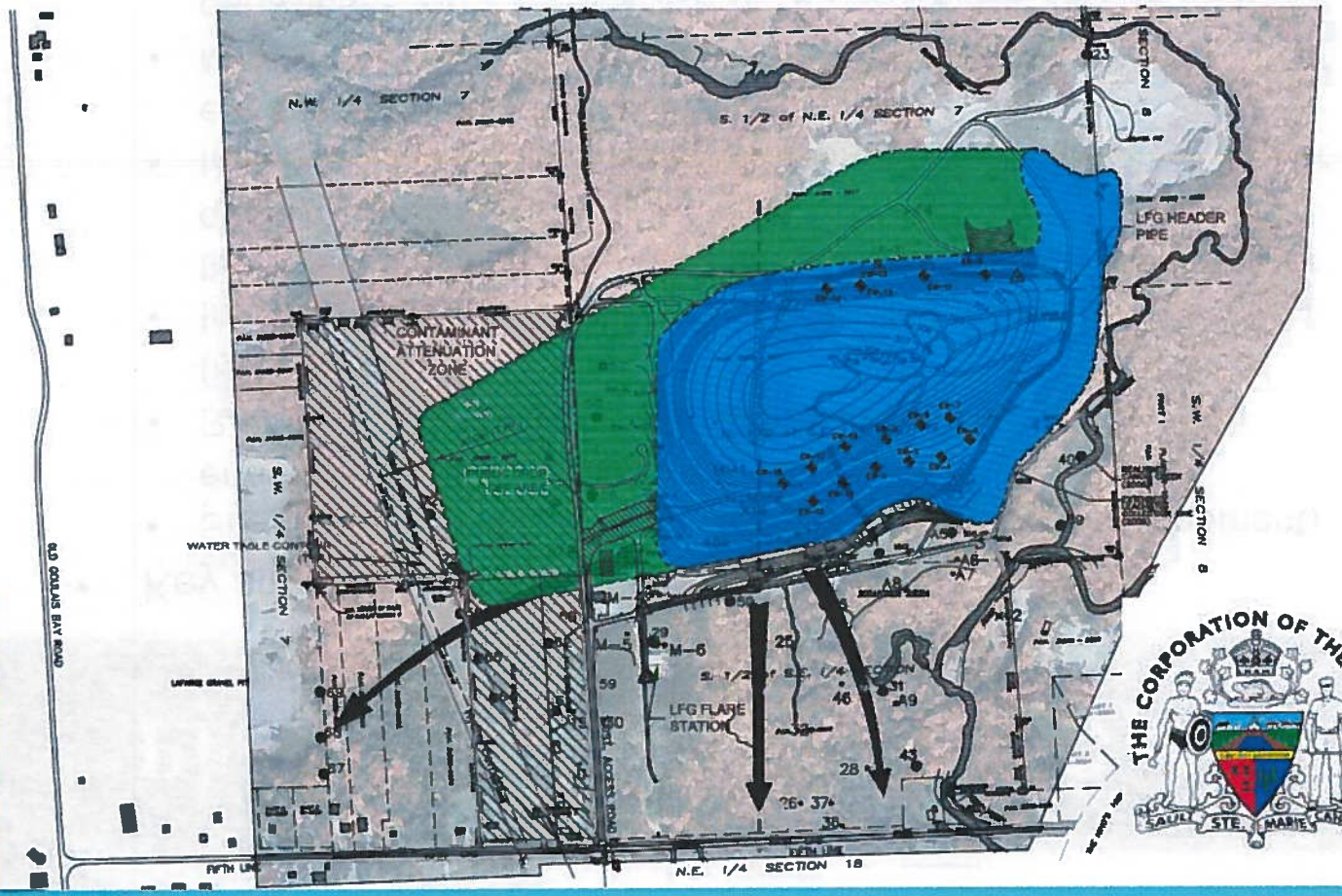


Evaluation of Expansion Options

- Data collection and analysis
- Technical disciplines initially compare options relative to each other and rank them under each criterion
- Present the evaluation in a table or matrix format with the rationale for the rankings
- Present to the public and solicit input from community members, stakeholders, First Nations, and governmental agencies
- Make adjustments to the evaluation based on input received
- Select a preferred option

Preliminary Preferred Expansion Option

- On the basis of the **preliminary** evaluation, the preliminary preferred expansion option is presented below



Preliminary Preferred Option

- Key advantages relative to other options include:
  - Site development (i.e. geometry and storm water management) enhanced relative to Options 2 and 4.
  - Reduced average excavation depth in west expansion area (i.e.11m).
  - Includes a liner beneath the waste within the western portion of the existing disposal footprint enhancing long term groundwater quality.
  - Includes a liner over existing waste in areas of overlap to further enhance groundwater quality.
  - Meets target capacity at current estimated waste densities.

Next Steps

- Solicit governmental, community First Nation and stakeholder input on the preliminary preferred expansion option – do you agree/disagree – why?
- Re-assess (if needed) and finalize the Step 2 evaluation based on input received
- Announce the preferred Step 2 - Alternative Method (i.e. preferred expansion option)
- Initiate a detailed impact assessment for the preferred option
- Continue to investigate ways to improve waste diversion through 3Rs initiatives

AECOM
523 Wellington Street East
Sault Ste. Marie, ON, Canada P6A 2M4
www.aecom.com

705 942 2612 tel
705 942 3642 fax

June 5, 2012

Mrs. Rhonda Bateman
Sault Ste. Marie Region Source Protection Committee
1100 Fifth Line East
Sault Ste. Marie, ON
P6A 5K7

Dear Mrs. Bateman:

Project No: 60395/60117627

Regarding: City of Sault Ste. Marie Waste Management Environmental Assessment

Thank you for allowing us to make a presentation to the Source Protection Committee on March 5, 2012 and thank you for the comments included in your letter of April 12, 2012. In the paragraphs that follow we have reiterated some of the points made during the presentation, provided some details regarding the preferred expansion option and addressed your comments included in your April 12, 2012 correspondence.

Existing and Proposed Landfill Groundwater Quality Controls

The City and its Consultants have had an opportunity to review and assess the input received through the public consultation process and the preferred expansion option consists of a moderate increase in height of the landfill mass, an expansion of the footprint to the north and west of the existing disposal footprint and landfill mining within the western portion of the existing footprint. Mining involves excavation and screening of previously disposed waste and cover material to separate coarse waste and recyclables from fine materials. The recyclables are sent for processing, coarse residual waste is disposed of in the disposal site and fines (primarily sand) are stockpiled for use as cover.

The City understands the importance of the Significant Recharge Area and has developed specific Official Plan Policies to protect this resource.

In addition the City hopes to leverage the proposed site expansion to not only protect water quality related to the expansion areas but also to enhance the current protection measures associated with the existing disposal footprint. Details of the existing and proposed groundwater protection measures are provided below.

The existing site is an "engineered" site and includes leachate management features to mitigate groundwater impacts. Within the site there is a groundwater divide and groundwater generally flows from the north to south /south-east and south-west. A horizontal leachate collector is located along the south and south eastern periphery of the site and a series of nine purge wells are located along the western boundary (ie. downstream of the landfill) which collect potentially impacted groundwater (ie. leachate) and convey it to a pumping station and ultimately to the City's west end sewage treatment plant. These ground water management features are shown on the attached Figure.

In addition to the groundwater management features there is also an extensive network of ground water monitors. Approximately 206 monitors have been installed over time and approximately 97 monitors remain active. These monitors are used to assess groundwater quality compliance. Approximately 30 – 40 of these monitors are sampled and analyzed multiple times each year and a report is prepared annually documenting the results. The site is required to meet stringent Ministry of Environment compliance criteria (ie: Reasonable Use Concept) at the property boundary. Further details can be provided regarding the Reasonable use Concept if desired.

The proposed expansion areas will be fully lined to capture leachate generated from precipitation filtering through the waste (ie. much like a swimming pool liner). The leachate will be directed to the sewage treatment plant. In addition the area of the existing site where mining is proposed will also include a liner. The installation of liners will enhance groundwater quality control relative to the existing effective controls.

The proposed groundwater quality management system at the expanded site will also include the installation of an impermeable liner over a portion of the existing waste where the expansion overlaps the existing disposal footprint. This will improve ground water quality by reducing the quantity of leachate generated at the site. A horizontal groundwater collector is also proposed along the western boundary of the expansion area to replace the purge wells and collect potentially impacted groundwater flowing south-westerly from the existing site.

SPC Comments

The SPC commented that "consideration should be given by the City of SSM and the PUC to petition the expansion of the current Provincial Groundwater Monitoring Network (PGMN). This expansion could allow for additional groundwater quality and quantity monitoring away from the landfill. This additional monitoring capability would increase the predictability of any potential threat of off-site contamination and allow operators of the municipal drinking water distribution network to have ample notice of any impending issues."

As noted above, the City has an extensive network of monitors within and immediately adjacent to the landfill site. We agree that it would be beneficial to establish monitors elsewhere within the City and upstream of PUC's production wells to assess groundwater quality changes, trends and potential impacts. As suggested in your letter this would allow for early identification of potential problems from a wide variety of potential sources of contamination and allow adequate lead time to take action.

We are fully supportive of petitioning the expansion of the PGMN. It is our understanding that further dialogue is required between the SPC, the City and PUC to identify a preferred approach to moving forward with this initiative. We are prepared to assist in any way that we can.

We will continue to keep the SPC informed of the project progress as we work towards future milestones and will continue to inform you of future opportunities for public input.

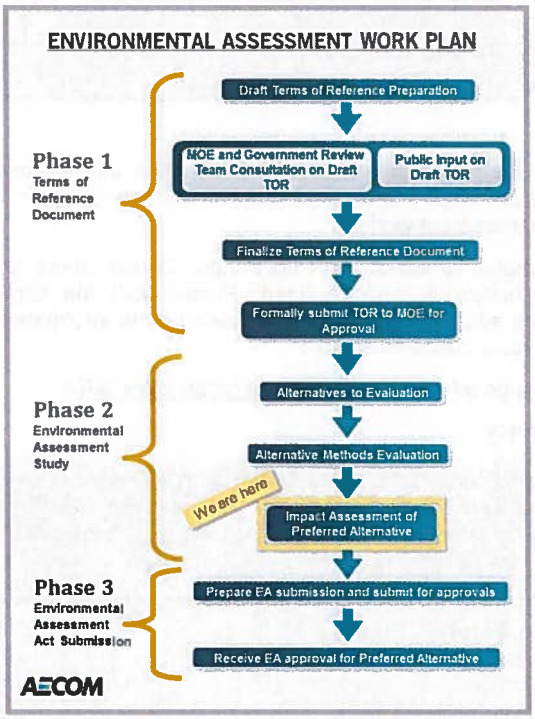
Sincerely,
AECOM Canada Ltd.

Rick Talvitie, P. Eng.
Branch Manager
Encl.

THE CITY OF SAULT STE. MARIE
JANUARY, 2016 NEWSLETTER
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

ENVIRONMENTAL ASSESSMENT (EA) PROCESS

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. The EA Process is a transparent decision-making process used to promote good environmental planning by assessing potential effects of certain activities or projects on the natural and human environment. There are several phases and tasks involved in completing an EA as outlined in the graphic below.



The City is finalizing Phase 2 of the EA Process and is currently preparing the EA submission. **We are interested in obtaining your input related to the current activities.**

BACKGROUND

Phase 1 of the EA process included public consultation and culminated with the Ministry of Environment and Climate Change's (MOECC) approval of the project Terms of Reference (ToR) in 2005. The ToR provides a framework or roadmap for completing the EA and summarizes the tasks and activities to be undertaken by the proponent.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and **the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.** The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

The City remains committed to investigating, implementing and supporting programs to increase waste diversion through 3Rs initiatives. Since the implementation of 3Rs initiatives does not require EA Act approval, the EA study turned its focus to alternative methods of landfilling residual waste. The key objective of this phase of the study is to find an environmentally suitable location for the development of additional landfill capacity.

The first step in this phase consisted of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. To identify a preferred approach to landfilling waste, the alternatives were compared using the following seven criteria groups:

1.	Natural environment	5.	Capability of managing waste quality and quantity
2.	Social-cultural environment	6.	Proven technical capacity
3.	Economic environment	7.	Cost
4.	Flexibility of the system		

A Public Input Session was held in April, 2011 to present the landfill alternatives being considered. **The evaluation and response from consultation concluded that an expansion of an existing landfill is generally preferred over construction of a new site.**

The study noted that an expansion requires less land, displaces fewer people and/or social/natural features, disrupts fewer people (i.e., one site versus two sites creating nuisance impacts), costs less, typically encounters fewer challenges in gaining technical approvals, and reduces the number of facilities the City must manage.

The second step in the Alternative Methods task focused on the best approach to expand the City's existing landfill site at 402 Fifth Line East by identifying and comparatively evaluating site expansion alternatives. Options considered included horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining (excavate previously disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) or a combination of these methodologies. A Public Input Session was held March, 2012 to obtain feedback on the evaluation criteria and the preliminary findings.

The evaluation and response from consultation concluded the preferred site expansion alternative consists of a modest increase in the height of the waste, an expansion of the disposal footprint to the west and north and mining a portion of the existing waste to enhance groundwater quality. All mined and expansion areas will include the

construction of a liner beneath the waste to collect leachate (precipitation contaminated as it filters through waste) and ultimately direct it to the City's sewage treatment plant for treatment.

Current Activities

The last part of Phase 2 involves assessing the potential impacts of the conceptual design and planned operation of the preferred site expansion alternative and identification of suitable mitigating measures. Multiple disciplines were involved to assess the various potential impacts of the expansion on site, off site, in the vicinity and along the access route. The access route was considered to be along Fifth Line from Highway 17 to the site (which is the same route used today). Measures to reduce or eliminate potential effects on the environment were recommended.

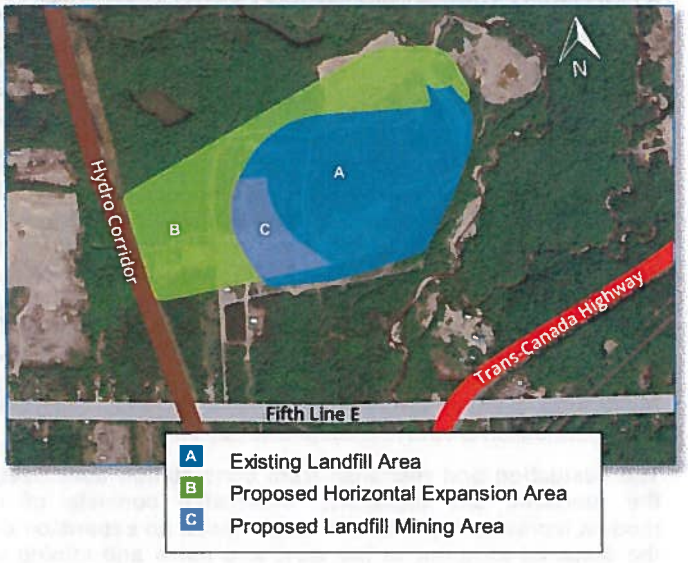
The disciplines that were involved include:

Natural Environment
- Biology
- Geology / hydrogeology
- Surface water

Socio-Cultural Environment
- Cultural (archaeology and heritage)
- Social
- Planned land use
- Visual
- Atmospheric (dust, noise, air quality)

Economic
- Businesses
- Transportation

Conceptual Layout of Proposed Landfill Expansion Area



HOW CAN I PROVIDE INPUT?

We will be hosting a Public Open House where you will learn about the results of the impact assessment work and we will ask for your feedback. If you are interested in discussing the project, we encourage you to attend the upcoming public open house!

YOU'RE INVITED!

Date:	*Tuesday, February 9, 2016*
Location:	*Civic Centre – 99 Foster Drive* *Russ Ramsay Room*
Time:	*3:30 pm to 7:30 pm*

Refreshments to be provided.

We will provide you with background information and discuss, with you, the preferred site expansion option and the results from the impact assessment work.

If you are unable to attend the Public Input Session there are other opportunities to provide input. Please visit the City's website at the address noted below to obtain further information, and / or access a comment sheet.

Project webpage address: saultstemarie.ca/SolidWasteEA

CONTACT US

You may also contact the Consultant Project Manager or the City's Land Development and Environmental Engineer by email, mail or telephone if you have questions or would like additional information.

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Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Email: rick.talvitie@aecom.com

Ms. Catherine Taddo, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
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THE CITY OF SAULT STE. MARIE

NOTICE OF PUBLIC INPUT SESSION

SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. To date significant progress has been made.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and **the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.** The preferred alternative was presented at an Open House in June, 2010.

The study noted:

- landfills can be designed and operated to comply with regulations and policies;
- landfill gas can be collected and flared or recovered to generate electricity;
- landfills can manage the entire residual waste stream;
- landfills are flexible to changes in waste quality and quantities; and
- landfilling is cost effective.

In April, 2011 a Public Input Session was held to present the non-site specific landfill alternatives being considered. **The evaluation, which considered responses from consultation, concluded that an expansion of an existing landfill is generally preferred over construction of a new site.**

The study noted:

- an expansion requires less land;
- displaces fewer people and/or social/natural features;
- disrupts fewer people (i.e. one site versus two sites creating nuisance impacts);
- costs less;
- typically encounters fewer challenges in gaining technical approvals; and
- reduces the number of facilities the City must manage.

In March 2012 a Public Input Session was held to present the preliminary preferred approach to expanding the existing landfill at 402 Fifth Line East in the City of Sault Ste. Marie. **The evaluation, which considered responses from consultation, concluded that an expansion is best accommodated with a moderate increase in the height of the waste together with and expansion of the disposal footprint to the north and west. The preferred option also includes landfill mining (excavate existing disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) in the western portion of the existing disposal footprint to enhance groundwater protection. All mined and expansion areas will include the construction of a liner beneath the waste to collect leachate (precipitation contaminated as it filters through waste) and ultimately direct it to the City's sewage treatment plant for treatment.**

CURRENT ACTIVITIES

Presently the project team is focusing on **completing an impact assessment for the preferred expansion option.** The impact assessment includes expertise from numerous disciplines and focusses on potential impacts to the natural and human environments associated with the construction and operation of the proposed expansion. Careful attention is given to best management practices to mitigate potential impacts.

We are now seeking input from the Community, government agencies, stakeholders, and First Nations regarding the results of our impact assessment work and the proposed mitigation measures.

PUBLIC INPUT SESSION

If you are interested in discussing the impact assessment work, we encourage you to attend the upcoming public open house! We will provide you with background information and discuss with you, the preferred site expansion option and the results of the impact assessment work.

CONTACT US

We also encourage you to contact the individuals noted below if you have any specific questions.

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
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Sault Ste. Marie, ON, P6A 2M4
Phone: 705-942-2612
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Email: rick.talvitie@aecom.com

Ms. Catherine Taddo, P.Eng.
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Fax: (705) 541-7165
Email: c.taddo@cityssm.on.ca

YOU'RE INVITED!

Date: Tuesday February 9, 2016

Location: Civic Centre – Russ Ramsay Room

Time: 3:30 pm to 7:30 pm

Refreshments to be provided.

If you cannot attend the public open house, we still want to hear from you! Just go to the project webpage (address provided below) to review the project reference material and fill out a comment sheet or simply send us an email (email addresses provided above). Project webpage address: saultstemarie.ca/SolidWasteEA

Ministry of the Environment						
• Correspondence – Email from Ministry of the Environment (MOE) representative (Edward Naval) to Karla Kolli regarding strategy to consult with member of the Government Review Team (GRT) throughout the development of the EA by having preliminary discussions with any member(s) of the GRT on specific chapter/phases of the EA report and request comments on the completed Draft EA report. In addition, he suggests continued consultations with members of the public and First Nations communities.	April 1, 2010	• No comments received.			Email dated April 1, 2010 from Edward Naval (MOE) to K. Kolli – Appendix L	
• Correspondence – Email from Rick Talvitie to MOE representative Edward Naval advising of the June 3, 2010 PIC to announce the preferred "Alternative To". Provided copy of Newsletter No. 2 and advised that we will be forwarding reference documents including comprehensive public consultation plan, Waste Quantity Projections and Profile of Existing Environment Profile Report, and Alternatives to the Undertaking Report.	May 31, 2010	• No comments received.			Email dated May 31, 2010 from Rick Talvitie to Edward Naval (MOE) – Appendix L	
• Correspondence – Email from Betsy Varghese (Dillon Consulting) to MOE representative (Edward Naval) providing minutes for a March 25, 2010 EA meeting. Response email provided by Edward Naval requesting updates on the progress of the EA. Response email provided by Rick Talvitie advising that he will forward the requested information and encouraged to review the City's website which includes a number of completed reports and information on the most recent public consultation event with link provided.	June 4, 2010 and September 8, 2010	• I was just wondering if there are any updates I can get on the progress of the SSM EA for Solid Waste Disposal?	• We are currently in the process of drafting the alternative methods report and we are also preparing a comprehensive public consultation plan. We will be forwarding the public consultation plan to you. We will also provide you with a comprehensive update regarding the project status at that time. A link to the City of SSM's website of completed project reports and information on the most recent public consultation event was provided and advised that hardcopies of any of the reports could be provided if requested.		Email dated June 4, 2010 from Betsy Varghese (Dillon Consulting) to Edward Naval (MOE), email dated September 8, 2010 from Edward Naval to Betsy Varghese, and email dated September 8, 2020 from Rick Talvitie to Edward Naval – Appendix L	

• Correspondence – Email from Rick Talvitie to MOE representative (Edward Naval) providing the Public Consultation Plan which identifies various consultation activities that have been undertaken within the context of the EA process and highlights the consultation activities and methodologies that are proposed to employ for the remainder of the EA process.	September 24, 2010	• No comments received.			Email dated September 24, 2010 from Rick Talvitie to Edward Naval (MOE) – Appendix L	
• Correspondence – Email from Rick Talvitie to MOE representative (Andrea Berenkey) informing her of the Waste Management EA project, provided previous email correspondence with Edward Naval, provided the Public Consultation Plan, provided current Project Schedule and provided link to the City's Waste Management EA webpage for access to project background information. In addition, she was notified of the upcoming April 2011 PIC and requested a meeting to provide historical overview of the project, summarize work completed to-date, describe approach to the Alternative Methods phase and address any questions.	January 27, 2011	• No comments received.			Email dated January 27, 2011 from Rick Talvitie to Andrea Berenkey (MOE) – Appendix L	
• Correspondence – Email from Rick Talvitie to MOE representative (Andrea Berenkey) providing update on project status and notifying her of upcoming April 19, 2011 PIC. Provided Notice of Public Input Session and requested another meeting.	April 8, 2011	• No comments received			Email dated April 8, 2011 from Rick Talvitie to Andrea Berenkey (MOE) – Appendix L	
• Correspondence – Email from Rick Talvitie to MOECC representative (Gillianne Marshall) providing a link to the project webpage as well as notifying that a copy of the project contact list will be provided and that a concise summary of the historical evolution of the project will be developed for inclusion in the Draft EA submission.	October 20, 2016	• No comments received			Email dated October 20, 2016 from Rick Talvitie to Gillianne Marshall (MOECC) – Appendix L	
• Correspondence – Email from Rick Talvitie to MOECC representative (Gillianne Marshall) providing a full contact list that was used for the February 2016 PIC.	November 1, 2016	• No comments received			Email dated November 1, 2016 from Rick Talvitie to Gillianne Marshall (MOECC) – Appendix L	

• Correspondence – Email from Rick Talvitie to MOECC representative (Gillianne Marshall) outlining the best approach to notifying stakeholders of the Draft EA submission and includes a draft email to be forwarded to government agencies for review and comment. Also provided was the Draft Notice of Draft EA submission; Response email dated April 6, 2017 from MOECC representative (Gillianne Marshall); Response email daed April 6, 2017 from Rick Talvitie to MOECC representatives Gillianne Marshall and Adam Wright.	March 9, 2017, and April 6, 2017	• Gillianne Marshall (MOECC) indicated that she will forward the request along to Adam Wright (MOECC) whose unit is responsible for co-ordinating the reviews of individual EA's.	• Requested that Adam Wright review the original email to Gillianne Marshall outlining the best approach to notifying stakeholders of the Draft EA submission and included a draft email to be forwarded to government agencies for review and comment.		Email dated March 9, 2017 from Rick Talvitie to Gillianne Marshall (MOECC), email response from Gillianne Marshall (MOECC) to Rick Talvitie dated April 6, 2017, and further email response from Rick Talvitie dated April 6, 2017 – Appendix L	
• Correspondence - Email from Adam Wright (MOECC) to Rick Talvitie requesting a Project Kickoff Meeting in order to get better acquainted with the history of the project and understanding timelines. It was requested that AECOM forward a project contact list, the Draft Notice, recap of previous consultation events for the Terms of Reference and Draft EA and a list of future consultation events to support the Draft and Final EA; Response email from Rick Talvitie to Adam Wright (MOECC) dated April 13, 2017.	April 12, 2017 and April 13, 2017		• Provided a brief overview of the project history, current project contact list, copy of the Draft Notice, copy of the Draft Public Consultation Report, consultation on the impact assessment reports, and a link to the project webpage.		Email dated April 12, 2017 from Adam Wright (MOECC) to Rick Talvitie and email response from Rick Talvitie to Adam Wright (MOECC) dated April 13, 2017 – Appendix L	
• Correspondence – Teleconference Project Kickoff meeting confirmation and agenda.	May 3, 2017	• No comments received.			Teleconference meeting confirmation dated May 3, 2017 – Appendix L	
• Correspondence - Email from Adam Wright (MOECC) to Rick Talvitie following up after Project Kickoff Meeting of May 3, 2017 and noting that the MOECC requires a simple letter indicating the submission of the Draft EA for review, specifying the date of submission and any additional required context; Response email from Rick Talvitie dated May 5, 2017.	May 4, 2017 and May 5, 2017		• Provided Communication Record from May 3, 2017 project kickoff meeting.		Email dated May 4, 2017 from Adam Wright (MOECC) to Rick Talvitie and email response from Rick Talvitie to Adam Wright (MOECC) dated May 5, 2017 – Appendix L	
• Correspondence – Letter from Rick Talvitie to MOECC representative (Adam Wright) notifying of the intent to submit the Draft EA and outlining the steps being undertaken to finalize the Draft EA for broad dissemination and steps being taken to make the Draft EA available to all stakeholders; Response letter from Adam Wright (MOECC) dated May 23, 2017; Response email from Rick Talvitie dated May 25, 2017.	May 5, 2017, May 23, 2017, and May 25, 2017	• Provided notification of the MOECC's support of the review of the Draft EA and provided a list of Ministry Technical Reviewers and review locations for copies of the Draft EA to be sent to for review. It was also noted that the Ministry will require a minimum of six weeks to review the Draft EA.	• Provided email notification that the required copies of the Draft EA Report would be couriered to the various destinations indicated in the letter and also provided notification that a digital copy of the entire document as well as appendices and supporting information would be available on the project webpage. A link to the webpage was provided		Letter dated May 5, 2017 from Rick Talvitie to Adam Wright (MOECC), response letter dated May 23, 2017 from Adam Wright (MOECC) to Rick Talvitie, and response email dated May 25, 2017 from Rick Talvitie to Adam Wright (MOECC) – Appendix L	

			and it was requested that this email be forwarded to the Ministry review team so they could access a digital copy of the Draft EA Report if preferred. Also provided was an overview of the project history to assist the Ministry review team understand project timelines. • Provided confirmation of Draft EA distribution, requested that link to digital copy of the Draft EA document be forwarded to the Technical Review team, and provided an overview of the project history as an attachment.			
• Correspondence – Email from Rick Talvitie to MOECC representative (Adam Wright) providing Final Notice of Draft EA submission and requesting direction on public viewing of the Final Notice at MOECC sites; Response email from Adam Wright (MOECC) dated May 9, 2017; Response email from Rick Talvitie dated May 9, 2017.	May 9, 2017	• Provided address for the MOECC St. Clair review location for viewing access for those in the region and will provide GRT list so an adequate number of copies of the Notice can be provided to the MOECC.	• Requested confirmation if a phone number and viewing times could be added to the Notice.		Email dated May 9, 2017 from Rick Talvitie to Adam Wright (MOECC), email response from Adam Wright (MOECC) to Rick Talvitie dated May 9, 2017 and further email response from Rick Talvitie to Adam Wright (MOECC) dated May 9, 2017 – Appendix L	
• Correspondence – Email from Rick Talvitie to Adam Wright (MOECC) requesting MOECC distribution list and number of hard copies required for the Draft EA document; Response email from Adam Wright (MOECC) dated May 17, 2017; Various response emails from Rick Talvitie and Adam Wright (MOECC) dated May 23, 2017.	May 16, 2017, May 17, 2017, and May 23, 2017	• Noted that he is waiting to hear back from technical reviewers to determine if they prefer electronic or hard copies and acknowledged that he will send the MOECC Government Review Team list shortly. • Provided MOECC EAB address to send Draft EA document to. • Provided MOECC Government Review Team list for Draft EA document distribution.	• Provided notification that the Draft EA Report was posted to the project webpage and a link to the document was provided. It was also noted that the Draft EA Report hard copies would be distributed over the next couple of days. • Provided confirmation on when the Draft EA document would be submitted to the MOECC EAB.		Email dated May 16, 2017 from Rick Talvitie to Adam Wright (MOECC), email response dated May 17, 2017 from Adam Wright (MOECC) to Rick Talvitie, and further various email responses between Rick Talvitie and Adam Wright (MOECC) dated May 23, 2017 – Appendix L	
• Correspondence – Email from Rick Talvitie to MOECC representative (Adam Wright) providing an update on the distribution of the Draft EA document to the MOECC, aboriginal communities and locations for public viewing. Also provided Final Notice of Draft EA Submission; Response email from Adam Wright (MOECC) dated May 26, 2017; Response email dated May 26, 2017 from Rick Talvitie; Response email from Rick Talvitie dated May 30, 2017.	May 26, 2017 and May 30, 2017	• Requested copy of the Draft EA report also be sent to Gillianne Marshall (MOECC) at the Thunder Bay regional office for the public record.	• Questioned if Gillianne Marshall should be issued a fully report including appendices. • Provided confirmation that a full hard copy of the Draft EA document inclusive of appendices was issued to Gillianne Marshall.		Email dated May 26, 2017 from Rick Talvitie to Adam Wright (MOECC), email response dated May 26, 2017 from Adam Wright (MOECC) to Rick Talvitie, further email responses from Rick Talvitie to Adam Wright (MOECC) dated May 26, 2017 and May 30, 2017. – Appendix L	

• Correspondence – Email from Adam Wright (MOECC) to Rick Talvitie requesting clarification on whether the distribution of the hard copies of the Draft EA document included Appendices and that additional hard copies would be required for some MOECC Technical Reviewers; Response emails from Rick Talvitie dated May 30, 2017; Response email from Adam Wright (MOECC) dated May 30, 2017.	May 29, 2017 and May 30, 2017	• Provided a table outlining who from the Ministry requires hard copies and what documents they are requesting.	• Provided clarification on Draft EA report distribution.		Email dated May 29, 2017 from Adam Wright (MOECC) to Rick Talvitie, response emails dated May 30, 2017 from Rick Talvitie to Adam Wright (MOECC), and response email from Adam Wright (MOECC) to Rick Talvitie dated May 30, 2017 – Appendix L	
• Correspondence – Email from Rick Talvitie to Adam Wright (MOECC) questioning if anything else is required to assist with the ongoing review of the Draft EA document; Response email from Adam Wright (MOECC) dated June 21, 2017.	June 21, 2017	• No additional information is required. • Introduction was made to Agni Papageorgiou (MOECC) who was assigned to the SSM Waste EA project and would be taking over the file from Adam Wright.			Email dated June 21, 2017 from Rick Talvitie to Adam Wright (MOECC) and response email dated June 21, 2017 from Adam Wright (MOECC) to Rick Talvitie – Appendix L	

Talvitie, Rick

From: Naval, Edward (ENE) [Edward.Naval@ontario.ca]
Sent: April 1, 2010 2:35 PM
To: Kolli, Karla
Cc: Talvitie, Rick; s.hamiltonbeach@cityssm.on.ca; Varghese, Betsy; 066988
Subject: Sault Ste. Marie Solid Waste Disposal Environmental Assessment

Hello,

As a follow-up to our meeting, I mentioned I would look into getting some advice regarding your strategy to consult with members of the Government Review Team (GRT) throughout the 'Chapter by Chapter' development of your individual EA. The advise I was given suggests that you do not send each of your EA chapters/phase reports to the GRT as it will likely not be effective and may be counter productive in obtaining comments on the Final complete Draft of the EA (may burn out the GRT). My suggestion would be to have preliminary discussions with any members of the GRT you may think will have an interest on a specific chapter/phase report, and ask them if they would like to comment now or after a draft EA report has been completed.

However, we still encourage you to continue your chapter by chapter consultations with members of the public, and especially with the First Nations. I will still be happy to look at each chapter/phase report and give you any comments I may have. At the end (ie. once you have prepared a draft EA) you should send it out to the GRT for comments.

Feel free to call me if you want to discuss.

Edward

Edward Naval
Project Officer
EA Project Coordination Section
Environmental Assessment and Approvals Branch
Ministry of the Environment
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Talvitie, Rick

From: Talvitie, Rick
Sent: May 31, 2010 3:10 PM
To: edward.naval@ontario.ca
Cc: Kolli, Karla; Varghese, Betsy
Subject: City of Sault Ste. Marie Solid Waste Disposal EA

Hi Edward,

We are conducting a Public Information Centre on June 3rd to announce the preferred "Alternative To". Details regarding the Information Centre are included in the attached Newsletter that was issued to some 385 agencies and individuals.

We will also be forwarding the following reference documents to you in the coming weeks:

- comprehensive public consultation plan;
- "Waste Quantity Projections and Profile of Existing Environment Profile" Report; and
- "Alternatives to the Undertaking" Report.

Let me know if you have any questions.

Regards,

SSM_Newsletter
05-21-2010 - Fi...

Rick Talvitie, P. Eng.
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rick.talvitie@aecom.com

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www.aecom.com

Talvitie, Rick

From: Talvitie, Rick
Sent: September 8, 2010 3:01 PM
To: Naval, Edward (ENE); Varghese, Betsy
Cc: Susan Hamilton Beach; Don Elliott; Kolli, Karla; 066988
Subject: RE: Minutes from SSM EA Meeting with MOE

Hi Edward,

Your email is quite timely as I was speaking to Betsy and Karla this morning regarding the a number of issues relative to this project. We are currently in the process of drafting the alternative methods report and we are also preparing a comprehensive public consultation plan. We will be forwarding the public consultation plan to you by the end of next week. We will also provide you with a comprehensive update regarding the project status at that time.

In the meantime, I am not sure whether you have had an opportunity to visit the City's website which includes a number of the completed reports and information on the most recent public consultation event. The link is provided below. Let me know if you would like hardcopies of any of the reports that are available on the City's website and we would be pleased to forward them to you.

Let me know if there is anything else you would like at this time.

Regards,

http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1

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rick.talvitie@aecom.com

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www.aecom.com

From: Naval, Edward (ENE) [mailto:Edward.Naval@ontario.ca]
Sent: September 8, 2010 11:48 AM
To: Varghese, Betsy
Cc: Susan Hamilton Beach; Don Elliott; Talvitie, Rick; Kolli, Karla; 066988
Subject: RE: Minutes from SSM EA Meeting with MOE

Hello,

I was just wondering if there are any updates I can get on the progress of the SSM EA for Solid Waste Disposal?

Thanks,
Edward

Edward Naval
Project Officer
EA Project Coordination Section
Environmental Assessment and Approvals Branch
Ministry of the Environment
2 St. Clair Avenue West, 14th Floor

Toronto ON M4V 1L5
Tel: (416) 212-4279
Fax: (416) 314-7774

From: Varghese, Betsy [mailto:bvarghese@dillon.ca]
Sent: June 04, 2010 3:38 PM
To: Naval, Edward (ENE)
Cc: Susan Hamilton Beach; Don Elliott; Talvitie, Rick; Kolli, Karla; 066988
Subject: Minutes from SSM EA Meeting with MOE

Good Afternoon,

Please find the minutes from our March 25, 2010 meeting on the Sault Ste. Marie EA for Solid Waste Disposal attached for your records. If you have any questions or comments, please feel free to email me.

Thanks and have a great weekend.

DILLON CONSULTING

Betsy Varghese, P.Eng., LEED AP
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Talvitie, Rick

From: Talvitie, Rick
Sent: September 24, 2010 2:00 PM
To: Naval, Edward (ENE)
Cc: Susan Hamilton Beach; Maahs, Nancy; Kolli, Karla; Varghese, Betsy
Subject: City of Sault Ste. Marie Waste Management Environmental Assessment
Attachments: Public Consultation Plan - Report format sep 23.pdf

Hi Ed,

Attached you will find a Public Consultation Plan. The Plan identifies the various consultation activities that have been undertaken to date within the context of the EA process and highlights the consultation activities and methodologies that we propose to employ for the remainder of the EA process.

We will also forward a project schedule early next week.

Any comments you may have would be welcomed by the project team.

Have you had a chance to look at any of the documents on the City's webpage? Would you like us to forward hardcopies of any of the reports? We would also appreciate receiving any comments on the "Waste Quantities Projections and Existing Environmental Profile" report and "Alternatives to the Undertaking" report.

Please let me know if you have any questions.

Regards,

Rick Talvitie, P. Eng.
Manager, Sault Ste. Marie Office
rick.talvitie@aecom.com

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I may check my emails four times per day. If it's urgent, please call me.

From: Talvitie, Rick [mailto:Rick.Talvitie@aecom.com]
Sent: Friday, September 24, 2010 2:01 PM
To: Sue Chiblow
Cc: Susan Hamilton Beach; Varghese, Betsy; Kolli, Karla
Subject: City of Sault Ste. Marie - Waste Management EA

Hi Sue,

It has been some time since we last met. We are attaching the following documents for your reference and information:

- Meeting Report from our July 28, 2010 meeting;
- Public Consultation Plan which includes a summary of the consultation activities undertaken with First Nation Communities to date; and

Will also forward an updated project schedule early next week.

There are a couple of follow-up items for you in the meeting report. Also have you had an opportunity to discuss our meeting with Band Council? We would appreciate receiving any feedback on best practices for engaging First Nations members in future consultation activities.

Regards,

Rick Talvitie, P. Eng.
Manager, Sault Ste. Marie Office
rick.talvitie@aecom.com

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Talvitie, Rick

From: Talvitie, Rick
Sent: April 8, 2011 2:17 PM
To: Andrea.Berenkey@ontario.ca
Cc: 'Susan Hamilton Beach'; 'Kolli, Karla'; 'Varghese, Betsy'; Maahs, Nancy
Subject: City of Sault Ste. Marie Waste Management Environmental Assessment
Attachments: SSM_Newsletter_8Apr2011.pdf

Hi Andrea,

Hopefully you have had an opportunity to review some the project materials that we provided or referenced in the email below. I wanted to take this opportunity to update you on the status of the City of Sault Ste. Marie's Waste Management EA and to inform you of an upcoming public input session.

I have attached a Notice for your information and reference which explains the current status of the project. **The attached Notice also references a Public Input Session that is scheduled for April 19, 2011 in Sault Ste. Marie.** The session is being undertaken to solicit input on the generic, non-site specific evaluation of landfill expansion versus the development of a new landfill site.

The upcoming session is being advertised through various local media in advance of the event.

We are encouraging as much participation as possible and are hopeful that we will achieve broad representation from the general public and various stakeholders.

We would also like to extend an offer to meet with you either before or after the upcoming public consultation event. Please let me know your preference for meeting.

We look forward to hearing from you.

Regards,

Rick Talvitie, P. Eng.
Manager, Sault Ste. Marie Office
rick.talvitie@aecom.com

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From: Talvitie, Rick
Sent: January 27, 2011 12:42 PM
To: Andrea.Berenkey@ontario.ca
Cc: Susan Hamilton Beach; Kolli, Karla
Subject: City of Sault Ste. Marie Waste Management Environmental Assessment

Hi Andrea,

Further to my voicemail message, I am the Project Manager for the consultant team leading the Waste Management EA for the City of Sault Ste. Marie.

I am not sure to what extent Ed Naval may have filled you in on our ongoing EA. I have attached a couple of emails that I sent to Ed in September 2010 for your information and reference. The link provided below and the attached Public Consultation Plan were referenced in those emails. There are a number of documents on the project webpage (referenced below) that will provide detailed information on the project background and the "Alternatives To" phase. I have also attached our current Project Schedule.

The next significant event is a Stakeholder Workshop which we will be coordinating in the latter part of March/2011. The focus of the workshop is to obtain feedback on the first step of our "Alternatives Methods" Evaluation which consists of a generic (ie. non-site specific) evaluation of landfill expansion versus a new greenfield site. We will be asking workshop participants to provide feedback on the evaluation criteria used and the ranking of the alternatives.

We would like to convene a meeting with you in the near term. We will identify some potential dates in February in a follow-up email. The intent of the meeting will be to provide a historical overview of the project, summarize work completed to date, describe our approach to the Alternative Methods phase, and address any questions you may have.

We look forward to working with you on this important undertaking.

Regards,

http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1

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Manager, Sault Ste. Marie Office
rick.talvitie@aecom.com

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Abernot, Tara

From: Talvitie, Rick
Sent: Tuesday, November 01, 2016 3:40 PM
To: Marshall, Gillianne (MOECC)
Cc: Catherine Taddo (c.Taddo@cityssm.on.ca); Karla Kolli
Subject: RE: City of Sault Ste. Marie Waste Management EA
Attachments: CONTACT LIST - Jan. 2016.pdf

Hello Gillianne,

I have attached the full contact list that was used for our most recent open house.

The list is subdivided into different categories including Provincial Agencies.

In some cases the recipients have indicated that no further contact is to be made with them in relation to this EA.

Let me know if you have any questions.

Rick Talvitie, P. Eng.
Manager, Northern Ontario
rick.talvitie@aecom.com

AECOM
523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4 T 705.942.2612 F 705.942.3642 www.aecom.com

-----Original Message-----
From: Talvitie, Rick
Sent: Thursday, October 20, 2016 2:47 PM
To: 'Marshall, Gillianne (MOECC)'
Cc: Catherine Taddo (c.Taddo@cityssm.on.ca); Karla Kolli
Subject: RE: City of Sault Ste. Marie Waste Management EA

Hello Gillianne,

Further to our conference call I have provided a link to the project webpage for your reference.

We will provide a copy of the agencies and Aboriginal Communities on our contact list to allow you to finalize the government review team that should receive a copy of the DRAFT document.

We will also develop a concise summary of the historical evolution of the project for inclusion with the DRAFT EA submission.

Thank you for your time today.

http://www.saultstemarie.ca/City-Hall/City-Departments/Public-Works-Engineering-Services/Public-Works/Waste-Management/Solid-Waste-Management-EA.aspx

Rick Talvitie, P. Eng.
Manager, Northern Ontario
rick.talvitie@aecom.com

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523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4 T 705.942.2612 F 705.942.3642 www.aecom.com

-----Original Message-----
From: Marshall, Gillianne (MOECC) [mailto:Gillianne.Marshall@ontario.ca]
Sent: Monday, October 17, 2016 3:15 PM
To: Talvitie, Rick
Subject: Automatic reply: City of Sault Ste. Marie Waste Management EA

Thanks for your email. I am out of office the afternoon of Monday October 17, 2016. I will respond to your inquiry when I return tomorrow.

Have a great day,
Gillianne

SAULT STE. MARIE WASTE DISPOSAL EA CONTACT LIST				
Agency / Company	**Name**	**Address**	**Phone**	**Fax**
Consulting Team				
Dillon Consulting Ltd.	Karla Kolli EA Coordinator kkolli@dillon.ca	235 Yorkland Blvd. Suite 800 Toronto, Ontario M2J 4Y8	416-229-4647	416-229-4692
Dillon Consulting Ltd.	Fabiano Gondim Project Manager for Annual Engineering jmaclachlan@dillon.ca	235 Yorkland Blvd. Suite 800 Toronto, Ontario M2J 4Y8	416-229-4647	416-229-4692
AECOM Canada Ltd.	Rick Talvitie, P. Eng.	523 Wellington Street East Sault Ste. Marie, Ontario P6A 2M4	705-942-2612	705-942-3642
Woodland Heritage and Planning Advisory Services	Luke Dalla Bona luke@woodlandheritage.com	421 Bay Street Sault Ste. Marie, Ontario P6A 1X3	705-256-5418	
Bill Wierzbicki, MCIP, RPP Planning Advisory Services	wierzbicki@shaw.ca	28 Tadcaster Place Sault Ste. Marie, Ontario P6B 5E4	705-949-3817 705-987-3817 - Cell	
City of Sault Ste. Marie				
City of Sault Ste. Marie Mayors Department	Mayor Christian Provenzano mayor.provenzano@cityssm.on.ca	99 Foster Drive Sault Ste. Marie, Ontario P6A 5N1	705-759-5344	705-541-7171
City of Sault Ste. Marie Councillors	Councillor Steve Butland Ward 1 s.butland@cityssm.on.ca	40 Angelina Ave. Sault Ste. Marie, Ontario P6A 4C6	705-949-1909 705-542-0546 cell	705-253-5031
	Councillor Paul Christian Ward 1 p.christian@cityssm.on.ca	12 Shoreview Court Sault Ste. Marie, Ontario P6A 5Y5 Sault Ste. Marie	705-989-7173 cell	

SAULT STE. MARIE WASTE DISPOSAL EA CONTACT LIST				
Agency / Company	**Name**	**Address**	**Phone**	**Fax**
	Councillor Susan Myers Ward 2 s.myers@cityssm.on.ca	313 MacDonald Avenue, Unit 505 Sault Ste. Marie, Ontario P6B 5Y9	705-256-6128	
	Councillor Judy Hupponen Ward 3 j.hupponen@cityssm.on.ca			
	Councillor Matthew Shoemaker Ward 3 m.shoemaker@cityssm.on.ca			
	Councillor Rick Niro Ward 4 r.niro@cityssm.on.ca	574 Morrison Avenue Sault Ste. Marie, Ontario P6B 3Z9	705-949-7750	
	Councillor Lou Turco Ward 4 l.turco@cityssm.on.ca	22 Albert Street West Sault Ste. Marie, Ontario P6A 1B3	705-253-4070	705-945-0037
	Councillor Frank Fata Ward 5 f.fata@cityssm.on.ca	56 Cabot Crescent Sault Ste. Marie, Ontario P6C 5X1	705-942-6630	705-942-6630
	Councillor Marchy Bruni Ward 5 m.bruni@cityssm.on.ca	159 Bitonti Crescent Sault Ste. Marie, Ontario P6C 6B6	705-949-9187	
	Councillor Joe Krmpotich Ward 6	5 Winfield Drive Sault Ste. Marie, Ontario	705-949-1321 705-542-6853	705-949-6925

SAULT STE. MARIE WASTE DISPOSAL EA CONTACT LIST				
Agency / Company	**Name**	**Address**	**Phone**	**Fax**
	j.krmpotich@cityssm.on.ca	P6C 2N2	cell	
	Councillor Ross Romano Ward 6 r.romano@cityssm.on.ca			
City of Sault Ste. Marie Engineering and Planning Dept.	Jerry Dolcetti, Commissioner of Engineering and Planning j.dolcetti@cityssm.on.ca	99 Foster Drive Sault Ste. Marie, Ontario P6A 5N1	705-759-5384	705-541-7165
City of Sault Ste. Marie Engineering Department	Don Elliott, P. Eng. d.elliott@cityssm.on.ca	99 Foster Drive Sault Ste. Marie, Ontario P6A 5N1	705-759-5329	705-541-7165
City of Sault Ste. Marie Engineering Department	Carl Rumiel, P. Eng. c.rumiel @cityssm.on.ca	99 Foster Drive Sault Ste. Marie, Ontario P6A 5N1	705-759-5379	705-541-7165
City of Sault Ste. Marie Engineering Department	Susan Hamilton Beach, P. Eng. s.hamiltonbeach@cityssm.on.ca	99 Foster Drive Sault Ste. Marie, Ontario P6A 5N1	705-759-5385	705-541-7165
City of Sault Ste. Marie Engineering Department	Catherine Taddo, P. Eng. c.taddo@cityssm.on.ca	99 Foster Drive Sault Ste. Marie, Ontario P6A 5N1	705-759-5378	705-541-7165
City of Sault Ste. Marie Planning Department	Don McConnell d.mcconnell@cityssm.on.ca	99 Foster Drive Sault Ste. Marie, Ontario P6A 5N1	705-759-5368	705-541-7165
Sault Ste. Marie Public Works Center	Larry Girardi l.girardi@cityssm.on.ca	128 Sackville Road Sault Ste. Marie, Ontario P6B 4T6	705-759-5206	705-541-7010
Sault Ste. Marie Public Works Center	Monty Pinder m.pinder@cityssm.on.ca	128 Sackville Road Sault Ste. Marie, Ontario P6B 4T6	705-541-7087	705-541-7010

SAULT STE. MARIE WASTE DISPOSAL EA CONTACT LIST				
Agency / Company	**Name**	**Address**	**Phone**	**Fax**
Sault Ste. Marie Public Works Center	Mark Joseph m.joseph@cityssm.on.ca	128 Sackville Road Sault Ste. Marie, Ontario P6B 4T6	705-541-7089	705-541-7010
Prince Township	Peggy Greco, Administrator pgreco@twp.prince.on.ca	3042 Second Line West Sault Ste. Marie, Ontario P6A 6K4	705-779-2992	705-779-2725
Waste Industry and Other Industry				
Municipal Waste and Recycling	Wayne St. Michael	9 Industrial Road Blind River, Ontario P0R 1B0	705-356-4118	705-356-0315
And-Son Contracting		106 Yourchuk Rd. Goulais River, Ontario P0S 1E0		
GFL Environmental Corp.	John Martella	86 Sackville Road Sault Ste. Marie, Ontario P6B 4T6	705-945-7554	705-945-7857
J&B Security Shredding & Recycling	Doug Campbell	5 Industrial Court B Sault Ste. Marie, Ontario P6B 5Z9	705-256-2148	705-256-2979
Traders Metal Co. Ltd.		131 Yates Street, Box 459 Sault Ste. Marie, Ontario P6A 5M1	705-759-1090	
Waste Management		120 Industrial Court A Sault Ste. Marie, Ontario P6B 5W6	705-254-5050	
Waste Tech		830 Third Line West Sault Ste. Marie, Ontario P6C 6K9	705-542-4556	
Canadian Diabetes Clothesline Program		1639 Lasalle Blvd., 2nd Fl. Sudbury, Ontario P3A 1Z8	705-256-6712	705-524-8702

SAULT STE. MARIE WASTE DISPOSAL EA CONTACT LIST				
Agency / Company	**Name**	**Address**	**Phone**	**Fax**
Recycling Matters		253 Bruce Street Sault Ste. Marie, Ontario P6B 1P3	705-945-1030	
Community Recycling Depot		285 Wilson Street Sault Ste. Marie, Ontario P6B 2K6	705-256-2805	
Habitat for Humanity ReStore		32 White Oak Drive East Sault Ste. Marie, Ontario P6B 4J8	705-941-9646	
Northern Land & Sales II, LLC	Norman Pestka, President npconst@jamadots.com	115 Old Norwich Trail Ontonagon, MI 49953		
Robert Rattle	Robert Rattle robert14robert@yahoo.ca	118 Killarney Road Sault Ste. Marie, Ont. P6B 4N8	705-942-5818	
Sault North Waste Management Council	Megan Turner McMillan mturnermcmillan@gmail.com	Or Megan Turner McMillan [info@snwmc.com]		
Jack Donald (member of Clean North)	donaldmj@shaw.ca			
Elementa Group		509 Glendale Avenue East, Suite 302 Niagara on the Lake, Ontario L0S 1J0	1-888-687-1901	
Environmental Committees				
Environmental Monitoring Committee	Kathy Lemieux lemieux.composting@sympatico.ca	764 Black Road Sault Ste. Marie, Ontario P6A 6J8	705-942-2750	
	Trevor Sawchyn trevorsawchyn@gmail.com			
	Ministry of the Environment Walter Sheilds			

SAULT STE. MARIE WASTE DISPOSAL EA CONTACT LIST				
Agency / Company	**Name**	**Address**	**Phone**	**Fax**
	walter.shields@ontario.ca			
	Sault Ste. Marie Region Conservation Authority Rhonda Bateman rbateman@ssmrca.ca			
	Rosina MacDonald macrosina@shaw.ca			
	Anjum Amin aamin@ssmrca.ca			
	Gary Barnes g.barnes@cityssm.on.ca			
	Peter McLarty pjmclarty@shaw.ca			
	Madison Zuppa m.zuppa@cityssm.on.ca			
	Randy Roy randallr@shaw.ca			
Note other committee members:	C. Taddo M. Pinder R. Talvitie R. Romano S. Hamilton Beach			
Federal Agencies				
Canadian Environmental Assessment Agency Ontario Region	Project Manager ***Remove from any future mailouts regarding this EA.***	55 St. Clair Avenue East 9th Floor Toronto, Ontario M4T 1M2	416-952-1576	416-952-1573

SAULT STE. MARIE WASTE DISPOSAL EA CONTACT LIST				
Agency / Company	**Name**	**Address**	**Phone**	**Fax**
Canadian Environmental Assessment Agency Ontario Region	Regional Director Ontario Region ***Remove from any future mailouts regarding this EA.***	55 St. Clair Avenue East 9th Floor Toronto, Ontario M4T 1M2	416-952-1575	416-952-1573
Department of Indian Affairs and Northern Development Canada Environmental and Natural Resources Lands and Trusts Services	Glenn Gilbert Manager ***Remove from any future mailouts regarding this EA.***	25 St. Clair Avenue East 8th Floor Toronto, Ontario M4T 1M2	416-973-6234	416-954-6329
Department of Indian Affairs and Northern Development Canada Environmental and Natural	Shawn Green, Environmental Officer ***Remove from any future mailouts regarding this EA.***	25 St. Clair Avenue East 5th Floor Toronto, Ontario M4T 1M2	416-973-1298	416-954-4328
Indian and Northern Affairs Canada Comprehensive Claims Branch Claims East of Manitoba	Director ***Remove from any future mailouts regarding this EA.***	10 Wellington Street, Room 1310 Gatineau, Quebec K1A 0H4	416-994-1121	416-963-3109
Indian and Northern Affairs Canada Specific Claims Branch	Don Boswell, Senior Claims Analysts ***Remove from any future mailouts regarding this EA.***	10 Wellington Street, Room 1310 Gatineau, Quebec K1A 0H4	819-953-1940	819-997-9873
Indian and Northern Affairs Canada Litigation Management and Resolution Branch	Franklin Roy, Director ***Remove from any future mailouts regarding this EA.***	10 Wellington Street Gatineau, Quebec K1A 0H4	819-997-3582	819-997-1679
Environment Canada EA Section, Ontario Region	Manager	867 Lakeshore Road Burlington, Ontario L7R 4A6	905-336-4953	905-336-8901
Environment Canada EA Section, Ontario Region	Ms. Sheila Allan, Sr. EA Officer	867 Lakeshore Road Burlington, Ontario L7R 4A6	905-336-4948	905-336-8901

SAULT STE. MARIE WASTE DISPOSAL EA CONTACT LIST				
Agency / Company	**Name**	**Address**	**Phone**	**Fax**
Fisheries and Oceans Canada Fisheries Protection Program		867 Lakeshore Road Burlington, Ontario L7S 1A1		
Fisheries and Oceans Canada Great Lakes Forestry Centre	Jennifer Hallett Fish Habitat Biologist	1219 Queen Street East Sault Ste. Marie, Ontario P6A 2E5	705-941-2012	705-941-2013
Transport Canada – Ontario Region Environmental Affairs, Programs Branch	Environmental Assessment Coordinator	4900 Yonge Street, 4th Floor North York, ON M2N 6A5	416-952-0485	416-952-0514
Transport Canada Civil Aviation Ontario Region		4900 Yonge Street, Suite 400 North York, Ontario M2N 6A5		
Airport Sault Ste. Marie	Airport Manager	R.R. #1, Box #1 475 Airport Road Sault Ste. Marie, Ontario P6A 5K6	705-779-3031	
Provincial Agencies				
Ministry of the Environment Environment Assessment and Approvals Branch	Environment Assessment and Approvals Branch	2 St. Clair Avenue West Toronto, Ontario, Floor 12A M4V 1L5	416-314-8001	416-314-8452
Ministry of the Environment District Office	Ron Dorscht, Area Supervisor	70 Foster Drive, Suite 110 Sault Ste. Marie, Ontario P6A 6V4		
Ministry of the Environment Northern Region	Environmental Planner/EA Coordinator Technical Support Section	199 Larch Street Suite 1201 Sudbury, Ontario P3E 5P9	705-564-3273	705-564-4180
Ministry of Agriculture and	Ray Valaitis	95 Dundas Street East	613-475-4764	

SAULT STE. MARIE WASTE DISPOSAL EA CONTACT LIST				
Agency / Company	**Name**	**Address**	**Phone**	**Fax**
Food Engineering and Technology	Rural Planner	RR#3 Brighton, Ontario K0K 1H0		
Ministry of Tourism, Culture and Sport		Hearst Block, 9th Floor 900 Bay Street Toronto, ON M7A 2E1		
Ministry of Municipal Affairs and Housing Community Planning and Development	Manager	159 Cedar Street, Suite 401 Sudbury, Ontario P3E 6A5	705-564-0120	705-564-6819
Ministry of Natural Resources Policy and Planning Coordination Branch	Director	300 Water Street, P.O. Box 7000, 5th Fl. , N. Tower Peterborough, Ontario K9J 8M5	705-755-1241	705-755-1971
Ministry of Natural Resources Policy and Planning Coordination Branch	Sharon Rew, (A) EA and EBR Team Leader	300 Water Street, P.O. Box 7000, 5th Fl. , N. Tower Peterborough, Ontario K9J 8M5	705-755-1820	705-755-1259
Ministry of Natural Resources and Forestry	Marjorie Hall	64 Church Street Sault Ste. Marie, Ontario P6A 3H3	705-949-1231	705-949-6450
Ministry of Northern Development and Mines NORTHEAST REGION Ontario Government Complex	Catherine Daniels Regional Land Use Geologist	5512 Hwy 101 E PO Bag 3060 South Porcupine ON P0N1H0		
Ministry of Northern Development and Mines	Northern Development Advisor	70 Foster Drive, Suite 200 Sault Ste. Marie, Ontario P6A 6V8	705-945-5900	945-5931
Ministry of Northern Development and Mines	Grant Karwacki, Acting Manager Corporate Policy Secretariat	Whitney Block, 5th 99 Wellesley Street West Toronto, Ontario		

SAULT STE. MARIE WASTE DISPOSAL EA CONTACT LIST				
Agency / Company	**Name**	**Address**	**Phone**	**Fax**
		M7A 1C3		
Planning and Design Section Ministry of Transportation		477 McKeown Avenue Suite 301 North Bay, Ontario P1B 9S9		
Ministry of Transportation District Office		70 Foster Drive, 4th Floor Sault Ste. Marie, Ontario P6A 6V4	705-945-6612	705-945-6830
Ministry of Energy Energy Supply Policy Division	Economist	77 Grenville St. 7th Floor Toronto, Ontario M7A 2C1		
Chris Goode Ministry of Energy TRANSMISSION POLICY	Senior Policy Advisor (Acting) - 6th Flr 77 Grenville St Toronto ON M7A2C1	77 Grenville St. 7th Floor Toronto, Ontario M7A 2C1	416-325-6926	416-325-6972
Ministry of Energy - ENERGY SUPPLY POLICY DIVISION	Allyson Hill Executive Assistant/Policy Advisor (Acting)	7th Flr 77 Grenville St Toronto ON M7A2C1	416-327-7204	416-325-3438
Ministry of Health and Long Term Care		5775 Yonge Street - 16th FloorToronto ON M7A 2E5	416-314-5518	416-314-8721
Office of the Chief Medical Officer of Health and Assistant Deputy Minister	Dr. David Williams Chief Medical Officer of Health (Acting) - CHIEF MEDICAL OFFICER OF HEALTH	393 University Ave Toronto ON M5G2M2	416-212-3831	
Infrastructure Ontario – Professional Services	Lisa Myslicki Environmental Coordinator lisa.myslicki@infrastructureontario.ca	1 Dundas Street West, Suite 2000 Toronto, Ontario M5G 2L5	416-212-3768	
Municipal Agencies				
Sault Ste. Marie Region Conservation Authority	Rhonda Bateman, Manager	1100 Fifth Line East Sault Ste. Marie, Ontario	705-946-8530	705-946-8533

SAULT STE. MARIE WASTE DISPOSAL EA CONTACT LIST				
Agency / Company	**Name**	**Address**	**Phone**	**Fax**
		P6A 5K7		
Sault North Planning Board		669 Wellington Street East Sault Ste. Marie, Ontario P6A 2M6	705-254-6649	705-946-4286
Algoma Health Unit	Officer of Health	294 Willow Avenue Sault Ste. Marie, Ontario P6B 0A9	705-942-4646	705-759-1534
Economic Development Corporation	Tom Dodd, CEO	99 Foster Drive, 4th Floor Sault Ste. Marie, Ontario P6A 5N1	705-759-5432	705-759-2185
Clean North	David Trowbridge	736-A Queen Street East Sault Ste. Marie, Ontario P6A 2A9	705-945-1573	
Algoma District School Board	Central Plant Office David Steele, Manager	190 Northern Ave. E. Sault Ste. Marie, ON P6B 4H6	705-945-7308	705-759-2811
City of Sault Ste. Marie Fire Department	Fire Hall No. 1 Assistant Fire Chief Support Services	72 Tancred Street Sault Ste. Marie, Ontario P6A 2W1	705-759-5274	705-949-2341
City of Sault Ste. Marie Police Department		580 Second Line East Sault Ste. Marie, Ontario P6B 4K1	705-949-6300	705-759-7820
PUC Services Inc.	Andrew Hallett	P.O. Box 9000 Sault Ste. Marie, Ontario P6A 6P2	705-759-6500	705-759-6510
Bell Canada	Alain Morin	P.O. Box 610 690 Second Line East Sault Ste. Marie, Ontario P6A 4K3	705-759-7121	705-942-3557
Union Gas	Don Van Daele	10 Industrial Court A Sault Ste. Marie, Ontario P6B 5W6	705-759-8481	705-759-2950

SAULT STE. MARIE WASTE DISPOSAL EA CONTACT LIST				
Agency / Company	**Name**	**Address**	**Phone**	**Fax**
Shaw Communications	Justin Williamson	23 Manitou Drive Sault Ste. Marie, Ontario P6A 6G9	705-759-2177	705-946-4773
Brookfield Power	Ms. Leslie Smith Environmental and Communication Specialist	2 Sackville Road Sault Ste. Marie, Ontario P6B 6J6	705-759-7600	705-759-7706
Chamber of Commerce	Shelly Barich, General Manager	369 Queen St. East #1 Sault Ste. Marie, Ontario P6A 1Z4	705-949-7152	705-759-8166
Sault Trailblazers Snowmobile Club	John Breckinridge, President	68 Old Garden River Road Sault Ste. Marie, Ontario P6B 5A4	705-759-0023	705-759-9971
Sault Ste. Marie Public Library	Main Branch	50 East Street Sault Ste. Marie, Ontario P6A 3C3	705-759-5230	
	Churchill Branch	301 Lake Street Sault Ste. Marie, Ontario P6A 4B5	705-759-5248	
	Korah Branch	556 Goulais Avenue Sault Ste. Marie, ON P6C 5A7	705-759-5249	
Township of Prince Municipal Office Library		3042 Second Line West Sault Ste. Marie, Ontario P6A 6K4	705-779-3653	
First Nations				
Ministry of Aboriginal Affairs	The Manager Aboriginal Relationship Unit Aboriginal Relations & Ministry Partnerships Division	160 Bloor St E, 9th Floor Toronto ON M7A2E6		
Ministry of Aboriginal Affairs	Matt Garrow Director - STRATEGIC PLANNING	160 Bloor St E, 4th Floor Toronto ON M7A2E6		

SAULT STE. MARIE WASTE DISPOSAL EA CONTACT LIST				
Agency / Company	**Name**	**Address**	**Phone**	**Fax**
	AND ECONOMIC POLICY BRANCH			
Ministry of Aboriginal Affairs	Jill Comerford Senior Policy Advisor - STRATEGIC PLANNING AND ECONOMIC POLICY BRANCH	160 Bloor St E, 4th Floor Toronto ON M7A2E6		
Ministry of Aboriginal Affairs	Heather Gardiner Senior Policy Advisor (Acting) - CONSULTATION POLICY PROJECT OFFICE	4th 160 Bloor St. E, 4th Floor Toronto ON M7A2E6		
Aboriginal Affairs and Northern Development Environmental and Natural	Environmental Officer	25 St. Clair Avenue East 8th Floor Toronto, Ontario M4T 1M2	416-973-1298	416-954-4328
Indian and Northern Affairs Canada	Senior Claims Analyst	10 Wellington Street, Room 1310 Gatineau, Quebec K1A 0H4	416-994-1121	416-963-3109
Batchewana First Nation	Dean Sayers, Chief	236 Frontenac Street Sault Ste. Marie, Ontario P6A 5K9	705-759-0914	705-759-9171
Batchewana First Nation	Kim Lambert, CEO	236 Frontenac Street Sault Ste. Marie, Ontario P6A 5K9	705-759-0914	705-759-9171
Garden River First Nation	Paul Syrette, Chief	7 Shingwauk Street, RR #4 Garden River, Ontario P6A 6Z8	705-946-6300	705-945-1415
Garden River First Nation	Caroline Barry	7 Shingwauk Street, RR #4 Garden River, Ontario P6A 6Z8	705-946-6300	705-945-1415
Anishinabek/Union of Ontario Indians	Intergovernmental Affairs Director	1 Migizii Miikan North Bay, Ontario P1B 8J8	705-497-9127	

SAULT STE. MARIE WASTE DISPOSAL EA CONTACT LIST				
Agency / Company	**Name**	**Address**	**Phone**	**Fax**
Association of Iroquois and Allied Indians		387 Princess Street London, Ontario N6B 2A7	519-434-2761	519-679-1653
Metis Nation of Ontario	Shauna Hansen	26 Queen Street East Sault Ste. Marie, Ontario P6A 1Y3	705-254-1768	
Missanabie Cree	Jason Gauthier	559 Queen Street East Sault Ste. Marie, Ontario P6A 2A3	705-254-2702 Ext. 226	705-254-3292
Public Input				
All Property Owners in a 1000m radius. See "Property Owner Mailing List Labels"				
	Kyle Malo *** Mail returned**	25 Bristol Place Sault Ste. Marie, Ontario P6A 6L9	705-257-0095	
	Hans J. Siemers	349 Second Avenue Sault Ste. Marie, Ontario P6C 4N4	705-946-8569	
	Jason Bertrim Q104	jason.bertrim@ssmradio.rogers.com		
Hiawatha Shores Landfill	Rob Lee Landfill Manager	3098N 436 County Road Gulliver, Michigan 49840 rob.lee@hiawathashores.com	906-341-2001 906-450-2400 cell	906-341-2051
	Andre Riopel	200 Case Road Sault Ste. Marie, ON P6A 6J8 ariopel@shaw.ca		
	Scott Williamson	2-122 Trelawne Avenue Songo30@hotmail.com	705-542-5809	

Abernot, Tara

From: Talvitie, Rick
Sent: Thursday, April 13, 2017 3:06 PM
To: Wright, Adam (MOECC)
Cc: Kolli, Karla; Catherine Taddo (c.Taddo@cityssm.on.ca); Delaquis, Dan (MOECC); Marshall, Gillianne (MOECC)
Subject: RE: City of Sault Ste. Marie Waste Management EA
Attachments: CONTACT LIST - Jan. 2016.pdf; draft notice of draft EA submission.pdf; Public Consultation Report - updated May 10 2016.pdf; 60395 historical summary.pdf

Hello Adam,

Thank you for the introductory email. I have addressed the items you included in your email and we would be pleased to coordinate a call with you once you have reviewed the attachments. We are attaching the following for your consideration:

- A brief overview of the project history to guide our upcoming telephone discussions;
- The current project contact list – it is segregated by various "groups";
- DRAFT Notice to be published in local newspapers;
- A copy of a DRAFT public consultation report (exclusive of appendices at this time) which summarizes consultation activities throughout the process - I believe this also provides a good record of engagement;
- Consultation on the impact assessment reports and impact management strategy was completed in 2016 and the remaining consultation shall consist of the following:
  - publish Notices regarding the DRAFT in the local newspapers;
  - mail or email Notices to all individuals on the contact list to make them aware of the availability of the DRAFT document;
  - deliver or courier hardcopies of the DRAFT document to key Aboriginal Communities/Groups included in our contact list;
  - post the document on the City's project webpage;
  - make hardcopies available at the local MOECC office, City Hall and local public libraries; and
  - Reach out to Aboriginal Communities to offer to meet and discuss the contents of the reporting.

In addition to the forgoing the project webpage is also a good resource which is accessible at the following link: http://saultstemarie.ca/City-Hall/City-Departments/Public-Works-Engineering-Services/Public-Works/Waste-Management/Solid-Waste-Management-EA.aspx

Looking forward to our future discussion.

Enjoy the holiday weekend.

Rick Talvitie, P. Eng.
Manager, Northern Ontario
rick.talvitie@aecom.com

AECOM
523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4
T 705.942.2612 F 705.942.3642
www.aecom.com

From: Wright, Adam (MOECC) [mailto:Adam.Wright@ontario.ca]
Sent: Wednesday, April 12, 2017 11:12 AM
To: Talvitie, Rick
Cc: Kolli, Karla; Catherine Taddo (c.Taddo@cityssm.on.ca); Delaquis, Dan (MOECC); Marshall, Gillianne (MOECC)
Subject: RE: City of Sault Ste. Marie Waste Management EA

Hello Rick,

Thank you for your email below, I was hoping that we could touch base sometime next week to have a 'kick-off' meeting (via phone) as there has been quite a gap between when the ToR was approved (2005) and now. I am thinking this would be helpful for me to get better acquainted with the history of the project as well as understanding the general timelines moving forward (and also to have a chance to meet you and your team).

In advance of the meeting I am hoping you can forward the following items;

- Contact list for the project
    - Specifically Aboriginal communities, public review locations, agencies and non-MOECC government contacts.
        - After a request Draft EA letter is sent to the MOECC I can provide the MOECC government review team list for your distribution – *MOECC typically requests that the proponent sends the MOECC a letter requesting a review of the draft Environmental Assessment for the proposed project* – (I can explain more on our call).
- Notice to be published in newspapers
- Recap of previous consultation events for ToR and Draft EA
- List of future consultation events to support Draft and Final EA

Also, in the attached excel sheet I have provided a template to track consultation efforts, once you review please let me know your thoughts and when you think consultation can start being tracked (considering this project is more than 10 years old might be tough to start tracking from the beginning). Just looking to get a realistic sense of what we can track as well as outline what is required in the *EAA* and Codes of Practice.

If you have any questions or need anything clarified please do not hesitate to let me know.

Cheers,

Adam

Adam Wright, M.Sc., RPP
Special Project Officer, PCU
Environmental Approvals Branch

Ministry of the Environment and Climate Change
135 St. Clair Avenue West
Toronto, ON M4V 1P5
T: (416) 314-8214
E: Adam.Wright@ontario.ca

From: Talvitie, Rick [mailto:Rick.Talvitie@aecom.com]
Sent: April 6, 2017 9:27 AM
To: Marshall, Gillianne (MOECC)
Cc: Kolli, Karla; Catherine Taddo (c.Taddo@cityssm.on.ca); Wright, Adam (MOECC)
Subject: RE: City of Sault Ste. Marie Waste Management EA

Thank you Gillianne.

Hello Adam – following your review of the email below please let me know if you would like me to call you to discuss this further…..thanks.

Rick Talvitie, P. Eng.
Manager, Northern Ontario
rick.talvitie@aecom.com

AECOM
523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4
T 705.942.2612 F 705.942.3642
www.aecom.com

From: Marshall, Gillianne (MOECC) [mailto:Gillianne.Marshall@ontario.ca]
Sent: Thursday, April 06, 2017 9:24 AM
To: Talvitie, Rick
Cc: Kolli, Karla; Catherine Taddo (c.Taddo@cityssm.on.ca); Wright, Adam (MOECC)
Subject: RE: City of Sault Ste. Marie Waste Management EA

Hi Rick,

I apologize for the delayed response. I am going to pass your request along to my colleague Adam Wright, whose unit is responsible for coordinating the review of Individual EA's for this type of project. Adam is cc'd on this email.

Thanks,
Gillianne

Gillianne Marshall
EA Coordinator/Planner
Ministry of the Environment and Climate Change
Northern Region
435 James Street South, Floor 3
Thunder Bay, ON P7E 6S7
P: 807-475-1631

From: Talvitie, Rick [mailto:Rick.Talvitie@aecom.com]
Sent: March-09-17 2:41 PM
To: Marshall, Gillianne (MOECC)
Cc: Kolli, Karla; Catherine Taddo (c.Taddo@cityssm.on.ca)
Subject: City of Sault Ste. Marie Waste Management EA

Hello Gillianne,

We are in the final stages of QA/QC reviews of the DRAFT EA submission. Once all comments are addressed we will be making a submission on behalf of the City. To facilitate a smooth submission we would like to confirm with you the best approach for making the submission.

Our suggestion is as follows:

We will issue an email notification to all government agencies on our contact list inviting them to comment on the contents of the DRAFT EA submission. You may recall, that we previously circulated to you, our project contact list. Your review of that contact list, and in particular the MOECC and Aboriginal contacts would be greatly appreciated. The proposed email notification will identify the comment period and will also include, as an attachment, a "Project Backgrounder" to provide some context and background related to the project. You may recall this "Backgrounder" was a suggestion that you made during our teleconference as you felt the verbal summary we provided to you was helpful. The email will also

include a link to the report but we will also offer to provide a hardcopy if desired.

In addition to notifying all governmental agencies by email we will also:

- publish Notices (DRAFT attached) in the local newspapers;
- mail or email Notices to all individuals on the contact list to make them aware of the availability of the DRAFT document;
- deliver or courier hardcopies of the DRAFT document to key Aboriginal Communities/Groups included in our contact list;
- post the document on the City's project webpage; and
- make hardcopies available at the local MOECC office, City Hall and local public libraries.

We have prepared below, a DRAFT email to be issued to the governmental agencies, for your consideration.

DRAFT EMAIL NOTIFICATION TO GOVERMENTAL AGENCIES
We are pleased to provide you with a copy of the DRAFT City of Sault Ste. Marie Waste Management Environmental Assessment Document for your consideration and review. It is our intent to address any significant shortcomings in the documentation prior to the formal submission of the final document to the Government Review team. A link to the document is provided at the bottom of this email. If you would prefer to receive a hardcopy of the document please email Nancy Maahs of AECOM (nancy.maahs@aecom.com). The comment period will remain open for 45 days and will conclude xxx. We are hopeful that you will have some time to devote to provide feedback, as appropriate, prior to the formal submission. Once the comment period has concluded the project team will carefully review the input received and will modify the documentation as appropriate prior to submitting a FINAL EA Report for formal review. We look forward to your input and if you have specific questions that you would like addressed during your review please contact Rick Talvitie of AECOM by email (rick.talvitie@aecom.com) or telephone (705-942-2612) and he will coordinate further dialogue with the appropriate team members.

Thank you in advance for your input.

Rick Talvitie, P. Eng.
Manager, Northern Ontario
rick.talvitie@aecom.com

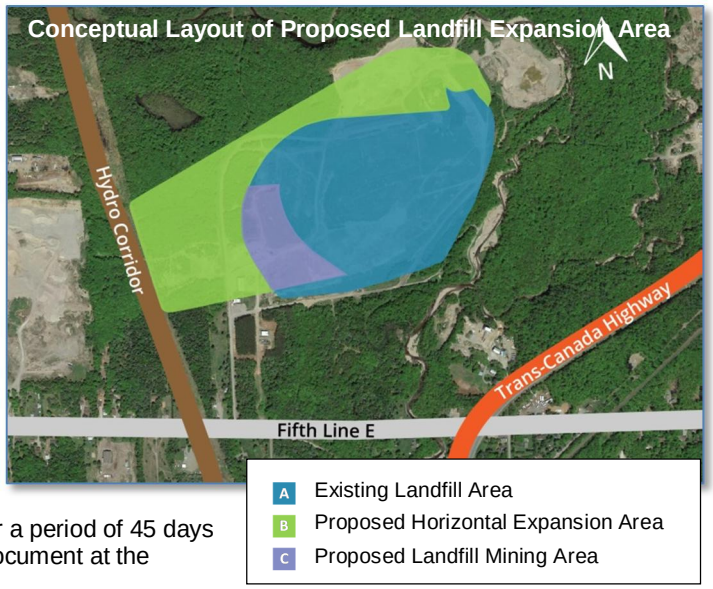
AECOM
523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4
T 705.942.2612 F 705.942.3642
www.aecom.com

THE CITY OF SAULT STE. MARIE
NOTICE OF DRAFT EA SUBMISSION

SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

The City of Sault Ste. Marie has undertaken an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste.

The City has now prepared a Draft Environmental Assessment Report to document the project. This document explains the decision making process, results of the studies and input received through the consultation process. The Report includes recommendations to continue to enhance waste reduction, reuse and recycling with the disposal of remaining residual waste accommodated within an expansion of the existing municipal landfill on Fifth Line. Details of the proposed landfill expansion (including proposed landfill mining within a portion of the existing site), potential impacts to the environment and commitment to mitigate these impacts is also included in the Draft EA.



HOW CAN I PROVIDE INPUT?

The Draft EA Document will be available for public and agency review for a period of 45 days beginning on xxx, 2017 and ending on xxx, 2017. You can review this document at the following locations:

Ministry of the Environment and Climate Change *Address* *Telephone* *Hours of operation*	City of Sault Ste. Marie *Civic Centre – Level 5* *99 Foster Drive* *705-759-5378* *Monday – Friday 8:30am – 4:30pm*
Sault Ste. Marie Public Library (Centennial Library) *50 East Street* *705-759-5230* *Monday -Thursday 9am – 9pm* *Friday 9 am - 6 pm* *Saturday 9 am – 5 pm* *Sunday 2 pm – 5 pm*	Sault Ste. Marie Public Library (Korah Branch) *556 Goulais Ave.* *705-759-5249* *Monday - Wednesday 1pm – 8pm* *Thursday 10am – 6pm* *Friday 1pm - 5 pm* *Saturday 10 am – 5 pm* *Sunday 2 pm – 5 pm*
Online at Saultstemarie.ca/SolidWasteEA	

Written comments regarding the Draft EA Document must be received by xxx, 2017. Comments received by this time will be considered in the final EA Document. Written comments should be submitted to the Consultant Project Manager or the City's Land Development and Environmental Engineer by email or mail to:

Mr. Rick Talvitie, P.Eng. Project Manager, AECOM 523 Wellington Street East, Sault Ste. Marie, ON, P6A 2M4	Ms. Catherine Taddo, P.Eng. Land Development and Environmental Engineer City of Sault Ste. Marie, P.O. Box 580, 99 Foster Drive, Sault Ste. Marie, ON, P6A 5N1
Phone: 705-942-2612 **Email:** rick.talvitie@aecom.com	**Phone:** (705) 759-5380 **Email:** c.taddo@cityssm.on.ca

You may also telephone if you have questions or would like additional information

Once comments have been considered, the City intends to finalize the EA Document and submit it to the Ministry of Environment and Climate Change for formal review.

Under the Freedom of Information and Protection of Privacy Act and the Environmental Assessment Act, unless otherwise stated in the submission, any personal information such as name, address, telephone number and property location included in a submission will become part of the public record files for this matter and will be released, if requested, to any person.

Abernot, Tara

Subject: City of Sault Ste. Marie DRAFT Waste Management EA Submission
Location: Teleconference

Start: Wed 5/3/2017 2:00 PM
End: Wed 5/3/2017 3:00 PM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Not yet responded

Organizer: Talvitie, Rick
Required Attendees: Karla Kolli; Catherine Taddo (c.Taddo@cityssm.on.ca); Delaquis, Dan (MOECC); Marshall, Gillianne (MOECC)
Optional Attendees: Wright, Adam (MOECC)

Updated to accommodate illness today.

Updated to include call-in information.

Good Morning,

Looking forward to continuing discussions regarding the planned DRAFT Waste Management EA submission. I have included some discussion points below as a starting point.

Agenda

1. Introductions
2. Overview of Project History/Background
3. Project Contact List
4. Planned Notification of DRAFT Submission
5. Consultation Completed to Date
6. Submission Requirements
7. Other

Rick Talvitie invites you to join this Personal Conference meeting.

To join the audio portion of the Personal Conference meeting

Canada Toll: +1 6025850124
Canada Toll Free: 8447305001

Having trouble dialing in? Try these backup numbers:
US Toll Free: 1 844 712 3247
US Toll: +1 602 585 0123
Global call-in numbers:
https://aecom.webex.com/aecom/globalcallin.php?serviceType=MC&ED=547863152&tollFree=1
Toll-free dialing restrictions: https://aecom.webex.com/aecom/customer_tollfree_restrictions.pdf

Attendee access code: 329 664 82

To join the online portion of the Personal Conference meeting

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1. Go to https://aecom.webex.com/aecom/j.php?MTID=m9c6311a2848fbd07eeedd921fd24c054
2. If a password is required, enter the Meeting Password: 32966482

https://www.webex.com

IMPORTANT NOTICE: This WebEx service includes a feature that allows audio and any documents and other materials exchanged or viewed during the session to be recorded. By joining this session, you automatically consent to such recordings. If you do not consent to the recording, discuss your concerns with the meeting host prior to the start of the recording or do not join the session. Please note that any such recordings may be subject to discovery in the event of litigation.

Abernot, Tara

From: Talvitie, Rick
Sent: Friday, May 05, 2017 3:22 PM
To: Wright, Adam (MOECC)
Cc: Kolli, Karla; Catherine Taddo (c.Taddo@cityssm.on.ca)
Subject: RE: City of Sault Ste. Marie DRAFT Waste Management EA Submission
Attachments: May 3, 2017 Telecom Record w MOECC, CTaddo, KKolli re draft ea submission.pdf

Hello Adam,

I have attached my notes from our teleconference call earlier this week. Let me know if anything was missed or changes are required.

Thank you.

Rick Talvitie, P. Eng.
Manager, Northern Ontario
rick.talvitie@aecom.com

AECOM
523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4
T 705.942.2612 F 705.942.3642
www.aecom.com

From: Wright, Adam (MOECC) [mailto:Adam.Wright@ontario.ca]
Sent: Thursday, May 04, 2017 11:26 AM
To: Talvitie, Rick
Subject: RE: City of Sault Ste. Marie DRAFT Waste Management EA Submission

Hi Rick,

Following up on our call, unfortunately I misspoke when I noted we had a template for requesting a MOECC review of the draft EA. This being said, the MOECC requires a very simple letter indicating that you are looking to submit a Draft EA for MOECC review specifying the date of submission and any additional context you feel is required. Essentially we just need a note giving us a heads up that the Draft EA is being submitted. You can address the letter to me (contact info below).

If you have any questions please let me know.

Cheers,

Adam

Adam Wright, M.Sc., RPP
Special Project Officer, PCU
Environmental Approvals Branch

Ministry of the Environment and Climate Change
135 St. Clair Avenue West
Toronto, ON M4V 1P5

AECOM
523 Wellington Street East 705 942 2612 tel
Sault Ste. Marie, ON, Canada P6A 2M4 705 942 3642 fax
www.aecom.com

Communication Record

Date	May 3, 2017	Time	
Between	Adam Wright - MOECC Catherine Taddo – City of Sault Ste. Marie (part-time) Karla Kolli – Dillon Consulting (part-time)	and	Rick Talvitie
Telephone #		Project #	60117627
Project Name	Sault Ste. Marie Waste Management EA		
Subject	Draft EA Submission Kickoff Meeting		

PLEASE NOTE: If this communication record does not agree with your records of the meeting, or if there are any omissions, please advise. Otherwise it will be assumed that the contents of this record are correct.

The call served as a kickoff meeting for the submission of the Draft EA documentation for the City of Sault Ste. Marie Waste Management EA. The following summarizes the key discussion points:

- RT highlighted the composition of the consulting team and explained that resources were brought to bear on the project from both AECOM and Dillon based on their respective strengths in various disciplines.
- Adam Wright will be the overall coordinator for the Draft EA review and Gillianne Marshall will be responsible for coordinating technical input from the regional office.
- All letters and submissions are to be addressed to Kathleen O'Neill, Director of the Environmental Assessment and Approvals Branch.
- Adam will provide a template which will be used to provide some advanced warning to the MOECC review team of the pending draft EA submission. (Note: Adam later confirmed that a short letter will suffice).
- It was suggested that approximately 2 weeks' time advance notice should be provided prior to submitting the Draft EA.
- It is anticipated that there will be a requirement to submit one hard copy of the Draft Report to the Environmental Assessment and Approvals Branch in Toronto. Adam will confirm.
- RT provided a brief overview of the project background and project history with a focus on Elementa's involvement in the process, their current status and relevance to the EA.
- Adam acknowledged it would be beneficial to provide a brief reporting on the project background to the MOECC review team.
- RT also noted that if advantageous, the consultant team would be prepared to conduct a conference call with the MOECC review team – Adam to address at a alter date.
- RT also provided an overview of the Public Consultation undertaken to-date and noted that the consultation history is documented in the Draft Public Consultation Report.
- The level of engagement with Aboriginal communities has been mixed to-date with varying levels of participation.

- All communication and consultation that has occurred with Aboriginal communities has been documented.
- Adam will coordinate the reviews of the Draft EA to be completed by MOECC staff. He will provide a listing of those reviewers that will require hardcopies vs. those that are satisfied with a link to a digital copy.
- Adam noted that on other projects, digital copies of the documentation have been provided in lieu of hardcopies at various public viewing locations. It is however the Proponents responsibility to provide a dedicated viewing device (eg. laptop or tablet).
- RT noted that for other government agencies, we plan to provide a link to a digital copy of the report and will offer to provide a hard copy if needed.
- RT questioned whether the MOECC has had any experience with aboriginal communities requesting capacity funds for reviews of EA documentation. Adam suggested that he will consult with Peter Brown, their aboriginal engagement advisor and provide feedback or suggest a follow-up call to discuss further.
- RT questioned whether it may be appropriate to incorporate the most recent Annual Development Operations and Monitoring Reports for the landfill site as part of the EA documentation to assist the team with their review. Adam noted that this is not a specific requirement but it may be helpful.
- Adam asked AECOM to review and comment on the record of engagement that he forwarded previously. The expectation is that the Record of Engagement would be used for any input received from this date forward and would not have to be compiled for historical input.

AECOM
523 Wellington Street East 705 942 2612 tel
Sault Ste. Marie, ON, Canada P6A 2M4 705 942 3642 fax
www.aecom.com

May 5, 2017

Adam Wright, M.Sc., RPP
Special Project Officer, PCU
Environmental Approvals Branch
Ministry of the Environment and Climate Change
135 St. Clair Avenue West
Toronto, ON M4V 1P5

Dear Mr. Wright:

Project No: 60117627

Regarding: City of Sault Ste. Marie Waste Management Environmental Assessment

We appreciate your participation during the May 3, 2017 project kickoff meeting which included representation from MOECC, the City and the project consultants.

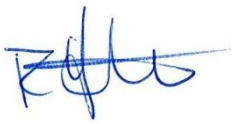
During the meeting, we indicated that City plans to submit, in short order, the DRAFT Sault Ste. Marie Solid Waste Management Environmental Assessment. The purpose of this letter is to provide advance notification of the planned submission of the DRAFT EA on or about May 24, 2017.

Steps are currently being taken to finalize the DRAFT for broad dissemination and comments over a planned 45 day review period. Ideally we would prefer to make the DRAFT available digitally via link but will also provide hardcopies as necessary to facility the MOECC's review. We would appreciate your feedback on the number of hard copies required by the MOECC.

We will also be taking steps to make the DRAFT available to other Agencies, Aboriginal Communities and groups and the public at large. This will be communicated via a Project Notice which will be distributed to the project mailing list, published in local newspapers and posted on the City's website.

We look forward to working with you through this phase of the project. Let me know if you have any questions.

Sincerely,
AECOM Canada Ltd.



Rick Talvitie, P. Eng.
Manager, Northern Ontario

RT:nm

cc: C. Taddo, City of Sault Ste. Marie Engineering
K. Kolli, Dillon Consulting

Ministry of the Environment and Climate Change

Ministère de l'Environnement et de l'Action en matière de changement climatique

Environmental Approvals Branch
135 St. Clair

Direction des autorisations environnementales

May 23, 2017

Mr. Rick Talvitie, P. Eng.
Manager, Northern Ontario, AECOM
523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4

Dear Mr. Talvitie:

Thank you for your letter of May 5, 2017, on behalf of the City of Sault Ste. Marie, requesting that the Ministry of the Environment and Climate Change carry out a review of the draft Environmental Assessment for the proposed Waste Management environmental assessment (EA). I am pleased to provide you with the following response.

The Ministry of the Environment and Climate Change is committed to working with the City of Sault Ste. Marie to facilitate the review of the draft Environmental Assessment documentation; and, is supportive of carrying out a review to determine whether the draft documentation meets the requirements under the province of Ontario's Environmental Assessment Act and the expectations set forth in the Ministry's Code of Practice: *Preparing and Reviewing Environmental Assessments in Ontario*. The Ministry will also use the review to assess the clarity and detail of the draft EA documentation, in order to ensure that the Minister of the Environment and Climate Change will be able to fully understand all the information in the EA when making a decision about the proposed undertaking.

In order to facilitate the review of the draft Environmental Assessment, the City of Sault Ste. Marie is requested to provide the following Ministry Technical Reviewers and review locations with the identified number of copies, both hard and electronic, of the draft Environmental Assessment documentation, which they require to complete their review by no later than **May 26, 2017**:

Name	Documentation Requirements
Ms. Paula Allen, APEP Supervisor Ministry of the Environment and Climate Change Northern Region, Technical Support Section Air, Pesticides and Environmental Planning 199 Larch Street, 12th Fl. Suite 1201 Sudbury, ON P3E 5P9	One hard copy of the main document and one electronic copy of the entire Environmental Assessment (including all appendices and supporting information) for the public record.

Name	Documentation Requirements
Ms. Gillianne Marshall, EA Coordinator (A) Ministry of the Environment and Climate Change Northern Region, Technical Support Section Air, Pesticides and Environmental Planning 435 James Street South, Suite 331 Thunder Bay ON P7E 6S7	One electronic copy of the entire Environmental Assessment (including all appendices and supporting information).
Mr. Dickson Odame-Osafo, Waste – Senior Review Engineer Ministry of the Environment and Climate Change Environmental Approvals Branch, Approval Services 135 St Clair Ave West, 1st Floor Toronto, ON M4V 1P5	One electronic copy of the entire Environmental Assessment (including all appendices and supporting information).
Mr. Guowang Qiu, Air Quality Analyst Ministry of the Environment and Climate Change Northern Region, Technical Support Section Air, Pesticides and Environmental Planning 199 Larch Street, 12th Fl. Suite 1201 Sudbury, ON P3E 5P9	One electronic copy of the entire Environmental Assessment (including all appendices and supporting information).
Ms. Archana Uprety, Hydrogeologist Ministry of the Environment and Climate Change Northern Region, Technical Support Section Water Unit 199 Larch Street, 12th Fl. Suite 1201 Sudbury, ON P3E 5P9	One electronic copy of the entire Environmental Assessment (including all appendices and supporting information).
Ms. Eva Maciaszek, Surface Water Specialist Ministry of the Environment and Climate Change Northern Region, Technical Support Section Water Unit 199 Larch Street, 12th Fl. Suite 1201 Sudbury, ON P3E 5P9	One electronic copy of the entire Environmental Assessment (including all appendices and supporting information).
Ms. Trina Rawn, District Manager Ministry of the Environment and Climate Change Northern Region, Kenora Area Office 808 Robertson Street, 2nd Floor Kenora, ON P9N 1X9	One hard copy of the main document and one electronic copy of the entire Environmental Assessment (including all appendices and supporting information) for the public record.

Name	Documentation Requirements
Mr. Kevin Belsito, Area Supervisor (A) Ministry of the Environment and Climate Change Northern Region, Sault Ste. Marie Area Office 70 Foster Drive, Suite 110 Sault Ste. Marie, ON P6A 6V4	One electronic copy of the entire Environmental Assessment (including all appendices and supporting information).
Mr. Rick LaLonde, Environmental Officer Ministry of the Environment and Climate Change Northern Region, Sault Ste. Marie Area Office 70 Foster Drive, Suite 110 Sault Ste. Marie, ON P6A 6V4	One hard copy of the main document and one electronic copy of the entire Environmental Assessment (including all appendices and supporting information).
Mr. Adam Wright, Special Project Officer Ministry of the Environment and Climate Change Environmental Approvals Branch Project Coordination UNIT 2 135 St Clair Avenue West, 1st Fl. Toronto ON M4V 1P5	Two hard copies of the main document and two electronic copies of the entire Environmental Assessment (including all appendices and supporting information).* *One hard and electronic copy is for the public record

For the purposes of carrying out the review of City of Sault Ste. Marie's draft EA for the proposed Waste Management EA, the Ministry of the Environment and Climate Change will require a minimum of six weeks. The Ministry will therefore provide any comments on the draft EA documentation by no later than **July 7, 2017**. Please note that for all reviewers who have indicated they will review via an electronic copy, I will forward the electronic copies once I receive them from the City of Sault Ste. Marie. If additional hard copies are required to facilitate the review, I will contact you as soon as possible.

Should you have any questions or concerns, please feel free to contact the undersigned at (416) 314-8214 or by e-mail at adam.wright@ontario.ca.

Yours sincerely,

Adam Wright, Special Project Officer
Environmental Approvals Branch
Ministry of the Environment and Climate Change
1st Floor, 135 St. Clair Avenue West
Toronto ON M4V 1P5

Abernot, Tara

From: Talvitie, Rick
Sent: Thursday, May 25, 2017 12:39 PM
To: Wright, Adam (MOECC) (Adam.Wright@ontario.ca)
Cc: Catherine Taddo (c.Taddo@cityssm.on.ca); Kolli, Karla; Maahs, Nancy
Subject: Sault Ste. Marie - DRAFT Waste Management EA
Attachments: Final Historical Summary.pdf

Hello Adam,

Thank you for your letter dated May 23, 2017. We appreciate consideration of the City's DRAFT Waste Management EA and we look forward to working with you and your team.

In accordance with your letter we will be couriering hard copies which will arrive at the various destinations on Friday May 26th.

We have made a digital copy of the entire report including appendices and supporting information available on the project webpage. The project webpage is accessible at the link provided below. Please forward this email to your team to allow them to access the digital copy of the documentation.

In addition we have also attached a brief narrative that provides an overview of the project history that may assist your team in understanding the project timelines.

Let me know if you have any questions.

Regards,

Link to the Project Webpage and the DRAFT EA documentation: www.saultstemarie.ca/SolidWasteEA

Rick Talvitie, P. Eng.
Manager, Northern Ontario
rick.talvitie@aecom.com

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523 Wellington Street East,
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T 705.942.2612 F 705.942.3642
www.aecom.com

City of Sault Ste. Marie
Waste Management Environmental Assessment
Project History

To assist Review Agencies, we have provided below, a concise summary of the waste management planning work and approximate timelines.

- Comprehensive Waste Management Planning Study initiated by the City of Sault Ste. Marie in the summer of 2000.
- Completed the Current Waste Management System Summary report in September 2000 which included a comprehensive description of current waste management programs.
- City identified a need to focus on improving its 9% residential diversion rate.
- Completed a comprehensive residential waste composition study in March 2001 to better understand waste diversion targets.
- Inventoried organic waste quantities and types and identified management options in the Organic Waste Diversion Report – April 2000.
- Prepared the Alternative Waste Diversion/Collection Systems Report in June 2001 documenting alternative ways and means of improving the residential diversion rate.
- Council endorses an aggressive waste diversion strategy in 2001.
- Summer 2002 – City issues an RFP for enhanced curbside recyclables collection and awards a contract later that year which includes the construction of a new MRF.
- Summer 2002 – City initiates a co-composting pilot study to investigate the feasibility of composting various types of organic wastes including biosolids from their two waste water treatment plants – final report issued February 2004.
- City proceeds with significant enhancements to multi-residential recyclables collection.
- Leaf and yard waste composting is initiated by the City at its landfill with bi-weekly collection throughout the growing season.
- The City developed a comprehensive Business and Implementation Plan which identified the costs of the existing and proposed waste management programs and explored strategies to recover those costs (bag limits, bag fees, increased tipping and gate fees) - February 2003
- Recommendations approved by Council regarding cost recovery (increased user fees), reduced curbside setout limits and bag fees (i.e. partial pay-as-you-throw system) – Summer 2003
- Once the diversion programs were enhanced the City focused its efforts on its problem of diminishing waste disposal capacity.

- Waste Collection and Disposal Alternatives Report completed July 2002 identified and evaluated a number of disposal options and included public input. The study was initiated to support a scoped or focused EA.

- DRAFT "scoped" ToR prepared to address landfill mining/expansion with public consultation on the Draft ToR in the summer of 2003.

- The June 2003 Richmond Court Decision results in MOE communicating that it does not have the power to approve scoped ToR's – September 2003.

- City convenes a meeting with MOE – December 2003.

- City decided to revise ToR to reflect a full EA – December 2003.

- Revised ToR to reflect a full EA – July 2005.

- MOE Approval of ToR – September 2005.

- AECOM/Dillon selected by the City to undertake an EA – summer 2006.

- Initiated work on the "Problem/Opportunity" and "Alternatives To" components.

- Consultation on the "Alternatives To" and evaluation criteria undertaken in the summer of 2007.

- Elementa (formerly Enquest Power – a waste-to-energy vendor) initiated discussions with the City of Sault Ste. Marie to gain support for a pilot scale energy-from-waste (EFW) facility in Sault Ste. Marie.

- A small pilot scale EFW facility (maximum 3 tonnes/day) was commissioned by Elementa in 2007 and operational testing on limited quantities of various waste types was undertaken in 2007-08.

- Elementa subsequently approached the City to endorse a waste supply agreement to allow construction of a larger commercial demonstration facility.

- During the timeline from January 2009 until May 2010 there were no significant EA activities undertaken. City Council felt it was important to allow time for the Elementa pilot project to mature and bring clarity to the role Elementa may play in the City's overall waste management plan prior to moving forward with the Environmental Assessment work.

- In October, 2009 the City endorsed an agreement to supply a portion of the Municipal solid waste stream to Elementa over a minimum period of ten years. The City's endorsement of a waste supply agreement brought clarity to the role Elementa may play in the City's overall waste management plan.

- The City subsequently made a decision to resume with the EA process for the following reasons:
    - Elementa will not manage the entire waste stream; and
    - the Elementa project is "experimental" and may face challenges.

- The City concludes that the solutions contemplated within the context of the EA should assume that ALL municipal solid waste will have to be managed due to the inherent risks associated with the Elementa project.

- The EA activities resume in the summer of 2010.

- The team selects the preferred “Alternative To” and conducts an open house to communicate the results and present next steps.

- The team initiates the “Alternative Methods” phase of the project and establishes a two-step process for the phase.

- In April 2011 a Public Input session is undertaken to discuss the evaluation approach and criteria to be considered in evaluating a new site versus the expansion of an existing site.

- Based on the evaluation and input received a decision is made to initially focus efforts on the expansion of the existing City-owned landfill at 402 Fifth Line East.

- In step 2 of the Alternative Methods Phase, various landfill expansion options are developed and evaluated including landfill mining within a portion of the existing disposal footprint.

- In March 2012 a Public Input session is undertaken to discuss the evaluation approach and criteria to be considered in evaluating the various expansion options.

- Based on the evaluation and input received a preferred disposal footprint expansion is identified. The preferred option includes an expansion of the footprint to the north and west of the existing footprint, a modest increase in the height of the waste and landfill mining within a portion of the existing disposal footprint to enhance existing environmental management.

- Impact assessment and impact management work for the preferred design concept is initiated.

- In December 2015 the Elementa Group entered into receivership proceedings, and consequently were not able to fulfill the requirements of the Agreement with the City. These events do not impact the City’s EA as it was completed under the assumption that all waste would require management through the solutions contemplated within the EA.

- In February 2016 a Public Input session is undertaken to discuss the results of the impact assessment work and the proposed impact management strategy.

- The team then focusses on preparing the DRAFT EA Report including a DRAFT Design and Operations Report.

- DRAFT EA Report Submission – spring 2017.

Abernot, Tara

From: Talvitie, Rick
Sent: Tuesday, May 09, 2017 9:56 AM
To: Wright, Adam (MOECC)
Subject: RE: Sault Ste. Marie Waste Management EA

Thanks for the quick reply.

Can we include a phone number? And Can we include *Monday – Friday 8:30am – 4:30pm* for viewing times?

Rick Talvitie, P. Eng.
Manager, Northern Ontario
rick.talvitie@aecom.com

AECOM
523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4
T 705.942.2612 F 705.942.3642
www.aecom.com

From: Wright, Adam (MOECC) [mailto:Adam.Wright@ontario.ca]
Sent: Tuesday, May 09, 2017 9:47 AM
To: Talvitie, Rick
Subject: RE: Sault Ste. Marie Waste Management EA

Hello Rick,

Thank you for your email, in the attached I have included the address for the St. Clair review location as we prefer to provide access to those who are in this region as well. When I forward the GRT list (will send today) I'll be sure to include this review location in the listing so you know how many copies to provide to MOECC in total.

If you have any questions please let me know.

Cheers,

Adam

From: Talvitie, Rick [mailto:Rick.Talvitie@aecom.com]
Sent: May 9, 2017 7:17 AM
To: Wright, Adam (MOECC)
Subject: Sault Ste. Marie Waste Management EA

Good Morning Adam,

Please see the attached Notice related to the DRAFT EA. Is it appropriate to have the document available for viewing at the local MOECC office? Are there other MOECC sites that it should be available at for public viewing?

A response this morning would be appreciated to facilitate publishing deadlines.

Thanks.

Rick Talvitie, P. Eng.
Manager, Northern Ontario
rick.talvitie@aecom.com

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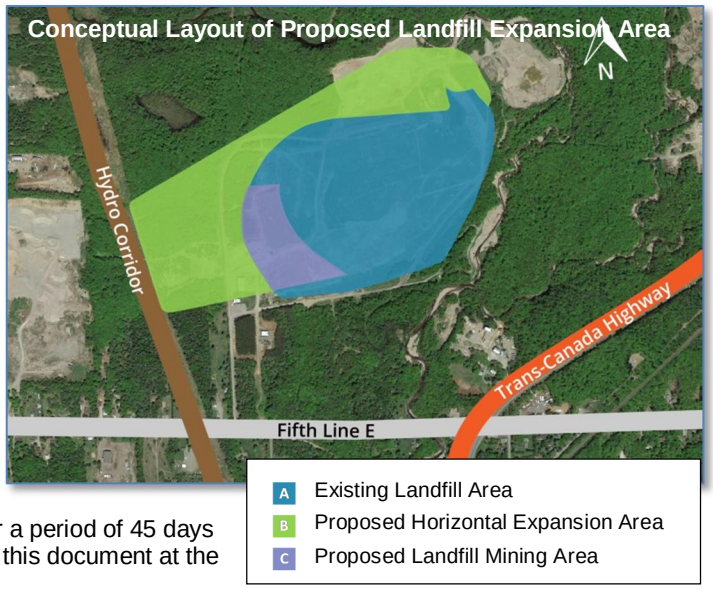
THE CITY OF SAULT STE. MARIE
NOTICE OF DRAFT EA SUBMISSION

SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

The City of Sault Ste. Marie has undertaken an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste.

The City has now prepared a Draft Environmental Assessment Report to document the project. This document explains the decision making process, results of the studies and input received through the consultation process. The Report includes recommendations to continue to enhance waste reduction, reuse and recycling with the disposal of remaining residual waste accommodated within an expansion of the existing municipal landfill on Fifth Line. Details of the proposed landfill expansion (including proposed landfill mining within a portion of the existing site), potential impacts to the environment and commitment to mitigate these impacts is also included in the Draft EA.



HOW CAN I PROVIDE INPUT?

The Draft EA Document will be available for public and agency review for a period of 45 days beginning on May 24, 2017 and ending on July 7, 2017. You can review this document at the following locations:

Ministry of the Environment and Climate Change 70 Foster Drive, Suite 110 *705-942-6354* *Monday – Friday 8:30am – 4:30pm*	City of Sault Ste. Marie *Civic Centre – Level 5* *99 Foster Drive* *705-759-5378* *Monday – Friday 8:30am – 4:30pm*
Sault Ste. Marie Public Library (Centennial Library) *50 East Street* *705-759-5230* *Monday -Thursday 9am – 9pm* *Friday 9 am - 6 pm* *Saturday 9 am – 5 pm* *Sunday 2 pm – 5 pm*	Sault Ste. Marie Public Library (Korah Branch) *556 Goulais Ave.* *705-759-5249* *Monday - Wednesday 1pm – 8pm* *Thursday 10am – 6pm* *Friday 1pm - 5 pm* *Saturday 10 am – 5 pm* *Sunday 2 pm – 5 pm*
Online at Saultstemarie.ca/SolidWasteEA	

Written comments regarding the Draft EA Document must be received by July 7, 2017. Comments received by this time will be considered in the final EA Document. Written comments should be submitted to the Consultant Project Manager or the City's Land Development and Environmental Engineer by email or mail to:

Mr. Rick Talvitie, P.Eng. Project Manager, AECOM 523 Wellington Street East, Sault Ste. Marie, ON, P6A 2M4	Ms. Catherine Taddo, P.Eng. Land Development and Environmental Engineer City of Sault Ste. Marie, P.O. Box 580, 99 Foster Drive, Sault Ste. Marie, ON, P6A 5N1
Phone: 705-942-2612 **Email:** rick.talvitie@aecom.com	**Phone:** (705) 759-5380 **Email:** c.taddo@cityssm.on.ca

You may also telephone if you have questions or would like additional information

Once comments have been considered, the City intends to finalize the EA Document and submit it to the Ministry of Environment and Climate Change for formal review.

Under the Freedom of Information and Protection of Privacy Act and the Environmental Assessment Act, unless otherwise stated in the submission, any personal information such as name, address, telephone number and property location included in a submission will become part of the public record files for this matter and will be released, if requested, to any person.

Abernot, Tara

From: Talvitie, Rick
Sent: Wednesday, May 17, 2017 8:55 AM
To: Wright, Adam (MOECC)
Subject: RE: City of Sault Ste. Marie DRAFT Waste Management EA Submission

Thanks Adam.

Rick Talvitie, P. Eng.
Manager, Northern Ontario
rick.talvitie@aecom.com

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523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4
T 705.942.2612 F 705.942.3642
www.aecom.com

From: Wright, Adam (MOECC) [mailto:Adam.Wright@ontario.ca]
Sent: Wednesday, May 17, 2017 8:54 AM
To: Talvitie, Rick
Subject: RE: City of Sault Ste. Marie DRAFT Waste Management EA Submission

Hi Rick,

Sorry for the delay in getting the MOECC GRT list to you. I am waiting to hear back from folks regarding their preference (electronic or hard copy) and will send this along as soon as I can (hopefully before end of the week).

Cheers,

Adam

-----Original Message-----
From: Talvitie, Rick [mailto:Rick.Talvitie@aecom.com]
Sent: May 16, 2017 2:50 PM
To: Wright, Adam (MOECC)
Subject: RE: City of Sault Ste. Marie DRAFT Waste Management EA Submission

Hi Adam (Note: I am using "Hi" this time to avoid a similar typo to what was included in my previous email!).

I just wanted to reiterate that given the size of the document the preference is to limit the number of hardcopies as much as possible.

Rick Talvitie, P. Eng.
Manager, Northern Ontario
rick.talvitie@aecom.com

AECOM
523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4 T 705.942.2612 F 705.942.3642 www.aecom.com

Abernot, Tara

From: Talvitie, Rick
Sent: Tuesday, May 23, 2017 2:19 PM
To: Wright, Adam (MOECC)
Subject: RE: City of Sault Ste. Marie DRAFT Waste Management EA Submission

Hi Adam – do to a printing issue this will be going out in tomorrow's courier.

Rick Talvitie, P. Eng.
Manager, Northern Ontario
rick.talvitie@aecom.com

AECOM
523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4
T 705.942.2612 F 705.942.3642
www.aecom.com

From: Wright, Adam (MOECC) [mailto:Adam.Wright@ontario.ca]
Sent: Tuesday, May 23, 2017 11:40 AM
To: Talvitie, Rick
Cc: Maahs, Nancy
Subject: RE: City of Sault Ste. Marie DRAFT Waste Management EA Submission

Hi Rick,

Yes, please send to the address noted below.

135 St. Clair Avenue West, 7th floor
Toronto, ON M4V 1P5

Thanks!

From: Talvitie, Rick [mailto:Rick.Talvitie@aecom.com]
Sent: May 23, 2017 11:21 AM
To: Wright, Adam (MOECC)
Cc: Maahs, Nancy
Subject: RE: City of Sault Ste. Marie DRAFT Waste Management EA Submission

Hi Adam,

We will courier a copy of the document to the MOECC EAB today. Should it be to your attention?

Rick Talvitie, P. Eng.
Manager, Northern Ontario
rick.talvitie@aecom.com

AECOM
523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4
T 705.942.2612 F 705.942.3642
www.aecom.com

From: Wright, Adam (MOECC) [mailto:Adam.Wright@ontario.ca]
Sent: Tuesday, May 23, 2017 10:51 AM
To: Talvitie, Rick
Cc: Catherine Taddo (c.Taddo@cityssm.on.ca); Kolli, Karla
Subject: RE: City of Sault Ste. Marie DRAFT Waste Management EA Submission

Thank you for letting me know Rick, my apologies in the delay getting the GRT list to you, I am waiting on one final name as their supervisor was on vacation this week. I will send later today regardless and send an updated list (with the one name) when I receive it.

Cheers,

Adam

From: Talvitie, Rick [mailto:Rick.Talvitie@aecom.com]
Sent: May 23, 2017 10:48 AM
To: Wright, Adam (MOECC)
Cc: Catherine Taddo (c.Taddo@cityssm.on.ca); Kolli, Karla
Subject: RE: City of Sault Ste. Marie DRAFT Waste Management EA Submission

Hello Adam,

Just an FYI the DRAFT Waste Management EA Report has been posted to the project webpage and is accessible at the link provided below.

We will be distributing hardcopies over the next couple of days.

www.saultstemarie.ca/SolidWasteEA

Rick Talvitie, P. Eng.
Manager, Northern Ontario
rick.talvitie@aecom.com

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From: Wright, Adam (MOECC) [mailto:Adam.Wright@ontario.ca]
Sent: Wednesday, May 17, 2017 8:54 AM
To: Talvitie, Rick
Subject: RE: City of Sault Ste. Marie DRAFT Waste Management EA Submission

Hi Rick,

Sorry for the delay in getting the MOECC GRT list to you. I am waiting to hear back from folks regarding their preference (electronic or hard copy) and will send this along as soon as I can (hopefully before end of the week).

Cheers,

Adam

-----Original Message-----
From: Talvitie, Rick [mailto:Rick.Talvitie@aecom.com]
Sent: May 16, 2017 2:50 PM
To: Wright, Adam (MOECC)
Subject: RE: City of Sault Ste. Marie DRAFT Waste Management EA Submission

Hi Adam (Note: I am using "Hi" this time to avoid a similar typo to what was included in my previous email!).

I just wanted to reiterate that given the size of the document the preference is to limit the number of hardcopies as much as possible.

Rick Talvitie, P. Eng.
Manager, Northern Ontario
rick.talvitie@aecom.com

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523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4 T 705.942.2612 F 705.942.3642 www.aecom.com

-----Original Message-----
From: Talvitie, Rick
Sent: Tuesday, May 16, 2017 2:38 PM
To: 'Wright, Adam (MOECC)'
Subject: RE: City of Sault Ste. Marie DRAFT Waste Management EA Submission

Hell Adam - just touching base.....will you have a MOECC distribution list, including the number of hardcopies required before the end of this week?

Rick Talvitie, P. Eng.
Manager, Northern Ontario
rick.talvitie@aecom.com

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523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4 T 705.942.2612 F 705.942.3642 www.aecom.com

-----Original Message-----
From: Wright, Adam (MOECC) [mailto:Adam.Wright@ontario.ca]
Sent: Wednesday, May 10, 2017 3:30 PM
To: Talvitie, Rick
Cc: Kolli, Karla; Catherine Taddo (c.Taddo@cityssm.on.ca)
Subject: RE: City of Sault Ste. Marie DRAFT Waste Management EA Submission

Please see attached

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Sent: Tuesday, May 16, 2017 2:38 PM
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Sent: Wednesday, May 10, 2017 3:30 PM
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Subject: RE: City of Sault Ste. Marie DRAFT Waste Management EA Submission

Please see attached

Abernot, Tara

From: Talvitie, Rick
Sent: Friday, May 26, 2017 9:18 AM
To: Wright, Adam (MOECC)
Cc: Catherine Taddo (c.Taddo@cityssm.on.ca); Kolli, Karla; Delaquis, Dan (MOECC); Maahs, Nancy; Marshall, Gillianne (MOECC)
Subject: RE: City of Sault Ste. Marie DRAFT Waste Management EA Submission

Full copy including appendices or just the body of the report?

Rick Talvitie, P. Eng.
Manager, Northern Ontario
rick.talvitie@aecom.com

AECOM
523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4
T 705.942.2612 F 705.942.3642
www.aecom.com

From: Wright, Adam (MOECC) [mailto:Adam.Wright@ontario.ca]
Sent: Friday, May 26, 2017 9:14 AM
To: Talvitie, Rick
Cc: Catherine Taddo (c.Taddo@cityssm.on.ca); Kolli, Karla; Delaquis, Dan (MOECC); Maahs, Nancy; Marshall, Gillianne (MOECC)
Subject: RE: City of Sault Ste. Marie DRAFT Waste Management EA Submission

Hello Rick,

Thank you for the update, I look forward to receiving a copy of the Draft EA report. Additionally, are you able to send one hard copy to Gillianne Marshall at the address below. No rush on sending this, the regional office just needs to have a hard copy for the public record.

> **Ms. Gillianne Marshall**, EA Coordinator (A)
> Ministry of the Environment and Climate Change Northern Region, Technical Support Section
> Air, Pesticides and Environmental Planning
> 435 James Street South, Suite 331
> Thunder Bay ON P7E 6S7

If you have any questions please be sure to let me know.

Cheers,

Adam

From: Talvitie, Rick [mailto:Rick.Talvitie@aecom.com]
Sent: May 26, 2017 7:36 AM
To: Wright, Adam (MOECC)
Cc: Catherine Taddo (c.Taddo@cityssm.on.ca); Kolli, Karla; Delaquis, Dan (MOECC); Maahs, Nancy
Subject: RE: City of Sault Ste. Marie DRAFT Waste Management EA Submission

Hello Adam,

As the week comes to a close I just wanted to update you on the distribution of the DRAFT EA document. We have forwarded, by courier, hardcopies of the report to the MOECC review team as requested in your May 23, 2017 letter.

The document has been made available for review at each of the locations named in the attached Notice.

In addition we delivered hardcopies of the document to the following Aboriginal Communities:

- Garden River First Nation;
- Batchewana First Nation;
- Missanabie Cree First Nation; and
- Metis Nation of Ontario.

As previously communicated in my May 25th email, a digital copy of the full report is available through the City webpage.

Thanks for your assistance.

Rick Talvitie, P. Eng.
Manager, Northern Ontario
rick.talvitie@aecom.com

AECOM
523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4
T 705.942.2612 F 705.942.3642
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From: Wright, Adam (MOECC) [mailto:Adam.Wright@ontario.ca]
Sent: Tuesday, May 23, 2017 3:21 PM
To: Talvitie, Rick
Cc: Catherine Taddo (c.Taddo@cityssm.on.ca); Kolli, Karla; Delaquis, Dan (MOECC)
Subject: RE: City of Sault Ste. Marie DRAFT Waste Management EA Submission

Hello Rick,

I have made some minor revisions to the EA Review response letter, please see the attached for an updated version of the GRT list, if you have any questions please let me know.

Cheers,

Adam

From: Wright, Adam (MOECC)
Sent: May 23, 2017 2:48 PM
To: 'Talvitie, Rick'
Cc: Catherine Taddo (c.Taddo@cityssm.on.ca); Kolli, Karla; Delaquis, Dan (MOECC)
Subject: RE: City of Sault Ste. Marie DRAFT Waste Management EA Submission

Hello Rick,

Please see attached for the Government Review Team (GRT) list for the City of Sault Ste. Marie draft Waste Management EA Report.

If you have any questions or require any clarifications please do not hesitate to let me know.

Regards,

Adam

Adam Wright, M.Sc., RPP
Special Project Officer, PCU
Environmental Approvals Branch

Ministry of the Environment and Climate Change
135 St. Clair Avenue West
Toronto, ON M4V 1P5
T: (416) 314-8214
E: Adam.Wright@ontario.ca

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Rick Talvitie, P. Eng.
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Rick Talvitie, P. Eng.
Manager, Northern Ontario
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From: Wright, Adam (MOECC) [mailto:Adam.Wright@ontario.ca]
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To: Talvitie, Rick
Cc: Kolli, Karla; Catherine Taddo (c.Taddo@cityssm.on.ca)
Subject: RE: City of Sault Ste. Marie DRAFT Waste Management EA Submission

Please see attached

THE CITY OF SAULT STE. MARIE
NOTICE OF DRAFT EA SUBMISSION

SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

The City of Sault Ste. Marie has undertaken an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste.

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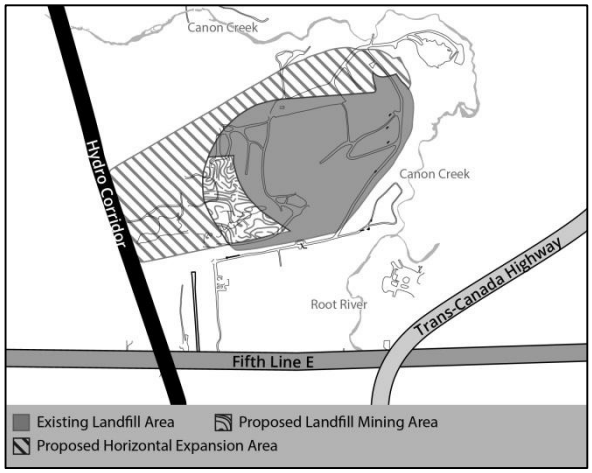

HOW CAN I PROVIDE INPUT?

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Ministry of the Environment and Climate Change *70 Foster Drive, Suite 110, Sault Ste. Marie ON P6A 6V4* *705-942-6354* *Monday – Friday 8:30am – 4:30pm* **Ministry of the Environment and Climate Change, EAB** *135 St. Clair Avenue West, 1st Floor, Toronto ON M4V 1P5* *416-314-8214* *Monday – Friday 8:30am – 4:30pm*	**City of Sault Ste. Marie** *Civic Centre – Level 5* *99 Foster Drive* *705-759-5378* *Monday – Friday 8:30am – 12:00pm and 1:00pm – 4:30pm*
Sault Ste. Marie Public Library (Centennial Library) *50 East Street* *705-759-5230* *Monday -Thursday 9am – 9pm* *Friday 9 am - 6 pm* *Saturday 9 am – 5 pm* *Sunday 2 pm – 5 pm*	**Sault Ste. Marie Public Library (Korah Branch)** *556 Goulais Ave.* *705-759-5249* *Monday - Wednesday 1pm – 8pm* *Thursday 10am – 6pm* *Friday 1pm - 5 pm* *Saturday 10 am – 5 pm* *Sunday 2 pm – 5 pm*
Online at Saultstemarie.ca/SolidWasteEA	

Written comments regarding the Draft EA Document must be received by July 7, 2017. Comments received by this time will be considered in the final EA Document. Written comments should be submitted to the Consultant Project Manager or the City's Land Development and Environmental Engineer by email or mail to:

Mr. Rick Talvitie, P.Eng. Project Manager, AECOM 523 Wellington Street East, Sault Ste. Marie, ON, P6A 2M4	Ms. Catherine Taddo, P.Eng. Land Development and Environmental Engineer City of Sault Ste. Marie, 99 Foster Drive, Sault Ste. Marie, ON, P6A 5X6
Phone: 705-942-2612 **Email:** rick.talvitie@aecom.com	**Phone:** (705) 759-5380 **Email:** c.taddo@cityssm.on.ca

You may also telephone if you have questions or would like additional information

Once comments have been considered, the City intends to finalize the EA Document and submit it to the Ministry of Environment and Climate Change for formal review.

Under the Freedom of Information and Protection of Privacy Act and the Environmental Assessment Act, unless otherwise stated in the submission, any personal information such as name, address, telephone number and property location included in a submission will become part of the public record files for this matter and will be released, if requested, to any person.

Ministry of the Environment and Climate Change

Ministère de l'Environnement et de l'Action en matière de changement climatique

Environmental Approvals Branch
135 St. Clair

Direction des autorisations environnementales

May 23, 2017

Mr. Rick Talvitie, P. Eng.
Manager, Northern Ontario, AECOM
523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4

Dear Mr. Talvitie:

Thank you for your letter of May 5, 2017, on behalf of the City of Sault Ste. Marie, requesting that the Ministry of the Environment and Climate Change carry out a review of the draft Environmental Assessment for the proposed Waste Management environmental assessment (EA). I am pleased to provide you with the following response.

The Ministry of the Environment and Climate Change is committed to working with the City of Sault Ste. Marie to facilitate the review of the draft Environmental Assessment documentation; and, is supportive of carrying out a review to determine whether the draft documentation meets the requirements under the province of Ontario's Environmental Assessment Act and the expectations set forth in the Ministry's Code of Practice: *Preparing and Reviewing Environmental Assessments in Ontario*. The Ministry will also use the review to assess the clarity and detail of the draft EA documentation, in order to ensure that the Minister of the Environment and Climate Change will be able to fully understand all the information in the EA when making a decision about the proposed undertaking.

In order to facilitate the review of the draft Environmental Assessment, the City of Sault Ste. Marie is requested to provide the following Ministry Technical Reviewers and review locations with the identified number of copies, both hard and electronic, of the draft Environmental Assessment documentation, which they require to complete their review by no later than **May 26, 2017**:

Name	Documentation Requirements
Ms. Paula Allen, APEP Supervisor Ministry of the Environment and Climate Change Northern Region, Technical Support Section Air, Pesticides and Environmental Planning 199 Larch Street, 12th Fl. Suite 1201 Sudbury, ON P3E 5P9	One hard copy of the main document and one electronic copy of the entire Environmental Assessment (including all appendices and supporting information) for the public record.

Name	Documentation Requirements
Ms. Gillianne Marshall, EA Coordinator (A) Ministry of the Environment and Climate Change Northern Region, Technical Support Section Air, Pesticides and Environmental Planning 435 James Street South, Suite 331 Thunder Bay ON P7E 6S7	One electronic copy of the entire Environmental Assessment (including all appendices and supporting information).
Mr. Dickson Odame-Osafo, Waste – Senior Review Engineer Ministry of the Environment and Climate Change Environmental Approvals Branch, Approval Services 135 St Clair Ave West, 1st Floor Toronto, ON M4V 1P5	One electronic copy of the entire Environmental Assessment (including all appendices and supporting information).
Mr. Guowang Qiu, Air Quality Analyst Ministry of the Environment and Climate Change Northern Region, Technical Support Section Air, Pesticides and Environmental Planning 199 Larch Street, 12th Fl. Suite 1201 Sudbury, ON P3E 5P9	One electronic copy of the entire Environmental Assessment (including all appendices and supporting information).
Ms. Archana Uprety, Hydrogeologist Ministry of the Environment and Climate Change Northern Region, Technical Support Section Water Unit 199 Larch Street, 12th Fl. Suite 1201 Sudbury, ON P3E 5P9	One electronic copy of the entire Environmental Assessment (including all appendices and supporting information).
Ms. Eva Maciaszek, Surface Water Specialist Ministry of the Environment and Climate Change Northern Region, Technical Support Section Water Unit 199 Larch Street, 12th Fl. Suite 1201 Sudbury, ON P3E 5P9	One electronic copy of the entire Environmental Assessment (including all appendices and supporting information).
Ms. Trina Rawn, District Manager Ministry of the Environment and Climate Change Northern Region, Kenora Area Office 808 Robertson Street, 2nd Floor Kenora, ON P9N 1X9	One hard copy of the main document and one electronic copy of the entire Environmental Assessment (including all appendices and supporting information) for the public record.

Name	Documentation Requirements
Mr. Kevin Belsito, Area Supervisor (A) Ministry of the Environment and Climate Change Northern Region, Sault Ste. Marie Area Office 70 Foster Drive, Suite 110 Sault Ste. Marie, ON P6A 6V4	One electronic copy of the entire Environmental Assessment (including all appendices and supporting information).
Mr. Rick LaLonde, Environmental Officer Ministry of the Environment and Climate Change Northern Region, Sault Ste. Marie Area Office 70 Foster Drive, Suite 110 Sault Ste. Marie, ON P6A 6V4	One hard copy of the main document and one electronic copy of the entire Environmental Assessment (including all appendices and supporting information).
Mr. Adam Wright, Special Project Officer Ministry of the Environment and Climate Change Environmental Approvals Branch Project Coordination UNIT 2 135 St Clair Avenue West, 1st Fl. Toronto ON M4V 1P5	Two hard copies of the main document and two electronic copies of the entire Environmental Assessment (including all appendices and supporting information).* *One hard and electronic copy is for the public record

For the purposes of carrying out the review of City of Sault Ste. Marie's draft EA for the proposed Waste Management EA, the Ministry of the Environment and Climate Change will require a minimum of six weeks. The Ministry will therefore provide any comments on the draft EA documentation by no later than **July 7, 2017**. Please note that for all reviewers who have indicated they will review via an electronic copy, I will forward the electronic copies once I receive them from the City of Sault Ste. Marie. If additional hard copies are required to facilitate the review, I will contact you as soon as possible.

Should you have any questions or concerns, please feel free to contact the undersigned at (416) 314-8214 or by e-mail at adam.wright@ontario.ca.

Yours sincerely,

Adam Wright, Special Project Officer
Environmental Approvals Branch
Ministry of the Environment and Climate Change
1st Floor, 135 St. Clair Avenue West
Toronto ON M4V 1P5

Abernot, Tara

Subject: FW: City of Sault Ste. Marie DRAFT Waste Management EA Submission

---

From: Talvitie, Rick
Sent: May 30, 2017 9:07 AM
To: 'Wright, Adam (MOECC)' <Adam.Wright@ontario.ca>
Cc: 'Catherine Taddo (c.Taddo@cityssm.on.ca)' <c.Taddo@cityssm.on.ca>; 'Kolli, Karla' <kkolli@dillon.ca>; 'Delaquis, Dan (MOECC)' <Dan.Delaquis@ontario.ca>; Maahs, Nancy <Nancy.Maahs@aecom.com>; Abernot, Tara <Tara.Abernot@aecom.com>
Subject: RE: City of Sault Ste. Marie DRAFT Waste Management EA Submission

Hi Adam,

Forgot to mention that in response to your email of May 26th we also sent, via courier, a full hardcopy inclusive of appendices to Gillianne Marshall last Friday.

Rick Talvitie, P. Eng.
Manager, Northern Ontario
rick.talvitie@aecom.com

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523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4
T 705.942.2612 F 705.942.3642
www.aecom.com

From: Talvitie, Rick
Sent: Tuesday, May 30, 2017 9:04 AM
To: 'Wright, Adam (MOECC)'
Cc: Catherine Taddo (c.Taddo@cityssm.on.ca); Kolli, Karla; Delaquis, Dan (MOECC); Maahs, Nancy; Abernot, Tara
Subject: RE: City of Sault Ste. Marie DRAFT Waste Management EA Submission

Hello Adam,

In accordance with your letter dated May 23rd, hardcopies of the report exclusive of appendices were sent via courier on May 25th to Paula Allen, Trina Rawn and yourself (2 copies – I cannot recall if one of your copies included appendices or not…..our administrator is on bereavement leave this week).

A complete hardcopy including appendices was delivered to Rick Lalonde. This copy is intended for the public record and Rick's review.

In addition to the above, hardcopies of the report and appendices were delivered to:

- Garden River First Nations;
- Batchewana First Nations;
- Missanabie Cree First Nation office in SSM; and
- Metis Nation of Ontario First Nation office in SSM.

Let me know if you require anything further. Also please see my comments below.

Thanks.

Rick Talvitie, P. Eng.
Manager, Northern Ontario
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Sent: Monday, May 29, 2017 3:50 PM
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Subject: RE: City of Sault Ste. Marie DRAFT Waste Management EA Submission

Hi Rick,

Can you please confirm which documents were sent to the review locations and aboriginal communities. Was a hard copy of the entire report provided (including appendices) or was just a hard copy of the main draft EA report provided?

Also, I have had some recent requests from reviewers for hard copies of the Draft EA, I will give the other reviewers a couple more days before I submit my request to you but please keep in mind that at this time 2 hard copies of the entire report (including appendices) has been requested. We will provide whatever is necessary. If there are only certain appendices of interest to specific reviewers please let us know and we will tailor the reproduction accordingly. My apologies regarding this, typically we try to utilize electronic copies when feasible but certain technical reviewers request hard copies to aid in their review. Once I have a confirmed number I will be sure to pass along an updated request.

Cheers,

Adam

From: Talvitie, Rick [mailto:Rick.Talvitie@aecom.com]
Sent: May 26, 2017 7:36 AM
To: Wright, Adam (MOECC)
Cc: Catherine Taddo (c.Taddo@cityssm.on.ca); Kolli, Karla; Delaquis, Dan (MOECC); Maahs, Nancy
Subject: RE: City of Sault Ste. Marie DRAFT Waste Management EA Submission

Hello Adam,

As the week comes to a close I just wanted to update you on the distribution of the DRAFT EA document. We have forwarded, by courier, hardcopies of the report to the MOECC review team as requested in your May 23, 2017 letter.

The document has been made available for review at each of the locations named in the attached Notice.

In addition we delivered hardcopies of the document to the following Aboriginal Communities:

- Garden River First Nation;
- Batchewana First Nation;
- Missanabie Cree First Nation; and
- Metis Nation of Ontario.

As previously communicated in my May 25th email, a digital copy of the full report is available through the City webpage.

Thanks for your assistance.

Rick Talvitie, P. Eng.
Manager, Northern Ontario
rick.talvitie@aecom.com

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Sent: Tuesday, May 23, 2017 3:21 PM
To: Talvitie, Rick
Cc: Catherine Taddo (c.Taddo@cityssm.on.ca); Kolli, Karla; Delaquis, Dan (MOECC)
Subject: RE: City of Sault Ste. Marie DRAFT Waste Management EA Submission

Hello Rick,

I have made some minor revisions to the EA Review response letter, please see the attached for an updated version of the GRT list, if you have any questions please let me know.

Cheers,

Adam

From: Wright, Adam (MOECC)
Sent: May 23, 2017 2:48 PM
To: 'Talvitie, Rick'
Cc: Catherine Taddo (c.Taddo@cityssm.on.ca); Kolli, Karla; Delaquis, Dan (MOECC)
Subject: RE: City of Sault Ste. Marie DRAFT Waste Management EA Submission

Hello Rick,

Please see attached for the Government Review Team (GRT) list for the City of Sault Ste. Marie draft Waste Management EA Report.

If you have any questions or require any clarifications please do not hesitate to let me know.

Regards,

Adam

Adam Wright, M.Sc., RPP
Special Project Officer, PCU
Environmental Approvals Branch

Ministry of the Environment and Climate Change
135 St. Clair Avenue West
Toronto, ON M4V 1P5
T: (416) 314-8214

E: Adam.Wright@ontario.ca

From: Talvitie, Rick [mailto:Rick.Talvitie@aecom.com]
Sent: May 23, 2017 10:48 AM
To: Wright, Adam (MOECC)
Cc: Catherine Taddo (c.Taddo@cityssm.on.ca); Kolli, Karla
Subject: RE: City of Sault Ste. Marie DRAFT Waste Management EA Submission

Hello Adam,

Just an FYI the DRAFT Waste Management EA Report has been posted to the project webpage and is accessible at the link provided below.

We will be distributing hardcopies over the next couple of days.

www.saultstemarie.ca/SolidWasteEA

Rick Talvitie, P. Eng.
Manager, Northern Ontario
rick.talvitie@aecom.com

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Sault Ste. Marie, Ontario Canada P6A 2M4
T 705.942.2612 F 705.942.3642
www.aecom.com

From: Wright, Adam (MOECC) [mailto:Adam.Wright@ontario.ca]
Sent: Wednesday, May 17, 2017 8:54 AM
To: Talvitie, Rick
Subject: RE: City of Sault Ste. Marie DRAFT Waste Management EA Submission

Hi Rick,

Sorry for the delay in getting the MOECC GRT list to you. I am waiting to hear back from folks regarding their preference (electronic or hard copy) and will send this along as soon as I can (hopefully before end of the week).

Cheers,

Adam

-----Original Message-----
From: Talvitie, Rick [mailto:Rick.Talvitie@aecom.com]
Sent: May 16, 2017 2:50 PM
To: Wright, Adam (MOECC)
Subject: RE: City of Sault Ste. Marie DRAFT Waste Management EA Submission

Hi Adam (Note: I am using "Hi" this time to avoid a similar typo to what was included in my previous email!).

I just wanted to reiterate that given the size of the document the preference is to limit the number of hardcopies as much as possible.

Rick Talvitie, P. Eng.
Manager, Northern Ontario

rick.talvitie@aecom.com

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523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4 T 705.942.2612 F 705.942.3642 www.aecom.com

-----Original Message-----
From: Talvitie, Rick
Sent: Tuesday, May 16, 2017 2:38 PM
To: 'Wright, Adam (MOECC)'
Subject: RE: City of Sault Ste. Marie DRAFT Waste Management EA Submission

Hell Adam - just touching base.....will you have a MOECC distribution list, including the number of hardcopies required before the end of this week?

Rick Talvitie, P. Eng.
Manager, Northern Ontario
rick.talvitie@aecom.com

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523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4 T 705.942.2612 F 705.942.3642 www.aecom.com

-----Original Message-----
From: Wright, Adam (MOECC) [mailto:Adam.Wright@ontario.ca]
Sent: Wednesday, May 10, 2017 3:30 PM
To: Talvitie, Rick
Cc: Kolli, Karla; Catherine Taddo (c.Taddo@cityssm.on.ca)
Subject: RE: City of Sault Ste. Marie DRAFT Waste Management EA Submission

Please see attached

Abernot, Tara

From: Talvitie, Rick
Sent: Wednesday, June 21, 2017 8:23 AM
To: Hall, Marjorie (MNRF)
Cc: Goertz, Derek (MNRF); Maahs, Nancy
Subject: RE: SSM - Draft EA Submission - Solid Waste Management EA

Hi Marjorie,

Thanks for the information and the voice message. I will pass this along to our biology team.

Rick Talvitie, P. Eng.
Manager, Northern Ontario
rick.talvitie@aecom.com

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523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4
T 705.942.2612 F 705.942.3642
www.aecom.com

From: Hall, Marjorie (MNRF) [mailto:Marjorie.Hall@ontario.ca]
Sent: Tuesday, June 20, 2017 2:01 PM
To: Talvitie, Rick
Cc: Goertz, Derek (MNRF)
Subject: I: SSM - Draft EA Submission - Solid Waste Management EA

Hi Rick,

As per my voice message, in response to the attached notice (The City of SSM Notice of Draft EA Submission – Solid Waste Management EA), MNRF completed a natural heritage screening for known critical biological values associated with the lands proposed for the municipal landfill expansion to determine if any new critical values have been identified in the project area. The screening did not identify any known critical biological values. However, MNRF's inventory of Species at Risk (SAR) and other natural values is often incomplete (especially on private land). As such, any of the SAR or provincial tracked species listed in the attached SSM MNRF District Biological Information Package have the potential to occur should suitable habitat be present. We are providing this information to you in case any of the species listed in the package are detected at the site. Should any of these species be observed, please contact the SSM MNRF District Office to discuss appropriate mitigation measures and if a permit under the Endangered Species Act is required.

Thank you for providing us with the EA Notice. Please don't hesitate to contact me to discuss the above information.

Sincerely,
Marjorie

Marjorie Hall | District Planner | Sault Ste. Marie District | Ministry of Natural Resources and Forestry |
tel: (705) 941-5127 | marjorie.hall@ontario.ca

Abernot, Tara

From: Talvitie, Rick
Sent: Wednesday, June 21, 2017 8:26 AM
To: Wright, Adam (MOECC)
Cc: Catherine Taddo (c.Taddo@cityssm.on.ca); Kolli, Karla; Delaquis, Dan (MOECC); Maahs, Nancy; Abernot, Tara
Subject: RE: City of Sault Ste. Marie DRAFT Waste Management EA Submission

Hello Adam,

Just thought I would check in with you to see if there was anything else required on our end to assist with the ongoing review?

Thanks.

Rick Talvitie, P. Eng.
Manager, Northern Ontario
rick.talvitie@aecom.com

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To: Talvitie, Rick
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Subject: RE: City of Sault Ste. Marie DRAFT Waste Management EA Submission

Hello Rick,

Thank you for your email and for providing the requested information. Below I have provided a table which outlines who from the Ministry requires hard copies and what documents they are requesting. If I receive additional requests for hard copies I will be sure to let you know as soon as I can. If you have any questions please be sure to let me know

Cheers,

Adam

MOECC Reviewer	Draft EA main report	Appendices required
Ms. Archana Uprety, Hydrogeologist Ministry of the Environment and Climate Change Northern Region, Technical Support Section Water Unit 199 Larch Street, 12th Fl. Suite 1201	Yes	Appendix E – Hydrogeological Impact Assessment and Mitigation (1 copy)

Sudbury, ON P3E 5P9		
Mr. Adam Wright, Special Project Officer Ministry of the Environment and Climate Change, Environmental Approvals Branch, Project Coordination UNIT 2 135 St Clair Avenue West, 1st Fl. Toronto ON M4V 1P5	No	Please provide one hard copy of all appendices
Ms. Paula Allen, APEP Supervisor Ministry of the Environment and Climate Change Northern Region, Technical Support Section Air, Pesticides and Environmental Planning 199 Larch Street, 12th Fl. Suite 1201 Sudbury, ON P3E 5P9	No	Please provide one hard copy of all appendices

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- Garden River First Nations;
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Let me know if you require anything further. Also please see my comments below.

Thanks.

Rick Talvitie, P. Eng.
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Adam

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To: Wright, Adam (MOECC)
Cc: Catherine Taddo (c.Taddo@cityssm.on.ca); Kolli, Karla; Delaquis, Dan (MOECC); Maahs, Nancy
Subject: RE: City of Sault Ste. Marie DRAFT Waste Management EA Submission

Hello Adam,

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Thanks for your assistance.

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Regards,

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Adam Wright, M.Sc., RPP
Special Project Officer, PCU
Environmental Approvals Branch

Ministry of the Environment and Climate Change
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www.saultstemarie.ca/SolidWasteEA

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Adam

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Rick Talvitie, P. Eng.
Manager, Northern Ontario
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Subject: RE: City of Sault Ste. Marie DRAFT Waste Management EA Submission

Please see attached

Abernot, Tara

From: Talvitie, Rick
Sent: Wednesday, June 21, 2017 11:15 AM
To: Wright, Adam (MOECC); Papageorgiou, Agni (MOECC)
Cc: Catherine Taddo (c.Taddo@cityssm.on.ca); Kolli, Karla; Delaquis, Dan (MOECC); Maahs, Nancy; Abernot, Tara
Subject: RE: City of Sault Ste. Marie DRAFT Waste Management EA Submission

Thanks for the update.

We look forward to working with you Agni.

Rick Talvitie, P. Eng.
Manager, Northern Ontario
rick.talvitie@aecom.com

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523 Wellington Street East,
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Sent: Wednesday, June 21, 2017 11:07 AM
To: Talvitie, Rick; Papageorgiou, Agni (MOECC)
Cc: Catherine Taddo (c.Taddo@cityssm.on.ca); Kolli, Karla; Delaquis, Dan (MOECC); Maahs, Nancy; Abernot, Tara
Subject: RE: City of Sault Ste. Marie DRAFT Waste Management EA Submission

Hello Rick,

Thank you for the check-in note, at this time no additional information is required for our review. If any requests do come in we will be sure to let you know as soon as possible.

Also, I would like to introduce you to Agni Papageorgiou who has recently been assigned to the SSM Waste EA project. I have been working with Agni to transition over this file and will able to provide support as things move forward. Agni is copied on this email and will be your main point of contact moving forward.

If you have any questions please let us know.

Cheers,

Adam

_____
From: Talvitie, Rick [Rick.Talvitie@aecom.com]
Sent: June 21, 2017 10:31 AM
To: Wright, Adam (MOECC)
Cc: Catherine Taddo (c.Taddo@cityssm.on.ca); Kolli, Karla; Delaquis, Dan (MOECC); Maahs, Nancy; Abernot, Tara
Subject: RE: City of Sault Ste. Marie DRAFT Waste Management EA Submission

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Manager, Northern Ontario
rick.talvitie@aecom.com<mailto:rick.talvitie@aecom.com>

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Cheers,

Adam

MOECC Reviewer

Draft EA main report

Appendices required

Ms. Archana Uprety, Hydrogeologist

Ministry of the Environment and Climate Change Northern Region, Technical Support Section Water Unit

199 Larch Street, 12th Fl. Suite 1201

Sudbury, ON P3E 5P9

Yes

Appendix E – Hydrogeological Impact Assessment and Mitigation (1 copy)

Mr. Adam Wright, Special Project Officer Ministry of the Environment and Climate Change, Environmental Approvals Branch, Project Coordination UNIT 2

135 St Clair Avenue West, 1st Fl.

Toronto ON M4V 1P5

No

Please provide one hard copy of all appendices

Ms. Paula Allen, APEP Supervisor

Ministry of the Environment and Climate Change Northern Region, Technical Support Section

Air, Pesticides and Environmental Planning 199 Larch Street, 12th Fl. Suite 1201

Sudbury, ON P3E 5P9

No

Please provide one hard copy of all appendices

From: Talvitie, Rick [mailto:Rick.Talvitie@aecom.com]
Sent: May 30, 2017 9:04 AM
To: Wright, Adam (MOECC)
Cc: Catherine Taddo (c.Taddo@cityssm.on.ca<mailto:c.Taddo@cityssm.on.ca>); Kolli, Karla; Delaquis, Dan (MOECC); Maahs, Nancy; Abernot, Tara
Subject: RE: City of Sault Ste. Marie DRAFT Waste Management EA Submission

Hello Adam,

In accordance with your letter dated May 23rd, hardcopies of the report exclusive of appendices were sent via courier on May 25th to Paula Allen, Trina Rawn and yourself (2 copies – I cannot recall if one of your copies included appendices or not…..our administrator is on bereavement leave this week).

A complete hardcopy including appendices was delivered to Rick Lalonde. This copy is intended for the public record and Rick's review.

In addition to the above, hardcopies of the report and appendices were delivered to:

· Garden River First Nations;

· Batchewana First Nations;

· Missanabie Cree First Nation office in SSM; and

· Metis Nation of Ontario First Nation office in SSM.

Let me know if you require anything further. Also please see my comments below.

Thanks.

Rick Talvitie, P. Eng.
Manager, Northern Ontario
rick.talvitie@aecom.com<mailto:rick.talvitie@aecom.com>

AECOM
523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4 T 705.942.2612 F 705.942.3642 www.aecom.com<http://www.aecom.com>

From: Wright, Adam (MOECC) [mailto:Adam.Wright@ontario.ca]
Sent: Monday, May 29, 2017 3:50 PM
To: Talvitie, Rick
Cc: Catherine Taddo (c.Taddo@cityssm.on.ca<mailto:c.Taddo@cityssm.on.ca>); Kolli, Karla; Delaquis, Dan (MOECC); Maahs, Nancy
Subject: RE: City of Sault Ste. Marie DRAFT Waste Management EA Submission

Hi Rick,

Can you please confirm which documents were sent to the review locations and aboriginal communities. Was a hard copy of the entire report provided (including appendices) or was just a hard copy of the main draft EA report provided?

Also, I have had some recent requests from reviewers for hard copies of the Draft EA, I will give the other reviewers a couple more days before I submit my request to you but please keep in mind that at this time 2 hard copies of the entire report (including appendices) has been requested. We will provide whatever is necessary. If there are only certain appendices of interest to specific reviewers please let us know and we will tailor the reproduction accordingly. My apologies regarding this, typically we try to utilize electronic copies when feasible but certain technical reviewers request hard copies to aid in their review. Once I have a confirmed number I will be sure to pass along an updated request.

Cheers,

Adam

From: Talvitie, Rick [mailto:Rick.Talvitie@aecom.com]
Sent: May 26, 2017 7:36 AM
To: Wright, Adam (MOECC)
Cc: Catherine Taddo (c.Taddo@cityssm.on.ca<mailto:c.Taddo@cityssm.on.ca>); Kolli, Karla; Delaquis, Dan (MOECC); Maahs, Nancy
Subject: RE: City of Sault Ste. Marie DRAFT Waste Management EA Submission

Hello Adam,

As the week comes to a close I just wanted to update you on the distribution of the DRAFT EA document. We have forwarded, by courier, hardcopies of the report to the MOECC review team as requested in your May 23, 2017 letter.

The document has been made available for review at each of the locations named in the attached Notice.

In addition we delivered hardcopies of the document to the following Aboriginal Communities:

- Garden River First Nation;
- Batchewana First Nation;
- Missanabie Cree First Nation; and
- Metis Nation of Ontario.

As previously communicated in my May 25th email, a digital copy of the full report is available through the City webpage.

Thanks for your assistance.

Rick Talvitie, P. Eng.
Manager, Northern Ontario
rick.talvitie@aecom.com<mailto:rick.talvitie@aecom.com>

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From: Wright, Adam (MOECC) [mailto:Adam.Wright@ontario.ca]
Sent: Tuesday, May 23, 2017 3:21 PM
To: Talvitie, Rick
Cc: Catherine Taddo (c.Taddo@cityssm.on.ca<mailto:c.Taddo@cityssm.on.ca>); Kolli, Karla; Delaquis, Dan (MOECC)
Subject: RE: City of Sault Ste. Marie DRAFT Waste Management EA Submission

Hello Rick,

I have made some minor revisions to the EA Review response letter, please see the attached for an updated version of the GRT list, if you have any questions please let me know.

Cheers,

Adam

From: Wright, Adam (MOECC)
Sent: May 23, 2017 2:48 PM
To: 'Talvitie, Rick'
Cc: Catherine Taddo (c.Taddo@cityssm.on.ca<mailto:c.Taddo@cityssm.on.ca>); Kolli, Karla; Delaquis, Dan (MOECC)
Subject: RE: City of Sault Ste. Marie DRAFT Waste Management EA Submission

Hello Rick,

Please see attached for the Government Review Team (GRT) list for the City of Sault Ste. Marie draft Waste Management EA Report.

If you have any questions or require any clarifications please do not hesitate to let me know.

Regards,

Adam

Adam Wright, M.Sc., RPP
Special Project Officer, PCU
Environmental Approvals Branch

Ministry of the Environment and Climate Change
135 St. Clair Avenue West
Toronto, ON M4V 1P5
T: (416) 314-8214
E: Adam.Wright@ontario.ca<mailto:Adam.Wright@ontario.ca>

From: Talvitie, Rick [mailto:Rick.Talvitie@aecom.com]
Sent: May 23, 2017 10:48 AM
To: Wright, Adam (MOECC)
Cc: Catherine Taddo (c.Taddo@cityssm.on.ca<mailto:c.Taddo@cityssm.on.ca>); Kolli, Karla
Subject: RE: City of Sault Ste. Marie DRAFT Waste Management EA Submission

Hello Adam,

Just an FYI the DRAFT Waste Management EA Report has been posted to the project webpage and is accessible at the link provided below.

We will be distributing hardcopies over the next couple of days.

www.saultstemarie.ca/SolidWasteEA<http://www.saultstemarie.ca/SolidWasteEA>

Rick Talvitie, P. Eng.
Manager, Northern Ontario
rick.talvitie@aecom.com<mailto:rick.talvitie@aecom.com>

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From: Wright, Adam (MOECC) [mailto:Adam.Wright@ontario.ca]
Sent: Wednesday, May 17, 2017 8:54 AM
To: Talvitie, Rick
Subject: RE: City of Sault Ste. Marie DRAFT Waste Management EA Submission

Hi Rick,

Sorry for the delay in getting the MOECC GRT list to you. I am waiting to hear back from folks regarding their preference (electronic or hard copy) and will send this along as soon as I can (hopefully before end of the week).

Cheers,

Adam

-----Original Message-----
From: Talvitie, Rick [mailto:Rick.Talvitie@aecom.com]
Sent: May 16, 2017 2:50 PM
To: Wright, Adam (MOECC)
Subject: RE: City of Sault Ste. Marie DRAFT Waste Management EA Submission

Hi Adam (Note: I am using "Hi" this time to avoid a similar typo to what was included in my previous email!).

I just wanted to reiterate that given the size of the document the preference is to limit the number of hardcopies as much as possible.

Rick Talvitie, P. Eng.

Manager, Northern Ontario

rick.talvitie@aecom.com<mailto:rick.talvitie@aecom.com>

AECOM

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Sault Ste. Marie, Ontario Canada P6A 2M4 T 705.942.2612 F 705.942.3642 www.aecom.com<http://www.aecom.com>

-----Original Message-----

From: Talvitie, Rick

Sent: Tuesday, May 16, 2017 2:38 PM

To: 'Wright, Adam (MOECC)'

Subject: RE: City of Sault Ste. Marie DRAFT Waste Management EA Submission

Hell Adam - just touching base.....will you have a MOECC distribution list, including the number of hardcopies required before the end of this week?

Rick Talvitie, P. Eng.

Manager, Northern Ontario

rick.talvitie@aecom.com<mailto:rick.talvitie@aecom.com>

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Sault Ste. Marie, Ontario Canada P6A 2M4 T 705.942.2612 F 705.942.3642 www.aecom.com<http://www.aecom.com>

-----Original Message-----

From: Wright, Adam (MOECC) [mailto:Adam.Wright@ontario.ca]

Sent: Wednesday, May 10, 2017 3:30 PM

To: Talvitie, Rick

Cc: Kolli, Karla; Catherine Taddo (c.Taddo@cityssm.on.ca<mailto:c.Taddo@cityssm.on.ca>)

Subject: RE: City of Sault Ste. Marie DRAFT Waste Management EA Submission

Please see attached

Ministry of Natural Resources and Forestry						
• Correspondence – Email from Marjorie Hall (MNRF) to Rick Talvitie identifying that the MNRF completed a natural heritage screening for known critical biological values associated with the lands proposed for the landfill expansion and the screening did not identify any known critical biological values. The MNRF provided a SSM MNRF District Biological Information Package of species that have the potential to have habitats in the area and that the MNRF should be notified if any of the species are identified at the site to discussion mitigation measures and if a permit under the Endangered Species Act is required; Response email from Rick Talvitie dated June 21, 2017.	June 20, 2017 and June 21, 2017.		• Noted that the information provided would be forwarded to the expansion biology team.		Email dated June 20, 2017 from Marjorie Hall (MNRF) to Rick Talvitie and response email dated June 21, 2017 from Rick Talvitie to Marjorie Hall (MNRF) – Appendix L	

Abernot, Tara

From: Talvitie, Rick
Sent: Wednesday, June 21, 2017 8:23 AM
To: Hall, Marjorie (MNRF)
Cc: Goertz, Derek (MNRF); Maahs, Nancy
Subject: RE: SSM - Draft EA Submission - Solid Waste Management EA

Hi Marjorie,

Thanks for the information and the voice message. I will pass this along to our biology team.

Rick Talvitie, P. Eng.
Manager, Northern Ontario
rick.talvitie@aecom.com

AECOM
523 Wellington Street East,
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T 705.942.2612 F 705.942.3642
www.aecom.com

From: Hall, Marjorie (MNRF) [mailto:Marjorie.Hall@ontario.ca]
Sent: Tuesday, June 20, 2017 2:01 PM
To: Talvitie, Rick
Cc: Goertz, Derek (MNRF)
Subject: I: SSM - Draft EA Submission - Solid Waste Management EA

Hi Rick,

As per my voice message, in response to the attached notice (The City of SSM Notice of Draft EA Submission – Solid Waste Management EA), MNRF completed a natural heritage screening for known critical biological values associated with the lands proposed for the municipal landfill expansion to determine if any new critical values have been identified in the project area. The screening did not identify any known critical biological values. However, MNRF's inventory of Species at Risk (SAR) and other natural values is often incomplete (especially on private land). As such, any of the SAR or provincial tracked species listed in the attached SSM MNRF District Biological Information Package have the potential to occur should suitable habitat be present. We are providing this information to you in case any of the species listed in the package are detected at the site. Should any of these species be observed, please contact the SSM MNRF District Office to discuss appropriate mitigation measures and if a permit under the Endangered Species Act is required.

Thank you for providing us with the EA Notice. Please don't hesitate to contact me to discuss the above information.

Sincerely,
Marjorie

Marjorie Hall | District Planner | Sault Ste. Marie District | Ministry of Natural Resources and Forestry |
tel: (705) 941-5127 | marjorie.hall@ontario.ca

Ministry of Northern Development and Mines						
• Correspondence – Letter from Stephanie Rocca (MNDM) to Rick Talvitie providing comment on the technical information within the Draft EA document with respect to geology and mineral resource potential, mining lands and abandoned mine hazards.	June 23, 2017	• No concerns with respect to mining lands in the area. • No concerns from the Abandoned Mines Rehabilitation program. • No concerns with respect to the geology or mineral resource potential in the area.			Letter dated June 23, 2017 from Stephanie Rocca (MNDM) to Rick Talvitie – Appendix L	

Ministry of Northern Development and Mines

Strategic Services Branch

933 Ramsey Lake Road, B6
Sudbury ON P3E 6B5
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Fax: (705) 670-5803
Toll Free: 1-888-415-9845, Ext 3003

Ministère du Développement du Nord et des Mines

Direction des services stratégiques

933, chemin du lac Ramsey, étage B6
Sudbury ON P3E 6B5
Tél.: (705) 670-3003
Téléc.: (705) 670-5803
Sans frais : 1-888-415-9845, poste 3003

Ontario

June 23, 2017

Rick Talvitie, P. Eng.
Project Manager
AECOM
523 Wellington Street East
Sault Ste. Marie, ON P6A 2M4

Dear Mr. Talvitie,

Re.: Draft Waste Management Environmental Assessment Report
City of Sault Ste. Marie, 60117627 (60395)

Thank you for the opportunity to comment on the City of Sault Ste. Marie Draft Waste Management Environmental Assessment Report.

The Ministry of Northern Development and Mines (MNDM) Mines and Minerals Division reviewed the technical information available for the study area with respect to the geology and mineral resource potential, mining lands, and abandoned mine hazards.

The Mines and Minerals Division's response is below.

MINING LANDS: No concerns with respect to mining lands in the area.

ABANDONED MINES REHABILITATION PROGRAM: No concerns from the Abandoned Mines Rehabilitation Program. The nearest known and recorded AMIS records are more than 2 kilometres south of the subject land.

RESIDENT GEOLOGIST PROGRAM: The Resident Geologist Program (RGP) of the Ontario Geologist Survey has completed the following:

1. According to the Ministry's Mineral Deposit Inventory (MDI) for mineral occurrences, there are no known mineral occurrences on the proposed project area. The nearest mineral occurrence is 2 km to the south; MDI41K09SW00008 – Root River Sandstone, mineral producer.

2. reviewed the Ministry's CLAIMapsIV for land tenure: the area consists of patented surface and mining rights. Note, surface and mining rights may be held together or separately.
3. the Ministry's OGSEarth application for bedrock geology: the subject land is underlain by rocks consisting of Archean gneissic tonalite suite (tonalite to granodiorite-foliated to gneissic with minor supracrustal inclusions). Immediately to the south is Mesoproterozoic sandstone, shale, conglomerate. The bedrock is exposed at surface or covered by a discontinuous, thin layer of drift consisting of Pleistocene age glaciofluvial outwash deposits of gravel and sand, that includes proglacial river and deltaic deposits.
4. the Ministry's OGSEarth application for Assessment File Report Inventory (AFRI) database to determine whether past mineral exploration activity has been reported for the proposed area: there have not been any recent assessment files for this area.
5. the GIS-based "Metallic Mineral Potential Estimation Tool" to get an estimation of the mineral potential of the proposed project area: a low to moderate metallic mineral potential is estimated for the area, with the scores ranging from 47.5 to 64.8 out of 100. The moderate score comes from the Jacobsville sandstone to the south of the subject lands. The Jacobsville red sandstone has been primarily used as stone, although there exists the potential for other industries based on a sedimentologic parallel with other economic sedimentary rocks; the formation contains a large amount of iron, as well, as past exploration of the formation for uranium resources, although no anomalous zones have been identified.

Published reports and Mineral Deposit Inventory and Abandoned Mines records are also available for viewing or free download through the Geology Ontario portal using the following link: http://www.geologyontario.mndm.gov.on.ca/.

No concerns with respect to the geology or mineral resource potential in the area.

If you have any questions about MNDM's response, please feel free to contact me by phone at 705-670-5734 or by email at stephanie.rocca@ontario.ca.

Sincerely,

Stephanie Rocca
Initiatives Coordinator
Strategic Services Branch

Enclosure(s)

Ministry of Transportation Ontario						
• Correspondence – Email from Rebecca Henderson (MTO) to Rick Talvitie providing comment on the Draft EA document; Response email from Rick Talvitie dated June 23, 2017.	June 23, 2017	• No comments at this time. • Would like to remain on the contact list.	• R. Talvitie acknowledged the MTO would remain on the contact list for the EA.		Email dated June 23, 2017 from Rebecca Henderson (MTO) to Rick Talvitie and response email dated June 23, 2017 from Rick Talvitie to Rebecca Henderson (MTO) – Appendix L.	

Abernot, Tara

From: Talvitie, Rick
Sent: Friday, June 23, 2017 2:04 PM
To: Henderson, Rebecca (MTO)
Cc: Marshall, Ray (MTO)
Subject: RE: City of Sault Ste. Marie DRAFT Wast Management Environmental Assessment Report

Thank you…..duly noted.

Rick Talvitie, P. Eng.
Manager, Northern Ontario
rick.talvitie@aecom.com

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523 Wellington Street East,
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T 705.942.2612 F 705.942.3642
www.aecom.com

From: Henderson, Rebecca (MTO) [mailto:Rebecca.Henderson2@ontario.ca]
Sent: Friday, June 23, 2017 1:42 PM
To: Talvitie, Rick
Cc: Marshall, Ray (MTO)
Subject: RE: City of Sault Ste. Marie DRAFT Wast Management Environmental Assessment Report

Hello Rick,

The draft for the DRAFT City of Sault Ste. Marie Waste Management Environmental Assessment Document has been reviewed and we have no comments at this time. However the MTO would like to remain on your mailing list.

If further discussion is required, please contact Marlo Johnson at marlo.johnson@ontario.ca or 705-497-5458.

Sincerely,

Rebecca Henderson
Environmental Assistant
MTO Northeastern Region
447 McKeown Avenue
North Bay, ON
705-497-5467

GENERAL PUBLIC

Description of Communication	Date	Comments / Questions / Issues	Response / How Addressed	Where Addressed in the EA	Reference Material	Outstanding Issues to be Addressed
• Newsletter No. 1 – Notice of Commencement of Phase 2 of the EA process	October, 2006	• No comments were received			Solid Waste Disposal Environmental Assessment Newsletter No. 1, October 2006 - Appendix L	
• Correspondence – Notice of Public Input Session No. 1 - First public open house conducted to provide updates on diversion improvements and to discuss "Alternatives To" and criteria to be used in the evaluation.	June, 2007	• No comments were received			Notice of Public Input Session No. 1 – Appendix L	
• Public Input Session No. 1 - First public open house to provide updates on diversion improvements and to discuss "Alternatives To" and criteria to be used in the evaluation.	June 26, 2007	• Where would the hazardous waste from an incinerator go? • How big a landfill would be needed?	• It would need to be taken to a hazardous waste facility near Sarnia or other suitably licensed site. • Based on the projections, a landfill that could accommodate approximately 2.7 million tonnes would be needed. A typical footprint for a 2.0 million tonne landfill would likely be in the range of 20 Ha.	Chapter 2 of the EA addresses the waste quantities to be managed which was refined as the EA progressed and incorporated comments received from the Ministry. Residual waste to be managed is 1.75 million tonnes.	Records from June 26, 2007 PIC – Appendix F	
		• Have you considered population in your waste quantity disposal projections?	• Yes, the waste quantity projections are based on population projections done by another consultant. The total estimated Sault Ste. Marie population in 2046 is nearly 86,000 (Note: the City Planning department revised their projections in 2015. As a result of those revisions the projected 2046 was reduced to 82,820).	Chapter 2 of the provides the population projections used to develop the estimated future waste quantities. The projections were refined as the EA progressed and the final projected 2048 service are population is 91,907.		
		• Have you considered increasing the service area so that incineration or high heat technologies would be more cost effective? Sault Ste. Marie could service a larger area as a profitable business generating jobs for our residents. You should establish a committee with a mandate to look at this.	• A waste management steering committee comprised of City staff is overseeing the project. The City's mandate is to look after its own waste and that is the intention of this study. The province has also recently released a draft provincial policy statement which encourages the management of waste close to source. The transport of waste over significant distances results in additional impacts including noise, dust and air emissions. The private sector is more likely to explore opportunities for a facility servicing a broad geographic region.	The service area is identified in Section 1.1. of the EA.		
		• Can there be more than one "Alternative to" selected? •	• Yes, the preferred waste system is likely to include a combination of the alternatives. For example, it is expected that increased 3R's would be part of the system along with one or more disposal method(s).	Section 4.2.3 identifies the preferred "Alternative To" which consists of two of the alternatives considered (i.e. increased diversion and landfill)		
		• Doesn't diversion have a bigger service area?	• The collection of blue and yellow box materials outside of the study area is a private collection and is not part of the municipal system.			
		• Would a high heat process be able to manage nuclear or hospital waste?	• Requires further study and would be looked at if "high heat" is the preferred "Alternatives To".			

Description of Communication	Date	Comments / Questions / Issues	Response / How Addressed	Where Addressed in the EA	Reference Material	Outstanding Issues to be Addressed
		• It was suggested that the City should not overlook incineration/high heat as a future waste management option. A lot can change over the years and it may prove to be beneficial and cost effective in the future.	• Agreed	Incineration/high heat was considered in Chapter 4 of the EA.		
		• It was noted that the timing of the meeting right before a long weekend made it challenging to attend as this is a very busy week.	• It was noted that the project team wanted to have a meeting prior to vacation season. Future sessions will consider statutory holidays.			
		• The selected system should allow conversion of waste into energy without sorting.	• Some sorting is completed at source as part of the recycling programs including the public drop-off area at the landfill site. Typically no additional sorting is done for landfilling however most incineration/high heat processes will include some upfront sorting.			
		• Consider processing of waste for the Region as a potential job creation strategy.	• See response above in this table related to the service area.			
		• Consider impacts of combined alternatives.	• Consideration of combined impacts is included in the rankings under each criterion.	Detailed evaluation of the alternatives is documented in Section 4.2.2 and Table 4.2		
		•				
		• Quality of residues from incineration and high heat processes is dependant on what is included in the waste which is difficult to control.	• Agreed	As noted in Section 4.2.2.2 a small proportion of residues is expected to be managed in a hazardous waste facility.		
		• Concerns were noted with possible need for land expropriation and the location of the existing site on the City's aquifer.	• Property impacts are considered at a general level at this time but will be considered in greater detail in the next phase of the process. Potential impacts to surface water resources is included. An engineered leachate collection and management system is included in the landfilling alternative.	Section 5.2.2 notes that all expansion options are within existing City-owned property. Section 8.3 of the EA addresses contingency measures which includes the potential acquisition of properties located west and south-west of the current site to extend the contaminant attenuation zone. Management of leachate and protection of the aquifer is addressed throughout the EA and included in Sections 4.1.3, 4.2.2.2, 5.2.3, 5.2.5, 6.6.3 and 7.2.2		
		• It is important that waste reduction is included as an alternative or at least incorporated as part of the waste diversion alternative.	• The waste diversion alternative includes the 3 R's (reduce, reuse, recycle).	Details of the Increased Waste Diversion alternative are included in Section 4.1.1.		
		• Concern was noted that incineration and high heat processes may generate more hazardous waste than is noted in the EA documentation.	• The information included in the documentation was obtained through research completed on existing operating facilities.	As noted in Section 4.2.2.2 a small proportion of residues is expected to be managed in a hazardous waste facility.		
		• Skepticism was noted that incineration/high heat processes are safe. Research needs to be independent and unbiased.	• Incineration and high heat processing plants would be required to meet MOECC regulated emission requirements of the day. Facilities must be instrumented with monitoring equipment to demonstrate on going compliance.	This alternative is summarized in Section 4.1.2 and compliance and environmental acceptability are addressed in Sections 4.2.2.1 and 4.2.2.2 respectively.		
		• Need to consider leachate impacts and impacts on habitat associated with landfilling including attraction of bears and rats.	• This is considered at a general level at this time and will be considered in more detail in the next phases of the process.	Leachate management is addressed extensively throughout the EA and is included in Sections 4.1.3, 4.2.2.2, 5.2.3, 5.2.5, 6.6.3 and 7.2.2. Impacts and management of habitat is primarily included in Sections 6.6.10 and 7.2.1.		

Description of Communication	Date	Comments / Questions / Issues	Response / How Addressed	Where Addressed in the EA	Reference Material	Outstanding Issues to be Addressed
• Correspondence – Newsletter No. 2 and Notice of Public Input Session – Project update and information regarding the upcoming June 3, 2010 PIC which is intended to identify the preferred "Alternative To", discuss the project progress and have questions or concerns addressed.	May, 2010	• No comments were received.			Solid Waste Disposal Environmental Assessment Newsletter No. 2, May 2010, and Notice of Public Information Centre – Appendix L	
• Public Input Session No. 2 – Conducted to communicate the preferred "Alternative To" and provide an opportunity to discuss the project progress and have questions or concerns addressed.	June 3, 2010	• Has consideration been given to the energy requirements to recycle plastics vs. thermally processing plastics?	• Municipalities are mandated by Provincial legislation to collect and recycle No's 1 and 2 plastics (ie. designated by the province). In Sault Ste. Marie, other plastics (ie: numbers 3 through 7) are currently being disposed of in landfill and are currently available for thermal processing. A comparison of the energy requirements to recycle no's 1 and 2 plastics versus thermally processing these plastics is beyond the scope of this study and should be done at the Provincial level as part of the material designation process.	Residential waste diversion is discussed extensively in Sections 1.5 and 2.3.1. Municipalities have limited control of this waste stream in the move to the circular economy.	Records from June 3, 2010 PIC No. 2 – Appendix H	
		• A concern was noted with the potential impact of the landfill on groundwater resources in the area of the landfill site. It was noted that the City had extended the Municipal water distribution system along Fifth Line west of the landfill to address water quality concerns in drinking water wells.	• The extension of the Municipal water distribution system to the landfill site was completed in 1997± to address potential concerns with potable water quality on the landfill site itself. The City is not aware of any water quality problems in potable wells surrounding the landfill site that may be attributable to the landfilling operations. (Note: time was also spent educating the individual regarding the various monitoring and leachate control systems that are present at the existing landfill site to safeguard groundwater quality beyond the boundaries of the landfill site).	Leachate management is addressed extensively throughout the EA and is included in Sections 4.1.3, 4.2.2.2, 5.2.3, 5.2.5, 6.6.3 and 7.2.2. In addition proposed private water well quality monitoring program is planned and described in Section 8.1.1.1.		
		• The biosolids generated at the two waste water pollution control plants could be processed in the proposed Elementa facility.	• This may be a viable approach but Elementa has not yet tested and confirmed that biosolids can be processed in their facility. Furthermore their proposed commercial scale plant will not have adequate capacity to process all residual waste generated in Sault Ste. Marie and they will likely prefer waste streams with higher energy content if available.	Elementa is not an option as noted in Section 4.1.2 but biolsolids processing is being addressed as noted in Section 2.3.3.		
		• Surprised that thermal processes did not fare better in the evaluation relative to landfilling.	• The rationale for the rankings is included in a summary table in the Alternatives to the undertaking report and any comments on individual rankings are encouraged.	Refer to Sections 4.2.2 and 4.2.3.		
• Correspondence – Email from a local citizen to AECOM and City of SSM dated June 7, 2010 regarding adding his email address to the mailing list for this project and outlining a series of questions regarding the project. Response email provided to R. Rattle from R. Talvitie dated July 23, 2010 addressing Mr. Rattle's questions and concerns and	June 7, 2010 and July 23, 2010	• Are the Terms of Reference for this study/project available? • Is there a report describing this project or any results to date available? • • Has there been a gap between now and the last work on this project? • Is this EA only considering waste once it enters the waste stream and whether there's a role in this study/project to	• Yes, posted on City website (and provided the link). • Yes there are a number of background reports (refer to email for detailed response). • Yes there has been a gap (refer to email for detailed response). • One of the alternatives included in the EA is enhanced Waste Division. This alternative reflects diversion from disposal through 3R's	Included as an Appendix of the EA. Included as part of EA Reference page and included as appendices. Diversion is discussed extensively in Sections 1.5 and 2.3.1. The City has included some landfill bans and the	Email dated June 7, 2010 from a local resident to R. Talvitie, response email dated July 23, 2010 from R. Talvitie, and Webpage printout of City of Sault Ste. Marie Solid Waste Management Planning, August 2010 – Appendix L	

Description of Communication	Date	Comments / Questions / Issues	Response / How Addressed	Where Addressed in the EA	Reference Material	Outstanding Issues to be Addressed
providing a link to the City of Sault Ste. Marie website to obtain a number of background documents related to previous waste management planning work and work completed recently within the EA process. In addition, provided May 31, 2010 Report to Council which provides a summary of the waste management planning work completed over the last decade.		consider the City's capacity to reduce the generation of waste. • Was a role for composting considered? • What exactly is the project? Are the current activities part of a larger project? • The next steps indicates your team will be evaluating landfilling options. Has the decision to pursue this option been finalized, or are those landfilling options to be evaluated for decision making purposes? • What is the length of the Elementa contract in which the City has agreed to 12,500 tons annually?	initiatives. (refer to email for detailed response). • Yes (refer to email for detailed response). • (Refer to email for detailed response). • Within the context of the EA a decision has been made to manage waste through enhanced waste diversion and landfilling of residual waste (refer to email for detailed response). • The duration of the contract is ten years with an option to extend it for an additional ten years.	Province is taking action through their Circular Economy initiative. The plans related to composting are included in Section 2.3.1. The project is described in Chapter 6. The rationale for the selection of increased waste diversion and landfill is documented in Chapter 4. Elementa contract was terminated as noted in Section 4.1.2		
• Correspondence – Notice of Public Input Session – Project update and information regarding the upcoming April 19, 2011 PIC No. 3 which is intended to solicit input and feedback on the alternative approaches to landfilling residual waste (i.e. expand existing disposal site versus a new site.	April, 2011	• No comments were received.			Solid Waste Management Environmental Assessment Notice of Public Input Session, April, 2011 – Appendix L	
• Public Input Session No. 3 - Conducted to provide an opportunity to discuss project progress, solicit input and feedback on the alternative approaches to landfilling residual waste (i.e. expand existing disposal site versus a new site) and to address questions or concerns.	April 19, 2011	• Is 34% diversion comparable to other municipalities? • • In southern Ontario there is a large weight associated with newspapers so their diversion rate shows as higher. We should use volume to indicate diversion rate rather than weight. • Sudbury diversion rates are higher but they do collect more plastics and they have organics collection. It is a single stream process with improved participation. The waste from the Sudbury MRF is approximately 1.5-4%. • Are there items banned from the landfill? • Elementa tried to do their EA and Certificate of Approval at the same time. They should have finished one process and then gone to the next. • How much of the residual waste is organics? • How much does the existing site cost? How much less will an expansion cost compared to a new site? • The City has improved odour control with the installation of the gas management system. Sludge is the remaining issue that needs to be dealt with at the existing site.	• Yes. City of Sault Ste. Marie is in line with other similarly sized municipalities with similar diversion programs. • It is very difficult to measure volume and weights are much more practical/convenient. • No response required. • Yes old corrugated cardboard and leaf and yard waste are banned. • No response required. • Based on previous studies completed, approximately 30-40% of the waste stream is organic. • Although detailed estimates have not been completed qualitatively an expansion is less costly and the rationale is detailed in the EA report. • Agreed. A biosolids management plan has been completed to mitigate odours in transit to the landfill and at the site itself.	Section 2.3.1 addresses Provincial diversion targets and highlights future diversion goals in line with Provincial targets. The City plans to add curbside residential organics collection in the near term future diversion goals in line with Provincial targets – refer to Section 2.3.1. Section 1.5. Elementa contract was terminated as noted in Section 4.1.2 Refer to Organic Waste Diversion Report included as an Appendix and Section 2.3.1 Refer to Section 4.2.2.7 and 5.1.1. Biosolids management was addressed in a separate Class EA and plans are summarized in Section 2.3.3. Nuisance and environmental management is addressed in Section	Records from April 19, 2011 PIC – Appendix I	

Description of Communication	Date	Comments / Questions / Issues	Response / How Addressed	Where Addressed in the EA	Reference Material	Outstanding Issues to be Addressed
		• Needs to be clear that, while local residents may have become used to the site it does not mean that they like it.	• Understood. The City will continue to be as proactive as possible to continually improve nuisance management at the site.	6.6 with a summary of related commitments in Section 8.4. In addition, a formal resident complaint process has been ongoing and will continue (refer to Section 8.2) Elementa contract was terminated as noted in Section 4.1.2		
		• Representatives from Elementa indicated that they can process any carbon based material that is available. In their discussions with Spain they understand that landfills are banned there. The comment "why bury energy" was made.	• The City has endorsed a waste supply agreement with Elementa which provides for the management of a portion of the residual waste stream in an energy-from-waste facility.			
		• Is the City of Sault Ste. Marie looking at new recycling products? The City should work with the contractor to get more recyclable materials collected.	• The City's contract for recycling collection and processing includes provisions to consider new products. The inclusion of new material is however contingent upon having an established market to purchase/utilize the materials.	The Province is moving forward with their circular economy initiative which includes extended producer responsibility> The City will have limited control of the blue box program in the future (refer to Section 2.3.1). Presumably recycling products will continue to be evaluated at the Provincial level.		
		• An expansion option assumes there is land to expand into. We need to confirm that there is enough room.	• This is an important consideration and will be addressed in Step 2 of the Alternative Methods evaluation provided expansion is selected as preferred in Step 1.	Section 5.2.2 notes that all expansion options are within existing City-owned property. Section 8.3 of the EA addresses contingency measures which includes the potential acquisition of properties located west and south-west of the current site to extend the contaminant attenuation zone.		
		• Should consider mining the existing site and expanding upwards. You could remove recyclables from the mined material and then take it to Elementa for processing.	• Mining and a vertical expansion will be considered in the next step of the Alternative Methods phase. Recoverable materials that are encountered during the mining operations will be separated and marketed.	Vertical expansion is addressed in Section 5.2.2 and although initially some of the options included a modest vertical expansion it was eliminated based on feedback received following the Ministry's review of the DRAFT submission. Furthermore, a vertical expansion was not desirable given the existing site is not lined and the stability of the existing side slopes may be compromised with increased height.		
		• It was noted that you could always mine the existing site even if a new site was identified as preferred.	• Agreed, however there would be two sites that would generate nuisance impacts and would require additional resources to operate and manage.	Section 5.1 of the EA addresses the principle advantages and disadvantages of a site expansion versus a new greenfield site. It also highlights the challenges that were encountered in identifying a suitable site for a new landfill in conjunction with a 1984 EA undertaken by the City.		
		• A new site brings a lot of headaches – Where are you going to find a clay dish like you have at the existing site? You will spend 10 years and a lot of money to look for a new site and then find out at the last minute that there is something about it that makes it not workable.	• The search for a suitable new site can be very time consuming and costly and typically generates significant anxiety in communities. Significant investment can occur with no guarantees that a workable site will be established. This is also the case for site expansion but a lessor investment is likely required. Both a site expansion and a new site will however require a liner to manage leachate.	Refer to Section 5.1.2.		
		• The existing site is a known quantity.	• Agreed. This was cited as an advantage in the evaluation.	Section 5.1 of the EA addresses the principle advantages and disadvantages of a site expansion		

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		• We don't have the density and sprawl in Sault Ste. Marie that they have in southern Ontario so we could probably find a new site that might be better than the existing site.	• The search for a suitable new site can be very time consuming and costly and typically generates significant anxiety in communities. Although a new site could potentially be identified the preliminary conclusion reached through the evaluation completed is that the City should initially focus resources on assessing the practicality and net impacts of an expansion. A search for a new site was also completed in the late 80's with limited success.	versus a new greenfield site. It also highlights the challenges that were encountered in identifying a suitable site for a new landfill in conjunction with a 1984 EA undertaken by the City.		
		• You will run in to NIMBY if you try to site a new landfill. Residents and property owners were concerned with wind turbines so they are certainly going to be concerned with a landfill.	• Agreed	The introduction to Section 5.0 references the previous site search completed in 1984 and notes the anxiety and uncertainty a site search can create for residents in the community. Characteristics of a new and expanded site are summarized in Section 5.1.1.		
		• It was noted that both sites have similar potential for disruption to the neighbouring community. • Concern about mining is the odour. There was a lot of odour when they dug into the site to place the pipes for the landfill gas collection system.	• Agreed but there has been some adaptation with the existing site. • Odour is a significant concern associated with mining operations and will require close attention to best practices to mitigate. The intent would also be to limit the timeline for mining operations.	Potential odour impacts and mitigation are addressed extensively in the EA including Sections 5.2.5, 6.3, 6.6.6, 7.3.6, 8.1.4 and 8.4.		
		• Don't think a community will allow a new landfill. The City should go with what we have and make it better.	• The preliminary conclusions reached through the evaluation suggest focusing on an expansion for a number of reasons as noted elsewhere in the report. The intent would be to further improve the environmental management features at the existing site in conjunction with an expansion.	General support for an expansion was communicated at the April 19, 2011 workshop – refer to Section 5.1.4.		
		• It was suggested that an expansion could not go east or south, there is not much room to go west, and the north is the best direction for an expansion as there are no additional people to impact. North was preferred over going higher. A separate fill area to the north was suggested. • It was acknowledged that there would be a cost savings with an expansion over a new site. • There was discussion on the lifecycle cost of existing equipment and whether it could be re-used if a new site was selected. It was suggested that the equipment cost difference for the site is probably not that great and should not be what is relied upon to make the decision between the options.	• Various expansion options will be explored in the next step of the process if the preferred alternative from the current step is expansion. It was acknowledged that expansion east or south is not likely practical. • Agreed • It was noted that in addition to the equipment there are infrastructure items on the current site that could potentially be reused including site roads, weigh scale(s), scale house and administrative and maintenance buildings existing groundwater, surface water and landfill gas monitoring systems. Collectively these items could result in a substantial cost savings.	The site expansion options were developed based on the existing available City-owned property and desire to maintain buffers to adjacent sensitive uses or environmental features. The site expansion options are described in Section 5.2.2. The cost savings is addressed in Sections 5.1.1 to 5.1.4. Estimated costs for a new site versus an expansion is addressed in Sections 5.1.1 to 5.1.4		
		• It was noted that investigations on a new site would be very costly and there is a lot less certainty than with an existing site.	• The search for a suitable new site can be very time consuming and costly and typically generates significant anxiety in communities. Significant investment can occur with no guarantees that a workable site will be established. Although a significant investment is also required for a	Section 5.1 of the EA addresses the principle advantages and disadvantages of a site expansion versus a new greenfield site. It also highlights the challenges that were encountered in identifying a suitable site for a new landfill in conjunction with a 1984 EA undertaken by the City.		

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		• Don't think that a new site would be much harder to approve but it would be harder to get buy-in from the community.	site expansion the required investment is likely much less given the significant knowledge that pre-exists for the site. • Agreed that there may be increased challenges in obtaining buy-in from the community for a new site particularly if it is located near sensitive uses. The approval for a new site would require more extensive investigations to ascertain potential impacts particularly with groundwater.	Section 5.1 of the EA addresses the principle advantages and disadvantages of a site expansion versus a new greenfield site. It also highlights the challenges that were encountered in identifying a suitable site for a new landfill in conjunction with a 1984 EA undertaken by the City.		
		• The existing site is well run there have been improvements (e.g. gas management). The sludge smell and potential for groundwater impacts are the only issues at the existing site that neighbours are concerned about. If you fix these issues then there is no problem with the existing site.	• A biosolids management study is being completed to address the management, nuisance impacts and potential beneficial use of the sewage biosolids. The City has been effectively monitoring and managing groundwater quality at the existing site and expansion would include further enhancements to the existing leachate management features and protocols.	The biosolids processing facility is in the design phase and enhancements to the effective leachate management systems are planned. The biosolids processing facility is addressed in Section 2.3.3 and leachate management is documented in Sections 6.6.3, 7.2.2, 8.1.1 and 8.3.		
		• One option to fix the concern about groundwater is to supply municipal water to local residents.	• Consideration will be given to potential impacts to private well supplies in the next phase of the study.	A residential well water monitoring program will be initiated (refer to Section 8.1.1.1) and an extension of the municipal water distribution system has been included a s a contingency (refer to Section 8.3)		
		• The long term plan for the landfill is good but we should also be focusing on what we can do to help Elementa. It was noted that their biggest issue at this point was getting an appropriate electricity rate from the Ontario Power Authority. Waste-to-energy is the only thing not included in the government's feed-in-tariff program and it should be.	• The City has endorsed a waste supply agreement with Elementa. It is anticipated that Elementa will continue to negotiate with OPA with the goal of establishing an acceptable power purchase agreement.	As noted in Section 1.6 Elementa became bankrupt and the City terminated the agreement.		
		• It was noted that we should be focusing on reducing and recycling.	• Increased 3R's was identified as an important element of the overall preferred solution identified in the first phase of the study and the City is committed to investigating and implementing cost effective 3R's strategies.	The increased waste diversion alternative is documented in Section 4.1.1, the evaluation of the alternatives is included in Section 4.2 with the results in Section 4.2.3.		

Description of Communication	Date	Comments / Questions / Issues	Response / How Addressed	Where Addressed in the EA	Reference Material	Outstanding Issues to be Addressed
• Correspondence – Email from A. Riopel to R. Talvitie dated May 5, 2011 regarding questions concerning how much of the waste from the City of Sault Ste. Marie is disposed in Dafter, Michigan and waste diversion ideas. Response email provided to A. Riopel from R. Talvitie dated May 27, 2011 addressing Mr. Rattle's questions and concerns and providing a link to a webpage on Canadian waste disposal in Michigan.	May 5, 2011 and May 27, 2011	• Do you know how much of our garbage is now going to Dafter, Michigan? • The local waste management company that we use in my business takes the garbage there. • How long have they been doing this? • How does that affect the graph about how much garbage we produce? Would some of the reduction demonstrated be related to this? • We should be diverting 90% of our waste. This could be improved by stronger by-laws that make it illegal to put any recyclable, hazardous or compostable in the garbage. We could also make it so that you have to pay for every bag set out. • Politically, it might be a hard sell but I can assure you that the rules in other cities and countries are much stiffer. • We could also make plastic shopping bags illegal and force merchants to accept packaging and old appliances that were purchased there.	• Very little residential waste is being exported to Michigan as a result of the voluntary agreement between Michigan Senators and the MOE that came into effect on January 1, 2011 (refer to email for detailed response). • The landfill in Dafter is owned by Waste Management. • Waste Management took ownership of the disposal site some 8 or 9 years ago. • There is clearly some impact since they are exporting waste generated in our City and disposing of it elsewhere. However, based on our knowledge the quantity is relatively small. • Although there have been significant successes achieved as the diversion rate has climbed from 9% to 34%, there is room for improvement. A Waste Management Business and Implementation Plan was prepared a number of years ago and an update is currently underway (refer to email for detailed response). • Yes there are many more restrictions/rules in other countries. The political arena is an important consideration which typically favours steady progress in lieu of dramatic changes over short periods of time. • These are good ideas and areas where progress is being made. The current campaign to encourage the use of reusable bags in lieu of plastic shopping bags has been quite successful and many appliances are being recycled for scrap metal. There is always room for improvement and the City continues to support and implement changes to enhance diversion.	As noted in Section 2.2.2 a portion of the IC&I waste is being disposed of in Dafter Michigan but given the challenges with the border and lack of other nearby disposal facilities in Ontario the City is planning to manage all locally generated non-hazardous solid waste. Further commitments have been made in the EA to enhance waste residential waste diversion from approximately 30% to 50% by 2025 (refer to Section 2.3.1) There is a significant ongoing effort to reduce waste disposal. This is addressed in Section 2.3.1. The province is shifting towards a circular economy which includes extended producer responsibility as discussed in Section 2.3.1. The City is implementing a single-use plastics ban in 2022 in support of the Federal government's proposed Single-Use Plastics Prohibition Regulations (Dec., 2021) as discussed in Section 1.5 and 4.1.1.	Email dated May 5, 2011 from A. Riopel to R. Talvitie and email dated May 27, 2011 from R. Talvitie to A. Riopel – Appendix L	
• Correspondence – Notice of Public Input Session – Project update and information regarding the upcoming March 6, 2012 PIC which is intended to solicit input and feedback on the alternative approaches to expanding the existing disposal site.	February, 2012	• No comments were received.			Solid Waste Disposal Environmental Assessment Notice of Public Input Session dated February, 2012 – Appendix L	
• Public Information Centre No. 4 - Conducted to discuss project progress and to solicit input and feedback on a preferred expansion strategy for the existing landfill site.	March 6, 2012	• Suggested that a waste-to-energy vendor be invited to convert our waste (Elementa or an alternate vendor).	• A private sector energy-from-waste (EFW) proponent called The Elementa Group (Elementa) has built and tested a pilot steam reformation plant that converts municipal solid waste into a char and synthetic gas that can be used to generate electricity. The pilot testing was completed from 2007 to 2009 and Elementa has plans to construct a new larger-scale facility, with an estimated annual throughput capacity of at least 35,000 tonnes. In 2009, the City	As noted in Section 1.6 Elementa became bankrupt and the City terminated the agreement.	Records from March 6, 2012 PIC – Appendix J	

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			entered into a waste supply agreement with Elementa to process a minimum 12,500 tonnes per year of the City's residential MSW for a minimum ten year period commencing in 2011. The project implementation has been delayed on a number of occasions and the waste supply agreement was amended on a number of occasions to reflect changes in waste supply commencement dates.			
		• Prevent leachate from entering groundwater and surface water sources.	• The proposed expansion includes strategies to mitigate potential adverse impacts to ground and surface water that could be generated from the proposed expansion area. The preliminary preferred expansion option includes provisions to enhance ground and surface water protection measures associated with the existing disposal footprint. Further details will be forthcoming in the next phase of the project (ie. detailed impact assessment).	Leachate management is documented in Sections 6.6.3, 7.2.2, 8.1.1 and 8.3 and surface water management is addressed in Sections 6.6.4, 7.2.3, 8.1.2 and 8.3.		
		• The necessity and cost of the proposed landfill mining in the western portion of the existing footprint was questioned.	• Although landfill mining is not a "necessity" there are pros and cons to this component of the preliminary preferred option. Landfill mining provides an opportunity to enhance groundwater protection measures associated with the existing disposal footprint. A secondary benefit is the additional disposal capacity sourced by separating the waste from the fines and re-landfilling only the waste. The principle drawbacks to landfill mining are the added cost, nuisance impacts (ie. odours, dust, noise) and worker protection. The feedback that we have received to date is that the long term ground water quality benefits outweigh the added costs and short term operational impacts.	Landfill mining within the south-west portion of the existing disposal footprint is evaluated in Section 5.2.5. It was selected for inclusion in the preferred design option based primarily on the long-term ground water quality benefits and recognizing the potential short-term adverse impacts can be effectively mitigated.		
		• Displays and presentation was well done and very informative.	• No response required.			
		• Consideration should be given to petition the expansion of the current Provincial Groundwater Monitoring Network (PGMN). This expansion could allow for additional groundwater quality and quantity monitoring away from the landfill. The additional monitoring capability would increase the predictability of any potential threat of off-site contamination and allow the operators of the municipal drinking water distribution network to have ample notice of any impending issues. Policies will be included in the Municipality's Source Protection Plan to address.	• There is an extensive network of monitoring wells located within and immediately adjacent to the existing waste disposal site. This network provides ample opportunity to assess groundwater quality within and adjacent to the site. We support your suggestion that there are benefits to expanding the PGMN within the capture zones of the municipal wells to identify contaminants well in advance of reaching the well head.	Groundwater monitoring has been ongoing at this site for many years and the results are documented in an annual report. The monitoring program is addressed in Section 8.1.1 and contingency measures are included in Section 8.3.		
		• Concern was expressed regarding the long term quality of drinking water sourced from private wells adjacent to the site.	• There is an extensive network of monitoring wells located within and immediately adjacent to the existing waste disposal site. This network provides ample opportunity to assess groundwater quality within and adjacent to the site. Despite the extensive	To further address this concern a private residential well sampling program is proposed and included in Section 8.1.1.1 and a number of contingencies are included in Section 8.3 including the potential extension		

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			monitoring network we understand the concern raised and further consideration will be given to this concern in the next phase of the project (ie. detailed impact assessment).	of the municipal water distribution system.		
		• Concern was expressed with the location of a landfill on a significant ground water recharge area but also acknowledged that the expansion of the existing site allows an opportunity to help reduce the risk of the existing landfill operation with ongoing monitoring and through the application of partial or total impervious cover over the existing footprint to limit infiltration and leachate production.	• Although the location of the existing waste disposal site may not be ideal the ongoing operation and site monitoring by the Municipality has demonstrated that leachate is being effectively managed as demonstrated through the annual reporting. Despite the effective leachate management the City believes the proposed expansion offers an opportunity to further enhance the protection measures associated with the existing disposal site. These measures may include a liner at the base of the waste and at the interface between the new and existing waste in the expansion areas, a partial or full impervious final cover design, mining and lining a portion of the existing site and installation of a horizontal collector along the western boundary of the expansion area.	The proposed expansion includes a number of enhancements to build on the existing effective leachate management systems including landfill mining of a portion of the existing disposal footprint to incorporate a liner system at the base of the waste, lining of all new waste disposal cells, inclusion of a contingency to add a horizontal collector along the western side of the site to replace the purge well system if necessary, and storm water management controls. These items are addressed in Sections 6.3, 6.6.3, 6.6.4, 7.2.2, 7.2.3, 8.1.1, 8.1.2 and 8.3.		
		• Support for landfill mining to improve ground water quality but also identified a need to consider air quality and protection of workers during the operations.	• There are pros and cons to landfill mining. Landfill mining provides an opportunity to enhance groundwater protection measures associated with the existing disposal footprint. A secondary benefit is the additional disposal capacity sourced by separating the waste from the fines and re-landfilling the waste only. The principle drawbacks to landfill mining are the added cost, nuisance impacts (ie. odours, dust, noise) and worker protection during the operations. Further consideration of the nuisance impacts and safety will be included in the detailed impact assessment.	Landfill mining within the south-west portion of the existing disposal footprint is evaluated in Section 5.2.5 and included consideration of air quality and protection of workers. It was selected for inclusion in the preferred design option based primarily on the long-term ground water quality benefits and recognizing the potential short-term adverse impacts can be effectively mitigated.		
		• Composting should be fast tracked by the MOECC.	• The City, through its Consultant, interacts regularly with MOECC staff regarding proposed changes to the composting regulations.	As noted in Section 1.5 the City currently composts leaf and yard waste and has initiated the process to incorporate composting of biosolids and source separated organics as noted in Sections 2.3.1 and 2.3.3.		
		• Support expressed for Option 3 - North and West Expansion B. Also suggested that landfill mining should be considered as technology becomes available and this option becomes more cost competitive. It was also noted that there should continue to be a focus on recycling.	• Although there is additional expense associated with the proposed landfill mining it will help to mitigate potential ground water impacts to the south west of the site. The preferred solution that was identified in the "Alternatives To" stage of the process included increased waste diversion and the City is committed to investigating and implementing cost effective ways and means of reducing residual waste disposal quantities.	The preferred solution includes enhanced diversion (Section 4.2.3) and Option 3 was selected as the preferred landfill expansion (Section 5.2.4). Landfill mining a portion of the existing disposal footprint was considered in Section 5.2.5 and has been integrated into the overall project based on the long-term ground water quality benefits.		
		• Every effort should be made to reduce the timeframe to initiate the landfill expansion plan.	• The City is committed to moving forward with the next steps of the EA process and the technical approvals required for the expansion.	The EA will be submitted in 2021 and the timing for approvals will be dictated by the Ministry.		

Description of Communication	Date	Comments / Questions / Issues	Response / How Addressed	Where Addressed in the EA	Reference Material	Outstanding Issues to be Addressed
• Correspondence – Letter to Alex MacDonald from R. Talvitie addressing concerns raised from his comment sheet provided at the March 6, 2012 Public Input Session.	May 29, 2012	• What is the depth of the deepest well south of the leachate collection system? • What is the maximum depth of the leachate collector?	• See the attached ground water monitor details. Attached table includes details on all monitors at the landfill site and the monitors that have been highlighted in blue represent the 17 monitors located south and south east of the leachate collector. Each year several of these monitors are sampled and analysed. The table includes the depth of the monitors as well as the top and bottom elevations of the monitors. The deepest monitor in the area is 38.85m deep and this monitor also reaches the lowest elevation in this area (ie 230.33) • The lowest elevation along with leachate collector is approx. 268m or a depth of approx. 6m.	Details regarding existing monitors are included in the annual Monitoring reports. The horizontal leachate collector is designed to straddle the water table. Details are included in the as-constructed records.	Letter dated May 29, 2012 to Alex MacDonald from R. Talvitie – Appendix L	
• Correspondence – Letter to Gord Acton, Wishart Law Firm from R. Talvitie in response to his letter dated March 30, 2012 expressing his client's (Mr. Caswell) concerns related to the proposed landfill expansion. It was identified that we also had an opportunity to discuss these concerns with Mr. Caswell at past public consultation events.	June 5, 2012	• Concerns related to the safety of drinking water system.	• Our response highlighted the leachate management controls, groundwater monitoring system and annual reporting completed for the existing site, and described the preferred expansion option and the proposed leachate management controls for the expanded site. Consideration of the safety of his drinking water supply will be investigated in detail in the next phase of the project (ie impact assessment for the preferred expansion option) and plan to consider mitigation options including the feasibility of extending the municipal drinking water distribution system. It was noted that we will continue to keep Mr. Caswell informed of the project progress and will continue to inform him of future opportunities for public input.	The proposed expansion includes a number of enhancements to build on the existing effective leachate management systems including landfill mining of a portion of the existing disposal footprint to incorporate a liner system at the base of the waste, lining of all new waste disposal cells, inclusion of a contingency to add a horizontal collector along the western side of the site to replace the purge well system if necessary. These items are addressed in Sections 6.3, 6.6.3, 7.2.2, 8.1.1 and 8.3. To further address this concern a private residential well sampling program is proposed and included in Section 8.1.1.1 and a number of contingencies are included in Section 8.3 including the potential extension of the municipal water distribution system.	Letter dated June 5, 2012 to Gord Acton, Wishart Law Firm from R. Talvitie – Appendix L	
• Correspondence – Email to Peter McLarty from R. Talvitie addressing various questions and concerns from his email dated March 30, 2012 including concerns regarding locating a landfill site on a groundwater recharge area, benefits of expansion, lining the older area of the site and advocating for composting and a waste-to-energy facility.	March 30, 2012 and June 6, 2012	• Would never recommend that a landfill be located on a significant groundwater recharge area.	• The existing landfill site includes effective leachate collection and management features and the proposed expansion will provide an opportunity to enhance the existing controls (refer to email for detailed response).	The effectiveness of the existing leachate management controls is addressed in the Annual Monitoring Reports. The proposed expansion includes a number of enhancements to build on the existing effective leachate management systems including landfill mining of a portion of the existing disposal footprint to incorporate a liner system at the base of the waste, lining of all new waste disposal cells, inclusion of a contingency to add a horizontal collector along the western side of the site to replace the purge well system if necessary. These items are addressed in Sections 6.3, 6.6.3, 7.2.2, 8.1.1 and 8.3. To further address this concern a private residential well sampling program is	Email dated March 30, 2012 from Peter McLarty to R. Talvitie and email dated June 6, 2012 to Peter McLarty from R. Talvitie – Appendix L	

Description of Communication	Date	Comments / Questions / Issues	Response / How Addressed	Where Addressed in the EA	Reference Material	Outstanding Issues to be Addressed
				proposed and included in Section 8.1.1.1 and a number of contingencies are included in Section 8.3 including the potential extension of the municipal water distribution system.		
		• Expansion of the current site is more politically saleable than a new site. We will always require some form of landfill.	• The conclusion to expand the existing site was reached through the EA process. A significant level of study has been completed to date (refer to email for detailed response).	Consideration of a new site versus site expansion was contemplated and rationalized in Section 5.1 with the conclusions documented in Section 5.1.4.		
		• Allowing expansion of the present site allows us an opportunity to help lower the risk presented by the present landfill by ensuring ongoing monitoring of the present landfill operation, and providing an opportunity to partially cover the current footprint thus limiting the amount of infiltration from precipitation.	• Agree the expansion of the existing site will provide an opportunity to enhance groundwater protection measures and reduce the overall risk associated with the site. The City will continue to monitor this site through its operating life and following its closure until the MOE is satisfied that no further monitoring is required.	As documented in Section 5.1 there are benefits to focussing on expansion of the existing site which includes enhancing leachate management features. The enhanced leachate management features and contingencies are documented in Sections 6.3, 6.6.3, 7.2.2, 8.1.1 and 8.3.		
		• Although costly and potentially hazardous to workers and the air, would recommend mining the current landfill (thus removing some of the current hazardous material) and placed a new liner under the old site.	• Landfill mining is currently included in the preferred expansion strategy. Agree that there are nuisance and safety issues associated with the implementation of landfill mining. It has been successfully implemented elsewhere with the Province of Ontario and best management practices and lessons learned in other jurisdictions will be considered as part of the detail impact assessment. Care will be taken to mitigate nuisance and safety issues.	The addition of landfill mining is contemplated in Section 5.2.5 and although there are elements such as work safety, odour and air quality that will require mitigation the long-term ground water quality benefits were considered to be important to the overall project. It is also recognized that nuisance impacts and safety will have to be carefully considered during implementation as outlined in Section 6.3.		
		• The City should push very hard to get either Elementa facility or another approved waste-to-energy facility.	• The City has endorsed a waste supply agreement with Elementa to process at least the waste generated in the residential curbside program. It is unlikely that the City can entertain any other vendor offers until the agreement is satisfied or comes to an end.	As noted in Section 1.6 Elementa became bankrupt and the City terminated the agreement. The City could potentially entertain other private sector waste-to-energy offers in the future but our economies of scale and the business case for this type of technology may be challenged in our geographic location,		
		• The City should be pushing the Ministry to fast-track composting.	• Under the current regulatory regime composting can be undertaken in the Province of Ontario and the City has a very successful open windrow leaf and yard waste composting program (refer to email for detailed response).	As noted in Section 1.5 the City currently composts leaf and yard waste and has initiated the process to incorporate composting of biosolids and source separated organics as noted in Sections 2.3.1 and 2.3.3.		

• Correspondence – Newsletter and Notice advising of February 9, 2016 Public Input Centre No. 5 intended to discuss project progress and solicit input and feedback on the impact assessment work.	January, 2016	• No comments received.			Solid Waste Disposal Environmental Assessment January 2016 Newsletter and Notice of Public Input Session – Appendix L	
• Public Input Session No. 5 - Conducted to discuss project progress and to solicit input and feedback on the impact assessment work.	February 9, 2016	• Concern was expressed with litter sprawl and plastic bags and odours.	• The City has proactive litter pickup protocols in place at the landfill site which include manual and mechanical collection methods. There are a significant number of odour mitigation protocols in place as follows: o In 2010 the City completed an upgrade from a "passive" system to an "active" landfill gas collection system over a portion of the site. The system reduces the quantity of methane released to the atmosphere (ie: reduces the carbon footprint of the site) and also reduces odours generated at the site. o In addition to landfill gas, biosolids (i.e: sewage sludge) delivered to the site for disposal may also contribute to off-site odours. The City continues to be proactive in its efforts to manage and mitigate odours associated with the transport, management and disposal of biosolids. A biosolids management study is also nearing completion which incorporates processing of the sludge to reduce odour impacts and facilitate beneficial uses. o An odour neutralizing agent is applied to the biosolids at the water pollution control plants prior to delivery to the landfill site. Once the biosolids are tipped at the working face they are mixed with other wastes and cover is applied promptly. A hand held sprayer is used by the vehicle operators to apply an odour neutralizing agent to the empty trailers before they leave the site throughout the year. o Early in 2013, mesh tarps were replaced with impermeable, waterproof tarps on one biosolids trailer at the west plant and two biosolids trailers at the east plant to mitigate odour release in transit to the landfill. o Regular trailer washing was also initiated in 2013 to remove residual biosolids from the outside faces and wheels of the trailers. o Careful attention will also be given to the implementation of best management practices to mitigate odours associated with the proposed landfill mining operations. o Local residents are encouraged to contact the landfill to alert operations staff of any issues related to litter sprawl	The management of nuisance impacts including odour and litter sprawl is addressed in Sections 6.6.6, 6.6.7 and 7.3.6.	Records from February 9, 2016 PIC – Appendix K	

		• A request was made to undertake groundwater sampling to the north of the landfill to confirm impacts are not migrating to the north. • A representative of Ellwood Robinson Ltd. (local Contractor) requested that access be maintained to their pit in conjunction with the proposed expansion. The pit is currently only accessible through the landfill site. • A local resident had several questions related to pay-as-you-throw programs, source separated organics/ backyard composters, bi-weekly waste collection and the use of clear bags for waste disposal. • A local resident questioned what initiatives are planned to enhance diversion and the status of the proposed waste-to-energy facility.	or odours to ensure actions are taken to mitigate nuisances. • There are several monitors that are located to the north of the disposal footprint that have been sampled historically and have been used as background monitors because they have shown any significant impacts. In addition there is a significant inventory of groundwater monitors that have consistently demonstrated that groundwater flows south, south-east and south-west from the landfill site. • City staff noted that they believe there is an agreement addressing access to the pit and it will continue to be respected in conjunction with the proposed expansion. • A detailed response was issued and it describes the current partial pay-as-you-throw program and future potential enhancements, the challenges with a source separated organics collection and processing program and bi-weekly waste collection in Sault Ste. Marie, the potential for future enhanced public education related to backyard composting and considerations in mandating clear waste disposal bags in the future. In addition we provided a comprehensive summary of 3R's initiatives that are integral to the City's waste management plan. • We provided a comprehensive summary of current and proposed future 3R's initiatives that are integral to the City's waste management plan. We also explained that the waste-to-energy project has been delayed on several occasions and the contract with the City has been amended at the request of the vendor. The current contract identifies the latest possible construction start in May 2016 which was not achieved. In addition in December 2015 the vendor was ordered into receivership and the future of the contract with the City is unknown.	Extensive groundwater monitoring results for many years are documented in the Annual Monitoring Reports. The City is committed to continue to provide access to the pit while it remains active (Table 8.1). The existing waste management system is summarized in Section 1.5 and future enhancements which will effectively increase residential diversion from the current 30% to approximately 50% are documented in Section 2.3.1. Future diversion enhancements, which will effectively increase residential diversion from the current 30% to approximately 50%, are documented in Section 2.3.1. As noted in Section 1.6 Elementa became bankrupt and the City terminated the agreement.		
• Correspondence – Emails from a R. Rattle dated January 30, 2016 and February 22, 2016 to C. Taddo and R. Talvitie, and response emails from the C. Taddo dated February 1, 2016 and R. Talvitie dated February 22, 2016 and March 21, 2016	January 30, 2016, February 1, 2016, February 22, 2016 and March 21, 2016	• Requested copy of project Terms of Reference. • What municipal supporting programs to increase waste diversion currently exist, are planned, what the process is to advance additional programs and how these connect to the municipal solid waste EA? • Assume that the recently announced changes to waste-to-energy plant has had something to do with the EA input session? How has that change affected timing, capacity and interest in new City programs to divert waste through the 3R's.	• The Terms of Reference are available on the project website for download. • The City has been very diligent to promote, develop and enhance waste division programs and services that support the 3R's hierarchy: reduce, reuse and recycle and has complemented these programs and services with by-laws to encourage residents to divert waste (refer to email for detailed response).	Terms of Reference included as an Appendix in the EA. The existing waste management system and diversion programs are summarized in Section 1.5 and further commitments have been made in the EA to enhance residential waste diversion from approximately 30% to 50% by 2025 (refer to Section 2.3.1). As noted in Section 1.6 Elementa became bankrupt in 2015 and the City terminated the agreement.	Emails dated January 30, 2016 and February 22, 2016 from Robert Rattle to C. Taddo and R. Talvitie, email dated February 1, 2016 from C. Taddo to R. Rattle and emails dated February 22, 2016 and March 21, 2016 to Robert Rattle from R. Talvitie – Appendix L	

		• Does the City still distribute backyard composters? Haven't seen any advertising or information from the City about these, their value to waste reduction or how to use/install them.		The City no longer distributes backyard composters but has made significant commitments in the EA to increase residential waste diversion from approximately 30% to 50% as detailed in Section 2.3.1. This includes a residential source separated organic program.		
• Correspondence – Emails from Andre Riopel to R. Talvitie dated February 8, 2016 and February 9, 2016 and response emails from R. Talvitie to Andre Riopel dated February 9, 2016 and March 21, 2016.	February 8, 2016, February 9, 2016 and March 21, 2016	• Cost per ton for landfilling is approximately $100/ton so 2 x 50lb bags of garbage per week costs the City of SSM $20/week or $1,040/year in 2016? What will happen in 20 years assuming that the rate of inflation stays the same? • To increase compliance with recycling, communities (Halifax) have a clear bag policy to make sure no recyclables are put in the garbage. They also collect every second week to save costs.	• Quoted figure is based on a metric tonne and based on historical data on average families are not disposing of 100 lbs/week. The average cost per year for disposing of each person's waste is $29 or $116/year for a family of four. This includes what is set out curbside and hauled to the landfill's public drop off. • Addressed the items raised and provided an overview of 3R's initiatives in the City, Pay-as you-throw programs, organic waste and bi-weekly waste collection, clear bag policy, etc. (refer to email for detailed response).	As noted in Section 4.2.2 a lifecycle cost approach was used to establish appropriate tipping fees to provide adequate revenues to cover the lifecycle costs of a landfill. The existing waste management system and diversion programs are summarized in Section 1.5 and further commitments have been made in the EA to enhance residential waste diversion from approximately 30% to 50% by 2025 (refer to Section 2.3.1). The City uses a mechanical collection approach to address worker health and safety and hence clear bags are not suitable.	Emails from A. Riopel dated February 8, 2016 and February 9, 2016 and emails dated February 9, 2016 and March 21, 2016 from R. Talvitie – Appendix L	
• Correspondence – Email from Donald Caswell to R. Talvitie dated June 5, 2017 and response emails from Rick Talvitie to Donald Caswell dated June 6, 2017 and June 16, 2017.	June 5, 2017, June 6, 2017 and June 16, 2017	• If the drinking water supply, namely groundwater wells, of the businesses and residences east and south of the landfill become contaminated with pollutants associated with landfills (i.e., leachates, iron lead, hydrocarbons, etc., what contingency plans are in place to address this situation should it arise? The City should be proactive and extend the fresh drinking water supply to homes and businesses to the east and south of the landfill as they have done for the homes and businesses to the west and southwest of the site. Wells adjacent to landfill sites are at high risk of becoming contaminated.	• The methodology used to protect groundwater will be enhanced for both the expansion areas and also for the southwestern portion of the existing site where landfill mining is proposed. A composite liner consisting of a geocomposite clay liner overlaid by a 1.5mm thick HDPE geomembrane and leachate collection system will be installed at the base of the waste in each of these areas to ensure that leachate generated within the mined and expansion areas is collected and directed to the City's sewage treatment plant. In addition, the City will continue to monitor groundwater quality within and adjacent to the site and plans to enhance the current monitoring program. The current program includes the sampling and analyses of groundwater sourced from approximately 40 monitoring wells within and adjacent to the site. The City is implementing a new residential well water monitoring program whereby volunteer residences will have their wells monitored annually and water samples will be analysed for the parameters included in the indicator and comprehensive list of Schedule 5 of the Landfill Standards. Should the landfill be shown to impact private wells, contingency measures have been included such as extending the municipal water system to residents east of the site, or the provision of alternative water	Leachate management is addressed extensively throughout the EA and is included in Sections 4.1.3, 4.2.2.2, 5.2.3, 5.2.5, 6.6.3 and 7.2.2. In addition proposed private water well quality monitoring program is planned and described in Section 8.1.1.1. A number of contingencies are included in Section 8.3 including the potential extension of the municipal water distribution system. Groundwater monitoring has been ongoing at this site for many years and the results are documented in an annual report. The monitoring program is addressed in Section 8.1.1 and contingency measures are included in Section 8.3.	Email from Donald Caswell dated June 5, 2017 and response emails from Rick Talvitie dated June 6, 2017 and June 16, 2017 – Appendix L	

		• What measures are going to be used to alleviate and mitigate the odour and methane gasses when proposed landfill mining begins? The last attempt at odour mitigation failed miserably when excavation of methane gas wells and leachate collection piping were carried out.	supplies to adjacent and nearby affected properties. • In order to mitigate the potential for landfill mining to generate odour impacts, an Odour Management Plan (OMP) supplement will be developed specifically for this activity to support the site OMP. The OMP will be finalized as the landfill mining program is designed and developed, and will include input from the contractor/landfill mining team and effective best management practices that have been implemented at similar sites. Some of the specific items that have been identified for the Odour Management Plan include: ○ Completion of a pilot landfill mining program to characterize the type of waste and odour profile. Use of the information from this pilot to develop standard operating practices (SOP) for the full scale mining program. ○ Management of operations based on meteorological conditions (e.g., shut down during calm periods or specific wind direction). ○ Daily inspection program used to adjust and refine mining operations. ○ Bypass screening of waste where highly odorous material is excavated. ○ Use of chemical and biological treatment to reduce significance of odour. ○ Use of periphery odour misting system. ○ Minimize size of active excavation. ○ Cover applied to excavated area at the end of the day. ○ Keeping local residents informed and responding to complaints. ○ Develop and implement a monitoring campaign for landfill mining. In addition, other significant planned improvements to mitigate odour as part of the planned expansion include the staged expansion of the landfill gas collection system as the footprint expands and the construction of a processing facility where biosolids will be processed in a controlled indoor environment with engineered odour control systems and the final product will be much less odourous.	Potential odour impacts and mitigation are addressed extensively in the EA including Sections 5.2.5, 6.3, 6.6.6, 7.3.6, 8.1.4 and 8.4.		

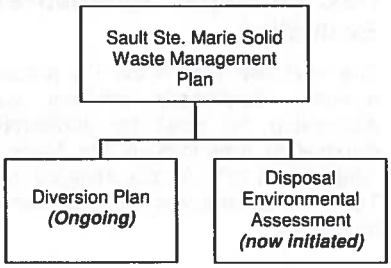
Solid Waste Disposal Environmental Assessment

Newsletter No.1, October 2006

Sault Ste. Marie Begins the Disposal Environmental Assessment (EA)

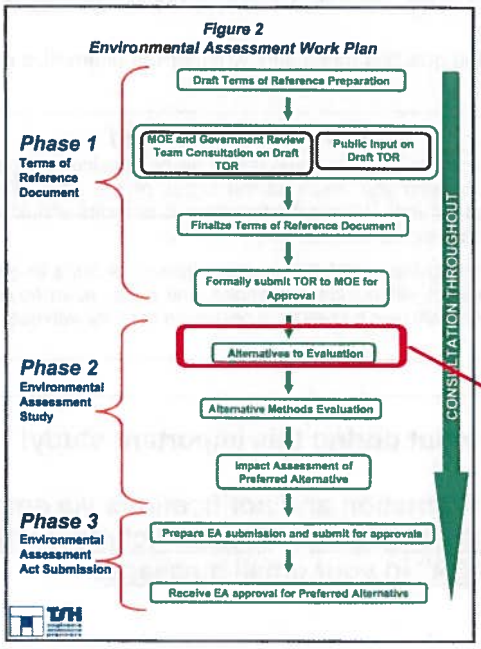
In September 2005 the Minister of the Environment approved the Environmental Assessment Terms of Reference (EA TOR) for the Sault Ste. Marie Solid Waste Management Plan. The EA TOR documents the process that will be followed to determine the preferred method for managing solid waste in Sault Ste. Marie for the next 20 to 40 years. In addition to the disposal EA, the Sault Ste. Marie Solid Waste Management Plan includes a significant diversion component.

A copy of the EA TOR is attached for your reference.



Diversion Update

The City of Sault Ste. Marie's waste diversion program currently includes collection and recycling of fibers and containers (ie: curbside yellow and blue box program); bi-weekly collection and composting of leaf and yard waste; a household hazardous waste depot; and segregation and recycling of metals, white goods, tires, and clean wood and brush at the solid waste landfill at 402 Fifth Line East. In 2005, the City limited residential waste setout to 2 bags/containers per week per household. Tags for additional waste bags or containers must be purchased. The residential waste diversion program diverted approximately 32% of residential waste from the landfill in 2005. This is a significant increase compared to the 8% diverted in 2000!



The EA Process Overview

The Environmental Assessment for disposal capacity includes three key phases. The first phase was completed with the submission and approval of the EA Terms of Reference. We are now initiating the second phase: the Environmental Assessment Study itself. The last phase is submission of the EA documentation to the Ministry of the Environment and the subsequent government and public review and approval period. It is anticipated that the whole process will take until early 2009.

WE ARE HERE

The City has retained a team of consultants including Totten Sims Hubicki Associates and Dillon Consulting Limited to assist them in the preparation of the Waste Disposal EA.

TSH engineers architects planners

DILLON CONSULTING

Next EA Steps: "Alternatives To" Evaluation

The next key step in the EA process is to evaluate functionally different ways of addressing the need for additional waste disposal capacity in Sault Ste. Marie, (ie. the "alternatives to"). As documented in the EA TOR, the alternatives being considered are as follows:

- Increased 3R's (reduce, reuse, recycle);
- Incineration & High Heat Processes;
- Landfill;
- Export Waste Outside Service Area;
- Do nothing.

Contact Us

Your input on this project is important to us. If you would like further information or to send comments, ask questions or be added to our mailing list, please contact us:

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Sault Ste. Marie, Ontario
P6A 2M4

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The evaluation of "alternatives to" will be carried out at a general level. Specific locations and technologies for the above mentioned alternatives will not be included in this step but will be considered in the next step (ie. alternative methods evaluation).

In the EA Terms of Reference, criteria were proposed for the evaluation of the "alternatives to". The proposed criteria for the evaluation of "alternatives to" are listed below.

- Compliance with regulations and policies (addresses the ability to meet all applicable regulations and policies);
- Environmental acceptability (addresses potential environmental affects of the alternative);
- Ability of the City to implement the alternative (considers whether the City has the ability and mandate to implement the alternative);
- Flexibility of the system (considers whether the alternative can respond to changes in the waste stream);
- Capability of managing waste quantities and qualities (considers whether the alternative could handle the identified waste stream);
- Proven technical capability (considers whether the alternative has been proven successful in other experiences in Ontario or other jurisdictions); and
- Economic/Cost (considers the relative cost differences among the alternatives)

Keeping You Informed

This newsletter is part of a series that will be ongoing during this project to keep you aware of the status of the Solid Waste Management Plan. Contact information is provided should you wish more detailed information.

In addition to the newsletter, opportunities to become involved in the project will include workshops, and public open houses. Information will also be regularly posted on the City web site.

We look forward to receiving your input during this important study!

If you would prefer to receive future information and notifications via email please forward your email address to nirwin@tsh.ca. Please include the title "City of SSM Waste Disposal EA" in your email message.

TSH engineers architects planners

DILLON CONSULTING

Solid Waste Disposal Environmental Assessment PUBLIC INPUT SESSION No. 1

Sault Ste. Marie Conducts First Public Input Session!

Are you interested in discussing the alternatives and criteria that will be used to compare and select a preferred approach to dispose of waste in Sault Ste. Marie, Prince Township and Batchewana First Nation's Rankin Reserve? If so, we encourage you to attend this public input session!

You're Invited!

Date: Tuesday June 26, 2007
Time: 6:00 pm to 9:00 pm
Location: Civic Centre – Russ Ramsay Room

Please join us!

The City of Sault Ste. Marie is holding a public input session for the Solid Waste Disposal Environmental Assessment to discuss both diversion and disposal of solid waste.

We will update you on the City's achievements in increasing waste diversion and discuss with you the alternative approaches that are being considered to dispose of the residual solid waste. A principle objective of the session is to confirm the alternatives that are being considered (ie: increased 3R's, landfill, incineration and high heat processes, export and do-nothing) and to discuss the criteria that will be used to compare the alternatives.

Information on waste quantities, the alternatives and the evaluation criteria can be found in two working papers prepared for this session titled "Waste Quantity Projections and Existing Environment Profile" and "Alternatives To the Undertaking". These working papers can be downloaded from the City of Sault Ste. Marie website (http://www.cityssm.on.ca/) or viewed at the locations noted below commencing on June 19th.

TSH Engineers Architects and Planners	523 Wellington Street
Civic Centre Engineering and Planning	99 Foster Drive, 5th Floor
Public Works and Transportation	128 Sackville Road
Main Library	50 East Street
Churchill Branch Library	301 Lake Street
Korah Branch Library	496 Second Line
Township of Prince Municipal Office	3042 Second Line West
Batchewana First Nation	236 Frontenac Street
Garden River First Nation	7 Shingwauk Street
Metis Nation of Ontario Office	26 Queen Street East
Missanabie Cree Office	559 Queen Street East

We also encourage you to contact the individuals noted below if you have any specific questions.

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Information pertaining to this session is available on the City of Sault Ste. Marie website at: http://www.cityssm.on.ca/. Hardcopies can also be obtained by contacting TSH at 705-942-2612.

We look forward to seeing you on June 26th!

TSH engineers architects planners

DILLON CONSULTING

SOLID WASTE DISPOSAL
ENVIRONMENTAL ASSESSMENT

Newsletter No.2, May 2010

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its residual municipal solid waste. In the evaluation of "Alternatives To the Undertaking", a thorough review of different waste management alternatives including increased waste diversion, incineration/high heat processes, landfill, export waste outside the service area, and "do-nothing" was completed. To identify a preferred waste management method, the alternatives were comparatively evaluated using the following seven criteria:

1. Compliance with current regulations and policies;
2. Environmental acceptability;
3. The ability of the City of Sault Ste. Marie to implement the preferred alternative;
4. Flexibility of the system;
5. Capability of managing waste quality and quantity;
6. Proven technical capacity; and
7. Cost.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative for the City has been identified as **increased waste diversion and landfilling of the residual waste.**

DIVERSION UPDATE

The residential waste diversion program diverted approximately 34% of residential waste from the landfill in 2009. This shows consistent progress when compared to the 9% diverted in 2000! The City of Sault Ste. Marie's waste diversion program currently includes weekly curbside collection and recycling of paper products in the yellow box and containers in the blue box; bi-weekly collection and composting of leaf and yard waste throughout the growing season (April through November); a household special waste facility at 115 Industrial Park Crescent; landfill bans and segregation and recycling of metals, white goods, tires, and clean wood and brush at the landfill at 402 Fifth Line East. Since 2006, the City has limited residential waste setout to 2 bags/containers per week per household. Tags for additional waste bags or containers must be purchased. The City diversion programs are also supplemented by diversion initiatives undertaken by the private sector and special interest groups.

The City is also currently assessing the feasibility of diverting municipal biosolids (sewage sludge) from disposal.

PUBLIC INFORMATION CENTRE

A Public Information Centre is being held to provide an opportunity for you to discuss the project progress and have your questions or concerns addressed.

Date: Thursday, June 3, 2010

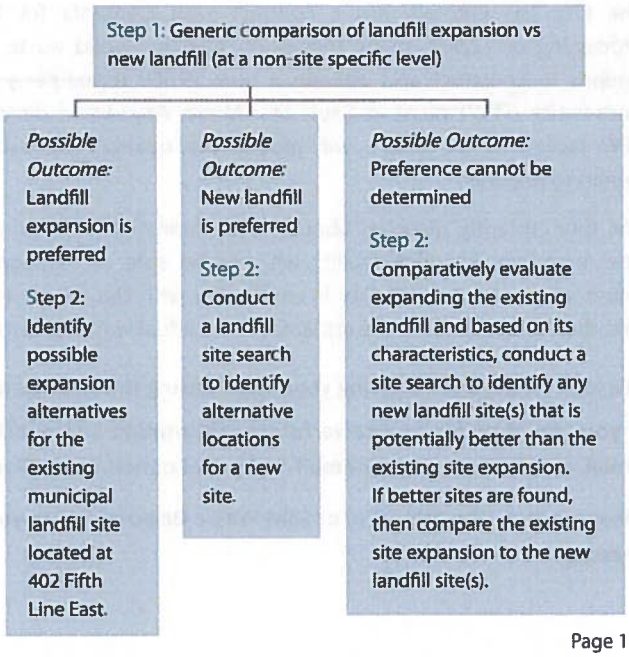
Location: Thompson Room
Civic Centre, 99 Foster Drive

Time: 3:30 pm to 7:30 pm

WHAT'S NEXT?

The results of the Environmental Assessment work completed to date suggest that landfill remains the most appropriate disposal option for the City's residual waste. Landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and recovered to generate electricity, landfills can manage the entire residual waste stream, are flexible to changes in waste quality and quantities and are cost effective.

Following the "Alternatives To" evaluation, the next step in the EA process for a landfill facility is the identification and evaluation of "Alternative Methods" of landfilling. This can include both alternative locations and alternative designs as illustrated in the flow chart below. We will be looking for public input on landfill options in the Fall of 2010.



SOLID WASTE DISPOSAL
ENVIRONMENTAL ASSESSMENT

Newsletter No.2, May 2010

ABOUT THE ENVIRONMENTAL ASSESSMENT (EA) PROCESS

The Environmental Assessment for disposal capacity includes three key phases. The first phase was completed with the submission and approval of the EA Terms of Reference. We are currently working within the second phase: the Environmental Assessment Study itself. The last phase is submission of the EA documentation to the Ministry of the Environment and the subsequent government and public review and approval period. It is anticipated that the whole process will take until late 2012.

In September 2005 the Minister of the Environment approved the Environmental Assessment Terms of Reference (EA TOR) for the Sault Ste. Marie Solid Waste Management Plan. The EA TOR documents the process that will be followed to determine the preferred method for managing solid waste in Sault Ste. Marie for the next 20 to 40 years. In addition to the disposal EA, the Sault Ste. Marie Solid Waste Management Plan includes a significant diversion component.

Keep up-to-date on the EA Study at the City of Sault Ste. Marie's website: http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1

ELEMENTA ENERGY-FROM-WASTE FACILITY

In 2007, an energy-from-waste (EFW) developer known as The Elementa Group (Elementa) constructed a pilot steam reformation plant that would convert municipal solid waste into a char and synthetic gas (or "syngas") that can be used to generate electricity.

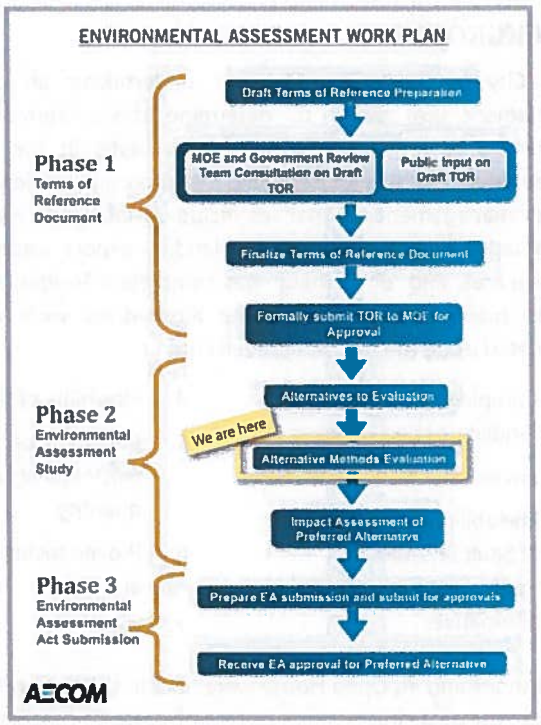
The City has entered into a contract with Elementa for the annual processing of 12,500 metric tonnes of municipal solid waste. Elementa intends to construct and operate a new 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility in the future will reduce the quantity of residual waste requiring disposal.

The City currently disposes about 60,000 tonnes of residual waste each year therefore; the EFW facility will not be able to manage the City's entire waste stream. The City is continuing with the EA study to ensure that the City can process the remainder of residual waste generated.

We look forward to receiving your input during this important study!

If you would prefer to receive future information and notifications via email, please forward your email address to nancy.maahs@aecom.com.

Please include the title "City of SSM Waste Disposal EA" in your message.



CONTACT US

Your input on this project is important to us. If you would like further information or to send comments, ask questions or be added to our mailing list, please contact us:

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THE CITY OF SAULT STE. MARIE

Notice of Public Information Centre

SOLID WASTE DISPOSAL ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its residual municipal solid waste. Work to date has included a thorough review of a number of waste management alternatives including increased waste diversion, incineration/high heat process, landfill, export waste and "do nothing". To identify a preferred waste management method, the alternatives were comparatively evaluated using the following seven criteria:

1. Compliance with current regulations and policies;
2. Environmental acceptability;
3. The ability of the City of Sault Ste. Marie to implement the preferred alternative;
4. Flexibility of the system;
5. Capability of managing waste quality and quantity;
6. Proven technical capacity; and
7. Cost.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative for the City has been identified as **increased waste diversion and landfilling of the residual waste**.

Residents currently divert approximately 34% of their waste from disposal and the City will continue to provide opportunities to improve on this diversion rate. The remaining 66% of residential waste and industrial, commercial and institutional wastes currently goes to the City landfill. In addition to the City's current diversion, the City has entered into a contract with a private corporation for the annual supply of 12,500 metric tonnes of municipal solid waste. This corporation intends to construct and operate a 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility will reduce the quantity of residual waste requiring disposal.

The results of the Environmental Assessment work completed to date suggest that landfill remains the most appropriate disposal option for the City's residual waste. Landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and recovered to generate electricity, landfills can manage the entire residual waste stream, are flexible to changes in waste quality and quantities and are cost effective.

PUBLIC INFORMATION CENTRE

A Public Information Centre is being held to provide an opportunity for you to discuss the project progress and have your questions or concerns addressed.

Date: Thursday, June 3, 2010
Location: Thompson Room
Civic Centre, 99 Foster Drive
Time: 3:30pm to 7:30 pm

THE NEXT STEPS

Over the summer the project team will be looking at options for landfilling residual waste. This work will include consideration of opportunities to expand the existing landfill or establish a new landfill site. In the Fall of 2010, we will be looking for public input on landfill options.

If you have any questions related to the study, please contact:

Mr. Rick Talvitie, P. Eng.
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
E-mail: rick.talvitie@aecom.com

Mrs. Susan Hamilton Beach, P. Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580, 99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on.ca

If you would like to receive future information and notifications via email, please forward your email address to nancy.maahs@aecom.com. Please include the title "City of SSM Waste Disposal EA" in your message.

Talvitie, Rick

From: Talvitie, Rick
Sent: Friday, July 23, 2010 12:15 PM
To: 'Robert Rattle'
Cc: s.hamiltonbeach@cityssm.on.ca; Maahs, Nancy; Kolli, Karla
Subject: RE: City of SSM Waste Management EA
Attachments: Report to Council - May 31, 2010 - Final.pdf

Hi Robert,

Thank you for your questions. I apologize for the delay in responding to you.

The link to the City's website, provided below, includes a number of background documents related to the waste management planning work completed in the early 2000's and the work completed more recently within the EA process.

In addition to the documents on the website which provide some historical perspective and address many of your questions we have also supplemented this information with some comments below.

Also attached is a recent report to Council that provides a summary of the waste management planning work completed over the last decade.

We hope this information is helpful. We are available to discuss this project with you once you have an opportunity to digest this information.

http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1

Regards,

Rick Talvitie, P. Eng.
Manager, Sault Ste. Marie Office
D 705.942.2612
rick.talvitie@aecom.com

AECOM
523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4
T 705.942.2612 F 705.942.3642
www.aecom.com

From: Robert Rattle [mailto:robert14robert@yahoo.ca]
Sent: June 7, 2010 4:18 PM

To: Talvitie, Rick; s.hamiltonbeach@cityssm.on.ca; Maahs, Nancy
Subject: Ciy of SSm waste disposal EA

Nancy, could you please add my email to the mailing list for future information and notifications for this EA? Thanks. R

Hi Rick/Susan,

I wasn't able to make the open house the other day, and have a few questions about the Solid Waste Disposal EA.

Are the Terms of Reference for this study/project available? Yes the Terms of Reference are posted on the City website – link provided above.

Is there a report describing this project or any results to date available? Yes there are a number of background reports relating to the waste management planning work completed in the early 2000's together with the more recent reports prepared as part of the ongoing Environmental Assessment. These reports are included on the Waste Management EA page on the City's website – link provided above. In addition there are a number of other reports that have not been posted on the City's website and are listed below:

Comprehensive Residential Waste Composition Report – This study collected, separated and categorized wastes setout curbside in a portion of the City. This study provided a basis for identifying the types and quantities of recyclables that are included in the municipal waste stream and the level of diversion that could potentially be achieved.

Organic Waste Diversion Report – This study inventoried residential, industrial, commercial and institutional organic waste quantities and types and identified management options. Organic wastes represent a significant proportion of the waste stream that could potentially be processed and diverted.

Co-composting Pilot Study - City investigated the feasibility of composting various types of organic feedstocks including municipal biosolids (sewage sludge), leaf and yard waste, and kitchen wastes. The intent of the study was to look at the feasibility of improving cost efficiencies by processing a variety of organic feedstocks concurrently.

Has there been a gap between now and the last work on this project? If so, why was that? Yes there has been a gap. We consulted with stakeholders, upper levels of government, the general public and aboriginal communities in the summer/fall of 2007. At that time a couple of stakeholders expressed interest in having more time to provide input into the process. In addition City Council felt it was important to allow the Elementa pilot project to mature. The intent was to provide greater clarity on the role Elementa may play in the City's overall waste management plan prior to moving forward with the Environmental Assessment work. With the City's recent endorsement of a waste supply agreement with Elementa we now have a better understanding of how Elementa will fit within the overall waste management plan.

Is this EA only considering waste once it enters the waste stream? I'm wondering whether there's a role in this study/project to consider the city's capacity to reduce the generation of waste. One of the alternatives included in the EA is enhanced Waste Diversion. This alternative reflects diversion from disposal through 3R's (waste reduction, reuse and recycling) initiatives. The City has taken an active role in 3R's through its aggressive public education campaign which includes frequent spots on Shaw Cable 10, postings on its website, initiatives in schools, print media advertisements, etc. The various reduce, reuse and recycling initiatives offered in SSM are summarized in the most recent reports posted on the City's website. The City has been very successful in reducing the quantity of waste being disposed and is committed to continue to explore new opportunities in the future.

Was a role for composting considered? Yes. Through the waste management planning work completed in the early 2000's a recommendation was made to expand leaf and yard waste collection from three collections in the fall to bi-weekly collections throughout the growing season. In addition the City has studied the possibility of a source separated organics program and is currently undertaking a Biosolids Management Study which includes consideration of composting biosolids.

The information flyer recently communicated for this open house refers to a "preferred waste management method", is titled "solid waste disposal environmental assessment", and indicates that results of the EA to date suggests landfilling as the most appropriate disposal method. I'm trying to understand what the current activities include: waste disposal, waste management or is there more to the picture? What exactly is the project? Are the current activities part of a larger project? As you will see from the various reference documents, a considerable level of study and significant changes have occurred with the way in which waste is managed in Sault Ste. Marie. Prior to undertaking the current Environmental Assessment the City completed an extensive waste management planning project with a focus on diverting waste from disposal. These efforts have resulted in significant improvements in the quantity of waste diverted from disposal and further enhancements are continuing today. The first phase of the EA comprises of looking at functionally different ways of managing waste. The work completed in the first phase of the EA concluded that the preferred approach to managing waste in the future is to further enhance waste diversion efforts and dispose of any residual waste through landfilling. Thermal processing will also play a significant role through the City's agreement with Elementa to thermally process a significant proportion of the waste stream. Although a significant element of the final solution is enhanced waste diversion, these enhancements do not require the completion of an individual EA and will be procured separately (eg. biosolids management study). An Individual EA is however required to establish additional waste disposal capacity and hence in the next phases of the EA process the City will focus on waste disposal. This in no way diminishes the City's desire and commitment to further enhancing waste diversion as the EA progresses. The City will continue to identify and evaluate ways and means of reducing its reliance on waste disposal.

The next steps indicates your team will be evaluating landfilling options. Has the decision to pursue this option been finalised, or are those landfilling options to be evaluated for decision making purposes? Are there additional aspects that will be further investigated and evaluated as part of this project(s?) in order to dispose/divert/reduce waste? Within the context of the EA a decision has been made to manage waste through enhanced waste diversion and landfilling of residual waste. It is also noted however that thermal waste processes will play a significant role in the management of waste generated within the service area through the City's agreement with Elementa. As you are likely aware the Elementa project is a separate private sector initiative that this proceeding through its own Environmental Screening process. The City has no involvement in their process. Moving forward, the project team will initially be evaluating landfill expansion versus landfilling in a new Greenfield site. The initial evaluation will be completed by looking at the pros and cons of the these two alternatives at a non-site specific level. Once the initial non-site specific evaluation is completed we will focus on the potential impacts associated with specific site(s) for the preferred solution.

What is the length of the Elementa contract in which the city has agreed to 12,500 tons annually? The duration of the contract is ten years with an option to extend it for an additional ten years.

If you'd prefer, perhaps we (or one of your staff) could chat by phone. I am also available to discuss further once you have digested the information provided.

Thanks,

Talvitie, Rick

From: Talvitie, Rick
Sent: Monday, June 07, 2010 4:48 PM
To: 'robert14robert@yahoo.ca'; 's.hamiltonbeach@cityssm.on.ca'; Maahs, Nancy
Subject: Re: Ciy of SSm waste disposal EA

Hi Robert

Nice to hear from you.

I'm sorry you could not make the open house. I am currently away from the office and will provide you with some documentation and/or address your questions over the next couple of days.

Rick.....Sent via Blackberry

From: Robert Rattle <robert14robert@yahoo.ca>
To: Talvitie, Rick; s.hamiltonbeach@cityssm.on.ca <s.hamiltonbeach@cityssm.on.ca>; Maahs, Nancy
Sent: Mon Jun 07 13:17:56 2010
Subject: Ciy of SSm waste disposal EA

Nancy, could you please add my email to the mailing list for future information and notifications for this EA? Thanks. R

Hi Rick/Susan,

I wasn't able to make the open house the other day, and have a few questions about the Solid Waste Disposal EA.

Are the Terms of Reference for this study/project available?

Is there a report describing this project or any results to date available?

Has there been a gap between now and the last work on this project? If so, why was that?

Is this EA only considering waste once it enters the waste stream? I'm wondering whether there's a role in this study/project to consider the city's capacity to reduce the generation of waste.

Was a role for composting considered?

The information flyer recently communicated for this open house refers to a "preferred waste management method", is titled "solid waste disposal environmental assessment", and indicates that results of the EA to date suggests landfilling as the most appropriate disposal method. I'm trying to understand what the current activities include: waste disposal, waste management or is there more to the picture? What exactly is the project? Are the current activities part of a larger project?

The next steps indicates your team will be evaluating landfilling options. Has the decision to pursue this option been finalised, or are those landfilling options to be evaluated for decision making purposes? Are there additional aspects that will be further investigated and evaluated as part of this project(s?) in order to dispose/divert/reduce waste?

What is the length of the Elementa contract in which the city has agreed to 12,500 tons annually?

If you'd prefer, perhaps we (or one of your staff) could chat by phone.

Thanks,

Robert

THE CITY OF SAULT STE. MARIE

NOTICE OF PUBLIC INPUT SESSION

SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. In the evaluation of "Alternatives To the Undertaking", a thorough review of different waste management alternatives including increased waste diversion, incineration/high heat processes, landfill, export waste outside the service area, and "do-nothing" was completed. To identify a preferred approach to managing waste, the alternatives were comparatively evaluated using the following seven criteria:

1. Compliance with current regulations and policies;
2. Environmental acceptability;
3. The ability of the City of Sault Ste. Marie to implement the preferred alternative;
4. Flexibility of the system;
5. Capability of managing waste quality and quantity;
6. Proven technical capacity; and
7. Cost.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste. The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the entire residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

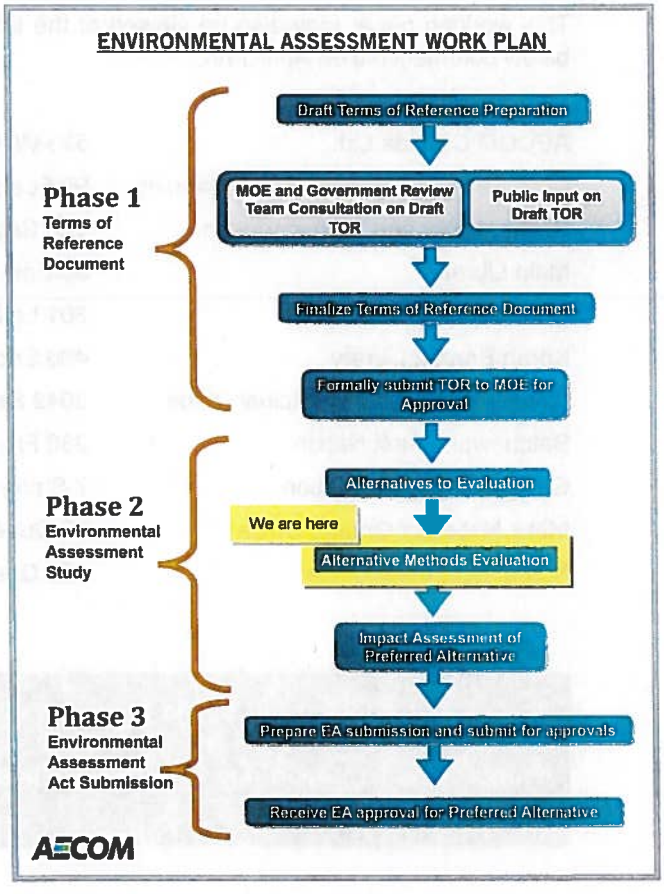
The flexibility of the preferred alternative is particularly important given the City's contract with The Elementa Group (an energy-from-waste service provider) for the annual processing of at least 12,500 metric tonnes of municipal solid waste. Elementa intends to construct and operate a new 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility in the future will reduce the quantity of residual waste requiring disposal in a landfill.

NEXT STEPS

The City remains committed to investigating, implementing and supporting programs to increase waste diversion through 3Rs initiatives. Since the implementation of 3Rs initiatives does not require Environmental Assessment (EA) Act approval, the EA study is now focusing on alternative methods of landfilling residual waste. The key objective of this phase of the study is to find an environmentally suitable location for the development of additional landfill capacity.

The first step to be completed in this phase consists of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. This step will provide initial focus to the search for additional landfill capacity.

A preliminary evaluation of these alternatives has been completed by the project team. We are now seeking input from the general public and Stakeholders regarding the evaluation criteria considered and the preliminary findings.



THE CITY OF SAULT STE. MARIE

NOTICE OF PUBLIC INPUT SESSION

SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

PUBLIC INPUT SESSION

If you are interested in discussing the alternatives and criteria that will be used to compare and select a preferred approach to landfilling residual waste in Sault Ste. Marie, Prince Township and Batchewana First Nation's Rankin Reserve, we encourage you to attend this public input session!

We will provide you with background information, update you on the City's achievements in increasing waste diversion and discuss with you the alternative approaches to landfilling residual solid waste. A principle objective of the session is to confirm whether the City should focus its efforts to obtain additional disposal capacity by expanding an existing landfill site or finding a location for a new site.

Background information documenting the work completed to date is available on the City website at **http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1**.
In addition, the alternatives and the evaluation criteria currently being considered are also available on the website in a working paper prepared for this session titled "Solid Waste Management Environmental Assessment - Alternative Methods – Step 1 (Landfill Expansion versus Development of a New Site).

This working paper may also be viewed at the locations noted below commencing on April 11th.

AECOM Canada Ltd.	523 Wellington Street
Civic Centre Engineering and Planning	99 Foster Drive, 5th Flr.
Public Works and Transportation	128 Sackville Road
Main Library	50 East Street
Churchill Branch Library	301 Lake Street
Korah Branch Library	496 Second Line
Township of Prince Municipal Office	3042 Second Line West
Batchewana First Nation	236 Frontenac Street
Garden River First Nation	7 Shingwauk Street
Metis Nation of Ontario Office	26 Queen Street East
Missanabie Cree Office	559 Queen Street East

YOU'RE INVITED!

Date:	Tuesday April 19, 2011
Location:	Civic Centre – Russ Ramsay Room
Time:	6:30 pm to 9:00 pm

Refreshments to be provided.

CONTACT US

We also encourage you to contact the individuals noted below if you have any specific questions.

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
Email: rick.talvitie@aecom.com

Mrs. Susan Hamilton Beach, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on.ca

Information pertaining to this session is available on the City of Sault Ste. Marie website at: **http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1**.
Hardcopies can also be obtained by contacting AECOM at 705-942-2612.

If you cannot attend the public input session in person, we still want to hear from you! Just go to the City's website (http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1), review the Alternatives Method - Step 1 Report and fill out our online questionnaire. A link to the online questionnaire is provided on the City's website.

THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. In the evaluation of "Alternatives to the Undertaking", a thorough review of different waste management alternatives including increased waste diversion, incineration/high heat processes, landfill, export waste outside the service area, and "do-nothing" was completed.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste. The preferred alternative was presented at an Open House in June, 2010.

NEXT STEPS

The next step consists of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. This step will provide initial focus to the search for additional landfill capacity.

A preliminary evaluation of these alternatives has been completed by the project team. We are now seeking input from the general public and stakeholders regarding the evaluation criteria considered and the preliminary findings.

PUBLIC INPUT SESSION

If you are interested in discussing the alternatives and criteria that will be used to compare and select a preferred approach to landfilling residual waste in Sault Ste. Marie, Prince Township and Batchewana First Nation's Rankin Reserve, we invite you to attend this public input session.

We will provide background information, update you on the City's achievements in increasing waste diversion and discuss the alternative approaches to landfilling residual solid waste.

Background documents including the working paper to be discussed at the public input session entitled "Solid Waste Management Environmental Assessment - Alternative Methods – Step 1 (Landfill Expansion versus Development of a New Site)" are available on the City's website at **www.cityssm.on.ca – Click City Hall Bulletins – Public Input Session – Solid Waste Management.**

CONTACT US

We encourage you to contact the individuals below if you have questions.

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
Email: rick.talvitie@aecom.com

Mrs. Susan Hamilton Beach, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on.ca

YOU'RE INVITED!

Date: Tuesday, April 19, 2011

Location: Civic Centre, 99 Foster Dr.
Russ Ramsay Board Room

Time: 6:30 to 9:00 p.m.

Refreshments provided.

If you cannot attend the public input session, we still want to hear from you! Go to the City's website www.cityssm.on.ca (Click City Hall Bulletins – Public Input Session – Solid Waste Management) to review the Alternatives Method - Step 1 Report and fill out the online questionnaire.

Talvitie, Rick

From: Talvitie, Rick
Sent: May 27, 2011 11:59 AM
To: 'ANDRE RIOPEL'
Cc: 'Susan Hamilton Beach'; Kolli, Karla; Maahs, Nancy; 'Varghese, Betsy'
Subject: RE: landfill study

Hi Andre,

I apologize for the delay in responding but we were trying to obtain some information on waste quantities generated in SSM and disposed of in Dafter. Waste Management has responded to my request and indicated that the requested information is proprietary and they will not share it.

We do however appreciate receiving your comments. You have tabled some interesting ideas. I have provided below, for your consideration, some responses related to each of your ideas/comments. Also I am available to meet with you to discuss these matters further if you wish.

We will add you to our project mailing list to ensure you receive future mailings and to ensure you are aware of future public input sessions.

Regards,

Rick Talvitie, P. Eng.
Manager, Sault Ste. Marie Office
rick.talvitie@aecom.com

AECOM
523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4
T 705.942.2612 F 705.942.3642
www.aecom.com

From: ANDRE RIOPEL [mailto:ariopel@shaw.ca]
Sent: May 5, 2011 3:30 AM
To: Talvitie, Rick
Subject: landfill study

Hi Rick: I just looked at the slides you have put on the city site and I had a question.

Do you know how much of our garbage is now going to Dafter? ***[<Rick Talvitie>]*** **In general very little residential waste is being exported to Michigan as a result of the voluntary agreement between Michigan Senators and the Ministry of Environment that came into effect on January 1, 2011. Locally the majority of the waste being exported is limited to Industrial/Commercial and Institutional wastes picked up by at least one local commercial hauler. As noted above we have not been able to source quantity estimates from the commercial hauler but we may try other avenues to obtain this information. The City is only responsible for the management of residential waste and does not have control or jurisdiction over IC&I wastes. The City does however recognize that there are limited options available in this area for the disposal of residual IC&I wastes and is including estimated residual IC&I wastes in their quantity projections. It is also noteworthy that it appears that further steps are being taken by the State of Michigan to reduce or eliminate the quantity of Canadian waste being disposed of in their State. Refer to this link** http://www.solidwastemag.com/issues/story.aspx?aid=1000409297 I know that the local waste management company I use I my business takes the garbage there. ***[<Rick Talvitie>]*** **The landfill in Dafter is owned by Waste Management.** How long have they been doing this? ***[<Rick Talvitie>]*** **I believe Waste Management took ownership of the disposal site some 8 or 9 years ago**. How does that affect the graph you

had about how much garbage we produce? Would some of the reduction you demonstrate be related to this? ***[<Rick Talvitie>]*** **There is clearly some impact since they are exporting waste generated in our City and disposing of it elsewhere. However, based on our knowledge the quantity is relatively small.**

Personally I think that we should be diverting 90% of our waste. I think most people in our city do not try very hard to reduce the amount of garbage they put out. This could be improved by stronger by laws that make it illegal to put any recyclable, hazardous or compostable in the garbage. We could also make it so that you have to pay for every bag you put out. We are paying for it anyways, it's just that those who put out less than their 2 bags are technically supporting those do. ***[<Rick Talvitie>]*** **Although there have been significant successes achieved as the diversion rate has climbed from 9% to 34%, there is always room for improvement. A Waste Management Business and Implementation Plan was prepared a number of years ago and an update is currently underway. That plan looks at the costs of waste management programs and explores options to recover the costs. A full user pay system was explored when the Business and Implementation Plan was first developed and a partial user pay system was ultimately implemented (ie. reduced the curb side limit from 6 bags to 2 bags/containers and the tipping fee/gate fee have been increased from $27.50/$2.00 to $70.00/$8.00 respectively. Further changes to the user pay program may occur in the future but as you noted changes will require Council approval. The City has included landfill bans on corrugated cardboard and leaf and yard waste. The City remains committed to looking at cost effective ways and means of enhancing waste diversion further. The diversion rate in other larger centers that incorporate curb side organics collection programs is typically in the 50% range. A curb side organics collection program was explored several years ago in Sault Ste. Marie and was identified for possible implementation in the future pending various regulatory and costs considerations.**

I know that politically, it might be a hard sell but I can assure you that the rules in other cities and countries are much stiffer. ***[<Rick Talvitie>]*** **Yes there are many more restrictions/rules in other countries. The political arena is an important consideration which typically favours steady progress in lieu of dramatic changes over short periods of time.**

We could also make plastic shopping bags illegal and force merchants to accept packaging and old appliances that were purchased there. ***[<Rick Talvitie>]*** **These are good ideas and areas where progress is being made. The current campaign to encourage the use of reusable bags in lieu of plastic shopping bags has been quite successful and many appliances are being recycled for scrap metal. As noted previously there is always room for improvement and the City continues to support and implement changes to enhance diversion.**

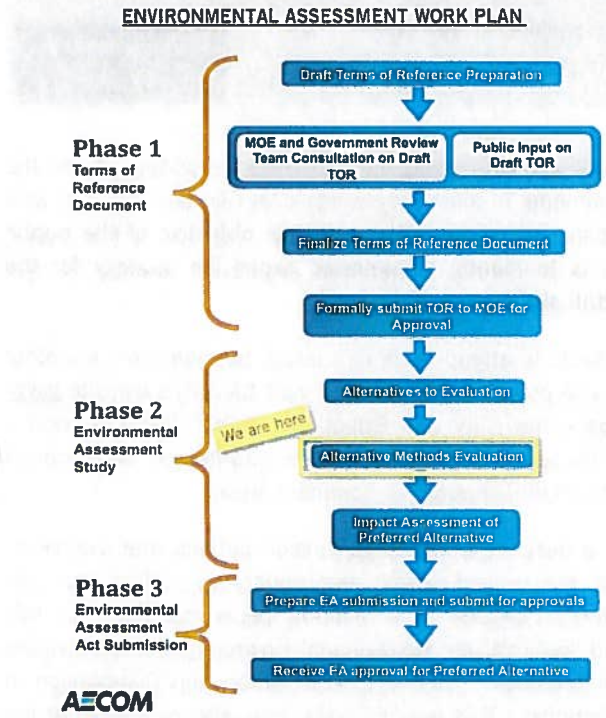
Just my 2 cents.

Andre Riopel

THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

ENVIRONMENTAL ASSESSMENT (EA) PROCESS

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. The EA Process is a transparent decision-making process used to promote good environmental planning by assessing potential effects of certain activities or projects on the natural and human environment. There are several phases and tasks involved in completing an EA as outlined in the graphic below.



The City is currently mid-way through Phase 2 of the EA Process and is interested in obtaining your input related to the current activities.

BACKGROUND

Phase 1 of the EA process included public consultation and culminated with the Ministry of Environments approval of the project Terms of Reference (ToR) in 2005. The ToR provides a framework or roadmap for completing the EA and summarizes the tasks and activities to be undertaken by the proponent.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the **preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.** The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the entire residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

The flexibility of the preferred alternative is particularly important given the City's contract with The Elementa Group (an energy-from-waste service provider) for the annual processing of at least 12,500 metric tonnes of municipal solid waste. Elementa is currently negotiating an energy purchase agreement and intends to construct and operate a new 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility in the future will reduce the quantity of residual waste requiring disposal in a landfill.

The City remains committed to investigating, implementing and supporting programs to increase waste diversion through 3Rs initiatives. Since the implementation of 3Rs initiatives does not require Environmental Assessment (EA) Act approval, the EA study is now focusing on alternative methods of landfilling residual waste. The key objective of this phase of the study is to find an environmentally suitable location for the development of additional landfill capacity.

The first step in this phase consisted of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. To identify a preferred approach to landfilling waste, the alternatives were compared using the following six criteria groups:

1. Natural environment;
2. Social-Cultural environment;
3. Economic environment;
4. Cost;
5. Technical considerations; and
6. Transportation.

A Public Input Session was held in April, 2011 to present the landfill alternatives being considered. **The evaluation and response from consultation concluded that an expansion of an existing landfill is generally preferred over construction of a new site.**

The study noted that an expansion requires less land, displaces fewer people and/or social/natural features, disrupts fewer people (ie. one site versus two sites creating nuisance impacts), costs less, typically encounters fewer challenges in gaining technical approvals, and reduces the number of facilities the City must manage.

THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

CURRENT ACTIVITIES

The second step in the Alternative Methods task focuses on the best approach to expand the existing landfill site at 402 Fifth Line East in the City of Sault Ste. Marie. Expansion options have been developed that make the best use of the existing site characteristics and the area available to expand. Options considered include horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining (excavate previously disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) or a combination of these methodologies.

A preliminary evaluation of the expansion options has been completed by the project team. We are now seeking input from the Community, government agencies, stakeholders, and First Nations regarding the evaluation criteria considered and the preliminary findings.

CONTACT US

You may also contact the Consultant Project Manager or the City's Land Development and Environmental Engineer by email, mail or telephone if you have questions or would like additional information.

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
Email: rick.talvitie@aecom.com

Ms. Catherine Taddo, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5380
Fax: (705) 541-7165
Email: c.taddo@cityssm.on.ca

HOW CAN I PROVIDE INPUT?

If you are interested in discussing the expansion options, the criteria used in the evaluation and the preliminary findings we encourage you to attend the upcoming public input session!

YOU'RE INVITED!

Date: Tuesday, March 6, 2012
Location: Civic Centre – 99 Foster Drive
Russ Ramsay Room
Time: 3:30PM to 7:30PM

Refreshments to be provided.

We will provide you with background information update you on the City's achievements in increasing waste diversion and discuss, with you, the expansion options. **The principle objective of the public consultation is to identify a preferred expansion strategy for the existing landfill site.**

If you are unable to attend the Public Input Session there are other opportunities to provide input. Please visit the City's website **www.cityssm.on.ca** - View City Hall Bulletins – Public Input Session – Solid Waste Management to obtain further information, complete an online questionnaire, or access a comment sheet.

In addition, a description of the expansion options, the evaluation criteria, and the project team's preliminary evaluation are also available on the website in a working paper prepared for this session titled "Solid Waste Management Environmental Assessment – Alternative Methods – Step 2 (Identification and Comparison of Expansion Options). This working paper may also be viewed at the locations noted below commencing on February 21, 2012.

AECOM Canada Ltd.	523 Wellington Street
Civic Centre Engineering and Planning	99 Foster Drive, 5th Flr.
Public Works and Transportation	128 Sackville Road
Main Library	50 East Street
Churchill Branch Library	301 Lake Street
Korah Branch Library	496 Second Line
Township of Prince Municipal Office	3042 Second Line West
Batchewana First Nation	236 Frontenac Street
Garden River First Nation	7 Shingwauk Street
Metis Nation of Ontario Office	26 Queen Street East
Missanabie Cree Office	559 Queen Street East

THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. To date significant progress has been made.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and **the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.** The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the entire residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

In April, 2011 a Public Input Session was held to present the non-site specific landfill alternatives being considered. **The evaluation and response from consultation concluded that an expansion of an existing landfill is generally preferred over construction of a new site.**

The study noted that an expansion requires less land, displaces fewer people and/or social/natural features, disrupts fewer people (ie. one site versus two sites creating nuisance impacts), costs less, typically encounters fewer challenges in gaining technical approvals, and reduces the number of facilities the City must manage.

CURRENT ACTIVITIES

Presently the project team is focusing on **the best approach to expand the existing landfill site at 402 Fifth Line East in the City of Sault Ste. Marie.** Expansion options have been developed that make the best use of the existing site characteristics and the area available to expand. Options considered include horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining (excavate previously disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) or a combination of these methodologies.

A preliminary evaluation of the expansion options has been completed by the project team. **We are now seeking input from the Community, government agencies, stakeholders, and First Nations regarding the evaluation criteria considered and the preliminary findings.**

PUBLIC INPUT SESSION

If you are interested in discussing the expansion options, the criteria used in the evaluation and the preliminary findings, we encourage you to attend the upcoming public input session!

We will provide you with background information, update you on the City's achievements in increasing waste diversion and discuss, with you, the expansion options. **The principle objective of the public consultation is to identify a preferred expansion strategy for the existing landfill site.**

The expansion options, the evaluation criteria, and the project team's preliminary evaluation are also available on the City's website (**www.cityssm.on.ca - View City Hall Bulletins – Public Input Session – Solid Waste Management**) in a working paper prepared for this session titled "Solid Waste Management Environmental Assessment - Alternative Methods – Step 2 (Identification and Comparison of Expansion Options). This working paper may also be viewed at the locations noted below commencing on February 21, 2012.

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Metis Nation of Ontario Office	26 Queen Street East
Missanabie Cree Office	559 Queen Street East

CONTACT US

We also encourage you to contact the individuals noted below if you have any specific questions.

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
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Email: c.taddo@cityssm.on.ca

YOU'RE INVITED!

Date: Tuesday, March 6, 2012
Location: Civic Centre – Russ Ramsay Room
Time: 3:30PM to 7:30PM

Refreshments to be provided.

If you cannot attend the public input session in person, we still want to hear from you! Just go to the City's website www.cityssm.on.ca - View City Hall Bulletins – Public Input Session – Solid Waste Management review the Alternatives Method – Step 2 Report and fill out our online questionnaire or comment sheet. A link to the online questionnaire is provided on the City's website.

AECOM

DILLON CONSULTING

Solid Waste Management Environmental Assessment

COUNCIL PRESENTATION

THE CORPORATION OF THE CITY OF SAULT STE MARIE CANADA

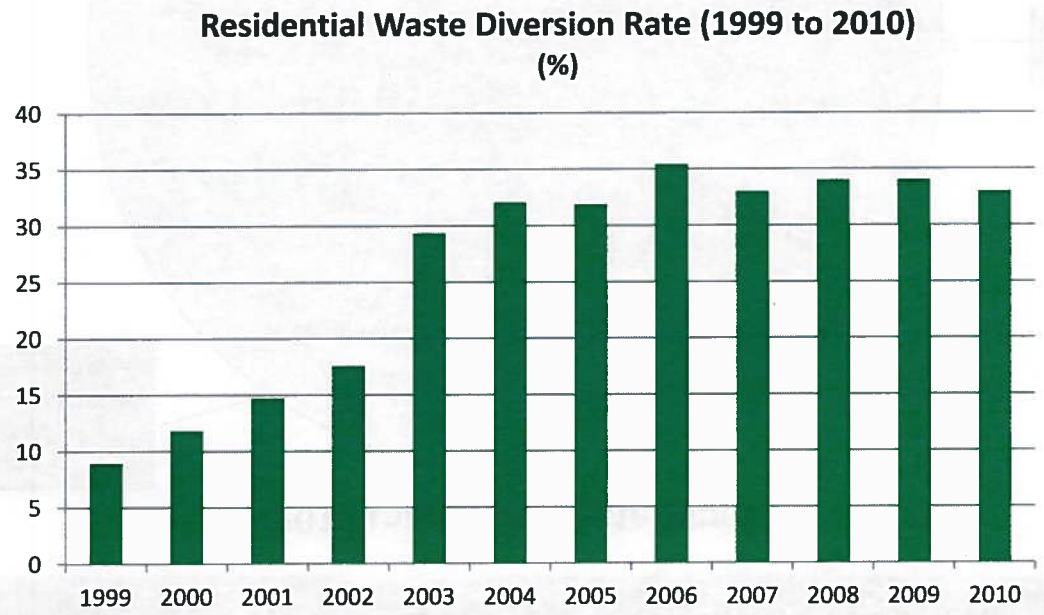
March, 2012

Objectives of the Presentation

- Provide Council and residents with an update on waste management planning activities and results;
- Review project need;
- Provide an overview of the Environmental Assessment process and where we are at in the process;
- Present the criteria and approach used in the evaluation of site expansion options;
- Present the preliminary results of the evaluation completed by the project team;
- Identify the next steps in the EA process; and
- Answer your questions.

Project History - Diversion

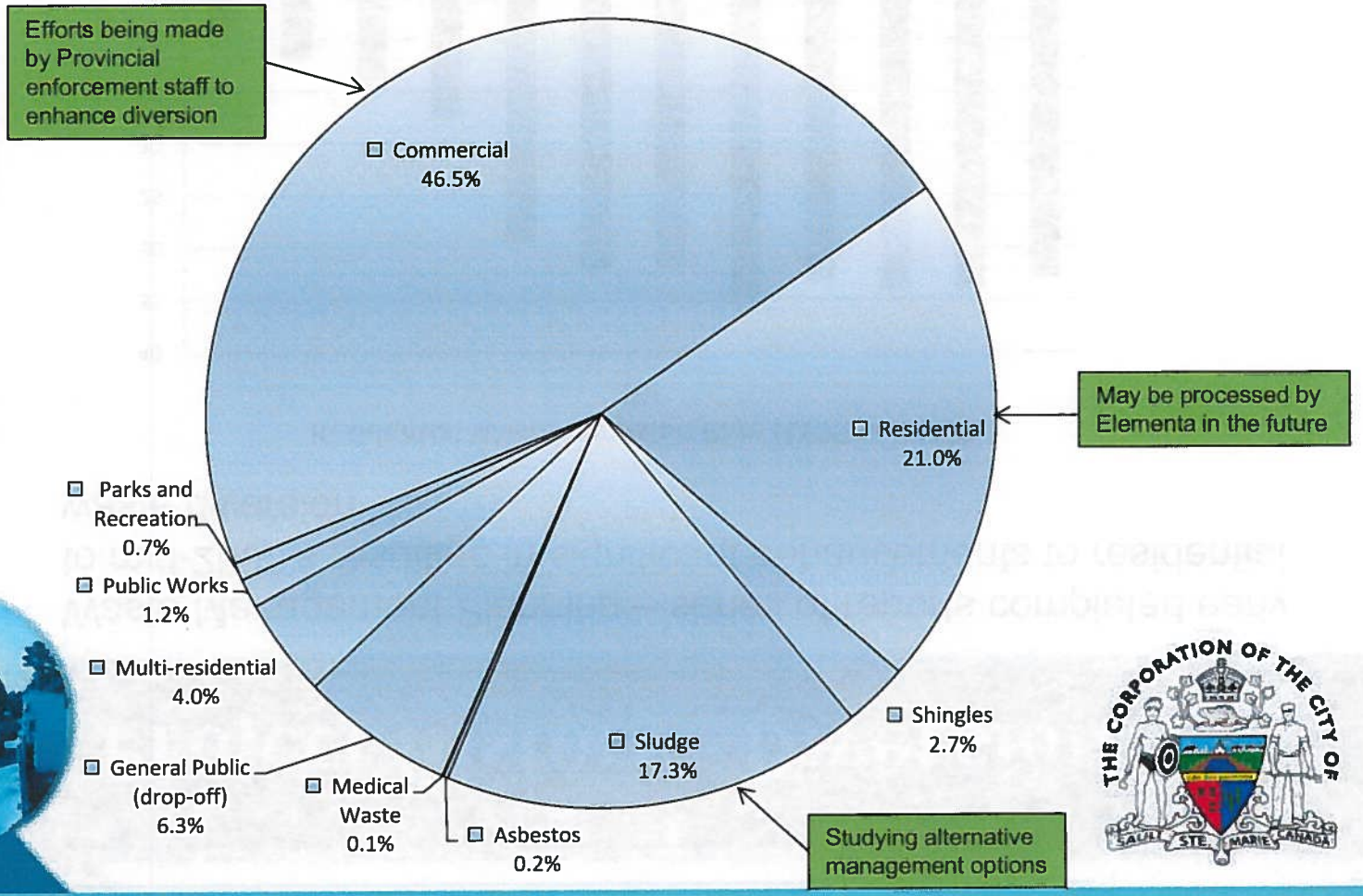
- Waste Management Planning – series of reports completed early to mid-2000's resulting in significant enhancements to residential waste diversion



Increased residential diversion rate from 9% in 1999 to 33% to 35% in recent years

Project History - Diversion

2010 Landfilled Waste Types



Project History - Project Need

- **The estimated remaining service life of the existing landfill is 7 to 10 years depending on future population changes, in-situ subsidence and waste generation, diversion and disposal rates. The low end of this range is used for planning purposes.**
- Despite significant success in enhancing waste diversion, additional disposal capacity is required.

What is an EA?

Purpose = *"to protect the environment and quality of life of the people of the province; and facilitate the wise management of the natural resources of the province".*

- The EA Process is a transparent decision-making process used to promote good environmental planning by assessing potential effects of certain activities or projects on the natural and human environment. The EA process serves several important purposes:
  - Allowing projects to receive input from a wide variety of sources, including the federal, provincial and municipal levels of government, First Nations, stakeholders and the public.
  - Identifying potential problems prior to construction
  - Promoting good environmental planning practices
  - Improving community acceptance
  - Better protecting the environment

AECOM

DILLON CONSULTING

Project History

- MOE approval of EA ToR in late 2005
- EA work initiated by AECOM/Dillon – summer 2006
- "Alternatives To" (functionally different ways of managing waste) work completed and public consultation undertaken in summer of 2007
- Late 2008 to spring 2010 - Project delayed to allow time for the Enquest pilot project to mature
- Fall 2009 - City endorses waste supply agreement with Elementa
- City approval to resume EA process - Elementa will generate residual waste and is unable to manage the entire waste disposal quantity
- Spring 2010 – announced the preferred "Alternative To"

THE CORPORATION OF THE CITY OF SAULT STE. MARIE CANADA

Project History – Selected "Alternative TO"

Based on the results of the evaluation and input received the preferred long-term approach to managing waste in SSM is:

- Increased 3Rs (Reduce/Reuse/Recycle)
- Landfilling residual waste

Why?

- Can comply with regulations and policies
- City is experienced with these waste management initiatives
- Flexible to changes in the waste stream (e.g. population, waste generation, diversion)
- Can accept most residual waste from a Waste-to-Energy facility
- Cost efficient

The EA will now focus on identifying and evaluating alternative methods of landfilling waste (i.e. alternative locations and designs)

AECOM

DILLON CONSULTING

Project History

- Conducted a Public Information Session in June 2010 to announce the selected Alternative To
- Initiated the Alternative Methods Phase (alternative locations and designs)
- Completed a generic non-site specific evaluation of developing a new landfill versus expanding an existing site (Step 1)
- Consulted with the public in the spring of 2011regarding the generic options

THE CORPORATION OF THE CITY OF SAULT STE. MARIE CANADA

Project History – Preferred Landfilling Method

Based on the results of the evaluation and input received the preferred method of landfilling waste = expansion of an existing site

Why?

- Likely less potential for displacement and disruption
- Only one landfill site to manage and maintain
- Cost effective
- Community adaptation
- Likely fewer challenges in gaining approvals

The EA will now focus on how to best expand the existing site

Overview of Expansion Options

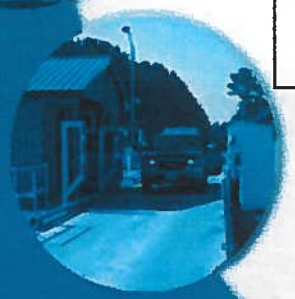
- Expansion options have been developed that make the best use of the existing site characteristics and the area available to expand.
- Options considered include horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining or a combination of these methodologies.
- All options include enhancements to better control groundwater quality related to the existing site.
- Some options require replacement/relocation of existing on-site infrastructure and some require enhanced compaction to provide the target disposal capacity

Evaluation of Expansion Options

- The evaluation has been completed using a two-step approach:
  - Step 1 – identify a preferred expansion area and shape;
  - Step 2 – assess the pros and cons of incorporating landfill mining.
- Mining involves excavation of previously disposed waste and cover material. Mined waste is fed through screens which separates coarse waste from fine materials. Recyclables are separated and sent for processing, remaining residual waste disposed of in the disposal site and fines (primarily sand) are stockpiled for use as cover.

Evaluation Criteria Groups

Criterion	Definition
Natural Environment	Addresses the potential for displacement and/or disruption of natural environmental features (terrestrial features, aquatic features, ground water and surface water)
Social Cultural Environment	Addresses the potential for displacement and/or disruption of social/cultural environmental features (residents, community features, future land use plans, heritage and archaeological resources, public health and safety)
Economics	Addresses the potential for displacement and/or disruption of existing businesses and resources (agriculture, forestry, mining)
Cost	Considers the lifecycle cost of the alternative.
Technical Considerations	Considers technical aspects of each option including impacts on existing site infrastructure and ease of site development.
Transportation	Considers the impacts of traffic volumes accessing the site and potential impacts to the airport and the movement of farm equipment.

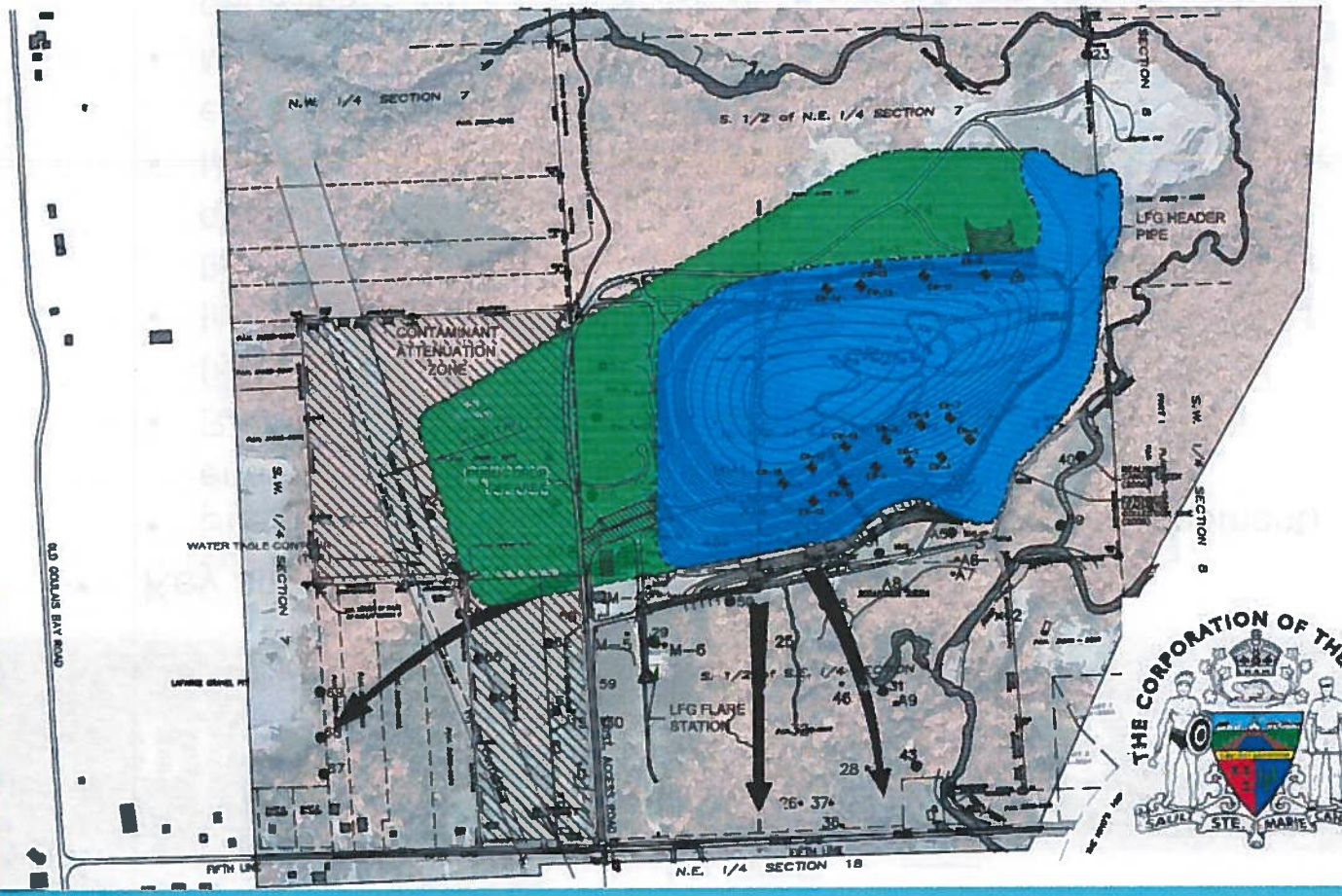


Evaluation of Expansion Options

- Data collection and analysis
- Technical disciplines initially compare options relative to each other and rank them under each criterion
- Present the evaluation in a table or matrix format with the rationale for the rankings
- Present to the public and solicit input from community members, stakeholders, First Nations, and governmental agencies
- Make adjustments to the evaluation based on input received
- Select a preferred option

Preliminary Preferred Expansion Option

- On the basis of the **preliminary** evaluation, the preliminary preferred expansion option is presented below



Preliminary Preferred Option

- Key advantages relative to other options include:
  - Site development (i.e. geometry and storm water management) enhanced relative to Options 2 and 4.
  - Reduced average excavation depth in west expansion area (i.e.11m).
  - Includes a liner beneath the waste within the western portion of the existing disposal footprint enhancing long term groundwater quality.
  - Includes a liner over existing waste in areas of overlap to further enhance groundwater quality.
  - Meets target capacity at current estimated waste densities.

Next Steps

- Solicit governmental, community First Nation and stakeholder input on the preliminary preferred expansion option – do you agree/disagree – why?
- Re-assess (if needed) and finalize the Step 2 evaluation based on input received
- Announce the preferred Step 2 - Alternative Method (i.e. preferred expansion option)
- Initiate a detailed impact assessment for the preferred option
- Continue to investigate ways to improve waste diversion through 3Rs initiatives

AECOM
523 Wellington Street East
Sault Ste. Marie, Ontario
P6A 2M4
www.aecom.com

705 942 2612 tel
705 942 3642 fax

May 29, 2012

Alex MacDonald
1433 Great Northern Road
Sault Ste. Marie
P6A 5K7

Dear Mr. MacDonald:

Project No: **60395**

Regarding: **City of Sault Ste. Marie Solid Waste Management Environmental Assessment March 6, 2012 Public Input Session**

Thank you for taking the time to attend the Public Input Session and to submit a comment sheet and questionnaire. The questions included on your comment sheet and our **responses** are provided below.

1. What is the depth of the deepest well south of the leachate collection system? **Please see the attached ground water monitor details. The attached table includes details on all monitors at the landfill site and the monitors that have been highlighted in blue represent the 17 monitors located south and south east of the leachate collector. Each year several of these monitors are sampled and analysed. The attached table includes the depth of the monitors as well as the top and bottom elevations of the monitors. The deepest monitor in this area is 38.85m deep and this monitor also reaches the lowest elevation in this area (ie. 230.33).**

2. What is the maximum depth of the leachate collector? **The lowest elevation along the leachate collector is approximately 268m or a depth of approximately 6m.**

We hope we have adequately addressed your questions.
We have also had an opportunity to review your questionnaire responses. We appreciate the input provided and we will ensure that you receive any future mailings related to this project.
Should you have any other questions or require clarification please contact the undersigned.

Sincerely,
AECOM Canada Ltd.

Rick Talvitie, P. Eng.
Branch Manager

RT:nm

cc: Catherine Taddo, City of Sault Ste. Marie Engineering
Karla Kolli, Dillon Consulting

AECOM
523 Wellington Street East
Sault Ste. Marie, ON, Canada P6A 2M4
www.aecom.com

705 942 2612 tel
705 942 3642 fax

June 5, 2012

Mr. Gord Acton,
Wishart Law Firm
390 Bay Street, Suite 500
Sault Ste. Marie, Ontario
P6A 1X2

Dear Mr. Acton:

Project No: 60395/60117627

Regarding: City of Sault Ste. Marie Waste Management Environmental Assessment

Thank you for your letter dated March 30, 2012 outlining your Client's concerns related to the proposed expansion of the existing Municipal landfill site located at 402 Fifth Line East.

Based on our careful review of your correspondence it is our understanding that Mr. Caswell is concerned with the safety of his drinking water supply and the potential for it to become contaminated from leachate generated at the landfill site. We have had an opportunity to discuss this issue with Mr. Caswell at past public consultation events and we appreciate and understand his concern.

In the paragraphs that follow we have summarized the leachate management features present at the existing site, the ongoing groundwater monitoring program, and preliminary details of the preferred expansion option including future leachate management features.

Existing Leachate Management Features

The City's landfill is an engineered site and includes a number of management features to mitigate offsite groundwater impacts.

Within the site there is a groundwater divide and groundwater generally flows from the north to the south /south-east and south-west. A horizontal leachate collector is located along the south and south eastern periphery of the site and a series of nine purge wells are located along the western boundary (ie. downstream of the landfill) which collect potentially contaminated groundwater (ie. leachate) and convey it to a pumping station and ultimately to the City's west end sewage treatment plant. These ground water management features are shown on the attached Figure.

Ground Water Monitoring System

In addition to the groundwater management features there is also an extensive network of ground water monitors. Approximately 206 monitors have been installed over time and approximately 97 monitors remain active. These monitors are used to assess groundwater quality compliance. Approximately 30 – 40 of these monitors are sampled and analyzed multiple times each year and a report is prepared annually documenting the results. The site is required to meet stringent Ministry of Environment compliance criteria (ie: Reasonable Use Concept) at the property boundary. The MOE's Reasonable Use Concept is described below.

The MOE created guideline B-7 Incorporation of the Reasonable Use Concept into MOE Groundwater Management Activities to assist the Ministry in protecting groundwater quality. The principle objective of the guideline is to protect reasonable uses of groundwater for present and future users of groundwater in the province.

The first step in the process is to identify the reasonable use of groundwater on a neighbouring property taking into consideration present groundwater use, potential future groundwater use and existing quality and quantity of groundwater in the area.

In the case of the landfill site, the reasonable use of groundwater on a neighbouring property is for domestic consumption.

Once a reasonable use has been identified the allowable concentrations for various parameters are identified using Procedure B-7-1– Determination of Contaminant Limits and Attenuation Zones. The calculation of allowable concentrations at the property boundary has been developed to provide a margin of safety relative to the drinking water standards. The MOE's drinking water quality criteria are subdivided into health related and aesthetic or non-health related parameters. For health related parameters the groundwater quality can only be degraded by 25% of the difference between the drinking water standard and the background water quality (Note: background water quality is the natural water quality when unaffected by external sources). For example if the background concentration of a contaminant is 20 units and the drinking water standard for the same parameter is 200 units then the allowable concentration at the property boundary = 20+(200-20)*0.25 = 65units. For aesthetic parameters allowable degradation is 50% of the difference between the drinking water standard and the background concentration. Therefore in the example cited above, if the contaminant was considered to be a non-health related parameter the maximum acceptable concentration at the property boundary would be 20+(200-20)*0.50 = 110 units.

The annual Monitoring Report is prepared by a Hydrogeologist and includes analyses and interpretation of ground water quality based on samples collected on several occasions throughout the year. The report documents changes in water quality and reports on compliance with the Reasonable Use Concept. The historical reports are available from the City should you or your Client wish to review them.

Preferred Expansion Option

The City and its Consultants have had an opportunity to review and assess the input received through the public consultation process and the preferred expansion option consists of a moderate increase in

height of the landfill mass, an expansion of the footprint to the north and west of the existing disposal footprint and landfill mining within the western portion of the existing footprint. Mining involves excavation and screening of previously disposed waste and cover material to separate coarse waste and recyclables from fine materials. The recyclables are sent for processing, coarse residual waste is disposed of in the disposal site and fines (primarily sand) are stockpiled for use as cover.

Within the proposed expansion areas the site will be fully lined to capture leachate generated from precipitation filtering through the waste (ie. much like a swimming pool liner). In addition the area of the existing site where mining is proposed will also include a liner. The installation of liners will enhance groundwater quality control relative to the existing effective controls.

The proposed groundwater quality management system at the expanded site will also include the installation of an impermeable liner over a portion of the existing waste where the expansion overlaps the existing disposal footprint. This will further reduce the quantity of leachate generated at the site. A horizontal groundwater collector is also proposed along the western boundary of the expansion area to replace the purge wells and collect any potentially contaminated groundwater from the existing site that continues to flow to the south west.

The objective is to capitalize on the proposed expansion to not only protect groundwater quality from the expansion areas but also to enhance the management features that presently exist at the existing disposal footprint.

Conclusion

The City is now moving forward with the Impact Assessment phase of the project. This phase of the project is intended to look in detail at the potential impacts of the proposed expansion. We can assure you that we will be addressing the concern raised by Mr. Caswell. We plan to consider mitigation options including the feasibility of extending the municipal distribution system to serve Mr. Caswell.

We will continue to keep Mr. Caswell informed of the project progress as we achieve future milestones and will continue to inform him of future opportunities for public input.

Sincerely,
AECOM Canada Ltd.

Rick Talvitie, P. Eng.
Branch Manager

RT:nm
Encl.

Talvitie, Rick

From: Talvitie, Rick
Sent: June 6, 2012 8:24 AM
To: 'pjmclarty@shaw.ca'
Cc: 'Catherine Taddo'; 'Kolli, Karla'
Subject: City of Sault Ste. Marie Waste Management EA

Hi Peter,

Thank you for your comments included in you March 30, 2012 email.

The City and its Consultants have had an opportunity to review and assess the input received through the public consultation process and the preferred expansion option consists of a moderate increase in height of the landfill mass, an expansion of the footprint to the north and west of the existing disposal footprint and landfill mining within the western portion of the existing footprint. Mining involves excavation and screening of previously disposed waste and cover material to separate coarse waste and recyclables from fine materials. The recyclables are sent for processing, coarse residual waste is disposed of in the disposal site and fines (primarily sand) are stockpiled for use as cover.

We have reviewed your comments and have embedded our responses below.

Again, thank you for the meaningful input that you provided. We will continue to keep you apprised of project progress and other opportunities for public input.

Let me know if you have any further questions.

Regards,

Rick Talvitie, P. Eng.
Manager, Sault Ste. Marie Office
rick.talvitie@aecom.com

AECOM
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Sault Ste. Marie, Ontario Canada P6A 2M4
T 705.942.2612 F 705.942.3642
www.aecom.com

-----Original Message-----
From: Peter McLarty [mailto:pjmclarty@shaw.ca]
Sent: March 30, 2012 11:45 AM
To: Talvitie, Rick
Cc: Rhonda Bateman; Roy Bertolo; Susan Hamilton-Beach; Andrew Hallett; Hal McGonigal; Peter Tonazzo; Subhash Verma; Ralph Yanni; Larry Wooly
Subject: "City of SSM Waste Management EA-comments"

Good morning Rick

I am submitting these comments as "a concerned citizen" even though you are aware that I also sit on the SPC. Hopefully the SPC will respond with its own concerns.

I would never recommend that a landfill be located on a SGRA (significant groundwater recharge area).

[<Rick Talvitie>] Response:
We understand your comment regarding the significant groundwater recharge area that underlies the existing landfill. It is however important to understand that the existing landfill site includes effective leachate collection and management features and the proposed expansion will provide an opportunity to enhance the existing controls.

The existing site is an "engineered" site and includes leachate management features to mitigate groundwater impacts. Within the site there is a groundwater divide and groundwater generally flows from the north to the south /south-east and south-west. A horizontal leachate collector is located along the south and south eastern periphery of the site and a series of nine purge wells are located along the western boundary (ie. downstream of the landfill) which collect potentially impacted groundwater (ie. leachate) and convey it to a pumping station and ultimately to the City's west end sewage treatment plant. These ground water management features are shown on the attached Figure.

In addition to the groundwater management features there is also an extensive network of ground water monitors. Approximately 206 monitors have been installed over time and approximately 97 monitors remain active. These monitors are used to assess groundwater quality compliance. Approximately 30 - 40 of these monitors are sampled and analyzed multiple times each year and a report is prepared annually documenting the results. The site is required to meet stringent Ministry of Environment compliance criteria (ie: Reasonable Use Concept) at the property boundary. Further details can be provided regarding the Reasonable use Concept if desired.

The proposed expansion areas will be fully lined to capture leachate generated from precipitation filtering through the waste (ie. much like a swimming pool liner). The leachate will be directed to the sewage treatment plant. In addition the area of the existing site where mining is proposed will also include a liner. The installation of liners will enhance groundwater quality control relative to the existing controls.

The proposed groundwater quality management system at the expanded site will also include the installation of an impermeable liner over a portion of the existing waste where the expansion overlaps the existing disposal footprint. This will improve ground water quality by reducing the quantity of leachate generated at the site. A horizontal groundwater collector is also proposed along the western boundary of the expansion area to replace the purge wells that collect potentially impacted groundwater flowing south-westerly from the existing site.

The objective is to capitalize on the proposed expansion to not only protect groundwater quality related to the expansion areas but also to enhance the management features that presently exist for the existing disposal footprint.

2. Expansion of the current site is more politically saleable than a new site. We will always require some form of landfill.

[<Rick Talvitie>] Response:
The conclusion to expand the existing site was reached through the Environmental Assessment (EA) process. An EA documents the results of the planning and decision-making process and includes identification and evaluation of alternatives, their environmental effects, impact mitigation and management measures, and a record of consultation. A significant level of study has been completed to date. Through the earlier phases of the study it was concluded that the City should continue to focus effort on 3R's (reduce, reuse, recycle) to reduce the quantity of waste requiring disposal and that any residual waste should be managed through disposal in a landfill. The City also endorsed a waste supply agreement with an Energy-from-Waste vendor (ie. Elementa). The City has committed the residential curbside waste to Elementa but the construction of their processing facility has been delayed indefinitely. In the meantime the City plans to move forward with its Waste Management EA.

The focus of the EA then turned to the best method of landfilling residual waste and considered the advantages and disadvantages of the expanding an existing waste disposal site versus establishing a new site. Through that process, which included public consultation, it was concluded that the City should initially focus resources on developing a strategy to expand an existing site. A preferred expansion strategy has now been identified and the City is proceeding with a detailed impact assessment for the preferred expansion option.

3. Allowing the expansion of the present site allows us an opportunity to help lower the risk presented by the present landfill operation by:

a) ensuring ongoing monitoring of the present landfill operation

b) providing an opportunity to partially (possibly totally) cover the current footprint thus limiting the amount if infiltration from precipitation

[<Rick Talvitie>] Response:
We acknowledge and agree that the expansion of the existing site will provide an opportunity to enhance groundwater protection measures and reduce the overall risks associated with the site. The enhanced protection measures are described in our response to 1 above. The City will continue to monitor this site through its operating life and following its closure until the Ministry of Environment is satisfied that no further monitoring is required.

4. Although costly and potentially hazardous to workers and the air, I would recommend mining the current landfill (thus removing some of the current hazardous material) and placing a new liner under the old site.

[<Rick Talvitie>] Response:
As noted in our response to 1 above, landfill mining is currently included in the preferred expansion strategy. We acknowledge and agree that there are nuisance and safety issues associated with the implementation of landfill mining. Landfill mining has however been successfully implemented elsewhere within the Province of Ontario and best management practices and lessons learned in other jurisdictions will be considered as part of the detailed impact assessment. Care will be taken to mitigate nuisance and safety issues.

5. The City should push very hard to get either an Elementa facility or ANOTHER approved waste-to-energy facility.

[<Rick Talvitie>] Response:
The City has endorsed a waste supply agreement with Elementa to process at least the waste generated in the residential curbside program. It is unlikely that the City can entertain any other vendor offers until the agreement is satisfied or comes to an end.

6. The City should be pushing the "ministry" to fast-track composting.

[<Rick Talvitie>] Response:
Under the current regulatory regime composting can be undertaken in the Province of Ontario and the City has a very successful open windrow leaf and yard waste composting program. The City has evaluated the feasibility of establishing a curbside organics collection program and concluded that it may be cost effective if the biosolids from the two water pollution control plants can be included as a feedstock in the process. A significant investment is required to construct a suitable composting facility that is capable of accommodating residential organics and/or biosolids. The processing of these feedstocks together would enhance economies of scale and reduce the overall unit processing costs. The MOE has been considering modifications to the current regulations to possibly allow the use of biosiolids as a feedstock. Although progress has been made they have been unable to provide a timeframe for the release and implementation of any modified regulations. The City continues to keep

apprised of this initiative and will take any regulatory changes into consideration in the future.

Regards

Peter McLarty

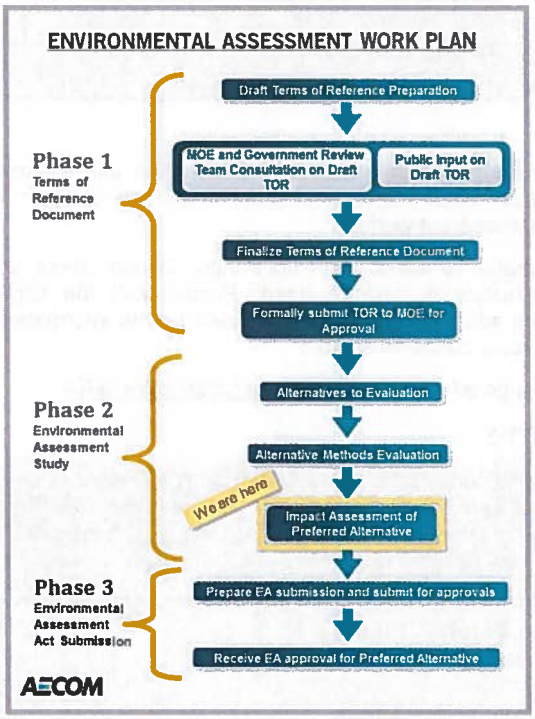
755 Fifth Line

705-759-3393

THE CITY OF SAULT STE. MARIE
JANUARY, 2016 NEWSLETTER
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

ENVIRONMENTAL ASSESSMENT (EA) PROCESS

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. The EA Process is a transparent decision-making process used to promote good environmental planning by assessing potential effects of certain activities or projects on the natural and human environment. There are several phases and tasks involved in completing an EA as outlined in the graphic below.



The City is finalizing Phase 2 of the EA Process and is currently preparing the EA submission. **We are interested in obtaining your input related to the current activities.**

BACKGROUND

Phase 1 of the EA process included public consultation and culminated with the Ministry of Environment and Climate Change's (MOECC) approval of the project Terms of Reference (ToR) in 2005. The ToR provides a framework or roadmap for completing the EA and summarizes the tasks and activities to be undertaken by the proponent.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and **the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.** The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

The City remains committed to investigating, implementing and supporting programs to increase waste diversion through 3Rs initiatives. Since the implementation of 3Rs initiatives does not require EA Act approval, the EA study turned its focus to alternative methods of landfilling residual waste. The key objective of this phase of the study is to find an environmentally suitable location for the development of additional landfill capacity.

The first step in this phase consisted of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. To identify a preferred approach to landfilling waste, the alternatives were compared using the following seven criteria groups:

1.	Natural environment	5.	Capability of managing waste quality and quantity
2.	Social-cultural environment	6.	Proven technical capacity
3.	Economic environment	7.	Cost
4.	Flexibility of the system		

A Public Input Session was held in April, 2011 to present the landfill alternatives being considered. **The evaluation and response from consultation concluded that an expansion of an existing landfill is generally preferred over construction of a new site.**

The study noted that an expansion requires less land, displaces fewer people and/or social/natural features, disrupts fewer people (i.e., one site versus two sites creating nuisance impacts), costs less, typically encounters fewer challenges in gaining technical approvals, and reduces the number of facilities the City must manage.

The second step in the Alternative Methods task focused on the best approach to expand the City's existing landfill site at 402 Fifth Line East by identifying and comparatively evaluating site expansion alternatives. Options considered included horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining (excavate previously disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) or a combination of these methodologies. A Public Input Session was held March, 2012 to obtain feedback on the evaluation criteria and the preliminary findings.

The evaluation and response from consultation concluded the preferred site expansion alternative consists of a modest increase in the height of the waste, an expansion of the disposal footprint to the west and north and mining a portion of the existing waste to enhance groundwater quality. All mined and expansion areas will include the

construction of a liner beneath the waste to collect leachate (precipitation contaminated as it filters through waste) and ultimately direct it to the City's sewage treatment plant for treatment.

Current Activities

The last part of Phase 2 involves assessing the potential impacts of the conceptual design and planned operation of the preferred site expansion alternative and identification of suitable mitigating measures. Multiple disciplines were involved to assess the various potential impacts of the expansion on site, off site, in the vicinity and along the access route. The access route was considered to be along Fifth Line from Highway 17 to the site (which is the same route used today). Measures to reduce or eliminate potential effects on the environment were recommended.

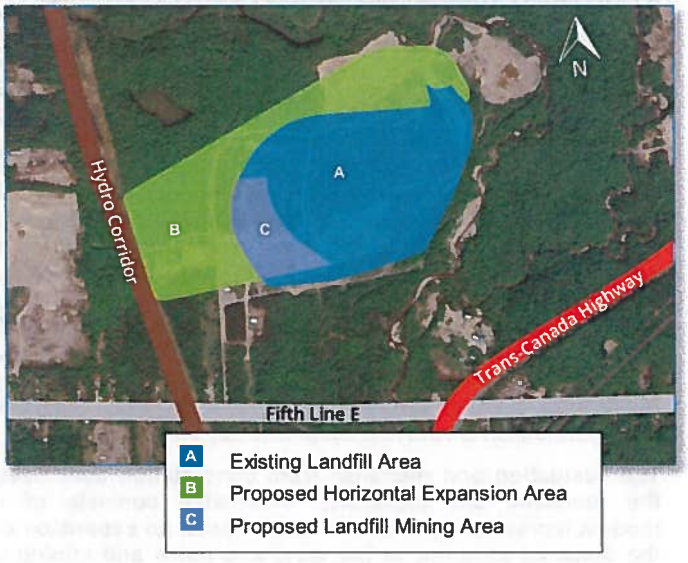
The disciplines that were involved include:

Natural Environment
- Biology
- Geology / hydrogeology
- Surface water

Socio-Cultural Environment
- Cultural (archaeology and heritage)
- Social
- Planned land use
- Visual
- Atmospheric (dust, noise, air quality)

Economic
- Businesses
- Transportation

Conceptual Layout of Proposed Landfill Expansion Area



HOW CAN I PROVIDE INPUT?

We will be hosting a Public Open House where you will learn about the results of the impact assessment work and we will ask for your feedback. If you are interested in discussing the project, we encourage you to attend the upcoming public open house!

YOU'RE INVITED!

Date:	*Tuesday, February 9, 2016*
Location:	*Civic Centre – 99 Foster Drive* *Russ Ramsay Room*
Time:	*3:30 pm to 7:30 pm*

Refreshments to be provided.

We will provide you with background information and discuss, with you, the preferred site expansion option and the results from the impact assessment work.

If you are unable to attend the Public Input Session there are other opportunities to provide input. Please visit the City's website at the address noted below to obtain further information, and / or access a comment sheet.

Project webpage address: saultstemarie.ca/SolidWasteEA

CONTACT US

You may also contact the Consultant Project Manager or the City's Land Development and Environmental Engineer by email, mail or telephone if you have questions or would like additional information.

Mr. Rick Talvitie, P.Eng.
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Email: rick.talvitie@aecom.com

Ms. Catherine Taddo, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580, 99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5380
Email: c.taddo@cityssm.on.ca

THE CITY OF SAULT STE. MARIE

NOTICE OF PUBLIC INPUT SESSION

SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. To date significant progress has been made.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and **the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.** The preferred alternative was presented at an Open House in June, 2010.

The study noted:

- landfills can be designed and operated to comply with regulations and policies;
- landfill gas can be collected and flared or recovered to generate electricity;
- landfills can manage the entire residual waste stream;
- landfills are flexible to changes in waste quality and quantities; and
- landfilling is cost effective.

In April, 2011 a Public Input Session was held to present the non-site specific landfill alternatives being considered. **The evaluation, which considered responses from consultation, concluded that an expansion of an existing landfill is generally preferred over construction of a new site.**

The study noted:

- an expansion requires less land;
- displaces fewer people and/or social/natural features;
- disrupts fewer people (i.e. one site versus two sites creating nuisance impacts);
- costs less;
- typically encounters fewer challenges in gaining technical approvals; and
- reduces the number of facilities the City must manage.

In March 2012 a Public Input Session was held to present the preliminary preferred approach to expanding the existing landfill at 402 Fifth Line East in the City of Sault Ste. Marie. **The evaluation, which considered responses from consultation, concluded that an expansion is best accommodated with a moderate increase in the height of the waste together with and expansion of the disposal footprint to the north and west. The preferred option also includes landfill mining (excavate existing disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) in the western portion of the existing disposal footprint to enhance groundwater protection. All mined and expansion areas will include the construction of a liner beneath the waste to collect leachate (precipitation contaminated as it filters through waste) and ultimately direct it to the City's sewage treatment plant for treatment.**

CURRENT ACTIVITIES

Presently the project team is focusing on **completing an impact assessment for the preferred expansion option.** The impact assessment includes expertise from numerous disciplines and focusses on potential impacts to the natural and human environments associated with the construction and operation of the proposed expansion. Careful attention is given to best management practices to mitigate potential impacts.

We are now seeking input from the Community, government agencies, stakeholders, and First Nations regarding the results of our impact assessment work and the proposed mitigation measures.

PUBLIC INPUT SESSION

If you are interested in discussing the impact assessment work, we encourage you to attend the upcoming public open house! We will provide you with background information and discuss with you, the preferred site expansion option and the results of the impact assessment work.

CONTACT US

We also encourage you to contact the individuals noted below if you have any specific questions.

Mr. Rick Talvitie, P.Eng
Project Manager
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Ms. Catherine Taddo, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
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Fax: (705) 541-7165
Email: c.taddo@cityssm.on.ca

YOU'RE INVITED!

Date: Tuesday February 9, 2016

Location: Civic Centre – Russ Ramsay Room

Time: 3:30 pm to 7:30 pm

Refreshments to be provided.

If you cannot attend the public open house, we still want to hear from you! Just go to the project webpage (address provided below) to review the project reference material and fill out a comment sheet or simply send us an email (email addresses provided above). Project webpage address: saultstemarie.ca/SolidWasteEA

Maahs, Nancy

From: Talvitie, Rick
Sent: Monday, March 21, 2016 1:10 PM
To: Maahs, Nancy
Subject: FW: EA of waste/landfill

Rick Talvitie, P. Eng.
Manager, Northern Ontario
rick.talvitie@aecom.com

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From: Talvitie, Rick
Sent: Monday, March 21, 2016 12:39 PM
To: 'Robert Rattle'
Cc: 'Catherine Taddo'; 'Kolli, Karla'
Subject: RE: EA of waste/landfill

Hi Robert:

Sorry for the delay in getting this response to you.

The City has been very diligent to promote, develop and enhance waste diversion programs and services that support the 3Rs hierarchy: reduce, reuse and recycle and has complemented these programs and services with by-laws to encourage residents to divert waste. The City, prior to initiating the EA recognized an important need to address the underperformance of their diversion programs and initiatives. In the early 2000's they made diversion a priority and initiated an number of studies and followed through on a number of important initiatives with the principle goal of reducing disposal quantities.

An overview of the City's principle waste diversion programs is provided below. The proposed changes/additions that will further enhance diversion have been highlighted yellow.

- The City offers an extensive curbside recycling program which services approximately 26,251 single family households. In addition the program services approximately 6,266 multi-residential units. Recyclables are separated, by residents, into "containers" and "fibres" and set out curbside with their waste for collection on a weekly basis. The management and operation of the curbside recyclables program may change from a Municipal responsibility to a Stewards responsibility in the future. This change may impact the Municipality's ability to influence the future curbside diversion rate.

- It is estimated that approximately 12,100 backyard composters have been distributed to residents in years past. Backyard composters are not currently being offered to residents by the City but they are available through retailers. The City also collects leaf and yard waste bi-weekly throughout the growing season (i.e. late April to early November) and composts the feedstock in open windrows at the landfill site on Fifth Line. The final compost is used on City projects by the City's Parks and Recreation Department.

- The City has banned leaf and yard waste and old corrugated cardboard (OCC) from the landfill.

- The City is also working to establish a permanent Household Hazardous Waste Depot (HHW) at City Landfill site. Planning is ongoing to move the facility in its current location in the City's Public Works yard on Industrial Park Crescent to the landfill in 2016, if supported by Council. The move will provide a "one stop location" for all

waste management needs including recyclables, household hazardous waste and residual waste. The facility has been operational since 2001 and has been effective in diverting HHW generated within Sault Ste. Marie and surrounding areas. The management and operation of the HHW program became a Stewards responsibility in July, 2010. The City continues to own and operate the facility under a contract with the Stewards but this may change in the future.

- The City has implemented a staged reduction in residential waste set out limits. The City introduced a 4 bag/container limit on January 1, 2004 which was reduced to 3 bags/containers on May 1, 2004 and 2 bags/containers on January 1, 2005. The tipping fee and gate fee at the landfill have been increased over time from $27.50/tonne and $2/visit to the current rates of $70/tonne and $10/visit respectively. In 2006 the City also reduced the permissible weight associated with the gate fee from 500 kg to 300 kg. The City continues to recognize the importance of waste setout limits to strongly encourage residential diversion and periodically reviews whether further reductions are warranted.

- Separation and diversion of recyclable containers and fibres, clean wood waste and brush, white goods, metals, propane tanks, tires, WEEE and batteries is also completed at the City's landfill.

- Council has supported the elimination of free week at the landfill site starting in 2016. This will encourage the 3R's instead of opening the doors to disposal.

- The City has also worked with Algoma Public Health and has established 2 public drop-off locations for sharps. These locations are being closely monitored and aim at collecting sharps safely that would otherwise be disposed of incorrectly throughout the surrounding neighbourhood or in regular garbage disposal.

In addition to these programs, the City has been leading active campaigns to reduce the amount of waste that residents generate with initiatives such as the plastic shopping bags campaign. This initiative educates residents to reduce the number of plastic bags generated and encourages them to shop with reusable shopping bags instead. The City also provides a discounted beverage price to patrons that bring their own refillable cups to some of its venues within the City.

The City also takes a proactive role to lead by example through its own corporate waste reduction and recycling activities. Specific corporate initiatives developed and undertaken by the City have included:

- Super Sorters – Twenty seven Super Sorter Three-In-One recycling bins were purchased and distributed throughout City arenas, recreational facilities and major parks/marinas. In support of this initiative, the Public Works Sign Shop assisted in a custom designed sign for the front of the bins to educate patrons regarding proper disposal of materials. Promotional events were also conducted at the time of the launch to gain public support and encourage their use.

- Waste Reduction Week – The City for the past few years has promoted Waste Reduction Week, which runs in October. City staff have been encouraged to bring in unwanted electronics to facilitate proper management. A proclamation has been made to help support community awareness of the event.

- 20-Minute Makeover – each year the City hosts the 20-Minute Makeover where local residents are encouraged to spend 20 minutes, typically on earth day, to clean up their property. Over the past 4 years the City has had more than 500 participants each year. This promotes City beautification and brings awareness to the negative impacts of littering.

- Green Days/Kids Being Green – a campaign completed by City summer students bringing awareness to the importance of recycling.

- Battery recycling – there is battery recycling station located in City Hall to collect disposable batteries and rechargeable batteries.

- Ink Cartridge Recycling – an ink cartridge recycling station is located in City Hall to collect used ink cartridges from across the corporation. These items are taken back and managed by the original vendors.

In addition, the City strongly encourages the business sector to comply with recycling mandates. The City initiated a fluorescent light program that targets local businesses and the public to drop off bulbs at the Household Hazardous Waste Depot so they can be safely managed and transported to a recycling facility.

There are also a number of public and private sector initiatives in our Community that are supported and encouraged by the City as described in the following paragraphs.

In efforts to reuse waste, the City promotes Habitat for Humanity's ReStore where residents and businesses can donate or purchase new and used household items and building materials such as windows, doors, paint, lumber, tools and lighting fixtures. Other private sector initiatives that support reuse include the local Value Village retail store and Canadian Diabetes Association which accepts used clothing and household items. The City also refunds the landfill tipping fee of the re-use organizations. This program has been in place since 2014 and helps these organization financially.

The City also provides financial support to Community Living Algoma which operates a local WEEE and Styrofoam depot. The facility receives, sorts and transports computers, keyboards, monitors, computer peripherals, phones, cell phones and Styrofoam.

The City also supports the efforts of Clean North which is a citizen based environmental group that promotes environmental protection through various programs and initiatives focused on reduction, reuse and recycling. Programs include an annual Christmas tree chipping event and freecycle days to promote reuse of unwanted items.

Through the City based programs, approximately 10,399 tonnes of residential material was diverted from disposal in 2014. This represents a residential diversion rate of 36%.

The City has also completed a Biosolids Management Study. Biosolids (sewage sludge) generated at both waste water treatment plants is currently being landfilled. The objective of the study was to review alternative biosolids management strategies and develop a sustainable and effective strategy that reduces the impact on the City's landfill, more effectively manages nuisance odours, has wide public support, is cost effective and environmentally responsible. The Notice of Completion was published in May, 2015 and the City is now able to move forward with its implementation, (subject to Council approval), which will effectively divert approximately 10,000 tonnes of waste annually!

The City continues to proactively investigate practical and cost effective ways and means of diverting waste from disposal. These efforts will continue into the future.

In addition you also mentioned, in your email, the waste-to-energy project. I have summarized the historical evolution of that project below.

In 2007, the EA work was deferred to allow a private waste-to-energy vendor, The Elementa Group (Elementa) to develop and demonstrate a pilot scale facility within the City. The EA deferral was requested and approved by City Council to gain a better understanding of the role waste-to-energy may play in the City's future waste management strategy. Elementa built and tested a pilot steam reformation plant that converts municipal solid waste into a char and synthetic gas that can be used to generate electricity. The pilot testing was completed from 2007 to 2009 and at the conclusion of the testing, the City entered into a waste supply agreement to supply a minimum 12,500 tonnes of residual waste per year commencing in 2011.

Although there is the potential for a proportion of the City's residual waste stream to be processed in the proposed Elementa steam reformation plant, there are risks and challenges associated with the future implementation of this innovative project. Given these risks in 2010 it was assumed, within the context of this EA, that all residual waste will be managed through the solutions contemplated within this EA (i.e. Elementa will not process any of the City's residual waste). It was recognized that if the Elementa project is implemented and is fully or partially successful, there will continue to be a need to manage residual solid nonhazardous waste from the Elementa facility and residual waste that cannot be processed by Elementa due to capacity constraints. Elementa's future success will not impact the need for additional disposal capacity but may impact the disposal capacity needed.

To date there have been a number of delays and amendments to the timelines in the agreement between the City and Elementa. The most recent amendment, completed in May, 2015, includes a construction start date that is not to extend beyond May 1, 2016 and an initial waste supply date of July 1, 2017.

Most recently, in December 2015, Elementa was ordered into receivership and their future is uncertain. Based on the conservative assumptions made in 2010, as noted above, these recent actions do not impact this EA.

I am hopeful that this addresses your questions and comments but if you have any further questions do not hesitate to contact AECOM or the City.

Best Regards,

Rick Talvitie, P. Eng.
Manager, Northern Ontario
rick.talvitie@aecom.com

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www.aecom.com

From: Talvitie, Rick
Sent: Monday, February 22, 2016 1:47 PM
To: 'Robert Rattle'; Catherine Taddo
Subject: RE: EA of waste/landfill

Hi Robert – this is in my court and I will be putting together a response for you. There have been some other priorities that have occupied by time and I will be getting you a response soon. Sorry for the delay.

Rick Talvitie, P. Eng.
Manager, Northern Ontario
rick.talvitie@aecom.com

AECOM
523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4
T 705.942.2612 F 705.942.3642
www.aecom.com

From: Robert Rattle [mailto:robert14robert@yahoo.ca]
Sent: Monday, February 22, 2016 1:25 PM
To: Catherine Taddo
Cc: Talvitie, Rick
Subject: Re: EA of waste/landfill

Thanks Catherine - I found the ToR and have been able to review them. Question: does the city still distribute backyard composters? I haven't seen any advertising or information from the city about these, their value to waste reduction, or how to use/install them. I assume this is somewhere on the city's website?

I haven't seen any response to my additional questions - did that slip through my email perhaps?

From: Catherine Taddo <c.Taddo@cityssm.on.ca>
To: 'Robert Rattle' <robert14robert@yahoo.ca>
Cc: 'Rick Talvitie' <rick.talvitie@aecom.com>
Sent: Monday, February 1, 2016 4:18 PM
Subject: RE: EA of waste/landfill

Hi Robert:

Thank you for your interest in the project. The Terms of Reference are available on the project website for download.

We are compiling information for the remainder of your questions, and hope to forward something by early next week at the latest.

Catherine
Catherine Taddo, P. Eng.
Land Development & Environmental Engineer
City of Sault Ste. Marie
99 Foster Drive
Sault Ste. Marie, ON P6A 5X6
c.taddo@cityssm.on.ca
saultstemarie.ca
Phone (705) 759-5380
Fax (705) 541-7165

From: Robert Rattle [mailto:robert14robert@yahoo.ca]
Sent: Saturday, January 30, 2016 11:37 AM
To: Catherine Taddo
Cc: Rick Talvitie
Subject: EA of waste/landfill

Hi Catherine,

I'd like to compliment the city and consultants for the January Newsletter that provided an overview and summary of the municipal solid waste EA. I found it informative for a process that has been ongoing for quite some time.

Do you have a copy of the terms of reference for this project?

I'd also be interested in understanding what municipal supporting programs to increase waste diversion currently exist, are planned, what the process is to advance additional programs, and how these connect to the municipal solid waste EA?

I'm assuming that the recently announced changes to the waste-to-energy plant has had something to do with this EA input session? How has that change affected timing, capacity and interest in new City programs to divert waste through the 3R's?

Thanks,

Robert

Maahs, Nancy

From: Talvitie, Rick
Sent: Monday, March 21, 2016 1:10 PM
To: ANDRE RIOPEL
Cc: matt_shoemaker@hotmail.com; Catherine Taddo (c.Taddo@cityssm.on.ca); Kolli, Karla; Maahs, Nancy
Subject: RE: 20 cents a pound

Hi Andre,

Sorry for the delay in responding.

First and foremost thank you for bringing forward various ideas for enhancing diversion. I am getting back to you on a few things. In addition to what you have noted below, in a separate email you raised the possibility of using clear waste bags and bi-weekly waste collection.

In this email I have addressed the items raised and I have also provided an overview of 3R's initiatives in the City.

Pay-as-you-throw programs - we investigated pay-as-you-throw programs in conjunction with the Waste Management Business and Implementation Plan that was developed in the early 2000's. At that time we looked at everything from full user pay (i.e. pay for everything that is setout curbside much like paying for utilities that we use) to partial pay-as-you throw programs. Ultimately the City elected to proceed with a partial pay-as-you-throw program whereby the setout limits were reduced from six to two bags/containers per week. Under the current "partial pay-as-you-throw program" residents must pay for anything setout in excess of two bags/containers. The City periodically reviews whether further reductions are warranted.

Organic waste and bi-weekly waste collection - We have addressed these under one heading as they are often closely linked. As you are aware the City operates a very successful leaf and yard waste program which diverts leaf and yard waste throughout the growing season. The City, at one time, distributed backyard composters but this is no longer practiced. We agree with you that the use of backyard composters is an excellent way to further reduce landfilled wastes and we also agree that further reductions in waste setout limits would encourage residents to initiate their own composting activities. We will discuss, with the City, the possibility of initiating a program to better educate residents regarding backyard composters. In addition, as noted above, further reductions in waste setout limits is periodically reviewed by the City.

Bi-weekly collection waste is a good way to reduce costs however bi-weekly collection is usually undertaken in communities that have a curbside organics collection program in place. Typically communities use split body waste collection trucks which facilitates the collection of two distinct waste stream concurrently. Typically municipalities collect organic waste weekly and at the same time collect recyclables one week and residual non-organic waste the next week. It is difficult to collect waste bi-weekly if it contains organics due to problems with odours. In Sault Ste. Marie it would be very costly to initiate a curbside organics collection program due to the small quantities and the inability to partner with other municipalities in close proximity to construct and operate an organics processing facility. For example, in southern Ontario a single processing facility can be constructed to process compostable feedstock from several communities. The economies of scale are much more favourable. Despite these challenges there is a possibility that a curbside organics collection program may be implemented in Sault Ste. Marie in the future particularly if it is mandated at the provincial level. In the meantime the approach that you are advocating (i.e. individual privately owned composters and reduced waste setout limits) could be very effective.

Clear bags - We assisted three smaller municipalities to the east of the Sault in implementing a clear bag policy for residual waste. Studies have shown that the use of clear bags in conjunction with close scrutiny during pickup can be effective in improving diversion (i.e. if recyclables are seen in the bag residents would be warned and ultimately the

waste could be left curbside). There can be challenges with public acceptance of a clear bag policy because residents may not appreciate having to buy specific bags for their waste. This is however similar to the leaf and yard waste program in the Sault that mandates the use of biodegradable paper leaf and yard waste bags. It is also noteworthy that consideration is being given to the possibility of mechanical waste collection in the future (i.e. similar to the mechanical collection being used for recyclables). If mechanical collection is implemented in the future, clear bags would not be effective. Ultimately a clear bag policy can be effective in increasing diversion and we will keep this in mind for consideration in the future.

In the paragraphs that follow we have provided some background information that you may find helpful also. There is some overlap with some of the information provided above.

The City has been very diligent to promote, develop and enhance waste diversion programs and services that support the 3Rs hierarchy: reduce, reuse and recycle and has complemented these programs and services with by-laws to encourage residents to divert waste. The City, prior to initiating the Waste EA recognized an important need to address the underperformance of their diversion programs and initiatives. In the early 2000's they made diversion a priority and initiated an number of studies and subsequently followed through on a number of important initiatives with the principle goal of reducing disposal quantities. An overview of the City's principle waste diversion programs is provided below.

The City offers an extensive curbside recycling program which services approximately 26,251 single family households. In addition the program services approximately 6,266 multi-residential units. Recyclables are separated, by residents, into "containers" and "fibres" and set out curbside with their waste for collection on a weekly basis. The management and operation of the curbside recyclables program may change from a Municipal responsibility to a Stewards responsibility in the future. This change may impact the Municipality's ability to influence the future curbside diversion rate.

It is estimated that approximately 12,100 backyard composters have been distributed to residents in years past. Backyard composters are not currently being offered to residents by the City but they are available through retailers. The City also collects leaf and yard waste bi-weekly throughout the growing season (i.e. late April to early November) and composts the feedstock in open windrows at the landfill site on Fifth Line. The final compost is used on City projects by the City's Parks and Recreation Department.

The City has banned leaf and yard waste and old corrugated cardboard (OCC) from the landfill.

The City is also working to establish a permanent Household Hazardous Waste Depot (HHW) at City Landfill site. Planning is ongoing to move the facility in its current location in the City's Public Works yard on Industrial Park Crescent to the landfill in 2016, if supported by Council. The move will provide a "one stop location" for all waste management needs including recyclables, household hazardous waste and residual waste. The facility has been operational since 2001 and has been effective in diverting HHW generated within Sault Ste. Marie and surrounding areas. The management and operation of the HHW program became a Stewards responsibility in July, 2010. The City continues to own and operate the facility under a contract with the Stewards but this may change in the future.

The City has implemented a staged reduction in residential waste set out limits. The City introduced a 4 bag/container limit on January 1, 2004 which was reduced to 3 bags/containers on May 1, 2004 and 2 bags/containers on January 1, 2005. The tipping fee and gate fee at the landfill have been increased over time from $27.50/tonne and $2/visit to the current rates of $70/tonne and $10/visit respectively. In 2006 the City also reduced the permissible weight associated with the gate fee from 500 kg to 300 kg. The City continues to recognize the importance of waste setout limits to strongly encourage residential diversion and periodically reviews whether further reductions are warranted.

Separation and diversion of recyclable containers and fibres, clean wood waste and brush, white goods, metals, propane tanks, tires, WEEE and batteries is also completed at the City's landfill.

Council has supported the elimination of free week at the landfill site starting in 2016. This will encourage the 3R's instead of opening the doors to disposal.

The City has also worked with Algoma Public Health and has established 2 public drop-off locations for sharps. These locations are being closely monitored and aim at collecting sharps safely that would otherwise be disposed of incorrectly throughout the surrounding neighbourhood or in regular garbage disposal.

In addition to these programs, the City has been leading active campaigns to reduce the amount of waste that residents generate with initiatives such as the plastic shopping bags campaign. This initiative educates residents to reduce the number of plastic bags generated and encourages them to shop with reusable shopping bags instead. The City also provides a discounted beverage price to patrons that bring their own refillable cups to some of its venues within the City.

The City also takes a proactive role to lead by example through its own corporate waste reduction and recycling activities. Specific corporate initiatives developed and undertaken by the City have included:

Super Sorters – Twenty seven Super Sorter Three-In-One recycling bins were purchased and distributed throughout City arenas, recreational facilities and major parks/marinas. In support of this initiative, the Public Works Sign Shop assisted in a custom designed sign for the front of the bins to educate patrons regarding proper disposal of materials. Promotional events were also conducted at the time of the launch to gain public support and encourage their use.

Waste Reduction Week – The City for the past few years has promoted Waste Reduction Week, which runs in October. City staff have been encouraged to bring in unwanted electronics to facilitate proper management. A proclamation has been made to help support community awareness of the event.

20-Minute Makeover – each year the City hosts the 20-Minute Makeover where local residents are encouraged to spend 20 minutes, typically on earth day, to clean up their property. Over the past 4 years the City has had more than 500 participants each year. This promotes City beautification and brings awareness to the negative impacts of littering.

Green Days/Kids Being Green – a campaign completed by City summer students bringing awareness to the importance of recycling.

Battery recycling – there is battery recycling station located in City Hall to collect disposable batteries and rechargeable batteries.

Ink Cartridge Recycling – an ink cartridge recycling station is located in City Hall to collect used ink cartridges from across the corporation. These items are taken back and managed by the original vendors.

In addition, the City strongly encourages the business sector to comply with recycling mandates. The City initiated a fluorescent light program that targets local businesses and the public to drop off bulbs at the Household Hazardous Waste Depot so they can be safely managed and transported to a recycling facility.

There are also a number of public and private sector initiatives in our Community that are supported and encouraged by the City as described in the following paragraphs.

In efforts to reuse waste, the City promotes Habitat for Humanity's ReStore where residents and businesses can donate or purchase new and used household items and building materials such as windows, doors, paint, lumber, tools and lighting fixtures. Other private sector initiatives that support reuse include the local Value Village retail store and Canadian Diabetes Association which accepts used clothing and household items. The City also refunds the landfill tipping fee of the re-use organizations. This program has been in place since 2014 and helps these organization financially.

The City also provides financial support to Community Living Algoma which operates a local WEEE and Styrofoam depot. The facility receives, sorts and transports computers, keyboards, monitors, computer peripherals, phones, cell phones and Styrofoam.

The City also supports the efforts of Clean North which is a citizen based environmental group that promotes environmental protection through various programs and initiatives focused on reduction, reuse and recycling. Programs include an annual Christmas tree chipping event and freecycle days to promote reuse of unwanted items.

Through the City based programs, approximately 10,399 tonnes of residential material was diverted from disposal in 2014. This represents a residential diversion rate of 36%.

The City has also completed a Biosolids Management Study. Biosolids (sewage sludge) generated at both waste water treatment plants is currently being landfilled. The objective of the study was to review alternative biosolids management strategies and develop a sustainable and effective strategy that reduces the impact on the City's landfill, more effectively manages nuisance odours, has wide public support, is cost effective and environmentally responsible. The Notice of Completion was published in May, 2015 and the City is now able to move forward with its implementation, (subject to Council approval), which will effectively divert approximately 10,000 tonnes of waste annually!

The City continues to proactively investigate practical and cost effective ways and means of diverting waste from disposal. These efforts will continue into the future.

Thank you again for your input. If you have any further questions, suggestions or comments do not hesitate to contact AECOM or the City.

Best Regards,

Rick Talvitie, P. Eng.
Manager, Northern Ontario
rick.talvitie@aecom.com

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523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4 T 705.942.2612 F 705.942.3642 www.aecom.com

-----Original Message-----
From: ANDRE RIOPEL [mailto:ariopel@shaw.ca]
Sent: Tuesday, February 09, 2016 6:43 PM
To: Talvitie, Rick
Cc: matt_shoemaker@hotmail.com
Subject: RE: 20 cents a pound

Also, to increase compliance with recycling I know some communities ((Halifax) have a clear bag policy to make sure no recyclables are put in the garbage. The also collect every second week to save costs.

Andre

----- Original Message -----
From: Rick Talvitie <Rick.Talvitie@aecom.com>
To: ANDRE RIOPEL <ariopel@shaw.ca>
Cc: Catherine Taddo (c.Taddo@cityssm.on.ca) <c.Taddo@cityssm.on.ca>, Karla Kolli <kkolli@dillon.ca>
Sent: Tue, 09 Feb 2016 05:20:44 -0700 (MST)

Subject: RE: 20 cents a pound

Hi Andre,

I am glad you were able to tune in last night.

Your math is generally ok except the figure I quoted last night is based on a metric tonne. In addition based on the historical data on average families are not disposing of 100 lbs/week.

The math is as follows:

In our homes we generates 450 kg of waste each year (i.e. each person on average). On average we are diverting 35% of this waste leaving 65% of 450 kg = 292.5 kg for disposal each year.

The cost we presented at last night's Council meeting was $95 - $100/ metric tonne. Therefore the average cost per year for disposing of each person's waste is 292.5 kg/1000 (to convert to tonnes) *$100 = $29. For a family of four the cost is $116/year. This includes what we setout curbside as well as what is hauled to the landfill's public drop off.

I hope this is helpful but let me know if you have other questions.

Rick Talvitie, P. Eng.
Manager, Northern Ontario
rick.talvitie@aecom.com

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-----Original Message-----
From: ANDRE RIOPEL [mailto:ariopel@shaw.ca]
Sent: Monday, February 08, 2016 7:54 PM
To: Talvitie, Rick
Subject: 20 cents a pound

Hi Rick

Not sure if I have this right but last night at city council you mentioned that the cost per ton for land filling is about $100/ton. Is that right? So hypothetically, if I can put 2 X 50 lbs bags of garbage per week without paying extra, The cost to the city is $20/week or $1,040/year. Did I do my math right? And that is in 2016. What is it going to be in 20 years assuming that the rate of inflation will stay the same.

You see where I'm going with this. Land filling is not cheap which helps to put into perspective reduction and diversion statagies.

Thanks

Andre

Talvitie, Rick

From:	Talvitie, Rick
Sent:	June 16, 2017 8:54 AM
To:	'Don Caswell'
Cc:	'c.taddo@cityssm.on.ca'; 'Kolli, Karla'; Maahs, Nancy
Subject:	RE: Solid Waste Management Environmental Assessment

Hello Don,

Thank you for taking the time to provide your comments/questions. Our team has provided below, responses to the two questions you have posed. Hopefully the proposed approach outlined below satisfactorily addresses your concerns. In addition if you would like to meet with the project team to further discuss these issues we would be pleased to arrange a meeting at your convenience.

Question 1 – Protection of Well Water Quality

We understand your concern regarding your well water quality. In the first instance the methodology used to protect groundwater will be enhanced for both the expansion areas and also for the southwestern portion of the existing site where landfill mining is proposed. A composite liner consisting of a geocomposite clay liner overlaid by a 1.5mm thick HDPE geomembrane and leachate collection system will be installed at the base of the waste in each of these areas to ensure that leachate generated within the mined and expansion areas is collected and directed to the City's sewage treatment plant. In addition the City will continue to monitor groundwater quality within and adjacent to the site and plans to enhance the current monitoring program. The current program includes the sampling and analyses of groundwater sourced from approximately 40 monitoring wells within and adjacent to the site. The data is collected and the quality compared to Ministry of Environment and Climate Change Guidelines and summarized annually in a comprehensive monitoring report that is submitted to the Ministry of Environment and Climate Change (MOECC). In addition, the City is planning to address your concern through the implementation of a new residential well water monitoring program. The first component of the well water monitoring program will be a water well survey consisting of a questionnaire that will be provided to residents with questions regarding their well such as location, depth and existing water quantity or quality issues. It will also ask if the residence wants to be included in the water well monitoring program. For those residences who volunteer to have their well included in the monitoring program, a baseline water well assessment is recommended. The water well assessment will be completed by a licensed Water Well Contractor under Reg. 903 who will document the depth and type of well at each location. Where possible this information will be correlated with Water Well Records.

Water samples from the residential wells included in the monitoring program will be taken on an annual basis. Where possible, samples will be taken from the wells prior to any treatment systems such as water softeners. Water samples will be analyzed for the parameters included in the indicator and comprehensive list of Schedule 5, of the Landfill Standards (the same target parameter list for on-site monitoring wells).

Should the landfill be shown to impact private wells, contingency measures have been included to ensure residents have clean drinking water. The contingency plan includes an extension of the municipal water system to residents east of the site, or the provision of alternative water supplies to adjacent and nearby affected properties.

Question 2 – Mitigation of Odour and Methane Gas related to Landfill Mining

We also understand your concern regarding odour management during the landfill mining operations. Landfill mining is proposed for the southwestern portion of the existing disposal footprint, as part of an environmental enhancement at the landfill to further mitigate the potential for groundwater impacts associated with unlined waste cells as noted above. The evaluation of alternative methods identified a preference for an expansion that included landfill mining, concluding that the shorter term odour effects and additional effort and cost to manage them was worth the opportunity to enhance groundwater management along the western site boundary. This conclusion was based on the experience at other landfill sites in North America where odour impacts were effectively managed through the implementation of best management practices.

The mining process will involve the excavation of waste from a currently dormant area of the landfill and transfer of this waste to a lined cell. The mining process may include:

- Screening of this waste to separate large and small factions;
- Removal of recyclables or material with residual value; and,
- Transfer of screened residual waste to a lined cell.

In developing the landfill mining program, the following will be completed:

- Draw upon the experience of other municipalities and landfill operators in setting up the waste mining process and detailed mitigation strategies;
- Complete a pilot mining program, to better characterize the type of waste, odour profile of the waste and logistical processes for screening and transferring to a lined cell;
- Use findings of pilot mining program to guide the development of Standard Operating Practices (SOPs) and the Odour Management Plan (OMP) supplement for full-scale landfill mining;
- Engage local stakeholders to keep them abreast of the landfill mining process and gather their feedback on the process;
- Train all staff on SOPs and the OMP; and
- Conduct a monitoring campaign for odours around the landfill mining process.

In order to mitigate the potential for landfill mining to generate odour impacts, an OMP supplement will be developed specifically for this activity to support the site OMP. A preliminary version of the OMP supplement is included in **Appendix M of the EA Document which is available online at http://saultstemarie.ca/City-Hall/City-Departments/Public-Works-Engineering-Services/Public-Works/Waste-Management/Solid-Waste-Management-EA/Solid-Waste-Management-EA-Draft-Report.aspx** . The OMP will be finalized as the landfill mining program is designed and developed, and will include input from the contractor/landfill mining team and effective best management practices that have been implemented at similar sites. The OMP will be shared with the Ministry of Environment and Climate Change in preparation for the landfill mining activities.

Some of the specific items that have been identified for the Odour Management Plan include:

- Completion of a pilot landfill mining program to characterize the type of waste and odour profile. Use of the information from this pilot to develop standard operating practices (SOP) for the full scale mining program.
- Management of operations based on meteorological conditions (e.g., shut down during calm periods or specific wind direction)
- Daily inspection program used to adjust and refine mining operations
- Bypass screening of waste where highly odorous material is excavated
- Use of chemical and biological treatment to reduce significance of odour
- Use of periphery odour misting system
- Minimize size of active excavation
- Cover applied to excavated area at the end of the day
- Keeping local residents informed and responding to complaints
- Develop and implement a monitoring campaign for landfill mining

In addition, other significant planned improvements to mitigate odour as part of the planned expansion include the staged expansion of the landfill gas collection system as the footprint expands and the construction of a biosolids (sewage sludge) processing facility. With the planned biosolids processing facility all biosolids will be processed in a controlled indoor environment with engineered odour control systems and the final product will be much less odourous and ultimately used for landfill cover or other beneficial uses.

We are hopeful this response is helpful and as noted previously we would be pleased to meet with you to elaborate further if needed.

Regards,

Rick Talvitie, P. Eng.
Manager, Northern Ontario
rick.talvitie@aecom.com

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523 Wellington Street East,

Sault Ste. Marie, Ontario Canada P6A 2M4
T 705.942.2612 F 705.942.3642
www.aecom.com

From: Talvitie, Rick
Sent: Tuesday, June 06, 2017 2:27 PM
To: 'Don Caswell'
Cc: c.taddo@cityssm.on.ca; Kolli, Karla; Maahs, Nancy
Subject: RE: Solid Waste Management Environmental Assessment

Hello Don,

I just wanted you to know that I received your email. Thank you for your comments/questions. We will prepare a response and forward it to you. We can also arrange to meet if you wish after you digest our response.

Regards,

Rick Talvitie, P. Eng.
Manager, Northern Ontario
rick.talvitie@aecom.com

AECOM
523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4
T 705.942.2612 F 705.942.3642
www.aecom.com

From: Don Caswell [mailto:ccp2@bellnet.ca]
Sent: Monday, June 05, 2017 1:55 PM
To: Talvitie, Rick
Cc: c.taddo@cityssm.on.ca
Subject: Solid Waste Management Environmental Assessment

Dear Sir and Madam,

My name is Donald Caswell. I reside at 1765 Great Northern Road, formerly part of the South ½ of SE ¼ Sec 7 Tarentaurus TWP, and I own lands directly east of the City landfill. My questions and comments are as follows:

Question: If, over time, the drinking water supply – namely ground water wells - of the businesses and residences east and south of the landfill become contaminated with pollutants associated with landfills; i.e. Leachates, iron, lead, hydro carbons etc., what contingency plans are in place to address this situation should it arise?

Going forward with the long-term operations of the landfill, the City should show good faith and corporate responsibility by being proactive and extending the fresh drinking water supply to the homes and businesses to the east and south of the landfill, just as it has done for the homes and businesses to the west and south west, including the City's own operation at the landfill itself, some years prior. Wells adjacent to landfill sites are at high risk, and will continue to be at high risk, of becoming contaminated. We are not talking about the next ten years of risk to these water supplies, but the next hundred years and beyond. Acting now would only be seen as the City and its engineering staff taking a proactive, forward thinking approach to addressing this potential problem.

Question: What measures are going to be used to alleviate and mitigate the odour and methane gasses when proposed landfill mining begins?

The last attempt at odour mitigation failed miserably when excavation of methane gas wells and leachate collection piping were carried out some time ago.

Thank you for allowing my comments to be heard.

I remain,
Donald Caswell

Enquest Power / Elementa Group						
• Correspondence – Email to Enquest Power representative (Jay Zwierschke) following up on email correspondence sent to him by the City of SSM in October, 2007 and soliciting input into the “Alternatives To” evaluation and requesting comments on two DRAFT reports that were prepared in advance of public consultation period.	November 9, 2007	• No comments received.			Email dated Nov. 9, 2007 to Jay Zwierschke, Enquest Power from R. Talvitie – Appendix L	
• Correspondence – Email to Enquest Power representative (Jay Zwierschke) requesting comments on two DRAFT reports that were prepared in advance of public consultation period.	January 14, 2008	• No comments received.			Email dated Jan. 14, 2008 to Enquest Power from R. Talvitie – Appendix L	
• Correspondence – Report to City of SSM Council from Susan Hamilton-Beach and Jerry Dolcetti regarding Request from Enquest Power Corporation to Enter into a Memorandum of Understanding with the City of SSM.	August 18, 2008	• No comments received.			Report to City of SSM Council dated August 18, 2008 from S. Hamilton-Beach and J. Dolcetti – Appendix L	
• Correspondence – Report to City of SSM Council from Susan Hamilton-Beach and Jerry Dolcetti regarding Elementa Proposal for an Energy-from-Waste Plant in the City of SSM.	June 8, 2009	• No comments received.			Report to City of SSM Council dated June 8, 2009 from S. Hamilton-Beach and J. Dolcetti – Appendix L	
• Correspondence – Report to City of SSM Council from Susan Hamilton-Beach and Jerry Dolcetti regarding Elementa Waste Provision Agreement Energy-from-Waste Plant in the City of SSM.	October 26, 2009	• No comments received.			Report to City of SSM Council dated October 26, 2009 from S. Hamilton-Beach and J. Dolcetti – Appendix L	
• Correspondence – Newsletter No. 2 and Notice of Public Input Session – Project update and information regarding the upcoming June 3, 2010 PIC which is intended to identify the preferred “Alternative To”, discuss the project progress and have questions or concerns addressed.	May, 2010	• No comments received.			Solid Waste Disposal Environmental Assessment Newsletter No. 2, May 2010, and Notice of Public Information Centre – Appendix L	
• Correspondence – Letter to Susan Hamilton-Beach (City of SSM) from Rick Talvitie regarding Solid Waste Disposal EA Report to Council – May 31, 2020.	May 25, 2010	• No comments received.			Letter dated May 25, 2010 from Rick Talvitie to Susan Hamilton-Beach – Appendix L	

• Public Input Session No. 2 – Conducted to communicate the preferred "Alternative To" and provide an opportunity to discuss the project progress and have questions or concerns addressed.	June 3, 2010	• No comments received.			Records from June 3, 2010 PIC No. 2 – Appendix H	
• Correspondence – Email from R. Talvitie to Elementa Group representative (M. Wozny) responding to comments/questions in his email to City of SSM dated July 15, 2010. Also provided a link to the City of Sault Ste. Marie website to obtain a number of background documents related to previous waste management planning work and work completed recently within the EA process.	August 16, 2010	• No comments received.	• The email explained the rationale for the inclusion of "High Heat Processes" as an "Alternative To" and referenced the detailed evaluation that is included on the City's webpage. • Explained that the information presented at PIC No. 2 was a summary only and more detailed information evaluation criteria and rationale for assigned rankings is included in the Final Report. • Suggested reviewing the information in the Final Report and advising if any of the assigned rankings require amending. Also highlighted the preferred "Alternative To" and the role Elementa is expected to play in the City's overall waste management plan.	The description and evaluation of the "Alternatives To" including high heat process is documented in Section 4.0 with the results of the evaluation included in Section 4.2.3. As noted in Section 1.6 Elementa became bankrupt in 2015 and the City subsequently terminated the agreement.	Email dated August 16, 2010 to Elementa Group from R. Talvitie – Appendix L	
• Correspondence – Notice of Public Input Session – Project update and information regarding the upcoming April 19, 2011 PIC No. 3 which is intended to solicit input and feedback on the alternative approaches to landfilling residual waste (i.e. expand existing disposal site versus a new site.	April, 2011	• No comments received			Solid Waste Management Environmental Assessment Notice of Public Input Session, April, 2011 – Appendix L	
• Public Input Session No. 3 - Conducted to provide an opportunity to discuss project progress, solicit input and feedback on the alternative approaches to landfilling residual waste (i.e. expand existing disposal site versus a new site) and to address questions or concerns.	April 19, 2011	• No comments received.			Records from April 19, 2011 PIC – Appendix I	
• Correspondence – Email from R. Talvitie to Elementa Group representative (T. Hughes) advising of project status and requesting feedback on planning and implementation schedule for their proposed Energy from Waste facility.	February 3, 2012	• No comments received.			Email dated February 3, 2012 to Elementa Group (T. Hughes) from R. Talvitie – Appendix L	

• Correspondence – Notice of Public Input Session – Project update and information regarding the upcoming March 6, 2012 PIC which is intended to solicit input and feedback on the alternative approaches to expanding the existing disposal site.	February, 2012	• No comments received.			Solid Waste Disposal Environmental Assessment Notice of Public Input Session dated February, 2012 – Appendix L	
• Public Information Centre No. 4 - Conducted to discuss project progress and to solicit input and feedback on a preferred expansion strategy for the existing landfill site.	March 6, 2012	• No comments received.			Records from March 6, 2012 PIC – Appendix J	
• Correspondence – Newsletter and Notice advising of February 9, 2016 Public Input Centre No. 5 intended to discuss project progress and solicit input and feedback on the impact assessment work.	January, 2016	• No comments received.			Solid Waste Disposal Environmental Assessment January 2016 Newsletter and Notice of Public Input Session – Appendix L	
• Public Input Session No. 5 - Conducted to discuss project progress and to solicit input and feedback on the impact assessment work.	February 9, 2016	• No comments received.			Records from February 9, 2016 PIC – Appendix K	
• Correspondence – Letter from Melanie Borowicz-Sibenik (City of Sault Ste. Marie Legal Department) to Jayson Zwierschke (Elementa Group Inc.) regarding Waste Supply and Reformation Agreement – Notice of Termination	December 9, 2016				Letter dated December 9, 2016 from Melanie Borowicz-Sibenik (City of Sault Ste. Marie Legal Department) to Jayson Zwierschke (Elementa Group) – Appendix L	
• Correspondence – Letter from Melanie Borowicz-Sibenik (City of Sault Ste. Marie Legal Department) to Adam Sherman (Richter Toronto) regarding Waste Supply and Reformation agreement with Elementa Group Incorporated – Notice of Termination	January 9, 2017				Letter dated January 9, 2017 from Melanie Borowicz-Sibenik (City of Sault Ste. Marie Legal Department) to Adam Sherman (Richter Toronto) – Appendix L	

Talvitie, Rick

From: Rick Talvitie
Sent: January 14, 2008 2:10 PM
To: 'jay@enquestpower.com'
Cc: 's.hamiltonbeach@cityssm.on.ca'
Subject: FW: City of Sault Ste. marie Waste Disposal EA

Hi Jay,

I just thought I would touch base to see how you are making out in providing comments on the two reports that are currently in a "Working Draft" format.

Can you please let me know when I can expect comments?

Much appreciated!

Rick Talvitie, P. Eng.
Branch Manager
TSH
523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4
Phone: (705) 942-2612
Fax: (705) 942-3642

Website: www.tsh.ca

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From: Jay Zwierschke [mailto:jay@enquestpower.com]
Sent: November 12, 2007 5:39 PM
To: Rick Talvitie
Cc: 'Susan Hamilton Beach'; 'Kolli, Karla'
Subject: RE: City of Sault Ste. marie Waste Disposal EA

Rick,

I will call you tomorrow to discuss.

Regards,

Jay

From: Rick Talvitie [mailto:RTalvitie@tsh.ca]
Sent: November 9, 2007 11:26 AM
To: jay@enquestpower.com
Cc: Susan Hamilton Beach; Kolli, Karla
Subject: City of Sault Ste. marie Waste Disposal EA

Hi Jay,

I just wanted to touch base with you following your email correspondence with Susan in early October, 2007. As you are aware we have been soliciting and incorporating public and agency input into the "Alternatives To" evaluation. Susan provided you with a link to gain access to the DRAFT reports that were prepared in advance of public consultation period.

Have you had an opportunity to review the documents? Do you have any questions or comments regarding the information contained in the reports?

We look forward to hearing from you.

Regards,

Rick Talvitie, P. Eng.
Branch Manager
TSH
523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4
Phone: (705) 942-2612
Fax: (705) 942-3642

Website: www.tsh.ca

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Jerry D. Dolcetti, RPP
Commissioner

Don J. Elliott, P. Eng.
Director of Engineering Services

ENGINEERING & PLANNING DEPARTMENT

Engineering & Construction Division

Tel: (705) 759-5378
Fax: (705) 541-7165

August 18, 2008

Mayor John Rowswell
Members of City Council

RE: REQUEST FROM EnQUEST POWER CORPORATION TO ENTER INTO A MEMORANDUM OF UNDERSTANDING WITH THE CORPORATION OF THE CITY OF SAULT STE. MARIE

Introduction

After lengthy consultation including the following individuals over the past several weeks, Engineering and Planning present this report regarding the EnQuest technology and the Memorandum of Understanding proposed by EnQuest:

- Jerry Dolcetti, Don Elliott and Susan Hamilton Beach (Engineering);
- Don McConnell (Planning);
- Lorie Bottos (Legal);
- Bill Freiburger (Finance);
- Jim Elliott (Public Works and Transportation)
- Jayson Zwierschke and Ernie Dueck, President and VP, EnQuest Power;
- Sarah Eckert Ferguson, Conestoga Rovers Associates (Consultant to EnQuest);
- Rick Talvitie, TSH (Waste Management EA Consultant for City SSM);
- Dave Merriman, Genivar (Waste Management EA Consultant for City SSM);
- Councillor Steve Butland; and
- Lilian Keen (MOE).

Background

The EnQuest pilot plant is located at the Sault Ste. Marie Fifth Line landfill site. The building has been fully constructed for approximately one year with the experimental process equipment undergoing commissioning since Fall 2007. The local MOE office has set January 24, 2008 as the initial day of operation with a one year lifespan established by the Certificate of Approvals (Waste and Air) for the site. It should be noted that the MOE is the governing agency authorizing the operation with allowable process limits (ie. maximum 3 tonnes of waste per day) and emissions standards (ie. compliance with MOE A-7 Guidelines) set by the C of A's.

The City of Sault Ste. Marie has a lease agreement with EnQuest and has agreed to supply the municipal solid waste ('MSW') for the pilot project. To-date we have supplied approximately 6 tonnes, in total. It is our understanding there have been a number of 'test batches' run over the last six months using feedstock such as mullet and MSW.

It is also our understanding that the emissions test (ie. stack test) has not been possible due to the inability to operate continuously. Staff has been told that the remaining issues are currently being addressed and that EnQuest intends to complete this test by the end of the Summer.

A number of City staff, Council and other invited guests have visited the pilot project.

Current Status of Waste Management EA

The City of Sault Ste. Marie's Waste Management Environmental Assessment ('EA') has been running parallel to the EnQuest pilot project for a number of years. Given the original timeframes estimated for the EnQuest pilot project to be complete, it was anticipated results of the pilot project could be considered within the evaluation of waste- to-energy ('w-t-e') technologies at an early stage of our EA, however, that has not been possible.

Over the last year, the City and our Consultants have been evaluating alternative approaches to managing solid waste in Sault Ste. Marie. The alternatives considered comprise of:

- Increased Waste Diversion
- Landfill
- Incineration/High Heat Processes
- Export (to a disposal facility elsewhere); and
- 'Do nothing'.

Evaluation criteria has been established and used to assess each of the waste management options. The criteria includes the following;

- Compliance with Regulations and Policies
- Environmental Acceptability
- Proven Technical Capability
- Ability of the City to Implement the Alternative
- Flexibility of the System
- Capability of Managing Waste Quantities and Qualities
- Economic/Cost

Elimination of Export and 'Do nothing' alternatives

The 'Do nothing' alternative has no advantages over other alternatives for any of the criteria considered. Export has few advantages when compared to the other alternatives. This is consistent with the input received by the public at our input sessions where comments stressed the 'Do nothing' alternative was not a realistic option and exporting waste was not reliable or sustainable for the long term.

Consideration of Increased Waste Diversion

Increased waste diversion is considered to be a preferred way of managing Sault Ste. Marie's waste. It is preferred or equal to other alternatives for five of the seven criteria. The primary disadvantage of this alternative is that is can only manage a portion of the City's waste.

Consideration of Landfill and High Heat Processes

The remaining two alternatives, landfill and conventional incineration/high heat processes, are considered to be equal for three of the criteria, including:

- Compliance with Regulations and Policies – both landfill and conventional incineration/high heat processes can comply with regulations and policies;
- Environmental Acceptability – both alternatives are highly engineered and can be designed to minimize potential for environmental effects;
- Proven Technical Capability – both alternatives have a proven ability to manage solid waste.

It must be clear that vendors of some of the newer high heat processes (eg. EnQuest and Plasco) have yet to prove they are equivalent to landfill for the criteria listed above.

Landfill is preferred when compared to conventional incineration/high heat processes for the remaining four criteria, considering:

- Flexibility of the System – Landfill is considered to be more flexible in its ability to adapt to changes in the waste stream, fluctuations in waste quantities and changes in government regulations and policies; whereas conventional incineration/high heat process facilities must be designed for a specified waste stream and can be costly to retrofit and/or expand.
- Capability of Managing Waste Quantities and Qualities – Landfill can accommodate virtually all of Sault Ste. Marie's waste; whereas conventional incineration/high heat process must be designed for only the most reliable component of the waste stream and this reduces its ability to include some of the other waste (ie. IC&I) which is an important factor in attracting and retaining economic development in Sault Ste. Marie.
- Economic/Cost – Landfill is currently significantly less costly than conventional incineration/high heat processes with a cost range of $65-$75 per tonne compared to $110-$220 per tonne for conventional incineration/high heat processes depending on the technology used.
- Ability of the City to Implement the Alternative – the City has significant experience with landfill and no experience with conventional incineration/high heat processes;

It should be noted that the conclusions above, particularly those related to the "Ability of the City to Implement the Alternative" and "Economic/Cost" may change in the future if the claims made by some vendors of the new high heat processes prove to be correct (ie. a private sector facility owner operator able to provide reliable service at a price that is competitive with landfill). This is the claim of EnQuest and these statements form the basis of the City moving forward with EnQuest in the next phases of their development.

For Council's information, based on the discussion about evaluation criteria at the Public Input Session in June 2007, issues related to environmental acceptability, flexibility and cost were top of mind for session participants. Landfill is equal or preferred over conventional incineration/high heat processes for all three of these criteria.

Summary of Preliminary Results of EA Evaluation

Overall, the preliminary results of the evaluation indicate that the preferred way for Sault Ste. Marie to manage its solid waste at this time is a combination of increased diversion and landfill. This system is the most flexible alternative to address changes in waste streams and an increase in recycling and reduction in waste generation; it can fulfill all of Sault Ste. Marie's waste management needs including continuing to service the private IC&I sector in a cost effective manner; and should not result in a significant cost increase to implement and operate.

It is noted that during consultation on the "Alternatives To", comments were received in support of landfill and incineration/high heat processes. The City's decision to move forward with increased diversion and landfill at this time, does not preclude the consideration of incineration/high heat process technologies in the future as systems are refined, prove their capabilities and reliability, and become less costly. The provision of additional disposal capacity in a landfill at this time would also support the future implementation of an incineration/high heat process facility when it becomes a more practical and cost effective system for Sault Ste. Marie since the residual material from a high heat process must be landfilled.

The EnQuest Proposal

EnQuest Power has approached Staff with the request of entering into a Memorandum of Understanding for the supply of curbside MSW for a demonstration plant. EnQuest requires this document in order to secure $3.4M funding from Sustainability Development Technology Canada. A demonstration plant, by definition of the MOE, will be allowed to process a maximum of 75 tonnes per day of waste. Further details are provided in the report by Lorie Bottos, which is appended to this report. This report poses two non-technical concerns of Staff that being sole sourcing the technology and the annual expenditure of an estimated $1.5M in tipping fees to EnQuest which is currently not included in the budget.

The Memorandum of Understanding is also attached for Council's information and approval.

Sault Ste. Marie's Unique Situation

Ultimately, the City of Sault Ste. Marie finds itself in a unique situation. We have hosted a waste-to-energy pilot project within our community with the proponent confidently claiming this technology is going to revolutionize waste management worldwide. Existing proven conventional incineration/high heat processes are reliable, but, are not financially feasible for a community of our size.

However, most recently in Ontario, there are new waste-to-energy technologies making the claim that they can process municipal solid waste for smaller communities more economically. EnQuest is one such technology. The principle difference between the new technologies versus the conventional proven technologies is that the vendors of the newer technologies claim they can generate 1200-1400 kW/hr of electricity per tonne of waste as opposed to 600 kW/hr/tonne with conventional incineration/high heat processes. These enhanced electricity revenues allow the vendors to charge a lower tipping fee for the waste.

Giving consideration to the claims and the benefit that a waste-to-energy facility may have in reducing the quantity of waste going to our landfill, Staff and our Consultant state the risks must be understood and minimized if we choose to move forward with EnQuest.

The risks include:

1. ***Costs/Tipping Fee*** – There have been examples across the province whereby the cost analysis and thus the tipping fee were a moving target throughout the development process.

EnQuest has offered a tipping fee of $60.00 per tonne be paid by the City of SSM and this price is competitive to our landfill cost. City staff have stated this cost in the Memorandum of Understanding, with consideration of the Ontario Consumer Price Index, and stress that at this cost this is a reasonable proposal.

2. ***Siting the Facility*** – Our Consultant recommended along with Staff that the facility be located off of the landfill property and on privately owned property. Due to the nature of the operation there would be insurance and potential liability considerations if on City-owned land. This requirement is included in the proposed Memorandum of Understanding.

3. ***Decommissioning Considerations*** – Our Consultant recommended that all decommissioning responsibilities be the responsibility of EnQuest. Once again, if the facility was on our landfill property that responsibility could fall to the City should the process fail and waste remained on the site unprocessed. Should the process fail off-site, the MOE may still hold the City liable for cleanup based on the origin/ownership of the waste. By ensuring the development be located off of the landfill property, it is expected that this risk is minimized.

It must be understood that although Staff expect risks may be minimized, Engineering and Planning will not be able to recommend EnQuest technology in comparison to any other new waste-to-energy technology even following the pilot project as there is not enough competition or measures to compare (ie. the only other plant is Plasco in Ottawa). Our Consultant suggests that a positive recommendation could be based on the proof that the claims by EnQuest are true.

Most importantly, based on the timing of the pilot project, the typical and potential timeframe to develop a demonstration facility and the years required to establish a potential commercial full-scale permanent facility, our Consultant stressed that support of EnQuest's technology should <u>not</u> mean abandoning our existing landfill. Please refer to Figure 1 as a potential timeline for the EnQuest development and the affect of the potential waste processing quantities on our current landfill. Ensuring that adequate landfill capacity is available for <u>all</u> of Sault Ste. Marie's waste is essential, as succeed or fail, landfill space will be required to serve the City.

Recommendation

Given consideration of all of the above, the Engineering and Planning Department recommends that the Memorandum of Understanding be entered into with EnQuest Power Corporation for a six month period of time. It is anticipated that the six month time frame will allow EnQuest to further prove/support their claims to both the municipality and the MOE.

The following supporting documentation should be included in EnQuest's submission:

- The cost to build/operate is proven – ie. $60.00 per tonne of waste.
- The emissions are proven to be within A-7 Guidelines and consider all future emission targets, as the MOE currently states the target will get more stringent.
- The process is reliable – the operation can continuously operate and
- The process can meet the demands of an energy partner.

And

Furthermore, following this six month stage it is recommended that a further report be prepared by Staff for Council to present the success/failure of the pilot project based on the criteria established by the MOE and the City.

And

Furthermore, approve the continuance of the landfill operation and the City's continuing investigation of the present waste management EA study.

Respectfully submitted,

Susan Hamilton Beach, P. Eng
Land Development & Environmental Engineer

Recommended for Approval:

Jerry D. Dolcetti, RPP
Commissioner

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Jerry D. Dolcetti, RPP
Commissioner

Don J. Elliott, P. Eng.
Director of Engineering Services

ENGINEERING & PLANNING DEPARTMENT

Engineering & Construction Division

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June 8, 2009

Our File: B-05-04

Mayor John Rowswell
Members of City Council

RE: Elementa (formerly EnQuest) Proposal for a Energy-from-Waste Plant in the City of Sault Ste. Marie

Purpose of the Report

The purpose of this report is to address the Council resolution dated July 21, 2008, the conditions of the MOU and Elementa's current request that the City enter into a long term waste provision contract. The timing of this report is such that it has allowed for Elementa to conduct its source testing, have the required reports prepared which have then been reviewed and discussed in a number of meetings and teleconferences between Elementa, the City and our Consulting team.

Introduction

The Elementa (formerly EnQuest) project has resulted in lengthy consultation and review by many levels of government, consultants and the Elementa team. It should be recognized that the following have participated in this process:

- Engineering and Planning Department Staff (J. Dolcetti, D. Elliott, S. Hamilton Beach, D. McConnell, S. Turco);
- Legal Department (L. Bottos);
- Finance Department (B. Freiburger);
- Public Works & Transportation (J. Elliott);
- Elementa Group (J. Zwierschke, E. Dueck, D. Wood);
- Conestoga-Rovers & Associates (S. Eckert-Ferguson) – Consultant to Elementa;
- Shelby Environmental Services (Jim Harmar) – Consultant to Elementa;
- AECOM - SSM (Rick Talvitie) – Waste Management EA Consultant for City SSM;
- GENIVAR (Dave Merriman) – Waste Management EA Consultant for City SSM;
- AECOM - Vancouver (Konrad Fichtner) – Waste Management EA consultant for City SSM;
- Councillor Steve Butland; and
- MOE Staff – Lilian Keen, Rod Stewart, Guillermo Azocar.

Background

Following the report to Council dated July 21, 2008, see attached, a Memorandum of Understanding was entered into between the City and Elementa dated August 18, 2008. A copy of this MOU is also included for your reference. The Council Resolution read as follows:

"Resolved that the report of the Land Development and Environmental Engineer dated 2008 08 18 concerning Request from EnQuest Power Corporation to enter into a Memorandum of Understanding with the Corporation of the City of Sault Ste. Marie be accepted and the recommendation

1. that the MOU be entered into with EnQuest Power Corporation for a six-month period of time which will allow EnQuest to further prove/support their claims to both the City and the MOE; and

2. that following the six-month stage, a further report be prepared by Staff for Council to present the success/failure of the pilot project based on the criteria established by the MOE and the City; and

3. that Council approve the continuance of the landfill operation and the City's continuing investigation of the present waste management EA study,
be approved."

Items 1 through 6 on page 2 of the MOU were the obligations to be met by Elementa prior to moving forward.

On December 16, 2008 a detailed submission was made by Elementa to the City which included the following key documents:

1. Source Testing Report by Lehder (draft dated October 2008). Final provided later dated January 5, 2009;
2. SNC Lavalin Report (Third Party Review) dated December 3, 2008;
3. Financial Package including a Financial Summary, BMO Indicative Term Sheet (unauthorized), Term Sheet for SDTC (Sustainable Developmental Technology Fund) Funding;
4. MOE Certificate of Approvals; and
5. Company Profiles for Similar Technologies (potential partners).

The review of this submission resulted in a letter being forwarded to Elementa dated February 19, 2009 by the City which accompanied a letter report prepared by our Consultant team with further questions or concerns.

A number of meetings and teleconferences resulted in a streamlined list of outstanding questions (12 in total) which we received a reply to on May 14, 2009 with further supporting documentation.

Several key points should be made:

- In total, several hundred pages of information have been provided by the Elementa team with the genuine intent to satisfy the City's requirements. In general, staff and our Consulting team understand the conditions of the MOU have been substantially satisfied, however, the length of time of continuous operation of the pilot plant was less than stipulated.

- The review of the submissions has been thorough with the intent of City staff and our Consultants being to identify and minimize the risk(s) to the City of entering into a long-term waste provision contract. It was not the goal of this process to recommend this technology or the decision to proceed with energy-from-waste. Those recommendations would only result after the completion of our Waste Management EA.

- In general, our Waste Management EA has been "stalled" for the timeframe of this review in order to fully appreciate the impact it may have on the results of our EA. Our Consultant team has taken this step at the direction of the City and have patiently awaited to recommence the study activities, with the encouragement of the Ministry of the Environment.

General Discussion

It should be noted that the evaluation criteria established in our Waste Management Plan EA has been applied in this separate decision making process and has thus created the foundation for the discussion below.

a) ***Compliance with Regulation and Policies*** – The study conducted at the Elementa pilot plant provided encouraging results with regards to compliance with relevant air emission standards. The Lehder Report noted "the Syngas Flare Stack appears to be well within all applicable pollutant concentration limits described in C of A....".

   The MOE's Source Assessment Officer has made the following key comments:

   1. During the source testing program, only domestic municipal waste was processed, which provides only a narrow scope of the gasification process effectiveness to process wastes other than municipal waste;

   2. The reported feed rates throughout the source testing were optimized at 26% of the maximum allowable by the C of A. There is concern that this low feed rate may not represent pilot plant emissions when operating at maximum feed rate capacity; and

   3. All the contaminants with in-stack limits met those limits, but for nitrogen oxides.

b) ***Environmental Acceptability*** – Based on preliminary air emission results, it is most probable that any environmental concerns can be mitigated / engineered.

c) ***Proven Technical Capability*** – The Lavalin Report states that "the findings of this study indicate that, based on the rotary kiln process technology used in the Elementa Pilot Plant the process technology can be scaled up to design, build and operate a Commercial Demonstration Plant." It should be noted that, as indicated in the Lavalin Report, the pilot plant test results are promising however, 8 "Observations and Discussion" points were raised that need to be addressed in the design and operation of the Commercial Demonstration Plant. It is City staff's opinion that the next stage of the development remains experimental in nature and the overall success of the full scale plant must yet be proven. Our consultant team has concluded that one of the areas of risk remains the "scaleability" of this project.

d) ***Flexibility of the System*** – In general, an energy-from-waste plant remains less flexible than a landfill. The plant will be designed for a specific volume in order for it to be profitable through the sale of electricity. It is our understanding the plant will be designed to process 25,000 – 32,000 tonnes annually. The volume of curbside residential waste that is the focus of the City's agreement is currently between 12,000 – 15,000 tonnes annually. Elementa has been provided with the results of a 2006 City of Sault Ste. Marie residential waste audit and we have had discussions regarding the potential changes to the waste stream. It has been made clear that no guarantees can be made as to quantity or quality of waste at the curb. It has also been noted that the City's overall waste management program may change as we may be mandated by provincial regulations (ie. organics program) and these changes have the potential to result in significant future impacts to the energy value of our waste.

   Once the optimal design is complete and the plant is built, it can be extremely costly to modify to accommodate waste stream changes or more stringent regulatory emission requirements.

e) ***Capability of Managing Waste Quantities and Qualities*** – The municipality of Sault Ste. Marie can only commit to the provision of residential waste. The Industrial, Commercial and Institutional ("IC & I") sector is responsible annually for equal or greater volumes, but this waste is left to the private sector to manage. It is our belief that a portion or a balance of the waste required for the Elementa plant may come from this sector. This sector is currently a "customer" of the landfill and therefore every tonne of waste diverted from this sector to the energy-from-waste facility will result in a loss of revenue in tipping fees to the City. This has the potential to be approximately $1M annually, but, it would further extend the life of the landfill.

f) ***Economic / Cost*** – As has been previously stated to Council, conventional incineration / high heat processes are significantly more costly than landfilling. Elementa has offered the City of Sault Ste. Marie the tipping fee of $60 per tonne. Much of the recent effort by City staff and our Consultants has been spent validating the feasibility of the plant in an effort to avoid a possible higher tipping fee down the road. Other communities have been faced with this situation in the past as once an energy-from-waste plant is built and operating, the economics require an increased tipping fee. Since several parameters seem very optimistic in their financial model (eg. quantity of electricity produced annually) the economic viability of the facility with a $60.00 per tonne tipping fee remains to be proven. It should be noted that at $60 per tonne plus CPI, the potential of diverting 12,000 – 15,000 tonnes per year from the

landfill for approximately $1M is cost effective for the City, however, the terms of the agreement need to protect the City from future increases.

Our consultant team has concluded that one of the areas of risk remains the revenue side of this project (ie. the financial model includes the plant operating 95% of the time with a very high efficiency rate and rate for electricity from the Ontario Power Authority 'OPA' remains under negotiation).

g) ***Ability of the City to Implement the Alternative*** – The proposal from Elementa would include the design, build and operation of the facility, thus the City would not be required to have this in-house expertise. The location of the commercial/demonstration plant has not yet been confirmed, however, the City landfill site is *not* an option due to the liabilities it would pose.

Waste Management Decision Making Process

Stated once again, Sault Ste. Marie finds itself in a unique situation with regards to its most recent waste management decision making process. We have hosted an energy-from-waste pilot project within our community and initial results, on a small scale with limited quantities of waste and no energy production, seem promising. Without the completion of the EA process, we are being asked to include energy-from-waste in our waste management system. As is written in the March 2009 issue of Municipal World article *Energy-from-Waste Essential to a Successful Integrated Waste Management System*, "Since evidence indicates a zero-waste society is at least a generation or more away, the diversification that is fundamental to an integrated system mitigates risk. An integrated system is fully compatible with triple bottom-line measures of sustainability: social, environmental, and economic."

Integrated options must reduce the overall environmental burden by complementing – not competing with – recycling and diversion programs. Moreover, as Canadians annually generate over 1,000 kilograms of waste per capita (a steadily rising number); ignoring the role of energy-from-waste is counter-productive.

Staff accepts that a fully integrated approach for Sault Ste. Marie may mean landfilling, recycling and energy-from-waste and anticipate that a community based integrated solution may be possible if Elementa is successful in its next stage of project development. It does need to be recognized that Elementa's technology will only be addressing a portion of the waste stream (approximately half) and there will be a residual to their process.

Another issue is created for the municipality with the elimination of all of the residential curbside waste from landfill disposal – biosolids management. Currently, approximately 10,000 tonnes annually of this material is mixed in and covered by the curbside refuse that arrives at the site daily.

Completing the overall Waste Management EA will properly address how the City should handle its entire waste stream and include an updated business plan on how best to pay for the expense of an integrated approach.

Waste Provision Agreement

It is staff's understanding, based on MOE discussions and correspondence, that the City may enter into a long-term waste provision agreement with Elementa and not contravene the Environmental Assessment Act. It is expected that an agreement may be negotiated with Elementa that will allow for the supply of curbside waste with no guarantees or liabilities with respect to quantities, composition or its energy value. There are other municipal sources of waste that Elementa may wish to secure with other implications, ie. additional transportation costs, contractual obligations, lost tipping fee revenue etc. that will need to be addressed. It is anticipated these potential feedstocks will be independently addressed and negotiated.

Schedule

Please find attached Figure 1 which represents staff's best estimate of the revised potential timeline for the establishment of a full scale energy-from-waste plant. *Given the success or failure of this plant, it must be recognized that landfill capacity will be required.*

It is critical, as has been strongly encouraged by the MOE, that the overall Waste Management Plan EA be continued to meet the waste requirements of the community for years to come.

It is understood by Staff and has been stated most recently by the Environmental Commissioner of Ontario, Mr. Gordon Miller, that it typically takes 10 – 15 years for a new technology to thrive and therefore the timeframe included with this report may be optimistic.

Summary

In summary, the decision to include Elementa's energy-from-waste technology as part of the City's integrated waste management system must be perceived by the community and Council as participating in an experiment. The City and Consultant review has identified a number of potential risks and concerns. There remains uncertainty with regards to the feasibility of the project – ie. the revenue side of the financial model, overall plant reliability, efficiency and scalability.

However, it is staff's opinion that an acceptable agreement may be negotiated which ensures those risks will be borne by Elementa and <u>not</u> the City. Continuing with the overall Waste Management EA will ensure the municipality's waste management responsibility is addressed and the funding requirements identified.

Recommendation

Given consideration of all of the above, the Engineering and Planning Department recommends that the City negotiate an agreement with Elementa for the long term provision of all residential curbside waste (ie. five year contract plus 5 year renewal option) that would address the concerns/risks to the City, including, but not limited to the following:

1. There shall be no guarantee or liability associated with the quantity or quality of waste provided by the City.

2. Elementa shall agree to the $60.00 per tonne tipping fee, subject to an annual CPI adjustment, and this cost shall not be negotiable during the term of the contract.

3. All Federal, Provincial and local permits and approvals shall be the responsibility of Elementa.

4. Elementa shall carry insurance, acceptable to the City to cover fire and explosion risks.

5. That the City's Fifth Line landfill site shall not be considered an option for the location of the Elementa plant.

And

Furthermore, that the City's Waste Management EA consultant team shall facilitate and assist the City in the agreement negotiations.

And

Furthermore, that Elementa must construct and have in operation the energy-from-waste plant to process Sault Ste. Marie's curbside MSW within 5 years of the MOE approval of the energy-from-waste plant.

And

Furthermore, approve the continuance of the landfill operation and the City's continuing investigation through the completion of the overall Waste Management EA study.

Respectfully submitted,

Susan Hamilton Beach, P. Eng
Land Development & Environmental Engineer

Recommended for Approval:

Jerry D. Dolcetti, RPP
Commissioner
Engineering & Planning Department

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Jerry D. Dolcetti, RPP
Commissioner

Don J. Elliott, P. Eng.
Director of Engineering Services

ENGINEERING & PLANNING DEPARTMENT

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October 26, 2009

Our File: B-05-04

Mayor John Rowswell
Members of City Council

RE: Elementa Waste Provision Agreement
Energy-from-Waste Plant in the City of Sault Ste. Marie

Purpose of the Report

The purpose of this report is to present to Council an agreement negotiated with Elementa, concerning the provision of the City's curbside municipal solid waste, curbside Industrial, Commercial & Institutional (IC&I) waste and Public Works and Transportation (PWT) waste.

Background

Staff presented a report at the Council meeting of June 8th, 2009 with the following items as a summary:

- The decision to include Elementa's energy-from-waste technology as part of the City's integrated waste management system must be perceived by the community and Council as participating in an experiment; and
- The City and Consultant review of the Elementa pilot project has identified a number of potential risks and concerns. There remains uncertainty with regards to the feasibility of the project – ie. the revenue side of the financial model, overall plant reliability, efficiency and scalability; however,
- It was staff's opinion that an acceptable agreement may be negotiated which ensures those risks will be borne by Elementa and not the City; and
- Continuing with the overall Waste Management EA will ensure the municipality's waste management responsibility is addressed and the funding requirements are identified.

Council's resolution read as follows:

> *Resolved that the report of the Land Development and Environmental Engineer dated 2009 06 08 concerning the Elementa (formerly EnQuest) Proposal for an Energy-from-Waste Plant in the City of Sault Ste. Marie be accepted and the recommendation that the City negotiate an agreement with Elementa for the long term provision of all residential curbside waste (i.e., five-year contract plus five-year renewal option) that would address the concerns/risks to the City, including but not limited to the following:*

1. *There shall be no guarantee or liability associated with the quantity or quality of waste provided by the City;*
2. *Elementa shall agree to the $60.00 per tonne tipping fee subject to annual CPI adjustment, and this cost shall not be negotiable during the term of the contract;*
3. *All Federal, Provincial, and local permits and approvals shall be the responsibility of Elementa;*
4. *Elementa shall carry insurance acceptable to the City to cover fire and explosion risks;*
5. *The City's Fifth Line Landfill site shall not be considered an option for the location of the Elementa plant; and*

Furthermore that the City's Waste Management EA consultant team shall facilitate and assist the City in the agreement negotiations; and

Furthermore that Elementa must construct and have in operation the energy-from-waste plant to process Sault Ste. Marie's curbside MSW within 5 years of the MOE approval of the energy-from-waste plant; and

Furthermore approve the continuance of the landfill operation and the City's continuing investigation through the completion of the overall waste management EA study, be approved.

Council's resolution and approval of the recommendation within that report allowed staff to negotiate an agreement with Elementa that has led to several months of dedicated effort to ensure the City's risk was minimized; yet, the opportunity for Elementa to build and operate a commercial/ demonstration plant in Sault Ste. Marie was possible.

Key Highlights of the Agreement

The following items are key points in the agreement:

1. A guaranteed waste quantity of 12,500 tonnes per year is included. Our last report stressed a guarantee could not be given, however, throughout our negotiations with Elementa this became a deal breaker. Staff remains reluctant to include this in the agreement as there is a financial risk to the City if the tonnage cannot be provided. However, an examination of the past five years of volumes received at the landfill has allowed the inclusion of this guarantee as staff understands a 'buffer' exists of approximately 4000 tonnes. Changes in legislation could mandate additional diversion programs (ie. organics) which will reduce the volume of waste available to Elementa, so clauses in the agreement have been included to prevent the payment of the tipping fee for the quantity of waste affected by such legislation.

   To ensure the waste quantity guarantee, we also recommend at this time including the following additional waste streams:
   - Curbside Industrial, Commercial & Institutional Waste; and
   - Public Works & Transportation Waste

   The agreement also allows for Elementa to provide bins at the City landfill to collect waste from the public.

2. The City shall pay Elementa $60.00 per tonne subject to an annual CPI adjustment. This increase will commence once the first full year of production is achieved. For our waste quantity guarantee, this is a minimum annual contract for $750,000. Consultation with Bill Freiburger, Commissioner of Finance and Treasurer, has identified it is anticipated this amount will be paid through the Landfill Reserve.

   Council must be aware that this reserve is currently funded by the tipping fee charged at the landfill. It is foreseeable that the balance of the volume of waste required to make the Elementa technology feasible will be found in the IC&I sector ie. current customers of the City landfill may dispose of their waste at Elementa in the future. Although, the advantage remains that landfill space in the City site will be saved by this diversion to Elementa, the Landfill Reserve may suffer and the General Levy may be required to pay our tipping fee to Elementa.

3. Commencement date for operations is set within the agreement as April 1, 2011. A reason for termination is valid if the first year of full production is not reached by December 31, 2015.

4. All Federal, Provincial and local permits and approvals are the responsibility of Elementa.

5. Insurance provisions shall satisfy the City.

6. The Elementa site shall not be at the City's landfill.

7. The City has priority for processing its guaranteed waste quantity (12,500 tonnes).

8. The agreement is for a 10-year term with an automatic renewal option for an additional 10 years.

9. All "green attributes" ie. carbon credits, etc. are Elementa's right.

Other Considerations

1. Council is cautioned that additional City staffing may be required. To-date, Engineering staff has been predominantly involved in the dealings with Elementa, however, it is foreseeable that following the implementation of the technology, Public Works staff will play a large role in the administration of the contract and the provision of the waste. The staffing demands are not completely understood at this time, but Council should appreciate that a integrated waste management system with Elementa as a component may require additional personnel or a shift of duties for existing staff at Public Works. It must be stressed that all waste collection responsibilities will remain the same and it is anticipated that the landfill must remain operational with the existing staffing compliment, as well.

2. During Elementa's presentation to Council on July 21, 2008, a financial reward was made to the City which included a financial royalty of $200,000 per plant sold by Elementa – which would continue to $5,000,000 – with 12 projects in early stage agreement form. A clause had been included in this agreement which allows for a separate agreement to be entered into to finalize this offer.

3. With the endorsement of this agreement, staff may now examine how best to proceed with the Waste Management EA. Given that the potential timeframe is defined in the agreement and waste diversion quantities are better understood, staff and our Consultant may ensure the City's waste management needs are satisfied with and without the inclusion of Elementa as an effective part of our integrated waste management system.

Recommendation

The Engineering and Planning Department recommends endorsing the attached agreement and By-law 2009-178 placed elsewhere on the agenda for your consideration.

Respectfully submitted,

Susan Hamilton Beach, P. Eng
Land Development & Environmental Engineer

Recommended for Approval:

Jerry D. Dolcetti, RPP
Commissioner
Engineering & Planning Department

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SOLID WASTE DISPOSAL
ENVIRONMENTAL ASSESSMENT

Newsletter No.2, May 2010

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its residual municipal solid waste. In the evaluation of "Alternatives To the Undertaking", a thorough review of different waste management alternatives including increased waste diversion, incineration/high heat processes, landfill, export waste outside the service area, and "do-nothing" was completed. To identify a preferred waste management method, the alternatives were comparatively evaluated using the following seven criteria:

1. Compliance with current regulations and policies;
2. Environmental acceptability;
3. The ability of the City of Sault Ste. Marie to implement the preferred alternative;
4. Flexibility of the system;
5. Capability of managing waste quality and quantity;
6. Proven technical capacity; and
7. Cost.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative for the City has been identified as **increased waste diversion and landfilling of the residual waste.**

DIVERSION UPDATE

The residential waste diversion program diverted approximately 34% of residential waste from the landfill in 2009. This shows consistent progress when compared to the 9% diverted in 2000! The City of Sault Ste. Marie's waste diversion program currently includes weekly curbside collection and recycling of paper products in the yellow box and containers in the blue box; bi-weekly collection and composting of leaf and yard waste throughout the growing season (April through November); a household special waste facility at 115 Industrial Park Crescent; landfill bans and segregation and recycling of metals, white goods, tires, and clean wood and brush at the landfill at 402 Fifth Line East. Since 2006, the City has limited residential waste setout to 2 bags/containers per week per household. Tags for additional waste bags or containers must be purchased. The City diversion programs are also supplemented by diversion initiatives undertaken by the private sector and special interest groups.

The City is also currently assessing the feasibility of diverting municipal biosolids (sewage sludge) from disposal.

PUBLIC INFORMATION CENTRE

A Public Information Centre is being held to provide an opportunity for you to discuss the project progress and have your questions or concerns addressed.

Date: Thursday, June 3, 2010

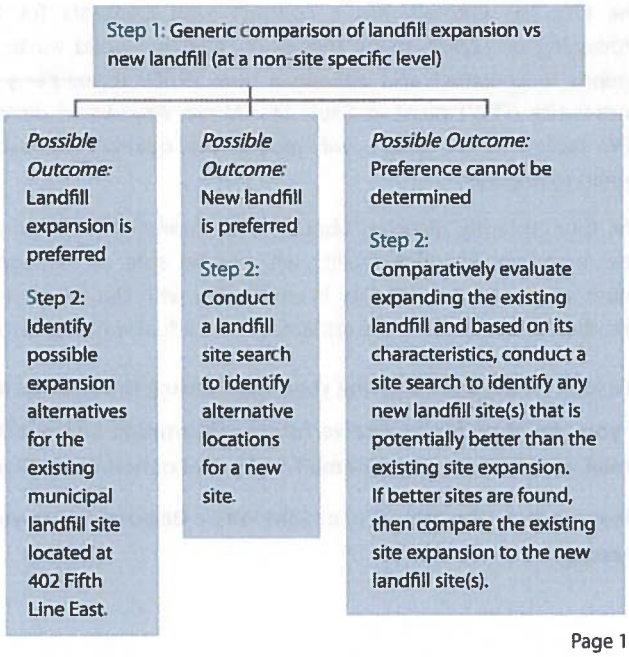
Location: Thompson Room
Civic Centre, 99 Foster Drive

Time: 3:30 pm to 7:30 pm

WHAT'S NEXT?

The results of the Environmental Assessment work completed to date suggest that landfill remains the most appropriate disposal option for the City's residual waste. Landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and recovered to generate electricity, landfills can manage the entire residual waste stream, are flexible to changes in waste quality and quantities and are cost effective.

Following the "Alternatives To" evaluation, the next step in the EA process for a landfill facility is the identification and evaluation of "Alternative Methods" of landfilling. This can include both alternative locations and alternative designs as illustrated in the flow chart below. We will be looking for public input on landfill options in the Fall of 2010.



SOLID WASTE DISPOSAL
ENVIRONMENTAL ASSESSMENT

Newsletter No.2, May 2010

ABOUT THE ENVIRONMENTAL ASSESSMENT (EA) PROCESS

The Environmental Assessment for disposal capacity includes three key phases. The first phase was completed with the submission and approval of the EA Terms of Reference. We are currently working within the second phase: the Environmental Assessment Study itself. The last phase is submission of the EA documentation to the Ministry of the Environment and the subsequent government and public review and approval period. It is anticipated that the whole process will take until late 2012.

In September 2005 the Minister of the Environment approved the Environmental Assessment Terms of Reference (EA TOR) for the Sault Ste. Marie Solid Waste Management Plan. The EA TOR documents the process that will be followed to determine the preferred method for managing solid waste in Sault Ste. Marie for the next 20 to 40 years. In addition to the disposal EA, the Sault Ste. Marie Solid Waste Management Plan includes a significant diversion component.

Keep up-to-date on the EA Study at the City of Sault Ste. Marie's website: http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1

ELEMENTA ENERGY-FROM-WASTE FACILITY

In 2007, an energy-from-waste (EFW) developer known as The Elementa Group (Elementa) constructed a pilot steam reformation plant that would convert municipal solid waste into a char and synthetic gas (or "syngas") that can be used to generate electricity.

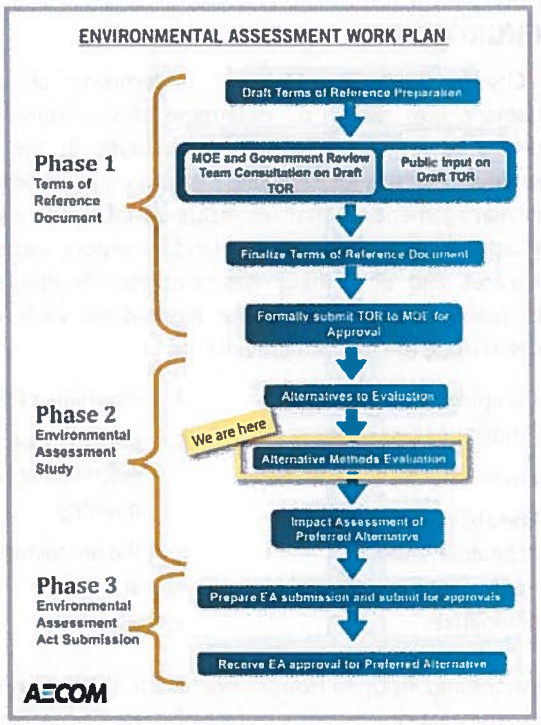
The City has entered into a contract with Elementa for the annual processing of 12,500 metric tonnes of municipal solid waste. Elementa intends to construct and operate a new 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility in the future will reduce the quantity of residual waste requiring disposal.

The City currently disposes about 60,000 tonnes of residual waste each year therefore; the EFW facility will not be able to manage the City's entire waste stream. The City is continuing with the EA study to ensure that the City can process the remainder of residual waste generated.

We look forward to receiving your input during this important study!

If you would prefer to receive future information and notifications via email, please forward your email address to nancy.maahs@aecom.com.

Please include the title "City of SSM Waste Disposal EA" in your message.



CONTACT US

Your input on this project is important to us. If you would like further information or to send comments, ask questions or be added to our mailing list, please contact us:

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
Email: rick.talvitie@aecom.com

Mrs. Susan Hamilton Beach, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on

THE CITY OF SAULT STE. MARIE

Notice of Public Information Centre

SOLID WASTE DISPOSAL ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its residual municipal solid waste. Work to date has included a thorough review of a number of waste management alternatives including increased waste diversion, incineration/high heat process, landfill, export waste and "do nothing". To identify a preferred waste management method, the alternatives were comparatively evaluated using the following seven criteria:

1. Compliance with current regulations and policies;
2. Environmental acceptability;
3. The ability of the City of Sault Ste. Marie to implement the preferred alternative;
4. Flexibility of the system;
5. Capability of managing waste quality and quantity;
6. Proven technical capacity; and
7. Cost.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative for the City has been identified as **increased waste diversion and landfilling of the residual waste**.

Residents currently divert approximately 34% of their waste from disposal and the City will continue to provide opportunities to improve on this diversion rate. The remaining 66% of residential waste and industrial, commercial and institutional wastes currently goes to the City landfill. In addition to the City's current diversion, the City has entered into a contract with a private corporation for the annual supply of 12,500 metric tonnes of municipal solid waste. This corporation intends to construct and operate a 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility will reduce the quantity of residual waste requiring disposal.

The results of the Environmental Assessment work completed to date suggest that landfill remains the most appropriate disposal option for the City's residual waste. Landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and recovered to generate electricity, landfills can manage the entire residual waste stream, are flexible to changes in waste quality and quantities and are cost effective.

PUBLIC INFORMATION CENTRE

A Public Information Centre is being held to provide an opportunity for you to discuss the project progress and have your questions or concerns addressed.

Date: Thursday, June 3, 2010
Location: Thompson Room
Civic Centre, 99 Foster Drive
Time: 3:30pm to 7:30 pm

THE NEXT STEPS

Over the summer the project team will be looking at options for landfilling residual waste. This work will include consideration of opportunities to expand the existing landfill or establish a new landfill site. In the Fall of 2010, we will be looking for public input on landfill options.

If you have any questions related to the study, please contact:

Mr. Rick Talvitie, P. Eng.
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
E-mail: rick.talvitie@aecom.com

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If you would like to receive future information and notifications via email, please forward your email address to nancy.maahs@aecom.com. Please include the title "City of SSM Waste Disposal EA" in your message.

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705 942 2612 tel
705 942 3642 fax

May 25, 2010

Susan Hamilton Beach
City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive
Sault Ste. Marie, ON P6A 5N1

Dear Mrs. Hamilton Beach:

Project No: 60117627

Regarding: Solid Waste Disposal Environmental Assessment (EA)
Report to Council – May 31, 2010

Late in 2009, the City of Sault Ste. Marie endorsed a contract with The Elementa Group (Elementa) for the supply of at least 12,500 metric tonnes of municipal solid waste for a minimum period of 10 years. The contract is significant in that it will assist the City in managing its problem of diminishing solid waste disposal capacity. The City welcomes the Elementa technology to Sault Ste. Marie and wishes them well. The proposed plant will have a maximum capacity of 35,000 tonnes per year and will likely accept waste from outside of Sault Ste. Marie.

The Elementa Plant will be unable to accept all waste currently being landfilled at the Fifth Line site. The City is currently managing approximately 60,000 to 70,000 tonnes per year (inclusive of contaminated soil and sewage sludge). Furthermore the Elementa process will generate some residual waste that will require landfilling. The City recognizes that with any new waste management technology, in its infancy, there are risks associated with its implementation. The City intends to mitigate these risks by ensuring an alternative means is available for the disposal of residual waste. The City is moving forward with its Solid Waste Disposal Environmental Assessment to ensure provisions are in place to manage any residual waste that is not diverted, or processed by Elementa.

We have reached a milestone in our Solid Waste Disposal Environmental Assessment. The results of the Environmental Assessment work completed to date suggest that landfill remains the most appropriate disposal option for the City's residual waste. Landfills can be designed and operated to comply with regulations and policies; landfill gas can be collected and recovered to generate electricity; landfills can manage the entire residual waste stream, are flexible to changes in waste quality and quantities, and is cost effective. The flexibility of landfilling is particularly important to Sault Ste. Marie given the waste supply agreement that has been endorsed. An operating landfill site will ensure disposal capacity is available in the event that the implementation of the Elementa technology is delayed or fails to meet intended targets.

We will be conducting a Public Information Centre on June 3, 2010 at the Civic Centre to provide stakeholders and the public with an opportunity to discuss the project progress and have their questions or concerns addressed. Further details regarding the Public Information Centre and EA are included in the attached Newsletter.

Given that there has been a significant history to the waste management planning work we have summarized, in tabular format, the key activities and accomplishments that have been completed over the last decade.

Description	**Date**
A comprehensive Waste Management Planning Study was initiated by the City of Sault Ste. Marie. The intent of the study was to provide the City with direction on all aspects of its solid waste management programs for the next 25 to 40 years. The study included four phases: • Identification of the preferred waste diversion system • Identification of the preferred waste disposal system • Development of a business and implementation plan and • Preparation of an Environmental Assessment Terms of Reference The study was largely initiated to address the low waste diversion rate and the diminishing waste disposal capacity at the City landfill on Fifth Line. A series of reports were generated which are described below.	Summer 2000
Current Waste Management System Summary Report – The study inventoried and summarized current waste management programs including costs and revenues. This report provided a starting point for the waste management planning study and highlighted the need to improve upon the 9% residential waste diversion rate.	September 2000
Comprehensive Residential Waste Composition Report – This study collected, separated and categorized wastes setout curbside in a portion of the City. This study provided a basis for identifying the types and quantities of recyclables that are included in the municipal waste stream and the level of diversion that could potentially be achieved.	March 2001
Organic Waste Diversion Report – This study inventoried residential, industrial, commercial and institutional organic waste quantities and types and identified management options. Organic wastes represent a significant proportion of the waste stream that could potentially be processed and diverted.	April 2001
Alternative Waste Diversion/Collection Systems Report – Used the data	June 2001

Description	Date
collected in the three foregoing studies to identify alternative waste diversion programs and the quantities that could potentially be diverted. Council endorsed an aggressive waste diversion strategy following the release of this report.	
An RFP was issued for enhanced curbside recyclables collection. A contract was awarded that included incentives to encourage the Contractor to promote the program.	Summer 2002
Waste Collection and Disposal Alternatives Report – a study was completed to explore alternatives for the disposal of residual solid waste. The study included public input and was completed to focus the future Environmental Assessment work on the most practical alternatives that were also supported by stakeholders and the general public.	July 2002
Co-composting Pilot Study - City initiates a study to investigate the feasibility of composting various types of organic feedstocks including municipal biosolids (sewage sludge), leaf and yard waste, and kitchen wastes. The intent of the study was to look at the feasibility of improving cost efficiencies by processing a variety of organic feedstocks concurrently.	Summer 2002 – report completed in February, 2004
Business and Implementation Plan – The study was completed to identify the costs of the existing and proposed waste management programs and explore strategies to recover those costs (bag limits, bag fees, increased tipping and gate fees) – Council endorsed the proposed fee structure in July 2003.	February 2003
DRAFT "Focused" Terms of Reference – this document was prepared to outline the steps to be taken in completing a "focused" environmental assessment that would examine the environmental impacts associated with landfill mining/expansion. Public consultation was completed on this document.	June 2003
As a result of a court decision the Ministry of the Environment issued a letter to the City indicating that the MOE no longer has the authority to approve "Focused" Terms of Reference.	September 2003
City meets with the MOE to discuss options regarding the Terms of Reference document that has already been prepared and decides to revise it to reflect a full Environmental Assessment in lieu of a "focused" EA. (ie. the EA must consider all reasonable alternatives rather than focusing on landfill	December 2003

Description	Date
mining and expansion).	
Revise and submit a Terms of Reference to the MOE for approval. Approval is granted in September 2005.	July 2005
City proceeds with significant enhancements to Multi-residential recyclables collection.	Over several years
Collection of leaf and yard wastes is expanded from three collections in the fall to bi-weekly collections throughout the growing season. The feedstock is composted at the City landfill and the processed materials are incorporated into City projects.	2005
AECOM/Dillon selected by the City to undertake an EA – work is initiated to identify and evaluate functionally different ways of managing waste.	Summer 2006
Public and First Nations input is solicited on the alternatives being considered. The input received is incorporated into the evaluation.	Summer 2007
The Elementa Group (formerly Enquest Power) initiates a steam reformation pilot project (ie. maximum capacity of 3 tonnes/day) to demonstrate the capabilities of their technology.	2007
Elementa requests background information regarding the EA to allow them to comment on the work completed to date. Some First Nations communities also request additional time for comment. City decides to allow additional time for this public input.	Fall 2007
Elementa proceeds with the construction and operation of a steam reformation pilot plant which is intended to convert solid municipal waste into a char and syngas that can be used to produce electricity. Council requests that Elementa be given more time to allow their project to mature. Over a three year period (2007-2009) the pilot plant processes limited quantities of MSW and the syngas is burned in a flare. Environmental testing is completed and meets MOE requirements.	2007 - 2009
A waste supply agreement is endorsed by Elementa and the City. The City commits a minimum 12,500 tonnes per year of municipal solid waste for a minimum period of ten years. The delivery of waste to Elementa is	Late 2009

Description	Date
scheduled to commence in April 2011.	
Elementa proceeds with an environmental assessment screening process to facilitate the construction of a new 35,000 tonne per year steam reformation plant on a Greenfield site on Woodpark Court. Construction is to be initiated in the summer of 2010.	2010
It is recognized that the Elementa technology is in its infancy and there are some risks associated with its implementation. Furthermore it will be unable to process the entire waste stream once it reaches its full capability (ie. approximately 60,000 to 70,000 tonnes are landfilled each year and the Elementa facility will have a capacity of 35,000 tonnes per year). The processing will also generate some wastes that will have to be landfilled. The City moves forward with its Waste Disposal Environmental Assessment to address the diminishing waste disposal capacity at the City landfill. A prudent approach is adopted in establishing the quantities of waste that will have to be managed in the future. Waste quantity projections are developed which reflect the entire residual waste stream.	2010
The City plans to conduct a Public Information Centre to announce the preferred waste management alternative; increased waste diversion and landfilling of residual waste.	June 3, 2010

Sincerely,
AECOM Canada Ltd.

Rick Talvitie, P.Eng.
Branch Manager
rick.talvitie@aecom.com

RT:ta
Encl.

Talvitie, Rick

From: Talvitie, Rick
Sent: August 16, 2010 1:51 PM
To: mwozny@elementagroup.com
Cc: s.hamiltonbeach@cityssm.on.ca; Kolli, Karla
Subject: Sault Ste. Marie Waste Management EA

Hi Mike,

Susan forwarded, to me, your email of July 15, 2010. I would like to address the comments/questions that were included in your email. My responses reflect the numbering referenced in your email.

Should you have any further comments/questions or require further clarification we would be happy to address them.

1. We recognize that the Elementa process is not incineration. The "high heat processes" alternative was included in the EA to simplify the alternatives for the publics' benefit. The approach taken in the evaluation was to compare the alternatives relative to each other. We do not believe there would be any significant change in the rankings if incineration and steam reformation were evaluated individually. We believe the evaluation reflects the appropriate ranking for steam reformation relative to the other alternatives. The final report can be viewed on the City's Waste Management EA web page at the link provided below. Under each criterion we have documented the rationale for the assigned rankings. Should you feel that changes are warranted please provide specific feedback and the rationale for any suggested changes.
2. The information presented at the open house was a summary only. More detailed information regarding the evaluation criteria and the rationale for the assigned rankings is included in the final report. Once you have reviewed this additional information let me know if you still have further questions.
3. As noted above the information included in the final report includes the rationale for the assigned rankings. Once you have reviewed this additional information please let us know whether you feel any of the assigned rankings require amendment. Please ensure you document the rationale for your suggestions.
4. Within the context of the EA, the preferred alternative comprises of enhanced diversion from disposal using the 3R's hierarchy (reduce, reuse, recycle) and disposal of residual solid non-hazardous waste through landfilling. This decision was arrived at, in part, because a significant proportion of waste generated in the City is already committed to Elementa and a landfill will provide a suitable means of disposing of residual solid non-hazardous waste generated by the Elementa process. The material presented at the open house acknowledges that Elementa will play an integral role in the City's overall waste management plan. Ultimately the City will continue to investigate alternative ways and means of diverting waste from disposal using the 3R's hierarchy and residual solid non-hazardous waste will either be processed at the Elementa facility and/or landfilled.

   We hope we have provided some clarity. Should you have any additional questions or require additional clarification we would be pleased to elaborate further.

   Regards

http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1

Rick Talvitie, P. Eng.
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THE CITY OF SAULT STE. MARIE

NOTICE OF PUBLIC INPUT SESSION

SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. In the evaluation of "Alternatives To the Undertaking", a thorough review of different waste management alternatives including increased waste diversion, incineration/high heat processes, landfill, export waste outside the service area, and "do-nothing" was completed. To identify a preferred approach to managing waste, the alternatives were comparatively evaluated using the following seven criteria:

1. Compliance with current regulations and policies;
2. Environmental acceptability;
3. The ability of the City of Sault Ste. Marie to implement the preferred alternative;
4. Flexibility of the system;
5. Capability of managing waste quality and quantity;
6. Proven technical capacity; and
7. Cost.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste. The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the entire residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

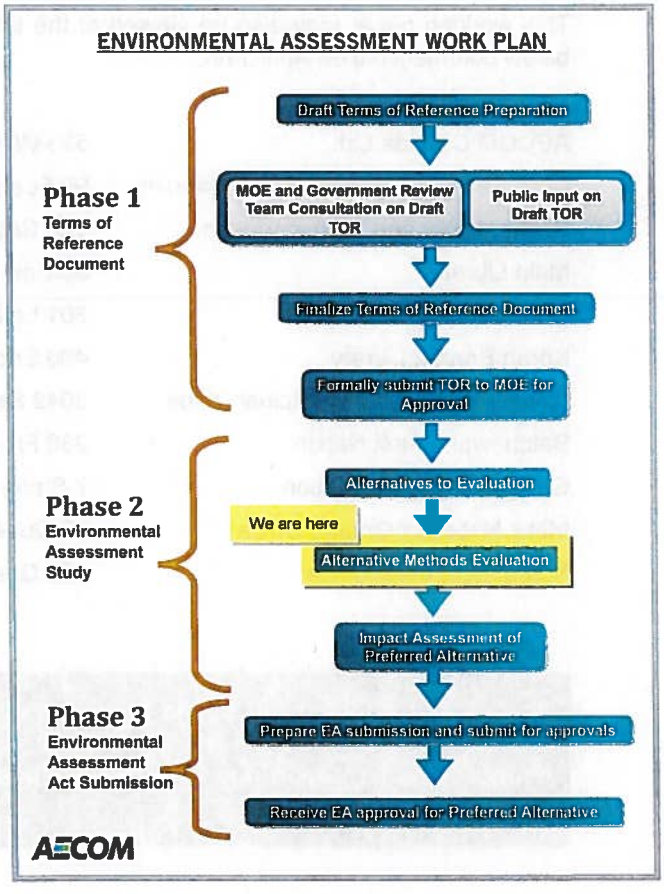
The flexibility of the preferred alternative is particularly important given the City's contract with The Elementa Group (an energy-from-waste service provider) for the annual processing of at least 12,500 metric tonnes of municipal solid waste. Elementa intends to construct and operate a new 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility in the future will reduce the quantity of residual waste requiring disposal in a landfill.

NEXT STEPS

The City remains committed to investigating, implementing and supporting programs to increase waste diversion through 3Rs initiatives. Since the implementation of 3Rs initiatives does not require Environmental Assessment (EA) Act approval, the EA study is now focusing on alternative methods of landfilling residual waste. The key objective of this phase of the study is to find an environmentally suitable location for the development of additional landfill capacity.

The first step to be completed in this phase consists of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. This step will provide initial focus to the search for additional landfill capacity.

A preliminary evaluation of these alternatives has been completed by the project team. We are now seeking input from the general public and Stakeholders regarding the evaluation criteria considered and the preliminary findings.



THE CITY OF SAULT STE. MARIE

NOTICE OF PUBLIC INPUT SESSION

SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

PUBLIC INPUT SESSION

If you are interested in discussing the alternatives and criteria that will be used to compare and select a preferred approach to landfilling residual waste in Sault Ste. Marie, Prince Township and Batchewana First Nation's Rankin Reserve, we encourage you to attend this public input session!

We will provide you with background information, update you on the City's achievements in increasing waste diversion and discuss with you the alternative approaches to landfilling residual solid waste. A principle objective of the session is to confirm whether the City should focus its efforts to obtain additional disposal capacity by expanding an existing landfill site or finding a location for a new site.

Background information documenting the work completed to date is available on the City website at **http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1**.
In addition, the alternatives and the evaluation criteria currently being considered are also available on the website in a working paper prepared for this session titled "Solid Waste Management Environmental Assessment - Alternative Methods – Step 1 (Landfill Expansion versus Development of a New Site).

This working paper may also be viewed at the locations noted below commencing on April 11th.

AECOM Canada Ltd.	523 Wellington Street
Civic Centre Engineering and Planning	99 Foster Drive, 5th Flr.
Public Works and Transportation	128 Sackville Road
Main Library	50 East Street
Churchill Branch Library	301 Lake Street
Korah Branch Library	496 Second Line
Township of Prince Municipal Office	3042 Second Line West
Batchewana First Nation	236 Frontenac Street
Garden River First Nation	7 Shingwauk Street
Metis Nation of Ontario Office	26 Queen Street East
Missanabie Cree Office	559 Queen Street East

YOU'RE INVITED!

Date:	Tuesday April 19, 2011
Location:	Civic Centre – Russ Ramsay Room
Time:	6:30 pm to 9:00 pm

Refreshments to be provided.

CONTACT US

We also encourage you to contact the individuals noted below if you have any specific questions.

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
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Mrs. Susan Hamilton Beach, P.Eng.
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Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on.ca

Information pertaining to this session is available on the City of Sault Ste. Marie website at: **http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1**.
Hardcopies can also be obtained by contacting AECOM at 705-942-2612.

If you cannot attend the public input session in person, we still want to hear from you! Just go to the City's website (http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1), review the Alternatives Method - Step 1 Report and fill out our online questionnaire. A link to the online questionnaire is provided on the City's website.

THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. In the evaluation of "Alternatives to the Undertaking", a thorough review of different waste management alternatives including increased waste diversion, incineration/high heat processes, landfill, export waste outside the service area, and "do-nothing" was completed.

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NEXT STEPS

The next step consists of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. This step will provide initial focus to the search for additional landfill capacity.

A preliminary evaluation of these alternatives has been completed by the project team. We are now seeking input from the general public and stakeholders regarding the evaluation criteria considered and the preliminary findings.

PUBLIC INPUT SESSION

If you are interested in discussing the alternatives and criteria that will be used to compare and select a preferred approach to landfilling residual waste in Sault Ste. Marie, Prince Township and Batchewana First Nation's Rankin Reserve, we invite you to attend this public input session.

We will provide background information, update you on the City's achievements in increasing waste diversion and discuss the alternative approaches to landfilling residual solid waste.

Background documents including the working paper to be discussed at the public input session entitled "Solid Waste Management Environmental Assessment - Alternative Methods – Step 1 (Landfill Expansion versus Development of a New Site)" are available on the City's website at **www.cityssm.on.ca – Click City Hall Bulletins – Public Input Session – Solid Waste Management.**

CONTACT US

We encourage you to contact the individuals below if you have questions.

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
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Sault Ste. Marie, ON, P6A 2M4

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Fax: 705-942-3642
Email: rick.talvitie@aecom.com

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Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on.ca

YOU'RE INVITED!

Date: Tuesday, April 19, 2011

Location: Civic Centre, 99 Foster Dr.
Russ Ramsay Board Room

Time: 6:30 to 9:00 p.m.

Refreshments provided.

If you cannot attend the public input session, we still want to hear from you! Go to the City's website www.cityssm.on.ca (Click City Hall Bulletins – Public Input Session – Solid Waste Management) to review the Alternatives Method - Step 1 Report and fill out the online questionnaire.

Talvitie, Rick

From: Talvitie, Rick
Sent: February 3, 2012 11:10 AM
To: thughes@elementagroup.com
Cc: Catherine Taddo
Subject: Sault Ste. Marie Waste Management EA

Hi Tom,

I am the Project Manager leading the City's Waste Management Environmental Assessment.

We are currently progressing with this study and wanted to touch base with you to get some feedback on the current status of your proposed commercial demonstration project in Sault Ste. Marie.

Any information that you are able to provide regarding the planning aspects and implementation schedule would be greatly appreciated.

Also it would be appreciated if you could confirm that any information that you provide to me can be shared with the public. We will be conducting a public input session in March and there may be questions from the general public regarding your proposed facility.

Thank you.

Rick Talvitie, P. Eng.
Manager, Sault Ste. Marie Office
rick.talvitie@aecom.com

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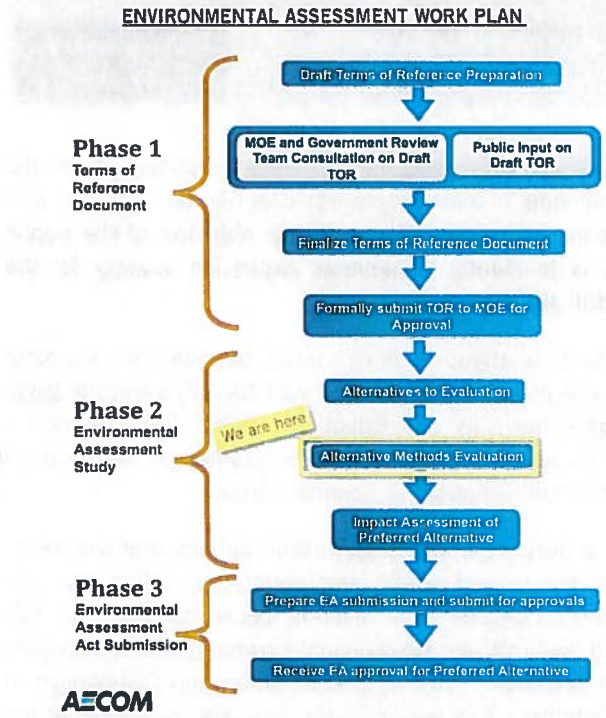
THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

ENVIRONMENTAL ASSESSMENT (EA) PROCESS

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. The EA Process is a transparent decision-making process used to promote good environmental planning by assessing potential effects of certain activities or projects on the natural and human environment. There are several phases and tasks involved in completing an EA as outlined in the graphic below.



The City is currently mid-way through Phase 2 of the EA Process and is interested in obtaining your input related to the current activities.

BACKGROUND

Phase 1 of the EA process included public consultation and culminated with the Ministry of Environments approval of the project Terms of Reference (ToR) in 2005. The ToR provides a framework or roadmap for completing the EA and summarizes the tasks and activities to be undertaken by the proponent.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the **preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.** The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the entire residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

The flexibility of the preferred alternative is particularly important given the City's contract with The Elementa Group (an energy-from-waste service provider) for the annual processing of at least 12,500 metric tonnes of municipal solid waste. Elementa is currently negotiating an energy purchase agreement and intends to construct and operate a new 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility in the future will reduce the quantity of residual waste requiring disposal in a landfill.

The City remains committed to investigating, implementing and supporting programs to increase waste diversion through 3Rs initiatives. Since the implementation of 3Rs initiatives does not require Environmental Assessment (EA) Act approval, the EA study is now focusing on alternative methods of landfilling residual waste. The key objective of this phase of the study is to find an environmentally suitable location for the development of additional landfill capacity.

The first step in this phase consisted of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. To identify a preferred approach to landfilling waste, the alternatives were compared using the following six criteria groups:

1. Natural environment;
2. Social-Cultural environment;
3. Economic environment;
4. Cost;
5. Technical considerations; and
6. Transportation.

A Public Input Session was held in April, 2011 to present the landfill alternatives being considered. **The evaluation and response from consultation concluded that an expansion of an existing landfill is generally preferred over construction of a new site.**

The study noted that an expansion requires less land, displaces fewer people and/or social/natural features, disrupts fewer people (ie. one site versus two sites creating nuisance impacts), costs less, typically encounters fewer challenges in gaining technical approvals, and reduces the number of facilities the City must manage.

THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

CURRENT ACTIVITIES

The second step in the Alternative Methods task focuses on the best approach to expand the existing landfill site at 402 Fifth Line East in the City of Sault Ste. Marie. Expansion options have been developed that make the best use of the existing site characteristics and the area available to expand. Options considered include horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining (excavate previously disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) or a combination of these methodologies.

A preliminary evaluation of the expansion options has been completed by the project team. We are now seeking input from the Community, government agencies, stakeholders, and First Nations regarding the evaluation criteria considered and the preliminary findings.

CONTACT US

You may also contact the Consultant Project Manager or the City's Land Development and Environmental Engineer by email, mail or telephone if you have questions or would like additional information.

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
Email: rick.talvitie@aecom.com

Ms. Catherine Taddo, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5380
Fax: (705) 541-7165
Email: c.taddo@cityssm.on.ca

HOW CAN I PROVIDE INPUT?

If you are interested in discussing the expansion options, the criteria used in the evaluation and the preliminary findings we encourage you to attend the upcoming public input session!

YOU'RE INVITED!

Date: Tuesday, March 6, 2012
Location: Civic Centre – 99 Foster Drive
Russ Ramsay Room
Time: 3:30PM to 7:30PM

Refreshments to be provided.

We will provide you with background information update you on the City's achievements in increasing waste diversion and discuss, with you, the expansion options. **The principle objective of the public consultation is to identify a preferred expansion strategy for the existing landfill site.**

If you are unable to attend the Public Input Session there are other opportunities to provide input. Please visit the City's website **www.cityssm.on.ca** - View City Hall Bulletins – Public Input Session – Solid Waste Management to obtain further information, complete an online questionnaire, or access a comment sheet.

In addition, a description of the expansion options, the evaluation criteria, and the project team's preliminary evaluation are also available on the website in a working paper prepared for this session titled "Solid Waste Management Environmental Assessment – Alternative Methods – Step 2 (Identification and Comparison of Expansion Options). This working paper may also be viewed at the locations noted below commencing on February 21, 2012.

AECOM Canada Ltd.	523 Wellington Street
Civic Centre Engineering and Planning	99 Foster Drive, 5th Flr.
Public Works and Transportation	128 Sackville Road
Main Library	50 East Street
Churchill Branch Library	301 Lake Street
Korah Branch Library	496 Second Line
Township of Prince Municipal Office	3042 Second Line West
Batchewana First Nation	236 Frontenac Street
Garden River First Nation	7 Shingwauk Street
Metis Nation of Ontario Office	26 Queen Street East
Missanabie Cree Office	559 Queen Street East

THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. To date significant progress has been made.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and **the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.** The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the entire residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

In April, 2011 a Public Input Session was held to present the non-site specific landfill alternatives being considered. **The evaluation and response from consultation concluded that an expansion of an existing landfill is generally preferred over construction of a new site.**

The study noted that an expansion requires less land, displaces fewer people and/or social/natural features, disrupts fewer people (ie. one site versus two sites creating nuisance impacts), costs less, typically encounters fewer challenges in gaining technical approvals, and reduces the number of facilities the City must manage.

CURRENT ACTIVITIES

Presently the project team is focusing on **the best approach to expand the existing landfill site at 402 Fifth Line East in the City of Sault Ste. Marie.** Expansion options have been developed that make the best use of the existing site characteristics and the area available to expand. Options considered include horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining (excavate previously disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) or a combination of these methodologies.

A preliminary evaluation of the expansion options has been completed by the project team. **We are now seeking input from the Community, government agencies, stakeholders, and First Nations regarding the evaluation criteria considered and the preliminary findings.**

PUBLIC INPUT SESSION

If you are interested in discussing the expansion options, the criteria used in the evaluation and the preliminary findings, we encourage you to attend the upcoming public input session!

We will provide you with background information, update you on the City's achievements in increasing waste diversion and discuss, with you, the expansion options. **The principle objective of the public consultation is to identify a preferred expansion strategy for the existing landfill site.**

The expansion options, the evaluation criteria, and the project team's preliminary evaluation are also available on the City's website (**www.cityssm.on.ca - View City Hall Bulletins – Public Input Session – Solid Waste Management**) in a working paper prepared for this session titled "Solid Waste Management Environmental Assessment - Alternative Methods – Step 2 (Identification and Comparison of Expansion Options). This working paper may also be viewed at the locations noted below commencing on February 21, 2012.

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Date: Tuesday, March 6, 2012
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Refreshments to be provided.

If you cannot attend the public input session in person, we still want to hear from you! Just go to the City's website www.cityssm.on.ca - View City Hall Bulletins – Public Input Session – Solid Waste Management review the Alternatives Method – Step 2 Report and fill out our online questionnaire or comment sheet. A link to the online questionnaire is provided on the City's website.

AECOM

DILLON CONSULTING

Solid Waste Management Environmental Assessment

COUNCIL PRESENTATION

THE CORPORATION OF THE CITY OF SAULT STE MARIE CANADA

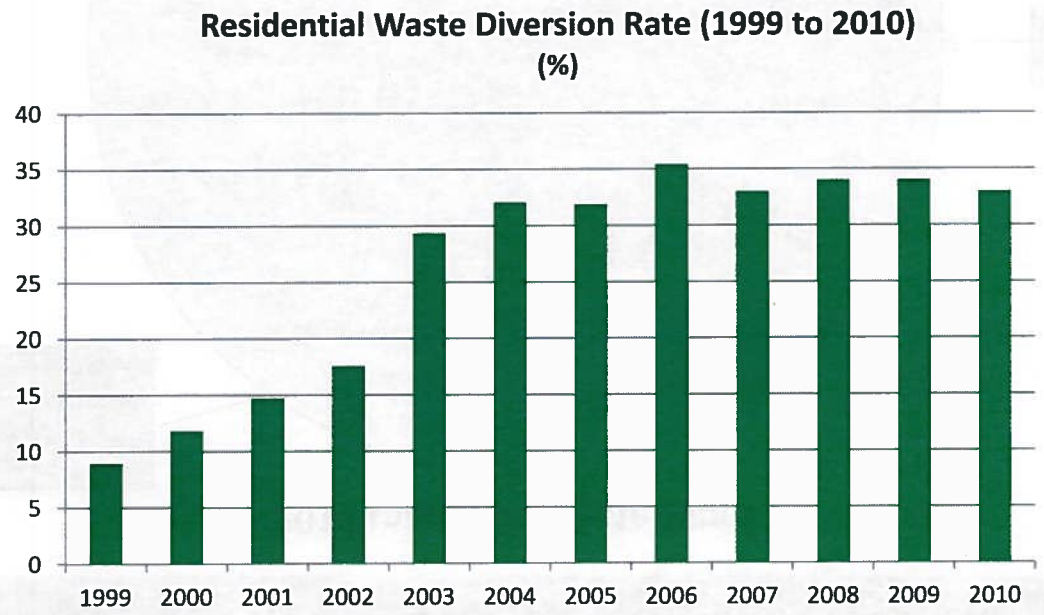
March, 2012

Objectives of the Presentation

- Provide Council and residents with an update on waste management planning activities and results;
- Review project need;
- Provide an overview of the Environmental Assessment process and where we are at in the process;
- Present the criteria and approach used in the evaluation of site expansion options;
- Present the preliminary results of the evaluation completed by the project team;
- Identify the next steps in the EA process; and
- Answer your questions.

Project History - Diversion

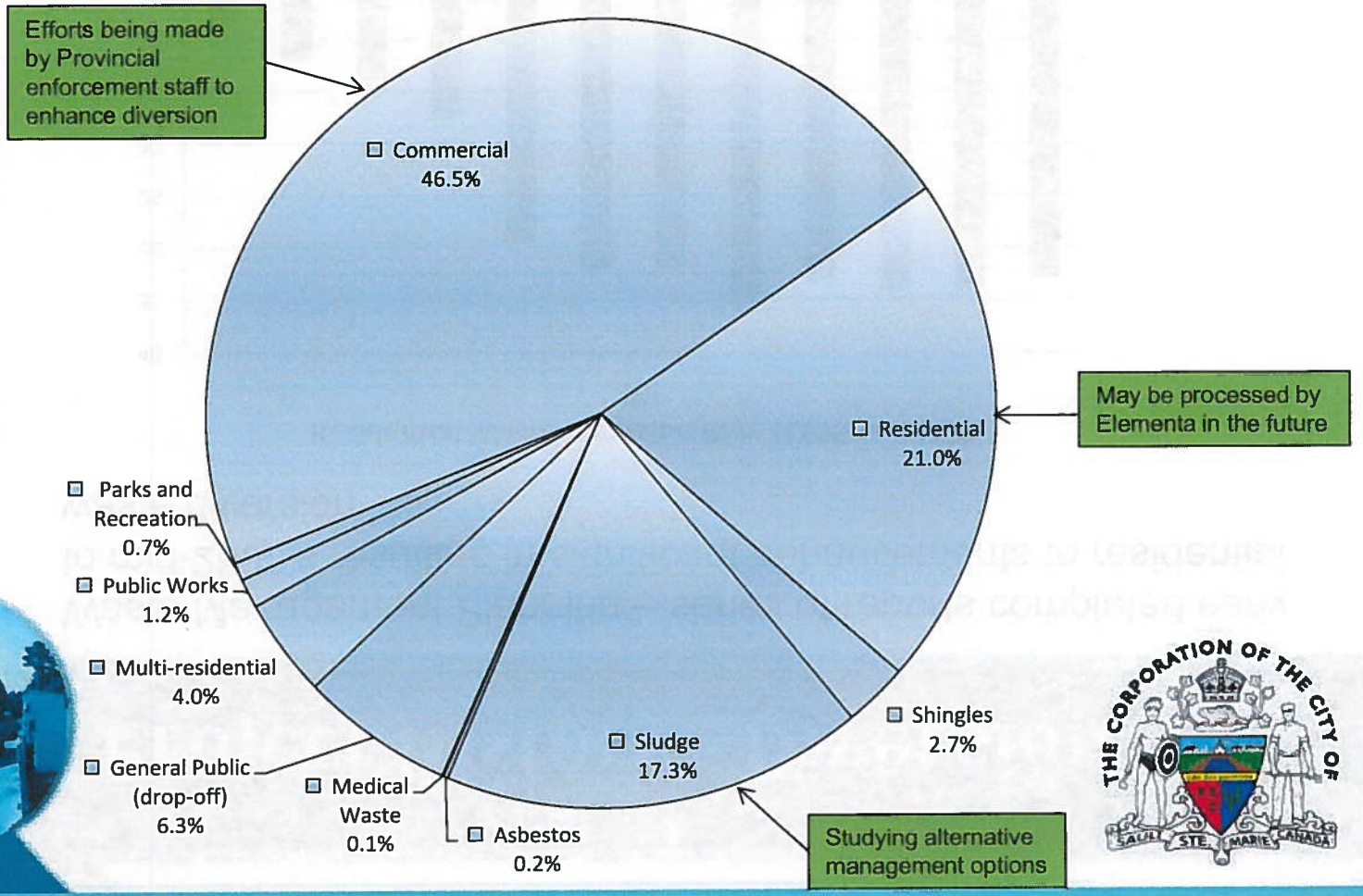
- Waste Management Planning – series of reports completed early to mid-2000's resulting in significant enhancements to residential waste diversion



Increased residential diversion rate from 9% in 1999 to 33% to 35% in recent years

Project History - Diversion

2010 Landfilled Waste Types



Project History - Project Need

- **The estimated remaining service life of the existing landfill is 7 to 10 years depending on future population changes, in-situ subsidence and waste generation, diversion and disposal rates. The low end of this range is used for planning purposes.**
- Despite significant success in enhancing waste diversion, additional disposal capacity is required.

What is an EA?

Purpose = *"to protect the environment and quality of life of the people of the province; and facilitate the wise management of the natural resources of the province".*

- The EA Process is a transparent decision-making process used to promote good environmental planning by assessing potential effects of certain activities or projects on the natural and human environment. The EA process serves several important purposes:
  - Allowing projects to receive input from a wide variety of sources, including the federal, provincial and municipal levels of government, First Nations, stakeholders and the public.
  - Identifying potential problems prior to construction
  - Promoting good environmental planning practices
  - Improving community acceptance
  - Better protecting the environment

AECOM

DILLON CONSULTING

Project History

- MOE approval of EA ToR in late 2005
- EA work initiated by AECOM/Dillon – summer 2006
- "Alternatives To" (functionally different ways of managing waste) work completed and public consultation undertaken in summer of 2007
- Late 2008 to spring 2010 - Project delayed to allow time for the Enquest pilot project to mature
- Fall 2009 - City endorses waste supply agreement with Elementa
- City approval to resume EA process - Elementa will generate residual waste and is unable to manage the entire waste disposal quantity
- Spring 2010 – announced the preferred "Alternative To"

THE CORPORATION OF THE CITY OF SAULT STE. MARIE CANADA

Project History – Selected "Alternative TO"

Based on the results of the evaluation and input received the preferred long-term approach to managing waste in SSM is:

- Increased 3Rs (Reduce/Reuse/Recycle)
- Landfilling residual waste

Why?

- Can comply with regulations and policies
- City is experienced with these waste management initiatives
- Flexible to changes in the waste stream (e.g. population, waste generation, diversion)
- Can accept most residual waste from a Waste-to-Energy facility
- Cost efficient

The EA will now focus on identifying and evaluating alternative methods of landfilling waste (i.e. alternative locations and designs)

AECOM

DILLON CONSULTING

Project History

- Conducted a Public Information Session in June 2010 to announce the selected Alternative To
- Initiated the Alternative Methods Phase (alternative locations and designs)
- Completed a generic non-site specific evaluation of developing a new landfill versus expanding an existing site (Step 1)
- Consulted with the public in the spring of 2011regarding the generic options

THE CORPORATION OF THE CITY OF SAULT STE. MARIE CANADA

Project History – Preferred Landfilling Method

Based on the results of the evaluation and input received the preferred method of landfilling waste = expansion of an existing site

Why?

- Likely less potential for displacement and disruption
- Only one landfill site to manage and maintain
- Cost effective
- Community adaptation
- Likely fewer challenges in gaining approvals

The EA will now focus on how to best expand the existing site

Overview of Expansion Options

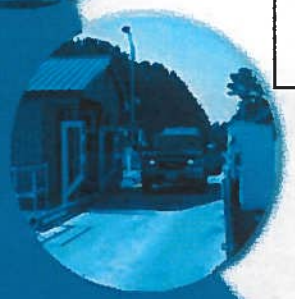
- Expansion options have been developed that make the best use of the existing site characteristics and the area available to expand.
- Options considered include horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining or a combination of these methodologies.
- All options include enhancements to better control groundwater quality related to the existing site.
- Some options require replacement/relocation of existing on-site infrastructure and some require enhanced compaction to provide the target disposal capacity

Evaluation of Expansion Options

- The evaluation has been completed using a two-step approach:
  - Step 1 – identify a preferred expansion area and shape;
  - Step 2 – assess the pros and cons of incorporating landfill mining.
- Mining involves excavation of previously disposed waste and cover material. Mined waste is fed through screens which separates coarse waste from fine materials. Recyclables are separated and sent for processing, remaining residual waste disposed of in the disposal site and fines (primarily sand) are stockpiled for use as cover.

Evaluation Criteria Groups

Criterion	Definition
Natural Environment	Addresses the potential for displacement and/or disruption of natural environmental features (terrestrial features, aquatic features, ground water and surface water)
Social Cultural Environment	Addresses the potential for displacement and/or disruption of social/cultural environmental features (residents, community features, future land use plans, heritage and archaeological resources, public health and safety)
Economics	Addresses the potential for displacement and/or disruption of existing businesses and resources (agriculture, forestry, mining)
Cost	Considers the lifecycle cost of the alternative.
Technical Considerations	Considers technical aspects of each option including impacts on existing site infrastructure and ease of site development.
Transportation	Considers the impacts of traffic volumes accessing the site and potential impacts to the airport and the movement of farm equipment.

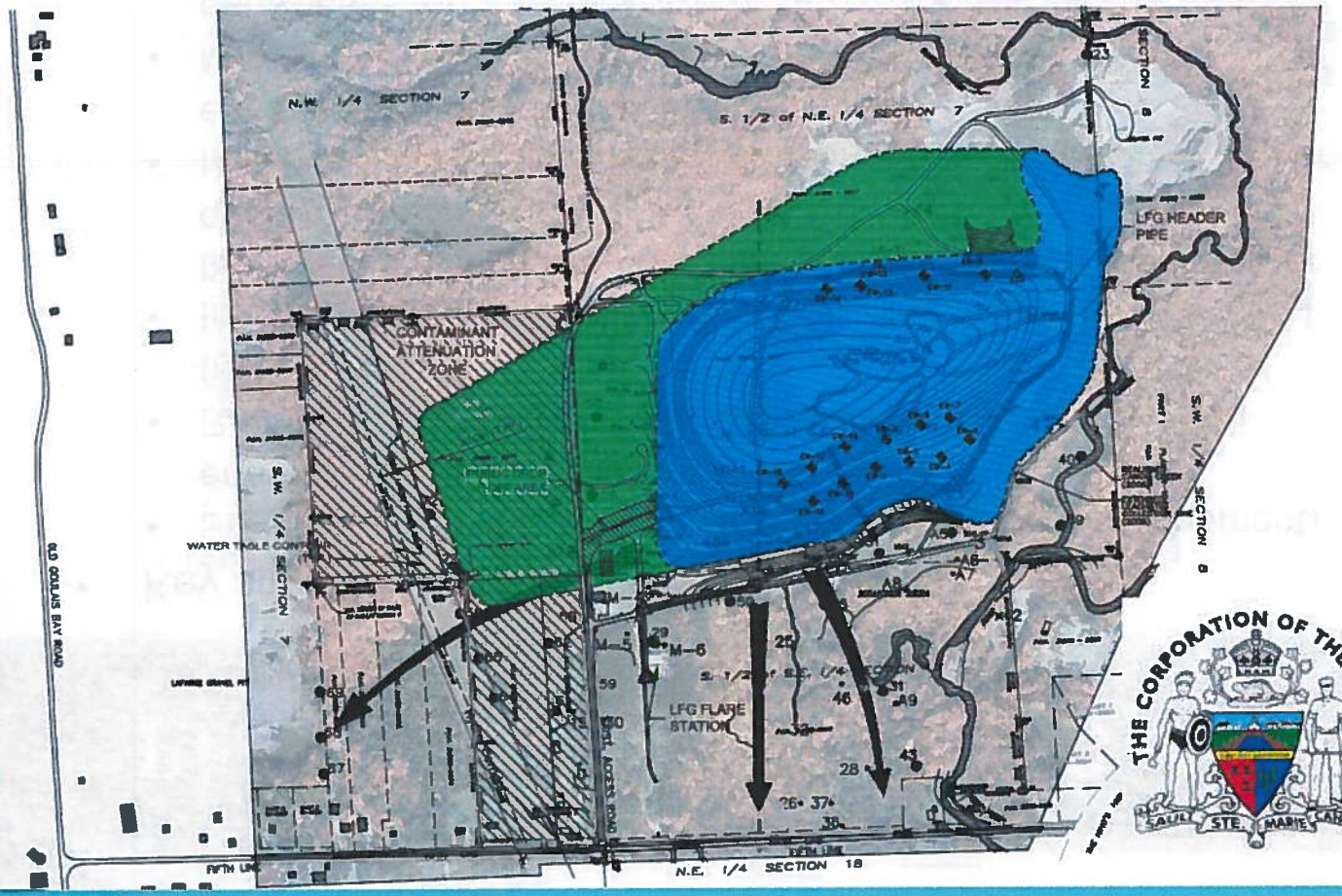


Evaluation of Expansion Options

- Data collection and analysis
- Technical disciplines initially compare options relative to each other and rank them under each criterion
- Present the evaluation in a table or matrix format with the rationale for the rankings
- Present to the public and solicit input from community members, stakeholders, First Nations, and governmental agencies
- Make adjustments to the evaluation based on input received
- Select a preferred option

Preliminary Preferred Expansion Option

- On the basis of the **preliminary** evaluation, the preliminary preferred expansion option is presented below



Preliminary Preferred Option

- Key advantages relative to other options include:
  - Site development (i.e. geometry and storm water management) enhanced relative to Options 2 and 4.
  - Reduced average excavation depth in west expansion area (i.e.11m).
  - Includes a liner beneath the waste within the western portion of the existing disposal footprint enhancing long term groundwater quality.
  - Includes a liner over existing waste in areas of overlap to further enhance groundwater quality.
  - Meets target capacity at current estimated waste densities.

Next Steps

- Solicit governmental, community First Nation and stakeholder input on the preliminary preferred expansion option – do you agree/disagree – why?
- Re-assess (if needed) and finalize the Step 2 evaluation based on input received
- Announce the preferred Step 2 - Alternative Method (i.e. preferred expansion option)
- Initiate a detailed impact assessment for the preferred option
- Continue to investigate ways to improve waste diversion through 3Rs initiatives

THE CITY OF SAULT STE. MARIE
JANUARY, 2016 NEWSLETTER
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

ENVIRONMENTAL ASSESSMENT (EA) PROCESS

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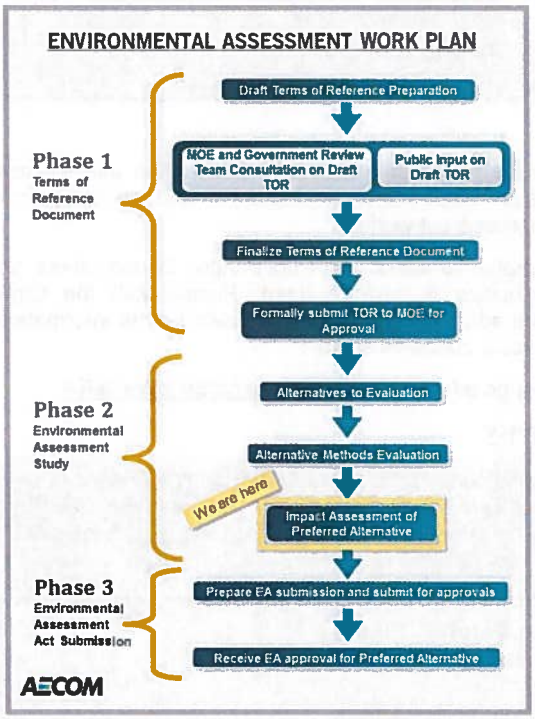


The City is finalizing Phase 2 of the EA Process and is currently preparing the EA submission. **We are interested in obtaining your input related to the current activities.**

BACKGROUND

Phase 1 of the EA process included public consultation and culminated with the Ministry of Environment and Climate Change's (MOECC) approval of the project Terms of Reference (ToR) in 2005. The ToR provides a framework or roadmap for completing the EA and summarizes the tasks and activities to be undertaken by the proponent.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and **the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.** The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

The City remains committed to investigating, implementing and supporting programs to increase waste diversion through 3Rs initiatives. Since the implementation of 3Rs initiatives does not require EA Act approval, the EA study turned its focus to alternative methods of landfilling residual waste. The key objective of this phase of the study is to find an environmentally suitable location for the development of additional landfill capacity.

The first step in this phase consisted of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. To identify a preferred approach to landfilling waste, the alternatives were compared using the following seven criteria groups:

1.	Natural environment	5.	Capability of managing waste quality and quantity
2.	Social-cultural environment	6.	Proven technical capacity
3.	Economic environment	7.	Cost
4.	Flexibility of the system		

A Public Input Session was held in April, 2011 to present the landfill alternatives being considered. **The evaluation and response from consultation concluded that an expansion of an existing landfill is generally preferred over construction of a new site.**

The study noted that an expansion requires less land, displaces fewer people and/or social/natural features, disrupts fewer people (i.e., one site versus two sites creating nuisance impacts), costs less, typically encounters fewer challenges in gaining technical approvals, and reduces the number of facilities the City must manage.

The second step in the Alternative Methods task focused on the best approach to expand the City's existing landfill site at 402 Fifth Line East by identifying and comparatively evaluating site expansion alternatives. Options considered included horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining (excavate previously disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) or a combination of these methodologies. A Public Input Session was held March, 2012 to obtain feedback on the evaluation criteria and the preliminary findings.

The evaluation and response from consultation concluded the preferred site expansion alternative consists of a modest increase in the height of the waste, an expansion of the disposal footprint to the west and north and mining a portion of the existing waste to enhance groundwater quality. All mined and expansion areas will include the

construction of a liner beneath the waste to collect leachate (precipitation contaminated as it filters through waste) and ultimately direct it to the City's sewage treatment plant for treatment.

Current Activities

The last part of Phase 2 involves assessing the potential impacts of the conceptual design and planned operation of the preferred site expansion alternative and identification of suitable mitigating measures. Multiple disciplines were involved to assess the various potential impacts of the expansion on site, off site, in the vicinity and along the access route. The access route was considered to be along Fifth Line from Highway 17 to the site (which is the same route used today). Measures to reduce or eliminate potential effects on the environment were recommended.

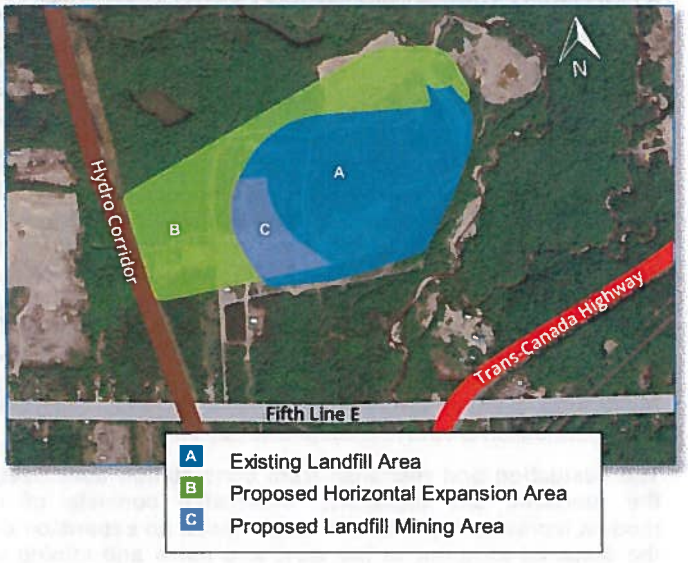
The disciplines that were involved include:

Natural Environment
- Biology
- Geology / hydrogeology
- Surface water

Socio-Cultural Environment
- Cultural (archaeology and heritage)
- Social
- Planned land use
- Visual
- Atmospheric (dust, noise, air quality)

Economic
- Businesses
- Transportation

Conceptual Layout of Proposed Landfill Expansion Area



HOW CAN I PROVIDE INPUT?

We will be hosting a Public Open House where you will learn about the results of the impact assessment work and we will ask for your feedback. If you are interested in discussing the project, we encourage you to attend the upcoming public open house!

YOU'RE INVITED!

Date:	*Tuesday, February 9, 2016*
Location:	*Civic Centre – 99 Foster Drive* *Russ Ramsay Room*
Time:	*3:30 pm to 7:30 pm*

Refreshments to be provided.

We will provide you with background information and discuss, with you, the preferred site expansion option and the results from the impact assessment work.

If you are unable to attend the Public Input Session there are other opportunities to provide input. Please visit the City's website at the address noted below to obtain further information, and / or access a comment sheet.

Project webpage address: saultstemarie.ca/SolidWasteEA

CONTACT US

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THE CITY OF SAULT STE. MARIE

NOTICE OF PUBLIC INPUT SESSION

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BACKGROUND

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- disrupts fewer people (i.e. one site versus two sites creating nuisance impacts);
- costs less;
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- reduces the number of facilities the City must manage.

In March 2012 a Public Input Session was held to present the preliminary preferred approach to expanding the existing landfill at 402 Fifth Line East in the City of Sault Ste. Marie. **The evaluation, which considered responses from consultation, concluded that an expansion is best accommodated with a moderate increase in the height of the waste together with and expansion of the disposal footprint to the north and west. The preferred option also includes landfill mining (excavate existing disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) in the western portion of the existing disposal footprint to enhance groundwater protection. All mined and expansion areas will include the construction of a liner beneath the waste to collect leachate (precipitation contaminated as it filters through waste) and ultimately direct it to the City's sewage treatment plant for treatment.**

CURRENT ACTIVITIES

Presently the project team is focusing on **completing an impact assessment for the preferred expansion option.** The impact assessment includes expertise from numerous disciplines and focusses on potential impacts to the natural and human environments associated with the construction and operation of the proposed expansion. Careful attention is given to best management practices to mitigate potential impacts.

We are now seeking input from the Community, government agencies, stakeholders, and First Nations regarding the results of our impact assessment work and the proposed mitigation measures.

PUBLIC INPUT SESSION

If you are interested in discussing the impact assessment work, we encourage you to attend the upcoming public open house! We will provide you with background information and discuss with you, the preferred site expansion option and the results of the impact assessment work.

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Time: 3:30 pm to 7:30 pm

Refreshments to be provided.

If you cannot attend the public open house, we still want to hear from you! Just go to the project webpage (address provided below) to review the project reference material and fill out a comment sheet or simply send us an email (email addresses provided above). Project webpage address: saultstemarie.ca/SolidWasteEA

The Corporation of the City of Sault Ste. Marie

LEGAL DEPARTMENT

NUALA KENNY, City Solicitor

Melanie Borowicz-Sibenik, Assistant City Solicitor/Senior Litigation Counsel

Jeffrey King, Solicitor/Prosecutor

File No. AG 54

December 9, 2016

Attention: Jayson Zwierschke
Elementa Group Inc.
11 Bond Street, Suite 103
St. Catherines, ON L2R 4Z4

Dear Mr. Zwierschke

RE: WASTE SUPPLY AND REFORMATION AGREEMENT – NOTICE OF TERMINATION

We confirm that on April 15, 2016 the Ontario Superior Court of Justice issued an Order approving the sale and transaction between the receiver and Bradam Canada Inc. for substantially all of the assets of Elementa Group Inc. We further confirm that on May 16, 2016 the sale to Bradam Canada Inc. closed. Given same, Elementa Group Inc. no longer owns the intellectual property that gave rise to the Waste Supply and Reformation Agreement (the "Agreement"), nor does it own the property where the project was to occur. The Agreement no longer serves a purpose.

Pursuant to section 14.1 of the Agreement, this letter shall serve as notice that the Agreement is hereby terminated, effective immediately.

Yours truly,

Melanie Borowicz-Sibenik
Assistant City Solicitor/Senior Litigation Counsel

MBS/md

\\citydata\legal\Staff\AGREEMENTS\Elementa Waste Supply Agreement & Extension (AG54) (L-298)\Notice of Termination Dec 9 2016.docx

The Corporation of the City of Sault Ste. Marie

LEGAL DEPARTMENT

NUALA KENNY, City Solicitor

Melanie Borowicz-Sibenik, Assistant City Solicitor/Senior Litigation Counsel

Jeffrey King, Solicitor/Prosecutor

File No. AG54

January 9, 2017

Attention: Adam Sherman
Richter Toronto
181 Bay Street, Suite 3320
Bay Wellington Tower
Toronto, ON M5J 2T3

Dear Mr. Sherman:

RE: WASTE SUPPLY AND REFORMATION AGREEMENT WITH ELEMENTA GROUP INCORPORATED – NOTICE OF TERMINATION

We confirm that on April 15, 2016 the Ontario Superior Court of Justice issued an Order approving the sale and transaction between the receiver and Bradam Canada Inc. for substantially all of the assets of Elementa Group Inc. We further confirm that on May 16, 2016 the sale to Bradam Canada Inc. closed. Given same, Elementa Group Inc. no longer owns the intellectual property that gave rise to the Waste Supply and Reformation Agreement (the "Agreement"), nor does it own the property where the project was to occur. The Agreement no longer serves a purpose.

As Richter is the representative of Elementa Group Inc., and pursuant to section 14.1 of the Agreement, this letter shall serve as notice that the Agreement is hereby terminated, effective immediately.

Yours truly,

Melanie Borowicz-Sibenik
Assistant City Solicitor/Senior Litigation Counsel

MBS/md

\\citydata\legal\Staff\AGREEMENTS\Elementa Waste Supply Agreement & Extension (AG54) (L-298)\Notice of Termination Jan 6, 2017.docx

AECOM

Appendix M

Indigenous Consultation Summary Tables and Supporting Documentation

INDIGENOUS COMMUNITIES

Description of Communication	Date	Comments / Questions / Issues	Response / How Addressed	Where Addressed in the EA	Reference Material	Outstanding Issues to be Addressed
Batchewana First Nation						
• Newsletter No.1 - Notice of Commencement of Phase 2 of the EA Process	October, 2006	• No comments were received.			Newsletter No.1 – Appendix M	None
• Correspondence – Letter mailed to BFN (Chief Sayers) referencing previous and next steps and requesting a meeting to discuss community consultation strategies.	January 3, 2007	• Initially no comments were received. • Meeting eventually scheduled for March 19, 2007	• AECOM confirmed meeting date.		Letter dated Jan. 3, 2007 to BFN from R. Talvitie – Appendix M	None
• Meeting with BFN to update Chief on EA status and to solicit input on a preferred consultation strategy.	March 19, 2007	• Chief Sayers expressed his appreciation for updating him and explained that he cannot speak on behalf of Council. • Noted the current meeting should not be construed as consultation and requested that Council be given an opportunity to review the Terms of Reference. • Chief Sayers suggested a submission be made to Chief and Council requesting input regarding an effective consultation strategy.	• R.Talvitie explained that the ToR was approved by the Ministry in Sept. 2005 and there is flexibility incorporated in the document. • The EA process is intended to be responsive to issues and concerns raised. • Suggested a distinct PIC in BFN may be advantageous. • ToR to be forwarded to Chief and Council for review. • Welcomed BFN input on an effective consultation strategy.	EA Terms of Reference and Summary of First Nation Consultation appended to the EA	Batchewana First Nation Consultation Strategy Meeting Report dated March 19, 2007 – Appendix M	BFN preferred consultation strategy
• Correspondence – Letter mailed to BFN (Chief Sayers and Council) referencing March 19th meeting and included a copy of the approved ToR and requested input on a consultation strategy and the “Alternatives To”.	March 21, 2007	• No comments were received.			Letter dated March 21, 2007 to BFN from R. Talvitie – Appendix M	BFN preferred consultation strategy
• Correspondence – Email to BFN (Council Secretary with copy to Chief Sayers) noting the team is proceeding with the first public consultation events and suggested a consultation event could be conducted in their Community and tailored to their specific needs.	May 17, 2007	• No comments were received.			Email dated May 17, 2007 to BFN from R. Talvitie – Appendix M	BFN preferred consultation strategy
• Correspondence – Letter mailed to BFN (Chief Sayers) notifying him of the upcoming open house in Sault Ste. Marie and inviting participation from his Community members. Included, for distribution in BFN, digital and hardcopies of the Notice of Public Input Session being conducted to provide updates on diversion improvements and to discuss “Alternatives To” and criteria to be used in the evaluation. Reiterated an offer to conduct a PIC in BFN or to work with them to develop an effective consultation strategy.	June 11, 2007	• No comments were received.			Letter to Batchewana First Nation from R. Talvitie regarding Notice of Public Input Session No. 1, June 11, 2007 – Appendix M	BFN preferred consultation strategy

• Correspondence – Email follow up (Chief Sayers and Council secretary) to the June 11, 2007 letter requesting Notices be posted in prominent locations and reiterating the offer for a separate event in their Community.	June 15, 2007	• No comments were received.			Email dated June 15, 2007 to Batchewana First Nation from R. Talvitie – Appendix M	BFN preferred consultation strategy
• Public Input Session No. 1- First public open house to provide updates on diversion improvements and to discuss "Alternatives To" and criteria to be used in the evaluation.	June 26, 2007	• Representation from BFN attended the open house – comments and input are included in the Public Open House Report.			Records from June 26, 2007 PIC – Appendix F	BFN preferred consultation strategy
• Correspondence – Email to BFN (Agnes Lidstone with copy to Chief Sayers) thanking them for participating in PIC, requesting to meet, and providing presentation slides from PIC. Reiterated offer to conduct a separate event in their Community.	June 27, 2007	• No comments were received.			Email dated June 27, 2007 to Batchewana First Nation from R. Talvitie – Appendix M	BFN preferred consultation strategy
• Phone call and follow-up correspondence – Email to BFN (Agnes Lidstone) requesting a meeting to discuss consultation strategies	July 6, 2007	• Meeting arranged for July 31, 2007	• RT confirmed meeting.		Email dated July 6, 2007 to A. Lidstone, BFN from R. Talvitie – Appendix M	BFN preferred consultation strategy
• Meeting with BFN (Chief Sayers and Agnes Lidstone) to confirm the preferred consultation strategy. The following working DRAFT reports were provided for Community input; "Waste Quantity Projections and Environment Profile" and Alternatives to the Undertaking". In addition, sample documents pertaining to the planned August 9th Garden River First Nation Open House were provided.	July 31, 2007	• Their Community has an inherent responsibility to look after the environment, in particular lands and waterways that are included in their traditional territory. • Chief Sayers expressed interest in partnering with the City. • Chief Sayers outlined a different approach to consultation. A briefing note will be prepared by A. Lidstone outlining the project status and the input required. The project will be included on the Aug. 21, 2007 Band Council agenda (public forum). Subject to Band Council approval BFN will proceed with a community brainstorming session. Through this session BFN will identify a preferred alternative from their perspective together with the rationale for the selection. This information will be forwarded to the City by the end of Sept., 2007	• The City and/or consultant staff would be pleased to attend Band Council meeting or act as a resource for any follow-up consultation activities. • Once BFN input is received, the project team will be reviewing all of the input received and will identify a preferred alternative with due consideration of all of the input.		Meeting Report dated July 31, 2007 with Batchewana First Nation – Appendix M	BFN input
• Correspondence – Email to BFN (Chief Sayers and Agnes Lidstone) thanking them for the meeting, attached copy of July 31st meeting report, and confirming their input will be provided within 4 weeks. Noted the event that was conducted in Garden River First Nations on August 9th and reaffirmed offer to undertake a similar evet in their Community.	August 13, 2007	• No comments were received.			Email dated August 13, 2007 to Chief Sayers, BRN from R. Talvitie – Appendix M	BFN input
• Correspondence - Email to BFN (Chief Sayers and Agnes Lidstone) touching base regarding their recent Council meeting, requesting input regarding the EA and offering assistance.	August 27, 2007	• No comments were received.			Email dated August 27, 2007 to BFN from R. Talvitie – Appendix M	BFN input

• Correspondence - Email to BFN (Chief Sayers and Agnes Lidstone) asking for input on EA, offering assistance and highlighting the schedule.	Sept. 11, 2007	• No comments were received.			Email dated September 11, 2007 to BFN from R. Talvitie – Appendix M	BFN input
• Correspondence - Email from BFN (Agnes Lidstone) regarding the actions she has taken.	Sept. 26, 2007	• Submitted report to BFN Council on Aug. 22, 2007 with recommendations and to date Council has not dealt with the report. Awaiting Council direction.	• We will await further input.		Email dated September 26, 2007 from BFN to R. Talvitie – Appendix M	BFN input
• Correspondence – Email to BFN (Chief Sayers and Agnes Lidstone) requesting an update (i.e. has Council addressed). Also requested a copy of Agnes' report and reaffirmed our commitment to assist.	November 9, 2007	• No comments received.			Email dated November 9, 2007 to BFN from R. Talvitie – Appendix M	BFN input
• Correspondence – Email to BFN (Chief Sayers and Agnes Lidstone) identifying schedule constraints and reaffirming our commitment to soliciting input.	January 22, 2008	• No comments were received.			Email dated January 22, 2008 to BFN from R. Talvitie – Appendix M	BFN input
• Correspondence – Email to BFN (Chief Sayers and Agnes Lidstone) requesting update on Council's consideration of Agnes' report and updating them on the project schedule and continuing to offer assistance.	October 24, 2008	• No comments were received.			Email dated October 24, 2008 to BFN from R. Talvitie – Appendix M	BFN input
• Correspondence – Email to BFN (Chief Sayers and Agnes Lidstone) following up regarding BFN input and noting we will be proceeding with the next phase of the process soon.	December 12, 2008	• No comments were received.			Email dated December 12, 2008 to BFN from R. Talvitie – Appendix M	BFN input
• Correspondence – Newsletter No. 2 and Notice of Public Input Session - Project Update and information regarding the upcoming June 3, 2010 PIC which is intended to identify the preferred "Alternative To", discuss the project progress and have questions or concerns addressed.	May, 2010	• No comments were received.			Solid Waste Disposal Environmental Assessment Newsletter No. 2 and Notice of Public Information Centre – Appendix M	
• Correspondence – Email to BFN (Chief Sayers and Agnes Lidstone) providing Newsletter No.2 and inviting their Community to the June 3rd PIC. Requested that they post notices of the upcoming PIC in their Community and on their website. Offered to attend a Band Council meeting to update them.	May 21, 2010	• No comments were received.			Email dated May 21, 2010 to BFN from R. Talvitie – Appendix M	BFN input
• Public Input Session No. 2 – Conducted to communicate the preferred "Alternative To" and provide an opportunity to discuss the project progress and have questions or concerns addressed.	June 3, 2010	• No comments were received.			Records from June 3, 2010 – Appendix H	
• Correspondence – Email to BFN (Chief Sayers and Agnes Lidstone) advising of a recent GRFN Band Council meeting and requesting an update on any actions taken by their Council. Offered to provide an update to their Band Council.	June 24, 2010	• No comments were received.			Email dated June 24, 2010 to BFN from R. Talvitie – Appendix M	BFN input

• Correspondence –Notice of Public Input Session - Project Update and information regarding the upcoming April 19, 2011 PIC which is intended to solicit input and feedback on the alternative approaches to landfilling residual waste (i.e. expand existing disposal site versus a new site)..	April, 2011	• No comments were received.			Solid Waste Disposal Environmental Assessment Notice of Public Input Session – Appendix M	
• Correspondence – Email to BFN (Chief Sayers and Agnes Lidstone) informing of the upcoming April 19th PIC. Encouraged posting of PIC Notices at prominent locations in their Community and on their website. Noted we would deliver a copy of the "Solid Waste Management Environmental Assessment – Alternative Methods – Step 1 (Landfill Expansion versus Development of a New Site)" report. Extending an offer to meet with Band Council.	April 8, 2011	• No comments were received.			Email dated April 8, 2011 to BFN from R. Talvitie – Appendix M	BFN input
• Public Input Session No. 3 - Conducted to provide an opportunity to discuss the project progress, solicit input and feedback on the alternative approaches to landfilling residual waste (i.e. expand existing disposal site versus a new site)., and to address questions or concerns.	April 19, 2011	• No comments were received			Records from April 19, 2011 PIC – Appendix I	
• Phone call and Communication Record (Danny Sayers) regarding BFN interest in the project as landowners and potential project partners. RT summarized work completed to date and agreed to prepare a letter requesting a meeting with Band Council	May 11, 2011	• No comments were received			Email dated May 11, 2011 – Appendix M	BFN input
• Correspondence – Letter to BFN (Chief Sayers and Council) summarizing key milestones and next steps in the process and requesting a meeting to update and request input from Band Council	May 11, 2011	• No comments were received.			Letter dated May 11, 2011 from R. Talvitie – Appendix M	BFN input
• Correspondence –Notice of Public Input Session - Project Update and information regarding the upcoming March 6, 2012 PIC which is intended to solicit input and feedback on the alternative approaches to expanding the existing disposal site.	February, 2012				Solid Waste Disposal Environmental Assessment Notice of Public Input Session – Appendix M	

• Correspondence – Email and Letter updating the project status, offering to meet, and advising of the upcoming Public Input Session No. 4 which is being conducted to discuss the project progress and solicit input and feedback on a preferred expansion strategy for the existing landfill site. The correspondence included the most recent Newsletter, Notice of upcoming PIC, Solid Waste Management Environmental Assessment – Alternative Methods – Step 2 (Identification and Comparison of Expansion Options) report, March 6, 2012 PIC displays and link to a survey.	February 15, 2012 and February 22, 2012	• No comments were received.			Letter dated February 15, 2012 and Email dated February 22, 2012 to BFN from R. Talvitie – Appendix M	BFN input
• Visit – dropped off the "Solid Waste Management Environmental Assessment – Alternative Methods – Step 2 report.	February 22, 2012	• No comments were received.				
• Public Input Session No. 4 - Conducted to discuss project progress and to solicit input and feedback on a preferred expansion strategy for the existing landfill site.	March 6, 2012	• No comments were received.			Records from March 6, 2012 PIC – Appendix J	
• Correspondence – Newsletter and Notice advising of Feb. 9, 2016 Public Input Centre No. 5 intended to discuss project progress and solicit input and feedback on the impact assessment work.	January, 2016				Solid Waste Disposal Environmental Assessment January 2016 Newsletter and Notice of Public Input Session – Appendix M	
• Correspondence – Letter to BFN (Danny Sayers) updating project status and requesting input and feedback on the impact assessment reports. Also advised of upcoming February 9th PIC and offered to meet with Band Council or conduct a separate event in their Community.	January 20, 2016	• No comments were received.			Letter dated January 20, 2016 to BFN from R. Talvitie – Appendix M	BFN input
• Public Input Session No. 5 - Conducted to discuss project progress and to solicit input and feedback on the impact assessment work.	February 9, 2016	• No comments were received.			Records of February 9, 2016 PIC – Appendix K	
• Correspondence – Email to BFN (Danny Sayers) following up on package submitted in January 2016 and offering to meet with Band Council. Also provided a copy of a recent Newsletter which summarized the current status of the project.	April 14, 2016	• No comments were received.			Email dated April 14, 2016 to BFN from R. Talvitie – Appendix M	BFN input

• Correspondence – Letter to BFN (Danny Sayers) from R. Talvitie notifying and requesting input on the Draft EA. Provided the Notice of the Draft EA and requested the Notice be shared with BFN community members. Also indicated that a hard copy of the Draft EA Report would be delivered to the BFN Band Office prior to May 24, 2017 and it was requested that this document also be made available to BFN community members. Notification was also provided that the document could be viewed on the City's website and link to the website was provided. An offer was also made to meet in person to discuss project details. Response letter dated August 2, 2017 from Chief Dean Sayers (BFN) to Don Elliott (City of Sault Ste. Marie).	May 17, 2017	• BFN notified the City that further discussions are necessary in order for BFN to endorse the subject project and provided input on how they expect their members to be engaged in consultation. BFN noted that they require funding in order to engage the services of a third-party to review the Draft EA document and confirm the proposed expansion will not impact the Treaty Rights and Interests of BFN nor impact the land, groundwater, flora, fauna or other environmental features of Rankin Reserve 15D. A preliminary meeting was requested and it was noted that this meeting will not be viewed by BFN as part of the consultation record with regard to their participation in this project.			Letter dated May 17, 2017 to BFN from R. Talvitie and response letter from Chief Dean Sayers (BFN) to Don Elliott (City of Sault Ste. Marie) dated August 2, 2017 – Appendix M	Input from BFN on final EA.
• Correspondence – Email to BFN (Dan Sayers) from R. Talvitie notifying BFN of the City's intent to submit the EA documentation to the Ministry in 2023 and requested a meeting with BFN to further engage BFN in a meaningful discussion regarding the EA and to ensure the rights and interests of BFN are protected and respected.	February 16, 2023	• Telephone call received from Dan Sayers (BFN) where next steps were discussed. BFN identified that funding is required in order to engage the services of an external firm to review the Draft EA document. It was suggested that BFN be provided with a copy of the current documentation (i.e., Solid Waste Management Draft EA Report) to establish the scope of services that would be required by a third-party to review and provide opinion on the Draft EA.	• BFN was emailed a link to the City's webpage for this project where they could access the Draft EA report. • The City agreed that it would be preferred to provide financial support to BFN for a third-party review of the Final EA report rather than funding for a review of the Draft EA report as there were a number of important edits being undertaken to the Draft report at that time. Ultimately, the City provided funding to BFN for a third-party review and BFN provided comments and questions related to the Final EA.		Emails dated February 16, 2023 from Rick Talvitie to Dan Sayers (BFN) – Appendix M	Input from BFN on final EA.

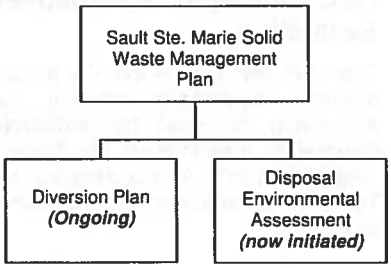
Solid Waste Disposal Environmental Assessment

Newsletter No.1, October 2006

Sault Ste. Marie Begins the Disposal Environmental Assessment (EA)

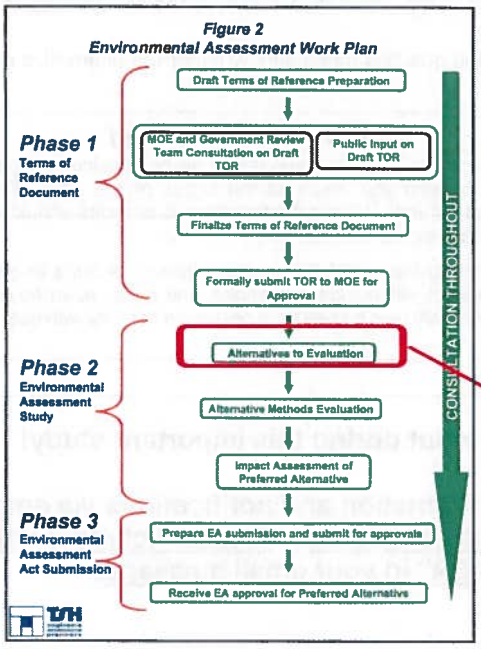
In September 2005 the Minister of the Environment approved the Environmental Assessment Terms of Reference (EA TOR) for the Sault Ste. Marie Solid Waste Management Plan. The EA TOR documents the process that will be followed to determine the preferred method for managing solid waste in Sault Ste. Marie for the next 20 to 40 years. In addition to the disposal EA, the Sault Ste. Marie Solid Waste Management Plan includes a significant diversion component.

A copy of the EA TOR is attached for your reference.



Diversion Update

The City of Sault Ste. Marie's waste diversion program currently includes collection and recycling of fibers and containers (ie: curbside yellow and blue box program); bi-weekly collection and composting of leaf and yard waste; a household hazardous waste depot; and segregation and recycling of metals, white goods, tires, and clean wood and brush at the solid waste landfill at 402 Fifth Line East. In 2005, the City limited residential waste setout to 2 bags/containers per week per household. Tags for additional waste bags or containers must be purchased. The residential waste diversion program diverted approximately 32% of residential waste from the landfill in 2005. This is a significant increase compared to the 8% diverted in 2000!



The EA Process Overview

The Environmental Assessment for disposal capacity includes three key phases. The first phase was completed with the submission and approval of the EA Terms of Reference. We are now initiating the second phase: the Environmental Assessment Study itself. The last phase is submission of the EA documentation to the Ministry of the Environment and the subsequent government and public review and approval period. It is anticipated that the whole process will take until early 2009.

WE ARE HERE

The City has retained a team of consultants including Totten Sims Hubicki Associates and Dillon Consulting Limited to assist them in the preparation of the Waste Disposal EA.

TSH engineers architects planners

DILLON CONSULTING

Next EA Steps: "Alternatives To" Evaluation

The next key step in the EA process is to evaluate functionally different ways of addressing the need for additional waste disposal capacity in Sault Ste. Marie, (ie. the "alternatives to"). As documented in the EA TOR, the alternatives being considered are as follows:

- Increased 3R's (reduce, reuse, recycle);
- Incineration & High Heat Processes;
- Landfill;
- Export Waste Outside Service Area;
- Do nothing.

Contact Us

Your input on this project is important to us. If you would like further information or to send comments, ask questions or be added to our mailing list, please contact us:

Mr. Rick Talvitie, P.Eng
Project Manager
Totten Sims Hubicki
523 Wellington Street East,
Sault Ste. Marie, Ontario
P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
Email: rtalvitie@tsh.ca

Mrs. Susan Hamilton-Beach, P.Eng.
Director of Engineering Services
City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive,
Sault Ste. Marie, Ontario
P6A 5N1

Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on.ca

The evaluation of "alternatives to" will be carried out at a general level. Specific locations and technologies for the above mentioned alternatives will not be included in this step but will be considered in the next step (ie. alternative methods evaluation).

In the EA Terms of Reference, criteria were proposed for the evaluation of the "alternatives to". The proposed criteria for the evaluation of "alternatives to" are listed below.

- Compliance with regulations and policies (addresses the ability to meet all applicable regulations and policies);
- Environmental acceptability (addresses potential environmental affects of the alternative);
- Ability of the City to implement the alternative (considers whether the City has the ability and mandate to implement the alternative);
- Flexibility of the system (considers whether the alternative can respond to changes in the waste stream);
- Capability of managing waste quantities and qualities (considers whether the alternative could handle the identified waste stream);
- Proven technical capability (considers whether the alternative has been proven successful in other experiences in Ontario or other jurisdictions); and
- Economic/Cost (considers the relative cost differences among the alternatives)

Keeping You Informed

This newsletter is part of a series that will be ongoing during this project to keep you aware of the status of the Solid Waste Management Plan. Contact information is provided should you wish more detailed information.

In addition to the newsletter, opportunities to become involved in the project will include workshops, and public open houses. Information will also be regularly posted on the City web site.

We look forward to receiving your input during this important study!

If you would prefer to receive future information and notifications via email please forward your email address to nirwin@tsh.ca. Please include the title "City of SSM Waste Disposal EA" in your email message.

TSH engineers architects planners

DILLON CONSULTING

January 3, 2007

Chief Dean Sayers
Batchewana First Nation
236 Frontenac Street
Sault Ste. Marie, Ontario
P6A 5K9

Dear Chief Sayers,

Re: City of Sault Ste. Marie
Waste Disposal Environmental Assessment
TSH Project No. 60395

The City's existing waste disposal site has an estimated nine to ten years of remaining capacity and can accept waste generated within the City of Sault Ste. Marie, Prince Township and Rankin Reserve. TSH Engineers has been retained by the City of Sault Ste. Marie to undertake an Environmental Assessment to address the problem of diminishing waste disposal capacity at the existing site. Recently, we sent you a newsletter which provided relevant contact information, an overview of the Environmental Assessment process, and identified the next steps to be undertaken.

In June, 2005 we also met with representatives of Batchewana First Nations to discuss the development of the Terms of Reference ("ToR") Document (refer to the attached meeting report). The ToR document sets out the process that will be followed in undertaking the Environmental Assessment.

During our June, 2005 meeting with Joe Corbiere and Agnes Lidstone we indicated that Batchewana First Nations would have an opportunity to assist in developing a consultation strategy for First Nation Communities and to participate in Public Input Sessions. We would like to meet with relevant community representatives to discuss this matter further and to update you on the progress of the study.

In addition we would also like to obtain any historical population data and population projections that are available for Rankin Reserve. Specifically, population data dating back to 1985 together with any available population projections would be greatly appreciated. We require this information to assist us in identifying the quantity of wastes to be managed in the future.

We will be contacting you in the near future to arrange a meeting. In the meantime please contact the undersigned should you have any questions.

Yours very truly,

R. Talvitie, P. Eng.
Project Manager

Encl.

p.c. S. Hamilton-Beach
K. Kolli

engineers
architects
planners

BATCHEWANA FIRST NATION CONSULTATION STRATEGY MEETING REPORT

Project:	City of Sault Ste. Marie Waste Disposal EA
TSH No.	60395
Meeting Date:	March 19, 2007
Meeting Time:	11:15 am
Report Date:	April 2, 2007
Recorder:	R. Talvitie
Page 1 of 3	

Note: If any of the contents of this meeting report differ in any respect from your own recollection of the points discussed or decisions reached, please notify us immediately. In the meantime, we will proceed in accordance with the understanding described herein.

LOCATION: Batchewana First Nations Community Centre

PRESENT: Chief Dean Sayers, BFN
Susan Hamilton-Beach, City SSM
Rick Talvitie, TSH

PURPOSE: To provide an update on the project progress and to discuss strategies for consulting with Batchewana First Nations Members.

Action By

1.0 Introduction and Background

RT provided an overview of the project background.

- Met with Batchewana First Nation in the spring of 2005 to discuss the Terms of Reference ("ToR"). The ToR provides the framework for guiding the implementation of the Environmental Assessment ("EA"). — Info.
- City has secured the services of a consultant team to undertake the EA (ie: TSH and Dillon). — Info.
- Approximately 11 years of disposal capacity remaining at the Fifth Line landfill. — Info.
- City has been very aggressive in enhancing waste diversion through new and enhanced programs. — Info.
- Currently diverting approx. 35% of the residential waste stream in comparison to 8% in 2000. — Info.
- Residential diversion programs include: — Info.
    - Blue/Yellow box (residential, multi-residential and schools);
    - Leaf and yard waste collection bi-weekly and backyard composters;
    - Household Special Waste Facility for hazardous wastes;
    - Reduced set-out limits (reduced from 6 bags/containers to two bags/containers per household);
    - Partial Pay-as-you-throw program (ie: $2 per bag/container beyond limit);

Action By

- Increased gate and tipping fees at the landfill;
- Segregation of waste at the landfill; and
- Special events coordinated by Clean North (Christmas trees and WEEE).

- IC&I increasing significantly as well through enhanced MOE enforcement. Info.

Chief DS expressed his appreciation for updating him on the project and explained that he cannot speak on behalf of Council and noted that the current meeting should not be construed as consultation. Furthermore the meeting that was conducted with Joe Corbiere in 2005 may not have reflected the interests of BFN. Chief Sayers requested that Council be given an opportunity to review the Terms of Reference. Info.

RT explained that the ToR was approved by the MOE in September 2005 but there is a significant amount of flexibility incorporated into the document. Furthermore the Environmental Assessment process is intended to be responsive to issues and concerns raised. TSH to forward a covering letter together with a copy of the ToR for review by Chief and Council. Info. TSH

2.0 Alternatives To

RT explained that the project team is currently looking at "alternatives to" the undertaking (different ways of managing the waste stream including diversion and disposal). Info.

Info.

The "alternatives to" being considered include:

- Increased Waste Diversion
- Incineration and High Heat Processes
- Landfill
- Export of Waste Outside the Service Area
- Do nothing

A series of evaluation criteria were developed and presented in the ToR which are intended to be used to evaluate the "Alternatives". A draft "Alternatives To" Report will be released in advance of the public input sessions and will document the preliminary evaluation completed. Info.

RT explained that the City believes it is important to table issues and concerns regarding the alternatives and the evaluation as early in the process as possible. This can be effectively achieved by consulting with potentially impacted communities and stakeholders early in the process. Info.

Input is specifically being solicited regarding the alternatives being considered, the evaluation criteria and the relative importance of the criteria with the intent of establishing a preferred "Alternative To". Info.

	Action By
RT suggested that it may be advantageous to conduct a distinct public input session in BFN to solicit input from First Nation members.	Info.
Chief Sayers suggested that a submission be made to Chief and Council requesting their input on an effective consultation strategy. Council will have an opportunity to address this matter at a Council meeting to be conducted the second week of April.	TSH
Chief Sayers noted that he expects that his Council will be anxious to participate in the study process.	Info.

END OF MEETING REPORT

Submitted By:

R. Talvitie, P.Eng.
Project Manager

cc: all inattendance
R. Roy
K. Kolli

G:\60395 - SSM Soild Waste Management EA\Word\First Nations\60395 mar 19 MTG w dsayers.doc

engineers
architects
planners

Totten Sims Hubicki Associates
523 Wellington Street East,
Sault Ste. Marie, Ontario, Canada P6A 2M4
(705) 942-2612 Fax: (705) 942-3642
E-mail: ssmarie@tsh.ca www.tsh.ca

March 21, 2007

Chief Sayers and Council
Batchewana First Nation of Ojibways
236 Frontenac Street,
Sault Ste. Marie, ON
P6A 5K9

Dear Chief Sayers and Council:

Re: City of Sault Ste. Marie
Solid Waste Disposal Environmental Assessment
TSH Project No. 38-60395

It was a pleasure meeting with Chief Dean Sayers on March 19th to outline the status of the subject project. We have included herein a copy of the Terms of Reference document that was approved by the Ministry of Environment in September 2005 together with a Newsletter that provides an overview of the current status of the project and the next steps to be undertaken in the process.

The Environmental Assessment process is intended to be responsive to issues and concerns raised. The attached Environmental Assessment Terms of Reference document has been developed to provide flexibility during the conduct of the Environmental Assessment process to ensure issues are appropriately addressed.

We believe it is important to table issues and concerns regarding the alternatives and the evaluation as early in the process as possible. This can be effectively achieved by consulting with potentially impacted communities and stakeholders early in the process.

In order to facilitate meaningful input from your community members we would first appreciate receiving feedback on a consultation strategy. As an example we believe it may be advantageous to conduct a distinct public input session in your community to solicit input on the alternatives being considered, the evaluation criteria and the relative importance of the criteria. The format for the session could include a presentation regarding the alternatives and evaluation together with facilitated discussions to obtain feedback. We would also provide a series of descriptive display panels to educate and encourage feedback.

We were encouraged by the interest shown in this project during our March 19th meeting. It is important that we continue to advance this project in a positive manner and we are looking forward to receiving your input following your mid-April working council session.

Should you have any questions please contact the undersigned.

Yours very truly,

Rick Talvitie, P.Eng.,
Branch Manager

Encl.

p.c. S. Hamilton-Beach
K. Kolli

\\Tsh-server\projects\60395 - SSM Soild Waste Management EA\Word\First Nations\60395 mar19 LET council re consult.doc

Talvitie, Rick

From: Rick Talvitie
Sent: May 17, 2007 10:56 AM
To: 'councilsecretary@batchewana.ca'
Cc: 'chiefdeansayers@batchewana.ca'; 'Susan Hamilton Beach'; 'Kolli, Karla'
Subject: City of Sault Ste. Marie Waste Disposal EA

Hi Sandra,

I just wanted to follow-up to confirm our discussion this morning.

The City is anxious to proceed with our first public input sessions relating to the Environmental Assessment being undertaken to address diminishing waste disposal capacity at the City's landfill. It is my understanding that you had an opportunity this morning to discuss this project with the Chief and you will be reviewing it in greater detail very soon.

We will be undertaking the first public input sessions in June before the busy summer vacation period and would like to include a session within Batchewana First Nation.

The Public Input session could be tailored to your specific requirements. We could either conduct an informal public open house to allow community members to drop by to ask questions or make comments on their own schedule or alternatively we could conduct a "meeting", make a presentation and develop focus groups to discuss specific components of the project.

Again we are prepared to work with you to develop a suitable consultation approach but we have to be cognizant of the project schedule. We would greatly appreciate your input on this matter within the next week.

We look forward to hearing from you.

Thank you in advance.

Rick Talvitie, P.Eng.
Branch Manager
TSH
523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4
Phone: 705-942-2612
Fax: 705-942-3642
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June 11, 2007

Chief Dean Sayers
Batchewana First Nation
236 Frontenac Street
Sault Ste. Marie, Ontario
P6A 5K9

Dear Chief Sayers:

Re: City of Sault Ste. Marie
Solid Waste Management EA
TSH Project No. 60395

The City of Sault Ste. Marie is proceeding with the first public input session for the Solid Waste Management Plan Environmental Assessment. Details pertaining to the session are included in the attached Notice.

We will be advertising this Public Input session through various forms within the City of Sault Ste. Marie and adjacent communities. We are encouraging direct participation of Batchewana First Nation members. We have enclosed 10 copies of the Notice for posting at prominent locations within your community.

We have also included a digital copy for posting on your website.

In the event that you feel there are other effective means of notifying members of your community of this session please let us know.

We are hopeful that there will be broad representation of various interest groups and communities at the event.

We would also like to reiterate that we would like to conduct a separate public input session within your community. In this regard, could you please provide us with a suitable date, time and location for an event in early July, 2007.

We look forward to seeing members from your community at our event and look forward to coordinating a separate event in your community.

Yours very truly,

R. Talvitie, P. Eng.
Project Manager

c.c. Susan Hamilton-Beach
Karla Kolli

Solid Waste Disposal Environmental Assessment PUBLIC INPUT SESSION No. 1

Sault Ste. Marie Conducts First Public Input Session!

Are you interested in discussing the alternatives and criteria that will be used to compare and select a preferred approach to dispose of waste in Sault Ste. Marie, Prince Township and Batchewana First Nation's Rankin Reserve? If so, we encourage you to attend this public input session!

You're Invited!

Date: Tuesday June 26, 2007
Time: 6:00 pm to 9:00 pm
Location: Civic Centre – Russ Ramsay Room

Please join us!

The City of Sault Ste. Marie is holding a public input session for the Solid Waste Disposal Environmental Assessment to discuss both diversion and disposal of solid waste.

We will update you on the City's achievements in increasing waste diversion and discuss with you the alternative approaches that are being considered to dispose of the residual solid waste. A principle objective of the session is to confirm the alternatives that are being considered (ie: increased 3R's, landfill, incineration and high heat processes, export and do-nothing) and to discuss the criteria that will be used to compare the alternatives.

Information on waste quantities, the alternatives and the evaluation criteria can be found in two working papers prepared for this session titled "Waste Quantity Projections and Existing Environment Profile" and "Alternatives To the Undertaking". These working papers can be downloaded from the City of Sault Ste. Marie website (http://www.cityssm.on.ca/) or viewed at the locations noted below commencing on June 19th.

TSH Engineers Architects and Planners	523 Wellington Street
Civic Centre Engineering and Planning	99 Foster Drive, 5th Floor
Public Works and Transportation	128 Sackville Road
Main Library	50 East Street
Churchill Branch Library	301 Lake Street
Korah Branch Library	496 Second Line
Township of Prince Municipal Office	3042 Second Line West
Batchewana First Nation	236 Frontenac Street
Garden River First Nation	7 Shingwauk Street
Metis Nation of Ontario Office	26 Queen Street East
Missanabie Cree Office	559 Queen Street East

We also encourage you to contact the individuals noted below if you have any specific questions.

Mr. Rick Talvitie, P.Eng
Project Manager
Totten Sims Hubicki (TSH)
523 Wellington Street East,
Sault Ste. Marie, Ontario
P6A 2M4
Phone: 705-942-2612
Fax: 705-942-3642
Email: rtalvitie@tsh.ca

Mrs. Susan Hamilton-Beach, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
99 Foster Drive,
Sault Ste. Marie, Ontario
P6A 5N1
Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on.ca

Information pertaining to this session is available on the City of Sault Ste. Marie website at: http://www.cityssm.on.ca/. Hardcopies can also be obtained by contacting TSH at 705-942-2612.

We look forward to seeing you on June 26th!

TSH engineers architects planners

DILLON CONSULTING

Talvitie, Rick

From: Rick Talvitie
Sent: June 15, 2007 10:32 AM
To: 'chiefdeansayers@batchewana.ca'; 'councilsecretary@batchewana.ca'
Cc: 'Susan Hamilton Beach'
Subject: City of Sault Ste. Marie Waste Disposal EA

Good Morning Chief Sayers,

I am just following up on the Notice of the Public input session that was delivered to you yesterday. The City is undertaking a public input session on June 26th (details are provided in the Notices provided to you). The general public within Sault Ste. Marie and adjacent communities are encouraged to attend. We are hopeful that you will post the notices in prominent locations in your community including your website (ie: digital copy was also provided).

I also wanted to reiterate that we would like to conduct a separate event in your community in the month of July/07. It is important that we continue to move forward with this project and ask that you provide us with a suggested date and time for an event.

Thank you and we look forward to working with you.

Regards,

Rick Talvitie, P.Eng.
Branch Manager
TSH
523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4
Phone: 705-942-2612
Fax: 705-942-3642
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Talvitie, Rick

From: Rick Talvitie
Sent: June 27, 2007 11:13 AM
To: 'alidstone@batchewana.ca'
Cc: 'chiefdeansayers@batchewana.ca'; 'Susan Hamilton Beach'; 'Kolli, Karla'
Subject: City of Sault Ste. Marie Waste Disposal EA
Attachments: final jun 26 public input session.pdf

Hi Agnes,

It was a pleasure discussing the project with you at last nights Public Input Session. We appreciate that you took the time to attend. As I noted at last nights meeting the City is committed to conducting a separate consultation event in your community. It is however important we conduct an event as soon as practicable given our schedule constraints.

As discussed we will meet with you in two weeks time at which time we will discuss the specific format for consultation in your community (eg. workshop or open house or some other format) and we will confirm the date for the event. As I noted we would like to conduct the event in the next 4-6 weeks at the latest.

Please confirm which of the following meeting dates/times works best for you.

July 9 at 1:30 pm
July 10 at 1:30 pm
July 11 at 1:30 pm

We look forward to meeting with you and obtaining input from your community.

We have also attached a copy of the slides from last night's presentation for dissemination to Band Council. Given that this project will span a couple of years we suggest that you make the relevant materials available to your members. This can either be done by uploading the information directly to your website or providing a link to the City of SSM website. I will provide you with a suitable link to the EA information on the City's website in the coming days.

Regards,

Rick Talvitie, P.Eng.
Branch Manager
TSH
523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4
Phone: 705-942-2612
Fax: 705-942-3642
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Talvitie, Rick

From: Rick Talvitie
Sent: July 6, 2007 10:49 AM
To: 'alidstone@batchewana.ca'
Cc: 'Susan Hamilton Beach'; 'Kolli, Karla'
Subject: City of Sault Ste. Marie Waste Disposal EA
Attachments: final jun 26 public input session.pdf

Hi Agnes,

I tried to call you on Friday to confirm a meeting date/time but you were away from the office. I thought I would resend this message and request that you get back to me on Monday July 9th – Have a great weekend and I will talk to you on Monday.

It was a pleasure discussing the project with you at last nights Public Input Session. We appreciate that you took the time to attend. As I noted at last nights meeting the City is committed to conducting a separate consultation event in your community. It is however important we conduct an event as soon as practicable given our schedule constraints.

As discussed we will meet with you in two weeks time at which time we will discuss the specific format for consultation in your community (eg. workshop or open house or some other format) and we will confirm the date for the event. As I noted we would like to conduct the event in the next 4-6 weeks at the latest.

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Regards,

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Branch Manager
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engineers
architects
planners

Project:	City of Sault Ste. Marie Waste Disposal EA
TSH No.	60395
Meeting Date:	July 31, 2007
Meeting Time:	10:00 a.m.
Report Date:	July 31, 2007
Recorder:	R. Talvitie
Page 1 of 2	

MEETING WITH BATCHEWANA FIRST NATION – JULY 31, 2007

Note: If any of the contents of this meeting report differ in any respect from your own recollection of the points discussed or decisions reached, please notify us immediately. In the meantime, we will proceed in accordance with the understanding described herein.

LOCATION: Batchewana First Nation Office

PRESENT: Chief Dean Sayers, Batchewana First Nation
Agnes Lidstone, Batchewana First Nation
Susan Hamilton Beach, City of Sault Ste. Marie Engineering
Rick Talvitie, TSH

PURPOSE: To discuss project progress and consultation strategies.

		Action By
1.0	RT provide an overview of the work completed since the last meeting was conducted on March 19, 2007. The project team has compiled two "Working Draft" reports entitled, "Waste Quantity Projections and Environment Profile" and "Alternatives to the Undertaking". Copies of the working drafts were provided to Agnes Lidstone at the City of Sault Ste. Marie public input session and additional copies were left at the Band office for review by interested individuals. Copies of the Notice advertising the Garden River Open House and the Public Participation booklet were also left for reference.	Info.
2.0	RT provided a brief overview of the contents of both reports and highlighted the alternative waste management strategies and the criteria being used to evaluate them. Public input is currently being solicited on these alternatives. A public input session was conducted in the City of Sault Ste. Marie and an open house is planned in Garden River First Nation on August 9th. The intent of the sessions is to identify additional alternatives that should be considered, additional evaluation criteria and weightings for the criteria.	Info.
3.0	Chief Sayers noted that their Community has an inherent responsibility to look after the environment and in particular the lands and waterways that are included in their traditional territory as defined in the 1850 Robinson Huron Treaty. He also noted that any development within their traditional territory would require the endorsement of Batchewana First Nation. A map illustrating the land mass that is the subject of the treaty was reviewed. The treaty lands cover a significant area from the St. Mary's River northerly well beyond the current study area.	Info.

		Action By
4.0	Chief Sayers also expressed an interest in partnering with the City and cited an example of a possible partnership with Brookfield Power north of the City. He also noted that they have discussed waste management issues with Oneida of the Thames Reserve which is near the Greenlane landfill.	Info.
5.0	SH provided an overview of the Enquest Power demonstration project which is currently in its infancy. The project is being undertaken independently by a company and their hope is to demonstrate the capabilities of their steam reformation process (ie: covert waste to a syngas, water and char). The waste is transformed under high heat in the absence of oxygen. Another pilot scale project is also underway in Ottawa.	Info.
6.0	AL noted that she recalls discussing incineration and high heat processes with a City official a number of years ago and was under the impression that it was not being considered.	Info.
7.0	RT explained that in the current phase of the EA the study team is reviewing and evaluating all practical solutions or technologies with due consideration of net environmental effects and costs. Incineration and high heat processes are included in the evaluation.	Info.
8.0	RT explained that public input has been obtained in Sault Ste. Marie and will be obtained in Garden River. The study team is working towards identifying a preferred "alternative to" by September, 2007. Input from Batchewana First Nation is an important component in the process and suggested that the City/TSH conduct an open house to solicit input/feedback.	Info.
9.0	Chief Sayers outlined a different approach to consultation as follows. A briefing note will be prepared by AL outlining the project status and the input required. The project will be included on the August 21, 2007 Band Council agenda (public forum). Subject to Band Council approval Batchewana FN will proceed with a community brainstorming session. Through this session Batchewana FN will identify a preferred alternative from their perspective together with the rationale for the selection. This information will be forwarded to the City by the end of September, 2007. SH noted that City/consultant staff would be pleased to attend the Band Council meeting or act as a resource for any follow-up consultation activities. Chief Sayers noted that with the material provided representation is not required.	Batchewana First Nation
10.0	RT noted that once their input is received the project team will be reviewing all of the input received and will identify a preferred alternative with due consideration of all of the input. RT noted that this can be challenging given the differing viewpoints that are often advanced.	TSH / Dillon / City

End of Meeting Report
Prepared by:

R. Talvitie, P. Eng.
Project Manager

c.c. All in Attendance
K. Kolli

City of Sault Ste. Marie Solid Waste Disposal Environmental Assessment PUBLIC OPEN HOUSE No. 1

Sault Ste. Marie Conducts First Public Open House in Garden River!

Are you interested in discussing the alternatives and criteria that will be used to compare and select a preferred approach to dispose of waste in Sault Ste. Marie, Prince Township and Batchewana First Nation's Rankin Reserve? If so, we encourage you to attend this public open house!

You're Invited!

Date: Thursday, August 9, 2007
Time: Drop by anytime between 4:00 pm and 7:00 pm
Location: Garden River Community Center

Please Join Us!

The City of Sault Ste. Marie is holding a public open house for the Solid Waste Disposal Environmental Assessment to discuss both diversion and disposal of solid waste.

We will update you on the City's achievements in increasing waste diversion and discuss with you the alternative approaches that are being considered to dispose of the residual solid waste. A principle objective of the session is to confirm the alternatives that are being considered (ie: increased 3R's, landfill, incineration and high heat processes, export and do-nothing) and to discuss the criteria that will be used to compare the alternatives.

Information on waste quantities, the alternatives and the evaluation criteria can be found in two working papers prepared for this session titled "Waste Quantity Projections and Existing Environment Profile" and "Alternatives To the Undertaking". These working papers can be downloaded from the City of Sault Ste. Marie website (http://www.cityssm.on.ca/Open_Page.aspx?ID=639&deptid=1) or viewed at the Garden River First Nation Band Office (7 Shingwauk Street).

We also encourage you to contact the individuals noted below if you have any specific questions.

Mr. Rick Talvitie, P.Eng
Project Manager
Totten Sims Hubicki (TSH)
523 Wellington Street East,
Sault Ste. Marie, Ontario
P6A 2M4
Phone: 705-942-2612
Fax: 705-942-3642
Email: rtalvitie@tsh.ca

Mrs. Susan Hamilton Beach, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
99 Foster Drive,
Sault Ste. Marie, Ontario
P6A 5N1
Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on.ca

Further information pertaining to the open house is available on the City of Sault Ste. Marie website at: http://www.cityssm.on.ca/Open_Page.aspx?ID=639&deptid=1. Hardcopies of the posted information can also be obtained by contacting TSH at 705-942-2612.

We look forward to seeing you on August 9th!

TSH engineers architects planners

DILLON CONSULTING

Talvitie, Rick

From: Rick Talvitie
Sent: August 13, 2007 8:04 AM
To: 'chiefdeansayers@batchewana.ca'; 'alidstone@batchewana.ca'
Cc: 'Susan Hamilton Beach'
Subject: City of Sault Ste. Marie Waste Disposal Environmnetal Assessment
Attachments: 60395 jul 31 MTG batchewana fn.pdf

Chief Sayers/Agnes

Thank you both for meeting with Susan and I on July 31, 2007. I have attached a copy of a meeting report for your information and records.

As discussed during our meeting it is our understanding that this matter will be addressed at your August 21, 2007 Band Council meeting and input regarding the alternatives and the evaluation will be provided to the City/TSH in about 4 weeks. As you know this timeline is important to the overall project schedule and we look forward to receiving your input. The City will be selecting a preferred "alternative to" by the end of September.

For your information we conducted an open house in Garden River on August 9th and we would be pleased to conduct a similar session in Batchewana's Rankin Reserve. Alternatively we are available as a resource to assist you in your consultations. Please contact Susan or myself at your leisure.

We look forward to hearing from you.

Regards,

Rick Talvitie, P. Eng.
Branch Manager
TSH
523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4
Phone: (705) 942-2612
Fax: (705) 942-3642

Website: www.tsh.ca

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Talvitie, Rick

From: Rick Talvitie
Sent: August 27, 2007 8:42 AM
To: 'chiefdeansayers@batchewana.ca'; 'alidstone@batchewana.ca'
Cc: 's.hamiltonbeach@cityssm.on.ca'
Subject: City of Sault Ste. Marie Waste Disposal EA

Hi Chief Sayers/Agnes

I just thought I would touch base with you to see how your band council meeting went last week. Were any questions raised regarding the EA we are undertaking on behalf of the City?

Let me know if we can be of any assistance to you in this matter. We look forward to receiving your input within the next month.

Thanks.

Rick Talvitie, P. Eng.
Branch Manager
TSH
523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4
Phone: (705) 942-2612
Fax: (705) 942-3642

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Talvitie, Rick

From: Rick Talvitie
Sent: September 11, 2007 10:32 AM
To: 'chiefdeansayers@batchewana.ca'
Cc: 'alidstone@batchewana.ca'; 'Susan Hamilton Beach'
Subject: City of Sault Ste. Marie - Waste Disposal EA

Hi Chief Sayers,

I just thought I would touch base to see if we could be of any assistance to you with your ongoing consideration of the alternatives and the evaluation criteria. It is very important that we receive your feedback by the end of September at the latest. If there is anything we can do please do not hesitate to contact Susan Hamilton Beach at the City (759-5385) or myself at the number noted below.

Thanks.

Rick Talvitie, P. Eng.
Branch Manager
TSH
523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4
Phone: (705) 942-2612
Fax: (705) 942-3642

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Talvitie, Rick

From: Agnes Lidstone [alidstone@batchewana.ca]
Sent: September 26, 2007 1:54 PM
To: Rick Talvitie
Cc: chiefdeansayers@batchewana.ca
Subject: Re: City of Sault Ste. Marie - Waste Disposal EA

Hi Rick
I submitted a report to BFN Council on August 22, 2007 with recommendations. To date Council has not dealt with the report and I am awaiting Council direction.

Agnes

----- Original Message -----
From: Rick Talvitie
To: chiefdeansayers@batchewana.ca
Cc: alidstone@batchewana.ca ; Susan Hamilton Beach
Sent: Tuesday, September 11, 2007 10:32 AM
Subject: City of Sault Ste. Marie - Waste Disposal EA

Hi Chief Sayers,

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Rick Talvitie, P. Eng.
Branch Manager
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Talvitie, Rick

From: Rick Talvitie
Sent: November 9, 2007 11:34 AM
To: 'Agnes Lidstone'; chiefdeansayers@batchewana.ca
Subject: RE: City of Sault Ste. Marie - Waste Disposal EA

Hi Chief Sayers/Agnes,

It is important that we continue to make progress with our study. Has Council had an opportunity to address this matter? If not has a date been identified to address the matter? Is it possible to obtain a copy of Agnes' report?

We continue to be committed to assisting in any way we can including conducting a public consultation event in your community or attending a Band Council meeting.

We look forward to hearing from you.

Regards,

Rick Talvitie, P. Eng.
Branch Manager
TSH
523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4
Phone: (705) 942-2612
Fax: (705) 942-3642

Website: www.tsh.ca

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From: Agnes Lidstone [mailto:alidstone@batchewana.ca]
Sent: September 26, 2007 1:54 PM
To: Rick Talvitie
Cc: chiefdeansayers@batchewana.ca
Subject: Re: City of Sault Ste. Marie - Waste Disposal EA

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Thanks.

Rick Talvitie, P. Eng.
Branch Manager
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523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4
Phone: (705) 942-2612
Fax: (705) 942-3642

Website: www.tsh.ca

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Talvitie, Rick

From: Rick Talvitie
Sent: January 22, 2008 8:41 AM
To: 'Agnes Lidstone'
Cc: chiefdeansayers@batchewana.ca; Susan Hamilton Beach (City); 'Kolli, Karla'
Subject: RE: City of Sault Ste. Marie - Waste Disposal EA

Hi Agnes,

As you know a substantial period of time has passed since we met with yourself and Chief Sayers. We remain hopeful that we will receive input from Batchewana First Nations before we proceed with the next phase of our Environmental Assessment process. We cannot however extend our project schedule for the current phase beyond the end of March, 2008.

TSH and the City remain committed to assisting you and your council in soliciting input from your community members. Please let us know if there is anyway we can assist you.

We look forward to hearing from you in the near future.

Thank you.

Rick Talvitie, P. Eng.
Branch Manager
TSH
523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4
Phone: (705) 942-2612
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From: Agnes Lidstone [mailto:alidstone@batchewana.ca]
Sent: September 26, 2007 1:54 PM
To: Rick Talvitie
Cc: chiefdeansayers@batchewana.ca
Subject: Re: City of Sault Ste. Marie - Waste Disposal EA

Hi Rick
I submitted a report to BFN Council on August 22, 2007 with recommendations. To date Council has not dealt with the report and I am awaiting Council direction.

Agnes

----- Original Message -----
From: Rick Talvitie
To: chiefdeansayers@batchewana.ca
Cc: alidstone@batchewana.ca ; Susan Hamilton Beach
Sent: Tuesday, September 11, 2007 10:32 AM
Subject: City of Sault Ste. Marie - Waste Disposal EA

Hi Chief Sayers,

I just thought I would touch base to see if we could be of any assistance to you with your ongoing consideration of the alternatives and the evaluation criteria. It is very important that we receive your feedback by the end of September at the latest. If there is anything we can do please do not hesitate to contact Susan Hamilton Beach at the City (759-5385) or myself at the number noted below.

Thanks.

Rick Talvitie, P. Eng.
Branch Manager
TSH
523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4
Phone: (705) 942-2612
Fax: (705) 942-3642

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Talvitie, Rick

From: Talvitie, Rick
Sent: October 24, 2008 10:01 AM
To: 'chiefdeansayers@batchewana.ca'; 'alidstone@batchewana.ca'
Cc: 's.hamiltonbeach@cityssm.on.ca'
Subject: City of Sault Ste. Marie Waste Management Environmental Assessment (EA)

Hello Chief Sayers,

We are continuing to work with the City of Sault Ste. Marie on their Environmental Assessment to address future management of solid waste. You may recall that Susan Hamilton Beach of the City of Sault Ste. Marie and I met with you to discuss this project some time ago. The project has experienced a number of delays, due in part, to allow additional time for public input.

In August, 2007 I believe that Agnes submitted a report addressing our ongoing EA for Band Council's consideration. Was that report ever tabled with Council? What were the outcomes?

Based on the revised project schedule we are proposing to move forward with the next phase of the EA early in the New Year. We remain hopeful that we will receive further input from Batchewana First Nations.

AECOM (you will note we have changed our name from TSH to AECOM as we have been purchased by a larger professional engineering firm as outlined below) and the City remain committed to assisting you and your council in soliciting input from your community members. As you know we conducted a public input session in Garden River First Nation and we would be pleased to conduct a similar event for your community members. Please let us know if you would like to proceed with a public input session or if we can assist in any other way.

Much appreciated. We look forward to hearing from you.

Regards,

Rick Talvitie, P. Eng.
Branch Manager
rick.talvitie@aecom.com

AECOM
523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4
T 705.942.2612 F 705.942.3642
www.aecom.com

My email has changed to rick.talvitie@aecom.com. Please update your address books accordingly.

Effective October 2008, Earth Tech, Gartner Lee, TSH and UMA are known collectively as AECOM. AECOM provides a blend of global reach, local knowledge, innovation and technical excellence in delivering solutions that enhance and sustain the world's built, natural, and social environments.

This communication is intended for the sole use of the person(s) to whom it is addressed and may contain information that is privileged, confidential or subject to copyright. Any unauthorized use, disclosure or copying of this communication is strictly prohibited. If you have received this communication in error, please contact the sender immediately. Any communication received in error should be deleted and all copies destroyed.

Please consider the environment before printing this page.

Talvitie, Rick

From: Talvitie, Rick
Sent: December 12, 2008 8:55 AM
To: 'chiefdeansayers@batchewana.ca'; 'alidstone@batchewana.ca'
Cc: 'Susan Hamilton Beach'
Subject: FW: City of Sault Ste. Marie Waste Management Environmental Assessment (EA)

Hi Chief Sayers,

I just wanted to touch base regarding my earlier emails....when do you anticipate that we would receive some feedback? We are planning to move to the next phase of the process early in the new year.

We look forward to hearing from you. Let me know if we can be of any assistance.

Regards,

Rick Talvitie, P. Eng.
Branch Manager
rick.talvitie@aecom.com

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My email has changed to rick.talvitie@aecom.com. Please update your address books accordingly.

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Please consider the environment before printing this page.

From: Talvitie, Rick
Sent: October 27, 2008 3:53 PM
To: 'mail.batchewana.ca'
Subject: RE: City of Sault Ste. Marie Waste Management Environmental Assessment (EA)

Hello Chief Sayers,

Thank you for the response and we will look forward to hearing from the CAO.

Much Appreciated.

Rick Talvitie, P. Eng.
Branch Manager
rick.talvitie@aecom.com

SOLID WASTE DISPOSAL
ENVIRONMENTAL ASSESSMENT

Newsletter No.2, May 2010

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its residual municipal solid waste. In the evaluation of "Alternatives To the Undertaking", a thorough review of different waste management alternatives including increased waste diversion, incineration/high heat processes, landfill, export waste outside the service area, and "do-nothing" was completed. To identify a preferred waste management method, the alternatives were comparatively evaluated using the following seven criteria:

1. Compliance with current regulations and policies;
2. Environmental acceptability;
3. The ability of the City of Sault Ste. Marie to implement the preferred alternative;
4. Flexibility of the system;
5. Capability of managing waste quality and quantity;
6. Proven technical capacity; and
7. Cost.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative for the City has been identified as **increased waste diversion and landfilling of the residual waste.**

DIVERSION UPDATE

The residential waste diversion program diverted approximately 34% of residential waste from the landfill in 2009. This shows consistent progress when compared to the 9% diverted in 2000! The City of Sault Ste. Marie's waste diversion program currently includes weekly curbside collection and recycling of paper products in the yellow box and containers in the blue box; bi-weekly collection and composting of leaf and yard waste throughout the growing season (April through November); a household special waste facility at 115 Industrial Park Crescent; landfill bans and segregation and recycling of metals, white goods, tires, and clean wood and brush at the landfill at 402 Fifth Line East. Since 2006, the City has limited residential waste setout to 2 bags/containers per week per household. Tags for additional waste bags or containers must be purchased. The City diversion programs are also supplemented by diversion initiatives undertaken by the private sector and special interest groups.

The City is also currently assessing the feasibility of diverting municipal biosolids (sewage sludge) from disposal.

PUBLIC INFORMATION CENTRE

A Public Information Centre is being held to provide an opportunity for you to discuss the project progress and have your questions or concerns addressed.

Date: Thursday, June 3, 2010

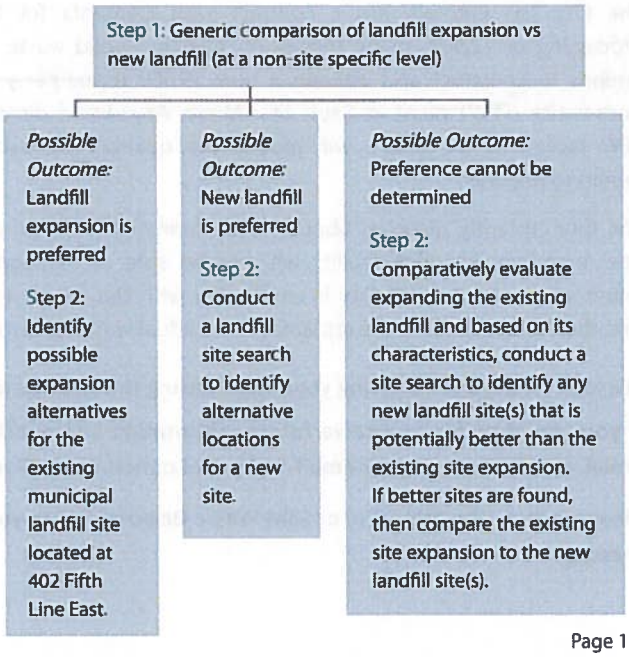
Location: Thompson Room
Civic Centre, 99 Foster Drive

Time: 3:30 pm to 7:30 pm

WHAT'S NEXT?

The results of the Environmental Assessment work completed to date suggest that landfill remains the most appropriate disposal option for the City's residual waste. Landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and recovered to generate electricity, landfills can manage the entire residual waste stream, are flexible to changes in waste quality and quantities and are cost effective.

Following the "Alternatives To" evaluation, the next step in the EA process for a landfill facility is the identification and evaluation of "Alternative Methods" of landfilling. This can include both alternative locations and alternative designs as illustrated in the flow chart below. We will be looking for public input on landfill options in the Fall of 2010.



SOLID WASTE DISPOSAL
ENVIRONMENTAL ASSESSMENT

Newsletter No.2, May 2010

ABOUT THE ENVIRONMENTAL ASSESSMENT (EA) PROCESS

The Environmental Assessment for disposal capacity includes three key phases. The first phase was completed with the submission and approval of the EA Terms of Reference. We are currently working within the second phase: the Environmental Assessment Study itself. The last phase is submission of the EA documentation to the Ministry of the Environment and the subsequent government and public review and approval period. It is anticipated that the whole process will take until late 2012.

In September 2005 the Minister of the Environment approved the Environmental Assessment Terms of Reference (EA TOR) for the Sault Ste. Marie Solid Waste Management Plan. The EA TOR documents the process that will be followed to determine the preferred method for managing solid waste in Sault Ste. Marie for the next 20 to 40 years. In addition to the disposal EA, the Sault Ste. Marie Solid Waste Management Plan includes a significant diversion component.

Keep up-to-date on the EA Study at the City of Sault Ste. Marie's website: http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1

ELEMENTA ENERGY-FROM-WASTE FACILITY

In 2007, an energy-from-waste (EFW) developer known as The Elementa Group (Elementa) constructed a pilot steam reformation plant that would convert municipal solid waste into a char and synthetic gas (or "syngas") that can be used to generate electricity.

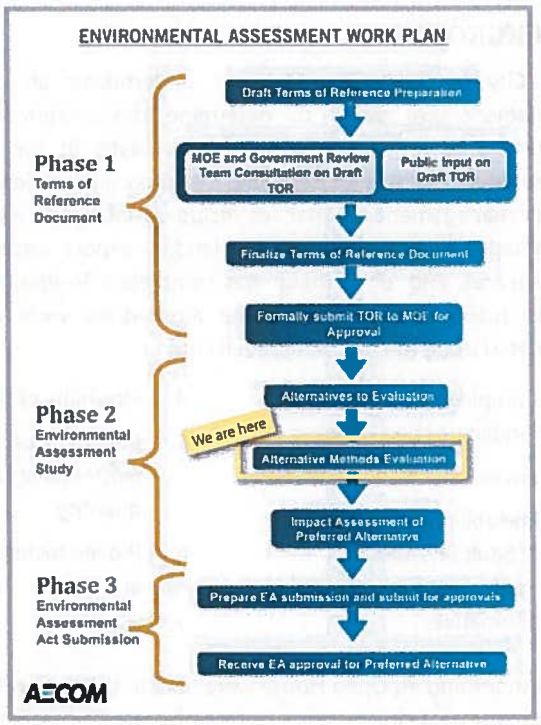
The City has entered into a contract with Elementa for the annual processing of 12,500 metric tonnes of municipal solid waste. Elementa intends to construct and operate a new 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility in the future will reduce the quantity of residual waste requiring disposal.

The City currently disposes about 60,000 tonnes of residual waste each year therefore; the EFW facility will not be able to manage the City's entire waste stream. The City is continuing with the EA study to ensure that the City can process the remainder of residual waste generated.

We look forward to receiving your input during this important study!

If you would prefer to receive future information and notifications via email, please forward your email address to nancy.maahs@aecom.com.

Please include the title "City of SSM Waste Disposal EA" in your message.



CONTACT US

Your input on this project is important to us. If you would like further information or to send comments, ask questions or be added to our mailing list, please contact us:

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
Email: rick.talvitie@aecom.com

Mrs. Susan Hamilton Beach, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on

THE CITY OF SAULT STE. MARIE

Notice of Public Information Centre

SOLID WASTE DISPOSAL ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its residual municipal solid waste. Work to date has included a thorough review of a number of waste management alternatives including increased waste diversion, incineration/high heat process, landfill, export waste and "do nothing". To identify a preferred waste management method, the alternatives were comparatively evaluated using the following seven criteria:

1. Compliance with current regulations and policies;
2. Environmental acceptability;
3. The ability of the City of Sault Ste. Marie to implement the preferred alternative;
4. Flexibility of the system;
5. Capability of managing waste quality and quantity;
6. Proven technical capacity; and
7. Cost.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative for the City has been identified as **increased waste diversion and landfilling of the residual waste**.

Residents currently divert approximately 34% of their waste from disposal and the City will continue to provide opportunities to improve on this diversion rate. The remaining 66% of residential waste and industrial, commercial and institutional wastes currently goes to the City landfill. In addition to the City's current diversion, the City has entered into a contract with a private corporation for the annual supply of 12,500 metric tonnes of municipal solid waste. This corporation intends to construct and operate a 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility will reduce the quantity of residual waste requiring disposal.

The results of the Environmental Assessment work completed to date suggest that landfill remains the most appropriate disposal option for the City's residual waste. Landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and recovered to generate electricity, landfills can manage the entire residual waste stream, are flexible to changes in waste quality and quantities and are cost effective.

PUBLIC INFORMATION CENTRE

A Public Information Centre is being held to provide an opportunity for you to discuss the project progress and have your questions or concerns addressed.

Date: Thursday, June 3, 2010
Location: Thompson Room
Civic Centre, 99 Foster Drive
Time: 3:30pm to 7:30 pm

THE NEXT STEPS

Over the summer the project team will be looking at options for landfilling residual waste. This work will include consideration of opportunities to expand the existing landfill or establish a new landfill site. In the Fall of 2010, we will be looking for public input on landfill options.

If you have any questions related to the study, please contact:

Mr. Rick Talvitie, P. Eng.
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
E-mail: rick.talvitie@aecom.com

Mrs. Susan Hamilton Beach, P. Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580, 99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on.ca

If you would like to receive future information and notifications via email, please forward your email address to nancy.maahs@aecom.com. Please include the title "City of SSM Waste Disposal EA" in your message.

Talvitie, Rick

From: Talvitie, Rick
Sent: May 21, 2010 3:35 PM
To: chiefdeansayers@batchewana.ca; alidstone@batchewana.ca
Cc: Susan Hamilton Beach
Subject: City of Sault Ste. Marie Waste Disposal EA

Good Afternoon Chief Sayers/Agnes,

It has been some time since we last spoke. Our firm is currently assisting the City of Sault Ste. Marie in undertaking their Solid Waste Disposal Environmental Assessment. You may recall that we met and corresponded with you in the spring/summer of 2007 regarding the Waste Disposal Environmental Assessment being undertaken by the City of Sault Ste. Marie.

We are now planning to conduct an open house in the City of Sault Ste. Marie to announce the preferred alternative to manage solid waste. Attached is Newsletter No. 2 and a Notice of the upcoming Public Information Centre. The Newsletter highlights the work completed to date, the current status of the EA, the preferred alternative and the work that will be undertaken in the coming months.

We are anxious to get as much public involvement as possible. Could you please post copies of the attached Notice in prominent locations in your community? Also, if possible we would appreciate having the notice posted on your website. If you would prefer to have one of our staff members post the notices in your community please let me know.

In addition the City is also prepared to attend a Band Council Meeting to provide an update on the work completed to date and the tasks planned for the coming months. Please confirm a date that is suitable.

We look forward to hearing from you and the members of your community.

Regards,

SSM_PICNotice May 19 2010 FINA...

SSM_Newsletter 05-21-2010.pdf

Rick Talvitie, P. Eng.
Manager, Sault Ste. Marie Office
D 705.942.2612
rick.talvitie@aecom.com

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T 705.942.2612 F 705.942.3642
www.aecom.com

Talvitie, Rick

From: Talvitie, Rick
Sent: June 24, 2010 11:58 AM
To: 'chiefdeansayers@batchewana.ca'; 'alidstone@batchewana.ca'
Cc: Susan Hamilton Beach; Kolli, Karla
Subject: City of Sault Ste. Marie Waste Management Environmental Assessment (EA)

Good Afternoon Chief Sayers/Agnes,

I am just touching base with you to let you know that we recently attended at GRFN Band Council meeting to update them on the progress of the City's Waste Management Environmental Assessment study.

I believe the session was informative and we would like to extend an offer to complete a similar presentation for your Band Council members. The presentation would focus on the progress of the Waste Management EA and the monitors and controls that are present at the existing landfill to mitigate off-site impacts.

Also, in 2007 when we met with you regarding this study, you noted the waste management planning process would be brought to BFN council's attention on August 21,2007 with the recommendation to proceed with a community brainstorming session coordinated by your technical people. Was the brainstorming session completed? Could you share the results with us?

Thanks,

Rick Talvitie, P. Eng.
Manager, Sault Ste. Marie Office
rick.talvitie@aecom.com

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www.aecom.com

THE CITY OF SAULT STE. MARIE

NOTICE OF PUBLIC INPUT SESSION

SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. In the evaluation of "Alternatives To the Undertaking", a thorough review of different waste management alternatives including increased waste diversion, incineration/high heat processes, landfill, export waste outside the service area, and "do-nothing" was completed. To identify a preferred approach to managing waste, the alternatives were comparatively evaluated using the following seven criteria:

1. Compliance with current regulations and policies;
2. Environmental acceptability;
3. The ability of the City of Sault Ste. Marie to implement the preferred alternative;
4. Flexibility of the system;
5. Capability of managing waste quality and quantity;
6. Proven technical capacity; and
7. Cost.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste. The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the entire residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

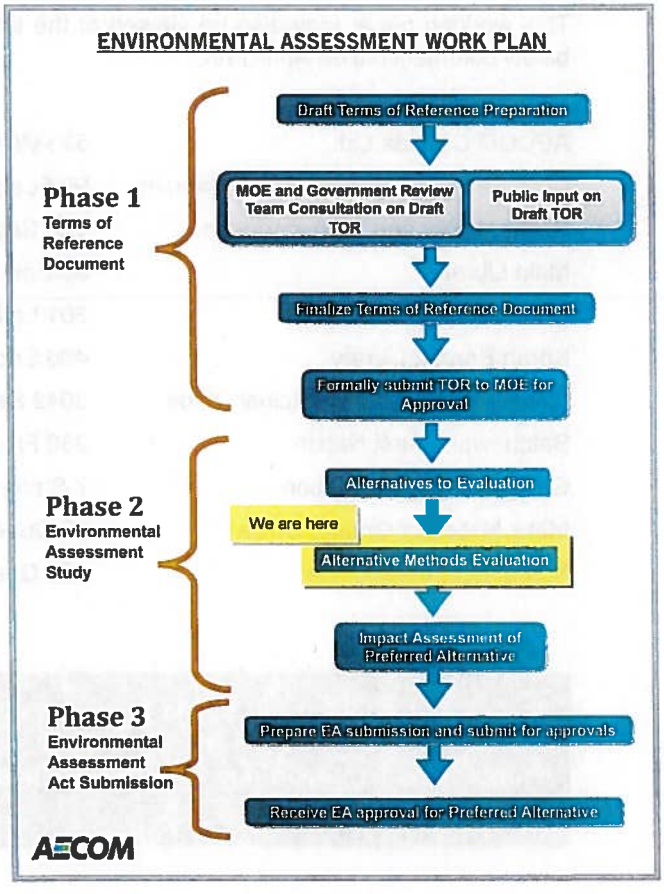
The flexibility of the preferred alternative is particularly important given the City's contract with The Elementa Group (an energy-from-waste service provider) for the annual processing of at least 12,500 metric tonnes of municipal solid waste. Elementa intends to construct and operate a new 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility in the future will reduce the quantity of residual waste requiring disposal in a landfill.

NEXT STEPS

The City remains committed to investigating, implementing and supporting programs to increase waste diversion through 3Rs initiatives. Since the implementation of 3Rs initiatives does not require Environmental Assessment (EA) Act approval, the EA study is now focusing on alternative methods of landfilling residual waste. The key objective of this phase of the study is to find an environmentally suitable location for the development of additional landfill capacity.

The first step to be completed in this phase consists of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. This step will provide initial focus to the search for additional landfill capacity.

A preliminary evaluation of these alternatives has been completed by the project team. We are now seeking input from the general public and Stakeholders regarding the evaluation criteria considered and the preliminary findings.



THE CITY OF SAULT STE. MARIE

NOTICE OF PUBLIC INPUT SESSION

SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

PUBLIC INPUT SESSION

If you are interested in discussing the alternatives and criteria that will be used to compare and select a preferred approach to landfilling residual waste in Sault Ste. Marie, Prince Township and Batchewana First Nation's Rankin Reserve, we encourage you to attend this public input session!

We will provide you with background information, update you on the City's achievements in increasing waste diversion and discuss with you the alternative approaches to landfilling residual solid waste. A principle objective of the session is to confirm whether the City should focus its efforts to obtain additional disposal capacity by expanding an existing landfill site or finding a location for a new site.

Background information documenting the work completed to date is available on the City website at **http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1**.
In addition, the alternatives and the evaluation criteria currently being considered are also available on the website in a working paper prepared for this session titled "Solid Waste Management Environmental Assessment - Alternative Methods – Step 1 (Landfill Expansion versus Development of a New Site).

This working paper may also be viewed at the locations noted below commencing on April 11th.

AECOM Canada Ltd.	523 Wellington Street
Civic Centre Engineering and Planning	99 Foster Drive, 5th Flr.
Public Works and Transportation	128 Sackville Road
Main Library	50 East Street
Churchill Branch Library	301 Lake Street
Korah Branch Library	496 Second Line
Township of Prince Municipal Office	3042 Second Line West
Batchewana First Nation	236 Frontenac Street
Garden River First Nation	7 Shingwauk Street
Metis Nation of Ontario Office	26 Queen Street East
Missanabie Cree Office	559 Queen Street East

YOU'RE INVITED!

Date:	Tuesday April 19, 2011
Location:	Civic Centre – Russ Ramsay Room
Time:	6:30 pm to 9:00 pm

Refreshments to be provided.

CONTACT US

We also encourage you to contact the individuals noted below if you have any specific questions.

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
Email: rick.talvitie@aecom.com

Mrs. Susan Hamilton Beach, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on.ca

Information pertaining to this session is available on the City of Sault Ste. Marie website at: **http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1**.
Hardcopies can also be obtained by contacting AECOM at 705-942-2612.

If you cannot attend the public input session in person, we still want to hear from you! Just go to the City's website (http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1), review the Alternatives Method - Step 1 Report and fill out our online questionnaire. A link to the online questionnaire is provided on the City's website.

THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. In the evaluation of "Alternatives to the Undertaking", a thorough review of different waste management alternatives including increased waste diversion, incineration/high heat processes, landfill, export waste outside the service area, and "do-nothing" was completed.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste. The preferred alternative was presented at an Open House in June, 2010.

NEXT STEPS

The next step consists of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. This step will provide initial focus to the search for additional landfill capacity.

A preliminary evaluation of these alternatives has been completed by the project team. We are now seeking input from the general public and stakeholders regarding the evaluation criteria considered and the preliminary findings.

PUBLIC INPUT SESSION

If you are interested in discussing the alternatives and criteria that will be used to compare and select a preferred approach to landfilling residual waste in Sault Ste. Marie, Prince Township and Batchewana First Nation's Rankin Reserve, we invite you to attend this public input session.

We will provide background information, update you on the City's achievements in increasing waste diversion and discuss the alternative approaches to landfilling residual solid waste.

Background documents including the working paper to be discussed at the public input session entitled "Solid Waste Management Environmental Assessment - Alternative Methods – Step 1 (Landfill Expansion versus Development of a New Site)" are available on the City's website at **www.cityssm.on.ca – Click City Hall Bulletins – Public Input Session – Solid Waste Management.**

CONTACT US

We encourage you to contact the individuals below if you have questions.

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
Email: rick.talvitie@aecom.com

Mrs. Susan Hamilton Beach, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on.ca

YOU'RE INVITED!

Date: Tuesday, April 19, 2011

Location: Civic Centre, 99 Foster Dr.
Russ Ramsay Board Room

Time: 6:30 to 9:00 p.m.

Refreshments provided.

If you cannot attend the public input session, we still want to hear from you! Go to the City's website www.cityssm.on.ca (Click City Hall Bulletins – Public Input Session – Solid Waste Management) to review the Alternatives Method - Step 1 Report and fill out the online questionnaire.

AECOM
523 Wellington Street East
Sault Ste. Marie, ON, Canada P6A 2M4
www.aecom.com

705 942 2612 tel
705 942 3642 fax

Communication Record

Date	May 11, 2011	Time	
Between	Danny Sayers Batchewana First Nationa	and	Rick Talvitie
Telephone #		Project #	60395
Project Name	Sault Ste. Marie Waste Management EA		

Subject

PLEASE NOTE: If this communication record does not agree with your records of the meeting, or if there are any omissions, please advise. Otherwise it will be assumed that the contents of this record are correct.

- Danny indicated that he is the Natural Resource Manager for Batchewana First Nations and will be taking the lead on this project.
- Danny indicated that Batchewana First Nations would like to participate in the study. He also noted the BFN is not a stakeholder in this process. He noted that BFN are landowners and are potential project partners for this process.
- RT highlighted the various meetings and public input sessions that have been conducted in Garden River First Nations to provide an example of the different types of events that could be staged in Batchewana First Nations.
- Danny indicated that BFN and GRFN are overlapping territories and what works in GRFN may not be suitable in BFN.
- Danny suggested that a letter be drafted requesting a meeting with Chief and Council.
- Danny would subsequently make a motion to Council to set up a meeting. The letter should be addressed to Chief and Council and should be sent to Danny Sayers. Danny's email is dannysayers@hotmail.com.
- At the beginning of the telephone conversation, RT provided an overview of what has been done to-date and the status of the project.
- Danny was under the impression that there had been very little if any dialogue between the project team and BFN in the past. RT highlighted some of the dialogue that has occurred in the past.

Talvitie, Rick

From: Talvitie, Rick
Sent: May 11, 2011 2:45 PM
To: dannysayers@hotmail.com
Cc: Susan Hamilton Beach; Kolli, Karla
Subject: City of Sault Ste. Marie Waste Management Environmental Assessment
Attachments: may 11 LET chief and council re meeting.pdf

Hi Danny,

It was a pleasure speaking with you earlier today. It is my understanding through our discussion that you are the Batchewana First Nation Natural Resource Manager and will be taking the lead on this project on behalf of Batchewana First Nation.

You indicated that your community would like to participate in the process and suggested that we request a meeting with Chief and Council. I have attached a letter for your consideration. Ultimately we would like to tailor a public consultation program that suits your community and achieves the desired participation.

We look forward to working with you and your community and we look forward to hearing from you.

Regards,

Rick Talvitie, P. Eng.
Manager, Sault Ste. Marie Office
rick.talvitie@aecom.com

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705 942 2612 tel
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May 11, 2011

Chief Sayers and Council
Batchewana First Nation
236 Frontenac Street
Sault Ste. Marie, Ontario
P6A 5K9

Dear Chief Sayers:

Project No: 60117627

Regarding: City of Sault Ste. Marie Waste Management Environmental Assessment

The purpose of this letter is to request a meeting with Chief and Council to update you on the progress and status of the City's ongoing Waste Management EA and to discuss the preferred approach to incorporating further Batchewana First Nation participation in the study.

In the summer of 2010, the preferred long term waste management alternative was identified as **increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.**

The City is committed to investigating, implementing and supporting programs to increase waste diversion through 3Rs initiatives. Since the implementation of 3Rs initiatives does not require Environmental Assessment (EA) Act approval, the EA study is now focusing on alternative methods of landfilling residual waste. The key objective of this phase of the study is to find an environmentally suitable location for the development of additional landfill capacity.

The first step to be completed in this phase consists of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. This step will provide initial focus to the search for additional landfill capacity.

A preliminary evaluation of these alternatives has been completed by the project team. We are now seeking input from the general public, First Nations, and Stakeholders regarding the evaluation criteria considered and the preliminary findings.

We are requesting a meeting with Chief and Council to present the preliminary evaluation and to discuss the preferred approach to incorporating Batchewana First Nation participation in the study. We look forward to meeting with you in the very near future.

Sincerely,
AECOM Canada Ltd.

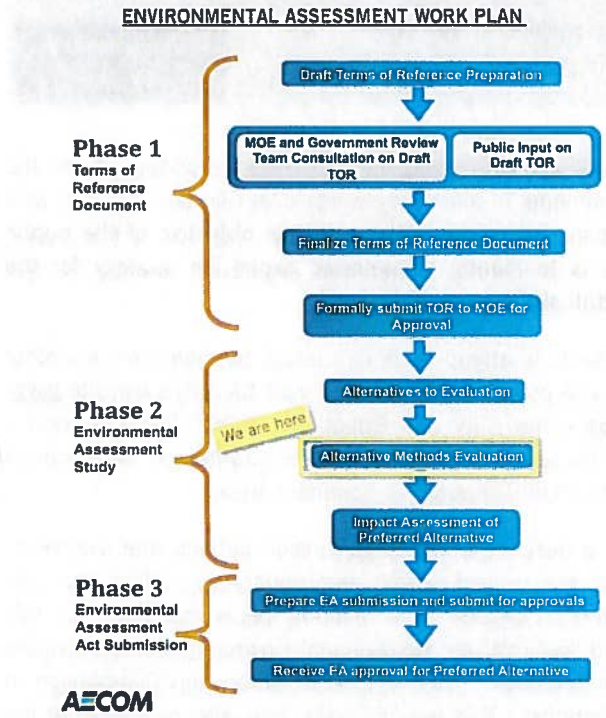
Rick Talvitie, P. Eng.
Branch Manager

RT:nm

THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

ENVIRONMENTAL ASSESSMENT (EA) PROCESS

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. The EA Process is a transparent decision-making process used to promote good environmental planning by assessing potential effects of certain activities or projects on the natural and human environment. There are several phases and tasks involved in completing an EA as outlined in the graphic below.



The City is currently mid-way through Phase 2 of the EA Process and is interested in obtaining your input related to the current activities.

BACKGROUND

Phase 1 of the EA process included public consultation and culminated with the Ministry of Environments approval of the project Terms of Reference (ToR) in 2005. The ToR provides a framework or roadmap for completing the EA and summarizes the tasks and activities to be undertaken by the proponent.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the **preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.** The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the entire residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

The flexibility of the preferred alternative is particularly important given the City's contract with The Elementa Group (an energy-from-waste service provider) for the annual processing of at least 12,500 metric tonnes of municipal solid waste. Elementa is currently negotiating an energy purchase agreement and intends to construct and operate a new 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility in the future will reduce the quantity of residual waste requiring disposal in a landfill.

The City remains committed to investigating, implementing and supporting programs to increase waste diversion through 3Rs initiatives. Since the implementation of 3Rs initiatives does not require Environmental Assessment (EA) Act approval, the EA study is now focusing on alternative methods of landfilling residual waste. The key objective of this phase of the study is to find an environmentally suitable location for the development of additional landfill capacity.

The first step in this phase consisted of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. To identify a preferred approach to landfilling waste, the alternatives were compared using the following six criteria groups:

1. Natural environment;
2. Social-Cultural environment;
3. Economic environment;
4. Cost;
5. Technical considerations; and
6. Transportation.

A Public Input Session was held in April, 2011 to present the landfill alternatives being considered. **The evaluation and response from consultation concluded that an expansion of an existing landfill is generally preferred over construction of a new site.**

The study noted that an expansion requires less land, displaces fewer people and/or social/natural features, disrupts fewer people (ie. one site versus two sites creating nuisance impacts), costs less, typically encounters fewer challenges in gaining technical approvals, and reduces the number of facilities the City must manage.

THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

CURRENT ACTIVITIES

The second step in the Alternative Methods task focuses on the best approach to expand the existing landfill site at 402 Fifth Line East in the City of Sault Ste. Marie. Expansion options have been developed that make the best use of the existing site characteristics and the area available to expand. Options considered include horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining (excavate previously disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) or a combination of these methodologies.

A preliminary evaluation of the expansion options has been completed by the project team. We are now seeking input from the Community, government agencies, stakeholders, and First Nations regarding the evaluation criteria considered and the preliminary findings.

CONTACT US

You may also contact the Consultant Project Manager or the City's Land Development and Environmental Engineer by email, mail or telephone if you have questions or would like additional information.

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
Email: rick.talvitie@aecom.com

Ms. Catherine Taddo, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5380
Fax: (705) 541-7165
Email: c.taddo@cityssm.on.ca

HOW CAN I PROVIDE INPUT?

If you are interested in discussing the expansion options, the criteria used in the evaluation and the preliminary findings we encourage you to attend the upcoming public input session!

YOU'RE INVITED!

Date: Tuesday, March 6, 2012
Location: Civic Centre – 99 Foster Drive
Russ Ramsay Room
Time: 3:30PM to 7:30PM

Refreshments to be provided.

We will provide you with background information update you on the City's achievements in increasing waste diversion and discuss, with you, the expansion options. **The principle objective of the public consultation is to identify a preferred expansion strategy for the existing landfill site.**

If you are unable to attend the Public Input Session there are other opportunities to provide input. Please visit the City's website **www.cityssm.on.ca** - View City Hall Bulletins – Public Input Session – Solid Waste Management to obtain further information, complete an online questionnaire, or access a comment sheet.

In addition, a description of the expansion options, the evaluation criteria, and the project team's preliminary evaluation are also available on the website in a working paper prepared for this session titled "Solid Waste Management Environmental Assessment – Alternative Methods – Step 2 (Identification and Comparison of Expansion Options). This working paper may also be viewed at the locations noted below commencing on February 21, 2012.

AECOM Canada Ltd.	523 Wellington Street
Civic Centre Engineering and Planning	99 Foster Drive, 5th Flr.
Public Works and Transportation	128 Sackville Road
Main Library	50 East Street
Churchill Branch Library	301 Lake Street
Korah Branch Library	496 Second Line
Township of Prince Municipal Office	3042 Second Line West
Batchewana First Nation	236 Frontenac Street
Garden River First Nation	7 Shingwauk Street
Metis Nation of Ontario Office	26 Queen Street East
Missanabie Cree Office	559 Queen Street East

THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. To date significant progress has been made.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and **the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.** The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the entire residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

In April, 2011 a Public Input Session was held to present the non-site specific landfill alternatives being considered. **The evaluation and response from consultation concluded that an expansion of an existing landfill is generally preferred over construction of a new site.**

The study noted that an expansion requires less land, displaces fewer people and/or social/natural features, disrupts fewer people (ie. one site versus two sites creating nuisance impacts), costs less, typically encounters fewer challenges in gaining technical approvals, and reduces the number of facilities the City must manage.

CURRENT ACTIVITIES

Presently the project team is focusing on **the best approach to expand the existing landfill site at 402 Fifth Line East in the City of Sault Ste. Marie.** Expansion options have been developed that make the best use of the existing site characteristics and the area available to expand. Options considered include horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining (excavate previously disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) or a combination of these methodologies.

A preliminary evaluation of the expansion options has been completed by the project team. **We are now seeking input from the Community, government agencies, stakeholders, and First Nations regarding the evaluation criteria considered and the preliminary findings.**

PUBLIC INPUT SESSION

If you are interested in discussing the expansion options, the criteria used in the evaluation and the preliminary findings, we encourage you to attend the upcoming public input session!

We will provide you with background information, update you on the City's achievements in increasing waste diversion and discuss, with you, the expansion options. **The principle objective of the public consultation is to identify a preferred expansion strategy for the existing landfill site.**

The expansion options, the evaluation criteria, and the project team's preliminary evaluation are also available on the City's website (**www.cityssm.on.ca - View City Hall Bulletins – Public Input Session – Solid Waste Management**) in a working paper prepared for this session titled "Solid Waste Management Environmental Assessment - Alternative Methods – Step 2 (Identification and Comparison of Expansion Options). This working paper may also be viewed at the locations noted below commencing on February 21, 2012.

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Batchewana First Nation	236 Frontenac Street
Garden River First Nation	7 Shingwauk Street
Metis Nation of Ontario Office	26 Queen Street East
Missanabie Cree Office	559 Queen Street East

CONTACT US

We also encourage you to contact the individuals noted below if you have any specific questions.

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
Email: rick.talvitie@aecom.com

Ms. Catherine Taddo, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5380
Fax: (705) 541-7165
Email: c.taddo@cityssm.on.ca

YOU'RE INVITED!

Date: Tuesday, March 6, 2012
Location: Civic Centre – Russ Ramsay Room
Time: 3:30PM to 7:30PM

Refreshments to be provided.

If you cannot attend the public input session in person, we still want to hear from you! Just go to the City's website www.cityssm.on.ca - View City Hall Bulletins – Public Input Session – Solid Waste Management review the Alternatives Method – Step 2 Report and fill out our online questionnaire or comment sheet. A link to the online questionnaire is provided on the City's website.

AECOM

DILLON CONSULTING

Solid Waste Management Environmental Assessment

COUNCIL PRESENTATION

THE CORPORATION OF THE CITY OF SAULT STE MARIE CANADA

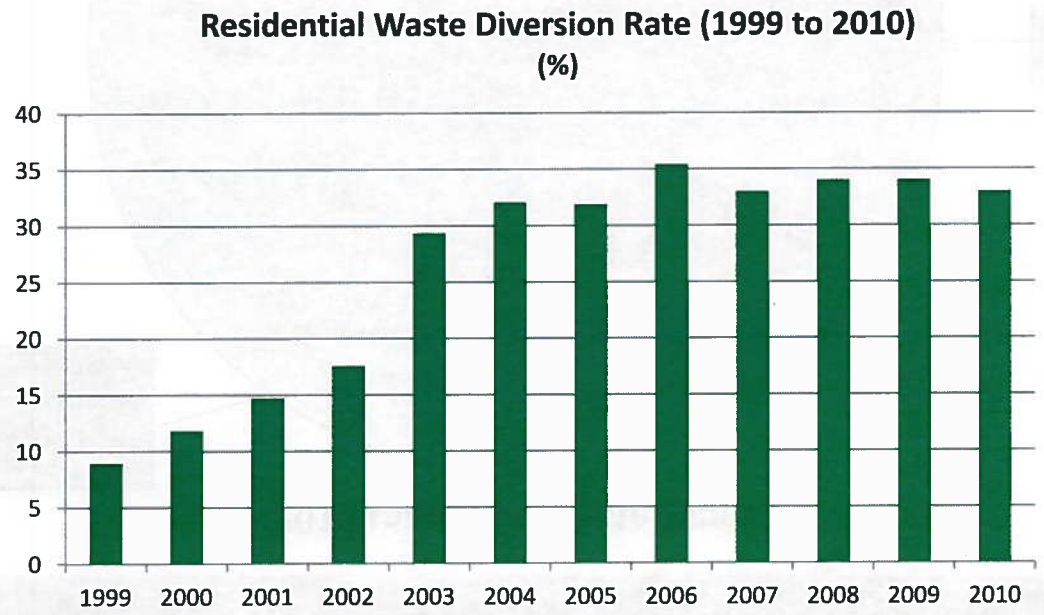
March, 2012

Objectives of the Presentation

- Provide Council and residents with an update on waste management planning activities and results;
- Review project need;
- Provide an overview of the Environmental Assessment process and where we are at in the process;
- Present the criteria and approach used in the evaluation of site expansion options;
- Present the preliminary results of the evaluation completed by the project team;
- Identify the next steps in the EA process; and
- Answer your questions.

Project History - Diversion

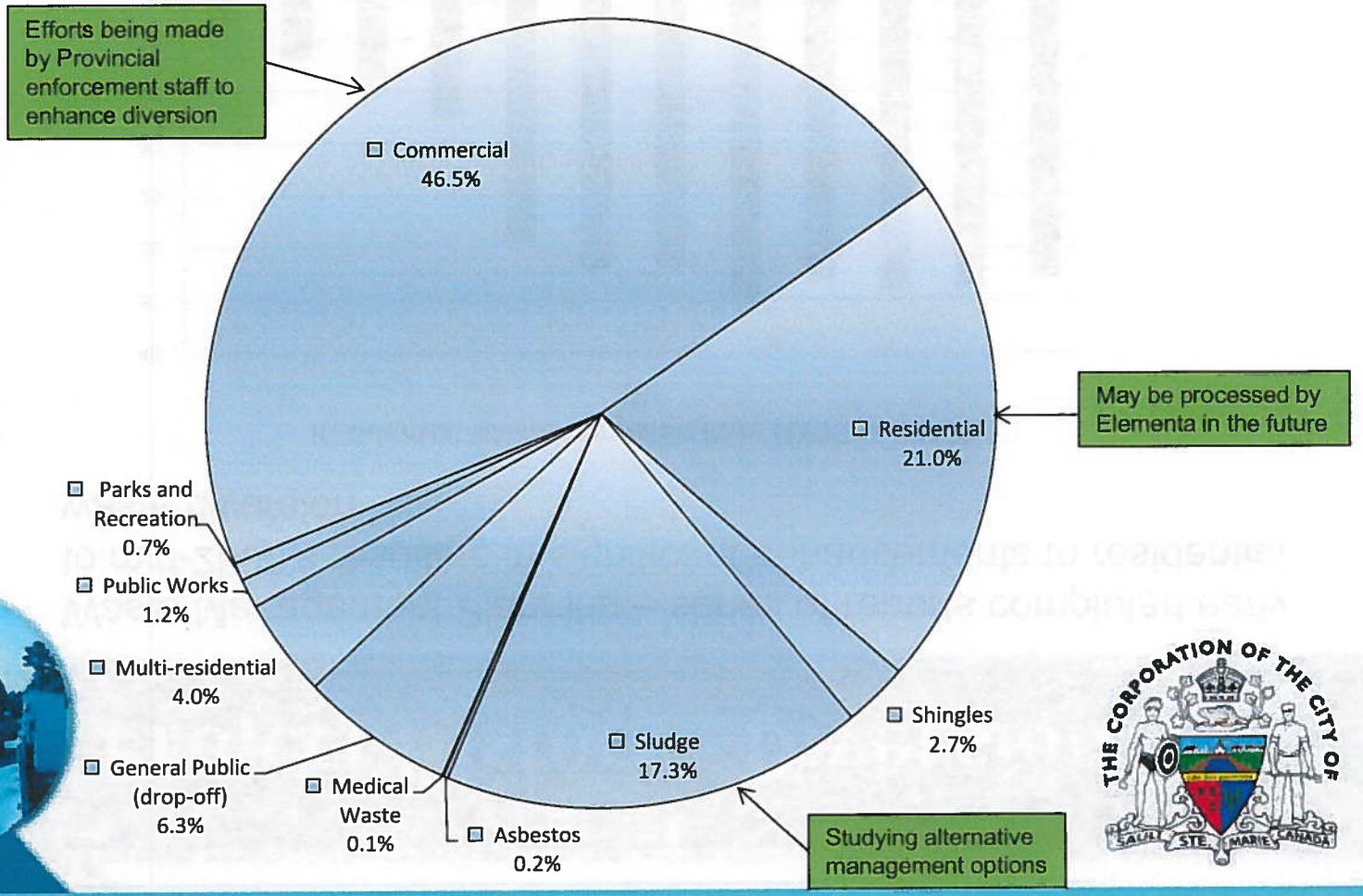
- Waste Management Planning – series of reports completed early to mid-2000's resulting in significant enhancements to residential waste diversion



Increased residential diversion rate from 9% in 1999 to 33% to 35% in recent years

Project History - Diversion

2010 Landfilled Waste Types



Project History - Project Need

- **The estimated remaining service life of the existing landfill is 7 to 10 years depending on future population changes, in-situ subsidence and waste generation, diversion and disposal rates. The low end of this range is used for planning purposes.**
- Despite significant success in enhancing waste diversion, additional disposal capacity is required.

What is an EA?

Purpose = *"to protect the environment and quality of life of the people of the province; and facilitate the wise management of the natural resources of the province".*

- The EA Process is a transparent decision-making process used to promote good environmental planning by assessing potential effects of certain activities or projects on the natural and human environment. The EA process serves several important purposes:
  - Allowing projects to receive input from a wide variety of sources, including the federal, provincial and municipal levels of government, First Nations, stakeholders and the public.
  - Identifying potential problems prior to construction
  - Promoting good environmental planning practices
  - Improving community acceptance
  - Better protecting the environment

AECOM

DILLON CONSULTING

Project History

- MOE approval of EA ToR in late 2005
- EA work initiated by AECOM/Dillon – summer 2006
- "Alternatives To" (functionally different ways of managing waste) work completed and public consultation undertaken in summer of 2007
- Late 2008 to spring 2010 - Project delayed to allow time for the Enquest pilot project to mature
- Fall 2009 - City endorses waste supply agreement with Elementa
- City approval to resume EA process - Elementa will generate residual waste and is unable to manage the entire waste disposal quantity
- Spring 2010 – announced the preferred "Alternative To"

THE CORPORATION OF THE CITY OF SAULT STE. MARIE CANADA

Project History – Selected "Alternative TO"

Based on the results of the evaluation and input received the preferred long-term approach to managing waste in SSM is:

- Increased 3Rs (Reduce/Reuse/Recycle)
- Landfilling residual waste

Why?

- Can comply with regulations and policies
- City is experienced with these waste management initiatives
- Flexible to changes in the waste stream (e.g. population, waste generation, diversion)
- Can accept most residual waste from a Waste-to-Energy facility
- Cost efficient

The EA will now focus on identifying and evaluating alternative methods of landfilling waste (i.e. alternative locations and designs)

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Project History

- Conducted a Public Information Session in June 2010 to announce the selected Alternative To
- Initiated the Alternative Methods Phase (alternative locations and designs)
- Completed a generic non-site specific evaluation of developing a new landfill versus expanding an existing site (Step 1)
- Consulted with the public in the spring of 2011regarding the generic options

THE CORPORATION OF THE CITY OF SAULT STE. MARIE CANADA

Project History – Preferred Landfilling Method

Based on the results of the evaluation and input received the preferred method of landfilling waste = expansion of an existing site

Why?

- Likely less potential for displacement and disruption
- Only one landfill site to manage and maintain
- Cost effective
- Community adaptation
- Likely fewer challenges in gaining approvals

The EA will now focus on how to best expand the existing site

Overview of Expansion Options

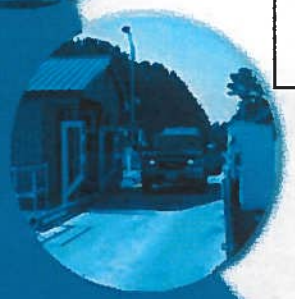
- Expansion options have been developed that make the best use of the existing site characteristics and the area available to expand.
- Options considered include horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining or a combination of these methodologies.
- All options include enhancements to better control groundwater quality related to the existing site.
- Some options require replacement/relocation of existing on-site infrastructure and some require enhanced compaction to provide the target disposal capacity

Evaluation of Expansion Options

- The evaluation has been completed using a two-step approach:
  - Step 1 – identify a preferred expansion area and shape;
  - Step 2 – assess the pros and cons of incorporating landfill mining.
- Mining involves excavation of previously disposed waste and cover material. Mined waste is fed through screens which separates coarse waste from fine materials. Recyclables are separated and sent for processing, remaining residual waste disposed of in the disposal site and fines (primarily sand) are stockpiled for use as cover.

Evaluation Criteria Groups

Criterion	Definition
Natural Environment	Addresses the potential for displacement and/or disruption of natural environmental features (terrestrial features, aquatic features, ground water and surface water)
Social Cultural Environment	Addresses the potential for displacement and/or disruption of social/cultural environmental features (residents, community features, future land use plans, heritage and archaeological resources, public health and safety)
Economics	Addresses the potential for displacement and/or disruption of existing businesses and resources (agriculture, forestry, mining)
Cost	Considers the lifecycle cost of the alternative.
Technical Considerations	Considers technical aspects of each option including impacts on existing site infrastructure and ease of site development.
Transportation	Considers the impacts of traffic volumes accessing the site and potential impacts to the airport and the movement of farm equipment.

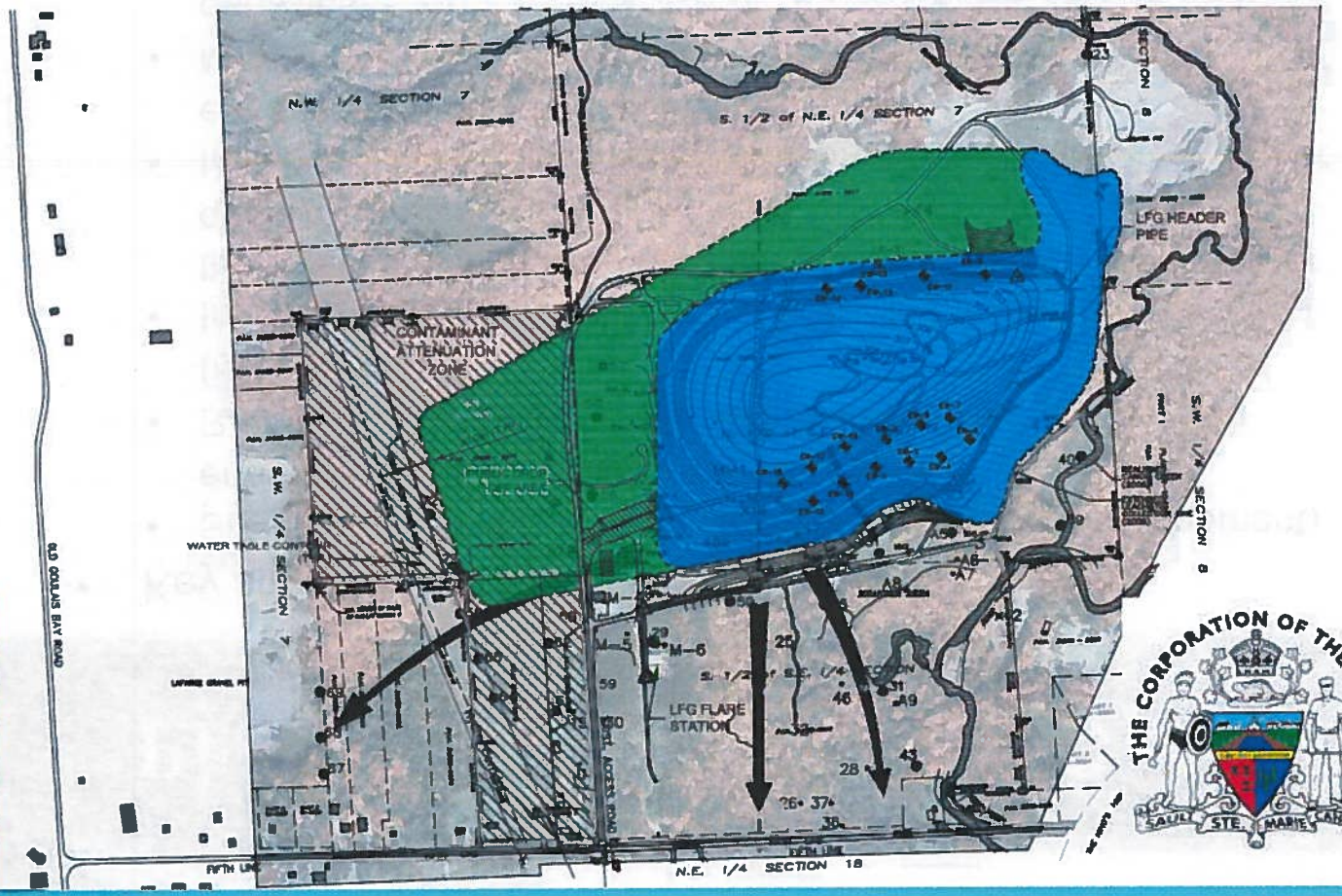


Evaluation of Expansion Options

- Data collection and analysis
- Technical disciplines initially compare options relative to each other and rank them under each criterion
- Present the evaluation in a table or matrix format with the rationale for the rankings
- Present to the public and solicit input from community members, stakeholders, First Nations, and governmental agencies
- Make adjustments to the evaluation based on input received
- Select a preferred option

Preliminary Preferred Expansion Option

- On the basis of the **preliminary** evaluation, the preliminary preferred expansion option is presented below



Preliminary Preferred Option

- Key advantages relative to other options include:
  - Site development (i.e. geometry and storm water management) enhanced relative to Options 2 and 4.
  - Reduced average excavation depth in west expansion area (i.e.11m).
  - Includes a liner beneath the waste within the western portion of the existing disposal footprint enhancing long term groundwater quality.
  - Includes a liner over existing waste in areas of overlap to further enhance groundwater quality.
  - Meets target capacity at current estimated waste densities.

Next Steps

- Solicit governmental, community First Nation and stakeholder input on the preliminary preferred expansion option – do you agree/disagree – why?
- Re-assess (if needed) and finalize the Step 2 evaluation based on input received
- Announce the preferred Step 2 - Alternative Method (i.e. preferred expansion option)
- Initiate a detailed impact assessment for the preferred option
- Continue to investigate ways to improve waste diversion through 3Rs initiatives

AECOM
523 Wellington Street East
Sault Ste. Marie, ON, Canada P6A 2M4
www.aecom.com

705 942 2612 tel
705 942 3642 fax

February 15, 2012

Mr. Danny Sayers
Batchewana First Nation
236 Frontenac Street
Sault Ste. Marie, Ontario
P6A 5K9

Dear Mr. Sayers:

Project No: 60117627 (60395)

Regarding: City of Sault Ste. Marie
Waste Management Environmental Assessment

We last contacted you in May, 2011 at which time you indicated that you are the Natural Resource Manager and would be the principle contact on behalf of Batchewana First Nations for the City's ongoing Waste Management Environmental Assessment.

At that time we requested a meeting with Chief and Council to update them on the progress being made with this study. To date a considerable level of study has been completed which has resulted in the following observations:

- The preferred approach to managing waste in the future is increased waste diversion through reduction, reuse and recycling (ie. 3Rs) and landfilling residual waste. (Note: the City has also endorsed an agreement with an independent waste-to-energy vendor to process a portion of the municipal solid waste).
- Currently the City is focusing resources on developing strategies to expand the City's existing landfill at 402 Fifth Line East to manage residual waste.

Expansion options have been developed that make the best use of the existing site characteristics and the area available to expand. In general, the options considered include horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining (excavate existing disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) or a combination of these methodologies.

A preliminary evaluation of five options has been completed by the project team. Based on the results of the preliminary evaluation, the preliminary preferred approach is a moderate vertical expansion and a north and west expansion of the existing disposal footprint. The preliminary preferred option also includes landfill mining within the western portion of the existing disposal footprint.

We are now seeking input from Government agencies, stakeholders, First Nations and the general public regarding the evaluation criteria considered and the preliminary findings. We would like to obtain as much input as possible from your community members. We believe this is an opportune time to meet with Batchewana Chief and Council and/or to conduct an open house in your community. In addition we will also be conducting a public input session in Sault Ste. Marie as outlined below. Everyone is welcome to attend. We have attached a Notice of Public Input Session which can be printed and posted in prominent locations within your community. In addition we will send a digital copy of the Notice for posting on your website.

You are also encouraged to view the **Project Newsletter** and/or the **Solid Waste Management Environmental Assessment - Alternative Methods – Step 2 (Identification and Comparison of Expansion Options)** report and/or the March 6th **Public Input Session displays**. A copy of these documents are attached for your information and reference. **Please make these documents available to your Community members at your Band office.** These documents are also available electronically on the City's website at www.cityssm.on.ca.

Details of the Public Input Session to be held in Sault Ste. Marie are provided below:

Location:	Russ Ramsay Room, Civic Centre, 99 Foster Drive
Date/Time:	Tuesday, March 6, 2012 - 3:30 pm to 7:30pm
Format:	Open House - come any time between the times noted, view the displays, ask questions of the project team and provide input at the open house or at a later date.

If you are unable to attend the March 6th session we also encourage community input through other means as outlined below.

There is an online survey available at http://www.surveymonkey.com/s/R3DTZ8R or alternatively you can send us your comments by email. Please include **"City of SSM Waste Management EA – Comments"** in the subject line of your email message.

We would appreciate receiving your input by April 6, 2012.

We look forward to hearing from you!

Sincerely,
AECOM Canada Ltd.

Rick Talvitie, P. Eng.
Branch Manager

RT:nm
Encl.

cc: C. Taddo, City Engineering
K. Kolli, Dillon Consulting

Talvitie, Rick

From: Talvitie, Rick
Sent: February 22, 2012 1:42 PM
To: 'dannysayers@hotmail.com'
Cc: 'chiefdeansayers@batchewana.ca'; 'Catherine Taddo'
Subject: City of Sault Ste. Marie Waste Management Environmental Assessment
Attachments: March 2012 1page NOTICE.pdf; March 2012 NEWSLETTER.pdf; february 2012 correspondence w dsayers.pdf

Good Afternoon Danny,

I just wanted to let you know that I plan to stop by the Band office later today or tomorrow to drop off our latest report related to the above project. Please make this report available to your Band Members at the Band office. This report is also available digitally on the City's website. I have also attached, for your reference and information, the following additional items:

- A letter outlining the current status of the above project.
- A Newsletter which provides a historical overview of the project
- A Notice of an upcoming Public Input Session which can be posted on your website and/or printed and posted in prominent locations in your Community – I will also drop off several copies that can be posted on bulletin boards if you wish.

As outlined in the letter, we would be pleased to meet with Band Council and/or conduct an open house in your Community.

We look forward to hearing from you.

Regards,

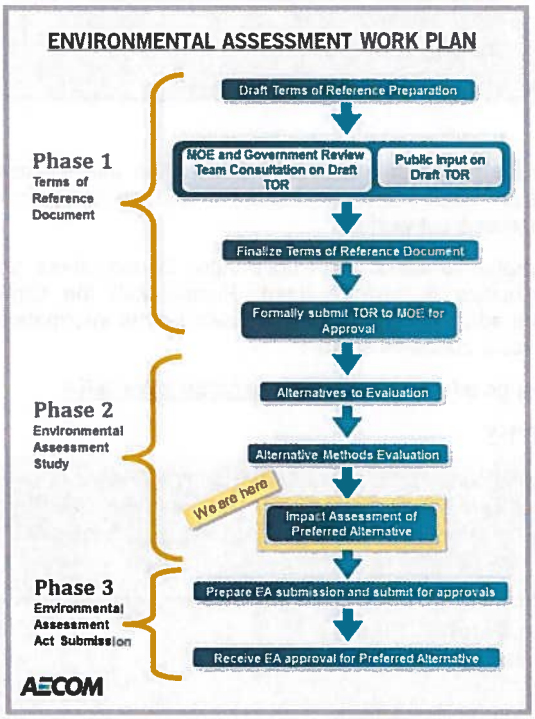
Rick Talvitie, P. Eng.
Manager, Sault Ste. Marie Office
rick.talvitie@aecom.com

AECOM
523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4
T 705.942.2612 F 705.942.3642
www.aecom.com

THE CITY OF SAULT STE. MARIE
JANUARY, 2016 NEWSLETTER
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

ENVIRONMENTAL ASSESSMENT (EA) PROCESS

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. The EA Process is a transparent decision-making process used to promote good environmental planning by assessing potential effects of certain activities or projects on the natural and human environment. There are several phases and tasks involved in completing an EA as outlined in the graphic below.



The City is finalizing Phase 2 of the EA Process and is currently preparing the EA submission. **We are interested in obtaining your input related to the current activities.**

BACKGROUND

Phase 1 of the EA process included public consultation and culminated with the Ministry of Environment and Climate Change's (MOECC) approval of the project Terms of Reference (ToR) in 2005. The ToR provides a framework or roadmap for completing the EA and summarizes the tasks and activities to be undertaken by the proponent.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and **the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.** The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

The City remains committed to investigating, implementing and supporting programs to increase waste diversion through 3Rs initiatives. Since the implementation of 3Rs initiatives does not require EA Act approval, the EA study turned its focus to alternative methods of landfilling residual waste. The key objective of this phase of the study is to find an environmentally suitable location for the development of additional landfill capacity.

The first step in this phase consisted of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. To identify a preferred approach to landfilling waste, the alternatives were compared using the following seven criteria groups:

1.	Natural environment	5.	Capability of managing waste quality and quantity
2.	Social-cultural environment	6.	Proven technical capacity
3.	Economic environment	7.	Cost
4.	Flexibility of the system		

A Public Input Session was held in April, 2011 to present the landfill alternatives being considered. **The evaluation and response from consultation concluded that an expansion of an existing landfill is generally preferred over construction of a new site.**

The study noted that an expansion requires less land, displaces fewer people and/or social/natural features, disrupts fewer people (i.e., one site versus two sites creating nuisance impacts), costs less, typically encounters fewer challenges in gaining technical approvals, and reduces the number of facilities the City must manage.

The second step in the Alternative Methods task focused on the best approach to expand the City's existing landfill site at 402 Fifth Line East by identifying and comparatively evaluating site expansion alternatives. Options considered included horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining (excavate previously disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) or a combination of these methodologies. A Public Input Session was held March, 2012 to obtain feedback on the evaluation criteria and the preliminary findings.

The evaluation and response from consultation concluded the preferred site expansion alternative consists of a modest increase in the height of the waste, an expansion of the disposal footprint to the west and north and mining a portion of the existing waste to enhance groundwater quality. All mined and expansion areas will include the

construction of a liner beneath the waste to collect leachate (precipitation contaminated as it filters through waste) and ultimately direct it to the City's sewage treatment plant for treatment.

Current Activities

The last part of Phase 2 involves assessing the potential impacts of the conceptual design and planned operation of the preferred site expansion alternative and identification of suitable mitigating measures. Multiple disciplines were involved to assess the various potential impacts of the expansion on site, off site, in the vicinity and along the access route. The access route was considered to be along Fifth Line from Highway 17 to the site (which is the same route used today). Measures to reduce or eliminate potential effects on the environment were recommended.

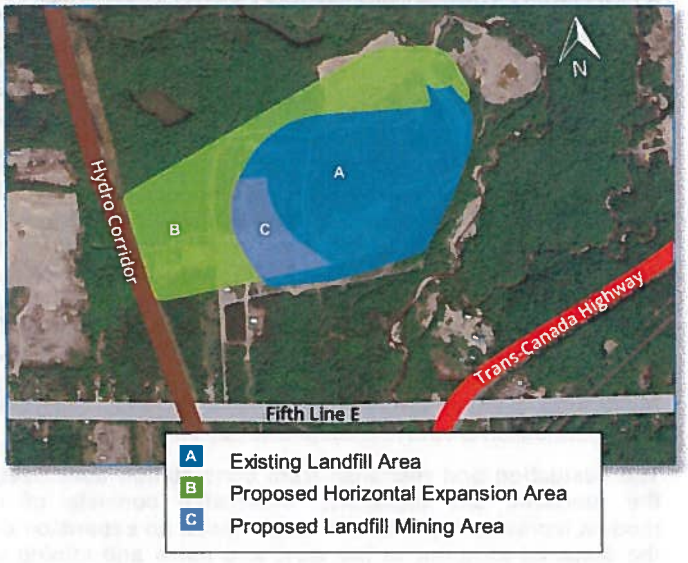
The disciplines that were involved include:

Natural Environment
- Biology
- Geology / hydrogeology
- Surface water

Socio-Cultural Environment
- Cultural (archaeology and heritage)
- Social
- Planned land use
- Visual
- Atmospheric (dust, noise, air quality)

Economic
- Businesses
- Transportation

Conceptual Layout of Proposed Landfill Expansion Area



HOW CAN I PROVIDE INPUT?

We will be hosting a Public Open House where you will learn about the results of the impact assessment work and we will ask for your feedback. If you are interested in discussing the project, we encourage you to attend the upcoming public open house!

YOU'RE INVITED!

Date:	*Tuesday, February 9, 2016*
Location:	*Civic Centre – 99 Foster Drive* *Russ Ramsay Room*
Time:	*3:30 pm to 7:30 pm*

Refreshments to be provided.

We will provide you with background information and discuss, with you, the preferred site expansion option and the results from the impact assessment work.

If you are unable to attend the Public Input Session there are other opportunities to provide input. Please visit the City's website at the address noted below to obtain further information, and / or access a comment sheet.

Project webpage address: saultstemarie.ca/SolidWasteEA

CONTACT US

You may also contact the Consultant Project Manager or the City's Land Development and Environmental Engineer by email, mail or telephone if you have questions or would like additional information.

Mr. Rick Talvitie, P.Eng.
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Email: rick.talvitie@aecom.com

Ms. Catherine Taddo, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580, 99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5380
Email: c.taddo@cityssm.on.ca

THE CITY OF SAULT STE. MARIE

NOTICE OF PUBLIC INPUT SESSION

SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. To date significant progress has been made.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and **the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.** The preferred alternative was presented at an Open House in June, 2010.

The study noted:

- landfills can be designed and operated to comply with regulations and policies;
- landfill gas can be collected and flared or recovered to generate electricity;
- landfills can manage the entire residual waste stream;
- landfills are flexible to changes in waste quality and quantities; and
- landfilling is cost effective.

In April, 2011 a Public Input Session was held to present the non-site specific landfill alternatives being considered. **The evaluation, which considered responses from consultation, concluded that an expansion of an existing landfill is generally preferred over construction of a new site.**

The study noted:

- an expansion requires less land;
- displaces fewer people and/or social/natural features;
- disrupts fewer people (i.e. one site versus two sites creating nuisance impacts);
- costs less;
- typically encounters fewer challenges in gaining technical approvals; and
- reduces the number of facilities the City must manage.

In March 2012 a Public Input Session was held to present the preliminary preferred approach to expanding the existing landfill at 402 Fifth Line East in the City of Sault Ste. Marie. **The evaluation, which considered responses from consultation, concluded that an expansion is best accommodated with a moderate increase in the height of the waste together with and expansion of the disposal footprint to the north and west. The preferred option also includes landfill mining (excavate existing disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) in the western portion of the existing disposal footprint to enhance groundwater protection. All mined and expansion areas will include the construction of a liner beneath the waste to collect leachate (precipitation contaminated as it filters through waste) and ultimately direct it to the City's sewage treatment plant for treatment.**

CURRENT ACTIVITIES

Presently the project team is focusing on **completing an impact assessment for the preferred expansion option.** The impact assessment includes expertise from numerous disciplines and focusses on potential impacts to the natural and human environments associated with the construction and operation of the proposed expansion. Careful attention is given to best management practices to mitigate potential impacts.

We are now seeking input from the Community, government agencies, stakeholders, and First Nations regarding the results of our impact assessment work and the proposed mitigation measures.

PUBLIC INPUT SESSION

If you are interested in discussing the impact assessment work, we encourage you to attend the upcoming public open house! We will provide you with background information and discuss with you, the preferred site expansion option and the results of the impact assessment work.

CONTACT US

We also encourage you to contact the individuals noted below if you have any specific questions.

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4
Phone: 705-942-2612
Fax: 705-942-3642
Email: rick.talvitie@aecom.com

Ms. Catherine Taddo, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1
Phone: (705) 759-5380
Fax: (705) 541-7165
Email: c.taddo@cityssm.on.ca

YOU'RE INVITED!

Date: Tuesday February 9, 2016

Location: Civic Centre – Russ Ramsay Room

Time: 3:30 pm to 7:30 pm

Refreshments to be provided.

If you cannot attend the public open house, we still want to hear from you! Just go to the project webpage (address provided below) to review the project reference material and fill out a comment sheet or simply send us an email (email addresses provided above). Project webpage address: saultstemarie.ca/SolidWasteEA

AECOM
523 Wellington Street East
Sault Ste. Marie, ON, Canada P6A 2M4
www.aecom.com

705 942 2612 tel
705 942 3642 fax

January 20, 2016

Mr. Danny Sayers
Batchewana First Nation
236 Frontenac Street
Sault Ste. Marie, Ontario
P6A 5K9

Dear Mr. Sayers:

Project No: 60117627 (60395)

Regarding: City of Sault Ste. Marie
Waste Management Environmental Assessment
Impact Assessment for the Preferred Expansion Option

The City of Sault Ste. Marie continues to move forward with its Waste Management Environmental Assessment (EA). We last contacted you in February, 2012. To date, a considerable level of study has been completed in developing and assessing the preferred approach to managing waste in the City of Sault Ste. Marie. The work completed to date has resulted in the following observations:

- The preferred approach to managing waste in the future is through increased waste diversion (ie. 3R's - reduction, reuse and recycling) and landfilling any remaining residual waste.
- The preferred approach to landfilling residual waste is an expansion of the existing City owned and operated disposal site located at 402 Fifth Line East in the City of Sault Ste. Marie.
- The preferred expansion option incorporates a moderate increase in the height or elevation of the waste and an expansion of the disposal footprint to the north and west of the existing footprint. The preferred option also includes landfill mining within the western portion of the existing disposal footprint to enhance groundwater protection. This process involves excavating existing disposed waste and cover material, recovering earthen material or "fines" and returning the waste to the disposal footprint. All mined and expansion areas will include the construction of a liner beneath the waste to collect leachate (precipitation contaminated as it filters through waste) and direct it to the City's sewage treatment plant for treatment. The existing disposal footprint and proposed mining and expansion areas are highlighted in a figure in the attached Newsletter.

We have now completed a detailed impact assessment for the preferred expansion option. The detailed impact assessment is a focussed investigation and analysis to identify potential environmental impacts resulting from the construction or operational changes associated with the proposed expansion. The impact assessment also considered opportunities for enhanced mitigation that otherwise would not likely be implemented in the absence of the proposed expansion.

Eleven reports were prepared which included expertise in the following disciplines:

- Biology (terrestrial and aquatic)
- Geotechnical
- Groundwater
- Atmospheric (acoustic and air quality)
- Surface water
- Socio-economic
- Visual
- Traffic
- Archaeological/Cultural
- Planned land use

We are now seeking input from Government agencies, stakeholders, First Nations and the general public regarding the impact assessment work. We would like to obtain as much input as possible from your community members. **We believe this is an opportune time to meet with Batchewana Chief and Council and/or to conduct an open house in your community. In addition we will be conducting a public open house in Sault Ste. Marie as outlined below. Everyone is welcome to attend.** We have attached a Notice of the Public Input Session which can be printed or copied and posted in prominent locations that are typically accessed by your community members. In addition, we encourage you to post the Notice on your website.

You are also encouraged to view the **Project Newsletter**, and the February 9th **Public Open House displays**. Copies of these documents are attached for your information and reference. **Please make these documents available to your Community members at your Band office.** These documents are also available electronically on the City's website at saultstemarie.ca/SolidWasteEA.

Details of the Public Open House to be held in Sault Ste. Marie are provided below:

Location:	Russ Ramsay Room, Civic Centre, 99 Foster Drive
Date/Time:	Tuesday, February 9, 2016 - 3:30 pm to 7:30pm
Format:	Open House - come any time between the times noted, view the displays, ask questions of the project team and provide input at the open house or at a later date.

If you are unable to attend the February 9th session we also encourage community input through other means. Please review the project materials at the link provided above and access a comment sheet to provide feedback or simply send the project team an email (nancy.maahs@aecom.com). Please include "**City of SSM Waste Management EA – Comments**" in the subject line of your email message. We have also included a copy of the comment sheet that can be reproduced for use by your members if desired.

We would appreciate receiving your input by March 11, 2016.

As always, we would also be pleased to meet with you and/or Chief and Council at your convenience to discuss the project details and to arrange dedicated consultation activities tailored to meet your Community needs. Please contact our office by telephone or email to arrange a meeting.

We look forward to hearing from you!

Sincerely,
AECOM Canada Ltd.

Rick Talvitie, P. Eng.
Project Manager
RT:nm
Encl.

cc: C. Taddo, City Engineering
K. Kolli, Dillon Consulting

Maahs, Nancy

From: Talvitie, Rick
Sent: Thursday, April 14, 2016 3:17 PM
To: 'dansayers@batchewana.ca'
Cc: Catherine Taddo (c.Taddo@cityssm.on.ca)
Subject: City of Sault Ste. Marie Waste Management EA
Attachments: January 2016 correspondence w dsayers.pdf

Hi Dan,

I left you a telephone message a few weeks ago regarding the above referenced project.

The City of Sault Ste. Marie is proceeding with a Waste Management Environmental Assessment. The study dates back to 2007 and is now well advanced.

In January 2016 we forwarded the attached package to you and I am just taking the opportunity to follow-up with you. If there is an interest in the project we would be pleased to meet with band council and/or staff.

The attached newsletter provides a good overview of what has been accomplished to date and the current status of the project. In general however the preferred approach to managing waste within Sault Ste. Marie and the surrounding area is to continue to focus on reducing the amount of waste being disposed of through 3R's (reduce, reuse, recycle) initiatives and landfilling residual waste. To accommodate future landfilling an expansion of the City's existing landfill is proposed and we have recently completed an impact assessment for the preferred expansion concept. Details of the impact assessment were recently presented to City of Sault Ste. Marie council and a public input session was undertaken to solicit input.

We look forward to hearing back from you.

Thanks.

Rick Talvitie, P. Eng.
Manager, Northern Ontario
rick.talvitie@aecom.com

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523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4
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www.aecom.com

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523 Wellington Street East 705 942 2612 tel
Sault Ste. Marie, ON, Canada P6A 2M4 705 942 3642 fax
www.aecom.com

May 17, 2017

Mr. Danny Sayers
Batchewana First Nation
236 Frontenac Street
Sault Ste. Marie, Ontario
P6A 5K9

Dear Mr. Sayers:

Project No: 60117627 (60395)

Regarding: City of Sault Ste. Marie
DRAFT Waste Management Environmental Assessment Report

The City of Sault Ste. Marie is continuing to move forward with its Waste Management Environmental Assessment. We last contacted you in January, 2016 when we completed an impact assessment for the preferred landfill expansion option.

To date, a considerable level of study has been completed in developing and assessing the preferred approach to managing waste in and around the City of Sault Ste. Marie. The work completed to date has resulted in the following observations:

- The preferred approach to managing waste in the future is through increased waste diversion (ie. 3R's - reduction, reuse and recycling) and landfilling any remaining residual waste.
- The preferred approach to landfilling residual waste is an expansion of the existing City owned and operated disposal site located at 402 Fifth Line East in the City of Sault Ste. Marie.
- The preferred expansion option incorporates a moderate increase in the height or elevation of the waste and an expansion of the disposal footprint to the north and west of the existing footprint. The preferred option also includes landfill mining within the western portion of the existing disposal footprint to enhance groundwater protection. This process involves excavating existing disposed waste and cover material, recovering recyclables and earthen material or "fines" and returning the waste to the disposal footprint. All mined and expansion areas will include the construction of a liner beneath the waste to collect leachate (precipitation contaminated as it filters through waste) and direct it to the City's sewage treatment plant for treatment. The existing disposal footprint and proposed mining and expansion areas are highlighted in a figure in the attached Notice.

The City has now completed a Draft Environmental Assessment Report to document the project. This document explains the decision making process, results of the studies and input received through the consultation process. Details of the proposed landfill expansion, potential impacts to the environment and commitment to mitigate these impacts is also included in the Draft EA.

We are now seeking input from Government agencies, stakeholders, Aboriginal Communities and the general public regarding the Draft Report. We have attached a Notice of the Draft EA completion and we encourage you to share this Notice with your Community members.

We will be delivering a copy of the completed Draft EA Report to the Band Office prior to May 24, 2017. **It would be appreciated if you could also make this document available to your community members.** This Draft EA reports is also available electronically on the City's website at saultstemarie.ca/SolidWasteEA.

We would appreciate receiving your input by July 7, 2017.

As always, we would also be pleased to meet with you and/or Band Council to discuss the project details. Please contact our office by telephone or email to arrange a meeting.

We look forward to hearing from you!

Sincerely,
AECOM Canada Ltd.

Rick Talvitie, P. Eng.
Project Manager
RT:nm
Encl.

cc: Chief Dean Sayers
C. Taddo, City Engineering
K. Kolli, Dillon Consulting

BATCHEWANA FIRST NATION OF OJIBWAYS

RANKIN RESERVE 15D
GOULAIS BAY RESERVE 15A
OBADJIWAN RESERVE 15E
WHITEFISH ISLAND 15

RECEIVED
AUG - 8 2017
ENGINEERING DEPARTMENT

Administration Office 236 Frontenac Street
Rankin Reserve 15D
Batchewana First Nation, Ontario P6A 6Z1
Ph. (705) 759-0914 / C&C Fax (705) 759-8213
www.batchewana.ca

August 2, 2017

Mr. Don Elliott
City Engineering Department
City of Sault Ste. Marie
99 Foster Drive
Sault Ste. Marie, ON
P6A 5X6

Dear Sir

Subject: City of Sault Ste. Marie – Waste Disposal Expansion

Further to your correspondence of May 17 2017 and the delivery of documents to Batchewana First Nation, we are writing you today to suggest that further discussions are necessary with Batchewana First Nation. Our expectation is that these further discussions would include your firm, the City of Sault Ste Marie and the Province of Ontario pursuing Batchewana First Nation's ultimate possible endorsement (consent) of the project

Batchewana First Nation has expectations on how its members are engaged. A Public Meeting posted in Sault Ste. Marie, and advertised in the Sault Star or on the local radio, does not meet the test for engagement of the government of Batchewana First Nation. To assist you with your understanding of the requirements for adequate engagement, I have attached a copy of the Batchewana First Nation Engagement and Accommodation Protocol to this letter as a guide to your future planning.

As you are no doubt aware, Batchewana First Nation does not have in-house technical expertise to be able to review a series of documents of such technical magnitude. In order for the government of Batchewana First Nation to be adequately engaged and in order for the Province of Ontario to garner our possible consent, Batchewana First Nation requires adequate funding to ensure that we can hire the appropriate expertise to review the documents that have been provided to us and to have those experts confirm to us whether or not the proposed project will have any impact on the Treaty Rights and Interests of Batchewana First Nation or whether or not the proposed project would have any impact on land, groundwater, flora, fauna or other environmental features of Rankin Reserve 15D.

It is also important to note that prior to the illegal taking of our lands by the settlers, Batchewana First Nation exercised "ownership" of the lands from Bawating to Pukaksawa and to the height of land. The 1849 Vidal Anderson report confirmed this area as the lands that belong to the people of Batchewana First Nation.

BATCHEWANA FIRST NATION OF OJIBWAYS

RANKIN RESERVE 15D
GOULAIS BAY RESERVE 15A
OBADJIWAN RESERVE 15E
WHITEFISH ISLAND 15

Administration Office 236 Frontenac Street
Rankin Reserve 15D
Batchewana First Nation, Ontario P6A 6Z1
Ph. (705) 759-0914 / C&C Fax (705) 759-8213
www.batchewana.ca

To this day, we take great pride in making use of all of these lands consistent with the teaching and lessons of our Elders, and continue to assert unextinguished jurisdiction. Our people have governed hunting fishing, harvesting, and trapping and conducted ceremonies on all of the lands at Bawahting and north-east shore of Lake Superior, inclusive of Whitefish Island, and other villages at Gros Cap, Agawa, Gargantua, Goulais and Obadjiwon for many centuries.

With this backdrop, it is important that we sit face to face to discuss how the proponent intends to ensure that the Rights and Interests of Batchewana First Nation are protected and that we have the resources we need to undertake our work in a manner that is consistent with the timelines you have set out for your project.

To set up this discussion, please contact Dan Sayers, Jr., Natural Resources Manager for an appointment in the near future.

Please note that the initial meeting is not viewed by Batchewana First Nation as part of the consultation record regarding our participation in this project.

We may well consider the approval you seek, however, until such time as we provide "consent", there will be no expansion or renewal of any waste management facility. Ultimate consent will be provided by Batchewana's leadership by way of a resolution on our letterhead endorsed by the undersigned Chief. This consent can then be placed in your "consultation" record.

Should you have any questions, please do not hesitate to contact my office at (705) 759-0914 x 202.

Miigwetch

Chief Dean Sayers

c.c
Danny Sayers, Jr., BNR Manager
Wayne Greer, ABN

Abernot, Tara

From: Talvitie, Rick
Sent: Thursday, February 16, 2023 1:12 PM
To: 'dansayers@batchewana.ca'
Cc: Catherine Taddo (c.taddo@cityssm.on.ca); Abernot, Tara
Subject: RE: City of Sault Ste. Marie Waste Management Environmental Assessment

Hello Dan,

Thank you for the follow-up call during which we discussed next steps. You asked that we provide a copy of the current documentation (i.e. Solid Waste Management DRAFT EA Report). The link provided below will take you to the City webpage for this project. On that page you will find a link to the DRAFT report that was released in May 2017.

Let me know if you have any questions or difficulties accessing the report.

We look forward to hearing back from you in the near future.

Solid Waste Management EA - City of Sault Ste. Marie (saultstemarie.ca)

**Note: I am currently working from home. Please contact me either by email or you can call my cell phone – 705-971-2612.*

Rick Talvitie, P. Eng.
Manager, Northern Ontario
rick.talvitie@aecom.com

AECOM
523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4
T 705.942.2612 F 705.998.2397
www.aecom.com

From: Talvitie, Rick
Sent: February 16, 2023 9:18 AM
To: 'dansayers@batchewana.ca' <dansayers@batchewana.ca>
Cc: Catherine Taddo (c.taddo@cityssm.on.ca) <c.taddo@cityssm.on.ca>; Abernot, Tara <Tara.Abernot@aecom.com>
Subject: City of Sault Ste. Marie Waste Management Environmental Assessment

Hello Dan,

I contacted you be telephone today and left a voicemail and thought I would also follow-up with an email.

As you are aware through previous correspondence and discussions the City of Sault Ste. Marie has been proceeding with a Waste Management Environmental Assessment (EA) to identify a safe, reliable, publicly acceptable and environmentally responsible way to manage waste generated in the City of Sault Ste. Marie, Prince Township and Batchewana's Rankin Reserve.

The City continues to make progress in completing the EA documentation with the intention of making a formal submission to the Ministry of Environment, Conservation and Parks in 2023.

In advance of making a submission to the Ministry the City would like to further engage Batchewana First Nation in a meaningful discussion regarding the EA. The City's ultimate objective is to ensure that the rights and interests of Batchewana First Nation are protected and respected.

We are reaching out today too coordinate a meeting to understand how we can engage BFN in a meaningful way.

We look forward to hearing from you.

**Note: I am currently working from home. Please contact me either by email or you can call my cell phone – 705-971-2612.*

Rick Talvitie, P. Eng.
Manager, Northern Ontario
rick.talvitie@aecom.com

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Description of Communication	Date	Comments / Questions / Issues	Response / How Addressed	Where Addressed in the EA	Reference Material	Outstanding Issues to be Addressed
Garden River First Nation						
• Newsletter No.1 - Notice of Commencement of Phase 2 of the EA Process	October, 2006	• No comments were received.			Newsletter No. 1 – Appendix M	
• Correspondence – Letter mailed to GRFN (Caroline Barry) referencing previous and next steps and requesting a meeting to discuss community consultation strategies.	January 3, 2007	• Initially no comments were received. • Meeting eventually scheduled for March 27, 2007	• TSH confirmed meeting date.		Letter dated Jan. 3, 2007 to Caroline Barry from R. Talvitie – Appendix M	
• Correspondence – Letter issued to GRFN (Chief Lyle Sayers and Council) confirming March 27, 2007 meeting, included a copy of Newsletter No. 1, and discussed conducting a public input session as a consultation strategy	March 21, 2007	• No comments were received.			Letter dated Mar. 21, 2007 to Chief Lyle Sayers and Council from R. Talvitie – Appendix M	
• TSH (Rick Talvitie) and City of SSM (Susan Hamilton Beach) attended GRFN Council meeting to provide an update on the status of the EA and discuss consultation strategies and opportunities for members to provide input.	April 3, 2007	• Has the City approached GRFN to solicit their interest in participating in the Household Special Waste Facility? • Can GRFN take advantage of the City's recycling programs? • GRFN is located downstream of the Root River which is situated adjacent to the landfill, are there appropriate water quality monitoring programs in place to safe guard the water quality? • How are tires managed by the City?	• R. Talvitie and S. Hamilton Beach noted that the City's Waste Diversion Supervisor contacted many area Municipalities and First Nations. GRFN had been contacted previously and the City was willing to contact GRFN again. The City accepts HHW from adjacent Aboriginal Communities. HHW transitioned to a Producer responsibility framework in Oct, 2021 and this Waste Management element is out of the City's control. • R. Talvitie explained that the City contracts the collection and processing of recycling materials to a private contractor. It was noted that there are several contractors that would likely be willing to provide pricing to GRFN for collection and processing of their recyclables. • R. Talvitie and S. Hamilton Beach explained that a leachate collection system is in place on the site which collects and pumps leachate to the City's WPCP and is treated prior to discharge. There is an extensive network of ground water monitoring wells, and surface water quality is also monitored adjacent to, upstream and downstream of the site. In addition, an extensive monitoring report is prepared annually which documents the findings of the sampling programs. • It was identified that the City accepts non-commercial tires at the landfill site for a fee and removed by a Contractor for recycling.	Blue box recycling programs are transitioning to a Producer responsibility framework – Sections 2.3.1. and 4.1.1. Sections 7.2.2 and 7.2.3 address the impact assessment related to ground and surface water resources and highlight the proposed mitigation and anticipated net effects. Sections 8.1.1 and 8.1.2 describe the proposed monitoring programs to assess and monitor the effectiveness of the proposed mitigation.	Garden River First Nation Consultation Strategy Meeting Report dated April 12, 2007 – Appendix M	

• Correspondence – Letter mailed to GRFN (Chief Lyle Sayers) notifying him of the upcoming open house in Sault Ste. Marie and inviting participation from his Community members. Included, for distribution in GRFN, digital and hardcopies of the Notice of Public Input Session being conducted to provide updates on diversion improvements and to discuss "Alternatives To" and criteria to be used in the evaluation. Reiterated an offer to conduct a PIC in GRFN or to work with them to develop an effective consultation strategy.	June 11, 2007	• No comments were received.			Letter to Garden River First Nation from R. Talvitie regarding Notice of Public Input Session No. 1, June 11, 2007 – Appendix M	
• Correspondence – Email follow up with GRFN representative (Caroline Barry) to the June 11, 2007 requesting Notices be posted in a prominent location and requesting a separate event in their Community.	June 15, 2007	• No comments were received.			Email to Garden River First Nation from R. Talvitie dated June 15, 2007 – Appendix M	
• Public Input Session No. 1- First public open house to provide updates on diversion improvements and to discuss "Alternatives To" and criteria to be used in the evaluation.	June 26, 2007	• No comments were received.			Records from June 26, 2007 PIC – Appendix F	
• Correspondence – Email to GRFN (Libby with copy to Caroline Barry and Chief Lyle Sayers) thanking them for participating in PIC, requesting a separate event in their Community with preferred dates, and provided presentation slides from PIC. Email re-sent on July 6, 2007 as it was originally sent to the wrong email address.	June 27, 2007 and July 6, 2007	• No comments were received.			Email to Garden River First Nation from R. Talvitie dated June 27, 2007 and July 6, 2007 – Appendix M	
• Correspondence – Telecom Record Sheet with GRFN representative (Caroline Barry) confirming PIC would be conducted in GRFN, methods of advertising PIC and possible date based on newsletter distribution.	July 19, 2007	• No comments were received.			Telecom Record Sheet dated July 19, 2007 – Appendix M	
• Public Open House No. 1 for GRFN in order to discussthe alternatives being considered, the criteria used to compare the alternatives, and select a preferred approach. Information on waste quantities, the alternatives and the evaluation criteria were provided in the form of two working papers which were also made available online and at the GRFN Band Office. Attendees were also encouraged to contact TSH and the City of Sault Ste. Marie with questions or concerns.	August 9, 2007	• Aside from the input from 2 completed workbooks received, there were no additional opinions voiced on the importance of the evaluation criteria during discussions with participants. From Workbook: • Participants felt the Do-nothing option was not realistic. Export was also identified as an option that should not be pursued further. • Increased waste diversion was rated the highest possible under each criterion and landfill and incineration were rated under each criterion with a slight preference shown for landfill. • Comment made by one individual was the "environmental acceptability" is the most important criterion. The importance of other criterion was not differentiated. • One respondent strongly supported the development of a residential organics		Sections 4.2.2 and 4.2.3 provide rationale for ranking "Alternatives To" and the final results of the evaluation. There was limited input providing regarding the ranking of criteria importance. Section 2.3.1 highlights City commitment to comply with	Records from August 9, 2007 GRFN PIC – Appendix G	

		collection and processing program and/or encouraging individuals to compost organics themselves. • Advantages of Increased Waste Diversion – long term benefits resulting from public education including changing habits and reduced waste generation. • Disadvantages of Export of Waste Outside the Study Area – sends the wrong message, and encourages increased waste generation "out of sight out of mind".		provincial mandates to collect and process residential source separated organics.		
• Correspondence – Newsletter No. 2 and Notice of Public Input Session - Project Update and information regarding the upcoming June 3, 2010 PIC which is intended to identify the preferred "Alternative To", discuss the project progress and have questions or concerns addressed.	May, 2010	• No comments were received.			Solid Waste Disposal Environmental Assessment Newsletter No. 2 and Notice of Public Information Centre – Appendix M	
• Correspondence – Notice of Public Input Centre No. 2 – Information on project background, update on project, overview of the next steps to be taken and information about June 3, 2010 PIC. Purpose is to provide an opportunity to discuss the project progress and have questions or concerns addressed.	May, 2010	• No comments were received.			Notice of Public Information Centre – Appendix M	
• Correspondence – Email to GRFN representative (Caroline Barry) providing Newsletter No.2 and inviting their Community to the June 3rd PIC. Requested that they post notices of the upcoming PIC in their Community and on their website. Offered to attend a Band Council meeting to update them.	May 21, 2010	• No comments were received.			Email dated May 21, 2010 to GRFN from R. Talvitie – Appendix M	
• Correspondence – Email to GRFN representative (Caroline Barry) confirming attendance at GRFN Council meeting.	May 28, 2010	• No comments were received.			Email dated May 28, 2010 to GRFN from R. Talvitie – Appendix M	
• Public Input Session No. 2 – Conducted to communicate the preferred "Alternative To" and provide an opportunity to discuss the project progress and have questions or concerns addressed.	June 3, 2010	• No comments were received.			Records from June 3, 2010 PIC – Appendix H	
• AECOM (Rick Talvitie) and City of SSM (Susan Hamilton Beach) attended GRFN Council meeting to provide an update on waste management planning, provide an overview of the EA process, review the solid waste management alternatives considered during the EA process; present preferred waste management alternative, and provide next steps in the EA process..	June 8, 2010	• Concerned with impacts to surface water (Root River) which flows through GRFN. • Suggested that the City/AECOM contact Sue Chiblow of Chiefs of Ontario to assist in identifying potential concerns with Environmental projects.	• Environmental controls were explained such as leachate collector, groundwater and surface water monitoring, aquatic biological community sampling and methane gas collection system. • Agreed to contact Sue Chiblow.	Sections 7.2.2 and 7.2.3 address the impact assessment related to ground and surface water resources and highlight the proposed mitigation and anticipated net effects. Sections 8.1.1 and 8.1.2 describe the proposed monitoring programs to assess and monitor the effectiveness of the proposed mitigation.	AECOM Minutes of Meeting with GRFN dated June 8, 2010 – Appendix M	

• Correspondence – Email to Sue Chiblow of Chiefs of Ontario (COO) with copy to GRFN representative (Caroline Barry) suggesting the COO may be able to assist GRFN in reviewing and commenting on documentation provided to-date.	June 21, 2010	• No comments were received.			Email dated June 21, 2020 to COO with copy to GRFN from R. Talvitie – Appendix M	
• Correspondence – Email to GRFN (Caroline Barry) thanking GRFN for allowing to attend Band Council Meeting, requesting further questions and/or comments and provided meeting notes.	June 25, 2010	• No comments were received			Email dated June 25, 2010 to GRFN from R. Talvitie – Appendix M	
• AECOM (Rick Talvitie) and City of SSM (Susan Hamilton Beach) met with Sue Chiblow, Chiefs of Ontario to discuss status of EA, environmental controls, identify concerns and address the concerns of GRFN.	July 28, 2010	• S. Chiblow questioned why purge wells were not located along the southeastern portion of the landfill site? • S. Chiblow acknowledged that the water quality is top of mind with GRFN as it is used for both sustenance and recreation. Concerned with E-Coli levels in surface water. Questioned whether First Nation Communities have been invited to participate in Source Water Protection Planning initiatives? • S. Chiblow questioned how hazardous wastes such as pharmaceuticals are managed at the landfill site? • S. Chiblow provided an overview of the governing structure for First Nations communities. • S. Chiblow questioned what level of consultation has occurred between the City and GRFN regarding Waste Management EA? • S. Chiblow noted that First Nations have developed an EA tool kit which addresses both traditional knowledge and technical information. S. Chiblow to forward a CD of the tool kit. Training for EA tool kit proposed for Fall 2010. • S. Chiblow noted First Nations have prepared a Water Declaration which may be of assistance with respect to water quality concerns. S. Chiblow to forward copy. • S. Chiblow questioned if the City involved in the Great Lakes Water Quality Agreement? S. Chiblow provided next meeting date for this initiative. • S. Chiblow noted that a First Nations conference is planned for October 2010 regarding water quality and she will look into possibility of City participation in the conference.	• A horizontal leachate collector has been installed in this area in lieu of purge wells in the southeastern portion of the site which has proven to be an effective tool to manage leachate. • Invitation had been extended to First Nation Communities to participate in Source Water Protection Planning initiatives and financial assistance has been offered. • The City established a hazardous waste depot in 2001. The site accepts various hazardous wastes and has been very successful in terms of the quantity of waste that has been diverted from the landfill site. • Provided an overview of the work completed to-date including consultation with the ToR document and various points of contact during the EA process. Historical summary of First Nations involvement in the process to be forwarded to S. Chiblow. • SHB was unaware if the City is currently participating in the Great Lakes Water Quality Agreement. SHB highlighted the improvements made with wastewater treatment and offered to conduct a tour of the SSM WPCP for various GRFN staff if desired.	There is an annual Monitoring Report that is prepared for this site that includes a robust groundwater and surface water monitoring program with sampling locations upstream, adjacent to and downstream of the landfill site. Sampling is undertaken in the spring, summer and fall and compared to Reasonable Use and Provincial Water Quality objectives. These reports can be provided if desired. Sections 7.2.2 and 7.2.3 address the impact assessment related to ground and surface water resources and highlight the proposed mitigation and anticipated net effects. Sections 8.1.1 and 8.1.2 describe the proposed monitoring programs to assess and monitor the effectiveness of the proposed mitigation. EA Terms of Reference and Summary of First Nation Consultation appended to the EA	AECOM Minutes of Meeting dated July 28, 2010 with Sue Chiblow, Chiefs on Ontario – Appendix M	

		• S. Chiblow noted that visual aids in newsletters are a helpful approach to reaching First Nations members. • S. Chiblow requested copy of a current project schedule so the First Nations community can understand the various tasks and activities that will be ongoing.	• Noted that community newsletter was used in past to advertise GRFN Open House. • Agreed to provide.			
• Correspondence – Email to Chiefs of Ontario representative (Sue Chiblow) issuing meeting report and Public Consultation Plan including a summary of the consultation activities undertaken with First Nations communities to-date and requesting feedback on best practice for engaging First Nations members in future consultation activities.	September 24, 2010	• No comments were received.			Email dated September 24, 2010 to Sue Chiblow from R. Talvitie – Appendix M	
• Correspondence – Email to Chiefs of Ontario representative (Sue Chiblow) and copied to GRFN (Caroline Barry) issuing current project schedule, requesting attendance at upcoming Alternative Methods workshop and requesting copy of EA tool kit identified at meeting dated July 28, 2010.	January 21, 2011	• No comments were received.			Email dated January 21, 2011 to Sue Chiblow from R. Talvitie – Appendix M	
• Correspondence –Notice of Public Input Session - Project Update and information regarding the upcoming April 19, 2011 PIC which is intended to solicit input and feedback on the alternative approaches to landfilling residual waste (i.e. expand existing disposal site versus a new site)..	April, 2011				Solid Waste Disposal Environmental Assessment Notice of Public Input Session – Appendix M	
• Correspondence – Email to GRFN (Chief L. Sayers and Caroline Barry) attaching Newsletter and informing of upcoming April 19, 2011 PIC. Encouraged posting of PIC Notice at prominent locations in their Community and on their website. Noted we would deliver a copy of the "Solid Waste Management Environmental Assessment – Alternative Methods – Step 1 (Landfill Expansion versus Development of New Site)" report. Extending an offer to meet with Band Council. Or conduct a public input session in the community.	April 8, 2011	• No comments were received.			Email dated April 8, 2011 to GRFN from R. Talvitie – Appendix M	
• Correspondence – Email to Chiefs of Ontario representative (Sue Chiblow) forwarding her April 8, 2011 email sent to GRFN and attaching Newsletter and informing of upcoming April 19, 2011 PIC.	April 8, 2011	• No comments were received.			Email dated April 8, 2011 to Chiefs of Ontario from R. Talvitie – Appendix M	

• Public Input Session No. 3 - Conducted to provide an opportunity to discuss the project progress, solicit input and feedback on the alternative approaches to landfilling residual waste (i.e. expand existing disposal site versus a new site)., and to address questions or concerns.	April 19, 2011	• No comments were received.			Records from April 19, 2011 PIC – Appendix I	
• Correspondence –Notice of Public Input Session - Project Update and information regarding the upcoming March 6, 2012 PIC which is intended to solicit input and feedback on the alternative approaches to expanding the existing disposal site.	February, 2012				Solid Waste Disposal Environmental Assessment Notice of Public Input Session – Appendix M	
• Correspondence – Email and Letter to GRFN (Chief L. Sayers) updating the project status, offering to meet, and advising of the upcoming Public Input Session No. 4 which is being conducted to discuss the project progress and solicit input and feedback on a preferred expansion strategy for the existing landfill site. The correspondence included the most recent Newsletter, Notice of upcoming PIC, Solid Waste Management Environmental Assessment – Alternative Methods – Step 2 (Identification and Comparison of Expansion Options) report, March 6, 2012 PIC displays and link to a survey.	February 15, 2012 and February 22, 2012	• No comments were received.			Letter dated February 15, 2012 and Email dated February 22, 2012 to GRFN from R. Talvitie – Appendix M	
• Visit – dropped off the "Solid Waste Management Environmental Assessment – Alternative Methods – Step 2 report.	February 22, 2012	• No comments were received.				
• Correspondence – Email to Chiefs of Ontario representative (Sue Chiblow) informing of package delivered to the GRFN office on February 22, 2012 for Chief Sayers notifying of PIC No. 4 and requesting another presentation to be made to Bank Council and/or conduct Public Open House in the Community. Attached was a copy of the Newsletter.	February 23, 2012	• No comments were received.			Email dated February 23, 2012 to Sue Chiblow from R. Talvitie – Appendix M	
• Public Input Session No. 4 - Conducted to discuss project progress and to solicit input and feedback on a preferred expansion strategy for the existing landfill site.	March 6, 2012	• No comments were received.			Records from March 6, 2012 PIC – Appendix J	
• Correspondence – Newsletter and Notice advising of Feb. 9, 2016 Public Input Centre No. 5 intended to discuss project progress and solicit input and feedback on the impact assessment work.	January, 2016				Solid Waste Disposal Environmental Assessment January 2016 Newsletter and Notice of Public Input Session – Appendix M	

• Correspondence - Letter to GRFN (Chief Paul Syrette) updating project status and requesting input and feedback on the impact assessment reports. Also advised of upcoming February 9th PIC and offered to meet with Band Council or conduct a separate event in their Community.	January 20, 2016	• No comments were received.			Letter dated January 20, 2016 to Chief Paul Syrette, GRFN from R. Talvitie – Appendix M	
• Public Input Session No. 5 - Conducted to discuss project progress and to solicit input and feedback on the impact assessment work.	February 9, 2016	• No comments were received.			Records of February 9, 2016 PIC – Appendix K	
• Correspondence – Email to GRFN representative (Gerry Lesage) following up on package submitted in January 2016 and to see if GRFN has any further interest in project. Also provided a copy of a recent Newsletter which summarized the current status of the project.	April 13, 2016	• No comments were received.			Email dated April 13, 2016 to Gerry Lesage from R. Talvitie – Appendix M	
• Correspondence – Letter to GRFN representative (Paul Syrette) from R. Talvitie notifying and requesting input on the Draft EA. Provided the Notice of the Draft EA and requested the Notice be shared with GRFN community members. Also indicated that a hard copy of the Draft EA Report would be delivered to the GRFN Band Office prior to May 24, 2017 and it was requested that this document also be made available to GRFN community members. Notification was also provided that the document could be viewed on the City's website and link to the website was provided. An offer was also made to meet in person to discuss project details.	May 17, 2017	• No comments were received.			Letter dated May 17, 2017 to Paul Syrette (GRFN) from R. Talvitie – Appendix M	

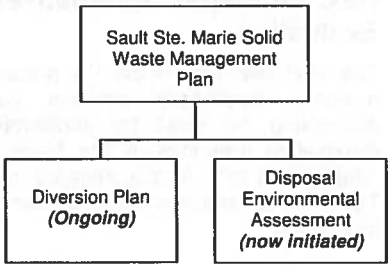
Solid Waste Disposal Environmental Assessment

Newsletter No.1, October 2006

Sault Ste. Marie Begins the Disposal Environmental Assessment (EA)

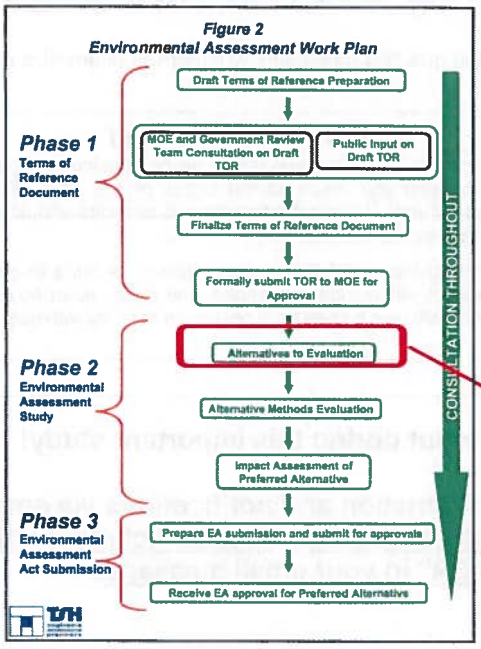
In September 2005 the Minister of the Environment approved the Environmental Assessment Terms of Reference (EA TOR) for the Sault Ste. Marie Solid Waste Management Plan. The EA TOR documents the process that will be followed to determine the preferred method for managing solid waste in Sault Ste. Marie for the next 20 to 40 years. In addition to the disposal EA, the Sault Ste. Marie Solid Waste Management Plan includes a significant diversion component.

A copy of the EA TOR is attached for your reference.



Diversion Update

The City of Sault Ste. Marie's waste diversion program currently includes collection and recycling of fibers and containers (ie: curbside yellow and blue box program); bi-weekly collection and composting of leaf and yard waste; a household hazardous waste depot; and segregation and recycling of metals, white goods, tires, and clean wood and brush at the solid waste landfill at 402 Fifth Line East. In 2005, the City limited residential waste setout to 2 bags/containers per week per household. Tags for additional waste bags or containers must be purchased. The residential waste diversion program diverted approximately 32% of residential waste from the landfill in 2005. This is a significant increase compared to the 8% diverted in 2000!



The EA Process Overview

The Environmental Assessment for disposal capacity includes three key phases. The first phase was completed with the submission and approval of the EA Terms of Reference. We are now initiating the second phase: the Environmental Assessment Study itself. The last phase is submission of the EA documentation to the Ministry of the Environment and the subsequent government and public review and approval period. It is anticipated that the whole process will take until early 2009.

WE ARE HERE

The City has retained a team of consultants including Totten Sims Hubicki Associates and Dillon Consulting Limited to assist them in the preparation of the Waste Disposal EA.

TSH engineers architects planners

DILLON CONSULTING

Next EA Steps: "Alternatives To" Evaluation

The next key step in the EA process is to evaluate functionally different ways of addressing the need for additional waste disposal capacity in Sault Ste. Marie, (ie. the "alternatives to"). As documented in the EA TOR, the alternatives being considered are as follows:

- Increased 3R's (reduce, reuse, recycle);
- Incineration & High Heat Processes;
- Landfill;
- Export Waste Outside Service Area;
- Do nothing.

Contact Us

Your input on this project is important to us. If you would like further information or to send comments, ask questions or be added to our mailing list, please contact us:

Mr. Rick Talvitie, P.Eng
Project Manager
Totten Sims Hubicki
523 Wellington Street East,
Sault Ste. Marie, Ontario
P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
Email: rtalvitie@tsh.ca

Mrs. Susan Hamilton-Beach, P.Eng.
Director of Engineering Services
City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive,
Sault Ste. Marie, Ontario
P6A 5N1

Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on.ca

The evaluation of "alternatives to" will be carried out at a general level. Specific locations and technologies for the above mentioned alternatives will not be included in this step but will be considered in the next step (ie. alternative methods evaluation).

In the EA Terms of Reference, criteria were proposed for the evaluation of the "alternatives to". The proposed criteria for the evaluation of "alternatives to" are listed below.

- Compliance with regulations and policies (addresses the ability to meet all applicable regulations and policies);
- Environmental acceptability (addresses potential environmental affects of the alternative);
- Ability of the City to implement the alternative (considers whether the City has the ability and mandate to implement the alternative);
- Flexibility of the system (considers whether the alternative can respond to changes in the waste stream);
- Capability of managing waste quantities and qualities (considers whether the alternative could handle the identified waste stream);
- Proven technical capability (considers whether the alternative has been proven successful in other experiences in Ontario or other jurisdictions); and
- Economic/Cost (considers the relative cost differences among the alternatives)

Keeping You Informed

This newsletter is part of a series that will be ongoing during this project to keep you aware of the status of the Solid Waste Management Plan. Contact information is provided should you wish more detailed information.

In addition to the newsletter, opportunities to become involved in the project will include workshops, and public open houses. Information will also be regularly posted on the City web site.

We look forward to receiving your input during this important study!

If you would prefer to receive future information and notifications via email please forward your email address to nirwin@tsh.ca. Please include the title "City of SSM Waste Disposal EA" in your email message.

TSH engineers architects planners

DILLON CONSULTING

January 3, 2007

Caroline Barry
Garden River First Nation
7 Shingwauk Street, RR #4
Sault Ste. Marie, Ontario
P6A 5K9

Dear Ms. Barry:

Re: City of Sault Ste. Marie
Waste Disposal Environmental Assessment
TSH Project No. 60395

The City's existing waste disposal site has an estimated nine to ten years of remaining capacity and can accept waste generated within the City of Sault Ste. Marie, Prince Township and Rankin Reserve. TSH Engineers has been retained by the City of Sault Ste. Marie to undertake an Environmental Assessment to address the problem of diminishing waste disposal capacity at the existing site. Recently, we sent you a newsletter which provided relevant contact information, an overview of the Environmental Assessment process, and identified the next steps to be undertaken.

In June, 2005 we also met with you to discuss the development of the Terms of Reference ("ToR") Document (refer to the attached meeting report). The ToR document sets out the process that will be followed in undertaking the Environmental Assessment.

During our June, 2005 meeting we indicated that Garden River First Nations would have an opportunity to assist in developing a consultation strategy for First Nation Communities and to participate in Public Input Sessions. We would like to meet with relevant community representatives to discuss this matter further and to update you on the progress of the study.

We will be contacting you in the near future to arrange a meeting. In the meantime please contact the undersigned should you have any questions.

Yours very truly,

R. Talvitie, P. Eng.
Project Manager

Encl.

p.c. S. Hamilton-Beach
K. Kolli

March 21, 2007

Chief Lyle Sayers and Council
Garden River First Nation
7 Shingwauk Street
Garden River, ON
P6A 5K9

Dear Chief Lyle Sayers and Council:

Re: City of Sault Ste. Marie
Solid Waste Disposal Environmental Assessment
TSH Project No. 38-60395

We are looking forward to meeting with Chief and Council on March 27th to outline the status of the subject project and discuss consultation strategies. We have included herein a copy of a Newsletter that provides an overview of the current status of the project and the next steps to be undertaken in the process.

We believe it is important to solicit input regarding the alternatives being considered and the evaluation of the alternatives as early in the process as possible. In order to facilitate meaningful input from your community members we would first like to establish an appropriate consultation strategy.

As an example we believe it may be advantageous to conduct a distinct public input session in your community to solicit feedback on the alternatives being considered, the evaluation criteria and the relative importance of the criteria. The format for the session could include a presentation regarding the alternatives and evaluation criteria together with facilitated discussions to obtain feedback. We would also provide a series of descriptive display panels to educate and encourage feedback.

We are looking forward to working with Chief and Council on March 27th to establish a suitable consultation strategy. There will be several opportunities for input throughout the process and we are hopeful that the first consultation event can be conducted in approximately 6 weeks time.

Should you have any questions please contact the undersigned.

Yours very truly,

Rick Talvitie, P.Eng.,
Branch Manager

Encl.
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p.c. S. Hamilton-Beach
K. Kolli

engineers
architects
planners

GARDEN RIVER FIRST NATIONS CONSULTATION STRATEGY MEETING REPORT

Project:	City of Sault Ste. Marie Waste Disposal EA
TSH No.	60395
Meeting Date:	April 3, 2007
Meeting Time:	7:30 pm
Report Date:	April 12, 2007
Recorder:	R. Talvitie
Page 1 of 4	

Note: If any of the contents of this meeting report differ in any respect from your own recollection of the points discussed or decisions reached, please notify us immediately. In the meantime, we will proceed in accordance with the understanding described herein.

LOCATION: Garden River First Nation Community Hall

PRESENT: Garden River First Nation Band Council Members
Several Members of the Public
Susan Hamilton-Beach, City SSM
Rick Talvitie, TSH

PURPOSE: To provide an update on the project progress and to discuss strategies for consulting with Garden River First Nation members.

Action By

1.0 Introduction and Background

RT provided an overview of the project background.

- Met with Croline Barry of Garden River First Nation (GRFN) in the spring of 2005 to discuss the Terms of Reference ("ToR"). The ToR provides the framework for guiding the implementation of the Environmental Assessment ("EA"). — Info.
- City has secured the services of a consultant team to undertake the EA (ie: TSH and Dillon). — Info.
- Approximately 11 years of disposal capacity remaining at the Fifth Line landfill. — Info.
- City has been very aggressive in enhancing waste diversion through new and enhanced programs. — Info.
- Currently diverting approx. 35% of the residential waste stream in comparison to 8% in 2000. — Info.
- Residential diversion programs include: — Info.
    - Blue/Yellow box (residential, multi-residential and schools);
    - Leaf and yard waste collection bi-weekly and backyard composters;

	Action By
o Household Special Waste Facility for hazardous wastes; o Reduced set-out limits (reduced from 6 bags/containers to two bags/containers per household); o Partial Pay-as-you-throw program (ie: $2 per bag/container beyond 2 bag/container limit); o Increased gate and tipping fees at the landfill; o Segregation of waste at the landfill; and o Special events coordinated by Clean North (Christmas trees and WEEE).	
• IC&I diversion rate is also increasing significantly through enhanced MOE enforcement.	Info.

Action By

2.0 Alternatives To

RT explained that the project team is currently looking at "alternatives to" the undertaking (different ways of managing the waste stream including diversion and disposal). Info.

The "alternatives to" being considered include: Info.

- Increased Waste Diversion
- Incineration and High Heat Processes
- Landfill
- Export of Waste Outside the Service Area
- Do nothing

A series of evaluation criteria were developed and presented in the ToR which are intended to be used to evaluate the "Alternatives". A draft "Alternatives To" Report will be released in advance of the public input sessions and will document the preliminary evaluation completed. Info.

RT explained that the City believes it is important to table issues and concerns regarding the alternatives and the evaluation as early in the process as possible. This can be effectively achieved by consulting with potentially impacted communities and stakeholders early in the process. Info.

Input is specifically being solicited regarding the alternatives being considered, the evaluation criteria and the relative importance of the criteria with the intent of establishing a preferred "Alternative To". Info.

RT explained that the City/TSH would like input on the approach that is best suited to obtaining input from GRFN members during the EA process. RT suggested that it may be advantageous to conduct a distinct public input session in GRFN to solicit input from First Nation members. Info.

Chief Lyle Sayers noted that the current Band Council meeting is open to the general public but there is limited attendance. He indicated that GRFN would assist the City in accommodating a public input session within GRFN but cautioned that the attendance would likely be very limited. Info.

RT noted that another alternative would be to have some representation from GRFN at a public input session to be conducted in Sault Ste. Marie. Info.

Chief Lyle Sayers noted that the City could extend an invitation to GRFN and they would consider sending some representation. He also noted that they could not commit. Info.

Action By

3.0 Questions

The following questions were raised by Councilors and the responses provided are noted.

- Has the City approached GRFN to solicit their interest in participating in the Household Special Waste Facility? SHB and RT noted that the City's Waste Diversion Supervisor has contacted many area Municipalities and First Nations but could not confirm whether GRFN had been contacted. (**Note: following the meeting Randy Roy the City's Waste Diversion Supervisor confirmed that GRFN had been contacted. He agreed to make contact again**). — Info. / R. Roy

- Can GRFN take advantage of the City's recycling programs? RT explained that the City contracts the collection and processing of the recycling materials to a private contractor. It was also noted that there are several contractors that would likely be willing to provide pricing to GRFN for collection and processing of recyclables in their community. — Info.

- GRFN is located downstream of the Root River which is situated adjacent to the landfill. Are there appropriate water quality monitoring programs in place to safe guard the water quality? RT and SHB explained that a leachate collection system is in place on the site. The collected leachate is pumped to the City's WPCP and treated prior to discharge. In addition there is an extensive network of ground water monitoring wells within and adjacent to the landfill site. Surface water quality is also monitored adjacent to, upstream of and downstream of the site. The surface water monitoring includes analysis of impacts to the benthic invertebrate (bottom dwelling) community. An extensive monitoring report is prepared each year which documents the findings of the sampling and analysis programs. The results are compared to compliance criteria and action is taken to address any non-compliances. A copy of the 2006 Monitoring Report is attached hereto. — Info.

Action By

- How are tires managed by the City of Sault Ste. Marie? The City of Sault Ste. Marie accepts non-commercial tires at the landfill site for a fee. The tires are stockpiled and a tire recycling contractor removes the stockpiled tires periodically. The City has recently engaged the services of a new Contractor. — Info.

END OF MEETING REPORT

Submitted By:

R. Talvitie, P.Eng.
Project Manager

cc: C. Barry, Garden River First Nation
S. Hamilton-Beach, City of SSM
R. Roy, City of SSM
K. Kolli, Dillon Consulting

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June 11, 2007

Chief Lyle Sayers
Garden River First Nation
7 Shingwauk Street
Sault Ste. Marie, Ontario
P6A 5K9

Dear Chief Sayers:

Re: City of Sault Ste. Marie
Solid Waste Management EA
TSH Project No. 60395

The City of Sault Ste. Marie is proceeding with the first public input session for the Solid Waste Management Plan Environmental Assessment. Details pertaining to the session are included in the attached Notice.

We will be advertising this Public Input session through various forms within the City of Sault Ste. Marie and adjacent communities. We are encouraging direct participation of Garden River First Nation members. We have enclosed 10 copies of the Notice for posting at prominent locations within your community.

We have also included a digital copy for posting on your website.

In the event that you feel there are other effective means of notifying members of your community of this session please let us know.

We are hopeful that there will be broad representation of various interest groups and communities at the event.

We would also like to reiterate that we would like to conduct a separate public input session within your community. In this regard, could you please provide us with a suitable date, time and location for an event in early July, 2007.

We look forward to seeing members from your community at our event and look forward to coordinating a separate event in your community.

Yours very truly,

R. Talvitie, P. Eng.
Project Manager

c.c. Caroline Barry
Susan Hamilton-Beach
Karla Kolli

Solid Waste Disposal Environmental Assessment PUBLIC INPUT SESSION No. 1

Sault Ste. Marie Conducts First Public Input Session!

Are you interested in discussing the alternatives and criteria that will be used to compare and select a preferred approach to dispose of waste in Sault Ste. Marie, Prince Township and Batchewana First Nation's Rankin Reserve? If so, we encourage you to attend this public input session!

You're Invited!

Date: Tuesday June 26, 2007
Time: 6:00 pm to 9:00 pm
Location: Civic Centre – Russ Ramsay Room

Please join us!

The City of Sault Ste. Marie is holding a public input session for the Solid Waste Disposal Environmental Assessment to discuss both diversion and disposal of solid waste.

We will update you on the City's achievements in increasing waste diversion and discuss with you the alternative approaches that are being considered to dispose of the residual solid waste. A principle objective of the session is to confirm the alternatives that are being considered (ie: increased 3R's, landfill, incineration and high heat processes, export and do-nothing) and to discuss the criteria that will be used to compare the alternatives.

Information on waste quantities, the alternatives and the evaluation criteria can be found in two working papers prepared for this session titled "Waste Quantity Projections and Existing Environment Profile" and "Alternatives To the Undertaking". These working papers can be downloaded from the City of Sault Ste. Marie website (http://www.cityssm.on.ca/) or viewed at the locations noted below commencing on June 19th.

TSH Engineers Architects and Planners	523 Wellington Street
Civic Centre Engineering and Planning	99 Foster Drive, 5th Floor
Public Works and Transportation	128 Sackville Road
Main Library	50 East Street
Churchill Branch Library	301 Lake Street
Korah Branch Library	496 Second Line
Township of Prince Municipal Office	3042 Second Line West
Batchewana First Nation	236 Frontenac Street
Garden River First Nation	7 Shingwauk Street
Metis Nation of Ontario Office	26 Queen Street East
Missanabie Cree Office	559 Queen Street East

We also encourage you to contact the individuals noted below if you have any specific questions.

Mr. Rick Talvitie, P.Eng
Project Manager
Totten Sims Hubicki (TSH)
523 Wellington Street East,
Sault Ste. Marie, Ontario
P6A 2M4
Phone: 705-942-2612
Fax: 705-942-3642
Email: rtalvitie@tsh.ca

Mrs. Susan Hamilton-Beach, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
99 Foster Drive,
Sault Ste. Marie, Ontario
P6A 5N1
Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on.ca

Information pertaining to this session is available on the City of Sault Ste. Marie website at: http://www.cityssm.on.ca/. Hardcopies can also be obtained by contacting TSH at 705-942-2612.

We look forward to seeing you on June 26th!

TSH engineers architects planners

DILLON CONSULTING

Talvitie, Rick

From: Rick Talvitie
Sent: June 15, 2007 10:36 AM
To: 'cbarry@gardenriver.org'
Cc: 'Susan Hamilton Beach'
Subject: City of Sault Ste. Marie Waste Disposal Environmental Assessment

Good Morning Caroline,

I am just following up on the Notice of the Public input session that was delivered to the Chief yesterday. The City is undertaking a public input session on June 26th (details are provided in the Notices provided to you). The general public within Sault Ste. Marie and adjacent communities are encouraged to attend. We are hopeful that you will post the notices in prominent locations in your community including your website (ie: digital copy was also provided).

I also wanted to reiterate that we would like to conduct a separate event in your community in the month of July/07. It is important that we continue to move forward with this project and ask that you provide us with a suggested date and time for an event.

Thank you and we look forward to working with you.

Regards,

Rick Talvitie, P.Eng.
Branch Manager
TSH
523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4
Phone: 705-942-2612
Fax: 705-942-3642
This electronic transmission, including any attachments, may contain personal information whose collection and use is regulated by the Personal Information Protection and Electronic Documents Act S.C. 2000 c. 5 (the "Act"). The use of such personal information except in compliance with the Act is strictly prohibited. If you have received this electronic transmission in error, or do not agree to comply with the Act, please notify us immediately by telephone or by Reply to Sender function and delete the message and any attachments from your computer without making a copy.

Talvitie, Rick

From: Rick Talvitie
Sent: June 27, 2007 11:39 AM
To: 'libby-b@hotmail.ca'; 'cbarry@gardenriver.org'
Cc: 'sayersl@gardenriver.org'; 'Susan Hamilton Beach'; 'Kolli, Karla'
Subject: City of Sault Ste. Marie Waste Disposal EA
Attachments: final jun 26 public input session.pdf

Hi, Libby

It was a pleasure discussing the project with you at last nights Public Input Session. We appreciate that you took the time to attend. As I noted at last nights meeting the City is committed to conducting a separate consultation event in your community. It is however important we conduct an event as soon as practicable given our schedule constraints.

We would like to schedule a time for an "open house" event at the community hall. With an "open house" format individuals would be invited to attend at anytime over a 2 to 3 hour timeframe. We would post displays on the wall and provide information to individuals as they arrived. We would encourage comments, questions and feedback.

Please confirm that this approach is acceptable and advise of a suitable date preferably during the week of July 16th or July 23rd. We would suggest a timeframe from 4:00 pm or 5:00 pm to 7:00 pm but are open to other times as appropriate.

We look forward to obtaining input from your community.

We have also attached a copy of the slides from last night's presentation for dissemination to Band Council. Given that this project will span a couple of years we suggest that you make the relevant materials available to your members. This can either be done by uploading the information directly to your website or providing a link to the City of SSM website. I will provide you with a suitable link to the EA information on the City's website in the coming days.

Regards,

Rick Talvitie, P.Eng.
Branch Manager
TSH
523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4
Phone: 705-942-2612
Fax: 705-942-3642
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Talvitie, Rick

From: Rick Talvitie
Sent: July 6, 2007 11:33 AM
To: 'libby-b@hotmail.com'
Subject: FW: City of Sault Ste. Marie Waste Disposal EA
Attachments: final jun 26 public input session.pdf

Hi Libby,

I see I had the wrong email address when I sent this out last week. Caroline and Chief Sayers likely received this email last week.

Can you provide me with a suitable date and time for a Public O[pen House in Garden River First Nation.

Thks.

Rick Talvitie, P.Eng.
Branch Manager
TSH
523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4
Phone: 705-942-2612
Fax: 705-942-3642
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From: Rick Talvitie
Sent: June 27, 2007 11:39 AM
To: 'libby-b@hotmail.ca'; 'cbarry@gardenriver.org'
Cc: 'sayersl@gardenriver.org'; 'Susan Hamilton Beach'; 'Kolli, Karla'
Subject: City of Sault Ste. Marie Waste Disposal EA

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Regards,

engineers
architects
planners

TELECOM RECORD SHEET

DATE:	July 19, 2007	**PROJECT NO.:**	60395
RECORDED BY:	Rick Talvitie	**ORIGINATOR OF CALL:**	

WITH:	Caroline Barry
PHONE NO.:	
REPRESENTING:	Garden River First Nation
REGARDING:	GRFN Public Open House

DISCUSSION:

- Will issue an email advising we can proceed with an open house – the Chief will be copied and will presumably advise if any concerns.
- Suggested methods to advertise include Newsletter (July 20th cutoff date) – contact Irene Gray – 946-3933, Community Center sign, contact Peggy Belleau – 946-2614 and postings in the Community. The Sault Star is also an option.
- The next newsletter will be issued in early August. RT suggested the open house be conducted shortly after the publication of the next newsletter.
- TSH to confirm date and time for open house.

ACTION:

Distribution: Susan Hamilton Beach
Karla Kolli

SOLID WASTE DISPOSAL
ENVIRONMENTAL ASSESSMENT

Newsletter No.2, May 2010

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its residual municipal solid waste. In the evaluation of "Alternatives To the Undertaking", a thorough review of different waste management alternatives including increased waste diversion, incineration/high heat processes, landfill, export waste outside the service area, and "do-nothing" was completed. To identify a preferred waste management method, the alternatives were comparatively evaluated using the following seven criteria:

1. Compliance with current regulations and policies;
2. Environmental acceptability;
3. The ability of the City of Sault Ste. Marie to implement the preferred alternative;
4. Flexibility of the system;
5. Capability of managing waste quality and quantity;
6. Proven technical capacity; and
7. Cost.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative for the City has been identified as **increased waste diversion and landfilling of the residual waste.**

DIVERSION UPDATE

The residential waste diversion program diverted approximately 34% of residential waste from the landfill in 2009. This shows consistent progress when compared to the 9% diverted in 2000! The City of Sault Ste. Marie's waste diversion program currently includes weekly curbside collection and recycling of paper products in the yellow box and containers in the blue box; bi-weekly collection and composting of leaf and yard waste throughout the growing season (April through November); a household special waste facility at 115 Industrial Park Crescent; landfill bans and segregation and recycling of metals, white goods, tires, and clean wood and brush at the landfill at 402 Fifth Line East. Since 2006, the City has limited residential waste setout to 2 bags/containers per week per household. Tags for additional waste bags or containers must be purchased. The City diversion programs are also supplemented by diversion initiatives undertaken by the private sector and special interest groups.

The City is also currently assessing the feasibility of diverting municipal biosolids (sewage sludge) from disposal.

PUBLIC INFORMATION CENTRE

A Public Information Centre is being held to provide an opportunity for you to discuss the project progress and have your questions or concerns addressed.

Date: Thursday, June 3, 2010

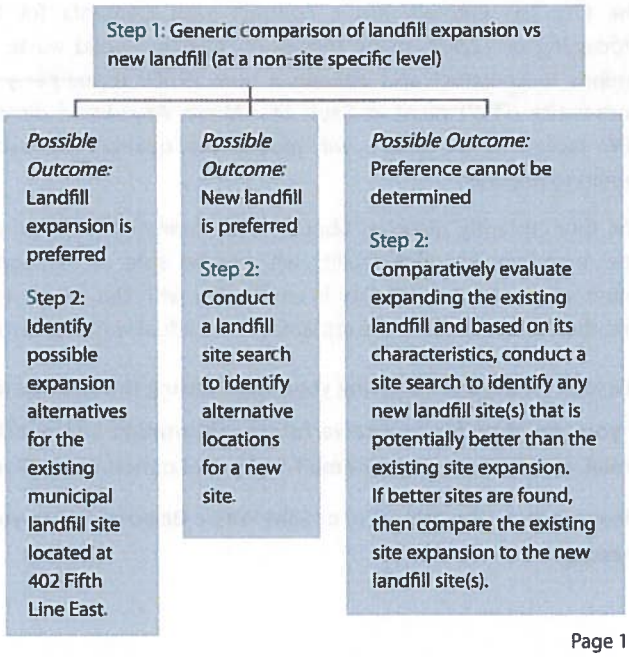
Location: Thompson Room
Civic Centre, 99 Foster Drive

Time: 3:30 pm to 7:30 pm

WHAT'S NEXT?

The results of the Environmental Assessment work completed to date suggest that landfill remains the most appropriate disposal option for the City's residual waste. Landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and recovered to generate electricity, landfills can manage the entire residual waste stream, are flexible to changes in waste quality and quantities and are cost effective.

Following the "Alternatives To" evaluation, the next step in the EA process for a landfill facility is the identification and evaluation of "Alternative Methods" of landfilling. This can include both alternative locations and alternative designs as illustrated in the flow chart below. We will be looking for public input on landfill options in the Fall of 2010.



SOLID WASTE DISPOSAL
ENVIRONMENTAL ASSESSMENT

Newsletter No.2, May 2010

ABOUT THE ENVIRONMENTAL ASSESSMENT (EA) PROCESS

The Environmental Assessment for disposal capacity includes three key phases. The first phase was completed with the submission and approval of the EA Terms of Reference. We are currently working within the second phase: the Environmental Assessment Study itself. The last phase is submission of the EA documentation to the Ministry of the Environment and the subsequent government and public review and approval period. It is anticipated that the whole process will take until late 2012.

In September 2005 the Minister of the Environment approved the Environmental Assessment Terms of Reference (EA TOR) for the Sault Ste. Marie Solid Waste Management Plan. The EA TOR documents the process that will be followed to determine the preferred method for managing solid waste in Sault Ste. Marie for the next 20 to 40 years. In addition to the disposal EA, the Sault Ste. Marie Solid Waste Management Plan includes a significant diversion component.

Keep up-to-date on the EA Study at the City of Sault Ste. Marie's website: http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1

ELEMENTA ENERGY-FROM-WASTE FACILITY

In 2007, an energy-from-waste (EFW) developer known as The Elementa Group (Elementa) constructed a pilot steam reformation plant that would convert municipal solid waste into a char and synthetic gas (or "syngas") that can be used to generate electricity.

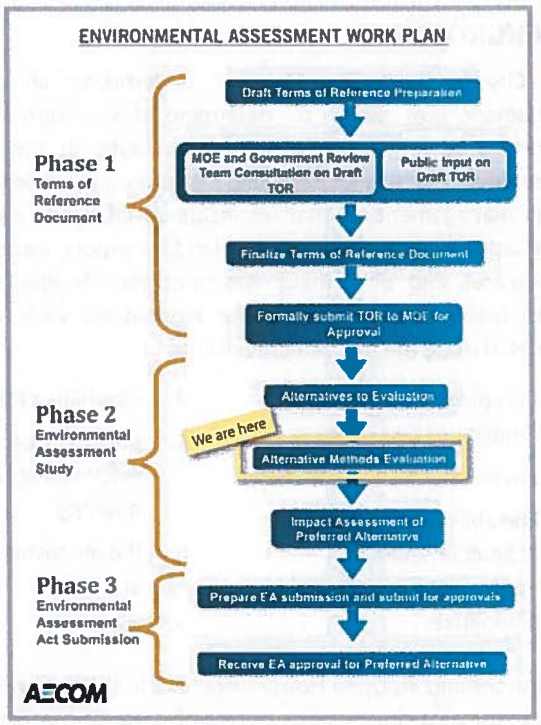
The City has entered into a contract with Elementa for the annual processing of 12,500 metric tonnes of municipal solid waste. Elementa intends to construct and operate a new 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility in the future will reduce the quantity of residual waste requiring disposal.

The City currently disposes about 60,000 tonnes of residual waste each year therefore; the EFW facility will not be able to manage the City's entire waste stream. The City is continuing with the EA study to ensure that the City can process the remainder of residual waste generated.

We look forward to receiving your input during this important study!

If you would prefer to receive future information and notifications via email, please forward your email address to nancy.maahs@aecom.com.

Please include the title "City of SSM Waste Disposal EA" in your message.



CONTACT US

Your input on this project is important to us. If you would like further information or to send comments, ask questions or be added to our mailing list, please contact us:

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
Email: rick.talvitie@aecom.com

Mrs. Susan Hamilton Beach, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on

THE CITY OF SAULT STE. MARIE

Notice of Public Information Centre

SOLID WASTE DISPOSAL ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its residual municipal solid waste. Work to date has included a thorough review of a number of waste management alternatives including increased waste diversion, incineration/high heat process, landfill, export waste and "do nothing". To identify a preferred waste management method, the alternatives were comparatively evaluated using the following seven criteria:

1. Compliance with current regulations and policies;
2. Environmental acceptability;
3. The ability of the City of Sault Ste. Marie to implement the preferred alternative;
4. Flexibility of the system;
5. Capability of managing waste quality and quantity;
6. Proven technical capacity; and
7. Cost.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative for the City has been identified as **increased waste diversion and landfilling of the residual waste**.

Residents currently divert approximately 34% of their waste from disposal and the City will continue to provide opportunities to improve on this diversion rate. The remaining 66% of residential waste and industrial, commercial and institutional wastes currently goes to the City landfill. In addition to the City's current diversion, the City has entered into a contract with a private corporation for the annual supply of 12,500 metric tonnes of municipal solid waste. This corporation intends to construct and operate a 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility will reduce the quantity of residual waste requiring disposal.

The results of the Environmental Assessment work completed to date suggest that landfill remains the most appropriate disposal option for the City's residual waste. Landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and recovered to generate electricity, landfills can manage the entire residual waste stream, are flexible to changes in waste quality and quantities and are cost effective.

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A Public Information Centre is being held to provide an opportunity for you to discuss the project progress and have your questions or concerns addressed.

Date: Thursday, June 3, 2010
Location: Thompson Room
Civic Centre, 99 Foster Drive
Time: 3:30pm to 7:30 pm

THE NEXT STEPS

Over the summer the project team will be looking at options for landfilling residual waste. This work will include consideration of opportunities to expand the existing landfill or establish a new landfill site. In the Fall of 2010, we will be looking for public input on landfill options.

If you have any questions related to the study, please contact:

Mr. Rick Talvitie, P. Eng.
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
E-mail: rick.talvitie@aecom.com

Mrs. Susan Hamilton Beach, P. Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580, 99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on.ca

If you would like to receive future information and notifications via email, please forward your email address to nancy.maahs@aecom.com. Please include the title "City of SSM Waste Disposal EA" in your message.

Talvitie, Rick

From: Talvitie, Rick
Sent: May 21, 2010 3:35 PM
To: cbarry@gardenriver.org
Cc: Susan Hamilton Beach; Kolli, Karla
Subject: City of Sault Ste. Marie Waste Disposal EA

Hi Caroline,

It has been some time since we last spoke. Our firm is currently assisting the City of Sault Ste. Marie in undertaking their Solid Waste Disposal Environmental Assessment. You may recall that we attended a Band Council meeting and subsequently conducted a public information centre in your community on June, 2007.

We are now planning to conduct an open house in the City of Sault Ste. Marie to announce the preferred alternative to manage solid waste. Attached is Newsletter No. 2 and a Notice of the upcoming Public Information Centre. The Newsletter highlights the work completed to date, the current status of the EA, the preferred alternative and the work that will be undertaken in the coming months.

We are anxious to get as much public involvement as possible. Could you please post copies of the attached Notice in prominent locations in your community? Also, if possible we would appreciate having the notice posted on your website. If you would prefer to have one of our staff members post the notices in your community please let me know.

In addition the City is also prepared to attend a Band Council Meeting to provide an update on the work completed to date and the tasks planned for the coming months. Please confirm a date that is suitable.

We look forward to hearing from you and the members of your community.

Regards,

SSM_PICNotice May 19 2010 FINA...

SSM_Newsletter 05-21-2010.pdf

Rick Talvitie, P. Eng.
Manager, Sault Ste. Marie Office
D 705.942.2612
rick.talvitie@aecom.com

AECOM
523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4
T 705.942.2612 F 705.942.3642
www.aecom.com

Talvitie, Rick

From: Talvitie, Rick
Sent: May 28, 2010 4:31 PM
To: 'cbarry@gardenriver.org'
Cc: 's.hamiltonbeach@cityssm.on.ca'
Subject: Re: City of Sault Ste. Marie Waste Disposal EA

Hi Caroline,

This date will work on our end. Please confirm and we look forward to meeting with Council.

Rick.....Sent via Blackberry

----- Original Message -----
From: Caroline Barry <cbarry@gardenriver.org>
To: Talvitie, Rick
Cc: Chief Sayers <sayersl@gardenriver.org>
Sent: Thu May 27 10:46:35 2010
Subject: Re: City of Sault Ste. Marie Waste Disposal EA

Rick: The next working meeting of Council is Tuesday, June 8, 2010 at 6 pm which is after the PIC. I will put you on the agenda tentatively for
6 pm. Let me know if this works for you and how long the presentation will take.

Thanks, Caroline.

Talvitie, Rick wrote:
>
> Hi Caroline,
>
> It has been some time since we last spoke. Our firm is currently
> assisting the City of Sault Ste. Marie in undertaking their Solid
> Waste Disposal Environmental Assessment. You may recall that we
> attended a Band Council meeting and subsequently conducted a public
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> Regards,
>
> <<SSM_PICNotice May 19 2010 FINAL.pdf>> <<SSM_Newsletter
> 05-21-2010.pdf>>
>
> ***Rick Talvitie, P. Eng.*
> Manager, Sault Ste. Marie Office
>
> D 705.942.2612
>
> ___rick.talvitie@aecom.com_ <mailto:rick.talvitie@aecom.com>
>
> ***AECOM*
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>

AECOM
523 Wellington Street East
Sault Ste. Marie, ON, Canada P6A 2M4
www.aecom.com

705 942 2612 tel
705 942 3642 fax

Minutes of Meeting

Date of Meeting	June 8, 2010	Start Time	Project Number 60395
Project Name	Solid Waste Management Environmental Assessment		
Location	Garden River First Nation		
Regarding	Solid Waste Management EA in Sault Ste. Marie		
Attendees	Mrs. S. Hamilton Beach, City of Sault Ste. Marie Engineering Mr. R. Talvitie, AECOM Garden River First Nation Council Garden River First Nation Staff		
Distribution			
Minutes Prepared By	Rick Talvitie		

PLEASE NOTE: **If this report does not agree with your records of the meeting, or if there are any omissions, please advise, otherwise we will assume the contents to be correct.**

	Action
1.0 INTRODUCTION	
Rick Talvitie "RT" (AECOM) and Susan Hamilton Beach "SHB" (City Engineering) attended a Garden River First Nation Band Council working meeting on June 8, 2010. The objectives of the visit included: • Provide an update on waste management planning in the City; • Provide an overview of the Environmental Assessment process ; • Review the solid waste management alternatives considered during the Environmental Assessment process; • Present the preferred waste management alternative; • Provide the next steps in the Environmental Assessment process; and • Answer questions.	Info.
Prior to initiating the power point presentation a request was made by a Band Councillor to confirm that the presentation represents "information sharing" and is not intended to be "consultation". RT explained that the presentation is intended to be part of the City's consultation process for this project. The intention is to provide Band Council with the necessary information regarding the Waste Management Environmental Assessment to assist them in providing comments on the proposed undertaking.	Info.
Band Council members reiterated that they are prepared to listen to the presentation provided the presenters acknowledge that the session is being undertaken to share	Info.

information only. SHB noted that although similar undertakings in the City of Sault Ste. Marie are considered consultation she acknowledged that the minutes can reflect that we are engaged in information sharing.	
2.0 EXISTING LANDFILL OPERATIONS Prior to the power point presentation a Band Councilor noted that GRFN has concerns with potential adverse impacts the existing landfill may have on the Root River. The Root River is located adjacent to the City's landfill and ultimately discharges to the St. Mary's River which flows through GRFN.	Info.
RT noted that this is an important question as it provides an opportunity to provide Band Council with a better understanding of the controls and monitoring activities at the City's landfill. RT explained that the City's landfill is an engineered site with the following environmental controls and monitoring activities: • Groundwater flows from the north to the south, south east and south west. A leachate collector is located along the south and south eastern periphery of the site and a series of 10 purge wells are located along the western boundary (ie. downstream end of the landfill) which collect potentially contaminated groundwater (ie. leachate) and conveys it to a pumping station and ultimately to the City's west end sewage treatment plant. • To assess groundwater quality compliance at property boundaries some 70 to 80 ground water monitoring wells have been established within and adjacent to the site to assess ground water quality. Approximately 40 – 50 of these wells are sampled and analyzed three times each year and a report is prepared annually documenting the results. The site is required to meet stringent Ministry of Environment compliance criteria at the property boundary. • Five surface water stations are also sampled and analyzed several times each year. Two of the stations are located upstream and three are downstream of the site. The results are compared to the Provincial Surface Water Quality Objectives and documented each year in the annual report. • The aquatic biological community is also sampled at five locations (2 upstream and 3 downstream) to assess the health of these communities. The upstream results are compared with the downstream results. • The existing passive landfill gas flares are presently being upgraded to an active landfill gas collection system. The methane gas will be burned in a central flare and may be used to generate electricity in the future.	Info.
The information gathered each year is analyzed and a report is submitted to the Ministry of Environment.	Info.

3.0 WASTE MANAGEMENT EA SHB and RT completed a power point presentation to update Band Council on the status of the City's Waste Management Environmental Assessment. A copy of the power point slides is attached for reference. The following comments/questions were noted: • Concerned with impacts to surface water quality as outlined in Section 2 of this meeting report. • Suggested that the City/AECOM contact Sue Chiblow (sue@coo.org) of Chiefs of Ontario. Sue's role is to assist Ontario First Nations in identifying potential concerns with Environmental projects. RT noted that the next phase of the project will be completed throughout the summer and fall. A Public Information Centre or workshop will likely be conducted in the City of Sault Ste. Marie in the fall to solicit input on alternative methods of landfilling. RT noted that a similar open house could be conducted in Garden River if desired. SHB and RT thanked Band Council for their time and interest in the project.	 AECOM AECOM Info. Info.

Talvitie, Rick

From: Talvitie, Rick
Sent: Monday, June 21, 2010 2:14 PM
To: sue@coo.org
Cc: cbarry@gardenriver.org; Susan Hamilton Beach; Kolli, Karla
Subject: City of Sault Ste. Marie Waste Management EA

Hi Sue,

The City of Sault Ste. Marie is developing a Solid Waste Management Plan to determine the preferred way to address the waste management needs within the existing service area comprising of the City of Sault Ste. Marie, Prince Township and Batchewana First Nation's Rankin Reserve over the next 20 to 40 years. The Solid Waste Management Plan will include opportunities for both waste diversion and waste disposal.

The City of Sault Ste. Marie is located adjacent to Batchewana First Nation and Garden River First Nation.

We recently attended a Garden River First Nation Band Council meeting to update them on the progress of the Waste Management Environmental Assessment. During the meeting it was suggested that you may be able to assist GRFN in reviewing and commenting on the documentation that has been prepared to date.

Please let me know if you would like us to forward relevant project documentation for your review.

Much appreciated.

Rick Talvitie, P. Eng.
Manager, Sault Ste. Marie Office
rick.talvitie@aecom.com

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Talvitie, Rick

From: Talvitie, Rick
Sent: June 25, 2010 2:28 PM
To: cbarry@gardenriver.org
Cc: Susan Hamilton Beach; Kolli, Karla
Subject: City of Sault Ste. Marie Waste Management EA
Attachments: 60395 jun 8 MEM re GRFN presentation.pdf

Hi Caroline,

I just wanted to thank Band Council for allowing Susan and I to attend the June 8th Band Council Working meeting to update them on the progress of the City's Waste Management Environmental Assessment. We have attached for you information and reference our meeting notes that we prepared following the meeting. We hope that our attendance proved to be beneficial and we will be touching base again in the fall.

If there are any questions or further comments that you would like us to consider please forward them to my attention.

In the meantime we will forward some information/documentation to Sue Chiblow for her consideration.

Regards,

Rick Talvitie, P. Eng.
Manager, Sault Ste. Marie Office
rick.talvitie@aecom.com

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Minutes of Meeting

Date of Meeting	July 28, 2010	Start Time 9:00 a.m.	Project Number 60395
Project Name	City of Sault Ste. Marie Waste Management Plan		
Location	AECOM Boardroom		
Regarding	City's Waste Management Plan		
Attendees	Sue Chiblow, Chiefs of Ontario Susan Hamilton Beach, City of Sault Ste. Marie Engineering Rick Talvitie, AECOM		
Distribution	All in attendance		
Minutes Prepared By	Rick Talvitie		

PLEASE NOTE: **If this report does not agree with your records of the meeting, or if there are any omissions, please advise, otherwise we will assume the contents to be correct.**

		Action
1.0	RT welcomed Sue and thanked her for her attendance. RT provided a historical summary of the tasks and activities that the City has completed in preparing its Waste Management Plan. A copy of the summary was provided to Sue at the meeting. In addition, a copy of the City of Sault Ste. Marie Environmental Assessment webpage was also provided to Sue together with the link to access the webpage. Various background reports are available on the webpage for downloading and review. Sue indicated that there is no need to provide hardcopies of these reports as they can be accessed from the webpage and she does not have the time to read all of the reports given her responsibilities acting for numerous First Nation communities.	Info.
2.0	RT noted that to-date the principle concern that has been raised by Garden River First Nations is surface water quality. Their concern relates to the location of the existing landfill in close proximity to Root River. Root River ultimately flows to the St. Mary's River which flows through Garden River First Nations.	Info.
3.0	RT and SHB provided an overview of the environmental controls present at the existing landfill site. The groundwater monitoring well network, the purge wells, and the leachate collector along the south and south-eastern portion of the landfill site were highlighted. It was noted that approximately 40 to 45 groundwater monitors are sampled 3 times annually to allow interpretation of	

	groundwater quality and groundwater movement. The groundwater quality results are compared to background water quality and are also compared to the MOE's reasonable use criteria which are more stringent than drinking water quality criteria.	Info.
4.0	The surface water quality monitoring program and benthic sampling program were also reviewed during the meeting. The surface water quality results downstream of the landfill are compared to results upstream of the landfill and also to Provincial Surface Water Quality Criteria. The benthic sampling is used to determine the health of the benthic community in reaches of the creeks and rivers upstream and downstream of the landfill site.	Info.
5.0	SC questioned why purge wells were not located along the southeastern portion of the landfill site. RT noted that a horizontal leachate collector has been installed in this area in lieu of purge wells. The horizontal collector is more effective in capturing groundwater than purge wells. The City has not installed a leachate collector along the western boundary due to the extensive depth to the water table along the western boundary and the extensive cost and difficulty in installing a horizontal collector.	Info.
6.0	SC acknowledged that water quality is top of mind with Garden River First Nations. The water is used for both sustenance and recreation. They are concerned with E-Coli levels in surface water. SC questioned whether First Nations communities have been invited to participate in Source Water Protection Planning initiatives. SHB noted that invitation had been extended to First Nations Communities and financial assistance has been offered, however there has been limited involvement of First Nations communities to-date.	Info.
7.0	SC also questioned how hazardous wastes such as pharmaceuticals are managed at the landfill site. SHB noted that the City of Sault Ste. Marie established a hazardous waste depot in 2001. This site accepts various hazardous wastes including pharmaceuticals and has been very successful in terms of the quantity of waste that has been diverted from the landfill site. Randy Roy at the City's Public Works Department has also worked hard to encourage neighbouring communities to utilize the hazardous waste depot for a nominal fee each year. Although RT and SHB were unsure whether Garden River First Nation is participating in program, Randy had contacted them in the past.	Info.
8.0	SC provided an overview of the governing structure for First Nations communities. Technical expertise lies with the tribal councils. In this case, the North Shore Tribal Council provides technical expertise for Garden River First Nations. This Tribal Council includes 7 communities and there is a significant volume of work with limited resources.	Info.
9.0	SC questioned what level of consultation has occurred between the City and Garden River First Nations regarding the Waste Management Environmental	

	Assessment. RT provided an overview of the work completed to-date including consultation with the Terms of Reference document back in 2005 and the various points of contact during the environmental assessment process. RT will prepare a historical summary of the First Nations involvement in the process to-date and will forward it to SC.	AECOM
10.0	SC noted that the First Nations have developed an environmental assessment tool kit and are anxious to train people regarding the use of the tool kit. Ultimately it is hoped to include training for various stakeholders including engineering consultants. SC will forward a CD with the tool kit to SHB or RT. The initial training with the EA tool kit is proposed for the Fall of 2010. The tool kit addresses both traditional knowledge and technical information.	S. Chiblow
11.0	The First Nations have also prepared a Water Declaration which may be of assistance to the City and its Consultant with respect to the water quality concerns that have been raised by GRFN within the context of the EA. SC will forward a copy of the Water Declaration to the City.	S. Chiblow
12.0	SC questioned whether the City of Sault Ste. Marie is involved in the Great Lakes Water Quality Agreement. SHB was unaware whether the City was participating. SC noted that a second meeting is being conducted on August 10th and 11th to talk about contaminants.	Info.
13.0	SC strongly believes that it is important for neighbours such as GRFN and Sault Ste. Marie to build on common interests and goals such as sustainability and water quality. SC also noted that a conference is planned regarding water quality on October 5, 6, and 7, 2010. The conference will be held in Bay Mills. SC will bring forward for discussion the possible participation of SHB in the conference.	S. Chiblow
14.0	There was also some discussion regarding the improvements that have been made with the East End Water Pollution Control Plant. SHB extended an offer to conduct a tour of the plant with various First Nations staff and/or elected officials.	Info.
15.0	RT highlighted the next steps in the EA process and noted that the next point of formal consultation is anticipated to be in the Fall of 2010. In the meantime, the study group is always open to comments and questions. Contact information is available on the City of Sault Ste. Marie Waste Management webpage.	Info.
16.0	RT asked for SC's input on the best method or approach to reaching as many First Nation members as possible with the EA materials. SC noted that visual aids are always helpful and the Community has their own newsletter where information can be published. RT noted that the Community newsletter was used in the past to advertise the June, 2007 GRFN Open House.	Info.

17.0	SC also requested a copy of the most current schedule so that the Community has an understanding of the various tasks and activities that will be ongoing in the near future.	AECOM

I may check my emails four times per day. If it's urgent, please call me.

From: Talvitie, Rick [mailto:Rick.Talvitie@aecom.com]
Sent: Friday, September 24, 2010 2:01 PM
To: Sue Chiblow
Cc: Susan Hamilton Beach; Varghese, Betsy; Kolli, Karla
Subject: City of Sault Ste. Marie - Waste Management EA

Hi Sue,

It has been some time since we last met. We are attaching the following documents for your reference and information:

- Meeting Report from our July 28, 2010 meeting;
- Public Consultation Plan which includes a summary of the consultation activities undertaken with First Nation Communities to date; and

Will also forward an updated project schedule early next week.

There are a couple of follow-up items for you in the meeting report. Also have you had an opportunity to discuss our meeting with Band Council? We would appreciate receiving any feedback on best practices for engaging First Nations members in future consultation activities.

Regards,

Rick Talvitie, P. Eng.
Manager, Sault Ste. Marie Office
rick.talvitie@aecom.com

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Talvitie, Rick

From: Talvitie, Rick
Sent: January 21, 2011 12:25 PM
To: 'sue@coo.org'
Cc: 'Susan Hamilton Beach'; Kolli, Karla; 'cbarry@gardenriver.org'
Subject: City of Sault Ste. Marie Waste Management Environmental Assessment
Attachments: 60395 EA schedule revised jan 2011.pdf

Hi Sue,

I am touching base to provide you with our current schedule for this project.

The next significant event is a Stakeholder workshop which we will be coordinating in the latter part of March. The focus of the workshop is to obtain feedback on the first phase of our Alternatives Methods Evaluation. You may recall, we previously identified landfilling as the preferred approach to disposing of residual waste (ie. any waste remaining after all diversion activities). We are now evaluating different methods of landfilling and the first step is to identify whether expanding a site or establishing a new greenfield site is preferred. We will be asking workshop participants to provide feedback on the evaluation criteria used and the ranking of the alternatives. Hopefully you and your colleagues will be able to attend.

We will be issuing a Notice in advance of the workshop to invite a broad group of stakeholders. You are included on our mailing list.

If you have any questions please contact me.

As an aside ...how was the EA toolkit training that was conducted last fall? Can we obtain a copy of the toolkit?

Regards,

Rick Talvitie, P. Eng.
Manager, Sault Ste. Marie Office
rick.talvitie@aecom.com

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THE CITY OF SAULT STE. MARIE

NOTICE OF PUBLIC INPUT SESSION

SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. In the evaluation of "Alternatives To the Undertaking", a thorough review of different waste management alternatives including increased waste diversion, incineration/high heat processes, landfill, export waste outside the service area, and "do-nothing" was completed. To identify a preferred approach to managing waste, the alternatives were comparatively evaluated using the following seven criteria:

1. Compliance with current regulations and policies;
2. Environmental acceptability;
3. The ability of the City of Sault Ste. Marie to implement the preferred alternative;
4. Flexibility of the system;
5. Capability of managing waste quality and quantity;
6. Proven technical capacity; and
7. Cost.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste. The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the entire residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

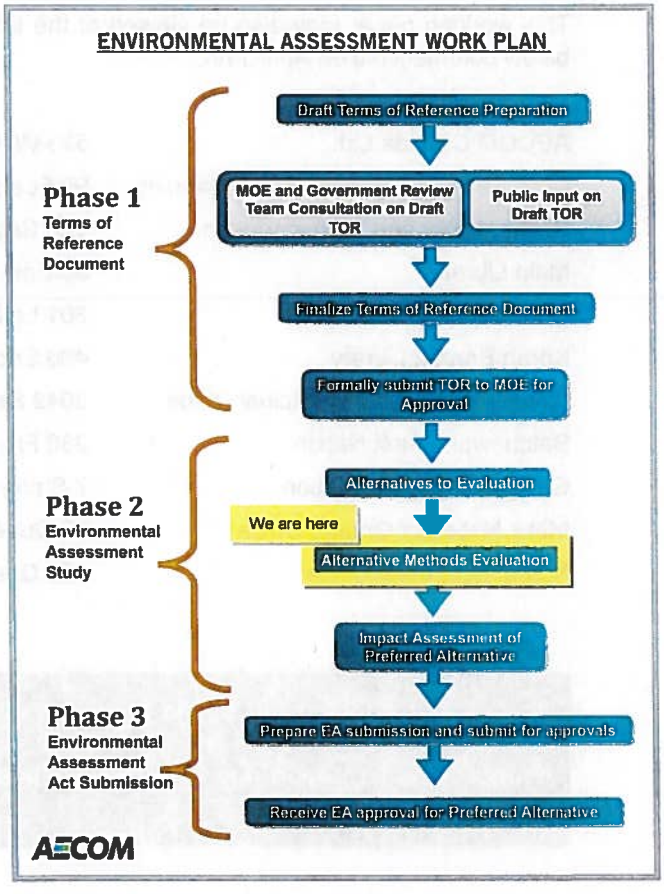
The flexibility of the preferred alternative is particularly important given the City's contract with The Elementa Group (an energy-from-waste service provider) for the annual processing of at least 12,500 metric tonnes of municipal solid waste. Elementa intends to construct and operate a new 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility in the future will reduce the quantity of residual waste requiring disposal in a landfill.

NEXT STEPS

The City remains committed to investigating, implementing and supporting programs to increase waste diversion through 3Rs initiatives. Since the implementation of 3Rs initiatives does not require Environmental Assessment (EA) Act approval, the EA study is now focusing on alternative methods of landfilling residual waste. The key objective of this phase of the study is to find an environmentally suitable location for the development of additional landfill capacity.

The first step to be completed in this phase consists of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. This step will provide initial focus to the search for additional landfill capacity.

A preliminary evaluation of these alternatives has been completed by the project team. We are now seeking input from the general public and Stakeholders regarding the evaluation criteria considered and the preliminary findings.



THE CITY OF SAULT STE. MARIE

NOTICE OF PUBLIC INPUT SESSION

SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

PUBLIC INPUT SESSION

If you are interested in discussing the alternatives and criteria that will be used to compare and select a preferred approach to landfilling residual waste in Sault Ste. Marie, Prince Township and Batchewana First Nation's Rankin Reserve, we encourage you to attend this public input session!

We will provide you with background information, update you on the City's achievements in increasing waste diversion and discuss with you the alternative approaches to landfilling residual solid waste. A principle objective of the session is to confirm whether the City should focus its efforts to obtain additional disposal capacity by expanding an existing landfill site or finding a location for a new site.

Background information documenting the work completed to date is available on the City website at **http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1**.
In addition, the alternatives and the evaluation criteria currently being considered are also available on the website in a working paper prepared for this session titled "Solid Waste Management Environmental Assessment - Alternative Methods – Step 1 (Landfill Expansion versus Development of a New Site).

This working paper may also be viewed at the locations noted below commencing on April 11th.

AECOM Canada Ltd.	523 Wellington Street
Civic Centre Engineering and Planning	99 Foster Drive, 5th Flr.
Public Works and Transportation	128 Sackville Road
Main Library	50 East Street
Churchill Branch Library	301 Lake Street
Korah Branch Library	496 Second Line
Township of Prince Municipal Office	3042 Second Line West
Batchewana First Nation	236 Frontenac Street
Garden River First Nation	7 Shingwauk Street
Metis Nation of Ontario Office	26 Queen Street East
Missanabie Cree Office	559 Queen Street East

YOU'RE INVITED!

Date:	Tuesday April 19, 2011
Location:	Civic Centre – Russ Ramsay Room
Time:	6:30 pm to 9:00 pm

Refreshments to be provided.

CONTACT US

We also encourage you to contact the individuals noted below if you have any specific questions.

Mr. Rick Talvitie, P.Eng
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Phone: 705-942-2612
Fax: 705-942-3642
Email: rick.talvitie@aecom.com

Mrs. Susan Hamilton Beach, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on.ca

Information pertaining to this session is available on the City of Sault Ste. Marie website at: **http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1**.
Hardcopies can also be obtained by contacting AECOM at 705-942-2612.

If you cannot attend the public input session in person, we still want to hear from you! Just go to the City's website (http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1), review the Alternatives Method - Step 1 Report and fill out our online questionnaire. A link to the online questionnaire is provided on the City's website.

THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. In the evaluation of "Alternatives to the Undertaking", a thorough review of different waste management alternatives including increased waste diversion, incineration/high heat processes, landfill, export waste outside the service area, and "do-nothing" was completed.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste. The preferred alternative was presented at an Open House in June, 2010.

NEXT STEPS

The next step consists of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. This step will provide initial focus to the search for additional landfill capacity.

A preliminary evaluation of these alternatives has been completed by the project team. We are now seeking input from the general public and stakeholders regarding the evaluation criteria considered and the preliminary findings.

PUBLIC INPUT SESSION

If you are interested in discussing the alternatives and criteria that will be used to compare and select a preferred approach to landfilling residual waste in Sault Ste. Marie, Prince Township and Batchewana First Nation's Rankin Reserve, we invite you to attend this public input session.

We will provide background information, update you on the City's achievements in increasing waste diversion and discuss the alternative approaches to landfilling residual solid waste.

Background documents including the working paper to be discussed at the public input session entitled "Solid Waste Management Environmental Assessment - Alternative Methods – Step 1 (Landfill Expansion versus Development of a New Site)" are available on the City's website at **www.cityssm.on.ca – Click City Hall Bulletins – Public Input Session – Solid Waste Management.**

CONTACT US

We encourage you to contact the individuals below if you have questions.

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
Email: rick.talvitie@aecom.com

Mrs. Susan Hamilton Beach, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580
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Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on.ca

YOU'RE INVITED!

Date: Tuesday, April 19, 2011

Location: Civic Centre, 99 Foster Dr.
Russ Ramsay Board Room

Time: 6:30 to 9:00 p.m.

Refreshments provided.

If you cannot attend the public input session, we still want to hear from you! Go to the City's website www.cityssm.on.ca (Click City Hall Bulletins – Public Input Session – Solid Waste Management) to review the Alternatives Method - Step 1 Report and fill out the online questionnaire.

Talvitie, Rick

From: Talvitie, Rick
Sent: April 8, 2011 11:20 AM
To: sayersl@gardenriver.org; cbarry@gardenriver.org
Cc: Susan Hamilton Beach; Kolli, Karla; 'alidstone@batchewana.ca'; Varghese, Betsy; Maahs, Nancy
Subject: City of Sault Ste. Marie Waste Management EA
Attachments: SSM_Newsletter 1page.pdf

Good Morning Chief Sayers and Caroline,

The City is continuing to move forward with a Waste Management Environmental Assessment.

You may recall that Susan Hamilton Beach of the City and I met with Band Council on June 8, 2010 and April 3, 2007. We also conducted an Open House in your Community on August 9, 2007. We appreciate these opportunities to discuss this important project with Band Council and members of your community.

I have attached a Notice for your information and reference which explains the current status of the project. **The attached Notice also references a Public Input Session that is scheduled for April 19, 2011 in Sault Ste. Marie.**

We would like to take this opportunity to invite you, Band Council members and Band members to attend this public input session. The upcoming session will also be advertised through various media in advance of the event.

We encourage as much participation as possible and are hopeful that there will be some representation from your Community at the upcoming event. **To this end, we encourage you to post the attached notice on your website and download, print and post the Notice in prominent locations in your Community.**

We will also deliver, on April 11th, a hard copy of the "Solid Waste Management Environmental Assessment – Alternative Methods – Step 1 (Landfill Expansion versus Development of a New Site)" working paper which we ask you to make available for viewing at the Band office. We will also provide several hard copies of the Notice at that time.

We are also pleased to extend an offer to once again meet with Band Council or conduct a public input session in your community if you feel this would be more appropriate and beneficial for your community members.

We look forward to hearing from you in the near future and look forward to seeing representation from your Community on April 19th!

Regards,

Rick Talvitie, P. Eng.
Manager, Sault Ste. Marie Office
rick.talvitie@aecom.com

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www.aecom.com

Talvitie, Rick

From: Talvitie, Rick
Sent: April 8, 2011 2:47 PM
To: sue@coo.org
Cc: 'Susan Hamilton Beach'; 'Kolli, Karla'; 'Varghese, Betsy'; Maahs, Nancy
Subject: City of Sault Ste. Marie Waste Management EA
Attachments: SSM_Newsletter 1page.pdf; City of Sault Ste. Marie Waste Management EA.htm

Hi Sue,

I hope all is well.

I wanted to keep you in the loop regarding the City's Waste Management Environmental Assessment.

Please see the attached email that was sent to Garden River First Nation earlier today. I have also attached a copy of a Notice for an upcoming Public Input Session.

Let me know if you have any questions or comments.

Thanks.

Rick Talvitie, P. Eng.
Manager, Sault Ste. Marie Office
rick.talvitie@aecom.com

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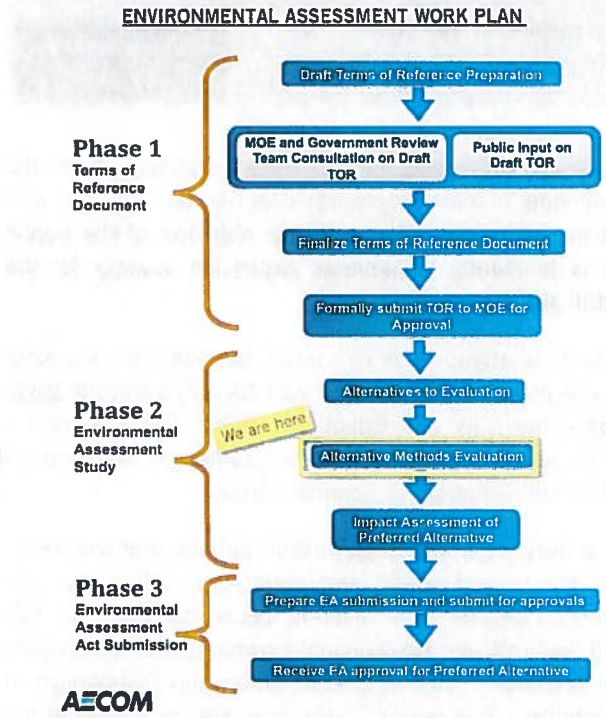
THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

ENVIRONMENTAL ASSESSMENT (EA) PROCESS

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. The EA Process is a transparent decision-making process used to promote good environmental planning by assessing potential effects of certain activities or projects on the natural and human environment. There are several phases and tasks involved in completing an EA as outlined in the graphic below.



The City is currently mid-way through Phase 2 of the EA Process and is interested in obtaining your input related to the current activities.

BACKGROUND

Phase 1 of the EA process included public consultation and culminated with the Ministry of Environments approval of the project Terms of Reference (ToR) in 2005. The ToR provides a framework or roadmap for completing the EA and summarizes the tasks and activities to be undertaken by the proponent.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the **preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.** The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the entire residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

The flexibility of the preferred alternative is particularly important given the City's contract with The Elementa Group (an energy-from-waste service provider) for the annual processing of at least 12,500 metric tonnes of municipal solid waste. Elementa is currently negotiating an energy purchase agreement and intends to construct and operate a new 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility in the future will reduce the quantity of residual waste requiring disposal in a landfill.

The City remains committed to investigating, implementing and supporting programs to increase waste diversion through 3Rs initiatives. Since the implementation of 3Rs initiatives does not require Environmental Assessment (EA) Act approval, the EA study is now focusing on alternative methods of landfilling residual waste. The key objective of this phase of the study is to find an environmentally suitable location for the development of additional landfill capacity.

The first step in this phase consisted of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. To identify a preferred approach to landfilling waste, the alternatives were compared using the following six criteria groups:

1. Natural environment;
2. Social-Cultural environment;
3. Economic environment;
4. Cost;
5. Technical considerations; and
6. Transportation.

A Public Input Session was held in April, 2011 to present the landfill alternatives being considered. **The evaluation and response from consultation concluded that an expansion of an existing landfill is generally preferred over construction of a new site.**

The study noted that an expansion requires less land, displaces fewer people and/or social/natural features, disrupts fewer people (ie. one site versus two sites creating nuisance impacts), costs less, typically encounters fewer challenges in gaining technical approvals, and reduces the number of facilities the City must manage.

THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

CURRENT ACTIVITIES

The second step in the Alternative Methods task focuses on the best approach to expand the existing landfill site at 402 Fifth Line East in the City of Sault Ste. Marie. Expansion options have been developed that make the best use of the existing site characteristics and the area available to expand. Options considered include horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining (excavate previously disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) or a combination of these methodologies.

A preliminary evaluation of the expansion options has been completed by the project team. We are now seeking input from the Community, government agencies, stakeholders, and First Nations regarding the evaluation criteria considered and the preliminary findings.

CONTACT US

You may also contact the Consultant Project Manager or the City's Land Development and Environmental Engineer by email, mail or telephone if you have questions or would like additional information.

Mr. Rick Talvitie, P.Eng
Project Manager
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523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
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Email: rick.talvitie@aecom.com

Ms. Catherine Taddo, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
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Phone: (705) 759-5380
Fax: (705) 541-7165
Email: c.taddo@cityssm.on.ca

HOW CAN I PROVIDE INPUT?

If you are interested in discussing the expansion options, the criteria used in the evaluation and the preliminary findings we encourage you to attend the upcoming public input session!

YOU'RE INVITED!

Date: Tuesday, March 6, 2012
Location: Civic Centre – 99 Foster Drive
Russ Ramsay Room
Time: 3:30PM to 7:30PM

Refreshments to be provided.

We will provide you with background information update you on the City's achievements in increasing waste diversion and discuss, with you, the expansion options. **The principle objective of the public consultation is to identify a preferred expansion strategy for the existing landfill site.**

If you are unable to attend the Public Input Session there are other opportunities to provide input. Please visit the City's website **www.cityssm.on.ca** - View City Hall Bulletins – Public Input Session – Solid Waste Management to obtain further information, complete an online questionnaire, or access a comment sheet.

In addition, a description of the expansion options, the evaluation criteria, and the project team's preliminary evaluation are also available on the website in a working paper prepared for this session titled "Solid Waste Management Environmental Assessment – Alternative Methods – Step 2 (Identification and Comparison of Expansion Options). This working paper may also be viewed at the locations noted below commencing on February 21, 2012.

AECOM Canada Ltd.	523 Wellington Street
Civic Centre Engineering and Planning	99 Foster Drive, 5th Flr.
Public Works and Transportation	128 Sackville Road
Main Library	50 East Street
Churchill Branch Library	301 Lake Street
Korah Branch Library	496 Second Line
Township of Prince Municipal Office	3042 Second Line West
Batchewana First Nation	236 Frontenac Street
Garden River First Nation	7 Shingwauk Street
Metis Nation of Ontario Office	26 Queen Street East
Missanabie Cree Office	559 Queen Street East

THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. To date significant progress has been made.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and **the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.** The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the entire residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

In April, 2011 a Public Input Session was held to present the non-site specific landfill alternatives being considered. **The evaluation and response from consultation concluded that an expansion of an existing landfill is generally preferred over construction of a new site.**

The study noted that an expansion requires less land, displaces fewer people and/or social/natural features, disrupts fewer people (ie. one site versus two sites creating nuisance impacts), costs less, typically encounters fewer challenges in gaining technical approvals, and reduces the number of facilities the City must manage.

CURRENT ACTIVITIES

Presently the project team is focusing on **the best approach to expand the existing landfill site at 402 Fifth Line East in the City of Sault Ste. Marie.** Expansion options have been developed that make the best use of the existing site characteristics and the area available to expand. Options considered include horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining (excavate previously disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) or a combination of these methodologies.

A preliminary evaluation of the expansion options has been completed by the project team. **We are now seeking input from the Community, government agencies, stakeholders, and First Nations regarding the evaluation criteria considered and the preliminary findings.**

PUBLIC INPUT SESSION

If you are interested in discussing the expansion options, the criteria used in the evaluation and the preliminary findings, we encourage you to attend the upcoming public input session!

We will provide you with background information, update you on the City's achievements in increasing waste diversion and discuss, with you, the expansion options. **The principle objective of the public consultation is to identify a preferred expansion strategy for the existing landfill site.**

The expansion options, the evaluation criteria, and the project team's preliminary evaluation are also available on the City's website (**www.cityssm.on.ca - View City Hall Bulletins – Public Input Session – Solid Waste Management**) in a working paper prepared for this session titled "Solid Waste Management Environmental Assessment - Alternative Methods – Step 2 (Identification and Comparison of Expansion Options). This working paper may also be viewed at the locations noted below commencing on February 21, 2012.

AECOM Canada Ltd.	523 Wellington Street
Civic Centre Engineering and Planning	99 Foster Drive, 5th Flr.
Public Works and Transportation	128 Sackville Road
Main Library	50 East Street
Churchill Branch Library	301 Lake Street
Korah Branch Library	496 Second Line
Township of Prince Municipal Office	3042 Second Line West
Batchewana First Nation	236 Frontenac Street
Garden River First Nation	7 Shingwauk Street
Metis Nation of Ontario Office	26 Queen Street East
Missanabie Cree Office	559 Queen Street East

CONTACT US

We also encourage you to contact the individuals noted below if you have any specific questions.

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
Email: rick.talvitie@aecom.com

Ms. Catherine Taddo, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5380
Fax: (705) 541-7165
Email: c.taddo@cityssm.on.ca

YOU'RE INVITED!

Date: Tuesday, March 6, 2012
Location: Civic Centre – Russ Ramsay Room
Time: 3:30PM to 7:30PM

Refreshments to be provided.

If you cannot attend the public input session in person, we still want to hear from you! Just go to the City's website www.cityssm.on.ca - View City Hall Bulletins – Public Input Session – Solid Waste Management review the Alternatives Method – Step 2 Report and fill out our online questionnaire or comment sheet. A link to the online questionnaire is provided on the City's website.

AECOM

DILLON CONSULTING

Solid Waste Management Environmental Assessment

COUNCIL PRESENTATION

THE CORPORATION OF THE CITY OF SAULT STE MARIE CANADA

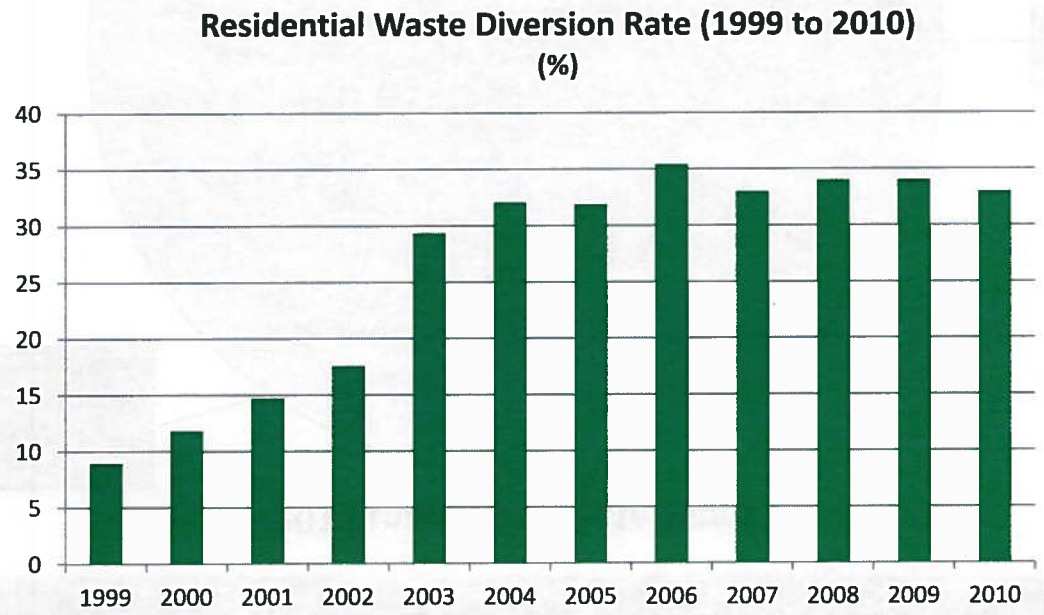
March, 2012

Objectives of the Presentation

- Provide Council and residents with an update on waste management planning activities and results;
- Review project need;
- Provide an overview of the Environmental Assessment process and where we are at in the process;
- Present the criteria and approach used in the evaluation of site expansion options;
- Present the preliminary results of the evaluation completed by the project team;
- Identify the next steps in the EA process; and
- Answer your questions.

Project History - Diversion

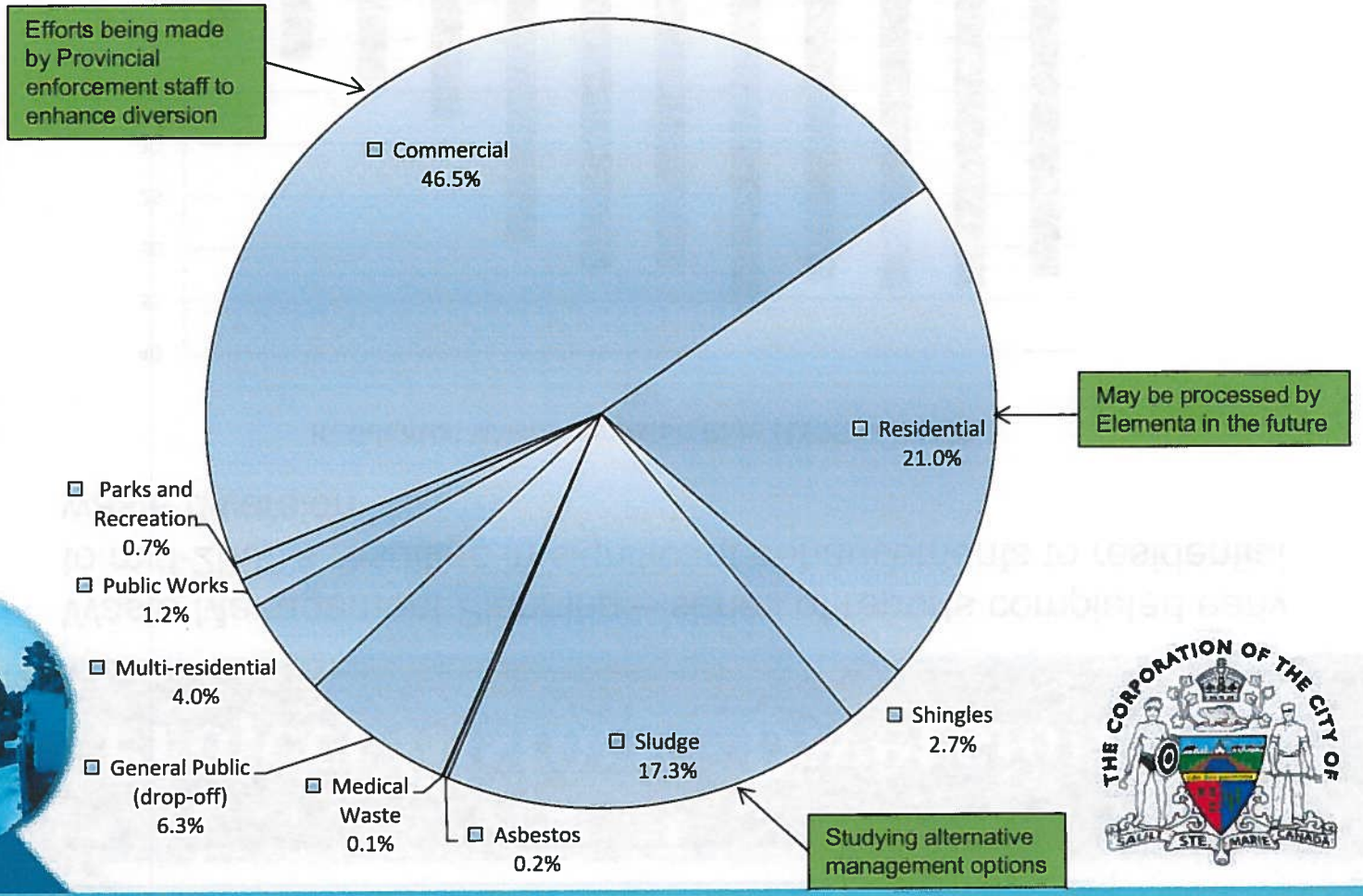
- Waste Management Planning – series of reports completed early to mid-2000's resulting in significant enhancements to residential waste diversion



Increased residential diversion rate from 9% in 1999 to 33% to 35% in recent years

Project History - Diversion

2010 Landfilled Waste Types



Project History - Project Need

- **The estimated remaining service life of the existing landfill is 7 to 10 years depending on future population changes, in-situ subsidence and waste generation, diversion and disposal rates. The low end of this range is used for planning purposes.**
- Despite significant success in enhancing waste diversion, additional disposal capacity is required.

What is an EA?

Purpose = *"to protect the environment and quality of life of the people of the province; and facilitate the wise management of the natural resources of the province".*

- The EA Process is a transparent decision-making process used to promote good environmental planning by assessing potential effects of certain activities or projects on the natural and human environment. The EA process serves several important purposes:
  - Allowing projects to receive input from a wide variety of sources, including the federal, provincial and municipal levels of government, First Nations, stakeholders and the public.
  - Identifying potential problems prior to construction
  - Promoting good environmental planning practices
  - Improving community acceptance
  - Better protecting the environment

AECOM

DILLON CONSULTING

Project History

- MOE approval of EA ToR in late 2005
- EA work initiated by AECOM/Dillon – summer 2006
- "Alternatives To" (functionally different ways of managing waste) work completed and public consultation undertaken in summer of 2007
- Late 2008 to spring 2010 - Project delayed to allow time for the Enquest pilot project to mature
- Fall 2009 - City endorses waste supply agreement with Elementa
- City approval to resume EA process - Elementa will generate residual waste and is unable to manage the entire waste disposal quantity
- Spring 2010 – announced the preferred "Alternative To"

THE CORPORATION OF THE CITY OF SAULT STE. MARIE CANADA

Project History – Selected "Alternative TO"

Based on the results of the evaluation and input received the preferred long-term approach to managing waste in SSM is:

- Increased 3Rs (Reduce/Reuse/Recycle)
- Landfilling residual waste

Why?

- Can comply with regulations and policies
- City is experienced with these waste management initiatives
- Flexible to changes in the waste stream (e.g. population, waste generation, diversion)
- Can accept most residual waste from a Waste-to-Energy facility
- Cost efficient

The EA will now focus on identifying and evaluating alternative methods of landfilling waste (i.e. alternative locations and designs)

AECOM

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Project History

- Conducted a Public Information Session in June 2010 to announce the selected Alternative To
- Initiated the Alternative Methods Phase (alternative locations and designs)
- Completed a generic non-site specific evaluation of developing a new landfill versus expanding an existing site (Step 1)
- Consulted with the public in the spring of 2011regarding the generic options

THE CORPORATION OF THE CITY OF SAULT STE. MARIE CANADA

Project History – Preferred Landfilling Method

Based on the results of the evaluation and input received the preferred method of landfilling waste = expansion of an existing site

Why?

- Likely less potential for displacement and disruption
- Only one landfill site to manage and maintain
- Cost effective
- Community adaptation
- Likely fewer challenges in gaining approvals

The EA will now focus on how to best expand the existing site

Overview of Expansion Options

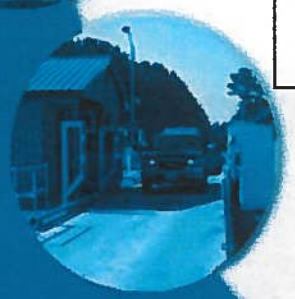
- Expansion options have been developed that make the best use of the existing site characteristics and the area available to expand.
- Options considered include horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining or a combination of these methodologies.
- All options include enhancements to better control groundwater quality related to the existing site.
- Some options require replacement/relocation of existing on-site infrastructure and some require enhanced compaction to provide the target disposal capacity

Evaluation of Expansion Options

- The evaluation has been completed using a two-step approach:
  - Step 1 – identify a preferred expansion area and shape;
  - Step 2 – assess the pros and cons of incorporating landfill mining.
- Mining involves excavation of previously disposed waste and cover material. Mined waste is fed through screens which separates coarse waste from fine materials. Recyclables are separated and sent for processing, remaining residual waste disposed of in the disposal site and fines (primarily sand) are stockpiled for use as cover.

Evaluation Criteria Groups

Criterion	Definition
Natural Environment	Addresses the potential for displacement and/or disruption of natural environmental features (terrestrial features, aquatic features, ground water and surface water)
Social Cultural Environment	Addresses the potential for displacement and/or disruption of social/cultural environmental features (residents, community features, future land use plans, heritage and archaeological resources, public health and safety)
Economics	Addresses the potential for displacement and/or disruption of existing businesses and resources (agriculture, forestry, mining)
Cost	Considers the lifecycle cost of the alternative.
Technical Considerations	Considers technical aspects of each option including impacts on existing site infrastructure and ease of site development.
Transportation	Considers the impacts of traffic volumes accessing the site and potential impacts to the airport and the movement of farm equipment.

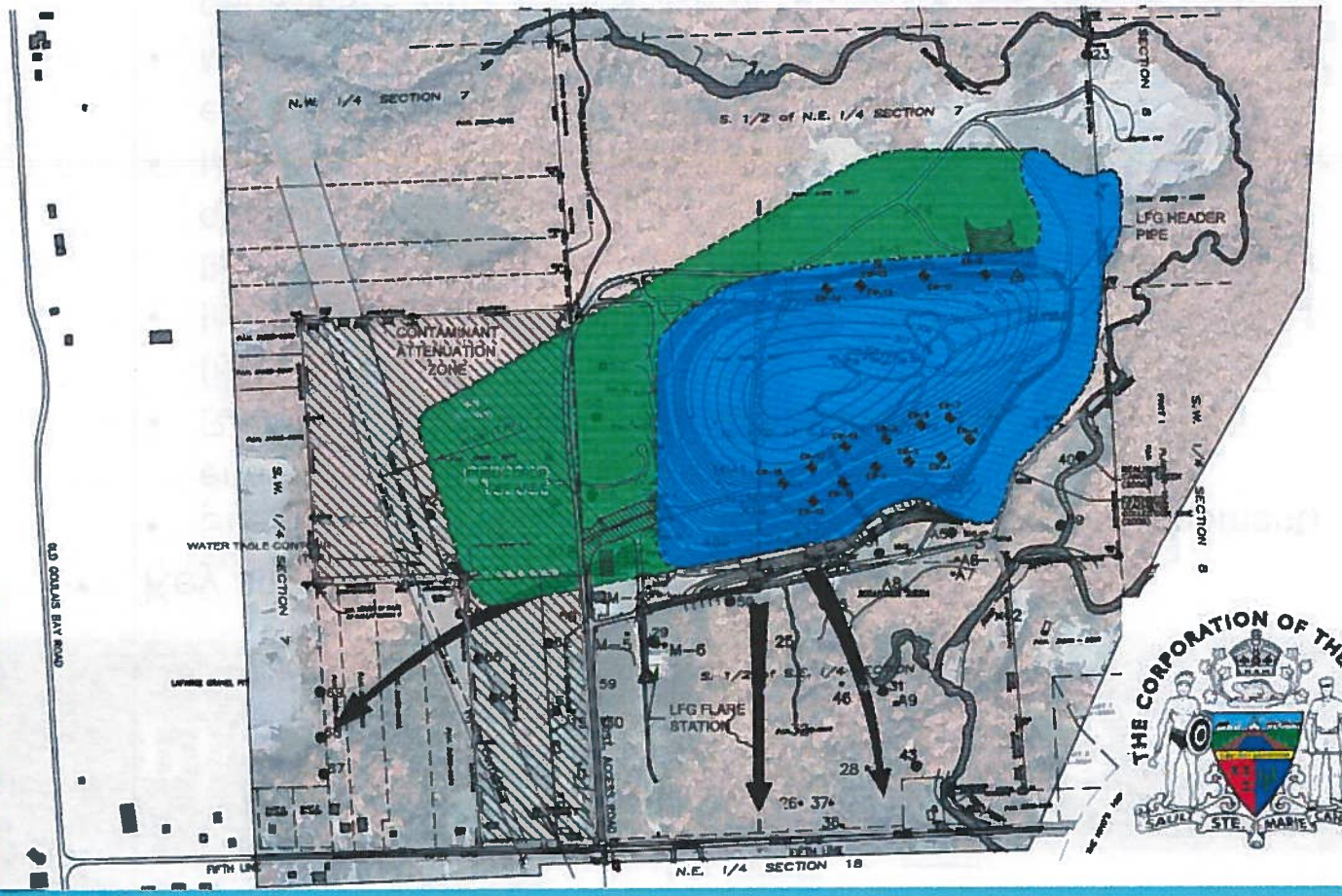


Evaluation of Expansion Options

- Data collection and analysis
- Technical disciplines initially compare options relative to each other and rank them under each criterion
- Present the evaluation in a table or matrix format with the rationale for the rankings
- Present to the public and solicit input from community members, stakeholders, First Nations, and governmental agencies
- Make adjustments to the evaluation based on input received
- Select a preferred option

Preliminary Preferred Expansion Option

- On the basis of the **preliminary** evaluation, the preliminary preferred expansion option is presented below



Preliminary Preferred Option

- Key advantages relative to other options include:
  - Site development (i.e. geometry and storm water management) enhanced relative to Options 2 and 4.
  - Reduced average excavation depth in west expansion area (i.e.11m).
  - Includes a liner beneath the waste within the western portion of the existing disposal footprint enhancing long term groundwater quality.
  - Includes a liner over existing waste in areas of overlap to further enhance groundwater quality.
  - Meets target capacity at current estimated waste densities.

Next Steps

- Solicit governmental, community First Nation and stakeholder input on the preliminary preferred expansion option – do you agree/disagree – why?
- Re-assess (if needed) and finalize the Step 2 evaluation based on input received
- Announce the preferred Step 2 - Alternative Method (i.e. preferred expansion option)
- Initiate a detailed impact assessment for the preferred option
- Continue to investigate ways to improve waste diversion through 3Rs initiatives

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705 942 3642 fax

February 15, 2012

Chief Lyle Sayers Sayers
Garden River First Nation
7 Shingwauk Street, RR #4
Garden River, Ontario
P6A 6Z8

Dear Mr. Sayers:

Project No: 60117627 (60395)

Regarding: City of Sault Ste. Marie
Waste Management Environmental Assessment

The City of Sault Ste. Marie is continuing to move forward with its Waste Management Environmental Assessment. We last touched base with you in April, 2001 in advance of a Public Input Session that was conducted to assist in our evaluation of landfilling options.

We are grateful for the opportunities we have had to inform Band Council and Band members regarding this project. We met with Band Council on April 3, 2007 and June 8, 2010 and conducted an Open House in your Community on August 9, 2007.

To date a considerable level of study has been completed which has resulted in the following observations:

- The preferred approach to managing waste in the future is increased waste diversion through reduction, reuse and recycling (ie. 3Rs) and landfilling residual waste. (Note: the City has also endorsed an agreement with an independent waste-to-energy vendor to process a portion of the municipal solid waste).
- Currently the City is focusing resources on developing strategies to expand the City's existing landfill at 402 Fifth Line East to manage residual waste.

Expansion options have been developed that make the best use of the existing site characteristics and the area available to expand. In general, the options considered include horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining (excavate existing disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) or a combination of these methodologies.

A preliminary evaluation of five options has been completed by the project team. Based on the results of the preliminary evaluation, the preliminary preferred approach is a moderate vertical expansion and a north and west expansion of the existing disposal footprint. The preliminary

preferred option also includes landfill mining within the western portion of the existing disposal footprint.

We are now seeking input from Government agencies, stakeholders, First Nations and the general public regarding the evaluation criteria considered and the preliminary findings. We would like to obtain as much input as possible from your community members. We believe this is an opportune time to meet with Garden River Chief and Council and/or to conduct an open house in your community. In addition we will also be conducting a public input session in Sault Ste. Marie as outlined below. Everyone is welcome to attend. We have attached a Notice of Public Input Session which can be printed and posted in prominent locations within your community. In addition we will send a digital copy of the Notice for posting on your website.

You are also encouraged to view the **Project Newsletter** and/or the **Solid Waste Management Environmental Assessment - Alternative Methods – Step 2 (Identification and Comparison of Expansion Options)** report and/or the March 6th **Public Input Session displays**. A copy of these documents are attached for your information and reference. **Please make these documents available to your Community members at your Band office.** These documents are also available electronically on the City's website at www.cityssm.on.ca.

Details of the Public Input Session to be held in Sault Ste. Marie are provided below:

Location:	Russ Ramsay Room, Civic Centre, 99 Foster Drive
Date/Time:	Tuesday, March 6, 2012 - 3:30 pm to 7:30pm
Format:	Open House - come any time between the times noted, view the displays, ask questions of the project team and provide input at the open house or at a later date.

If you are unable to attend the March 6th session we also encourage community input through other means as outlined below.

There is an online survey available at http://www.surveymonkey.com/s/R3DTZ8R or alternatively you can send us your comments by email. Please include **"City of SSM Waste Management EA – Comments"** in the subject line of your email message.

We would appreciate receiving your input by April 6, 2012.

We look forward to hearing from you!

Sincerely,
AECOM Canada Ltd.

Rick Talvitie, P. Eng.
Branch Manager

RT:nm
Encl.

cc: C. Taddo, City Engineering
K. Kolli, Dillon Consulting

Talvitie, Rick

From: Talvitie, Rick
Sent: February 22, 2012 1:44 PM
To: 'sayersl@gardenriver.org'
Cc: 'Catherine Taddo'
Subject: City of Sault Ste. Marie Waste Management Environmental Assessment
Attachments: March 2012 NEWSLETTER.pdf; March 2012 1page NOTICE.pdf; february 2012 correspondence w lsayers grfn.pdf

Good Afternoon Chief Sayers,

I just wanted to let you know that I plan to stop by the Band office later today to drop off our latest report related to the above project. Please make this report available to your Band Members at the Band office. This report is also available digitally on the City's website. I have also attached, for your reference and information, the following additional items:

- A letter outlining the current status of the above project.
- A Newsletter which provides a historical overview of the project
- A Notice of an upcoming Public Input Session which can be posted on your website and/or printed and posted in prominent locations in your Community – I will also drop off several copies that can be posted on bulletin boards if you wish.

As outlined in the letter, we would be pleased to meet with Band Council and/or conduct an open house in your Community.

We look forward to hearing from you.

Regards,

Rick Talvitie, P. Eng.
Manager, Sault Ste. Marie Office
rick.talvitie@aecom.com

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www.aecom.com

Talvitie, Rick

From: Talvitie, Rick
Sent: February 23, 2012 8:15 AM
To: 'sue@coo.org'
Cc: 'Catherine Taddo'
Subject: City of Sault Ste. Marie - Waste Management EA
Attachments: March 2012 NEWSLETTER.pdf

Hi Sue,

I hope all is well.

I wanted to keep you in the loop regarding the City's Waste Management Environmental Assessment.

I dropped off some information at the Garden River office yesterday. I have also attached a copy of a Newsletter that summarizes the historical and current project activities and provides details on an upcoming Public Input Session.

We hope to have representation from Garden River at the upcoming Public Input Session. We have also indicated in the package submitted to Chief Sayers that we would be pleased to make a presentation to Band Council and/or conduct an open house in Garden River.

Let me know if you have any questions or comments. We hope to hear from you in the near future.

Thanks.

Rick Talvitie, P. Eng.
Manager, Sault Ste. Marie Office
rick.talvitie@aecom.com

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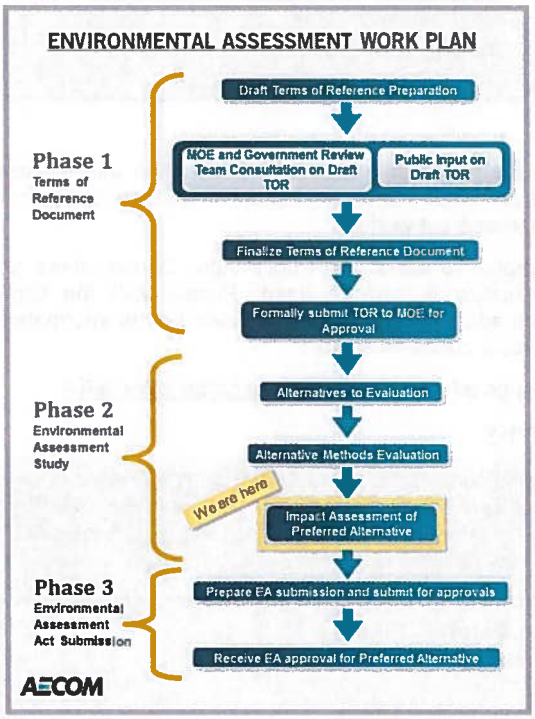
THE CITY OF SAULT STE. MARIE
JANUARY, 2016 NEWSLETTER
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

ENVIRONMENTAL ASSESSMENT (EA) PROCESS

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. The EA Process is a transparent decision-making process used to promote good environmental planning by assessing potential effects of certain activities or projects on the natural and human environment. There are several phases and tasks involved in completing an EA as outlined in the graphic below.



The City is finalizing Phase 2 of the EA Process and is currently preparing the EA submission. **We are interested in obtaining your input related to the current activities.**

BACKGROUND

Phase 1 of the EA process included public consultation and culminated with the Ministry of Environment and Climate Change's (MOECC) approval of the project Terms of Reference (ToR) in 2005. The ToR provides a framework or roadmap for completing the EA and summarizes the tasks and activities to be undertaken by the proponent.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and **the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.** The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

The City remains committed to investigating, implementing and supporting programs to increase waste diversion through 3Rs initiatives. Since the implementation of 3Rs initiatives does not require EA Act approval, the EA study turned its focus to alternative methods of landfilling residual waste. The key objective of this phase of the study is to find an environmentally suitable location for the development of additional landfill capacity.

The first step in this phase consisted of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. To identify a preferred approach to landfilling waste, the alternatives were compared using the following seven criteria groups:

1.	Natural environment	5.	Capability of managing waste quality and quantity
2.	Social-cultural environment	6.	Proven technical capacity
3.	Economic environment	7.	Cost
4.	Flexibility of the system		

A Public Input Session was held in April, 2011 to present the landfill alternatives being considered. **The evaluation and response from consultation concluded that an expansion of an existing landfill is generally preferred over construction of a new site.**

The study noted that an expansion requires less land, displaces fewer people and/or social/natural features, disrupts fewer people (i.e., one site versus two sites creating nuisance impacts), costs less, typically encounters fewer challenges in gaining technical approvals, and reduces the number of facilities the City must manage.

The second step in the Alternative Methods task focused on the best approach to expand the City's existing landfill site at 402 Fifth Line East by identifying and comparatively evaluating site expansion alternatives. Options considered included horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining (excavate previously disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) or a combination of these methodologies. A Public Input Session was held March, 2012 to obtain feedback on the evaluation criteria and the preliminary findings.

The evaluation and response from consultation concluded the preferred site expansion alternative consists of a modest increase in the height of the waste, an expansion of the disposal footprint to the west and north and mining a portion of the existing waste to enhance groundwater quality. All mined and expansion areas will include the

construction of a liner beneath the waste to collect leachate (precipitation contaminated as it filters through waste) and ultimately direct it to the City's sewage treatment plant for treatment.

Current Activities

The last part of Phase 2 involves assessing the potential impacts of the conceptual design and planned operation of the preferred site expansion alternative and identification of suitable mitigating measures. Multiple disciplines were involved to assess the various potential impacts of the expansion on site, off site, in the vicinity and along the access route. The access route was considered to be along Fifth Line from Highway 17 to the site (which is the same route used today). Measures to reduce or eliminate potential effects on the environment were recommended.

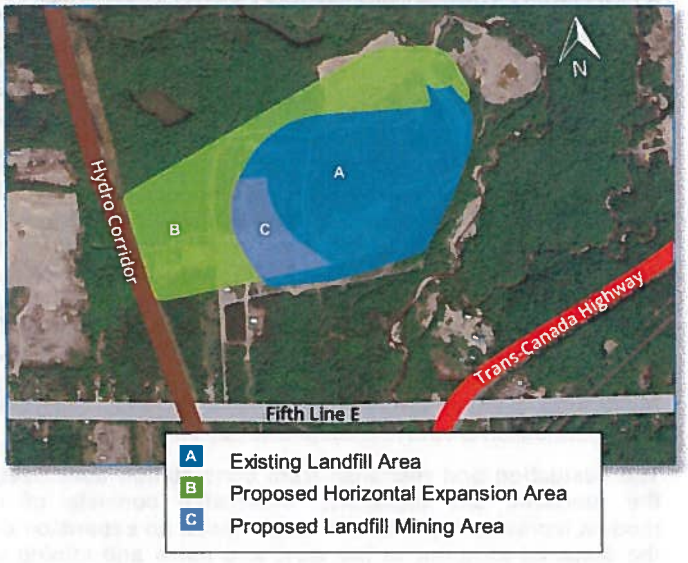
The disciplines that were involved include:

Natural Environment
- Biology
- Geology / hydrogeology
- Surface water

Socio-Cultural Environment
- Cultural (archaeology and heritage)
- Social
- Planned land use
- Visual
- Atmospheric (dust, noise, air quality)

Economic
- Businesses
- Transportation

Conceptual Layout of Proposed Landfill Expansion Area



HOW CAN I PROVIDE INPUT?

We will be hosting a Public Open House where you will learn about the results of the impact assessment work and we will ask for your feedback. If you are interested in discussing the project, we encourage you to attend the upcoming public open house!

YOU'RE INVITED!

Date:	*Tuesday, February 9, 2016*
Location:	*Civic Centre – 99 Foster Drive* *Russ Ramsay Room*
Time:	*3:30 pm to 7:30 pm*

Refreshments to be provided.

We will provide you with background information and discuss, with you, the preferred site expansion option and the results from the impact assessment work.

If you are unable to attend the Public Input Session there are other opportunities to provide input. Please visit the City's website at the address noted below to obtain further information, and / or access a comment sheet.

Project webpage address: saultstemarie.ca/SolidWasteEA

CONTACT US

You may also contact the Consultant Project Manager or the City's Land Development and Environmental Engineer by email, mail or telephone if you have questions or would like additional information.

Mr. Rick Talvitie, P.Eng.
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Phone: 705-942-2612
Email: rick.talvitie@aecom.com

Ms. Catherine Taddo, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
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Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5380
Email: c.taddo@cityssm.on.ca

THE CITY OF SAULT STE. MARIE

NOTICE OF PUBLIC INPUT SESSION

SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. To date significant progress has been made.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and **the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.** The preferred alternative was presented at an Open House in June, 2010.

The study noted:

- landfills can be designed and operated to comply with regulations and policies;
- landfill gas can be collected and flared or recovered to generate electricity;
- landfills can manage the entire residual waste stream;
- landfills are flexible to changes in waste quality and quantities; and
- landfilling is cost effective.

In April, 2011 a Public Input Session was held to present the non-site specific landfill alternatives being considered. **The evaluation, which considered responses from consultation, concluded that an expansion of an existing landfill is generally preferred over construction of a new site.**

The study noted:

- an expansion requires less land;
- displaces fewer people and/or social/natural features;
- disrupts fewer people (i.e. one site versus two sites creating nuisance impacts);
- costs less;
- typically encounters fewer challenges in gaining technical approvals; and
- reduces the number of facilities the City must manage.

In March 2012 a Public Input Session was held to present the preliminary preferred approach to expanding the existing landfill at 402 Fifth Line East in the City of Sault Ste. Marie. **The evaluation, which considered responses from consultation, concluded that an expansion is best accommodated with a moderate increase in the height of the waste together with and expansion of the disposal footprint to the north and west. The preferred option also includes landfill mining (excavate existing disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) in the western portion of the existing disposal footprint to enhance groundwater protection. All mined and expansion areas will include the construction of a liner beneath the waste to collect leachate (precipitation contaminated as it filters through waste) and ultimately direct it to the City's sewage treatment plant for treatment.**

CURRENT ACTIVITIES

Presently the project team is focusing on **completing an impact assessment for the preferred expansion option.** The impact assessment includes expertise from numerous disciplines and focusses on potential impacts to the natural and human environments associated with the construction and operation of the proposed expansion. Careful attention is given to best management practices to mitigate potential impacts.

We are now seeking input from the Community, government agencies, stakeholders, and First Nations regarding the results of our impact assessment work and the proposed mitigation measures.

PUBLIC INPUT SESSION

If you are interested in discussing the impact assessment work, we encourage you to attend the upcoming public open house! We will provide you with background information and discuss with you, the preferred site expansion option and the results of the impact assessment work.

CONTACT US

We also encourage you to contact the individuals noted below if you have any specific questions.

Mr. Rick Talvitie, P.Eng
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523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4
Phone: 705-942-2612
Fax: 705-942-3642
Email: rick.talvitie@aecom.com

Ms. Catherine Taddo, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1
Phone: (705) 759-5380
Fax: (705) 541-7165
Email: c.taddo@cityssm.on.ca

YOU'RE INVITED!

Date: Tuesday February 9, 2016

Location: Civic Centre – Russ Ramsay Room

Time: 3:30 pm to 7:30 pm

Refreshments to be provided.

If you cannot attend the public open house, we still want to hear from you! Just go to the project webpage (address provided below) to review the project reference material and fill out a comment sheet or simply send us an email (email addresses provided above). Project webpage address: saultstemarie.ca/SolidWasteEA

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705 942 3642 fax

January 20, 2016

Chief Paul Syrette
Garden River First Nation
7 Shingwauk Street, RR #4
Garden River, Ontario
P6A 6Z8

Dear Chief Syrette:

Project No: 60117627 (60395)

Regarding: City of Sault Ste. Marie
Waste Management Environmental Assessment
Impact Assessment for the Preferred Expansion Option

The City of Sault Ste. Marie is continuing to move forward with its Waste Management Environmental Assessment. We last contacted you in February, 2012.

We are grateful for the opportunities we have had to inform Band Council and Band members regarding this project. We met with Band Council on April 3, 2007 and June 8, 2010 and conducted an Open House in your Community on August 9, 2007.

To date, a considerable level of study has been completed in developing and assessing the preferred approach to managing waste in the City of Sault Ste. Marie. The work completed to date has resulted in the following observations:

- The preferred approach to managing waste in the future is through increased waste diversion (ie. 3R's - reduction, reuse and recycling) and landfilling any remaining residual waste.
- The preferred approach to landfilling residual waste is an expansion of the existing City owned and operated disposal site located at 402 Fifth Line East in the City of Sault Ste. Marie.
- The preferred expansion option incorporates a moderate increase in the height or elevation of the waste and an expansion of the disposal footprint to the north and west of the existing footprint. The preferred option also includes landfill mining within the western portion of the existing disposal footprint to enhance groundwater protection. This process involves excavating existing disposed waste and cover material, recovering earthen material or "fines" and returning the waste to the disposal footprint. All mined and expansion areas will include the construction of a liner beneath the waste to collect leachate (precipitation contaminated as it filters through waste) and direct it to the City's sewage treatment plant for treatment. The existing disposal footprint and proposed mining and expansion areas are highlighted in a figure in the attached Newsletter.

We have now completed a detailed impact assessment for the preferred expansion option. The detailed impact assessment is a focussed investigation and analysis to identify potential environmental impacts resulting from the construction or operational changes associated with the proposed expansion. The impact assessment also considered opportunities for enhanced mitigation that otherwise would not likely be implemented in the absence of the proposed expansion.

Eleven reports were prepared which included expertise in the following disciplines:

- Biology (terrestrial and aquatic)
- Geotechnical
- Groundwater
- Atmospheric (acoustic and air quality)
- Surface water
- Socio-economic
- Visual
- Traffic
- Archaeological/Cultural
- Planned land use

We are now seeking input from Government agencies, stakeholders, First Nations and the general public regarding the impact assessment work. We would like to obtain as much input as possible from your community members. **We believe this is an opportune time to meet with you and your Council and/or to conduct an open house in your community. In addition we will be conducting a public open house in Sault Ste. Marie as outlined below. Everyone is welcome to attend.** We have attached a Notice of the Public Input Session which can be printed or copied and posted in prominent locations that are typically accessed by your community members. In addition, we encourage you to post the Notice on your website.

You are also encouraged to view the **Project Newsletter**, and the February 9th **Public Open House displays**. Copies of these documents are attached for your information and reference. **Please make these documents available to your Community members at your Band office.** These documents are also available electronically on the City's website at saultstemarie.ca/SolidWasteEA.

Details of the Public Open House to be held in Sault Ste. Marie are provided below:

Location:	Russ Ramsay Room, Civic Centre, 99 Foster Drive
Date/Time:	Tuesday, February 9, 2016 - 3:30 pm to 7:30pm
Format:	Open House - come any time between the times noted, view the displays, ask questions of the project team and provide input at the open house or at a later date.

If you are unable to attend the February 9th session we also encourage community input through other means. Please review the project materials at the link provided above and access a comment sheet to provide feedback or simply send the project team an email (nancy.maahs@aecom.com). Please include "**City of SSM Waste Management EA – Comments**" in the subject line of your email message. We have also included a copy of the comment sheet that can be reproduced for use by your members if desired.

We would appreciate receiving your input by March 11, 2016.

As always, we would also be pleased to meet with you and your Council at your convenience to discuss the project details and to arrange dedicated consultation activities tailored to meet your Community needs. Please contact our office by telephone or email to arrange a meeting.

We look forward to hearing from you!

Sincerely,
AECOM Canada Ltd.

Rick Talvitie, P. Eng.
Project Manager
RT:nm
Encl.

cc: C. Taddo, City Engineering
K. Kolli, Dillon Consulting

Maahs, Nancy

From: Talvitie, Rick
Sent: Wednesday, April 13, 2016 1:26 PM
To: 'glesage@gardenriver.org'
Cc: Catherine Taddo (c.Taddo@cityssm.on.ca)
Subject: City of Sault Ste. Marie - Waste Management Environmnetal Assessment
Attachments: January 2016 correspondence w psyrette grfn.pdf

Hi Gerry,

I hope all is well.

The City of Sault Ste. Marie is proceeding with a waste management Environmental Assessment. The study dates back to 2007 and is now well advanced and we have, in the past conducted an open house in your Community Hall and we have also met with Band Council regarding this project.

In January 2016 we forwarded the attached package to your community. I noticed that your portfolio includes "Natural Resources and Lands" and thought it may be appropriate to follow-up with you to see if there is any further interest in this project. If there is an interest we would be pleased to meet with band council or conduct another public information event in your community.

The attached newsletter provides a good overview of what has been accomplished to date and the current status of the project. In general however the preferred approach to managing waste within Sault Ste. Marie and the surrounding area is to continue to focus on reducing the amount of waste being disposed of through 3R's (reduce, reuse, recycle) initiatives and landfilling residual waste. To accommodate future landfilling an expansion of the City's existing landfill is proposed and we have recently completed an impact assessment for the preferred expansion concept. Details of the impact assessment were recently presented to council and a public input session was undertaken to solicit input.

We look forward to hearing back from you.

Thanks.

Rick Talvitie, P. Eng.
Manager, Northern Ontario
rick.talvitie@aecom.com

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May 17, 2017

Chief Paul Syrette
Garden River First Nation
7 Shingwauk Street, RR #4
Garden River, Ontario
P6A 6Z8

Dear Chief Syrette:

Project No: 60117627 (60395)

Regarding: City of Sault Ste. Marie
DRAFT Waste Management Environmental Assessment Report

The City of Sault Ste. Marie is continuing to move forward with its Waste Management Environmental Assessment. We last contacted you in January, 2016 when we completed an impact assessment for the preferred landfill expansion option.

We are grateful for the opportunities we have had to inform Band Council and Band members regarding this project. We met with Band Council on April 3, 2007 and June 8, 2010 and conducted an Open House in your Community on August 9, 2007.

To date, a considerable level of study has been completed in developing and assessing the preferred approach to managing waste in and around the City of Sault Ste. Marie. The work completed to date has resulted in the following observations:

- The preferred approach to managing waste in the future is through increased waste diversion (ie. 3R's - reduction, reuse and recycling) and landfilling any remaining residual waste.
- The preferred approach to landfilling residual waste is an expansion of the existing City owned and operated disposal site located at 402 Fifth Line East in the City of Sault Ste. Marie.
- The preferred expansion option incorporates a moderate increase in the height or elevation of the waste and an expansion of the disposal footprint to the north and west of the existing footprint. The preferred option also includes landfill mining within the western portion of the existing disposal footprint to enhance groundwater protection. This process involves excavating existing disposed waste and cover material, recovering recyclables and earthen material or "fines" and returning the waste to the disposal footprint. All mined and expansion areas will include the construction of a liner beneath the waste to collect leachate (precipitation contaminated as it filters through waste) and direct it to the City's sewage treatment plant for treatment. The existing disposal footprint and proposed mining and expansion areas are highlighted in a figure in the attached Notice.

The City has now completed a Draft Environmental Assessment Report to document the project. This document explains the decision making process, results of the studies and input received through the consultation process. Details of the proposed landfill expansion, potential impacts to the environment and commitment to mitigate these impacts is also included in the Draft EA.

We are now seeking input from Government agencies, stakeholders, Aboriginal Communities and the general public regarding the Draft Report. We have attached a Notice of the Draft EA completion and we encourage you to share the Notice with your Community.

We will be delivering a copy of the completed Draft EA Report to the Band Office prior to May 24, 2017. **It would be appreciated if you could make this document available to your community members.** This Draft EA reports is also available electronically on the City's website at saultstemarie.ca/SolidWasteEA.

We would appreciate receiving your input by July 7, 2017.

As always, we would also be pleased to meet with you and your Council at your convenience to discuss the project details. Please contact our office by telephone or email to arrange a meeting.

We look forward to hearing from you!

Sincerely,
AECOM Canada Ltd.

Rick Talvitie, P. Eng.
Project Manager
RT:nm
Encl.

cc: C. Taddo, City Engineering
K. Kolli, Dillon Consulting

Description of Communication	Date	Comments / Questions / Issues	Response / How Addressed	Where Addressed in the EA	Reference Material	Outstanding Issues to be Addressed
Missanabie Cree First Nation						
• Newsletter No.1 - Notice of Commencement of Phase 2 of the EA Process	October, 2006	• No comments were received.			Newsletter No. 1 – Appendix M	
• Meeting between TSH (Rick Talvitie), City of SSM (Susan Hamilton Beach) and Missanabie Cree representative (Lesley Gagnon) to provide an update on project progress and discuss strategies for outreach to members.	March 26, 2007	• L. Gagnon noted that active enforcement (fines) of the waste diversion programs should be considered. • L. Gagnon pointed out that the residents in her area violate the two bag/container limit and waste is still collected without tags. • The issue of Tim Horton's cups found littered along streets and should be addressed was noted. • It was identified that many items are disposed of that could be re-used and the City should develop a re-use centre. • Other items should be recycled or banned (ie: Styrofoam cups). • L. Gagnon stressed that the management of disposable diapers also needs to be addressed.	• R. Talvitie and S. Hamilton Beach indicated that the City does have a continuing education program that is implemented by collection crews. • R. Talvitie noted that every effort is made to enforce the collection by-law however crews sometimes have difficulty identifying the number of residential units that set out waste so it is collected anyway. • Tim Horton's has implemented recycling programs and participate and sponsor community clean-up events. However more can be done to educate the public particularly that the cups are recyclable. • S. Hamilton Beach noted that regulations exist that prohibit scavenging, however Habitat for Humanity operates a re-use centre within the City and public awareness could be increased through advertising. • The City is currently taking a proactive approach with plastic bags, and will look at similar approaches with other items in the future. • R. Talvitie noted that the WDO is considering ways of recovering some of the disposal costs for packaging materials that are not recyclable. • R. Talvitie pointed out that diapers are composted in some larger municipalities. • Newsletter to be forwarded with particulars regarding Public Input Session and possibility of posting date in Missanabie Cree monthly calendar and mailing Newsletter with the calendar.	Section 1.5 highlights the numerous elements of the overall diversion strategy including a re-use centre. Section 2.3.1 notes that additional materials may be considered as programs transition to Extended Producer Responsibility – the City will no longer have control Section 2.3.1 highlights City commitment to comply with provincial mandates to collect and process residential source separated organics.	Missanabie Cree Consultation Strategy Meeting Report dated April 2, 2007 – Appendix M	
• Correspondence – Letter mailed to Missanabie Cree (Leslie Gagnon) notifying her of the upcoming Public Input Session in Sault Ste. Marie and inviting participation from Community members. Included for distribution were digital and hard copies of the Notice of Public Input Session being conducted to provide updates on diversion improvements and to discuss "Alternatives To" and criteria to be used in the evaluation.	June 13, 2007	• No comments were received.			Letter to Missanabie Cree from R. Talvitie regarding Notice of Public Input Session No. 1, June 13, 2007 – Appendix M	
• Correspondence – Email follow up with Missanabie Cree representative (Lesley Gagnon) to the June 13, 2007 letter requesting Notices be posted in prominent locations and encouraging attendance at the Public Input Session.	June 15, 2007	• No comments were received.			Email to Missanabie Cree from R. Talvitie dated June 15, 2007 – Appendix M	

• Public Input Session No. 1- First public open house to provide updates on diversion improvements and to discuss “Alternatives To” and criteria to be used in the evaluation.	June 26, 2007	• No comments were received.			Records from June 26, 2007 PIC – Appendix F	
• Correspondence – Newsletter No. 2 and Notice of Public Input Session - Project Update and information regarding the upcoming June 3, 2010 PIC which is intended to identify the preferred “Alternative To”, discuss the project progress and have questions or concerns addressed.	May, 2010	• No comments were received.			Solid Waste Disposal Environmental Assessment Newsletter No. 2 and Notice of Public Information Centre – Appendix M	
• Correspondence – Notice of Public Input Centre No. 2 – Information on project background, update on project, overview of the next steps to be taken and information about June 3, 2010 PIC. Purpose is to provide an opportunity to discuss the project progress and have questions or concerns addressed.	May, 2010	• No comments were received.			Notice of Public Information Centre – Appendix M	
• Public Input Session No. 2 – Conducted to communicate the preferred “Alternative To” and provide an opportunity to discuss the project progress and have questions or concerns addressed.	June 3, 2010	• No comments were received.			Records from June 3, 2010 – Appendix H	
• Correspondence –Notice of Public Input Session - Project Update and information regarding the upcoming April 19, 2011 PIC which is intended to solicit input and feedback on the alternative approaches to landfilling residual waste (i.e. expand existing disposal site versus a new site)..	April, 2011				Solid Waste Disposal Environmental Assessment Notice of Public Input Session – Appendix M	
• Correspondence – Email to Missanabie Cree representative (Leslie Gagnon) attaching Newsletter and informing of upcoming April 19, 2011 PIC. Encouraged posting of PIC Notice at prominent locations and on their website. Noted we would deliver a copy of the “Solid Waste Management Environmental Assessment – Alternative Methods – Step 1 (Landfill Expansion versus Development of New Site)” report.	April 8, 2011	• No comments were received.			Email dated April 8, 2011 to Missanabie Cree from R. Talvitie – Appendix M	
• Public Input Session No. 3 - Conducted to provide an opportunity to discuss the project progress, solicit input and feedback on the alternative approaches to landfilling residual waste (i.e. expand existing disposal site versus a new site)., and to address questions or concerns.	April 19, 2011	• No comments were received.			Records from April 19, 2011 PIC – Appendix I	

• Correspondence –Notice of Public Input Session - Project Update and information regarding the upcoming March 6, 2012 PIC which is intended to solicit input and feedback on the alternative approaches to expanding the existing disposal site.	February, 2012				Solid Waste Disposal Environmental Assessment Notice of Public Input Session – Appendix M	
• Correspondence – Letter to Missanbie Cree representative (Kim Rainville) updating the project status, offering to meet and advising of the upcoming Public Input Session No. 4 which is being conducted to discuss the project progress and solicit input and feedback on a preferred expansion strategy for the existing landfill site. The correspondence included the most recent Newsletter, Notice of upcoming PIC, Solid Waste Management Environmental Assessment – Alternative Methods – Step 2 (Identification and Comparison of Expansion Options) report, March 6, 2012 PIC displays and link to a survey.	February 17, 2012	• No comments were received.			Letter dated February 17, 2012 to Missanabie Cree from R. Talvitie – Appendix M	
• Visit – dropped off the "Solid Waste Management Environmental Assessment – Alternative Methods – Step 2 report.	February 22, 2012	• No comments were received.				
• Public Input Session No. 4 - Conducted to discuss project progress and to solicit input and feedback on a preferred expansion strategy for the existing landfill site.	March 6, 2012	• No comments were received.			Records from March 6, 2012 PIC – Appendix J	
• Correspondence – Newsletter and Notice advising of Feb. 9, 2016 Public Input Centre No. 5 intended to discuss project progress and solicit input and feedback on the impact assessment work.	January, 2016	•			Solid Waste Disposal Environmental Assessment January 2016 Newsletter and Notice of Public Input Session – Appendix M	
• Correspondence - Letter to Missanabie Cree (Kim Rainville) updating project status and requesting input and feedback on the impact assessment reports. Also advised of upcoming February 9th PIC and offered to meet to discuss project details.	January 20, 2016	• No comments were received.			Letter dated January 20, 2016 to Kim Rainville, Missanabie Cree from R. Talvitie – Appendix M	
• Public Input Session No. 5 - Conducted to discuss project progress and to solicit input and feedback on the impact assessment work.	February 9, 2016	• No comments were received.			Records of February 9, 2016 PIC – Appendix K	
• Correspondence – Email with Missanabie Cree representative (Cathy Clement) following up on package submitted in January 2016 and to see if the Missanabie Cree have any further interest in project. Also provided a copy of a recent Newsletter which summarized the current status of the project.	May 4, 2016	• No comments were received.			Email dated May 4, 2016 to Cathy Clement, Missanabie Cree from R. Talvitie – Appendix M	

• Correspondence – Letter to Missanabie Cree representative (Jason Gauthier) from R. Talvitie notifying and requesting input on the Draft EA. Provided the Notice of the Draft EA and requested the Notice be shared with Missanabie Cree members. Also indicated that a hard copy of the Draft EA Report would be delivered to the Missanabie Cree's Sault Ste. Marie office prior to May 24, 2017 and it was requested that this document also be made available to members. Notification was also provided that the document could be viewed on the City's website and link to the website was provided. An offer was also made to meet in person to discuss project details.	May 17, 2017	• No comments were received.			Letter dated May 17, 2017 to J. Gauthier (Missanabie Cree) from R. Talvitie – Appendix M	

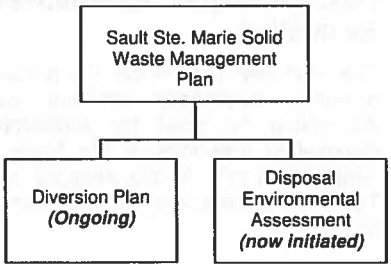
Solid Waste Disposal Environmental Assessment

Newsletter No.1, October 2006

Sault Ste. Marie Begins the Disposal Environmental Assessment (EA)

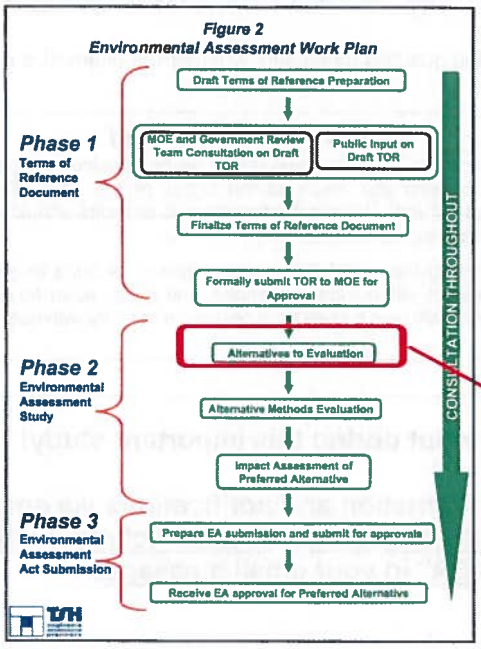
In September 2005 the Minister of the Environment approved the Environmental Assessment Terms of Reference (EA TOR) for the Sault Ste. Marie Solid Waste Management Plan. The EA TOR documents the process that will be followed to determine the preferred method for managing solid waste in Sault Ste. Marie for the next 20 to 40 years. In addition to the disposal EA, the Sault Ste. Marie Solid Waste Management Plan includes a significant diversion component.

A copy of the EA TOR is attached for your reference.



Diversion Update

The City of Sault Ste. Marie's waste diversion program currently includes collection and recycling of fibers and containers (ie: curbside yellow and blue box program); bi-weekly collection and composting of leaf and yard waste; a household hazardous waste depot; and segregation and recycling of metals, white goods, tires, and clean wood and brush at the solid waste landfill at 402 Fifth Line East. In 2005, the City limited residential waste setout to 2 bags/containers per week per household. Tags for additional waste bags or containers must be purchased. The residential waste diversion program diverted approximately 32% of residential waste from the landfill in 2005. This is a significant increase compared to the 8% diverted in 2000!



The EA Process Overview

The Environmental Assessment for disposal capacity includes three key phases. The first phase was completed with the submission and approval of the EA Terms of Reference. We are now initiating the second phase: the Environmental Assessment Study itself. The last phase is submission of the EA documentation to the Ministry of the Environment and the subsequent government and public review and approval period. It is anticipated that the whole process will take until early 2009.

WE ARE HERE

The City has retained a team of consultants including Totten Sims Hubicki Associates and Dillon Consulting Limited to assist them in the preparation of the Waste Disposal EA.

TSH engineers architects planners

DILLON CONSULTING

Next EA Steps: "Alternatives To" Evaluation

The next key step in the EA process is to evaluate functionally different ways of addressing the need for additional waste disposal capacity in Sault Ste. Marie, (ie. the "alternatives to"). As documented in the EA TOR, the alternatives being considered are as follows:

- Increased 3R's (reduce, reuse, recycle);
- Incineration & High Heat Processes;
- Landfill;
- Export Waste Outside Service Area;
- Do nothing.

Contact Us

Your input on this project is important to us. If you would like further information or to send comments, ask questions or be added to our mailing list, please contact us:

Mr. Rick Talvitie, P.Eng
Project Manager
Totten Sims Hubicki
523 Wellington Street East,
Sault Ste. Marie, Ontario
P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
Email: rtalvitie@tsh.ca

Mrs. Susan Hamilton-Beach, P.Eng.
Director of Engineering Services
City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive,
Sault Ste. Marie, Ontario
P6A 5N1

Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on.ca

The evaluation of "alternatives to" will be carried out at a general level. Specific locations and technologies for the above mentioned alternatives will not be included in this step but will be considered in the next step (ie. alternative methods evaluation).

In the EA Terms of Reference, criteria were proposed for the evaluation of the "alternatives to". The proposed criteria for the evaluation of "alternatives to" are listed below.

- Compliance with regulations and policies (addresses the ability to meet all applicable regulations and policies);
- Environmental acceptability (addresses potential environmental affects of the alternative);
- Ability of the City to implement the alternative (considers whether the City has the ability and mandate to implement the alternative);
- Flexibility of the system (considers whether the alternative can respond to changes in the waste stream);
- Capability of managing waste quantities and qualities (considers whether the alternative could handle the identified waste stream);
- Proven technical capability (considers whether the alternative has been proven successful in other experiences in Ontario or other jurisdictions); and
- Economic/Cost (considers the relative cost differences among the alternatives)

Keeping You Informed

This newsletter is part of a series that will be ongoing during this project to keep you aware of the status of the Solid Waste Management Plan. Contact information is provided should you wish more detailed information.

In addition to the newsletter, opportunities to become involved in the project will include workshops, and public open houses. Information will also be regularly posted on the City web site.

We look forward to receiving your input during this important study!

If you would prefer to receive future information and notifications via email please forward your email address to nirwin@tsh.ca. Please include the title "City of SSM Waste Disposal EA" in your email message.

TSH engineers architects planners

DILLON CONSULTING

engineers
architects
planners

MISSANABIE CREE
CONSULTATION STRATEGY
MEETING REPORT

Project:	City of Sault Ste. Marie Waste Disposal EA
TSH No.	60395
Meeting Date:	March 26, 2007
Meeting Time:	1:30 pm
Report Date:	April 2, 2007
Recorder:	R. Talvitie
Page 1 of 4	

Note: If any of the contents of this meeting report differ in any respect from your own recollection of the points discussed or decisions reached, please notify us immediately. In the meantime, we will proceed in accordance with the understanding described herein.

LOCATION: Missanabie Cree Boardroom

PRESENT: Lesley Gagnon, Missanabie Cree
Susan Hamilton-Beach, City SSM
Rick Talvitie, TSH

PURPOSE: To provide an update on the project progress and to discuss strategies for consulting with Missanabie Cree members.

Action By

1.0 Introduction and Background

Missanabie Cree have 304 voting members, 70 of which are located in Sault Ste. Marie. — Info.

Missanabie Cree have no land base. — Info.

RT provided an overview of the project background.

- A copy of the Terms of Reference ("ToR") was forwarded in advance of the meeting. The ToR provides the framework for guiding the implementation of the Environmental Assessment ("EA"). — Info.
- City has secured the services of a consultant team to undertake the EA (ie: TSH and Dillon). — Info.
- Approximately 11 years of disposal capacity remaining at the Fifth Line landfill. — Info.
- City has been very aggressive in enhancing waste diversion through new and enhanced programs. — Info.
- Currently diverting approx. 35% of the residential waste stream in comparison to 8% in 2000. — Info.
- Residential diversion programs include: — Info.
    - Blue/Yellow box (residential, multi-residential and schools);
    - Leaf and yard waste collection bi-weekly and backyard composters;

Action By

- Household Special Waste Facility for hazardous wastes;
- Reduced set-out limits (reduced from 6 bags/containers to two bags/containers per household);
- Partial Pay-as-you-throw program (ie: $2 per bag/container beyond 2 bag/container limit);
- Increased gate and tipping fees at the landfill;
- Segregation of waste at the landfill; and
- Special events coordinated by Clean North (Christmas trees and WEEE).

- IC&I diversion rate is also increasing significantly through enhanced MOE enforcement. — Info.

2.0 Alternatives To

RT explained that the project team is currently looking at "alternatives to" the undertaking (different ways of managing the waste stream including diversion and disposal). — Info.

The "alternatives to" being considered include: — Info.

- Increased Waste Diversion
- Incineration and High Heat Processes
- Landfill
- Export of Waste Outside the Service Area
- Do nothing

A series of evaluation criteria were developed and presented in the ToR which are intended to be used to evaluate the "Alternatives". A draft "Alternatives To" Report will be released in advance of the public input sessions and will document the preliminary evaluation completed. — Info.

RT explained that the City believes it is important to table issues and concerns regarding the alternatives and the evaluation as early in the process as possible. This can be effectively achieved by consulting with potentially impacted communities and stakeholders early in the process. — Info.

Input is specifically being solicited regarding the alternatives being considered, the evaluation criteria and the relative importance of the criteria with the intent of establishing a preferred "Alternative To". — Info.

RT explained that an invitation will be extended to neighbouring First Nations communities, the general public and relevant agencies to participate in the Public Input Sessions. As a minimum, some representation from the Missanabie Cree would be appreciated. TSH to forward a Newsletter with particulars. — TSH

		Action By
	TSH to investigate posting the event in the Missanabie Cree monthly calendar and providing a newsletter for mailing with the calendar.	TSH
3.0	**Issues Noted**	
	LG noted the following waste management issues should be considered in the Environmental Assessment:	
	• Active enforcement (ie: fines) is a component of the waste diversion programs in Guelph and should be considered in Sault Ste. Marie. RT and SHB explained that the City does have a continuing education program that is implemented by the collection crews. This includes leaving materials curbside that do not comply with collection by-laws and informing of the non-compliance issue via a flyer.	Info.
	• LG also noted that residents in her area violate the two bag/container limit and the waste is collected without tags. RT noted that every effort is made to enforce collection by-laws but there are several areas in the community where collection crews have difficulty determining the number of residential units that setout the waste and hence they collect it despite the fact it may not comply with set-out limits.	Info.
	• SHB noted the City completes periodic checks of common illegal dumping sites and actively investigates illegal dumping activities. City staff makes every effort to identify perpetrators.	Info.
	• RT also noted that the Ministry of Environment has increased enforcement related to commercial/industrial diversion efforts.	Info.
	• Tim Horton's cups can be found littered along streets and should be addressed. To their credit Tim Horton's has implemented recycling programs in their establishments and they participate and sponsor in community clean-up events. It was however acknowledged that more can be done particularly related to public education (eg. cups are recyclable).	Info.
	• Many items are disposed of that could be re-used and the city should develop a re-use centre. SHB explained that regulations exist that prohibit municipalities from scavenging. Habitat for Humanity does however operate a re-use centre within the City. It may however benefit from increased public awareness through appropriate advertising.	Info.

Action By

- Other items that should be recycled or banned from use include styrofoam cups and paper plates. The paper plates are currently recyclable but styrofoam is not. It was noted that the City is currently taking a proactive approach with plastic bags and similar approaches are possible with other items in the future. — Info.

- RT also noted that the WDO is considering ways and means of recovering some of the disposal costs for packaging materials that are not recyclable. Currently companies contribute funds to offset the costs of recycling programs if their packaging is recyclable but companies that utilize disposable packaging materials do not incur similar costs for disposal. — Info.

- The management of disposable diapers also needs to be addressed. RT noted that diapers are composted in some larger municipalities. — Info.

END OF MEETING REPORT

Submitted By:

R. Talvitie, P.Eng.
Project Manager

cc: all inattendance
R. Roy
K. Kolli

\\Tsh-server\projects\60395 - SSM Soild Waste Management EA\Word\First Nations\60395 mar 19 MTG w dsayers.doc

June 13, 2007

Lesley Gagnon
Missanabie Cree
559 Queen Street East
Sault Ste. Marie, Ontario
P6A 2A3

Dear Ms. Gagnon:

Re: City of Sault Ste. Marie
Solid Waste Management EA
TSH Project No. 60395

The City of Sault Ste. Marie is proceeding with the first public input session for the Solid Waste Management Plan Environmental Assessment. Details pertaining to the session are included in the attached Notice.

We will be advertising this Public Input session through various forms within the City of Sault Ste. Marie and adjacent communities. We are encouraging direct participation of Missanabie Cree First Nation people residing in and around Sault Ste. Marie. We have enclosed 10 copies of the Notice for posting at prominent locations at your discretion.

We have also included a digital copy for posting on your website.

In the event that you feel there are other effective means of notifying members of your community of this session we would be pleased to work with you to reach as many individuals as possible.

We are hopeful that there will be broad representation of various interest groups and communities at the event.

We look forward to seeing Missanabie Cree First Nation people at our event.

Yours very truly,

R. Talvitie, P. Eng.
Project Manager

c.c. Susan Hamilton-Beach
Karla Kolli

Solid Waste Disposal Environmental Assessment PUBLIC INPUT SESSION No. 1

Sault Ste. Marie Conducts First Public Input Session!

Are you interested in discussing the alternatives and criteria that will be used to compare and select a preferred approach to dispose of waste in Sault Ste. Marie, Prince Township and Batchewana First Nation's Rankin Reserve? If so, we encourage you to attend this public input session!

You're Invited!

Date: Tuesday June 26, 2007
Time: 6:00 pm to 9:00 pm
Location: Civic Centre – Russ Ramsay Room

Please join us!

The City of Sault Ste. Marie is holding a public input session for the Solid Waste Disposal Environmental Assessment to discuss both diversion and disposal of solid waste.

We will update you on the City's achievements in increasing waste diversion and discuss with you the alternative approaches that are being considered to dispose of the residual solid waste. A principle objective of the session is to confirm the alternatives that are being considered (ie: increased 3R's, landfill, incineration and high heat processes, export and do-nothing) and to discuss the criteria that will be used to compare the alternatives.

Information on waste quantities, the alternatives and the evaluation criteria can be found in two working papers prepared for this session titled "Waste Quantity Projections and Existing Environment Profile" and "Alternatives To the Undertaking". These working papers can be downloaded from the City of Sault Ste. Marie website (http://www.cityssm.on.ca/) or viewed at the locations noted below commencing on June 19th.

TSH Engineers Architects and Planners	523 Wellington Street
Civic Centre Engineering and Planning	99 Foster Drive, 5th Floor
Public Works and Transportation	128 Sackville Road
Main Library	50 East Street
Churchill Branch Library	301 Lake Street
Korah Branch Library	496 Second Line
Township of Prince Municipal Office	3042 Second Line West
Batchewana First Nation	236 Frontenac Street
Garden River First Nation	7 Shingwauk Street
Metis Nation of Ontario Office	26 Queen Street East
Missanabie Cree Office	559 Queen Street East

We also encourage you to contact the individuals noted below if you have any specific questions.

Mr. Rick Talvitie, P.Eng
Project Manager
Totten Sims Hubicki (TSH)
523 Wellington Street East,
Sault Ste. Marie, Ontario
P6A 2M4
Phone: 705-942-2612
Fax: 705-942-3642
Email: rtalvitie@tsh.ca

Mrs. Susan Hamilton-Beach, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
99 Foster Drive,
Sault Ste. Marie, Ontario
P6A 5N1
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Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on.ca

Information pertaining to this session is available on the City of Sault Ste. Marie website at: http://www.cityssm.on.ca/. Hardcopies can also be obtained by contacting TSH at 705-942-2612.

We look forward to seeing you on June 26th!

TSH engineers architects planners

DILLON CONSULTING

Talvitie, Rick

From: Rick Talvitie
Sent: June 15, 2007 12:08 PM
To: 'lgagnon@missanabiecree.com'
Cc: 'Susan Hamilton Beach'
Subject: City of Sault Ste. Marie Waste Disposal EA

Hi Lesley,

I am just following up on the Notice of the Public input session that was delivered to you yesterday. The City is undertaking a public input session on June 26th (details are provided in the Notices provided to you). The general public within Sault Ste. Marie and adjacent communities are encouraged to attend. We are hopeful that you will post the notices in prominent locations including your website (ie: digital copy was also provided).

Let me know if there is anything we can do to further assist you in notifying your members.

Thank you.

Rick Talvitie, P.Eng.
Branch Manager
TSH
523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4
Phone: 705-942-2612
Fax: 705-942-3642
This electronic transmission, including any attachments, may contain personal information whose collection and use is regulated by the Personal Information Protection and Electronic Documents Act S.C. 2000 c. 5 (the "Act"). The use of such personal information except in compliance with the Act is strictly prohibited. If you have received this electronic transmission in error, or do not agree to comply with the Act, please notify us immediately by telephone or by Reply to Sender function and delete the message and any attachments from your computer without making a copy.

SOLID WASTE DISPOSAL
ENVIRONMENTAL ASSESSMENT

Newsletter No.2, May 2010

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its residual municipal solid waste. In the evaluation of "Alternatives To the Undertaking", a thorough review of different waste management alternatives including increased waste diversion, incineration/high heat processes, landfill, export waste outside the service area, and "do-nothing" was completed. To identify a preferred waste management method, the alternatives were comparatively evaluated using the following seven criteria:

1. Compliance with current regulations and policies;
2. Environmental acceptability;
3. The ability of the City of Sault Ste. Marie to implement the preferred alternative;
4. Flexibility of the system;
5. Capability of managing waste quality and quantity;
6. Proven technical capacity; and
7. Cost.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative for the City has been identified as **increased waste diversion and landfilling of the residual waste.**

DIVERSION UPDATE

The residential waste diversion program diverted approximately 34% of residential waste from the landfill in 2009. This shows consistent progress when compared to the 9% diverted in 2000! The City of Sault Ste. Marie's waste diversion program currently includes weekly curbside collection and recycling of paper products in the yellow box and containers in the blue box; bi-weekly collection and composting of leaf and yard waste throughout the growing season (April through November); a household special waste facility at 115 Industrial Park Crescent; landfill bans and segregation and recycling of metals, white goods, tires, and clean wood and brush at the landfill at 402 Fifth Line East. Since 2006, the City has limited residential waste setout to 2 bags/containers per week per household. Tags for additional waste bags or containers must be purchased. The City diversion programs are also supplemented by diversion initiatives undertaken by the private sector and special interest groups.

The City is also currently assessing the feasibility of diverting municipal biosolids (sewage sludge) from disposal.

PUBLIC INFORMATION CENTRE

A Public Information Centre is being held to provide an opportunity for you to discuss the project progress and have your questions or concerns addressed.

Date: Thursday, June 3, 2010

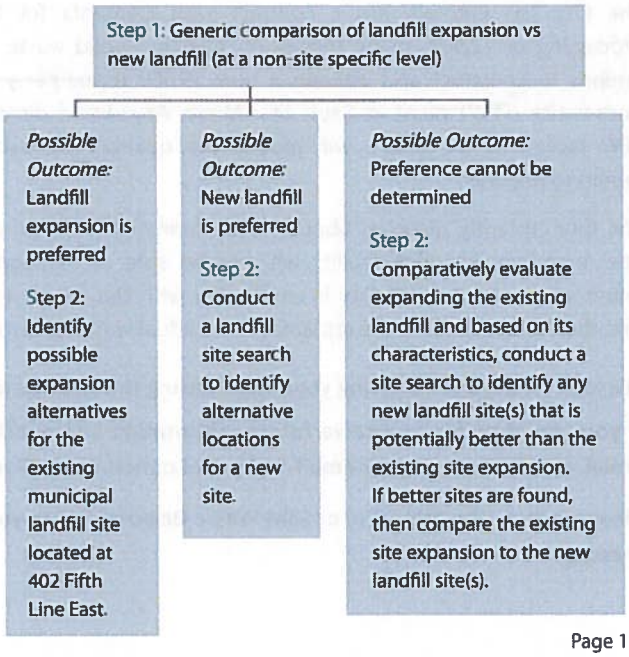
Location: Thompson Room
Civic Centre, 99 Foster Drive

Time: 3:30 pm to 7:30 pm

WHAT'S NEXT?

The results of the Environmental Assessment work completed to date suggest that landfill remains the most appropriate disposal option for the City's residual waste. Landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and recovered to generate electricity, landfills can manage the entire residual waste stream, are flexible to changes in waste quality and quantities and are cost effective.

Following the "Alternatives To" evaluation, the next step in the EA process for a landfill facility is the identification and evaluation of "Alternative Methods" of landfilling. This can include both alternative locations and alternative designs as illustrated in the flow chart below. We will be looking for public input on landfill options in the Fall of 2010.



SOLID WASTE DISPOSAL
ENVIRONMENTAL ASSESSMENT

Newsletter No.2, May 2010

ABOUT THE ENVIRONMENTAL ASSESSMENT (EA) PROCESS

The Environmental Assessment for disposal capacity includes three key phases. The first phase was completed with the submission and approval of the EA Terms of Reference. We are currently working within the second phase: the Environmental Assessment Study itself. The last phase is submission of the EA documentation to the Ministry of the Environment and the subsequent government and public review and approval period. It is anticipated that the whole process will take until late 2012.

In September 2005 the Minister of the Environment approved the Environmental Assessment Terms of Reference (EA TOR) for the Sault Ste. Marie Solid Waste Management Plan. The EA TOR documents the process that will be followed to determine the preferred method for managing solid waste in Sault Ste. Marie for the next 20 to 40 years. In addition to the disposal EA, the Sault Ste. Marie Solid Waste Management Plan includes a significant diversion component.

Keep up-to-date on the EA Study at the City of Sault Ste. Marie's website: http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1

ELEMENTA ENERGY-FROM-WASTE FACILITY

In 2007, an energy-from-waste (EFW) developer known as The Elementa Group (Elementa) constructed a pilot steam reformation plant that would convert municipal solid waste into a char and synthetic gas (or "syngas") that can be used to generate electricity.

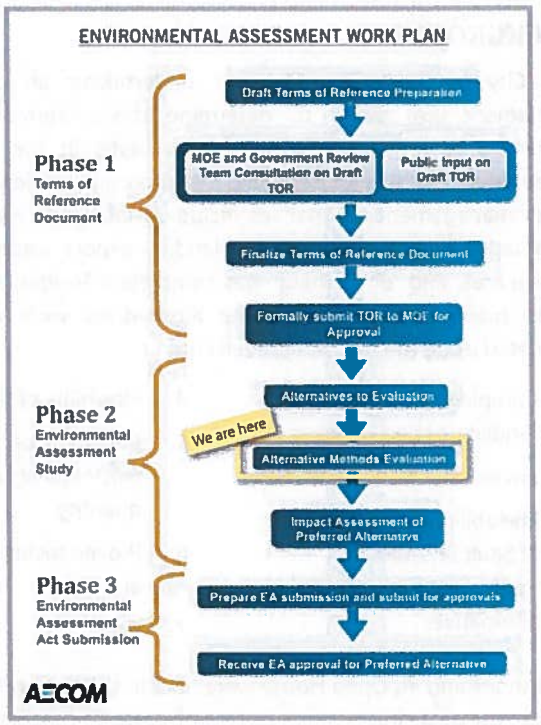
The City has entered into a contract with Elementa for the annual processing of 12,500 metric tonnes of municipal solid waste. Elementa intends to construct and operate a new 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility in the future will reduce the quantity of residual waste requiring disposal.

The City currently disposes about 60,000 tonnes of residual waste each year therefore; the EFW facility will not be able to manage the City's entire waste stream. The City is continuing with the EA study to ensure that the City can process the remainder of residual waste generated.

We look forward to receiving your input during this important study!

If you would prefer to receive future information and notifications via email, please forward your email address to nancy.maahs@aecom.com.

Please include the title "City of SSM Waste Disposal EA" in your message.



CONTACT US

Your input on this project is important to us. If you would like further information or to send comments, ask questions or be added to our mailing list, please contact us:

Mr. Rick Talvitie, P.Eng
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Mrs. Susan Hamilton Beach, P.Eng.
Land Development and Environmental Engineer
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THE CITY OF SAULT STE. MARIE

Notice of Public Information Centre

SOLID WASTE DISPOSAL ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its residual municipal solid waste. Work to date has included a thorough review of a number of waste management alternatives including increased waste diversion, incineration/high heat process, landfill, export waste and "do nothing". To identify a preferred waste management method, the alternatives were comparatively evaluated using the following seven criteria:

1. Compliance with current regulations and policies;
2. Environmental acceptability;
3. The ability of the City of Sault Ste. Marie to implement the preferred alternative;
4. Flexibility of the system;
5. Capability of managing waste quality and quantity;
6. Proven technical capacity; and
7. Cost.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative for the City has been identified as **increased waste diversion and landfilling of the residual waste**.

Residents currently divert approximately 34% of their waste from disposal and the City will continue to provide opportunities to improve on this diversion rate. The remaining 66% of residential waste and industrial, commercial and institutional wastes currently goes to the City landfill. In addition to the City's current diversion, the City has entered into a contract with a private corporation for the annual supply of 12,500 metric tonnes of municipal solid waste. This corporation intends to construct and operate a 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility will reduce the quantity of residual waste requiring disposal.

The results of the Environmental Assessment work completed to date suggest that landfill remains the most appropriate disposal option for the City's residual waste. Landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and recovered to generate electricity, landfills can manage the entire residual waste stream, are flexible to changes in waste quality and quantities and are cost effective.

PUBLIC INFORMATION CENTRE

A Public Information Centre is being held to provide an opportunity for you to discuss the project progress and have your questions or concerns addressed.

Date: Thursday, June 3, 2010
Location: Thompson Room
Civic Centre, 99 Foster Drive
Time: 3:30pm to 7:30 pm

THE NEXT STEPS

Over the summer the project team will be looking at options for landfilling residual waste. This work will include consideration of opportunities to expand the existing landfill or establish a new landfill site. In the Fall of 2010, we will be looking for public input on landfill options.

If you have any questions related to the study, please contact:

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Project Manager
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Phone: 705-942-2612
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Mrs. Susan Hamilton Beach, P. Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580, 99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on.ca

If you would like to receive future information and notifications via email, please forward your email address to nancy.maahs@aecom.com. Please include the title "City of SSM Waste Disposal EA" in your message.

THE CITY OF SAULT STE. MARIE

NOTICE OF PUBLIC INPUT SESSION

SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. In the evaluation of "Alternatives To the Undertaking", a thorough review of different waste management alternatives including increased waste diversion, incineration/high heat processes, landfill, export waste outside the service area, and "do-nothing" was completed. To identify a preferred approach to managing waste, the alternatives were comparatively evaluated using the following seven criteria:

1. Compliance with current regulations and policies;
2. Environmental acceptability;
3. The ability of the City of Sault Ste. Marie to implement the preferred alternative;
4. Flexibility of the system;
5. Capability of managing waste quality and quantity;
6. Proven technical capacity; and
7. Cost.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste. The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the entire residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

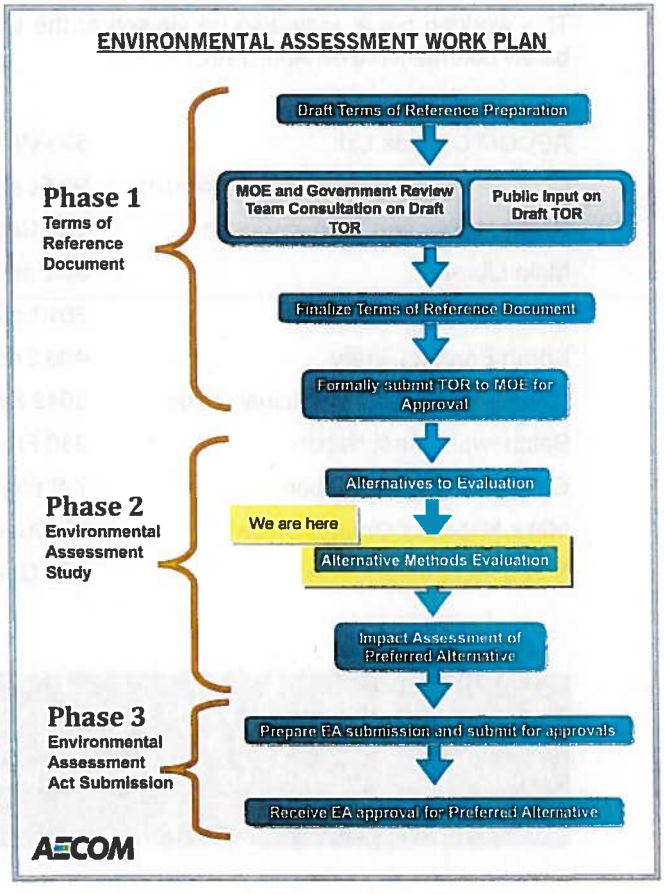
The flexibility of the preferred alternative is particularly important given the City's contract with The Elementa Group (an energy-from-waste service provider) for the annual processing of at least 12,500 metric tonnes of municipal solid waste. Elementa intends to construct and operate a new 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility in the future will reduce the quantity of residual waste requiring disposal in a landfill.

NEXT STEPS

The City remains committed to investigating, implementing and supporting programs to increase waste diversion through 3Rs initiatives. Since the implementation of 3Rs initiatives does not require Environmental Assessment (EA) Act approval, the EA study is now focusing on alternative methods of landfilling residual waste. The key objective of this phase of the study is to find an environmentally suitable location for the development of additional landfill capacity.

The first step to be completed in this phase consists of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. This step will provide initial focus to the search for additional landfill capacity.

A preliminary evaluation of these alternatives has been completed by the project team. We are now seeking input from the general public and Stakeholders regarding the evaluation criteria considered and the preliminary findings.



THE CITY OF SAULT STE. MARIE

NOTICE OF PUBLIC INPUT SESSION

SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

PUBLIC INPUT SESSION

If you are interested in discussing the alternatives and criteria that will be used to compare and select a preferred approach to landfilling residual waste in Sault Ste. Marie, Prince Township and Batchewana First Nation's Rankin Reserve, we encourage you to attend this public input session!

We will provide you with background information, update you on the City's achievements in increasing waste diversion and discuss with you the alternative approaches to landfilling residual solid waste. A principle objective of the session is to confirm whether the City should focus its efforts to obtain additional disposal capacity by expanding an existing landfill site or finding a location for a new site.

Background information documenting the work completed to date is available on the City website at **http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1**.
In addition, the alternatives and the evaluation criteria currently being considered are also available on the website in a working paper prepared for this session titled "Solid Waste Management Environmental Assessment - Alternative Methods – Step 1 (Landfill Expansion versus Development of a New Site).

This working paper may also be viewed at the locations noted below commencing on April 11th.

AECOM Canada Ltd.	523 Wellington Street
Civic Centre Engineering and Planning	99 Foster Drive, 5th Flr.
Public Works and Transportation	128 Sackville Road
Main Library	50 East Street
Churchill Branch Library	301 Lake Street
Korah Branch Library	496 Second Line
Township of Prince Municipal Office	3042 Second Line West
Batchewana First Nation	236 Frontenac Street
Garden River First Nation	7 Shingwauk Street
Metis Nation of Ontario Office	26 Queen Street East
Missanabie Cree Office	559 Queen Street East

YOU'RE INVITED!

Date:	Tuesday April 19, 2011
Location:	Civic Centre – Russ Ramsay Room
Time:	6:30 pm to 9:00 pm

Refreshments to be provided.

CONTACT US

We also encourage you to contact the individuals noted below if you have any specific questions.

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
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Email: rick.talvitie@aecom.com

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99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on.ca

Information pertaining to this session is available on the City of Sault Ste. Marie website at: **http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1**.
Hardcopies can also be obtained by contacting AECOM at 705-942-2612.

If you cannot attend the public input session in person, we still want to hear from you! Just go to the City's website (http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1), review the Alternatives Method - Step 1 Report and fill out our online questionnaire. A link to the online questionnaire is provided on the City's website.

THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. In the evaluation of "Alternatives to the Undertaking", a thorough review of different waste management alternatives including increased waste diversion, incineration/high heat processes, landfill, export waste outside the service area, and "do-nothing" was completed.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste. The preferred alternative was presented at an Open House in June, 2010.

NEXT STEPS

The next step consists of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. This step will provide initial focus to the search for additional landfill capacity.

A preliminary evaluation of these alternatives has been completed by the project team. We are now seeking input from the general public and stakeholders regarding the evaluation criteria considered and the preliminary findings.

PUBLIC INPUT SESSION

If you are interested in discussing the alternatives and criteria that will be used to compare and select a preferred approach to landfilling residual waste in Sault Ste. Marie, Prince Township and Batchewana First Nation's Rankin Reserve, we invite you to attend this public input session.

We will provide background information, update you on the City's achievements in increasing waste diversion and discuss the alternative approaches to landfilling residual solid waste.

Background documents including the working paper to be discussed at the public input session entitled "Solid Waste Management Environmental Assessment - Alternative Methods – Step 1 (Landfill Expansion versus Development of a New Site)" are available on the City's website at **www.cityssm.on.ca – Click City Hall Bulletins – Public Input Session – Solid Waste Management.**

CONTACT US

We encourage you to contact the individuals below if you have questions.

Mr. Rick Talvitie, P.Eng
Project Manager
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City of Sault Ste. Marie
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99 Foster Drive,
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Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on.ca

YOU'RE INVITED!

Date: Tuesday, April 19, 2011

Location: Civic Centre, 99 Foster Dr.
Russ Ramsay Board Room

Time: 6:30 to 9:00 p.m.

Refreshments provided.

If you cannot attend the public input session, we still want to hear from you! Go to the City's website www.cityssm.on.ca (Click City Hall Bulletins – Public Input Session – Solid Waste Management) to review the Alternatives Method - Step 1 Report and fill out the online questionnaire.

Talvitie, Rick

From: Talvitie, Rick
Sent: April 8, 2011 1:16 PM
To: lgagnon@missanabiecree.com
Cc: Susan Hamilton Beach; Kolli, Karla; Varghese, Betsy; Maahs, Nancy
Subject: City of Sault Ste. Marie Waste Management EA
Attachments: SSM_Newsletter 1page.pdf

Hi Lesley,

Susan Hamilton Beach of the City and I initially met with you on March 26, 2007 to discuss the City's Waste Management Environmental Assessment process. We have been in contact with you on several occasions since that original meeting and I wanted to take this opportunity to update you on the status of the project and invite you and your members to an upcoming public input session.

I have attached a Notice for your information and reference which explains the current status of the project. **The attached Notice also references a Public Input Session that is scheduled for April 19, 2011 in Sault Ste. Marie.**

We would like to take this opportunity to invite you, and your members to attend this public input session. The upcoming session will also be advertised through various media in advance of the event.

We encourage as much participation as possible and are hopeful that there will be some representation from your members. **To this end, we encourage you to post the attached notice on your website and download, print and post the Notice in prominent locations.**

We will also deliver, on April 11th, a hard copy of the "Solid Waste Management Environmental Assessment – Alternative Methods – Step 1 (Landfill Expansion versus Development of a New Site)" working paper which we ask you to make available for viewing at your office. We will also provide several hard copies of the Notice at that time.

We look forward to seeing representation from your members on April 19th!

Let me know if you have any questions or concerns.

Regards,

Rick Talvitie, P. Eng.
Manager, Sault Ste. Marie Office
rick.talvitie@aecom.com

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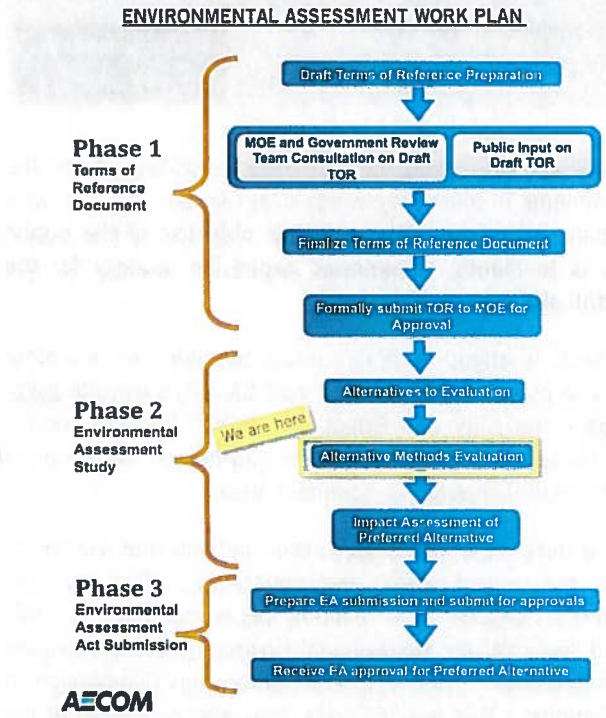
THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

ENVIRONMENTAL ASSESSMENT (EA) PROCESS

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. The EA Process is a transparent decision-making process used to promote good environmental planning by assessing potential effects of certain activities or projects on the natural and human environment. There are several phases and tasks involved in completing an EA as outlined in the graphic below.



The City is currently mid-way through Phase 2 of the EA Process and is interested in obtaining your input related to the current activities.

BACKGROUND

Phase 1 of the EA process included public consultation and culminated with the Ministry of Environments approval of the project Terms of Reference (ToR) in 2005. The ToR provides a framework or roadmap for completing the EA and summarizes the tasks and activities to be undertaken by the proponent.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the **preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.** The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the entire residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

The flexibility of the preferred alternative is particularly important given the City's contract with The Elementa Group (an energy-from-waste service provider) for the annual processing of at least 12,500 metric tonnes of municipal solid waste. Elementa is currently negotiating an energy purchase agreement and intends to construct and operate a new 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility in the future will reduce the quantity of residual waste requiring disposal in a landfill.

The City remains committed to investigating, implementing and supporting programs to increase waste diversion through 3Rs initiatives. Since the implementation of 3Rs initiatives does not require Environmental Assessment (EA) Act approval, the EA study is now focusing on alternative methods of landfilling residual waste. The key objective of this phase of the study is to find an environmentally suitable location for the development of additional landfill capacity.

The first step in this phase consisted of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. To identify a preferred approach to landfilling waste, the alternatives were compared using the following six criteria groups:

1. Natural environment;
2. Social-Cultural environment;
3. Economic environment;
4. Cost;
5. Technical considerations; and
6. Transportation.

A Public Input Session was held in April, 2011 to present the landfill alternatives being considered. **The evaluation and response from consultation concluded that an expansion of an existing landfill is generally preferred over construction of a new site.**

The study noted that an expansion requires less land, displaces fewer people and/or social/natural features, disrupts fewer people (ie. one site versus two sites creating nuisance impacts), costs less, typically encounters fewer challenges in gaining technical approvals, and reduces the number of facilities the City must manage.

THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

CURRENT ACTIVITIES

The second step in the Alternative Methods task focuses on the best approach to expand the existing landfill site at 402 Fifth Line East in the City of Sault Ste. Marie. Expansion options have been developed that make the best use of the existing site characteristics and the area available to expand. Options considered include horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining (excavate previously disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) or a combination of these methodologies.

A preliminary evaluation of the expansion options has been completed by the project team. We are now seeking input from the Community, government agencies, stakeholders, and First Nations regarding the evaluation criteria considered and the preliminary findings.

CONTACT US

You may also contact the Consultant Project Manager or the City's Land Development and Environmental Engineer by email, mail or telephone if you have questions or would like additional information.

Mr. Rick Talvitie, P.Eng
Project Manager
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523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

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Fax: 705-942-3642
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Email: c.taddo@cityssm.on.ca

HOW CAN I PROVIDE INPUT?

If you are interested in discussing the expansion options, the criteria used in the evaluation and the preliminary findings we encourage you to attend the upcoming public input session!

YOU'RE INVITED!

Date: Tuesday, March 6, 2012
Location: Civic Centre – 99 Foster Drive
Russ Ramsay Room
Time: 3:30PM to 7:30PM

Refreshments to be provided.

We will provide you with background information update you on the City's achievements in increasing waste diversion and discuss, with you, the expansion options. **The principle objective of the public consultation is to identify a preferred expansion strategy for the existing landfill site.**

If you are unable to attend the Public Input Session there are other opportunities to provide input. Please visit the City's website **www.cityssm.on.ca** - View City Hall Bulletins – Public Input Session – Solid Waste Management to obtain further information, complete an online questionnaire, or access a comment sheet.

In addition, a description of the expansion options, the evaluation criteria, and the project team's preliminary evaluation are also available on the website in a working paper prepared for this session titled "Solid Waste Management Environmental Assessment – Alternative Methods – Step 2 (Identification and Comparison of Expansion Options). This working paper may also be viewed at the locations noted below commencing on February 21, 2012.

AECOM Canada Ltd.	523 Wellington Street
Civic Centre Engineering and Planning	99 Foster Drive, 5th Flr.
Public Works and Transportation	128 Sackville Road
Main Library	50 East Street
Churchill Branch Library	301 Lake Street
Korah Branch Library	496 Second Line
Township of Prince Municipal Office	3042 Second Line West
Batchewana First Nation	236 Frontenac Street
Garden River First Nation	7 Shingwauk Street
Metis Nation of Ontario Office	26 Queen Street East
Missanabie Cree Office	559 Queen Street East

THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. To date significant progress has been made.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and **the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.** The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the entire residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

In April, 2011 a Public Input Session was held to present the non-site specific landfill alternatives being considered. **The evaluation and response from consultation concluded that an expansion of an existing landfill is generally preferred over construction of a new site.**

The study noted that an expansion requires less land, displaces fewer people and/or social/natural features, disrupts fewer people (ie. one site versus two sites creating nuisance impacts), costs less, typically encounters fewer challenges in gaining technical approvals, and reduces the number of facilities the City must manage.

CURRENT ACTIVITIES

Presently the project team is focusing on **the best approach to expand the existing landfill site at 402 Fifth Line East in the City of Sault Ste. Marie.** Expansion options have been developed that make the best use of the existing site characteristics and the area available to expand. Options considered include horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining (excavate previously disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) or a combination of these methodologies.

A preliminary evaluation of the expansion options has been completed by the project team. **We are now seeking input from the Community, government agencies, stakeholders, and First Nations regarding the evaluation criteria considered and the preliminary findings.**

PUBLIC INPUT SESSION

If you are interested in discussing the expansion options, the criteria used in the evaluation and the preliminary findings, we encourage you to attend the upcoming public input session!

We will provide you with background information, update you on the City's achievements in increasing waste diversion and discuss, with you, the expansion options. **The principle objective of the public consultation is to identify a preferred expansion strategy for the existing landfill site.**

The expansion options, the evaluation criteria, and the project team's preliminary evaluation are also available on the City's website (**www.cityssm.on.ca - View City Hall Bulletins – Public Input Session – Solid Waste Management**) in a working paper prepared for this session titled "Solid Waste Management Environmental Assessment - Alternative Methods – Step 2 (Identification and Comparison of Expansion Options). This working paper may also be viewed at the locations noted below commencing on February 21, 2012.

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Garden River First Nation	7 Shingwauk Street
Metis Nation of Ontario Office	26 Queen Street East
Missanabie Cree Office	559 Queen Street East

CONTACT US

We also encourage you to contact the individuals noted below if you have any specific questions.

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
Email: rick.talvitie@aecom.com

Ms. Catherine Taddo, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5380
Fax: (705) 541-7165
Email: c.taddo@cityssm.on.ca

YOU'RE INVITED!

Date: Tuesday, March 6, 2012
Location: Civic Centre – Russ Ramsay Room
Time: 3:30PM to 7:30PM

Refreshments to be provided.

If you cannot attend the public input session in person, we still want to hear from you! Just go to the City's website www.cityssm.on.ca - View City Hall Bulletins – Public Input Session – Solid Waste Management review the Alternatives Method – Step 2 Report and fill out our online questionnaire or comment sheet. A link to the online questionnaire is provided on the City's website.

AECOM

DILLON CONSULTING

Solid Waste Management Environmental Assessment

COUNCIL PRESENTATION

THE CORPORATION OF THE CITY OF SAULT STE MARIE CANADA

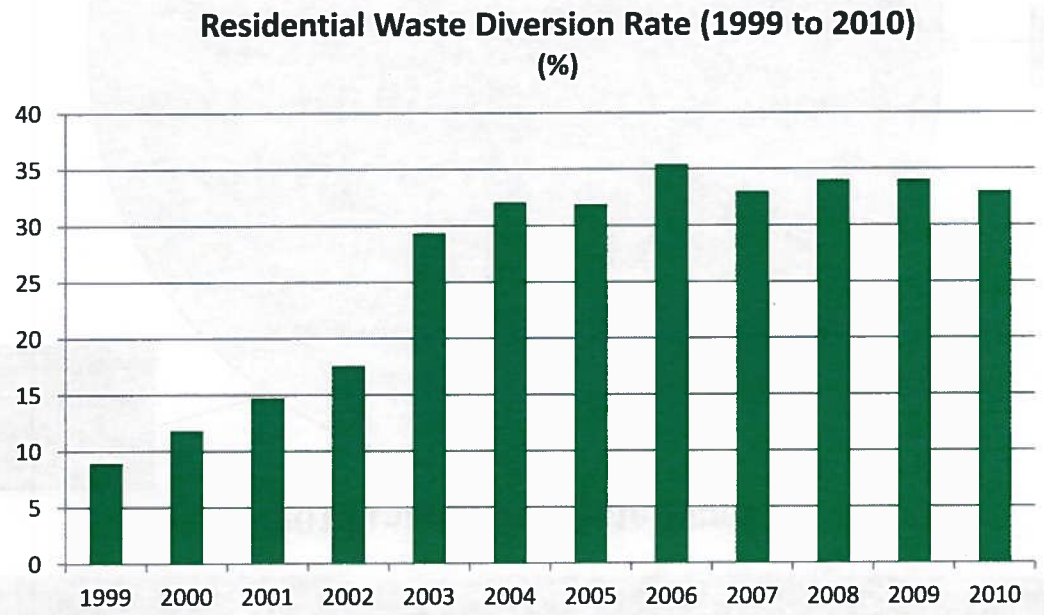
March, 2012

Objectives of the Presentation

- Provide Council and residents with an update on waste management planning activities and results;
- Review project need;
- Provide an overview of the Environmental Assessment process and where we are at in the process;
- Present the criteria and approach used in the evaluation of site expansion options;
- Present the preliminary results of the evaluation completed by the project team;
- Identify the next steps in the EA process; and
- Answer your questions.

Project History - Diversion

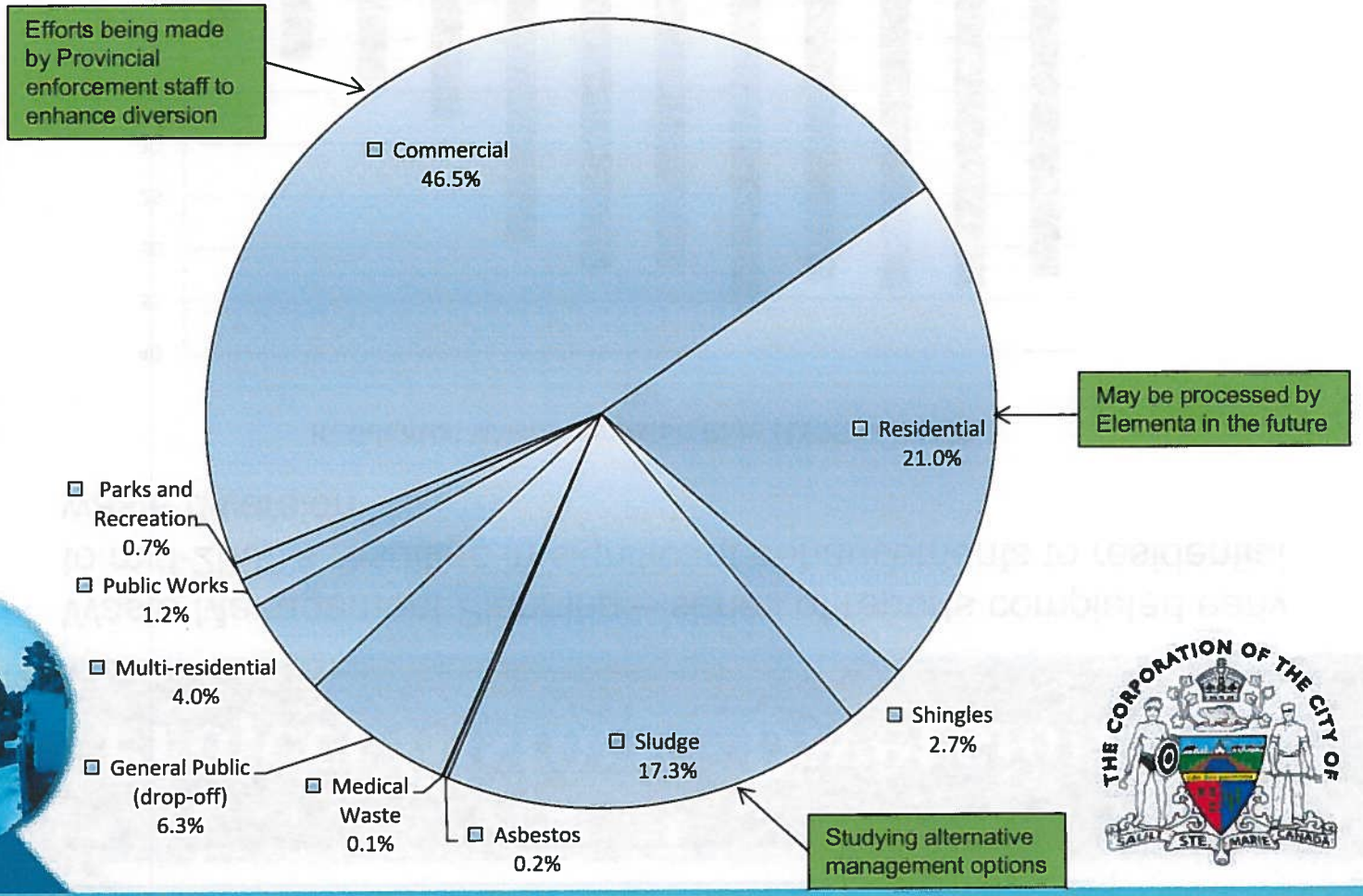
- Waste Management Planning – series of reports completed early to mid-2000's resulting in significant enhancements to residential waste diversion



Increased residential diversion rate from 9% in 1999 to 33% to 35% in recent years

Project History - Diversion

2010 Landfilled Waste Types



Project History - Project Need

- **The estimated remaining service life of the existing landfill is 7 to 10 years depending on future population changes, in-situ subsidence and waste generation, diversion and disposal rates. The low end of this range is used for planning purposes.**
- Despite significant success in enhancing waste diversion, additional disposal capacity is required.

What is an EA?

Purpose = *"to protect the environment and quality of life of the people of the province; and facilitate the wise management of the natural resources of the province".*

- The EA Process is a transparent decision-making process used to promote good environmental planning by assessing potential effects of certain activities or projects on the natural and human environment. The EA process serves several important purposes:
  - Allowing projects to receive input from a wide variety of sources, including the federal, provincial and municipal levels of government, First Nations, stakeholders and the public.
  - Identifying potential problems prior to construction
  - Promoting good environmental planning practices
  - Improving community acceptance
  - Better protecting the environment

AECOM

DILLON CONSULTING

Project History

- MOE approval of EA ToR in late 2005
- EA work initiated by AECOM/Dillon – summer 2006
- "Alternatives To" (functionally different ways of managing waste) work completed and public consultation undertaken in summer of 2007
- Late 2008 to spring 2010 - Project delayed to allow time for the Enquest pilot project to mature
- Fall 2009 - City endorses waste supply agreement with Elementa
- City approval to resume EA process - Elementa will generate residual waste and is unable to manage the entire waste disposal quantity
- Spring 2010 – announced the preferred "Alternative To"

THE CORPORATION OF THE CITY OF SAULT STE. MARIE CANADA

Project History – Selected "Alternative TO"

Based on the results of the evaluation and input received the preferred long-term approach to managing waste in SSM is:

- Increased 3Rs (Reduce/Reuse/Recycle)
- Landfilling residual waste

Why?

- Can comply with regulations and policies
- City is experienced with these waste management initiatives
- Flexible to changes in the waste stream (e.g. population, waste generation, diversion)
- Can accept most residual waste from a Waste-to-Energy facility
- Cost efficient

The EA will now focus on identifying and evaluating alternative methods of landfilling waste (i.e. alternative locations and designs)

AECOM

DILLON CONSULTING

Project History

- Conducted a Public Information Session in June 2010 to announce the selected Alternative To
- Initiated the Alternative Methods Phase (alternative locations and designs)
- Completed a generic non-site specific evaluation of developing a new landfill versus expanding an existing site (Step 1)
- Consulted with the public in the spring of 2011regarding the generic options

THE CORPORATION OF THE CITY OF SAULT STE. MARIE CANADA

Project History – Preferred Landfilling Method

Based on the results of the evaluation and input received the preferred method of landfilling waste = expansion of an existing site

Why?

- Likely less potential for displacement and disruption
- Only one landfill site to manage and maintain
- Cost effective
- Community adaptation
- Likely fewer challenges in gaining approvals

The EA will now focus on how to best expand the existing site

Overview of Expansion Options

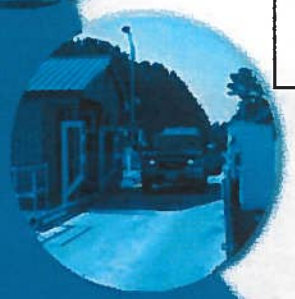
- Expansion options have been developed that make the best use of the existing site characteristics and the area available to expand.
- Options considered include horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining or a combination of these methodologies.
- All options include enhancements to better control groundwater quality related to the existing site.
- Some options require replacement/relocation of existing on-site infrastructure and some require enhanced compaction to provide the target disposal capacity

Evaluation of Expansion Options

- The evaluation has been completed using a two-step approach:
  - Step 1 – identify a preferred expansion area and shape;
  - Step 2 – assess the pros and cons of incorporating landfill mining.
- Mining involves excavation of previously disposed waste and cover material. Mined waste is fed through screens which separates coarse waste from fine materials. Recyclables are separated and sent for processing, remaining residual waste disposed of in the disposal site and fines (primarily sand) are stockpiled for use as cover.

Evaluation Criteria Groups

Criterion	Definition
Natural Environment	Addresses the potential for displacement and/or disruption of natural environmental features (terrestrial features, aquatic features, ground water and surface water)
Social Cultural Environment	Addresses the potential for displacement and/or disruption of social/cultural environmental features (residents, community features, future land use plans, heritage and archaeological resources, public health and safety)
Economics	Addresses the potential for displacement and/or disruption of existing businesses and resources (agriculture, forestry, mining)
Cost	Considers the lifecycle cost of the alternative.
Technical Considerations	Considers technical aspects of each option including impacts on existing site infrastructure and ease of site development.
Transportation	Considers the impacts of traffic volumes accessing the site and potential impacts to the airport and the movement of farm equipment.

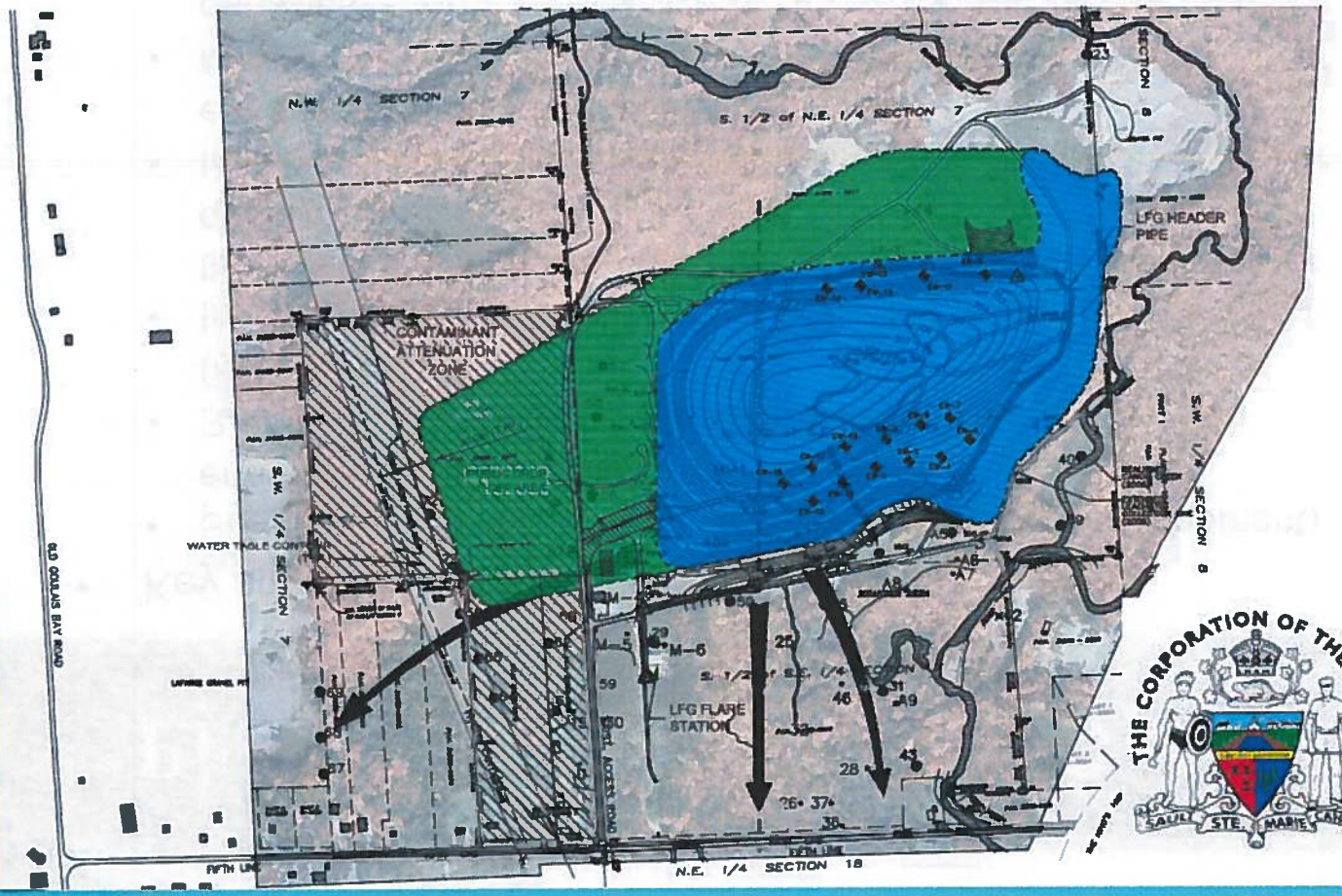


Evaluation of Expansion Options

- Data collection and analysis
- Technical disciplines initially compare options relative to each other and rank them under each criterion
- Present the evaluation in a table or matrix format with the rationale for the rankings
- Present to the public and solicit input from community members, stakeholders, First Nations, and governmental agencies
- Make adjustments to the evaluation based on input received
- Select a preferred option

Preliminary Preferred Expansion Option

- On the basis of the **preliminary** evaluation, the preliminary preferred expansion option is presented below



Preliminary Preferred Option

- Key advantages relative to other options include:
  - Site development (i.e. geometry and storm water management) enhanced relative to Options 2 and 4.
  - Reduced average excavation depth in west expansion area (i.e.11m).
  - Includes a liner beneath the waste within the western portion of the existing disposal footprint enhancing long term groundwater quality.
  - Includes a liner over existing waste in areas of overlap to further enhance groundwater quality.
  - Meets target capacity at current estimated waste densities.

Next Steps

- Solicit governmental, community First Nation and stakeholder input on the preliminary preferred expansion option – do you agree/disagree – why?
- Re-assess (if needed) and finalize the Step 2 evaluation based on input received
- Announce the preferred Step 2 - Alternative Method (i.e. preferred expansion option)
- Initiate a detailed impact assessment for the preferred option
- Continue to investigate ways to improve waste diversion through 3Rs initiatives

February 17, 2012 Delivered w/ report

Mr. Kim Rainville
Missanabie Cree
559 Queen Street East
Sault Ste. Marie, Ontario
P6A 2A3

Dear Mr. Rainville:

Project No: 60117627 (60395)

Regarding: City of Sault Ste. Marie
Waste Management Environmental Assessment

We last contacted you in April, 2011. To date a considerable level of study has been completed in developing and assessing the preferred approach to managing waste in the City of Sault Ste. Marie. The work completed to date has resulted in the following observations:

- The preferred approach to managing waste in the future is through increased waste diversion (ie. 3R's - reduction, reuse and recycling) and landfilling and remaining residual waste. (Note: the City has also endorsed an agreement with an independent waste-to-energy vendor to process a portion of the municipal solid waste using their steam reformation process).
- Given the challenges in siting a new landfill it is preferred to initially focus resources on developing strategies to expand the City's existing landfill at 402 Fifth Line East.

Expansion options have been developed that make the best use of the existing site characteristics and the area available to expand. In general, the options considered include horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining (excavate existing disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) or a combination of these methodologies.

A preliminary evaluation of five options has been completed by the project team. Based on the results of the preliminary evaluation, the preliminary preferred approach is a moderate vertical expansion and a north and west expansion of the existing disposal footprint. The preliminary preferred option also includes landfill mining within the western portion of the existing disposal footprint.

We are now seeking input from Government agencies, stakeholders, First Nations and the general public regarding the evaluation criteria considered and the preliminary findings. We would like to obtain as much input as possible from your community members. We will be conducting a public

input session in Sault Ste. Marie as outlined below. Everyone is welcome to attend. We have attached a Notice of the Public Input Session which can be printed and posted in prominent locations that are typically accessed by your members. In addition, we encourage you to post the Notice on your website.

You are also encouraged to view the **Project Newsletter**, and/or the **Solid Waste Management Environmental Assessment - Alternative Methods – Step 2 (Identification and Comparison of Expansion Options)** report and/or the March 6th **Public Input Session displays**. A copy of these documents are attached for your information and reference. These documents are also available electronically on the City's website at www.cityssm.on.ca

Details of the Public Input Session to be held in Sault Ste. Marie are provided below:

Location:	Russ Ramsay Room, Civic Centre, 99 Foster Drive
Date/Time:	Tuesday, March 6, 2012 - 3:30 pm to 7:30pm
Format:	Open House - come any time between the times noted, view the displays, ask questions of the project team and provide input at the open house or at a later date.

If you are unable to attend the March 6th session we also encourage community input through other means as outlined below.

There is an online survey available at http://www.surveymonkey.com/s/R3DTZ8R or alternatively you can send us your comments by email. Please include **"City of SSM Waste Management EA – Comments"** in the subject line of your email message.

We would appreciate receiving your input by April 6, 2012.

As always, we would also be pleased to meet with you at your convenience to discuss the project details. Please contact our office by telephone or email to arrange a meeting.

Sincerely,
AECOM Canada Ltd.

Rick Talvitie, P. Eng.
Project Manager

RT:nm

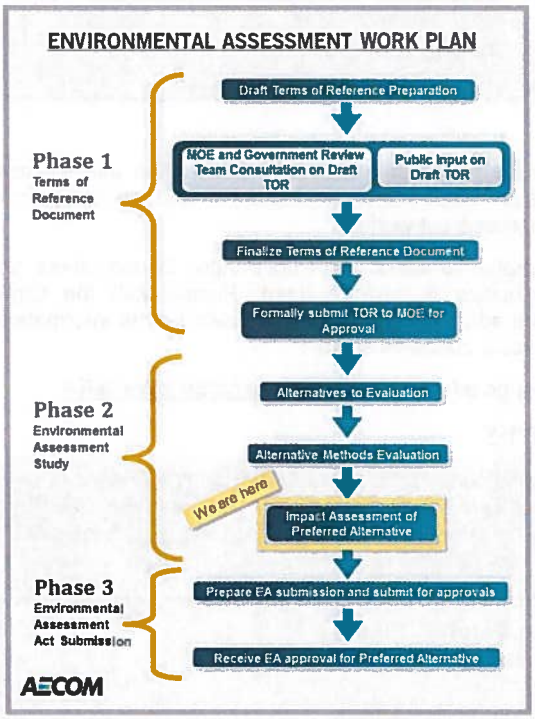
Encl.

cc: C. Taddo, City Engineering
K. Kolli, Dillon Consulting

THE CITY OF SAULT STE. MARIE
JANUARY, 2016 NEWSLETTER
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

ENVIRONMENTAL ASSESSMENT (EA) PROCESS

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. The EA Process is a transparent decision-making process used to promote good environmental planning by assessing potential effects of certain activities or projects on the natural and human environment. There are several phases and tasks involved in completing an EA as outlined in the graphic below.



The City is finalizing Phase 2 of the EA Process and is currently preparing the EA submission. **We are interested in obtaining your input related to the current activities.**

BACKGROUND

Phase 1 of the EA process included public consultation and culminated with the Ministry of Environment and Climate Change's (MOECC) approval of the project Terms of Reference (ToR) in 2005. The ToR provides a framework or roadmap for completing the EA and summarizes the tasks and activities to be undertaken by the proponent.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and **the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.** The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

The City remains committed to investigating, implementing and supporting programs to increase waste diversion through 3Rs initiatives. Since the implementation of 3Rs initiatives does not require EA Act approval, the EA study turned its focus to alternative methods of landfilling residual waste. The key objective of this phase of the study is to find an environmentally suitable location for the development of additional landfill capacity.

The first step in this phase consisted of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. To identify a preferred approach to landfilling waste, the alternatives were compared using the following seven criteria groups:

1.	Natural environment	5.	Capability of managing waste quality and quantity
2.	Social-cultural environment	6.	Proven technical capacity
3.	Economic environment	7.	Cost
4.	Flexibility of the system		

A Public Input Session was held in April, 2011 to present the landfill alternatives being considered. **The evaluation and response from consultation concluded that an expansion of an existing landfill is generally preferred over construction of a new site.**

The study noted that an expansion requires less land, displaces fewer people and/or social/natural features, disrupts fewer people (i.e., one site versus two sites creating nuisance impacts), costs less, typically encounters fewer challenges in gaining technical approvals, and reduces the number of facilities the City must manage.

The second step in the Alternative Methods task focused on the best approach to expand the City's existing landfill site at 402 Fifth Line East by identifying and comparatively evaluating site expansion alternatives. Options considered included horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining (excavate previously disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) or a combination of these methodologies. A Public Input Session was held March, 2012 to obtain feedback on the evaluation criteria and the preliminary findings.

The evaluation and response from consultation concluded the preferred site expansion alternative consists of a modest increase in the height of the waste, an expansion of the disposal footprint to the west and north and mining a portion of the existing waste to enhance groundwater quality. All mined and expansion areas will include the

construction of a liner beneath the waste to collect leachate (precipitation contaminated as it filters through waste) and ultimately direct it to the City's sewage treatment plant for treatment.

Current Activities

The last part of Phase 2 involves assessing the potential impacts of the conceptual design and planned operation of the preferred site expansion alternative and identification of suitable mitigating measures. Multiple disciplines were involved to assess the various potential impacts of the expansion on site, off site, in the vicinity and along the access route. The access route was considered to be along Fifth Line from Highway 17 to the site (which is the same route used today). Measures to reduce or eliminate potential effects on the environment were recommended.

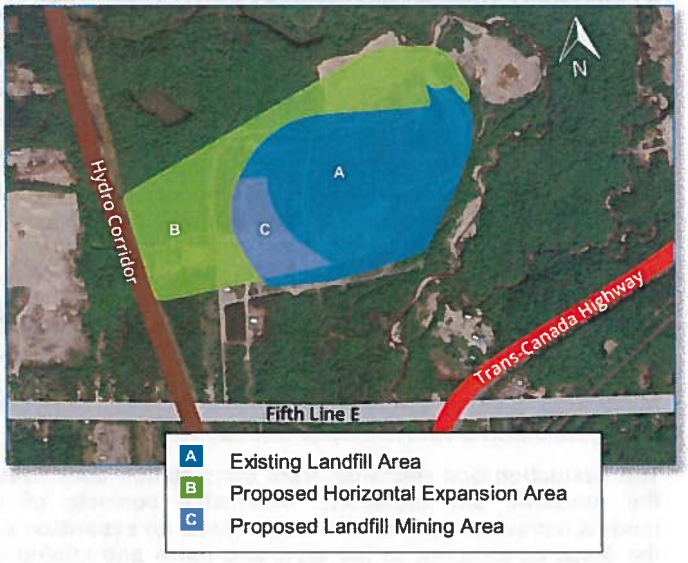
The disciplines that were involved include:

Natural Environment
- Biology
- Geology / hydrogeology
- Surface water

Socio-Cultural Environment
- Cultural (archaeology and heritage)
- Social
- Planned land use
- Visual
- Atmospheric (dust, noise, air quality)

Economic
- Businesses
- Transportation

Conceptual Layout of Proposed Landfill Expansion Area



HOW CAN I PROVIDE INPUT?

We will be hosting a Public Open House where you will learn about the results of the impact assessment work and we will ask for your feedback. If you are interested in discussing the project, we encourage you to attend the upcoming public open house!

YOU'RE INVITED!

Date:	*Tuesday, February 9, 2016*
Location:	*Civic Centre – 99 Foster Drive* *Russ Ramsay Room*
Time:	*3:30 pm to 7:30 pm*

Refreshments to be provided.

We will provide you with background information and discuss, with you, the preferred site expansion option and the results from the impact assessment work.

If you are unable to attend the Public Input Session there are other opportunities to provide input. Please visit the City's website at the address noted below to obtain further information, and / or access a comment sheet.

Project webpage address: saultstemarie.ca/SolidWasteEA

CONTACT US

You may also contact the Consultant Project Manager or the City's Land Development and Environmental Engineer by email, mail or telephone if you have questions or would like additional information.

Mr. Rick Talvitie, P.Eng.
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Email: rick.talvitie@aecom.com

Ms. Catherine Taddo, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580, 99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5380
Email: c.taddo@cityssm.on.ca

THE CITY OF SAULT STE. MARIE

NOTICE OF PUBLIC INPUT SESSION

SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. To date significant progress has been made.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and **the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.** The preferred alternative was presented at an Open House in June, 2010.

The study noted:

- landfills can be designed and operated to comply with regulations and policies;
- landfill gas can be collected and flared or recovered to generate electricity;
- landfills can manage the entire residual waste stream;
- landfills are flexible to changes in waste quality and quantities; and
- landfilling is cost effective.

In April, 2011 a Public Input Session was held to present the non-site specific landfill alternatives being considered. **The evaluation, which considered responses from consultation, concluded that an expansion of an existing landfill is generally preferred over construction of a new site.**

The study noted:

- an expansion requires less land;
- displaces fewer people and/or social/natural features;
- disrupts fewer people (i.e. one site versus two sites creating nuisance impacts);
- costs less;
- typically encounters fewer challenges in gaining technical approvals; and
- reduces the number of facilities the City must manage.

In March 2012 a Public Input Session was held to present the preliminary preferred approach to expanding the existing landfill at 402 Fifth Line East in the City of Sault Ste. Marie. **The evaluation, which considered responses from consultation, concluded that an expansion is best accommodated with a moderate increase in the height of the waste together with and expansion of the disposal footprint to the north and west. The preferred option also includes landfill mining (excavate existing disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) in the western portion of the existing disposal footprint to enhance groundwater protection. All mined and expansion areas will include the construction of a liner beneath the waste to collect leachate (precipitation contaminated as it filters through waste) and ultimately direct it to the City's sewage treatment plant for treatment.**

CURRENT ACTIVITIES

Presently the project team is focusing on **completing an impact assessment for the preferred expansion option.** The impact assessment includes expertise from numerous disciplines and focusses on potential impacts to the natural and human environments associated with the construction and operation of the proposed expansion. Careful attention is given to best management practices to mitigate potential impacts.

We are now seeking input from the Community, government agencies, stakeholders, and First Nations regarding the results of our impact assessment work and the proposed mitigation measures.

PUBLIC INPUT SESSION

If you are interested in discussing the impact assessment work, we encourage you to attend the upcoming public open house! We will provide you with background information and discuss with you, the preferred site expansion option and the results of the impact assessment work.

CONTACT US

We also encourage you to contact the individuals noted below if you have any specific questions.

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4
Phone: 705-942-2612
Fax: 705-942-3642
Email: rick.talvitie@aecom.com

Ms. Catherine Taddo, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1
Phone: (705) 759-5380
Fax: (705) 541-7165
Email: c.taddo@cityssm.on.ca

YOU'RE INVITED!

Date: Tuesday February 9, 2016

Location: Civic Centre – Russ Ramsay Room

Time: 3:30 pm to 7:30 pm

Refreshments to be provided.

If you cannot attend the public open house, we still want to hear from you! Just go to the project webpage (address provided below) to review the project reference material and fill out a comment sheet or simply send us an email (email addresses provided above). Project webpage address: saultstemarie.ca/SolidWasteEA

January 20, 2016

Mr. Kim Rainville
Missanabie Cree
559 Queen Street East
Sault Ste. Marie, Ontario
P6A 2A3

Dear Mr. Rainville:

Project No: 60117627 (60395)

Regarding: City of Sault Ste. Marie
Waste Management Environmental Assessment
Impact Assessment for the Preferred Expansion Option

We last contacted you in February, 2012. To date, a considerable level of study has been completed in developing and assessing the preferred approach to managing waste in the City of Sault Ste. Marie. The work completed to date has resulted in the following observations:

- The preferred approach to managing waste in the future is through increased waste diversion (ie. 3R's - reduction, reuse and recycling) and landfilling any remaining residual waste.
- The preferred approach to landfilling residual waste is an expansion of the existing City owned and operated disposal site located at 402 Fifth Line East in the City of Sault Ste. Marie.
- The preferred expansion option incorporates a moderate increase in the height or elevation of the waste and an expansion of the disposal footprint to the north and west of the existing footprint. The preferred option also includes landfill mining within the western portion of the existing disposal footprint to enhance groundwater protection. This process involves excavating existing disposed waste and cover material, recovering earthen material or "fines" and returning the waste to the disposal footprint. All mined and expansion areas will include the construction of a liner beneath the waste to collect leachate (precipitation contaminated as it filters through waste) and direct it to the City's sewage treatment plant for treatment. The existing disposal footprint and proposed mining and expansion areas are highlighted in a figure in the attached Newsletter.

We have now completed a detailed impact assessment for the preferred expansion option. The detailed impact assessment is a focussed investigation and analysis to identify potential environmental impacts resulting from the construction or operational changes associated with the proposed expansion. The impact assessment also considered opportunities for enhanced mitigation that otherwise would not likely be implemented in the absence of the proposed expansion.

Eleven reports were prepared which included expertise in the following disciplines:

- Biology (terrestrial and aquatic)
- Geotechnical
- Groundwater
- Atmospheric (acoustic and air quality)
- Surface water
- Socio-economic
- Visual
- Traffic
- Archaeological/Cultural
- Planned land use

We are now seeking input from Government agencies, stakeholders, First Nations and the general public regarding the impact assessment work. We would like to obtain as much input as possible from your community members. **We will be conducting a public open house in Sault Ste. Marie as outlined below. Everyone is welcome to attend.** We have attached a Notice of the Public Input Session which can be printed and posted in prominent locations that are typically accessed by your community members. In addition, we encourage you to post the Notice on your website.

You are also encouraged to view the **Project Newsletter**, and the February 9th **Public Open House displays**. Copies of these documents are attached for your information and reference. These documents are also available electronically on the City's website at saultstemarie.ca/SolidWasteEA.

Details of the Public Open House to be held in Sault Ste. Marie are provided below:

Location:	Russ Ramsay Room, Civic Centre, 99 Foster Drive
Date/Time:	Tuesday, February 9, 2016 - 3:30 pm to 7:30pm
Format:	Open House - come any time between the times noted, view the displays, ask questions of the project team and provide input at the open house or at a later date.

If you are unable to attend the February 9th session we also encourage community input through other means. Please review the project materials at the link provided above and access a comment sheet to provide feedback or simply send the project team an email (rick.talvitie@aecom.com). Please include "**City of SSM Waste Management EA – Comments**" in the subject line of your email message. We have also included a copy of the comment sheet that can be reproduced for use by your members if desired.

We would appreciate receiving your input by March 11, 2016.

As always, we would also be pleased to meet with you at your convenience to discuss the project details. Please contact our office by telephone or email to arrange a meeting.

Sincerely,
AECOM Canada Ltd.

Rick Talvitie, P. Eng.
Project Manager
RT:nm
Encl.

cc: C. Taddo, City Engineering
K. Kolli, Dillon Consulting

Talvitie, Rick

From: Talvitie, Rick
Sent: Wednesday, May 04, 2016 7:41 AM
To: 'cclement@missanabiecree.com'
Subject: City of Sault Ste. Marie Waste Management EA
Attachments: January 2016 correspondence w missanabie cree.pdf

Good Morning Cathy,

The City of Sault Ste. Marie is proceeding with a Waste Management Environmental Assessment. The study dates back to 2007 and is now well advanced.

In January 2016 we forwarded the attached package to Chief Gauthier and I am just taking the opportunity to follow-up with you.

The attached newsletter provides a good overview of what has been accomplished to date and the current status of the project. In general however the preferred approach to managing waste within Sault Ste. Marie and the surrounding area is to continue to focus on reducing the amount of waste being disposed of through 3R's (reduce, reuse, recycle) initiatives and landfilling residual waste. To accommodate future landfilling an expansion of the City's existing landfill is proposed and we have recently completed an impact assessment for the preferred expansion concept. Details of the impact assessment were recently presented to City of Sault Ste. Marie council and a public input session was undertaken to solicit input.

We look forward to hearing back from you if there is an interest in the project.

Regards,

Rick Talvitie, P. Eng.
Manager, Northern Ontario
rick.talvitie@aecom.com

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May 17, 2017

Mr. Jason Gauthier, Chief
Missanabie Cree
559 Queen Street East
Sault Ste. Marie, Ontario
P6A 2A3

Dear Mr. Gauthier:

Project No: 60117627 (60395)

Regarding: City of Sault Ste. Marie
DRAFT Waste Management Environmental Assessment Report

The City of Sault Ste. Marie is continuing to move forward with its Waste Management Environmental Assessment. We last contacted you in January, 2016 when we completed an impact assessment for the preferred landfill expansion option.

To date, a considerable level of study has been completed in developing and assessing the preferred approach to managing waste in and around the City of Sault Ste. Marie. The work completed to date has resulted in the following observations:

- The preferred approach to managing waste in the future is through increased waste diversion (ie. 3R's - reduction, reuse and recycling) and landfilling any remaining residual waste.
- The preferred approach to landfilling residual waste is an expansion of the existing City owned and operated disposal site located at 402 Fifth Line East in the City of Sault Ste. Marie.
- The preferred expansion option incorporates a moderate increase in the height or elevation of the waste and an expansion of the disposal footprint to the north and west of the existing footprint. The preferred option also includes landfill mining within the western portion of the existing disposal footprint to enhance groundwater protection. This process involves excavating existing disposed waste and cover material, recovering recyclables and earthen material or "fines" and returning the waste to the disposal footprint. All mined and expansion areas will include the construction of a liner beneath the waste to collect leachate (precipitation contaminated as it filters through waste) and direct it to the City's sewage treatment plant for treatment. The existing disposal footprint and proposed mining and expansion areas are highlighted in a figure in the attached Notice.

The City has now completed a Draft Environmental Assessment Report to document the project. This document explains the decision making process, results of the studies and input received

through the consultation process. Details of the proposed landfill expansion, potential impacts to the environment and commitment to mitigate these impacts is also included in the Draft EA.

We are now seeking input from Government agencies, stakeholders, Aboriginal Communities and the general public regarding the Draft Report. We have attached a Notice of the Draft EA completion and we encourage you to share this Notice with your members.

We will be delivering a copy of the completed Draft EA Report to the Sault Ste. Marie office prior to May 24, 2017. **It would be appreciated if you could also make this document available to your members.** This Draft EA reports is also available electronically on the City's website at saultstemarie.ca/SolidWasteEA.

We would appreciate receiving your input by July 7, 2017.

As always, we would also be pleased to meet with you at your convenience to discuss the project details. Please contact our office by telephone or email to arrange a meeting.

Sincerely,
AECOM Canada Ltd.

Rick Talvitie, P. Eng.
Project Manager
RT:nm
Encl.

cc: C. Taddo, City Engineering
K. Kolli, Dillon Consulting

Description of Communication	Date	Comments / Questions / Issues	Response / How Addressed	Where Addressed in the EA	Reference Material	Outstanding Issues to be Addressed
Metis Nation of Ontario						
• Newsletter No.1 - Notice of Commencement of Phase 2 of the EA Process	October, 2006	No comments were received.			Newsletter No. 1 – Appendix M	
• Meeting between TSH (Rick Talvitie), City of SSM (Susan Hamilton Beach) and Metis Nation of Ontario representative (Brent McHale) to provide an update on project progress and discuss strategies for outreach to members.	March 26, 2007	• B. McHale noted that service in the outlying areas and leachate management are issues that should be addressed in the EA. • B. McHale suggested he and the President of the Metis Nation of Ontario attend the proposed Public Input Session.	• R. Talvitie responded that a study was initiated to address waste management in the Sault North Planning Area. • Leachate management will be addressed in the study process. • Newsletter to be forwarded with particulars regarding Public Input Session and possibility of advertising the event in the Metis Nation of Ontario newsletter and website.	Section 7.2.2 address the impact assessment related to groundwater resources and highlights the proposed mitigation and anticipated net effects. Sections 8.1.1 describes the proposed monitoring programs to assess and monitor the effectiveness of the proposed mitigation	Metis Nation of Ontario Consultation Strategy Meeting Report dated April 2, 2007 – Appendix M	
• Correspondence – Letter mailed to Metis Nation of Ontario representative (Michele D.) notifying her of the upcoming Public Input Session in Sault Ste. Marie and inviting participation from Community members. Included for distribution were digital and hard copies of the Notice of Public Input Session being conducted to provide updates on diversion improvements and to discuss “Alternatives To” and criteria to be used in the evaluation	June 11, 2007	• No comments were received.			Letter to Metis Nation of Ontario from R. Talvitie regarding Notice of Public Input Session No. 1, June 11, 2007 – Appendix M	
• Correspondence – Email follow up with Metis First Nation representative (Michele D.) to the June 11, 2007 letter requesting Notices be posted in prominent locations and encouraging attendance at the Public Input Session.	June 15, 2007	• No comments were received.			Email to Metis Nation from R. Talvitie dated June 15, 2007 – Appendix M	
• Public Input Session No. 1- First public open house to provide updates on diversion improvements and to discuss “Alternatives To” and criteria to be used in the evaluation.	June 26, 2007	• No comments were received.			Records from June 26, 2007 PIC – Appendix F	
• Correspondence – Newsletter No. 2 and Notice of Public Input Session - Project Update and information regarding the upcoming June 3, 2010 PIC which is intended to identify the preferred “Alternative To”, discuss the project progress and have questions or concerns addressed.	May, 2010	• No comments were received.			Solid Waste Disposal Environmental Assessment Newsletter No. 2 and Notice of Public Information Centre – Appendix M	

• Correspondence – Notice of Public Input Centre No. 2 – Information on project background, update on project, overview of the next steps to be taken and information about June 3, 2010 PIC. Purpose is to provide an opportunity to discuss the project progress and have questions or concerns addressed.	May, 2010	• No comments were received.			Notice of Public Information Centre – Appendix M	
• Public Input Session No. 2 – Conducted to communicate the preferred “Alternative To” and provide an opportunity to discuss the project progress and have questions or concerns addressed.	June 3, 2010	• No comments were received.			Records from June 3, 2010 – Appendix H	
• Correspondence –Notice of Public Input Session - Project Update and information regarding the upcoming April 19, 2011 PIC which is intended to solicit input and feedback on the alternative approaches to landfilling residual waste (i.e. expand existing disposal site versus a new site)..	April, 2011				Solid Waste Disposal Environmental Assessment Notice of Public Input Session – Appendix M	
• Correspondence – Emails to Metis Nations of Ontario representatives (Shauna Hansen and Michele D.) attaching Newsletter and informing of upcoming April 19, 2011 PIC. Encouraged posting of PIC Notice at prominent locations and on their website. Noted we would deliver a copy of the “Solid Waste Management Environmental Assessment – Alternative Methods – Step 1 (Landfill Expansion versus Development of New Site)” report.	April 8, 2011	• No comments were received.			Emails dated April 8, 2011 to Metis Nation from R. Talvitie – Appendix M	
• Public Input Session No. 3 - Conducted to provide an opportunity to discuss the project progress, solicit input and feedback on the alternative approaches to landfilling residual waste (i.e. expand existing disposal site versus a new site)., and to address questions or concerns.	April 19, 2011	• No comments were received.			Records from April 19, 2011 PIC – Appendix I	
• Correspondence –Notice of Public Input Session - Project Update and information regarding the upcoming March 6, 2012 PIC which is intended to solicit input and feedback on the alternative approaches to expanding the existing disposal site.	February, 2012				Solid Waste Disposal Environmental Assessment Notice of Public Input Session – Appendix M	
• Correspondence – Letter to Metis Nation of Ontario representative (Shauna Hansen) updating the project status and advising of the upcoming Public Input Session No. 4 which is being conducted to discuss the project progress and solicit input and feedback on a preferred expansion strategy for the existing landfill site. The correspondence included the most recent Newsletter, Notice of	February 17, 2012	• No comments were received.			Letter dated February 17, 2012 to Metis Nation from R. Talvitie – Appendix M	

upcoming PIC, Solid Waste Management Environmental Assessment – Alternative Methods – Step 2 (Identification and Comparison of Expansion Options) report, March 6, 2012 PIC displays and link to a survey.						
• Public Input Session No. 4 - Conducted to discuss project progress and to solicit input and feedback on a preferred expansion strategy for the existing landfill site.	March 6, 2012	• No comments were received.			Records from March 6, 2012 PIC – Appendix J	
• Correspondence – Newsletter and Notice advising of Feb. 9, 2016 Public Input Centre No. 5 intended to discuss project progress and solicit input and feedback on the impact assessment work.	January, 2016	•			Solid Waste Disposal Environmental Assessment January 2016 Newsletter and Notice of Public Input Session – Appendix M	
• Correspondence - Letter to Metis Nation of Ontario (Shauna Hansen) updating project status and requesting input and feedback on the impact assessment reports. Also advised of upcoming February 9th PIC and offered to meet to discuss project details.	January 20, 2016	• No comments were received.			Letter dated January 20, 2016 to Shauna Hansen, Metis Nation from R. Talvitie – Appendix M	
• Public Input Session No. 5 - Conducted to discuss project progress and to solicit input and feedback on the impact assessment work.	February 9, 2016	• No comments were received.			Records of February 9, 2016 PIC – Appendix K	
• Met with representatives of Metis Nation to provide overview of project.	April 5, 2016	• The process has changed, and a consultation committee has been formed. Jesse Fieldwebster requested that information be forwarded to the Committee for the consideration.	• Met with local representatives in the past and have continued to deliver project information and updates to them.			
• Correspondence – Email to Metis nation of Ontario representative (Jesse Fieldwebster) summarizing the work completed to date and current status of project. Confirmed submission of package of recent materials pertaining to project to local MNO office and also attached package. Provided link to project webpage which includes additional project details and documentation.	April 11, 2016	• No comments were received.			Email dated April 11, 2016 to Jesse Fieldwebster, Metis Nation from R. Talvitie – Appendix M	
• Correspondence – Email from Metis Nation of Ontario (Jesse Fieldwebster) requesting to meet with the Historic SSM Consultation Committee.	April 13, 2016	• The Historic SSM Consultation Committee reviewed the project and would like to meet.	• Meeting confirmed for April 22, 2016			
• Meeting with MNO Consultation Committee (Yvonne Jensen - Metis North Channel Council President; Ernie Gatien - Historic SSM Metis Traditional Teritory Region 4 Councillor; Art Bennet - MNO Region 4 Captain of the Hunt; Kim Powley - President MNO Historic SSM Metis Council; Jesse Fieldwebster – MNO Consultation Assessment Co-ordinator) to discuss the Waste EA and update on the project.	April 22, 2016	• Will native tree species be used for the reforestation that will be undertaken at the time of site closure? • Have contaminants been identified that will be monitored in the storm waster ponds?	• reforestation will be undertaken with similar species. • Monitoring of ponds is identified and shall include: o TSS, 5-day biochemical oxygen demand (BOD), alkalinity, total ammonia nitrogen (TAN), nitrate, nitrite, phenols, chloride, total phosphorus, total metals (barium, boron, cadmium, total chromium, copper, lead and zinc)	Section 7.3.4 addresses reforestation. Section 7.2.3 address the impact assessment related to surface water resources and highlights the proposed mitigation and anticipated net effects. Sections 8.1.2 describes the proposed monitoring programs to assess and monitor the	Minutes of Meeting dated April 22, 2016, Email dated June 1, 2016 to Jesse Fieldwebster from R.Talvitie.– Appendix M	

		• Can a copy of the Annual monitoring report be provided for review? • Can a summary of the annual groundwater monitoring results be forwarded to MNO? • MNO is interested in a review of the EA document when available. • Comments were made that it was evident the City is being proactive. • Acknowledged that a signoff from MNO on this project would be in the best interest.	○ *In-situ parameters*: temperature, pH, conductivity, dissolved oxygen (DO) ○ *Calculated parameters*: un-ionized ammonia • Copy provided • A presentation is prepared which is delivered to the Environmental Monitoring Committee each year which may be suitable. A copy of the 2014 Annual Monitoring Report was provided. • Will provide. • Agreed.	effectiveness of the proposed mitigation		
• Correspondence – Letter from Metis Nation of Ontario (Aly Alibhai) acknowledging project acceptance.	May 11, 2016	• N/A	• N/A		Letter dated May 11, 2016 to Rick Talvitie from Aly Alibhai – Appendix M	
• Correspondence – Letter to Metis Nation of Ontario (Jesse Fieldwebster) from R. Talvitie notifying and requesting input on the Draft EA. Provided the Notice of the Draft EA and requested the Notice be shared with Metis Nation of Ontario members. Notification was also provided that the Draft EA Report could be viewed on the City's website and link to the website was provided. An offer was also made to meet in person to discuss project details.	May 17, 2017	• No comments were received.			Letter dated May 17, 2017 to Jesse Fieldwebster) Metis Nation of Ontario from R. Talvitie – Appendix M	
• Correspondence – Letter to Metis Nation of Ontario (Sault Ste. Marie office) from R. Talvitie notifying and requesting input on the Draft EA. Provided the Notice of the Draft EA and requested the Notice be shared with Metis Nation of Ontario members. Also indicated that a hard copy of the Draft EA Report would be delivered to the Metis Nation of Ontario Sault Ste. Marie office prior to May 24, 2017 and it was requested that this document also be made available to members. Notification was also provided that the document could be viewed on the City's website and link to the website was provided. An offer was also made to meet in person to discuss project details.	May 17, 2017	• No comments were received.			Letter dated May 17, 2017 to Metis Nation of Ontario (Sault Ste. Marie Office) from R. Talvitie – Appendix M	

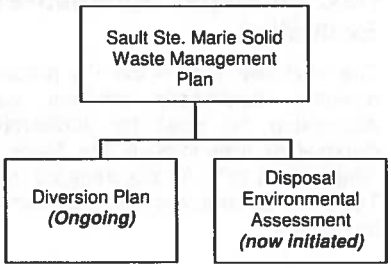
Solid Waste Disposal Environmental Assessment

Newsletter No.1, October 2006

Sault Ste. Marie Begins the Disposal Environmental Assessment (EA)

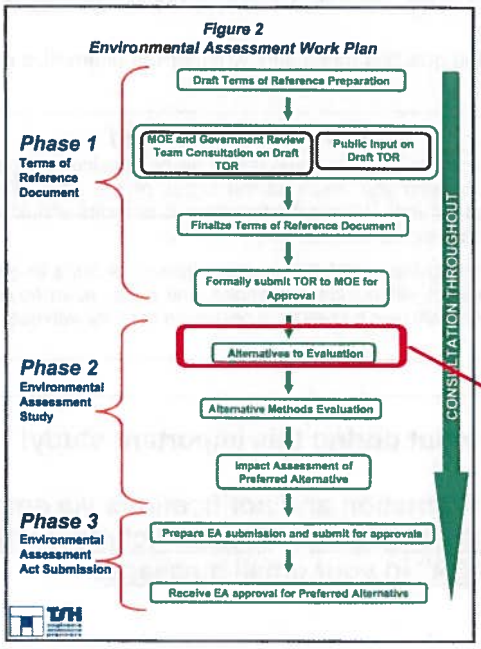
In September 2005 the Minister of the Environment approved the Environmental Assessment Terms of Reference (EA TOR) for the Sault Ste. Marie Solid Waste Management Plan. The EA TOR documents the process that will be followed to determine the preferred method for managing solid waste in Sault Ste. Marie for the next 20 to 40 years. In addition to the disposal EA, the Sault Ste. Marie Solid Waste Management Plan includes a significant diversion component.

A copy of the EA TOR is attached for your reference.



Diversion Update

The City of Sault Ste. Marie's waste diversion program currently includes collection and recycling of fibers and containers (ie: curbside yellow and blue box program); bi-weekly collection and composting of leaf and yard waste; a household hazardous waste depot; and segregation and recycling of metals, white goods, tires, and clean wood and brush at the solid waste landfill at 402 Fifth Line East. In 2005, the City limited residential waste setout to 2 bags/containers per week per household. Tags for additional waste bags or containers must be purchased. The residential waste diversion program diverted approximately 32% of residential waste from the landfill in 2005. This is a significant increase compared to the 8% diverted in 2000!



The EA Process Overview

The Environmental Assessment for disposal capacity includes three key phases. The first phase was completed with the submission and approval of the EA Terms of Reference. We are now initiating the second phase: the Environmental Assessment Study itself. The last phase is submission of the EA documentation to the Ministry of the Environment and the subsequent government and public review and approval period. It is anticipated that the whole process will take until early 2009.

WE ARE HERE

The City has retained a team of consultants including Totten Sims Hubicki Associates and Dillon Consulting Limited to assist them in the preparation of the Waste Disposal EA.

TSH engineers architects planners

DILLON CONSULTING

Next EA Steps: "Alternatives To" Evaluation

The next key step in the EA process is to evaluate functionally different ways of addressing the need for additional waste disposal capacity in Sault Ste. Marie, (ie. the "alternatives to"). As documented in the EA TOR, the alternatives being considered are as follows:

- Increased 3R's (reduce, reuse, recycle);
- Incineration & High Heat Processes;
- Landfill;
- Export Waste Outside Service Area;
- Do nothing.

Contact Us

Your input on this project is important to us. If you would like further information or to send comments, ask questions or be added to our mailing list, please contact us:

Mr. Rick Talvitie, P.Eng
Project Manager
Totten Sims Hubicki
523 Wellington Street East,
Sault Ste. Marie, Ontario
P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
Email: rtalvitie@tsh.ca

Mrs. Susan Hamilton-Beach, P.Eng.
Director of Engineering Services
City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive,
Sault Ste. Marie, Ontario
P6A 5N1

Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on.ca

The evaluation of "alternatives to" will be carried out at a general level. Specific locations and technologies for the above mentioned alternatives will not be included in this step but will be considered in the next step (ie. alternative methods evaluation).

In the EA Terms of Reference, criteria were proposed for the evaluation of the "alternatives to". The proposed criteria for the evaluation of "alternatives to" are listed below.

- Compliance with regulations and policies (addresses the ability to meet all applicable regulations and policies);
- Environmental acceptability (addresses potential environmental affects of the alternative);
- Ability of the City to implement the alternative (considers whether the City has the ability and mandate to implement the alternative);
- Flexibility of the system (considers whether the alternative can respond to changes in the waste stream);
- Capability of managing waste quantities and qualities (considers whether the alternative could handle the identified waste stream);
- Proven technical capability (considers whether the alternative has been proven successful in other experiences in Ontario or other jurisdictions); and
- Economic/Cost (considers the relative cost differences among the alternatives)

Keeping You Informed

This newsletter is part of a series that will be ongoing during this project to keep you aware of the status of the Solid Waste Management Plan. Contact information is provided should you wish more detailed information.

In addition to the newsletter, opportunities to become involved in the project will include workshops, and public open houses. Information will also be regularly posted on the City web site.

We look forward to receiving your input during this important study!

If you would prefer to receive future information and notifications via email please forward your email address to nirwin@tsh.ca. Please include the title "City of SSM Waste Disposal EA" in your email message.

TSH engineers architects planners

DILLON CONSULTING

engineers
architects
planners

Project:	City of Sault Ste. Marie Waste Disposal EA
TSH No.	60395
Meeting Date:	March 26, 2007
Meeting Time:	1:30 pm
Report Date:	April 2, 2007
Recorder:	R. Talvitie
Page 1 of 3	

METIS NATION OF ONTARIO
CONSULTATION STRATEGY
MEETING REPORT

Note: If any of the contents of this meeting report differ in any respect from your own recollection of the points discussed or decisions reached, please notify us immediately. In the meantime, we will proceed in accordance with the understanding described herein.

LOCATION: TSH Boardroom

PRESENT: Brent McHale, Metis Nation of Ontario
Susan Hamilton-Beach, City SSM
Rick Talvitie, TSH

PURPOSE: To provide an update on the project progress and to discuss strategies for consulting with Metis' members.

Action By

1.0 Introduction and Background

RT provided an overview of the project background.

- Met with Metis Nation of Ontario in the spring of 2005 to discuss the Terms of Reference ("ToR"). The ToR provides the framework for guiding the implementation of the Environmental Assessment ("EA"). — Info.
- City has secured the services of a consultant team to undertake the EA (ie: TSH and Dillon). — Info.
- Approximately 11 years of disposal capacity remaining at the Fifth Line landfill. — Info.
- City has been very aggressive in enhancing waste diversion through new and enhanced programs. — Info.
- Currently diverting approx. 35% of the residential waste stream in comparison to 8% in 2000. — Info.
- Residential diversion programs include: — Info.
    - Blue/Yellow box (residential, multi-residential and schools);
    - Leaf and yard waste collection bi-weekly and backyard composters;
    - Household Special Waste Facility for hazardous wastes;
    - Reduced set-out limits (reduced from 6 bags/containers to two bags/containers per household);
    - Partial Pay-as-you-throw program (ie: $2 per bag/container beyond 2 bag/container limit);

Action By

- Increased gate and tipping fees at the landfill;
- Segregation of waste at the landfill; and
- Special events coordinated by Clean North (Christmas trees and WEEE).

- IC&I diversion rate is also increasing significantly through enhanced MOE enforcement. — Info.

2.0 Alternatives To

RT explained that the project team is currently looking at "alternatives to" the undertaking (different ways of managing the waste stream including diversion and disposal). — Info.

The "alternatives to" being considered include: — Info.

- Increased Waste Diversion
- Incineration and High Heat Processes
- Landfill
- Export of Waste Outside the Service Area
- Do nothing

A series of evaluation criteria were developed and presented in the ToR which are intended to be used to evaluate the "Alternatives". A draft "Alternatives To" Report will be released in advance of the public input sessions and will document the preliminary evaluation completed. — Info.

RT explained that the City believes it is important to table issues and concerns regarding the alternatives and the evaluation as early in the process as possible. This can be effectively achieved by consulting with potentially impacted communities and stakeholders early in the process. — Info.

Input is specifically being solicited regarding the alternatives being considered, the evaluation criteria and the relative importance of the criteria with the intent of establishing a preferred "Alternative To". — Info.

RT explained that an invitation will be extended to neighbouring First Nation communities, the general public and relevant agencies to participate in the Public Input Sessions. As a minimum, some representation from the Metis Nation of Ontario would be appreciated. BM suggested that he and the President of the Metis Nation of Ontario attend. TSH to forward a Newsletter with particulars. — MNO / TSH

TSH to investigate advertising the event in the Metis Nation of Ontario newsletter and posting to their website. — TSH

BM also suggested that TSH contact the Missanabie Cree (Queen Street). — TSH

	Action By
BM noted that service in the outlying areas and leachate management are issues that should be addressed in the EA.	Info.
RT responded that a study has recently been initiated to address waste management in the Sault North Planning Area. Walker Engineering is the Lead Consultant.	Info.
Leachate management will be addressed in the study process.	Info.

END OF MEETING REPORT

Submitted By:

R. Talvitie, P.Eng.
Project Manager

cc: all inattendance
R. Roy
K. Kolli

\\Tsh-server\projects\60395 - SSM Soild Waste Management EA\Word\First Nations\60395 mar 19 MTG w dsayers.doc

June 11, 2007

Metis Nation of Ontario

Dear Michelle:

Re: City of Sault Ste. Marie
Solid Waste Management EA
TSH Project No. 60395

The City of Sault Ste. Marie is proceeding with the first public input session for the Solid Waste Management Plan Environmental Assessment. Details pertaining to the session are included in the attached Notice.

We will be advertising this Public Input session through various forms within the City of Sault Ste. Marie and adjacent communities. We are encouraging direct participation of Métis people residing in and around Sault Ste. Marie. We have enclosed 10 copies of the Notice for posting at prominent locations at your discretion.

We have also included a digital copy for posting on your website.

In the event that you feel there are other effective means of notifying members of your community of this session we would be pleased to work with you to reach as many individuals as possible.

We are hopeful that there will be broad representation of various interest groups and communities at the event.

We look forward to seeing Métis people at our event.

Yours very truly,

R. Talvitie, P. Eng.
Project Manager

c.c. Brent McHale
Susan Hamilton-Beach
Karla Kolli

\\Tsh-server\projects\60395 - SSM Soild Waste Management EA\Word\60395 Waste Quantities Report\60395 jun 7 LET dsayers re input session 1 doc

Solid Waste Disposal Environmental Assessment PUBLIC INPUT SESSION No. 1

Sault Ste. Marie Conducts First Public Input Session!

Are you interested in discussing the alternatives and criteria that will be used to compare and select a preferred approach to dispose of waste in Sault Ste. Marie, Prince Township and Batchewana First Nation's Rankin Reserve? If so, we encourage you to attend this public input session!

You're Invited!

Date: Tuesday June 26, 2007
Time: 6:00 pm to 9:00 pm
Location: Civic Centre – Russ Ramsay Room

Please join us!

The City of Sault Ste. Marie is holding a public input session for the Solid Waste Disposal Environmental Assessment to discuss both diversion and disposal of solid waste.

We will update you on the City's achievements in increasing waste diversion and discuss with you the alternative approaches that are being considered to dispose of the residual solid waste. A principle objective of the session is to confirm the alternatives that are being considered (ie: increased 3R's, landfill, incineration and high heat processes, export and do-nothing) and to discuss the criteria that will be used to compare the alternatives.

Information on waste quantities, the alternatives and the evaluation criteria can be found in two working papers prepared for this session titled "Waste Quantity Projections and Existing Environment Profile" and "Alternatives To the Undertaking". These working papers can be downloaded from the City of Sault Ste. Marie website (http://www.cityssm.on.ca/) or viewed at the locations noted below commencing on June 19th.

TSH Engineers Architects and Planners	523 Wellington Street
Civic Centre Engineering and Planning	99 Foster Drive, 5th Floor
Public Works and Transportation	128 Sackville Road
Main Library	50 East Street
Churchill Branch Library	301 Lake Street
Korah Branch Library	496 Second Line
Township of Prince Municipal Office	3042 Second Line West
Batchewana First Nation	236 Frontenac Street
Garden River First Nation	7 Shingwauk Street
Metis Nation of Ontario Office	26 Queen Street East
Missanabie Cree Office	559 Queen Street East

We also encourage you to contact the individuals noted below if you have any specific questions.

Mr. Rick Talvitie, P.Eng
Project Manager
Totten Sims Hubicki (TSH)
523 Wellington Street East,
Sault Ste. Marie, Ontario
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Phone: 705-942-2612
Fax: 705-942-3642
Email: rtalvitie@tsh.ca

Mrs. Susan Hamilton-Beach, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
99 Foster Drive,
Sault Ste. Marie, Ontario
P6A 5N1
Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on.ca

Information pertaining to this session is available on the City of Sault Ste. Marie website at: http://www.cityssm.on.ca/. Hardcopies can also be obtained by contacting TSH at 705-942-2612.

We look forward to seeing you on June 26th!

TSH engineers architects planners

DILLON CONSULTING

Talvitie, Rick

From: Rick Talvitie
Sent: June 15, 2007 12:09 PM
To: 'micheled@metisnation.org'
Cc: 'Susan Hamilton Beach'
Subject: City of Sault Ste. Marie Waste Disposal EA

Hi Michele,

I am just following up on the Notice of the Public input session that was delivered to you yesterday. The City is undertaking a public input session on June 26th (details are provided in the Notices provided to you). The general public within Sault Ste. Marie and adjacent communities are encouraged to attend. We are hopeful that you will post the notices in prominent locations including your website (ie: digital copy was also provided).

Let me know if there is anything we can do to further assist you in notifying your members.

Thank you.

Rick Talvitie, P.Eng.
Branch Manager
TSH
523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4
Phone: 705-942-2612
Fax: 705-942-3642
This electronic transmission, including any attachments, may contain personal information whose collection and use is regulated by the Personal Information Protection and Electronic Documents Act S.C. 2000 c. 5 (the "Act"). The use of such personal information except in compliance with the Act is strictly prohibited. If you have received this electronic transmission in error, or do not agree to comply with the Act, please notify us immediately by telephone or by Reply to Sender function and delete the message and any attachments from your computer without making a copy.

SOLID WASTE DISPOSAL
ENVIRONMENTAL ASSESSMENT

Newsletter No.2, May 2010

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its residual municipal solid waste. In the evaluation of "Alternatives To the Undertaking", a thorough review of different waste management alternatives including increased waste diversion, incineration/high heat processes, landfill, export waste outside the service area, and "do-nothing" was completed. To identify a preferred waste management method, the alternatives were comparatively evaluated using the following seven criteria:

1. Compliance with current regulations and policies;
2. Environmental acceptability;
3. The ability of the City of Sault Ste. Marie to implement the preferred alternative;
4. Flexibility of the system;
5. Capability of managing waste quality and quantity;
6. Proven technical capacity; and
7. Cost.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative for the City has been identified as **increased waste diversion and landfilling of the residual waste.**

DIVERSION UPDATE

The residential waste diversion program diverted approximately 34% of residential waste from the landfill in 2009. This shows consistent progress when compared to the 9% diverted in 2000! The City of Sault Ste. Marie's waste diversion program currently includes weekly curbside collection and recycling of paper products in the yellow box and containers in the blue box; bi-weekly collection and composting of leaf and yard waste throughout the growing season (April through November); a household special waste facility at 115 Industrial Park Crescent; landfill bans and segregation and recycling of metals, white goods, tires, and clean wood and brush at the landfill at 402 Fifth Line East. Since 2006, the City has limited residential waste setout to 2 bags/containers per week per household. Tags for additional waste bags or containers must be purchased. The City diversion programs are also supplemented by diversion initiatives undertaken by the private sector and special interest groups.

The City is also currently assessing the feasibility of diverting municipal biosolids (sewage sludge) from disposal.

PUBLIC INFORMATION CENTRE

A Public Information Centre is being held to provide an opportunity for you to discuss the project progress and have your questions or concerns addressed.

Date: Thursday, June 3, 2010

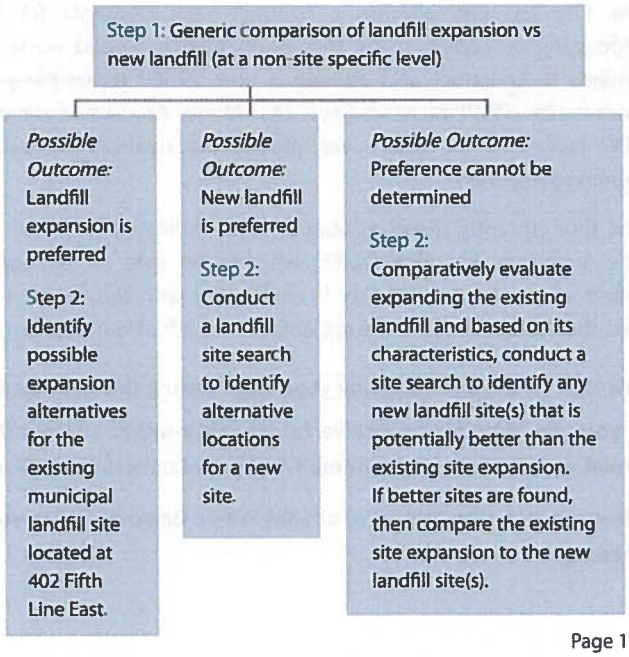
Location: Thompson Room
Civic Centre, 99 Foster Drive

Time: 3:30 pm to 7:30 pm

WHAT'S NEXT?

The results of the Environmental Assessment work completed to date suggest that landfill remains the most appropriate disposal option for the City's residual waste. Landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and recovered to generate electricity, landfills can manage the entire residual waste stream, are flexible to changes in waste quality and quantities and are cost effective.

Following the "Alternatives To" evaluation, the next step in the EA process for a landfill facility is the identification and evaluation of "Alternative Methods" of landfilling. This can include both alternative locations and alternative designs as illustrated in the flow chart below. We will be looking for public input on landfill options in the Fall of 2010.



SOLID WASTE DISPOSAL
ENVIRONMENTAL ASSESSMENT

Newsletter No.2, May 2010

ABOUT THE ENVIRONMENTAL ASSESSMENT (EA) PROCESS

The Environmental Assessment for disposal capacity includes three key phases. The first phase was completed with the submission and approval of the EA Terms of Reference. We are currently working within the second phase: the Environmental Assessment Study itself. The last phase is submission of the EA documentation to the Ministry of the Environment and the subsequent government and public review and approval period. It is anticipated that the whole process will take until late 2012.

In September 2005 the Minister of the Environment approved the Environmental Assessment Terms of Reference (EA TOR) for the Sault Ste. Marie Solid Waste Management Plan. The EA TOR documents the process that will be followed to determine the preferred method for managing solid waste in Sault Ste. Marie for the next 20 to 40 years. In addition to the disposal EA, the Sault Ste. Marie Solid Waste Management Plan includes a significant diversion component.

Keep up-to-date on the EA Study at the City of Sault Ste. Marie's website: http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1

ELEMENTA ENERGY-FROM-WASTE FACILITY

In 2007, an energy-from-waste (EFW) developer known as The Elementa Group (Elementa) constructed a pilot steam reformation plant that would convert municipal solid waste into a char and synthetic gas (or "syngas") that can be used to generate electricity.

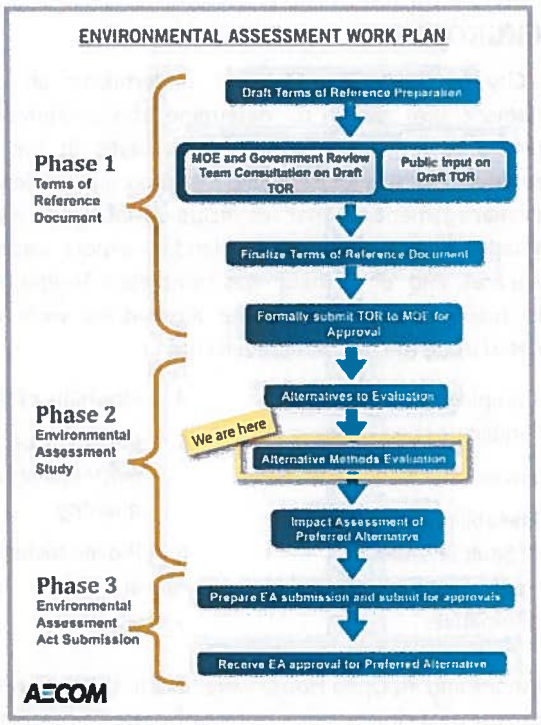
The City has entered into a contract with Elementa for the annual processing of 12,500 metric tonnes of municipal solid waste. Elementa intends to construct and operate a new 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility in the future will reduce the quantity of residual waste requiring disposal.

The City currently disposes about 60,000 tonnes of residual waste each year therefore; the EFW facility will not be able to manage the City's entire waste stream. The City is continuing with the EA study to ensure that the City can process the remainder of residual waste generated.

We look forward to receiving your input during this important study!

If you would prefer to receive future information and notifications via email, please forward your email address to nancy.maahs@aecom.com.

Please include the title "City of SSM Waste Disposal EA" in your message.



CONTACT US

Your input on this project is important to us. If you would like further information or to send comments, ask questions or be added to our mailing list, please contact us:

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
Email: rick.talvitie@aecom.com

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THE CITY OF SAULT STE. MARIE

Notice of Public Information Centre

SOLID WASTE DISPOSAL ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its residual municipal solid waste. Work to date has included a thorough review of a number of waste management alternatives including increased waste diversion, incineration/high heat process, landfill, export waste and "do nothing". To identify a preferred waste management method, the alternatives were comparatively evaluated using the following seven criteria:

1. Compliance with current regulations and policies;
2. Environmental acceptability;
3. The ability of the City of Sault Ste. Marie to implement the preferred alternative;
4. Flexibility of the system;
5. Capability of managing waste quality and quantity;
6. Proven technical capacity; and
7. Cost.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative for the City has been identified as **increased waste diversion and landfilling of the residual waste**.

Residents currently divert approximately 34% of their waste from disposal and the City will continue to provide opportunities to improve on this diversion rate. The remaining 66% of residential waste and industrial, commercial and institutional wastes currently goes to the City landfill. In addition to the City's current diversion, the City has entered into a contract with a private corporation for the annual supply of 12,500 metric tonnes of municipal solid waste. This corporation intends to construct and operate a 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility will reduce the quantity of residual waste requiring disposal.

The results of the Environmental Assessment work completed to date suggest that landfill remains the most appropriate disposal option for the City's residual waste. Landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and recovered to generate electricity, landfills can manage the entire residual waste stream, are flexible to changes in waste quality and quantities and are cost effective.

PUBLIC INFORMATION CENTRE

A Public Information Centre is being held to provide an opportunity for you to discuss the project progress and have your questions or concerns addressed.

Date: Thursday, June 3, 2010
Location: Thompson Room
Civic Centre, 99 Foster Drive
Time: 3:30pm to 7:30 pm

THE NEXT STEPS

Over the summer the project team will be looking at options for landfilling residual waste. This work will include consideration of opportunities to expand the existing landfill or establish a new landfill site. In the Fall of 2010, we will be looking for public input on landfill options.

If you have any questions related to the study, please contact:

Mr. Rick Talvitie, P. Eng.
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
E-mail: rick.talvitie@aecom.com

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Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580, 99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on.ca

If you would like to receive future information and notifications via email, please forward your email address to nancy.maahs@aecom.com. Please include the title "City of SSM Waste Disposal EA" in your message.

THE CITY OF SAULT STE. MARIE

NOTICE OF PUBLIC INPUT SESSION

SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. In the evaluation of "Alternatives To the Undertaking", a thorough review of different waste management alternatives including increased waste diversion, incineration/high heat processes, landfill, export waste outside the service area, and "do-nothing" was completed. To identify a preferred approach to managing waste, the alternatives were comparatively evaluated using the following seven criteria:

1. Compliance with current regulations and policies;
2. Environmental acceptability;
3. The ability of the City of Sault Ste. Marie to implement the preferred alternative;
4. Flexibility of the system;
5. Capability of managing waste quality and quantity;
6. Proven technical capacity; and
7. Cost.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste. The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the entire residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

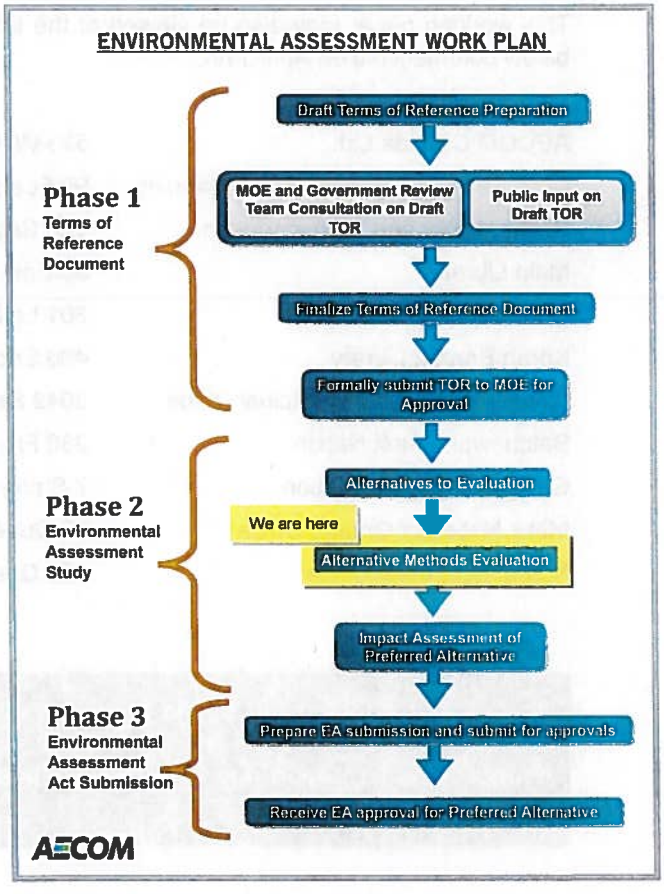
The flexibility of the preferred alternative is particularly important given the City's contract with The Elementa Group (an energy-from-waste service provider) for the annual processing of at least 12,500 metric tonnes of municipal solid waste. Elementa intends to construct and operate a new 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility in the future will reduce the quantity of residual waste requiring disposal in a landfill.

NEXT STEPS

The City remains committed to investigating, implementing and supporting programs to increase waste diversion through 3Rs initiatives. Since the implementation of 3Rs initiatives does not require Environmental Assessment (EA) Act approval, the EA study is now focusing on alternative methods of landfilling residual waste. The key objective of this phase of the study is to find an environmentally suitable location for the development of additional landfill capacity.

The first step to be completed in this phase consists of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. This step will provide initial focus to the search for additional landfill capacity.

A preliminary evaluation of these alternatives has been completed by the project team. We are now seeking input from the general public and Stakeholders regarding the evaluation criteria considered and the preliminary findings.



THE CITY OF SAULT STE. MARIE

NOTICE OF PUBLIC INPUT SESSION

SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

PUBLIC INPUT SESSION

If you are interested in discussing the alternatives and criteria that will be used to compare and select a preferred approach to landfilling residual waste in Sault Ste. Marie, Prince Township and Batchewana First Nation's Rankin Reserve, we encourage you to attend this public input session!

We will provide you with background information, update you on the City's achievements in increasing waste diversion and discuss with you the alternative approaches to landfilling residual solid waste. A principle objective of the session is to confirm whether the City should focus its efforts to obtain additional disposal capacity by expanding an existing landfill site or finding a location for a new site.

Background information documenting the work completed to date is available on the City website at **http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1**.
In addition, the alternatives and the evaluation criteria currently being considered are also available on the website in a working paper prepared for this session titled "Solid Waste Management Environmental Assessment - Alternative Methods – Step 1 (Landfill Expansion versus Development of a New Site).

This working paper may also be viewed at the locations noted below commencing on April 11th.

AECOM Canada Ltd.	523 Wellington Street
Civic Centre Engineering and Planning	99 Foster Drive, 5th Flr.
Public Works and Transportation	128 Sackville Road
Main Library	50 East Street
Churchill Branch Library	301 Lake Street
Korah Branch Library	496 Second Line
Township of Prince Municipal Office	3042 Second Line West
Batchewana First Nation	236 Frontenac Street
Garden River First Nation	7 Shingwauk Street
Metis Nation of Ontario Office	26 Queen Street East
Missanabie Cree Office	559 Queen Street East

YOU'RE INVITED!

Date:	Tuesday April 19, 2011
Location:	Civic Centre – Russ Ramsay Room
Time:	6:30 pm to 9:00 pm

Refreshments to be provided.

CONTACT US

We also encourage you to contact the individuals noted below if you have any specific questions.

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
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Information pertaining to this session is available on the City of Sault Ste. Marie website at: **http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1**.
Hardcopies can also be obtained by contacting AECOM at 705-942-2612.

If you cannot attend the public input session in person, we still want to hear from you! Just go to the City's website (http://www.city.sault-ste-marie.on.ca/Open_Page.aspx?ID=639&deptid=1), review the Alternatives Method - Step 1 Report and fill out our online questionnaire. A link to the online questionnaire is provided on the City's website.

THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. In the evaluation of "Alternatives to the Undertaking", a thorough review of different waste management alternatives including increased waste diversion, incineration/high heat processes, landfill, export waste outside the service area, and "do-nothing" was completed.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste. The preferred alternative was presented at an Open House in June, 2010.

NEXT STEPS

The next step consists of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. This step will provide initial focus to the search for additional landfill capacity.

A preliminary evaluation of these alternatives has been completed by the project team. We are now seeking input from the general public and stakeholders regarding the evaluation criteria considered and the preliminary findings.

PUBLIC INPUT SESSION

If you are interested in discussing the alternatives and criteria that will be used to compare and select a preferred approach to landfilling residual waste in Sault Ste. Marie, Prince Township and Batchewana First Nation's Rankin Reserve, we invite you to attend this public input session.

We will provide background information, update you on the City's achievements in increasing waste diversion and discuss the alternative approaches to landfilling residual solid waste.

Background documents including the working paper to be discussed at the public input session entitled "Solid Waste Management Environmental Assessment - Alternative Methods – Step 1 (Landfill Expansion versus Development of a New Site)" are available on the City's website at **www.cityssm.on.ca – Click City Hall Bulletins – Public Input Session – Solid Waste Management.**

CONTACT US

We encourage you to contact the individuals below if you have questions.

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
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Phone: (705) 759-5385
Fax: (705) 541-7165
Email: s.hamiltonbeach@cityssm.on.ca

YOU'RE INVITED!

Date: Tuesday, April 19, 2011

Location: Civic Centre, 99 Foster Dr.
Russ Ramsay Board Room

Time: 6:30 to 9:00 p.m.

Refreshments provided.

If you cannot attend the public input session, we still want to hear from you! Go to the City's website www.cityssm.on.ca (Click City Hall Bulletins – Public Input Session – Solid Waste Management) to review the Alternatives Method - Step 1 Report and fill out the online questionnaire.

Talvitie, Rick

From: Talvitie, Rick
Sent: April 8, 2011 2:13 PM
To: shawnah@metisnation.org
Cc: 'Susan Hamilton Beach'; 'Kolli, Karla'; 'Varghese, Betsy'; Maahs, Nancy
Subject: City of Sault Ste. Marie Waste Management EA
Attachments: SSM_Newsletter 1page.pdf

Hi Shawna,

Susan Hamilton Beach of the City and I initially met with Brent McHale on March 26, 2007 to discuss the City's Waste Management Environmental Assessment process. We have been in contact with your organization on several occasions since that original meeting and I wanted to take this opportunity to update you on the status of the project and invite you and your members to an upcoming public input session.

I have attached a Notice for your information and reference which explains the current status of the project. **The attached Notice also references a Public Input Session that is scheduled for April 19, 2011 in Sault Ste. Marie.**

We would like to take this opportunity to invite you, and your members to attend this public input session. The upcoming session will also be advertised through various media in advance of the event.

We encourage as much participation as possible and are hopeful that there will be some representation from your members. **To this end, we encourage you to post the attached notice on your website and download, print and post the Notice in prominent locations.**

We will also deliver, on April 11th, a hard copy of the "Solid Waste Management Environmental Assessment – Alternative Methods – Step 1 (Landfill Expansion versus Development of a New Site)" working paper which we ask you to make available for viewing at your office. We will also provide several hard copies of the Notice at that time.

We look forward to seeing representation from your members on April 19th!

Let me know if you have any questions or concerns.

Regards,

Rick Talvitie, P. Eng.
Manager, Sault Ste. Marie Office
rick.talvitie@aecom.com

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523 Wellington Street East,
Sault Ste. Marie, Ontario Canada P6A 2M4
T 705.942.2612 F 705.942.3642
www.aecom.com

Talvitie, Rick

From: Talvitie, Rick
Sent: April 8, 2011 1:28 PM
To: micheled@metisnation.org
Cc: 'Susan Hamilton Beach'; 'Kolli, Karla'; 'Varghese, Betsy'; Maahs, Nancy
Subject: City of Sault Ste. Marie Waste Management EA
Attachments: SSM_Newsletter 1page.pdf

Hi Michele,

Susan Hamilton Beach of the City and I initially met with Brent McHale on March 26, 2007 to discuss the City's Waste Management Environmental Assessment process. We have been in contact with you on several occasions since that original meeting and I wanted to take this opportunity to update you on the status of the project and invite you and your members to an upcoming public input session.

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We look forward to seeing representation from your members on April 19th!

Let me know if you have any questions or concerns.

Regards,

Rick Talvitie, P. Eng.
Manager, Sault Ste. Marie Office
rick.talvitie@aecom.com

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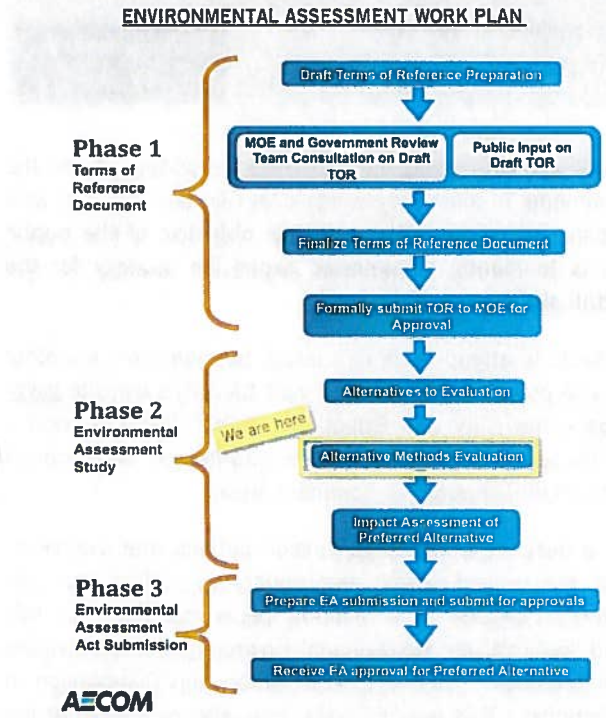
THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

ENVIRONMENTAL ASSESSMENT (EA) PROCESS

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. The EA Process is a transparent decision-making process used to promote good environmental planning by assessing potential effects of certain activities or projects on the natural and human environment. There are several phases and tasks involved in completing an EA as outlined in the graphic below.



The City is currently mid-way through Phase 2 of the EA Process and is interested in obtaining your input related to the current activities.

BACKGROUND

Phase 1 of the EA process included public consultation and culminated with the Ministry of Environments approval of the project Terms of Reference (ToR) in 2005. The ToR provides a framework or roadmap for completing the EA and summarizes the tasks and activities to be undertaken by the proponent.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and the **preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.** The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the entire residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

The flexibility of the preferred alternative is particularly important given the City's contract with The Elementa Group (an energy-from-waste service provider) for the annual processing of at least 12,500 metric tonnes of municipal solid waste. Elementa is currently negotiating an energy purchase agreement and intends to construct and operate a new 35,000 tonne-per-year energy-from-waste (EFW) plant in Sault Ste. Marie. Any waste directed to the EFW facility in the future will reduce the quantity of residual waste requiring disposal in a landfill.

The City remains committed to investigating, implementing and supporting programs to increase waste diversion through 3Rs initiatives. Since the implementation of 3Rs initiatives does not require Environmental Assessment (EA) Act approval, the EA study is now focusing on alternative methods of landfilling residual waste. The key objective of this phase of the study is to find an environmentally suitable location for the development of additional landfill capacity.

The first step in this phase consisted of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. To identify a preferred approach to landfilling waste, the alternatives were compared using the following six criteria groups:

1. Natural environment;
2. Social-Cultural environment;
3. Economic environment;
4. Cost;
5. Technical considerations; and
6. Transportation.

A Public Input Session was held in April, 2011 to present the landfill alternatives being considered. **The evaluation and response from consultation concluded that an expansion of an existing landfill is generally preferred over construction of a new site.**

The study noted that an expansion requires less land, displaces fewer people and/or social/natural features, disrupts fewer people (ie. one site versus two sites creating nuisance impacts), costs less, typically encounters fewer challenges in gaining technical approvals, and reduces the number of facilities the City must manage.

THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

CURRENT ACTIVITIES

The second step in the Alternative Methods task focuses on the best approach to expand the existing landfill site at 402 Fifth Line East in the City of Sault Ste. Marie. Expansion options have been developed that make the best use of the existing site characteristics and the area available to expand. Options considered include horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining (excavate previously disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) or a combination of these methodologies.

A preliminary evaluation of the expansion options has been completed by the project team. We are now seeking input from the Community, government agencies, stakeholders, and First Nations regarding the evaluation criteria considered and the preliminary findings.

CONTACT US

You may also contact the Consultant Project Manager or the City's Land Development and Environmental Engineer by email, mail or telephone if you have questions or would like additional information.

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
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Land Development and Environmental Engineer
City of Sault Ste. Marie
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99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5380
Fax: (705) 541-7165
Email: c.taddo@cityssm.on.ca

HOW CAN I PROVIDE INPUT?

If you are interested in discussing the expansion options, the criteria used in the evaluation and the preliminary findings we encourage you to attend the upcoming public input session!

YOU'RE INVITED!

Date: Tuesday, March 6, 2012
Location: Civic Centre – 99 Foster Drive
Russ Ramsay Room
Time: 3:30PM to 7:30PM

Refreshments to be provided.

We will provide you with background information update you on the City's achievements in increasing waste diversion and discuss, with you, the expansion options. **The principle objective of the public consultation is to identify a preferred expansion strategy for the existing landfill site.**

If you are unable to attend the Public Input Session there are other opportunities to provide input. Please visit the City's website **www.cityssm.on.ca** - View City Hall Bulletins – Public Input Session – Solid Waste Management to obtain further information, complete an online questionnaire, or access a comment sheet.

In addition, a description of the expansion options, the evaluation criteria, and the project team's preliminary evaluation are also available on the website in a working paper prepared for this session titled "Solid Waste Management Environmental Assessment – Alternative Methods – Step 2 (Identification and Comparison of Expansion Options). This working paper may also be viewed at the locations noted below commencing on February 21, 2012.

AECOM Canada Ltd.	523 Wellington Street
Civic Centre Engineering and Planning	99 Foster Drive, 5th Flr.
Public Works and Transportation	128 Sackville Road
Main Library	50 East Street
Churchill Branch Library	301 Lake Street
Korah Branch Library	496 Second Line
Township of Prince Municipal Office	3042 Second Line West
Batchewana First Nation	236 Frontenac Street
Garden River First Nation	7 Shingwauk Street
Metis Nation of Ontario Office	26 Queen Street East
Missanabie Cree Office	559 Queen Street East

THE CITY OF SAULT STE. MARIE
NOTICE OF PUBLIC INPUT SESSION
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. To date significant progress has been made.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and **the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.** The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the entire residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

In April, 2011 a Public Input Session was held to present the non-site specific landfill alternatives being considered. **The evaluation and response from consultation concluded that an expansion of an existing landfill is generally preferred over construction of a new site.**

The study noted that an expansion requires less land, displaces fewer people and/or social/natural features, disrupts fewer people (ie. one site versus two sites creating nuisance impacts), costs less, typically encounters fewer challenges in gaining technical approvals, and reduces the number of facilities the City must manage.

CURRENT ACTIVITIES

Presently the project team is focusing on **the best approach to expand the existing landfill site at 402 Fifth Line East in the City of Sault Ste. Marie.** Expansion options have been developed that make the best use of the existing site characteristics and the area available to expand. Options considered include horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining (excavate previously disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) or a combination of these methodologies.

A preliminary evaluation of the expansion options has been completed by the project team. **We are now seeking input from the Community, government agencies, stakeholders, and First Nations regarding the evaluation criteria considered and the preliminary findings.**

PUBLIC INPUT SESSION

If you are interested in discussing the expansion options, the criteria used in the evaluation and the preliminary findings, we encourage you to attend the upcoming public input session!

We will provide you with background information, update you on the City's achievements in increasing waste diversion and discuss, with you, the expansion options. **The principle objective of the public consultation is to identify a preferred expansion strategy for the existing landfill site.**

The expansion options, the evaluation criteria, and the project team's preliminary evaluation are also available on the City's website (**www.cityssm.on.ca - View City Hall Bulletins – Public Input Session – Solid Waste Management**) in a working paper prepared for this session titled "Solid Waste Management Environmental Assessment - Alternative Methods – Step 2 (Identification and Comparison of Expansion Options). This working paper may also be viewed at the locations noted below commencing on February 21, 2012.

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Metis Nation of Ontario Office	26 Queen Street East
Missanabie Cree Office	559 Queen Street East

CONTACT US

We also encourage you to contact the individuals noted below if you have any specific questions.

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Fax: 705-942-3642
Email: rick.talvitie@aecom.com

Ms. Catherine Taddo, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5380
Fax: (705) 541-7165
Email: c.taddo@cityssm.on.ca

YOU'RE INVITED!

Date: Tuesday, March 6, 2012
Location: Civic Centre – Russ Ramsay Room
Time: 3:30PM to 7:30PM

Refreshments to be provided.

If you cannot attend the public input session in person, we still want to hear from you! Just go to the City's website www.cityssm.on.ca - View City Hall Bulletins – Public Input Session – Solid Waste Management review the Alternatives Method – Step 2 Report and fill out our online questionnaire or comment sheet. A link to the online questionnaire is provided on the City's website.

AECOM

DILLON CONSULTING

Solid Waste Management Environmental Assessment

COUNCIL PRESENTATION

THE CORPORATION OF THE CITY OF SAULT STE MARIE CANADA

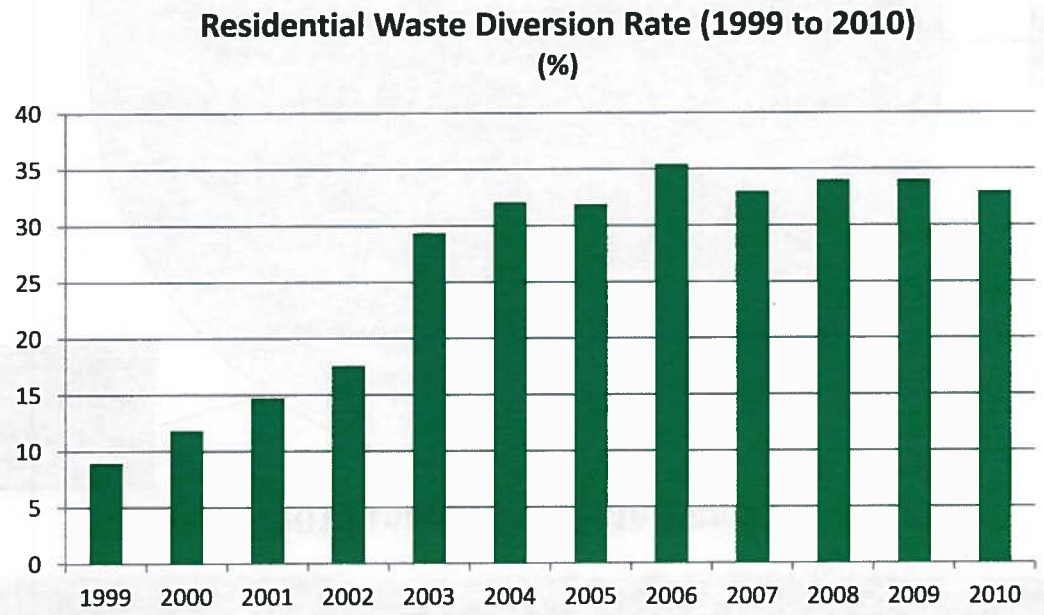
March, 2012

Objectives of the Presentation

- Provide Council and residents with an update on waste management planning activities and results;
- Review project need;
- Provide an overview of the Environmental Assessment process and where we are at in the process;
- Present the criteria and approach used in the evaluation of site expansion options;
- Present the preliminary results of the evaluation completed by the project team;
- Identify the next steps in the EA process; and
- Answer your questions.

Project History - Diversion

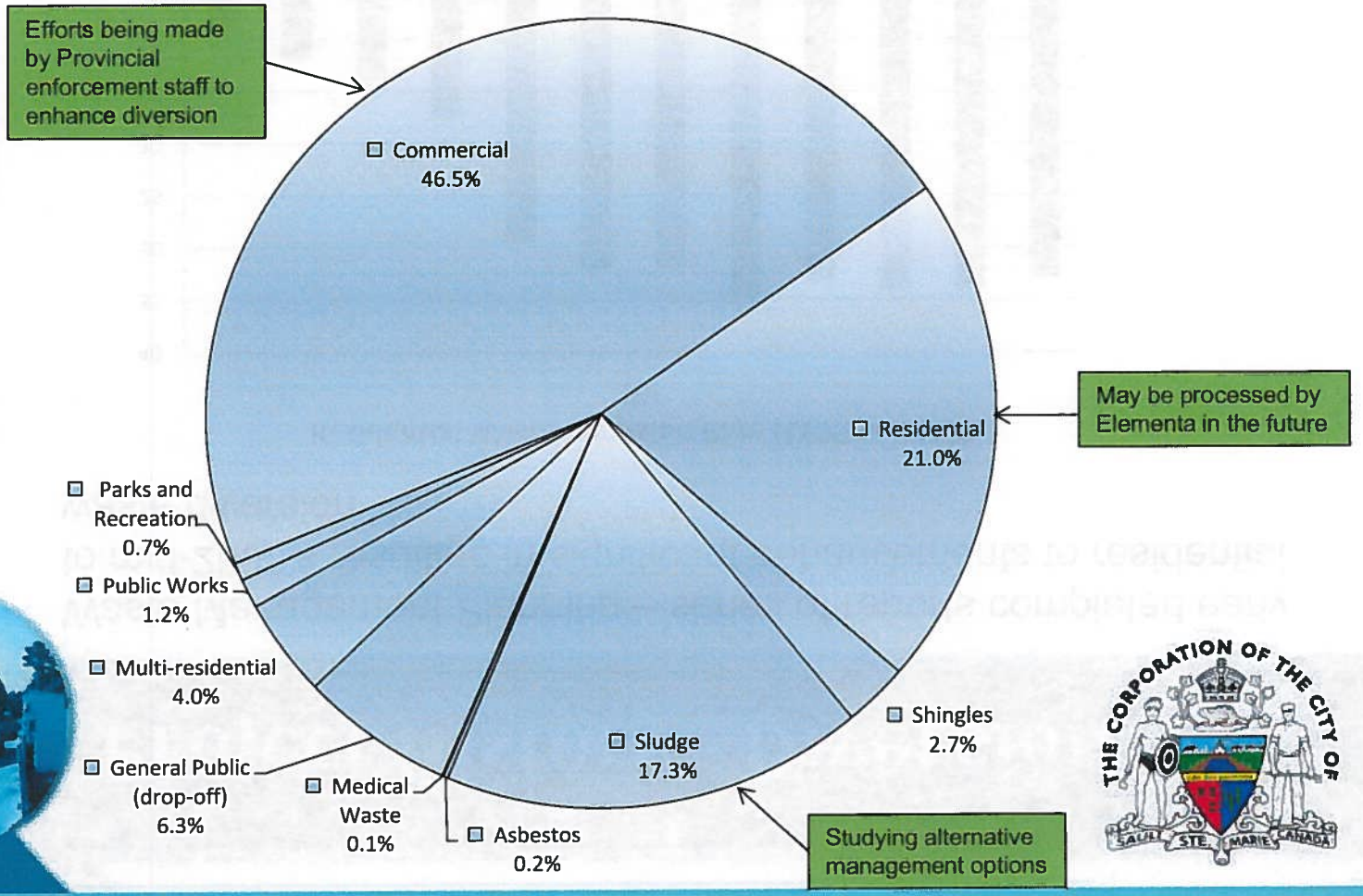
- Waste Management Planning – series of reports completed early to mid-2000's resulting in significant enhancements to residential waste diversion



Increased residential diversion rate from 9% in 1999 to 33% to 35% in recent years

Project History - Diversion

2010 Landfilled Waste Types



Project History - Project Need

- **The estimated remaining service life of the existing landfill is 7 to 10 years depending on future population changes, in-situ subsidence and waste generation, diversion and disposal rates. The low end of this range is used for planning purposes.**
- Despite significant success in enhancing waste diversion, additional disposal capacity is required.

What is an EA?

Purpose = *"to protect the environment and quality of life of the people of the province; and facilitate the wise management of the natural resources of the province".*

- The EA Process is a transparent decision-making process used to promote good environmental planning by assessing potential effects of certain activities or projects on the natural and human environment. The EA process serves several important purposes:
  - Allowing projects to receive input from a wide variety of sources, including the federal, provincial and municipal levels of government, First Nations, stakeholders and the public.
  - Identifying potential problems prior to construction
  - Promoting good environmental planning practices
  - Improving community acceptance
  - Better protecting the environment

AECOM

DILLON CONSULTING

Project History

- MOE approval of EA ToR in late 2005
- EA work initiated by AECOM/Dillon – summer 2006
- "Alternatives To" (functionally different ways of managing waste) work completed and public consultation undertaken in summer of 2007
- Late 2008 to spring 2010 - Project delayed to allow time for the Enquest pilot project to mature
- Fall 2009 - City endorses waste supply agreement with Elementa
- City approval to resume EA process - Elementa will generate residual waste and is unable to manage the entire waste disposal quantity
- Spring 2010 – announced the preferred "Alternative To"

THE CORPORATION OF THE CITY OF SAULT STE. MARIE CANADA

Project History – Selected "Alternative TO"

Based on the results of the evaluation and input received the preferred long-term approach to managing waste in SSM is:

- Increased 3Rs (Reduce/Reuse/Recycle)
- Landfilling residual waste

Why?

- Can comply with regulations and policies
- City is experienced with these waste management initiatives
- Flexible to changes in the waste stream (e.g. population, waste generation, diversion)
- Can accept most residual waste from a Waste-to-Energy facility
- Cost efficient

The EA will now focus on identifying and evaluating alternative methods of landfilling waste (i.e. alternative locations and designs)

AECOM

DILLON CONSULTING

Project History

- Conducted a Public Information Session in June 2010 to announce the selected Alternative To
- Initiated the Alternative Methods Phase (alternative locations and designs)
- Completed a generic non-site specific evaluation of developing a new landfill versus expanding an existing site (Step 1)
- Consulted with the public in the spring of 2011regarding the generic options

THE CORPORATION OF THE CITY OF SAULT STE. MARIE CANADA

Project History – Preferred Landfilling Method

Based on the results of the evaluation and input received the preferred method of landfilling waste = expansion of an existing site

Why?

- Likely less potential for displacement and disruption
- Only one landfill site to manage and maintain
- Cost effective
- Community adaptation
- Likely fewer challenges in gaining approvals

The EA will now focus on how to best expand the existing site

Overview of Expansion Options

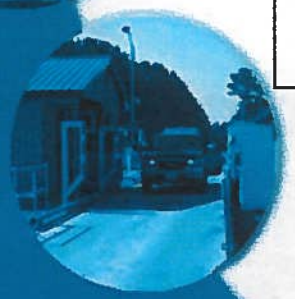
- Expansion options have been developed that make the best use of the existing site characteristics and the area available to expand.
- Options considered include horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining or a combination of these methodologies.
- All options include enhancements to better control groundwater quality related to the existing site.
- Some options require replacement/relocation of existing on-site infrastructure and some require enhanced compaction to provide the target disposal capacity

Evaluation of Expansion Options

- The evaluation has been completed using a two-step approach:
  - Step 1 – identify a preferred expansion area and shape;
  - Step 2 – assess the pros and cons of incorporating landfill mining.
- Mining involves excavation of previously disposed waste and cover material. Mined waste is fed through screens which separates coarse waste from fine materials. Recyclables are separated and sent for processing, remaining residual waste disposed of in the disposal site and fines (primarily sand) are stockpiled for use as cover.

Evaluation Criteria Groups

Criterion	Definition
Natural Environment	Addresses the potential for displacement and/or disruption of natural environmental features (terrestrial features, aquatic features, ground water and surface water)
Social Cultural Environment	Addresses the potential for displacement and/or disruption of social/cultural environmental features (residents, community features, future land use plans, heritage and archaeological resources, public health and safety)
Economics	Addresses the potential for displacement and/or disruption of existing businesses and resources (agriculture, forestry, mining)
Cost	Considers the lifecycle cost of the alternative.
Technical Considerations	Considers technical aspects of each option including impacts on existing site infrastructure and ease of site development.
Transportation	Considers the impacts of traffic volumes accessing the site and potential impacts to the airport and the movement of farm equipment.

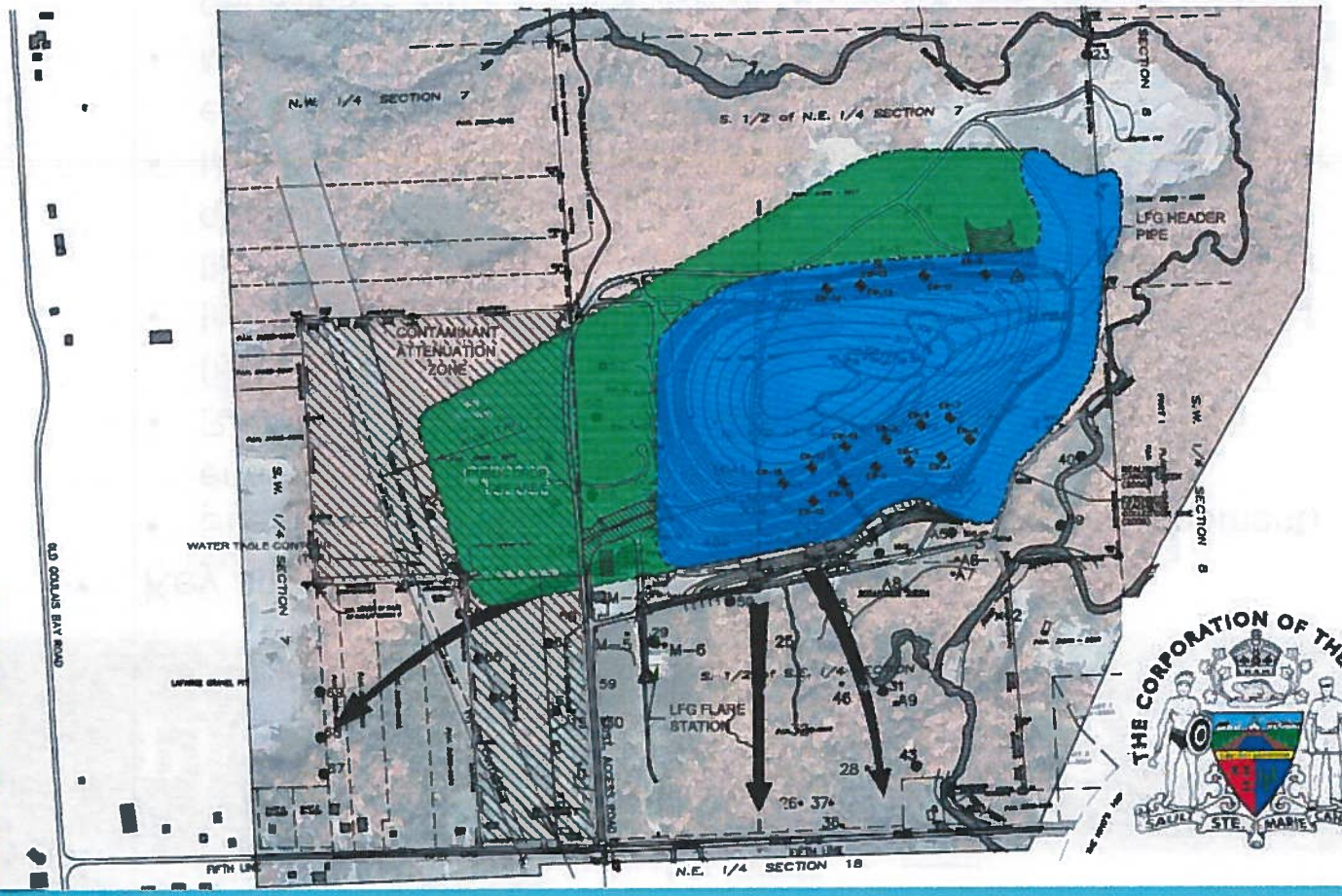


Evaluation of Expansion Options

- Data collection and analysis
- Technical disciplines initially compare options relative to each other and rank them under each criterion
- Present the evaluation in a table or matrix format with the rationale for the rankings
- Present to the public and solicit input from community members, stakeholders, First Nations, and governmental agencies
- Make adjustments to the evaluation based on input received
- Select a preferred option

Preliminary Preferred Expansion Option

- On the basis of the **preliminary** evaluation, the preliminary preferred expansion option is presented below



Preliminary Preferred Option

- Key advantages relative to other options include:
  - Site development (i.e. geometry and storm water management) enhanced relative to Options 2 and 4.
  - Reduced average excavation depth in west expansion area (i.e.11m).
  - Includes a liner beneath the waste within the western portion of the existing disposal footprint enhancing long term groundwater quality.
  - Includes a liner over existing waste in areas of overlap to further enhance groundwater quality.
  - Meets target capacity at current estimated waste densities.

Next Steps

- Solicit governmental, community First Nation and stakeholder input on the preliminary preferred expansion option – do you agree/disagree – why?
- Re-assess (if needed) and finalize the Step 2 evaluation based on input received
- Announce the preferred Step 2 - Alternative Method (i.e. preferred expansion option)
- Initiate a detailed impact assessment for the preferred option
- Continue to investigate ways to improve waste diversion through 3Rs initiatives

February 17, 2012

Ms. Shauna Hansen
Metis Nation of Ontario
26 Queen Street East
Sault Ste. Marie, Ontario
P6A 1Y3

Dear Ms. Hansen:

Project No: 60117627 (60395)

Regarding: City of Sault Ste. Marie
Waste Management Environmental Assessment

We last contacted you in April, 2011. To date a considerable level of study has been completed in developing and assessing the preferred approach to managing waste in the City of Sault Ste. Marie. The work completed to date has resulted in the following observations:

- The preferred approach to managing waste in the future is through increased waste diversion (ie. 3R's - reduction, reuse and recycling) and landfilling and remaining residual waste. (Note: the City has also endorsed an agreement with an independent waste-to-energy vendor to process a portion of the municipal solid waste using their steam reformation process).
- Given the challenges in siting a new landfill it is preferred to initially focus resources on developing strategies to expand the City's existing landfill at 402 Fifth Line East.

Expansion options have been developed that make the best use of the existing site characteristics and the area available to expand. In general, the options considered include horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining (excavate existing disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) or a combination of these methodologies.

A preliminary evaluation of five options has been completed by the project team. Based on the results of the preliminary evaluation, the preliminary preferred approach is a moderate vertical expansion and a north and west expansion of the existing disposal footprint. The preliminary preferred option also includes landfill mining within the western portion of the existing disposal footprint.

We are now seeking input from Government agencies, stakeholders, First Nations and the general public regarding the evaluation criteria considered and the preliminary findings. We would like to

obtain as much input as possible from your community members. We will be conducting a public input session in Sault Ste. Marie as outlined below. Everyone is welcome to attend. We have attached a Notice of the Public Input Session which can be printed and posted in prominent locations that are typically accessed by your members. In addition, we encourage you to post the Notice on your website.

You are also encouraged to view the **Project Newsletter**, and/or the **Solid Waste Management Environmental Assessment - Alternative Methods – Step 2 (Identification and Comparison of Expansion Options)** report and/or the March 6th **Public Input Session displays**. A copy of these documents are attached for your information and reference. These documents are also available electronically on the City's website at www.cityssm.on.ca

Details of the Public Input Session to be held in Sault Ste. Marie are provided below:

Location:	Russ Ramsay Room, Civic Centre, 99 Foster Drive
Date/Time:	Tuesday, March 6, 2012 - 3:30 pm to 7:30pm
Format:	Open House - come any time between the times noted, view the displays, ask questions of the project team and provide input at the open house or at a later date.

If you are unable to attend the March 6th session we also encourage community input through other means as outlined below.

There is an online survey available at http://www.surveymonkey.com/s/R3DTZ8R or alternatively you can send us your comments by email. Please include **"City of SSM Waste Management EA – Comments"** in the subject line of your email message.

We would appreciate receiving your input by April 6, 2012.

As always, we would also be pleased to meet with you at your convenience to discuss the project details. Please contact our office by telephone or email to arrange a meeting.

Sincerely,
AECOM Canada Ltd.

Rick Talvitie, P. Eng.
Project Manager

RT:nm

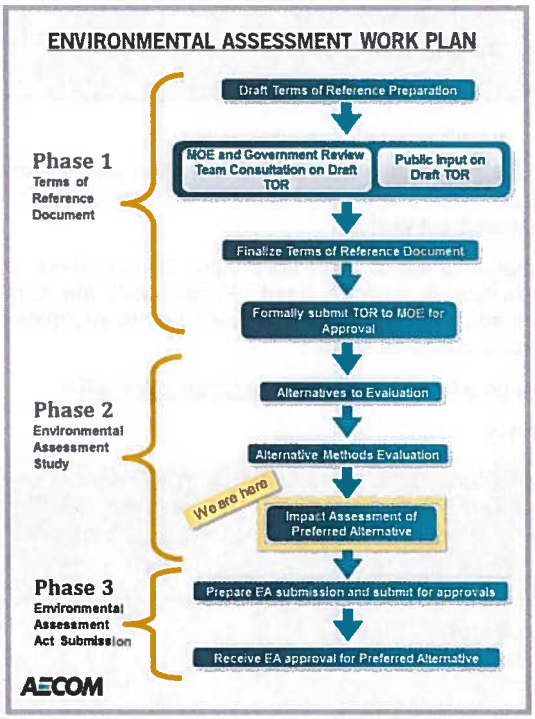
Encl.

cc: C. Taddo, City Engineering
K. Kolli, Dillon Consulting

THE CITY OF SAULT STE. MARIE
JANUARY, 2016 NEWSLETTER
SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

ENVIRONMENTAL ASSESSMENT (EA) PROCESS

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. The EA Process is a transparent decision-making process used to promote good environmental planning by assessing potential effects of certain activities or projects on the natural and human environment. There are several phases and tasks involved in completing an EA as outlined in the graphic below.



The City is finalizing Phase 2 of the EA Process and is currently preparing the EA submission. **We are interested in obtaining your input related to the current activities.**

BACKGROUND

Phase 1 of the EA process included public consultation and culminated with the Ministry of Environment and Climate Change's (MOECC) approval of the project Terms of Reference (ToR) in 2005. The ToR provides a framework or roadmap for completing the EA and summarizes the tasks and activities to be undertaken by the proponent.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and **the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.** The preferred alternative was presented at an Open House in June, 2010.

The study noted that landfills can be designed and operated to comply with regulations and policies, landfill gas can be collected and flared or recovered to generate electricity, landfills can manage the residual waste stream, landfills are flexible to changes in waste quality and quantities and landfilling is cost effective.

The City remains committed to investigating, implementing and supporting programs to increase waste diversion through 3Rs initiatives. Since the implementation of 3Rs initiatives does not require EA Act approval, the EA study turned its focus to alternative methods of landfilling residual waste. The key objective of this phase of the study is to find an environmentally suitable location for the development of additional landfill capacity.

The first step in this phase consisted of completing a non-site specific evaluation of developing a new landfill versus expanding an existing landfill. To identify a preferred approach to landfilling waste, the alternatives were compared using the following seven criteria groups:

1.	Natural environment	5.	Capability of managing waste quality and quantity
2.	Social-cultural environment	6.	Proven technical capacity
3.	Economic environment	7.	Cost
4.	Flexibility of the system		

A Public Input Session was held in April, 2011 to present the landfill alternatives being considered. **The evaluation and response from consultation concluded that an expansion of an existing landfill is generally preferred over construction of a new site.**

The study noted that an expansion requires less land, displaces fewer people and/or social/natural features, disrupts fewer people (i.e., one site versus two sites creating nuisance impacts), costs less, typically encounters fewer challenges in gaining technical approvals, and reduces the number of facilities the City must manage.

The second step in the Alternative Methods task focused on the best approach to expand the City's existing landfill site at 402 Fifth Line East by identifying and comparatively evaluating site expansion alternatives. Options considered included horizontal expansion (expand the extent of the disposal footprint), vertical expansion (increase the height of the disposal footprint), landfill mining (excavate previously disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) or a combination of these methodologies. A Public Input Session was held March, 2012 to obtain feedback on the evaluation criteria and the preliminary findings.

The evaluation and response from consultation concluded the preferred site expansion alternative consists of a modest increase in the height of the waste, an expansion of the disposal footprint to the west and north and mining a portion of the existing waste to enhance groundwater quality. All mined and expansion areas will include the

construction of a liner beneath the waste to collect leachate (precipitation contaminated as it filters through waste) and ultimately direct it to the City's sewage treatment plant for treatment.

Current Activities

The last part of Phase 2 involves assessing the potential impacts of the conceptual design and planned operation of the preferred site expansion alternative and identification of suitable mitigating measures. Multiple disciplines were involved to assess the various potential impacts of the expansion on site, off site, in the vicinity and along the access route. The access route was considered to be along Fifth Line from Highway 17 to the site (which is the same route used today). Measures to reduce or eliminate potential effects on the environment were recommended.

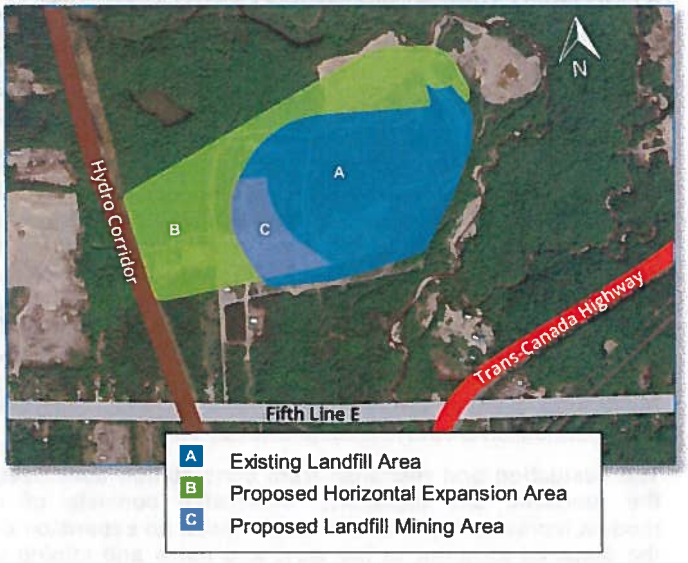
The disciplines that were involved include:

Natural Environment
- Biology
- Geology / hydrogeology
- Surface water

Socio-Cultural Environment
- Cultural (archaeology and heritage)
- Social
- Planned land use
- Visual
- Atmospheric (dust, noise, air quality)

Economic
- Businesses
- Transportation

Conceptual Layout of Proposed Landfill Expansion Area



HOW CAN I PROVIDE INPUT?

We will be hosting a Public Open House where you will learn about the results of the impact assessment work and we will ask for your feedback. If you are interested in discussing the project, we encourage you to attend the upcoming public open house!

YOU'RE INVITED!

Date:	*Tuesday, February 9, 2016*
Location:	*Civic Centre – 99 Foster Drive* *Russ Ramsay Room*
Time:	*3:30 pm to 7:30 pm*

Refreshments to be provided.

We will provide you with background information and discuss, with you, the preferred site expansion option and the results from the impact assessment work.

If you are unable to attend the Public Input Session there are other opportunities to provide input. Please visit the City's website at the address noted below to obtain further information, and / or access a comment sheet.

Project webpage address: saultstemarie.ca/SolidWasteEA

CONTACT US

You may also contact the Consultant Project Manager or the City's Land Development and Environmental Engineer by email, mail or telephone if you have questions or would like additional information.

Mr. Rick Talvitie, P.Eng.
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4

Phone: 705-942-2612
Email: rick.talvitie@aecom.com

Ms. Catherine Taddo, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580, 99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1

Phone: (705) 759-5380
Email: c.taddo@cityssm.on.ca

THE CITY OF SAULT STE. MARIE

NOTICE OF PUBLIC INPUT SESSION

SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

BACKGROUND

The City of Sault Ste. Marie is undertaking an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste. To date significant progress has been made.

Workshops and an Open House were held in the late spring of 2007 to present the waste management alternatives being considered. The input received was incorporated into the evaluation and **the preferred waste management alternative was identified as increased waste diversion through reduction, reuse and recycling (i.e. 3Rs) and landfilling of the residual waste.** The preferred alternative was presented at an Open House in June, 2010.

The study noted:

- landfills can be designed and operated to comply with regulations and policies;
- landfill gas can be collected and flared or recovered to generate electricity;
- landfills can manage the entire residual waste stream;
- landfills are flexible to changes in waste quality and quantities; and
- landfilling is cost effective.

In April, 2011 a Public Input Session was held to present the non-site specific landfill alternatives being considered. **The evaluation, which considered responses from consultation, concluded that an expansion of an existing landfill is generally preferred over construction of a new site.**

The study noted:

- an expansion requires less land;
- displaces fewer people and/or social/natural features;
- disrupts fewer people (i.e. one site versus two sites creating nuisance impacts);
- costs less;
- typically encounters fewer challenges in gaining technical approvals; and
- reduces the number of facilities the City must manage.

In March 2012 a Public Input Session was held to present the preliminary preferred approach to expanding the existing landfill at 402 Fifth Line East in the City of Sault Ste. Marie. **The evaluation, which considered responses from consultation, concluded that an expansion is best accommodated with a moderate increase in the height of the waste together with and expansion of the disposal footprint to the north and west. The preferred option also includes landfill mining (excavate existing disposed waste and cover material, recover earthen material or "fines" and return the waste to the disposal footprint) in the western portion of the existing disposal footprint to enhance groundwater protection. All mined and expansion areas will include the construction of a liner beneath the waste to collect leachate (precipitation contaminated as it filters through waste) and ultimately direct it to the City's sewage treatment plant for treatment.**

CURRENT ACTIVITIES

Presently the project team is focusing on **completing an impact assessment for the preferred expansion option.** The impact assessment includes expertise from numerous disciplines and focusses on potential impacts to the natural and human environments associated with the construction and operation of the proposed expansion. Careful attention is given to best management practices to mitigate potential impacts.

We are now seeking input from the Community, government agencies, stakeholders, and First Nations regarding the results of our impact assessment work and the proposed mitigation measures.

PUBLIC INPUT SESSION

If you are interested in discussing the impact assessment work, we encourage you to attend the upcoming public open house! We will provide you with background information and discuss with you, the preferred site expansion option and the results of the impact assessment work.

CONTACT US

We also encourage you to contact the individuals noted below if you have any specific questions.

Mr. Rick Talvitie, P.Eng
Project Manager
AECOM
523 Wellington Street East,
Sault Ste. Marie, ON, P6A 2M4
Phone: 705-942-2612
Fax: 705-942-3642
Email: rick.talvitie@aecom.com

Ms. Catherine Taddo, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O. Box 580
99 Foster Drive,
Sault Ste. Marie, ON, P6A 5N1
Phone: (705) 759-5380
Fax: (705) 541-7165
Email: c.taddo@cityssm.on.ca

YOU'RE INVITED!

Date: Tuesday February 9, 2016

Location: Civic Centre – Russ Ramsay Room

Time: 3:30 pm to 7:30 pm

Refreshments to be provided.

If you cannot attend the public open house, we still want to hear from you! Just go to the project webpage (address provided below) to review the project reference material and fill out a comment sheet or simply send us an email (email addresses provided above). Project webpage address: saultstemarie.ca/SolidWasteEA

AECOM
523 Wellington Street East
Sault Ste. Marie, ON, Canada P6A 2M4
www.aecom.com

705 942 2612 tel
705 942 3642 fax

January 20, 2016

Ms. Shauna Hansen
Metis Nation of Ontario
26 Queen Street East
Sault Ste. Marie, Ontario
P6A 1Y3

Dear Ms. Hansen:

Project No: 60117627 (60395)

Regarding: City of Sault Ste. Marie
Waste Management Environmental Assessment
Impact Assessment for the Preferred Expansion Option

The City of Sault Ste. Marie continues to move forward with its Waste Management Environmental Assessment (EA). We last contacted you in February, 2012. To date, a considerable level of study has been completed in developing and assessing the preferred approach to managing waste in the City of Sault Ste. Marie. The work completed to date has resulted in the following observations:

- The preferred approach to managing waste in the future is through increased waste diversion (ie. 3R's - reduction, reuse and recycling) and landfilling any remaining residual waste.
- The preferred approach to landfilling residual waste is an expansion of the existing City owned and operated disposal site located at 402 Fifth Line East in the City of Sault Ste. Marie.
- The preferred expansion option incorporates a moderate increase in the height or elevation of the waste and an expansion of the disposal footprint to the north and west of the existing footprint. The preferred option also includes landfill mining within the western portion of the existing disposal footprint to enhance groundwater protection. This process involves excavating existing disposed waste and cover material, recovering earthen material or "fines" and returning the waste to the disposal footprint. All mined and expansion areas will include the construction of a liner beneath the waste to collect leachate (precipitation contaminated as it filters through waste) and direct it to the City's sewage treatment plant for treatment. The existing disposal footprint and proposed mining and expansion areas are highlighted in a figure in the attached Newsletter.

We have now completed a detailed impact assessment for the preferred expansion option. The detailed impact assessment is a focussed investigation and analysis to identify potential environmental impacts resulting from the construction or operational changes associated with the proposed expansion. The impact assessment also considered opportunities for enhanced mitigation that otherwise would not likely be implemented in the absence of the proposed expansion.

Eleven reports were prepared which included expertise in the following disciplines:

- Biology (terrestrial and aquatic)
- Geotechnical
- Groundwater
- Atmospheric (acoustic and air quality)
- Surface water
- Socio-economic
- Visual
- Traffic
- Archaeological/Cultural
- Planned land use

We are now seeking input from Government agencies, stakeholders, First Nations and the general public regarding the impact assessment work. We would like to obtain as much input as possible from your community members. **We will be conducting a public open house in Sault Ste. Marie as outlined below. Everyone is welcome to attend.** We have attached a Notice of the Public Input Session which can be printed or copied and posted in prominent locations that are typically accessed by your community members. In addition, we encourage you to post the Notice on your website.

You are also encouraged to view the **Project Newsletter**, and the February 9th **Public Open House displays**. Copies of these documents are attached for your information and reference. These documents are also available electronically on the City's website at saultstemarie.ca/SolidWasteEA.

Details of the Public Open House to be held in Sault Ste. Marie are provided below:

Location:	Russ Ramsay Room, Civic Centre, 99 Foster Drive
Date/Time:	Tuesday, February 9, 2016 - 3:30 pm to 7:30pm
Format:	Open House - come any time between the times noted, view the displays, ask questions of the project team and provide input at the open house or at a later date.

If you are unable to attend the February 9th session we also encourage community input through other means. Please review the project materials at the link provided above and access a comment sheet to provide feedback or simply send the project team an email (nancy.maahs@aecom.com). Please include "**City of SSM Waste Management EA – Comments**" in the subject line of your email message. We have also included a copy of the comment sheet that can be reproduced for use by your members if desired.

We would appreciate receiving your input by March 11, 2016.

As always, we would also be pleased to meet with you at your convenience to discuss the project details. Please contact our office by telephone or email to arrange a meeting.

Sincerely,
AECOM Canada Ltd.

Rick Talvitie, P. Eng.
Project Manager
RT:nm
Encl.

cc: C. Taddo, City Engineering
K. Kolli, Dillon Consulting

Maahs, Nancy

From: Talvitie, Rick
Sent: Monday, April 11, 2016 10:18 AM
To: 'consultations@metisnation.org'
Cc: Catherine Taddo (c.Taddo@cityssm.on.ca)
Subject: City of Sault Ste. Marie Waste Management Environmnetal Assessment
Attachments: January 2016 correspondence w metis.pdf

Hi Jesse,

I would like to thank you and your colleagues for the time provided last week to briefly discuss the City's Waste Management Environmental Assessment.

As promised I have attached the full package of information that was delivered to the local MNO office earlier this year. The package includes the newsletter that I left with you together with the information that was available at the most recent open house. In addition to the attachments, I have also provided below, a link to the project webpage which includes additional project details and documentation.

I am also available to discuss the project in greater detail or answer any questions.

Thanks again.

Project Webpage Link: http://www.saultstemarie.ca/City-Hall/City-Departments/Public-Works-and-Transportation/Public-Works/Waste-Management/Solid-Waste-Management-Environmental-Assessment.aspx

Rick Talvitie, P. Eng.
Manager, Northern Ontario
rick.talvitie@aecom.com

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www.aecom.com

From: Jesse Fieldwebster [mailto:JesseF@metisnation.org]
Sent: Wednesday, April 13, 2016 9:45 AM
To: Talvitie, Rick
Cc: Catherine Taddo (c.Taddo@cityssm.on.ca); James Wagar
Subject: RE: City of Sault Ste. Marie Waste Management Environmnetal Assessment

Hello Rick,

The Historic Sault Ste. Marie Consultation Committee has reviewed the project and indicated that they would like to meet. If you could provide a list of potential meeting dates that work for you I will work with the committee to determine a suitable date. Would we likely be meeting in the same location used for the Port of Algoma meetings? If you could let me know I can begin creating a draft budget for the proposed meeting.

Sincerely,

Jesse Fieldwebster
Consultation Assessment Coordinator
Métis Nation of Ontario
355 Cranston Crescent PO Box 4
Midland, Ont. L4R-4K6
PH: 705-526-6335 ext.220
FX: 705-526-7537
E: JesseF@metisnation.org
W: www.metisnation.org

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Please consider the environment before printing this e-mail.

From: Talvitie, Rick [mailto:Rick.Talvitie@aecom.com]
Sent: April-11-16 10:19 AM
To: Consultations

Cc: Catherine Taddo (c.Taddo@cityssm.on.ca)
Subject: City of Sault Ste. Marie Waste Management Environmnetal Assessment

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Minutes of Meeting

Date of Meeting	April 22, 2016	Start Time	2:00 pm	Project Number	60117627
Project Name	Sault Ste. Marie Solid Waste Management EA				
Location	Civic Centre – Thompson Room				
Regarding	The purpose of the meeting was to discuss the Sault Ste. Marie Solid Waste Management Environmental Assessment.				
Attendees	Yvonne Jensen, Metis North Channel Council President Ernie Gatien, Historic Sault Ste. Marie Metis Traditional Territory Region 4 Councillor Art Bennet, MNO Region 4 Captain of the Hunt Kim Powley, President MNO Historic Sault Ste. Marie Metis Council Jesse Fieldwebster – MNO Consultation Assessment Co-ordinator Catherine Taddo, City of Sault Ste. Marie Rick Talvitie, AECOM				
Distribution	All in Attendance				
Prepared By	Tara Abernot, AECOM				
Reviewed By	Rick Talvitie, AECOM				

PLEASE NOTE: **If this report does not agree with your records of the meeting, or if there are any omissions, please advise, otherwise we will assume the contents to be correct.**

Action

- RT thanked the committee for their responsiveness and commitment to meeting on such short notice. He also noted that although a suggestion was initially made to meet through a webex the face to face is particularly important based on the content of the presentation. — Info.
- Introductions were made around the table. — Info.
- JF delivered a presentation which provided insight into the historical evolution of Métis people and their political structure. Jesse highlighted that engagement of the Metis Nation of Ontario in projects is important as they have specific interests such as harvesting that may be adversely impacted if appropriate mitigation is not incorporated into the project planning. A copy of the presentation slides are attached. — Info.
- RT delivered a presentation that addressed the following key topics (a copy of the presentation slides are attached): — Info.
    - Overview of existing disposal site operations, controls and reporting
    - Leachate management (existing site)
    - Application of reasonable use criteria to protect groundwater quality

- Annual Monitoring (groundwater and surface water)
- Waste Management EA - Project Need
- Alternatives To and Alternative Methods Evaluations
- Proposed landfill expansion including proposed leachate management controls
- Impact Assessment for the preferred design option

- The following questions/comments were noted:
  - Will native tree species be used for the reforestation that will be undertaken at the time of site closure? — AECOM
  - Have contaminants been identified that will be monitored in the storm water ponds? — AECOM
  - Can a copy of the Annual monitoring report be provided for review? — Done
  - Can a summary of the annual groundwater monitoring results be forwarded to MNO? RT noted that a presentation is prepared which is delivered to the Environmental Monitoring Committee each year which may be suitable. RT will discuss further with the City. — AECOM/City

  A copy of the 2014 Annual Monitoring Report was provided on May 4, 2016 and answers to the remaining questions will be provided by AECOM. — AECOM

- Jesse is to continue to be the point of contact. — Info.

- The MNO will be interested in a review of the EA document when it is available. Comments were made that it is evident the City is being proactive and approaching the ground and surface water management using best practices (eg. full lined site in the expansion areas and landfill mining to install a liner in the area of the existing site that has been the most challenging historically). — Info.

- It was acknowledged by all parties at the meeting that ideally a signoff from MNO on this project would be in the best interest of all parties. — AECOM/ MNO

City of Sault Ste. Marie
Waste Management Environmental Assessment
Métis Nation of Ontario

Rick Talvitie (AECOM)

April, 2016

DILLON CONSULTING

AECOM

Presentation Overview

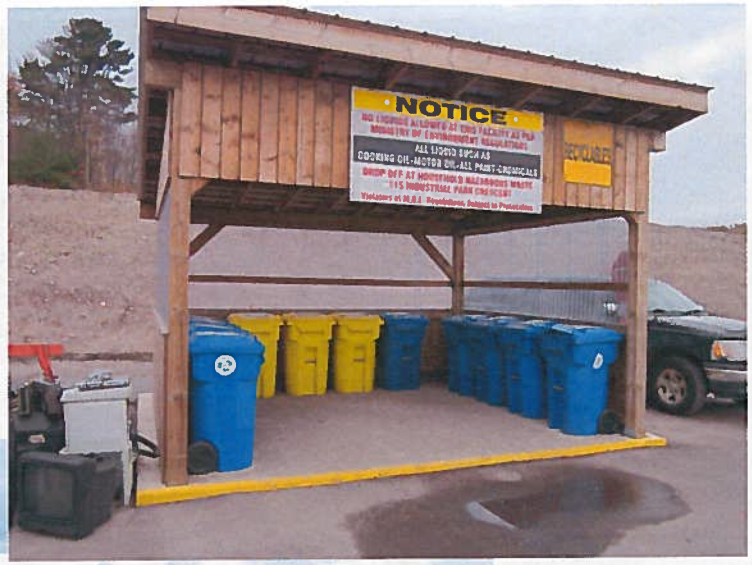
- Overview of Existing Disposal Site Operations, Controls and Reporting
- Application of Reasonable Use Criteria
- Leachate Management (existing site)
- Annual Monitoring (groundwater and surface water)
- Waste Management EA - Project Need
- Alternatives To and Alternative Methods Evaluations
- Proposed Landfill Expansion
- Impact Assessment for the Preferred Option

Site Operations - General

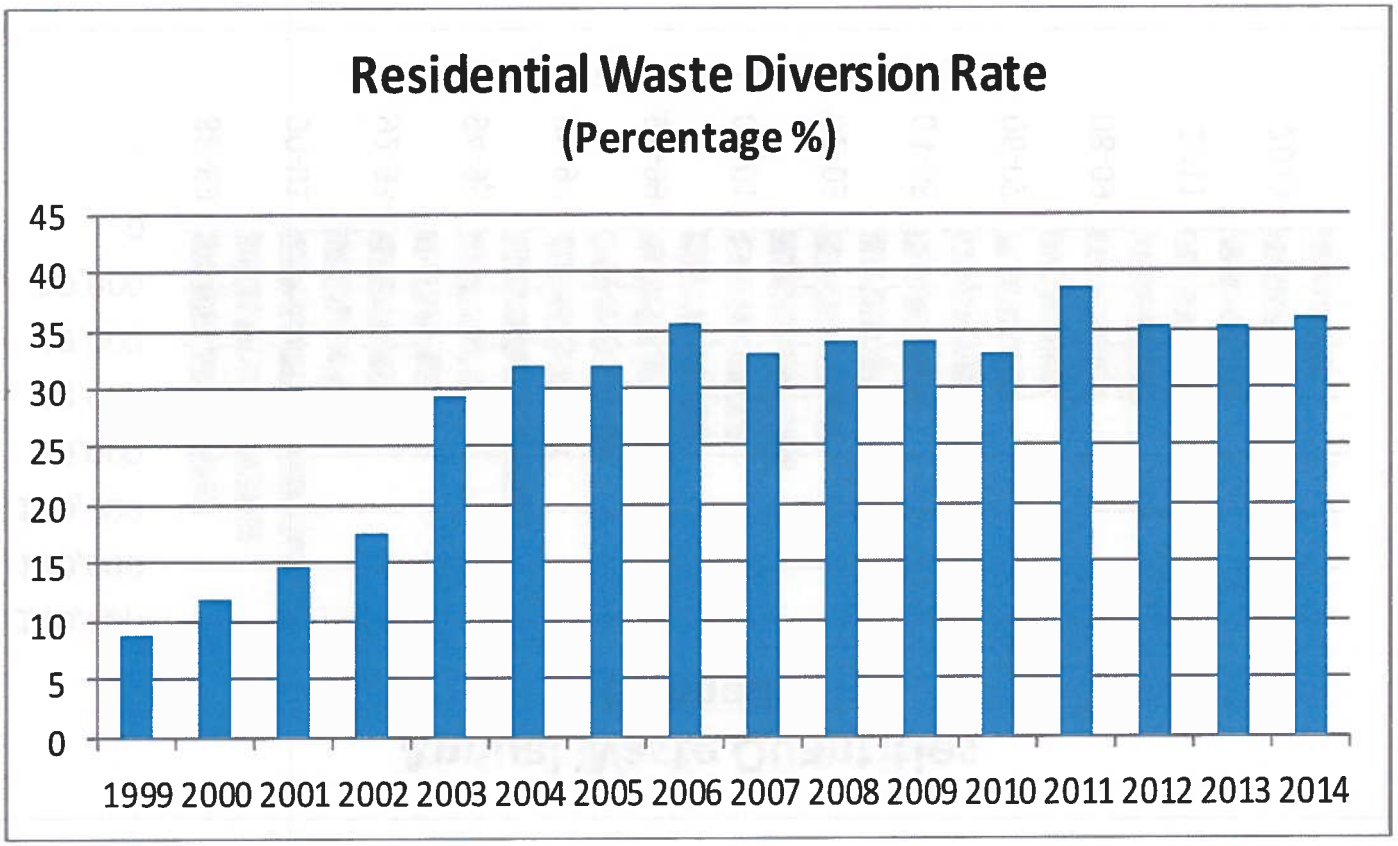
- Site operating and reporting requirements dictated through the site Certificate of Approval issued by the MOECC – originally issued in 1989 and several amendments have been issued for various changes.
- Site accepts domestic, commercial and non-hazardous solid industrial waste and processed organic waste.
- Tipping Fee = $70/tonne.
- Gate Fee = $10/visit (up to 300 kg's).
- Reporting period – calendar year.

Site Operations - Diversion

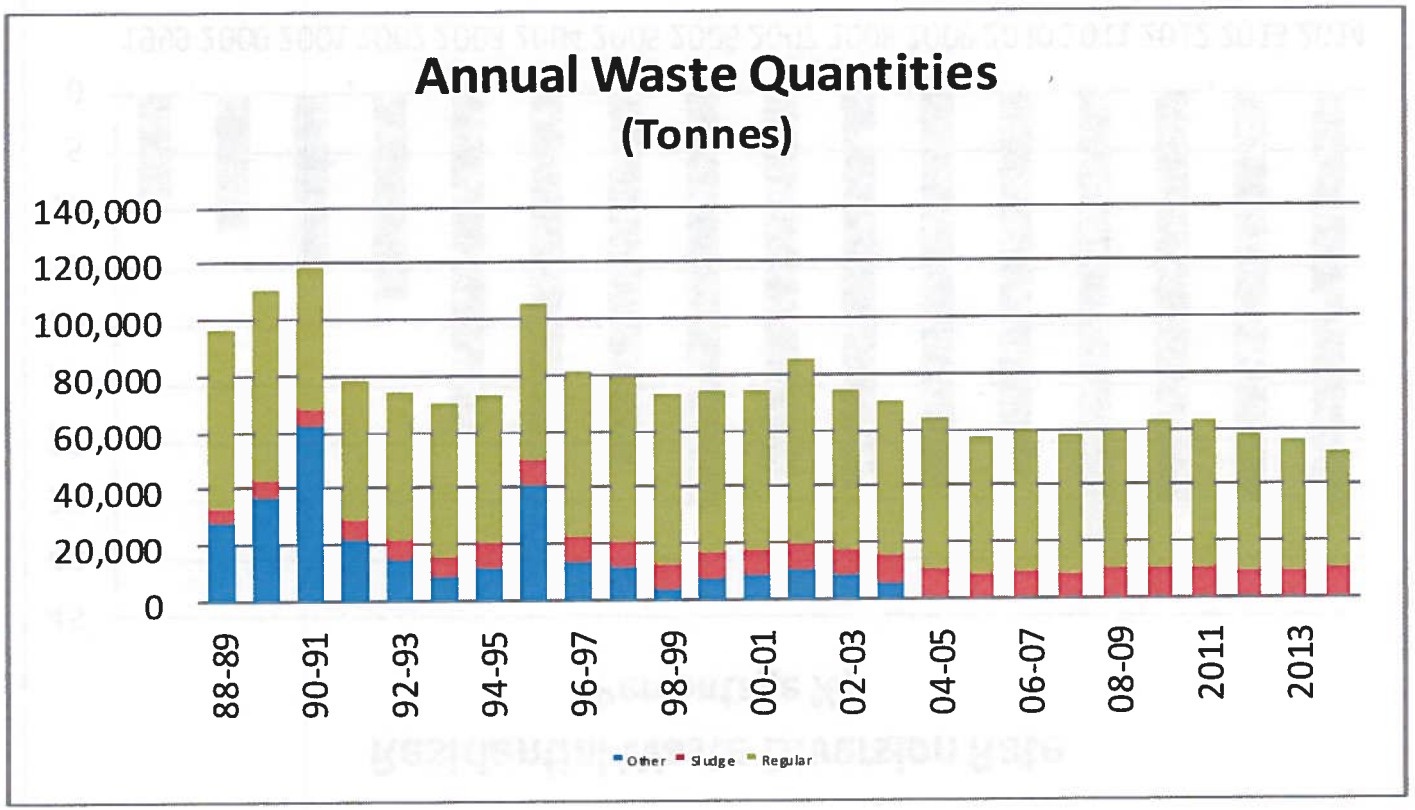
- Recycling efforts at the landfill:
  - Leaf and yard waste composting
  - Tires – City registered as a collector under OTS
  - Batteries
  - Propane tanks
  - Metals/appliances
  - Wood waste
  - Recyclables (fibres/containers)
  - WEEE – formal program with OES



Recycling - How Are We Doing?



Historical Waste Disposal Quantities



Site Operations – Litter Control

- compaction;
- cover (daily, interim and final);
- portable and permanent fencing;
- litter pick-up (manual and industrial vacuum).

Site Operations – Odour Control

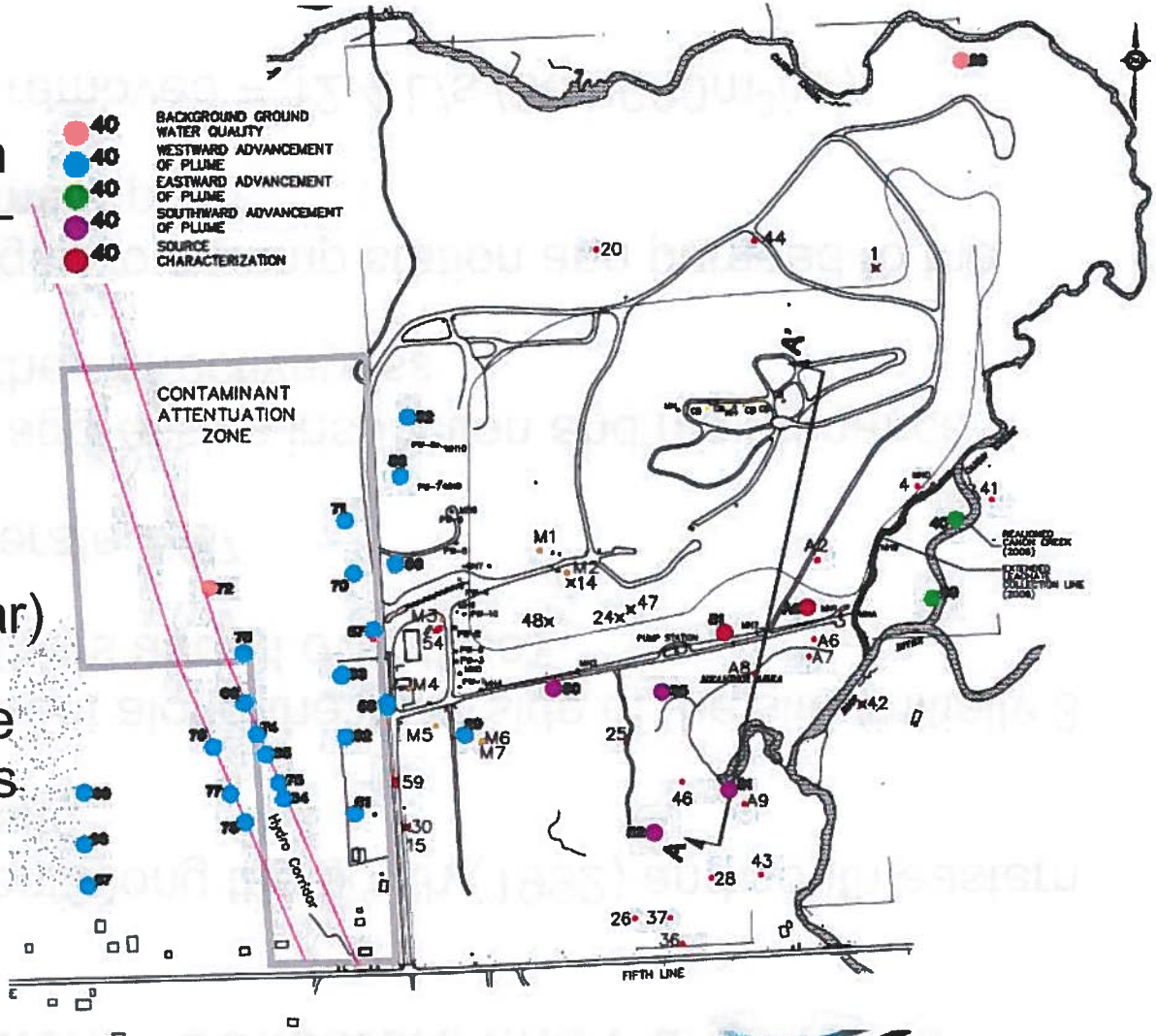
- active landfill gas collection system
- application of odour reducing agent to biosolids at the plants
- Cover application
- Application of odour neutralizer to empty trailer
- Impermeable cover tarps for biosolids trailers and regular wash downs of trailers
- Portable odour neutralizing mist sprayer

Leachate Management - Collectors and Purge Wells

- Collectors are present along the south (1992) and south eastern (2006) sides of the site
- Purge wells are present along the west side of the site (initially 3 wells in 1997 and others added over time)
- Typically 9 wells operate 24/7
- City implements an aggressive inspection and maintenance regime to maintain their effectiveness
- Leachate is discharged to a pump station and pumped to the City's sewage treatment plant.
- Estimated leachate removed = 12.4 L/s (391,000m^3/yr)

Groundwater Monitoring

- Approx. 206 groundwater monitors have been installed over time – approx. 97 in good condition
- Approx 35-40 monitors are sampled regularly (1-3 times each year)
- Background, source and quality monitors



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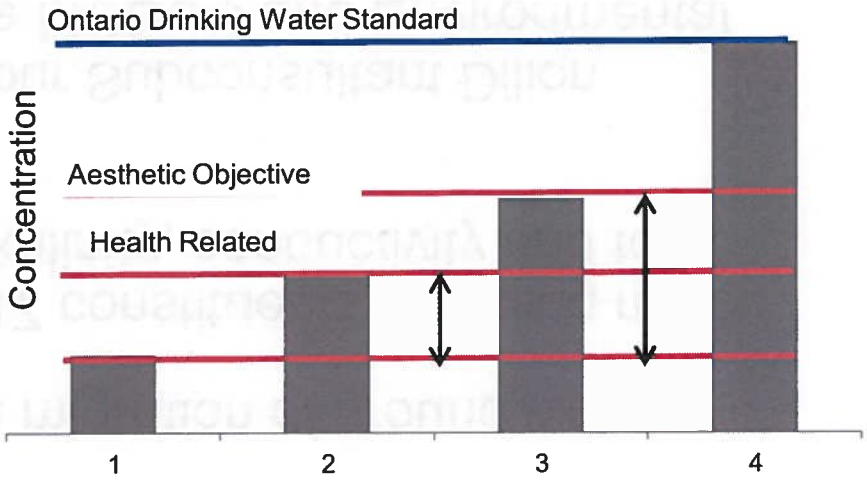
Application of Reasonable Use

- Discharge to a neighbouring property must have no more than a negligible or trivial effect on the existing or potential reasonable use of a property.
- Reasonable use of GW on adjacent properties in the case of the SSM landfill is drinking water.
- Water quality cannot be degraded in excess of 25% of the difference between background and the ODWS for health related parameters
- Water quality cannot be degraded in excess of 50% of the difference between background and the ODWS for non-health related parameters

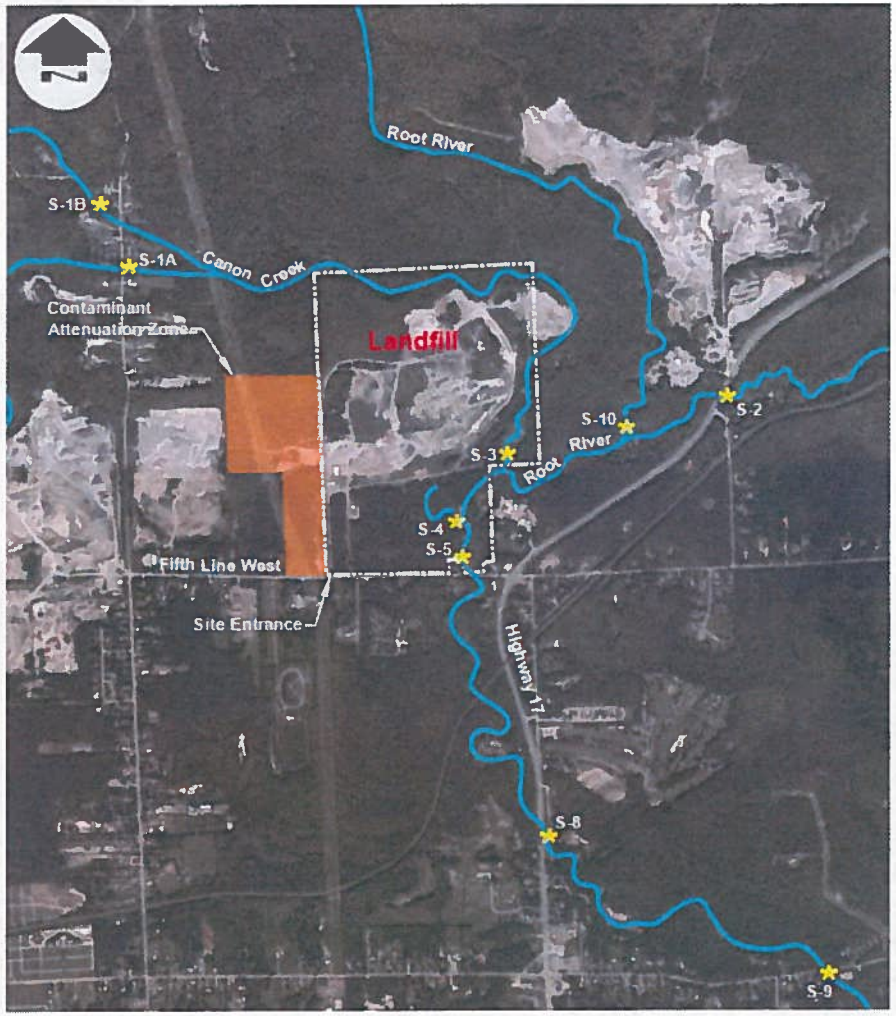


Groundwater Monitoring

- Water levels measured to trace migration of ground water.
- Samples analysed for at least17 constituents including major leachate Indicators chloride, alkalinity, conductivity and total organic carbon.
- Report completed annually by our Subconsultant Dillon Consulting and submitted to the MOECC and Environmental Monitoring Committee.
- The site continues to perform as anticipated. The site has an adequate buffer, CAZ and/or contingency plan in place. Design and operational measures including the size and configuration of the CAZ are adequate to prevent potential human health impacts and impairment of the environment.

Surface Water Monitoring

- Surface water sampled and analyzed at 5 locations (S-1B, S-2, S-3, S-4 S-5 – upstream, adjacent to and downstream relative to the site).
- Sampled 5 times/year - results compared to Provincial Water Quality Objectives.
- Surface water parameter concentrations fall within a stable or decreasing trend. Although there are some exceedances of PWQO are not believed to be the result of waste disposal activities.



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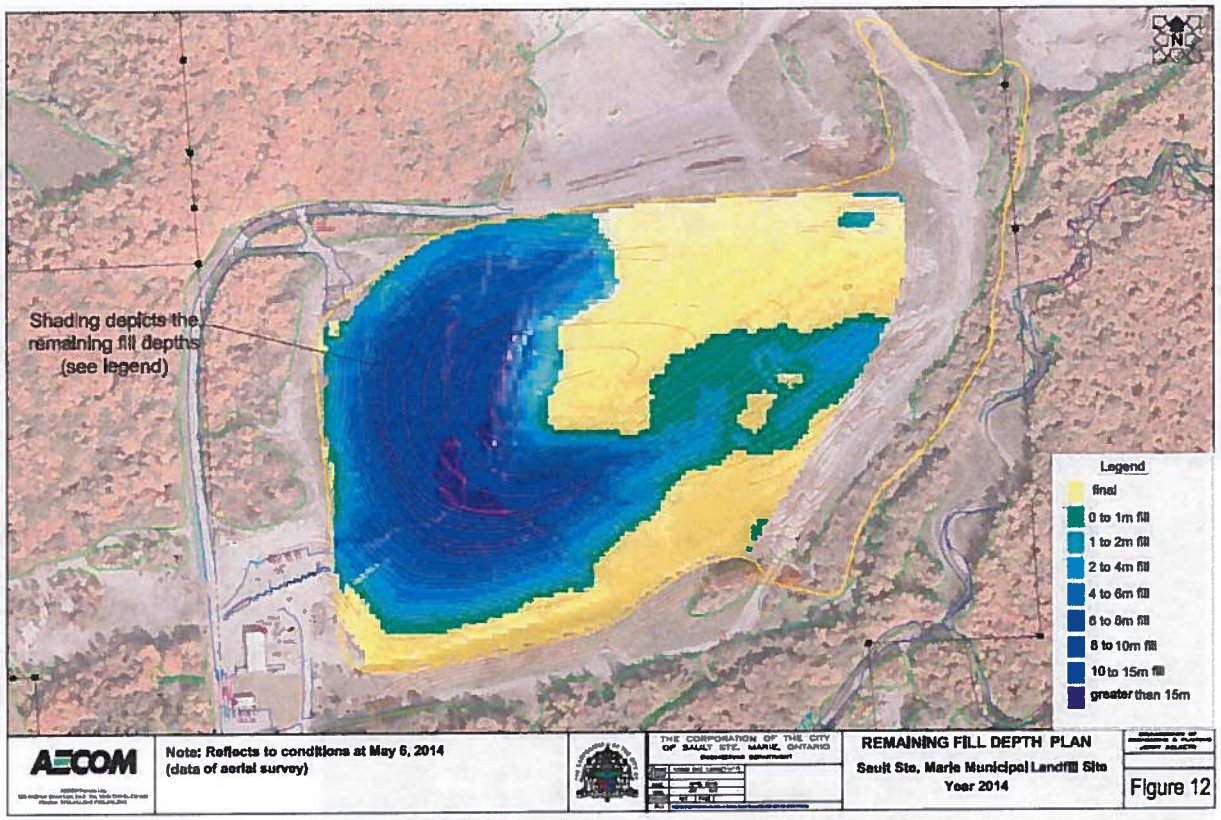
Waste Management EA - Project Need

The estimated remaining service life of the existing landfill is 6.25 years (at the end of 2015). The estimated site life may be impacted by future population changes, in-situ subsidence and waste generation, diversion and disposal rates.



Despite significant success in enhancing waste diversion, additional disposal capacity is required.

Landfill & Increased 3Rs - Rationale

EA Step – "Alternatives to" Conclusion

Based on the results of the evaluation and input received the preferred long-term approach to managing waste in SSM is:

- Increased 3Rs (Reduce/Reuse/Recycle); and
- Landfilling residual waste.

Why?

- Can comply with regulations and policies.
- City is experienced with these waste management initiatives.
- Flexible to changes in the waste stream (e.g. population, waste generation, diversion).
- Can accept non-hazardous residual waste from a Waste-to-Energy facility.
- Cost efficient.

Landfill Expansion - Rationale

EA Step – "Alternative Methods" Conclusion

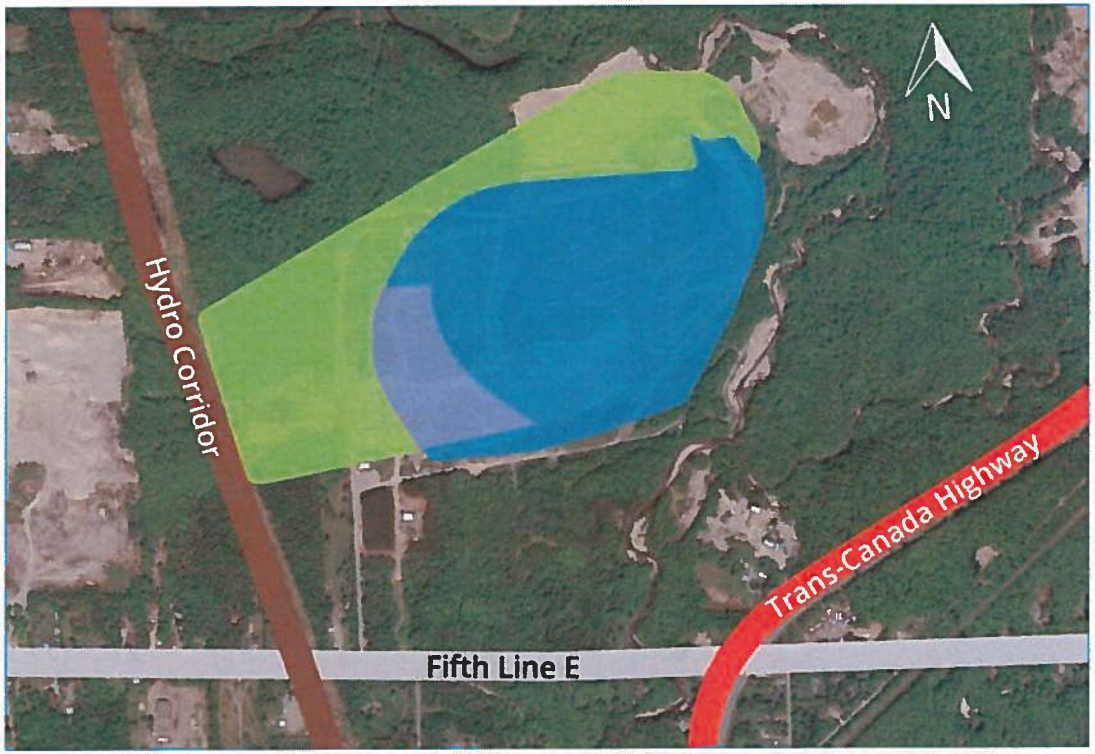
Based on the results of the evaluation and input received the preferred method of landfilling waste = expansion of an existing site.

Why?

- Likely less potential for displacement and disruption.
- Only one landfill site to manage and maintain.
- Cost effective.
- Community adaptation.
- Likely fewer challenges in gaining approvals.

Preliminary Preferred Option

Expansion of the north and west boundaries of the existing disposal footprint, a moderate vertical expansion of 4 m and landfill mining within the western portion of the existing disposal footprint.



Preferred Option – Enhanced Controls

- Fully engineered site with a liner installed in expansion areas, mined areas, and interfaces between new and existing waste.
- Horizontal collector at west edge of new footprint.
- Staged expansion of the landfill gas management system.
- Construction of a biosolids processing facility.

Impact Assessment

What is it?

- Focused investigation and analysis to identify potential impacts to the environment resulting from the construction or changes in the operation of the expanded landfill.
- Also includes consideration of potential opportunities for enhanced mitigation that otherwise would not likely be implemented in the absence of the proposed expansion.

Impact Assessment

- The detailed impact assessment required expertise in the following disciplines:
  - ✓ Biology (terrestrial and aquatic);
  - ✓ Geotechnical;
  - ✓ Groundwater;
  - ✓ Atmospheric (acoustic and air quality);
  - ✓ Surface water;
  - ✓ Socio-economic;
  - ✓ Visual;
  - ✓ Traffic;
  - ✓ Archaeological/cultural; and
  - ✓ Planned land use.

Impact Assessment – Natural Environment Mitigation Strategies

- Lined site design mitigates potential for impact to groundwater. Also allows opportunity to enhance existing groundwater controls.
- Erosion and sediment controls to be implemented during construction (e.g. use silt fences to reduce risk of soil washing into watercourses).
- Woodland edge management (e.g. avoid using heavy machinery over roots of edge trees).
- Wildlife impact management during construction (e.g. avoiding bird nesting seasons when clearing).
- Apply a vegetative cap on final landform.
- Reforestation following closure to compensate for removal.
- Manage storm water to remove sediment and ensure no increase in peak flows in adjacent watercourses.

Impact Assessment – Social Environment Mitigation Strategies

- Dust management to include hard surface perimeter road and dust mitigation as necessary.
- Sound attenuation berm adjacent to south-west corner of compost pad.
- Implementation of a vermin and wildlife management plan.
- Landfill gas management to minimize green house gas emissions.
- Permanent and/or portable odour neutralizing spray system.
- Development of an odour management plan for landfill mining to include consideration of meteorological conditions, periphery odour misting, area of exposed waste, frequent application of cover, bypass screening of odourous waste; use of chemical and biological neutralizers, etc.
- Complete technical review of Highway 17/Fifth Line intersection and sight distance improvements.
- Rezone south-west portion of the property.
- Manage future development in the vicinity of the site.

Impact Assessment – Communication, Monitoring and Reporting

- Undertake a comprehensive ground and surface water monitoring program and report the results annually.
- Review the site development and operations annually, identify areas for improvement and report the results.
- Complete National Pollutant Release Inventory (NPRI) and landfill gas management reporting annually.
- Monitor future traffic volumes and Hwy 17/Fifth Line intersection operations.
- Monitor onsite and offsite odours and proactively manage mining operations.
- Monitor stormwater quality discharge from onsite ponds.
- Maintain regular communication with local residents
- Maintain a formal complaint recording and response procedure.

Next Steps

- Prepare Environmental Assessment Document.
- Prepare the Design and Operation Report for the site.

QUESTIONS?

MÉTIS 101 & DUTY TO CONSULT

City of Sault Ste. Marie

April 22th, 2016

Métis Nation of Ontario
Lands, Resources and Consultations

Métis Nation of Ontario

MÉTIS 101 & DUTY TO CONSULT

Who are the Métis?

The Métis Nation of Ontario

Duty to Consult and Accommodate

WHO ARE THE MÉTIS?

Provisional Métis government - 1870

The Métis are a **distinct** Aboriginal people with a **unique** history, culture, language and territory that includes the waterways of Ontario, surrounds the Great Lakes and spans what was known as the historic Northwest.

WHO ARE THE MÉTIS?

A Culture All Our Own!

Descendants of Native American women and European men

Mixed ancestry

Genesis of new Aboriginal people

WHO ARE THE MÉTIS?

Key Misconceptions

Métis do not pay taxes

Métis live on reserves like some First Nations people

Métis have no harvesting rights

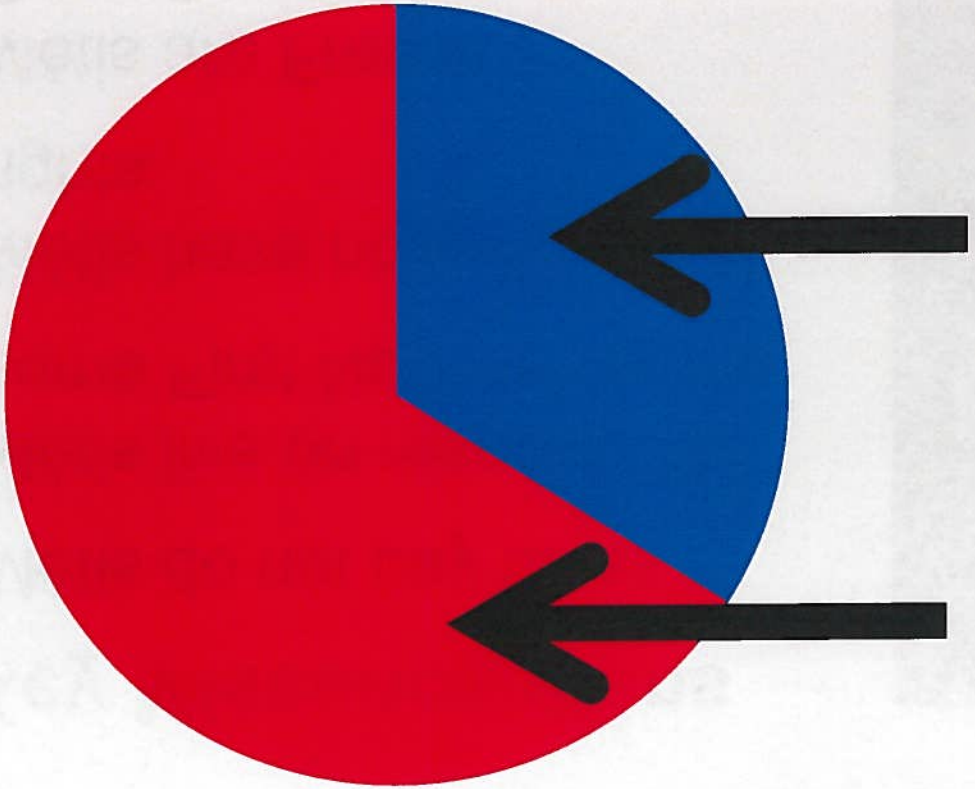
Métis are French Canadians

Métis are a “First Nation” people

Art by Christi Belcourt

WHO ARE THE MÉTIS?

Population dynamics

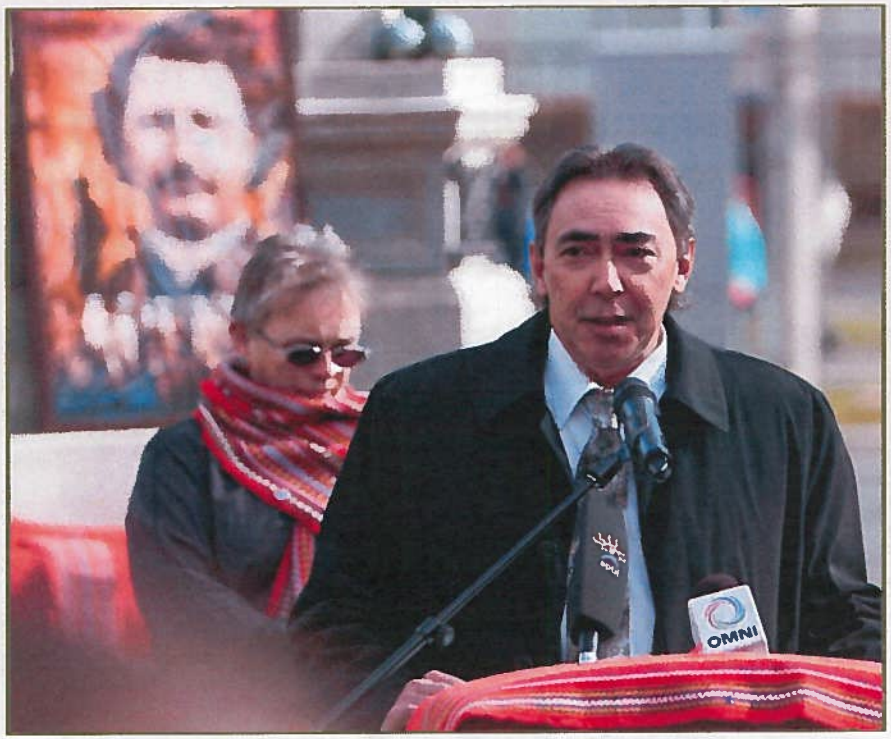


Métis – 34%

Other Aboriginal 66%

Source: Statistics Canada 2006

THE MÉTIS NATION OF ONTARIO



MNO President Lipinski and Chair Picotte at 2013 Louis Riel Day Ceremony at Queen's Park in Toronto

Métis-Specific Governance Structure

- In 1993 the founding delegates made a decision to bind their people together in the spirit of nation-building, based on a democratic representative model, as opposed to past Pan-Aboriginal Models;
- The MNO designed its governance to support aspirations at local, provincial and national levels;
- MNO citizens exercise their collective right to self-government through a structure that continues to evolve as the MNO moves forward in the implementation of Métis self-government.

THE MÉTIS NATION OF ONTARIO

Métis National Council (MNC) President Clement Chartier swears in the PCMNO at the 2012 Annual General Assembly

Métis-Specific Governance Structure

- Every four years MNO Métis citizens have the opportunity to choose their provincial leadership by voting in provincial ballot-box elections.
- The governance of the MNO is supported by the their policies and procedures and guided by a host of other documents:
  - -MNO Secretariat By-Laws
  - -MNO Electoral Code Part A
  - -Métis Rules of Order
  - -MNO Statement of Prime Purpose

THE MÉTIS NATION OF ONTARIO

The signing of the MNO-Ontario Framework Agreement in 2004

Métis Specific Governance Structure

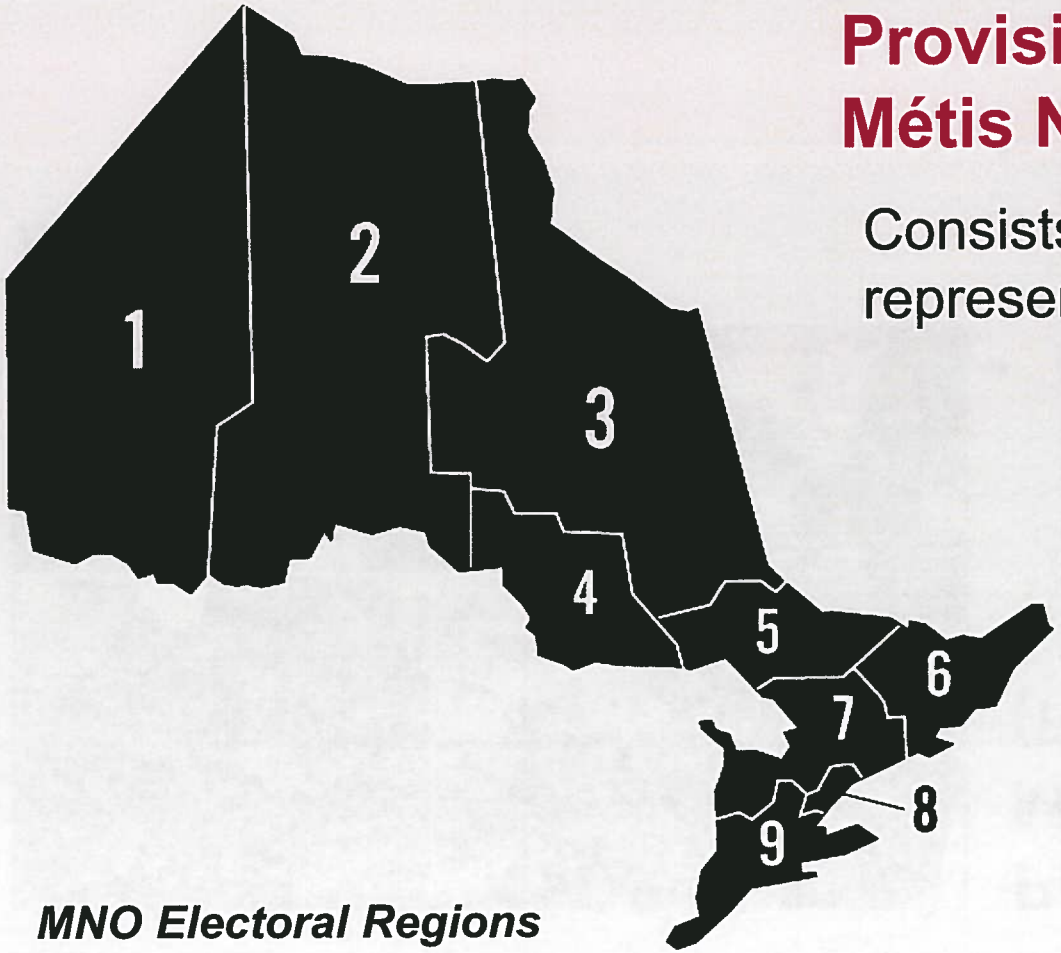
- Only recognized provincial Métis governance structure in Ontario
- Has established bilateral and tripartite process with the federal and provincial governments
- In July of 2004 the MNO negotiated with the Government of Ontario, negotiating an interim accommodation agreement on Métis harvesting rights, and in November 2008 the MNO signed the MNO-Ontario Framework Agreement with the province.

THE MÉTIS NATION OF ONTARIO

MNO Registry

- The MNO Registry is the only recognized Registry in the province
- Extensive application process
- Approximately 15,000 individuals are registered MNO citizens

THE MÉTIS NATION OF ONTARIO



MNO Electoral Regions

Provisional Council of the Métis Nation of Ontario (PCMNO)

Consists of 19 elected representatives which include:

- MNO President
- Chair
- Vice-Chair
- Secretary-Treasurer
- 4 Senators
- 1 Youth Representative
- 1 Post-Secondary Representative
- 9 Regional Councilors

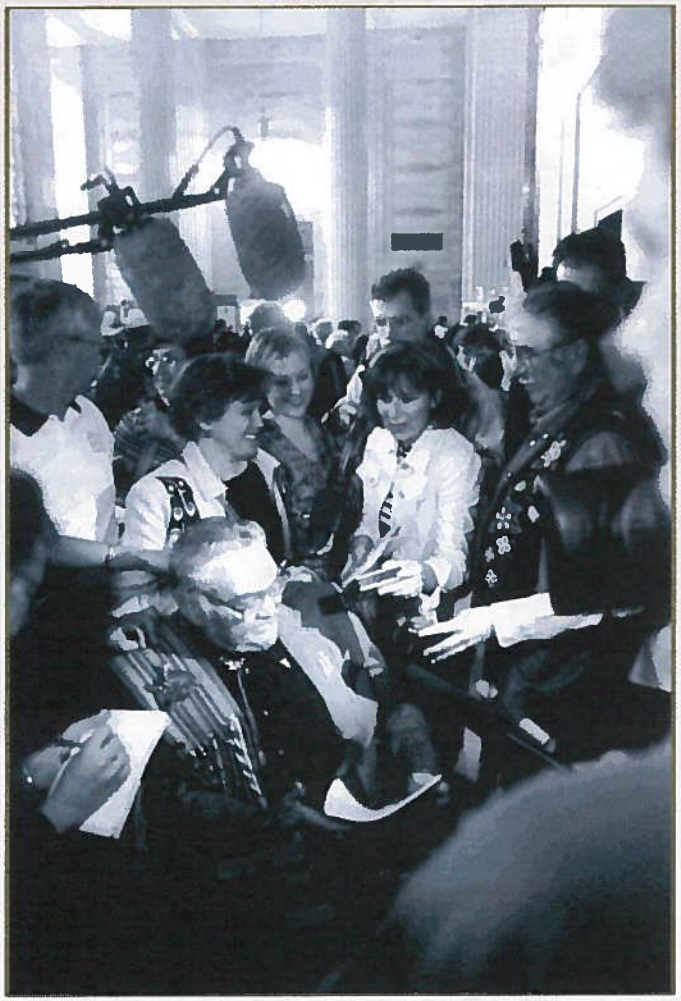
THE MÉTIS NATION OF ONTARIO

The PCMNO in Action

Provisional Council of the Métis Nation of Ontario (PCMNO)

- The structure of PCMNO ensures that community and regional interests are represented, as well as other demographic segments such as youth, women and elders
- MNO elections are held every four years.
- Executive members (except the Executive Senator) and Regional Councillors are elected in a provincial ballot-box election.
- Senators are elected by Community Council Senators at AGAs.
- The PCMNO takes its direction from and is required to report to its citizens at General Assemblies, which are held once a year.

THE MÉTIS NATION OF ONTARIO

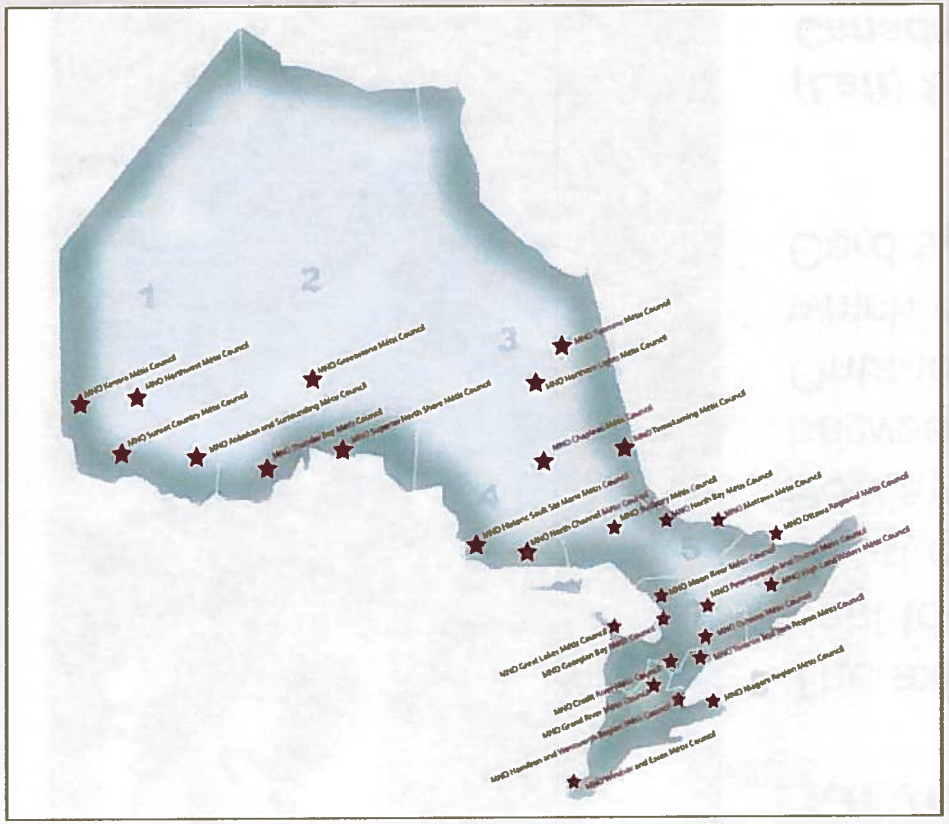


Powley Decision and Interim Harvesting Agreement

The existence of Métis rights, including the right to harvest was affirmed by the Supreme Court of Canada in September 2003 R v. Powley decision. An interim agreement between the Métis Nation of Ontario and the Ontario Ministry of Natural Resources (MNR), which recognized the MNOs existing Harvest Card system was reached in 2004.

(Left) Steve Powley at the Supreme Court of Canada following the release of the historic Powley decision in 2003.

THE MÉTIS NATION OF ONTARIO



The Locations of the MNO's 29 Chartered Community Councils.

Chartered Community Councils

- There are currently 29 Chartered Métis Community Councils in Ontario which are almost entirely volunteer operated.
- The MNO's Community Charter Agreements continue to be the cornerstone for a strong foundation for the MNO to implement its inherent right to self-government.
- Community Councils are the catalyst in maintaining communication linkages around community development efforts as well as playing an important role in fostering community empowerment and development for the Métis Nation of Ontario.

DUTY TO CONSULT & ACCOMMODATE

Why Consult?

- Section 35 of *The Constitution Act, 1982*
- *R. v. Powley,* 2003 Supreme Court case
- Haida & Taku cases 2004 Supreme Court
- Significant Métis rights cases are still before the courts

Signing of Memorandum of Understanding between MNO and Osisko

DUTY TO CONSULT & ACCOMMODATE

What triggers consultation?

The Crown is required to make a DECISION about:

- Permits
- certain licenses
- removal of habitat
- exhaust pollution
- infringement on threatened/protected species

DUTY TO CONSULT & ACCOMMODATE

Basics of Consultation

1. Full disclosure
2. Exchange of interests
3. Identify conflict between interests
4. Mitigate/accommodate accordingly
5. Qualified consent

Painting by Adney

DUTY TO CONSULT & ACCOMMODATE

What Role Does the MNO Secretariat Play?

Determine, as concretely as possible, the potential impacts of a project on the rights and traditional way of life of Métis people through an assessment process.

Trapping Muskrat

DUTY TO CONSULT & ACCOMMODATE

MNO Consultation Protocols

Signing of an MNO Consultation Protocol

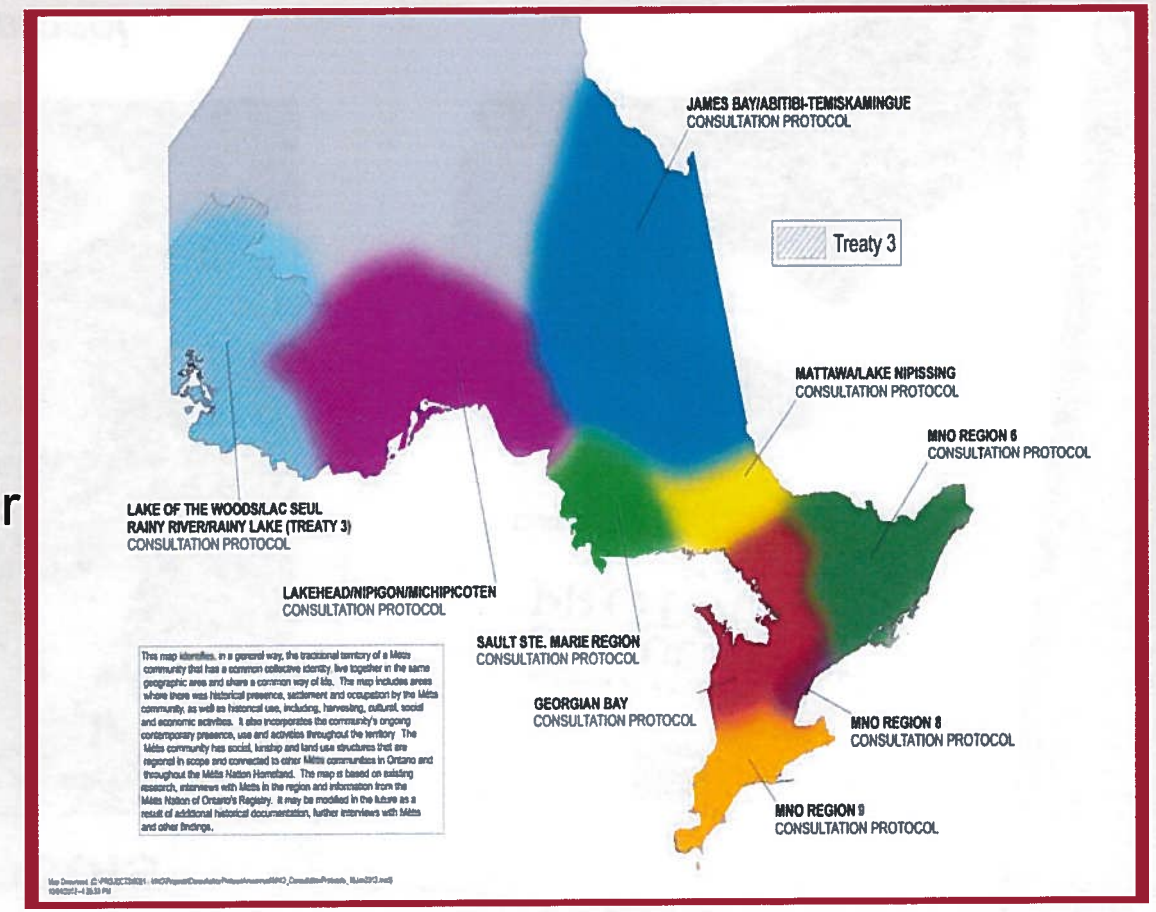
DUTY TO CONSULT & ACCOMMODATE

Regional Consultation

- Community Based
- Provincially Recognized Harvesting Territories

Protocol Committees

- Regional Councillor – Chair
- Council Representative
- Captain of the Hunt
  - *ex-officio*
- *Youth Rep*
- *Senator*



MNO Protocol Areas

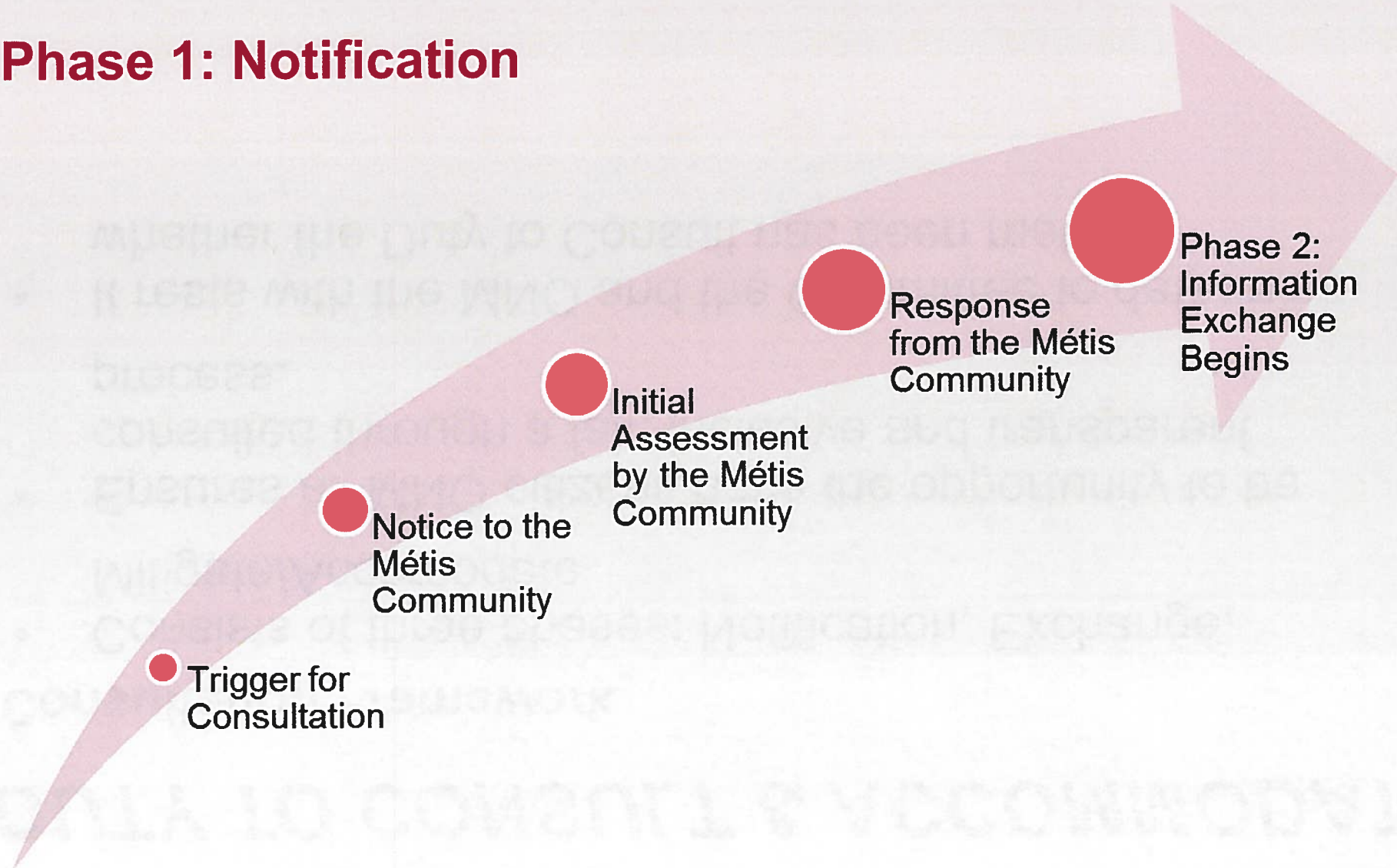
DUTY TO CONSULT & ACCOMMODATE

Consultation Framework

- Consists of three phases: Notification, Exchange, Mitigate/Accomodate
- Ensures all MNO citizens have the opportunity to be consulted through a fair, inclusive and transparent process.
- It rests with the MNO and the Committee to determine whether the Duty to Consult has been met.

DUTY TO CONSULT & ACCOMMODATE

Phase 1: Notification



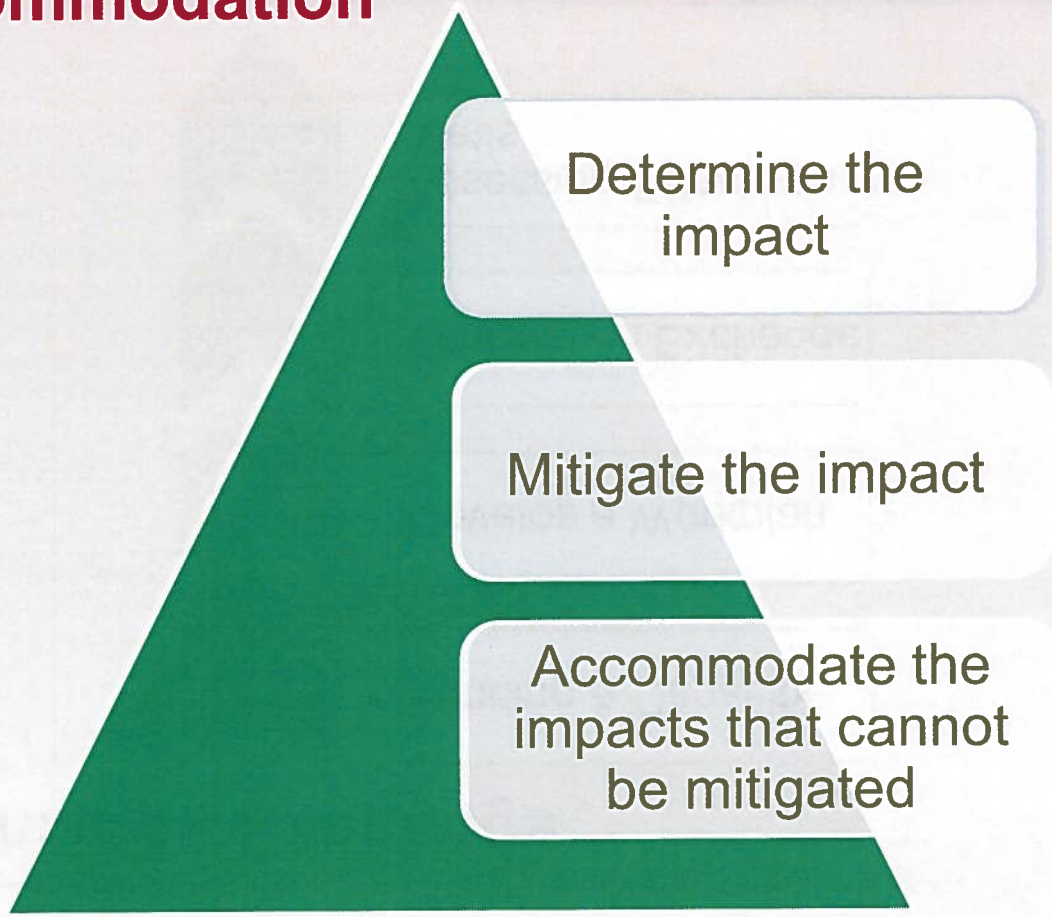
DUTY TO CONSULT & ACCOMMODATE

Phase 2: Information Exchange

- Step #1
  - Funding & Capacity
- Step #2
  - Develop a Workplan
- Step #3
  - Information Exchange
- Step #4
  - Assessing Effects on Metis

DUTY TO CONSULT & ACCOMMODATE

Phase 3: Accommodation

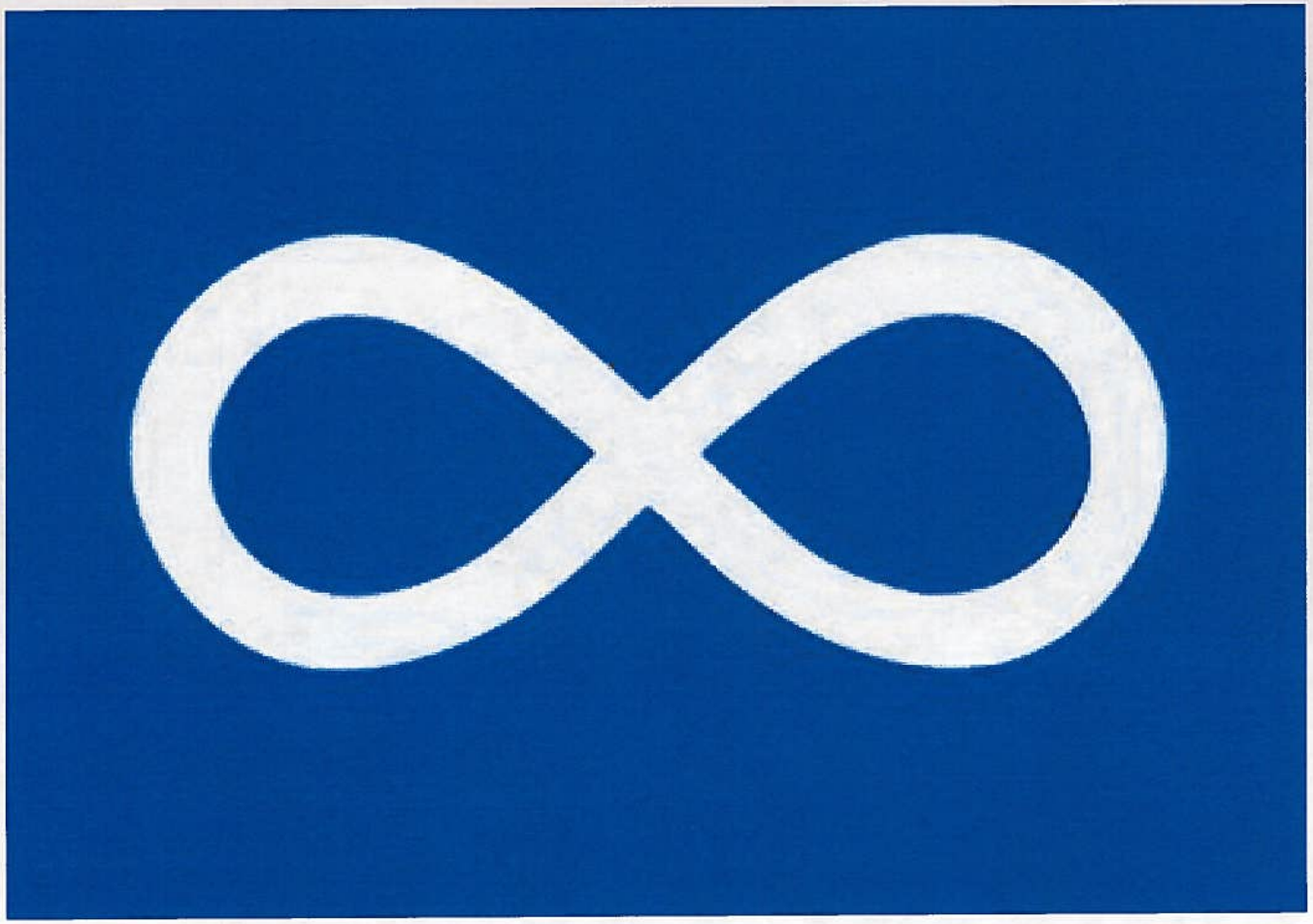


DUTY TO CONSULT & ACCOMMODATE

Phase 3: Accommodation

DUTY TO CONSULT & ACCOMMODATE

Phase 3: Accommodation



THANK YOU - QUESTIONS

www.metisnation.org

Find us on: facebook

YouTube

Jesse Fieldwebster
Consultation Assessment Coordinator
Lands, Resources & Consultation
Métis Nation of Ontario
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705-526-6335 x220

Aly Alibhai
Director
Lands, Resources & Consultation
Métis Nation of Ontario
AlyA@metisnation.org
416-977-9881 x114

Métis Nation of Ontario
Lands, Resources and Consultations

11 May 2016

Rick Talvitie, P.Eng.
Manager, Northern Ontario
AECOM
523 Wellington Street East
Sault Ste. Marie, ON P6A 2M4

Dear Mr. Rick Talvitie:

RE: City of Sault Ste. Marie - Waste Management Environmental Assessment

The Métis Nation has Aboriginal rights in the lands, waters and natural resources within the area where the Project noted above is located. The rights are held as collective rights, by the rights-bearing Métis community, as represented by the Métis Nation of Ontario ("MNO"). As you know, the Métis are one of three Aboriginal peoples in Canada, whose rights, interests and way of life are constitutionally protected under section 35 of the Constitution Act 1982. The Crown has the duty to consult the Métis before making a decision, taking an action or issuing an approval that could impact the rights, interests or way of life of the Métis community.

The MNO as represented by the Historic Sault Ste. Marie Traditional Territory Consultation Committee have had an opportunity to meet with the City of Sault Ste. Marie & AECOM on April 22, 2016 and review the Project information. Based on the information provided to the MNO and under the provisions that the project proceeds as it has been presented and that the City of Sault Ste. Marie will continue to inform and consult the MNO on any changes to the Project. The MNO who represents the regional rights-bearing Métis community believe that this Project advance and that there will be no immediate adverse effects to the rights, interests or way of life of the Métis community.

Should you have any questions or concerns regarding this letter, please do not hesitate to contact Mr. Jesse Fieldwebster, the MNO's staff person assigned to this file at 705-526-6335 extension 220 or via email at jessef@metisnation.org.

Yours very truly,

Aly Alibhai
Director, Lands Resources and Consultations, Métis Nation of Ontario

CC: Gary Lipinski, President, Métis Nation of Ontario

Historic Sault Ste. Marie Traditional Territory Consultation Committee
Ernest Gatien, Provisional Council of the Métis Nation of Ontario Region 4 Councillor and Chair of the Regional Consultation Committee

Kim Powley, Métis Nation of Ontario - Historic Sault Ste. Marie Métis Council, President

Yvonne Jensen, Métis Nation of Ontario – North Channel Métis Council, President

Art Bennett, Métis Nation of Ontario, Region 4 Captain of the Hunt

Wenda Watteyne, Acting Chief Operating Officer, Métis Nation of Ontario

AECOM
523 Wellington Street East
Sault Ste. Marie, ON, Canada P6A 2M4
www.aecom.com
705 942 2612 tel
705 942 3642 fax

May 17, 2017

Jesse Fieldwebster, Consultation Assessment Co-ordinator
Metis Nation of Ontario
355 Cranston Crescent, P.O. Box 4
Midland, Ontario L4R 4K6

Dear Mr. Fieldwebster:

Project No: 60117627 (60395)

Regarding: City of Sault Ste. Marie
DRAFT Waste Management Environmental Assessment Report

The City of Sault Ste. Marie is continuing to move forward with its Waste Management Environmental Assessment. We last contacted you in in the spring of 2016 when we completed an impact assessment for the preferred landfill expansion option. At that time our team met with you and your Committee and we continued to exchange information after the meeting.

To date, a considerable level of study has been completed in developing and assessing the preferred approach to managing waste in and around the City of Sault Ste. Marie. The work completed to date has resulted in the following observations:

- The preferred approach to managing waste in the future is through increased waste diversion (ie. 3R's - reduction, reuse and recycling) and landfilling any remaining residual waste.
- The preferred approach to landfilling residual waste is an expansion of the existing City owned and operated disposal site located at 402 Fifth Line East in the City of Sault Ste. Marie.
- The preferred expansion option incorporates a moderate increase in the height or elevation of the waste and an expansion of the disposal footprint to the north and west of the existing footprint. The preferred option also includes landfill mining within the western portion of the existing disposal footprint to enhance groundwater protection. This process involves excavating existing disposed waste and cover material, recovering recyclables and earthen material or "fines" and returning the waste to the disposal footprint. All mined and expansion areas will include the construction of a liner beneath the waste to collect leachate (precipitation contaminated as it filters through waste) and direct it to the City's sewage treatment plant for treatment. The existing disposal footprint and proposed mining and expansion areas are highlighted in a figure in the attached Notice.

The City has now completed a Draft Environmental Assessment Report to document the project. This document explains the decision making process, results of the studies and input received through the consultation process. Details of the proposed landfill expansion, potential impacts to the environment and the City's commitment to mitigate these impacts is also included in the Draft EA.

We are now seeking input from Government agencies, stakeholders, Aboriginal Communities and the general public regarding the Draft Report. We have attached a Notice of the Draft EA completion and we encourage you to share this Notice with your members.

The Draft EA report is available electronically on the City's website at saultstemarie.ca/SolidWasteEA. In addition we could also provide a hardcopy of the report but it is quite lengthy.

We would appreciate receiving your input by July 7, 2017.

As always, we would also be pleased to meet with you and your Committee at your convenience to further discuss the project details. Please contact our office by telephone or email to arrange a meeting or to obtain a hardcopy of the report.

Sincerely,
AECOM Canada Ltd.

Rick Talvitie, P. Eng.
Project Manager
RT:nm
Encl.

cc: C. Taddo, City Engineering
K. Kolli, Dillon Consulting

AECOM
523 Wellington Street East 705 942 2612 tel
Sault Ste. Marie, ON, Canada P6A 2M4 705 942 3642 fax
www.aecom.com

May 17, 2017

Colleague
Metis Nation of Ontario
26 Queen Street East
Sault Ste. Marie, Ontario
P6A 1Y3

Dear Colleague:

Project No: 60117627 (60395)

Regarding: City of Sault Ste. Marie
DRAFT Waste Management Environmental Assessment Report

The City of Sault Ste. Marie is continuing to move forward with its Waste Management Environmental Assessment. We last contacted you in January, 2016 when we completed an impact assessment for the preferred landfill expansion option.

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The City has now completed a Draft Environmental Assessment Report to document the project. This document explains the decision making process, results of the studies and input received

through the consultation process. Details of the proposed landfill expansion, potential impacts to the environment and commitment to mitigate these impacts is also included in the Draft EA.

We are now seeking input from Government agencies, stakeholders, Aboriginal Communities and the general public regarding the Draft Report. We have attached a Notice of the Draft EA completion and we encourage you to share the Notice with your members.

We will be delivering a copy of the completed Draft EA Report to your office prior to May 24, 2017. **It would be appreciated if you could make this document available to your members.** This Draft EA reports is also available electronically on the City's website at saultstemarie.ca/SolidWasteEA.

We would appreciate receiving your input by July 7, 2017.

As always, we would also be pleased to meet with you at your convenience to discuss the project details. Please contact our office by telephone or email to arrange a meeting.

Sincerely,
AECOM Canada Ltd.

Rick Talvitie, P. Eng.
Project Manager
RT:nm
Encl.

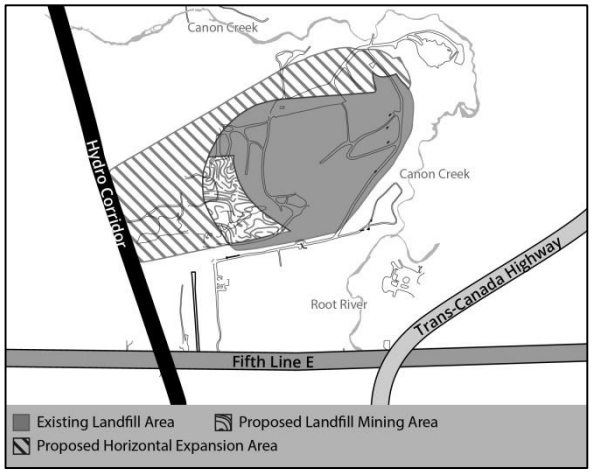
cc: C. Taddo, City Engineering
K. Kolli, Dillon Consulting

THE CITY OF SAULT STE. MARIE
NOTICE OF DRAFT EA SUBMISSION

SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

The City of Sault Ste. Marie has undertaken an Environmental Assessment (EA) Study to determine the preferred method for managing its municipal solid waste.

The City has now prepared a Draft Environmental Assessment Report to document the project. This document explains the decision making process, results of the studies and input received through the consultation process. The Report includes recommendations to continue to enhance waste reduction, reuse and recycling with the disposal of remaining residual waste accommodated within an expansion of the existing municipal landfill on Fifth Line. Details of the proposed landfill expansion (including proposed landfill mining within a portion of the existing site), potential impacts to the environment and commitment to mitigate these impacts is also included in the Draft EA.



HOW CAN I PROVIDE INPUT?

The Draft EA Document will be available for public and agency review for a period of 45 days beginning on May 24, 2017 and ending on July 7, 2017. You can review this document at the following locations:

Ministry of the Environment and Climate Change *70 Foster Drive, Suite 110, Sault Ste. Marie ON P6A 6V4* *705-942-6354* *Monday – Friday 8:30am – 4:30pm* **Ministry of the Environment and Climate Change, EAB** *135 St. Clair Avenue West, 1st Floor, Toronto ON M4V 1P5* *416-314-8214* *Monday – Friday 8:30am – 4:30pm*	**City of Sault Ste. Marie** *Civic Centre – Level 5* *99 Foster Drive* *705-759-5378* *Monday – Friday 8:30am – 12:00pm and 1:00pm – 4:30pm*
Sault Ste. Marie Public Library (Centennial Library) *50 East Street* *705-759-5230* *Monday -Thursday 9am – 9pm* *Friday 9 am - 6 pm* *Saturday 9 am – 5 pm* *Sunday 2 pm – 5 pm*	**Sault Ste. Marie Public Library (Korah Branch)** *556 Goulais Ave.* *705-759-5249* *Monday - Wednesday 1pm – 8pm* *Thursday 10am – 6pm* *Friday 1pm - 5 pm* *Saturday 10 am – 5 pm* *Sunday 2 pm – 5 pm*
Online at Saultstemarie.ca/SolidWasteEA	

Written comments regarding the Draft EA Document must be received by July 7, 2017. Comments received by this time will be considered in the final EA Document. Written comments should be submitted to the Consultant Project Manager or the City's Land Development and Environmental Engineer by email or mail to:

Mr. Rick Talvitie, P.Eng. Project Manager, AECOM 523 Wellington Street East, Sault Ste. Marie, ON, P6A 2M4	Ms. Catherine Taddo, P.Eng. Land Development and Environmental Engineer City of Sault Ste. Marie, 99 Foster Drive, Sault Ste. Marie, ON, P6A 5X6
Phone: 705-942-2612 **Email:** rick.talvitie@aecom.com	**Phone:** (705) 759-5380 **Email:** c.taddo@cityssm.on.ca

You may also telephone if you have questions or would like additional information

Once comments have been considered, the City intends to finalize the EA Document and submit it to the Ministry of Environment and Climate Change for formal review.

Under the Freedom of Information and Protection of Privacy Act and the Environmental Assessment Act, unless otherwise stated in the submission, any personal information such as name, address, telephone number and property location included in a submission will become part of the public record files for this matter and will be released, if requested, to any person.

Appendix N

Chronological Consultation Summary and Supporting Documentation

Waste Management Environmental Assessment Consultation Activities (2006 to 2017)

The consultation activities completed within the context of the EA process are summarized below in chronological order. The correspondence and reporting referenced below was prepared by the Consultants on behalf of the City of Sault Ste. Marie and the meetings referenced below were attended by the Consultant and/or City staff members. Detailed documentation related to each Public Consultation Event is included in Section 3.4 of the Public Consultation Report and copies of relevant documents referenced below are included in Appendix L, M and N as indicated below.

- A comprehensive **project contact list** was developed in October 2006 to reflect the views of a broad cross-section of the community including businesses, tourism groups, environmental groups/interests, educators, politicians and Aboriginal Communities. This contact list has been and will continue to be updated throughout the project. **(Appendix L)**

- **Notice of Commencement of the EA** was placed in the local newspaper, posted on the City web site and mailed to those on the project mailing list.

- **Newsletter No. 1** (October 2006) providing information on the EA process, contact names and next steps was mailed to all individuals on the project mailing list. **(Appendix L and M)**

- **Letters** were mailed in January, 2007 to Aboriginal Communities (ie. Batchewana First Nations and Garden River First Nations) requesting to meet to discuss consultation strategies. **(Appendix M)**

- **A Meeting** was conducted on March 19, 2007 with Batchewana First Nations to update the Chief on the EA status and to solicit input on a preferred consultation strategy. **(Appendix M)**

- **A Letter** dated March 21, 2007 was issued to Garden River First Nation confirming attendance at Band Council meeting and identifying a possible consultation strategy. **(Appendix M)**

- **A Meeting** was conducted on March 26, 2007 with a representative of the Missanabie Cree to update them on project progress and discuss outreach to their members. **(Appendix M)**

- **A Meeting** was conducted March 26, 2007 with a representative of the Métis Nation of Ontario to update them on project progress and discuss outreach to their members. **(Appendix M)**

- **Attended** Garden River First Nation Band **Council meeting** on April 3, 2007 to update Council on the status of the EA and discuss consultation strategies and opportunities for First Nation members to provide input. **(Appendix M)**

- May 17, 2007 **correspondence** to Batchewana First Nation requesting permission to conduct a consultation event in their community or to work together on a consultation strategy. **(Appendix M)**

- June, 2007 – **advertisements** were posted/issued in advance of the June 26, 2007 Public Input session. This included distribution of hardcopy and digital notices to all Aboriginal communities. We also requested ideas on other effective means of outreach. **(Appendix L and M)**

- June 15, 2007 – follow-up **correspondence** to Aboriginal community leaders/staff requesting that previously issued Notices be posted in prominent locations in their communities. In the

case of Garden River First Nation and Batchewana First Nation, we also requested permission to conduct a separate event in their communities. **(Appendix M)**

- A **Public Input Session** was held on June 26, 2007 to obtain input on the alternatives being considered and the evaluation criteria as presented in the "Alternatives To" Working Draft. The Session was advertised in local newspapers and on the City web site and notices were distributed to those on the project mailing list. Copies of the notice were also forwarded to adjacent communities or community groups (ie: Batchewana First Nation, Garden River First Nation, Prince Township, Métis Nation of Ontario, and Missanabie Cree) for posting on their websites and in prominent locations within their communities. Prior to the session, two working papers ("Waste Quantity Projections and Existing Environment Profile" and "Alternatives to the Undertaking") were made available for review at public libraries, municipal offices, First Nations offices and the City web site. Ten (10) participants recorded their names on the sign-in sheet for this event (refer to Section 3.4.1 of this report for additional details on the public input session).

- June 27, 2007 – issued the public input session **presentation slides** to Prince Township and Sault Ste. Marie Region Conservation Authority for broader distribution of project information. **(Appendix L)**

- June 27, 2007 – **correspondence** to Batchewana First Nation and Garden River First Nation thanking them for participating in the June 26, 2007 Public Input Session and requesting to meet to coordinate a separate consultation event in their community. Also forwarded the public input session project presentation slides for broader distribution of project information. **(Appendix M)**

- July 3, 2007 – advised Indian and Northern Affairs Canada (INAC) of the **consultation** being undertaken with First Nation communities. **(Appendix L)**

- July 6, 2007 – **correspondence** issued to Batchewana First Nation requesting a meeting to discuss consultation strategies. **(Appendix M)**

- July 11, 2007 – **correspondence** to Ontario Realty Corporation (ORC) updating them on the status of the EA. **(Appendix L)**

- July 19, 2007 – confirmed that a **Public Input Session** would be conducted in Garden River First Nation. **(Appendix M)**

- July 31, 2007 – **met** with Batchewana First Nation Chief and staff to confirm the preferred consultation strategy. The Chief noted that Batchewana First Nation will proceed with a community brainstorming session and forward feedback to the City by the end of September, 2007. The Chief confirmed that no representation from the City or Consultant is required. **(Appendix M)**

- A **Public Input Session** was held on August 9, 2007 in Garden River First Nation to obtain input on the alternatives being considered and the evaluation criteria as presented in the "Alternatives To" Working Draft. The Session was advertised in the local newspapers, Garden River First Nation newsletter, the City and Garden River First Nation web sites and the changeable message sign in front of the Garden River Community Hall. Notices were also posted in prominent locations in the Community. Prior to the session, two working papers ("Waste Quantity Projections and Existing Environment Profile" and "Alternatives to the Undertaking") were made available for review at public libraries, municipal offices, First Nations offices and the

City web site. Five (5) participants recorded their names on the sign-in sheet for this event (refer to Section 3.4.2 of this report for additional details on the public input session).

- August 13, 2007 – **correspondence** to Batchewana First Nation thanking them for the July 31, 2007 meeting and confirming that input will be received within a 4 week timeframe. Also noted that a Public Input Session was conducted in Garden River First Nation and offered to conduct a similar event in Batchewana First Nation. **(Appendix M)**

- August 27, 2007 – **touched based** to see how the August 21, 2007 Batchewana First Nation Band Council meeting went and offered our assistance. **(Appendix M)**

- September 11, 2007 – **touched based** for an update on the Batchewana First Nation brainstorming session and to offer our assistance. **(Appendix M)**

- September 26, 2007 – Batchewana First Nation staff confirmed that a staff report with recommendations was submitted to council on August 22, 2007 – to date Council has not taken any action. **(Appendix M)**

- October, 2007 – January, 2008 – **correspondence** with Enquest Power soliciting their input. **(Appendix L)**

- November 9, 2007 – **requested an update** from Batchewana First Nation Chief and staff. Offered our assistance to solicit community input. **(Appendix M)**

- January 22, 2008 – **correspondence** with Batchewana First Nation identifying schedule constraints and our commitment to assist in soliciting input from community members. **(Appendix M)**

- October 24, 2008 – **correspondence** with Batchewana First Nation Chief requesting an update on their input and offering our assistance. **(Appendix M)**

- December 12, 2008 – **correspondence** with Batchewana First Nation indicating we will be proceeding with the next phase of the process soon. **(Appendix M)**

There was a significant time period between the consultation activities noted above and the resumption of activities in May, 2010. The reasons for this gap are summarized in the following paragraphs.

In 2004, Elementa (formerly Enquest Power – a waste-to-energy vendor) initiated discussions with the City of Sault Ste. Marie to gain support for a pilot scale energy-from-waste facility in Sault Ste. Marie. A small private sector pilot scale facility (maximum 3 tonnes/day) was constructed in 2006-07 and operational testing was completed in 2007-08. Elementa subsequently approached the City to endorse a waste supply agreement to allow construction of a larger commercial demonstration facility.

During the timeline from January 2009 until May 2010 there were no significant EA activities undertaken. City Council felt it was important to allow time for the Elementa pilot project to mature and to bring clarity to the role Elementa may play in the City's overall waste management plan prior to moving forward with the Environmental Assessment work.

In October, 2009 the City endorsed an agreement with Elementa to supply a portion of the City's waste to Elementa over a minimum period of ten years. The City's endorsement of a waste supply agreement

brought clarity to the role Elementa may play in the City's overall waste management plan. The City subsequently made a decision to resume with the EA process.

Several staff reports (ie. August 18, 2008, June 8, 2009, and October 26, 2009) relating to Elementa and the EA process were tabled at Council meetings and form part of the public consultation record (refer to Appendix L).

The public consultation activities listed below were undertaken once the EA process resumed in 2010:

- **Newsletter No. 2** (May 2010) inviting individuals to the June, 2010 Public Open House and updating them regarding the EA process, the City's contractual relationship with Elementa, results of the "Alternatives To" evaluation, the level of diversion being achieved, next steps in the process and project contact names was mailed to all individuals on the project mailing list. **(Appendix L,M)**

- **A Notice of Public Information Centre** was distributed to adjacent communities, Aboriginal Communities and those on the project mailing list and published in local newspapers, Shaw Cable 10 and the City web site. **(Appendix L and M)**

- **Correspondence** was issued on May 21, 2010 to Garden River First Nation, Batchewana First Nation, Metis Nation of Ontario, Missanabie Cree and Prince Township advising of the June 3rd public information centre. Notices were provided for posting in their communities and on `community websites. An offer was also extended to have consultant staff post the notices in their communities. A meeting with Band Council was also requested to update them on the project status. **(Appendix M)**

- Received **correspondence** dated May 27, 2010 from the Environmental Assessment Co-ordinator for the Ontario Region of Transport Canada outlining requirements for approval under the Navigable Waters Protection Act and Railway Safety Act. **(Appendix L)**

- **Correspondence** dated May 28, 2010 confirming attendance at a Garden River First Nation Band Council meeting to solicit input and update them regarding project progress. **(Appendix M)**

- A **report** to City of Sault Ste. Marie Municipal Council was tabled at the May 31, 2010 Council meeting. The report identified the preferred "Alternative To", advised of the June 3, 2010 public information centre and provided a summary, in chronological order, of the waste management work and accomplishments from 2000 to present.

- A **Public Information Centre** was held on June 3, 2010 in the Thompson Room at the Civic Centre. The session provided a forum for interested individuals, agency representatives, and stakeholders, to obtain updated information regarding waste management planning, gain an understanding of the Environmental Assessment process, review the results of the "alternatives to" evaluation, identify the next steps in the process and have questions answered. The Session was advertised in local newspapers, Shaw Cable 10 and the City web site and notices were distributed to those on the project mailing list. Copies of the notice were also forwarded to adjacent communities or community groups (ie: Batchewana First Nation, Garden River First Nation, Prince Township, Metis Nation of Ontario, and Missanabie Cree). Ten (10) participants recorded their names on the sign-in sheet and the total participation is estimated to be in the range of 20 people (refer to Section 3.4.3 of this report for additional details on the public input session).

- **Attended** the June 8, 2010 Garden River First Nation Band Council meeting to make a presentation. We updated Band Council regarding the project progress including the selected preferred "Alternative To" and talked about the environmental management features at the existing City landfill. **(Appendix M)**

- Received **correspondence** dated June 15 from the Ontario Realty Corporation indicating their organization is interested in any potential impacts to ORC-managed property. ORC requested mapping showing the project location to confirm whether ORC has any properties in the vicinity of the proposed project. **(Appendix L)**

- June 24, 2010 **- correspondence** with Batchewana First Nation Chief and staff advising of the Band Council meeting AECOM and City staff attended with Garden River First Nation and offering to complete a similar presentation in their community. We also requested feedback on the brainstorming session that was scheduled to be undertaken in 2007. **(Appendix M)**

- June 25, 2010 **- correspondence** with Caroline Barry of Garden River First Nation thanking GRFN for allowing the team to attend the June 8th Band Council meeting and advising that further comments can continue to be provided to the project team. A copy of our meeting report was also included with the correspondence. **(Appendix M)**

- Issued a **response** to a resident's questions on June 23, 2010. We summarized the planning and EA reports and studies that have been completed to date and directed the individual to the City's Waste Management EA webpage. We also addressed the project timelines, 3R's initiatives/efforts in the City, the preferred "Alternative To" and the role that Elementa may play in the City's future waste management system. **(Appendix L)**

- **Met** with Sue Chiblow of the Chiefs of Ontario on July 28, 2010 to discuss the status of the EA and environmental controls at the existing landfill. The meeting was undertaken at the request of Garden River First Nation Band Council. We also requested Sue's ideas on the best approach to solicit input from community members. **(Appendix M)**

- The City's Waste Management EA **webpage** was refreshed in August 2010. **(Appendix N)**

- Issued a **response** to Elementa's questions on August 16, 2010. We explained the rationale for the inclusion of "High Heat Processes" as an "Alternative To" and referenced the detailed evaluation that is included on the City's webpage. We also highlighted the preferred "Alternative To" and the role Elementa is expected play in the City's overall waste management plan. **(Appendix L)**

- September 24, 2010 **- issued** July 28th meeting report and Public Consultation Plan to Sue Chiblow. **(Appendix M)**

- January 21, 2011 – **issued** the most recent project schedule to Sue Chiblow and advised of the upcoming Alternative Methods – Step 1 workshop. **(Appendix M)**

- **A Newsletter** (April 2011) providing information on the EA process, the City's contractual relationship with Elementa, results of the "Alternatives To" evaluation, next steps in evaluating a new landfill versus a landfill expansion, details of the April 19, 2011 Public Input Session, and different avenues to provide input was distributed to those on the project mailing list. **(Appendix L and M)**

- **Notice of Public Information Centre** was published in local newspapers, Shaw Cable 10 and the City web site.

- **Correspondence** was issued on April 8, 2011 to Garden River First Nation, Batchewana First Nation, Prince Township, Metis Nation of Ontario and Missanabie Cree advising of the April 19th public information centre. Notices were provided for posting in the communities and on community websites. An offer was also extended to meet with Batchewana and Garden River First Nation Band Councils. **(Appendix M)**

- The City's Waste Management EA **webpage** was refreshed in April 2011. **(Appendix N)**

- A **Public Workshop** was held on April 19, 2011 in the Russ Ramsay Room at the Civic Centre. The session provided a forum for interested individuals, agency representatives, and stakeholders, to obtain updated information regarding waste management planning, gain an understanding of the Environmental Assessment process, review and provide comments and input on the Step 1 evaluation of a new landfill versus a landfill expansion. The Session was advertised in local newspapers, Shaw Cable 10 and the City web site and notices were distributed to those on the project mailing list. Copies of the notice were also forwarded to adjacent communities or community groups (ie: Batchewana First Nation, Garden River First Nation, Prince Township, Metis Nation of Ontario, and Missanabie Cree. Refer to Section 3.4.4 of this report for additional details on the public input session.

- Received **correspondence** dated May 5, 2011 from the Ministry of Tourism and Culture. They noted an interest in the conservation of cultural heritage resources including archaeological resources, built heritage resources and cultural heritage landscapes. **(Appendix L)**

- **Spoke** to Danny Sayers, Natural Resource Manager for Batchewana First Nation on May 11, 2011. He confirmed that he would be the lead contact on behalf of Batchewana First Nation and suggested that we offer to make a presentation to Band Council. **(Appendix M)**

- **Correspondence** was issued on May 11, 2011 to Batchewana First Nation Chief and Council summarizing the key milestones and requesting a meeting with Chief and Council. **(Appendix M)**

- **Correspondence** was issued on May 27, 2011 to local resident addressing several questions that he had raised. **(Appendix L)**

- **Correspondence** was issued on September 6, 2011 to Infrastructure Ontario advising that we will keep them apprised as the project progresses. **(Appendix L)**

- **Correspondence** was issued on February 3, 2012 to Elementa Group advising of the project status and requesting feedback on the planning and implementation schedule for their Energy-from Waste facility. **(Appendix L)**

- **Correspondence** was issued on February 22, 2012 to Garden River First Nation, Batchewana First Nation and Prince Township advising of the proposed March 6th public input session. The letter included updates on the status of the project and Notices were provided for posting in the communities and on the community websites. An offer was also extended to meet with Band Council to update them on the project status. **(Appendix M)**

- **Visited** Batchewana First Nations on February 22, 2012, and dropped off the Solid Waste Management Environmental Assessment Alternative Methods – Step 2 (Identification and Comparison of Expansion Options) Draft Working Paper and Notices of the upcoming Public input Session for posting within the Community. Also **spoke** to Danny Sayers and reiterated that Batchewana community members are welcome to attend the upcoming Public Input Session and extended an offer to meet with Band Council and/or conduct an open house in their community. **(Appendix M)**

- **Visited** Garden River First Nations on February 22, 2012, and dropped off the Solid Waste Management Environmental Assessment Alternative Methods – Step 2 (Identification and Comparison of Expansion Options) Draft Working Paper and Notices of the upcoming Public input Session for posting within the Community. Also **spoke** to the Band Office receptionist and explained that community members are welcome to attend the upcoming Public Input Session and extended an offer to meet with Band Council and/or conduct an open house in their community. **(Appendix M)**

- **Correspondence** was issued on February 23, 2012 to Sue Chiblow advising of the March 6th public input session. A newsletter was provided and activities undertaken with Garden River First Nation were reported. **(Appendix M)**

- A **Public Information Centre** was held on March 6, 2012 in the Russ Ramsay Room at the Civic Center. The principle objective of the Step 2 Alternative Methods consultation task was to obtain feedback from the general public, agencies, Aboriginal Communities and stakeholders regarding the evaluation criteria and the preliminary results. To assist in soliciting as much input as possible, a questionnaire was developed to provide targeted feedback and a comment sheet was made available to provide general comments. The Session was advertised in local newspapers and on the City web site and notices were distributed to those on the project mailing list. Copies of the notice were also forwarded to adjacent communities or community groups (ie: Batchewana First Nation, Garden River First Nation, Prince Township, Metis Nation of Ontario, and Missanabie Cree). Local media also raised awareness of the event through relevant news articles. A total of seventeen (17) individuals recorded their names on the sign-in sheet (refer to Section 3.4.5 of this report for additional details on the public input session).

- Issued a **response** on May 18, 2012 to a local resident addressing concerns related to the safety of his drinking water supply. Our response highlighted the leachate management controls, groundwater monitoring system and annual reporting completed for the existing site, and described the preferred expansion option and the proposed leachate management controls for the expanded site. Consideration of the safety of his drinking water supply will be investigated in detail in the next phase of the project (ie. impact assessment for the preferred expansion option). **(Appendix L)**

- Issued a **response** on May 16, 2012 to a local resident addressing questions raised regarding the depth of monitoring wells and the leachate collector along the south perimeter of the existing site. **(Appendix L)**

- Issued a **response** on June 6, 2012 to a local resident addressing various questions and concerns including potential groundwater quality impacts, risk mitigation, waste–to-energy and composting regulations. **(Appendix L)**

- **Correspondence** was issued on January 20, 2016 to Garden River First Nation, Batchewana First Nation, Prince Township, Metis Nation of Ontario and Missanabie Cree advising of the February 9, 2016 public information centre. The letter included updates on the status of the project and digital copies of the Notice, Newsletter, Comment Sheet and public information center displays. Communities were encouraged to disseminate the information within their respective communities. An offer was also extended to meet with Aboriginal Communities to update them on the project status. **(Appendix M)**

- A presentation was made in open Council on February 8, 2016. The presentation was televised locally and included an overview of the EA process, the EA tasks and activities completed to date, the results of the impact assessment for the preferred landfill expansion option and the next steps. It also provided an opportunity to address questions from councillors. **(Appendix N)**

- A **Public Information Centre** was held on February 9, 2016 in the Russ Ramsay Room at the Civic Centre. The session provided a forum for interested individuals, agency representatives, Aboriginal Communities and stakeholders, to obtain updated information regarding waste management planning, gain an understanding of the Environmental Assessment process, review and provide comments on the results of the impact assessment work for the preferred option, have questions answered and consider the next steps in the process. The Session was advertised in local newspapers, Shaw Cable 10 and the City web site and notices were distributed to those on the project mailing list. Copies of the notice were also forwarded to

adjacent communities or community groups (ie: Batchewana First Nation, Garden River First Nation, Prince Township, Metis Nation of Ontario, and Missanabie Cree). Nine (9) participants recorded their names on the sign-in sheet (refer to Section 3.4.6 of this report for additional details on the public input session).

- Issued a **response** on March 21, 2016 to a local resident addressing various questions including pay-as-you-throw programs, source separated organics/backyard composters, bi-weekly waste collection and clear bags. In addition we provided a comprehensive summary of 3R's initiatives that are integral to the City's waste management plan. **(Appendix L)**

- Issued a **response** on March 21, 2016 to a local resident summarizing the 3R's initiatives that are integral to the City's waste management plan. We also addressed a question regarding the status of the local waste-to-energy project that is being undertaken by the private sector proponent in parallel to the waste EA. **(Appendix L)**

- **Contacted** Batchewana First Nation (Danny Sayers) as a follow-up to the correspondence issued in January 2016 and left a message for him. **(Appendix M)**

- **Met** briefly with representatives of the Metis Nation of Ontario on April 5, 2016 to provide an overview of the project and next steps to engage them in the process. It was noted that we have met with local representatives in the past and have continued to deliver project information and updates to them throughout the course of the study. They explained that the process has changed, and a consultation committee has been formed. Jesse Fieldwebster requested that information be forwarded to the Committee for their consideration. **(Appendix M)**

- Issued and **email** to Jesse Fieldwebster on April 11, 2016 which summarized the work completed to date and the current status of the project. The email attachments included the most recent project newsletter, and the displays that were made available at the February 9, 2016 Public Open House. **(Appendix M)**

- Received a **request** from Jesse Fieldwebster to meet with and present project details to the MNO Consultation Committee. A meeting was coordinated for April 22, 2016 in Sault Ste. Marie. **(Appendix M)**

- Issued a follow-up email to Gerry Lesage (Band Councillor responsible for Business Entities, Natural Resources and Lands, of Garden River First Nation on April 13, 2016 as a follow-up to the earlier phone call and submission made in January 2016. It was noted that we look forward to hearing back from them if there is an interest in the project. **(Appendix M)**

- Issued a follow-up **email** to Danny Sayers on April 14, 2016 as a follow-up to the earlier phone call and submission made in January 2016. It was noted that we look forward to hearing back from them if there is an interest in the project. **(Appendix M)**

- **Met** with the MNO Consultation Committee on April 22, 2016. The format for the meeting included a presentation made by Jesse Fieldwebster which provided insight into the historical evolution of the Metis people and their political structure. Rick Talvitie delivered a presentation which focussed on the existing landfill site disposal operations, leachate management controls and reporting, and the Waste Management EA project need, alternatives to the undertaking, alternative methods and impact assessment work and proposed mitigation measures. The proposed leachate management and surface water management enhancements were summarized. **(Appendix M)**

- Issued a follow-up **email** to Cathy Clement of the Missanabie Cree on May 4, 2016 as a follow-up to the submission made to Chief Gauthier in January 2016. It was noted that we look forward to hearing back from them if there is an interest in the project. **(Appendix M)**

- DRAFT EA Report Submission on May 24, 2017 with notification issued to the full contact list. **(Appendix L and M)**

August 2010

HTTP://WWW.CITY.SAULT-STE-MARIE.ON.CA/OPEN_PAGE.ASPX?ID=639&DEPTID=1

SOLID WASTE MANAGEMENT PLANNING

In September, 2000 the City set out to develop a comprehensive waste management plan to guide the management of municipal solid waste over the next 25 to 40 years. The study was largely initiated to address the City's low waste diversion rate and the diminishing waste disposal capacity at the City landfill on Fifth Line.

A series of studies were undertaken to assess existing waste management programs/services and identify potential system enhancements. Some of the key reports that were produced through these planning initiatives are described below and the full text is accessible by selecting the link.

1. **Current Waste Management System Summary Report (September, 2000)** (Link to Report) – Inventoried and summarized current (ie. 1999) waste management programs including costs and revenues.
2. **Alternative Waste Diversion/Collection Systems Report (June, 2001)** (Link to Report) – Identified alternative waste diversion programs and the quantities that could potentially be diverted.
3. **Business and Implementation Plan (February, 2003)** (Link to Report) – Identified costs of the existing and proposed waste management programs and explored strategies to recover those costs (bag limits, bag fees, increased tipping and gate fees).

The City recognized the importance of focusing their initial efforts to enhance waste diversion through system enhancements and more equitable user fee structures. **Congratulations Sault Ste. Marie! Thanks to your response and participation, the residential waste diversion rate has increased from 9% in 1999 to 34% in 2009.**

The City plans to continue to promote and explore 3R's (reduce, reuse, recycle) programs to further reduce the level of waste disposal. It is however recognized that some residual waste will continue to be generated for the foreseeable future that will require disposal.

SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

In 2005 the City submitted and obtained approval of its **Solid Waste Management Plan Environmental Assessment Terms of Reference (July, 2005)** (link to report). The purpose of the Terms of Reference is to set the scope and describe the process that will be undertaken to address the problem of diminishing disposal capacity at the existing landfill. The Environmental Assessment Terms of Reference was approved by the Ministry of Environment in September 2005.

The Environmental Assessment was initiated in 2006 and governmental, public, stakeholder and First Nation input was obtained on the functionally different ways of managing municipal solid waste through the summer and fall of 2007. The City has now reached an important milestone in its Environmental Assessment process. **The preferred waste management alternative for the City has been identified as increased waste diversion and landfilling of the residual waste.**

The first steps in the Environmental Assessment Process are documented in the reports below.

1. **Solid Waste Management Environmental Assessment – Waste Quantity Projections and Existing Environment Profile** (Link to Report) – waste quantity projections are developed for the 40 year planning period and the existing study area environment is described.
2. **Solid Waste Management Environmental Assessment – Alternatives to the Undertaking** (Link to Report) – identifies and evaluates functionally different ways of managing waste.

Although not included within the City's Environmental Assessment process it is noteworthy that the City has committed to supply a portion of it municipal solid waste for processing in a privately owned and operated steam reformation (ie. energy-from-waste) plant. The Elementa Group is currently completing an environmental screening (ie. a streamlined Environmental Assessment) and the plant is scheduled to become operational in April, 2011. Any waste diverted to this facility in the future will reduce the quantity of waste disposed in the City's landfill thus increasing the site life of the landfill.

The next steps for the City of Sault Ste. Marie include continuing to improve the current waste diversion system and identifying and evaluating alternative methods for landfill. Comment or questions may be directed to:

Mr. Rick Talvitie, P.Eng.
Project Manager
AECOM Canada Ltd.
523 Wellington Street East
Sault Ste. Marie, ON P6A 4J4

Phone: 705-942-2612
Fax: 705-942-3642
Email: rick.talvitie@aecom.com

Mrs. Susan Hamilton Beach, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
P.O Box 580, 99 Foster Drive
Sault Ste. Marie, ON P6A 5N1

Phone: 705-759-5385
Fax: 705-541-7165
Email: s.hamiltonbeach@cityssm.on.ca

If you would like to receive future information and notifications via email, please forward your email address to nancy.maahs@aecom.com. Please include the title "City of SSM Waste Disposal EA" in your message.

The next open house/workshop is planned for the fall of 2010.

Webpage Text prep to Apr 19/11 Open House

SOLID WASTE MANAGEMENT ENVIRONMENTAL ASSESSMENT

SOLID WASTE MANAGEMENT PLANNING

In September of 2000 the City set out to develop a comprehensive waste management plan to guide the management of municipal solid waste over the next 25 to 40 years. The study was largely initiated to address the City's low waste diversion rate and the diminishing waste disposal capacity at the City landfill on Fifth Line.

A series of studies were undertaken to assess existing waste management programs/services and identify potential system enhancements. Some of the key reports that were produced through these planning initiatives are described below and the full text is accessible by selecting the link.

1. **Current Waste Management System Summary Report (September, 2000)** – Inventoried and summarized current (i.e. 1999) waste management programs including costs and revenues.
2. **Alternative Waste Diversion/Collection Systems Report (June, 2001)** – Identified alternative waste diversion programs and the quantities that could potentially be diverted.
3. **Business and Implementation Plan (February, 2003)** – Identified costs of the existing and proposed waste management programs and explored strategies to recover those costs (bag limits, bag fees, increased tipping and gate fees).

The City recognized the importance of focusing their initial efforts to enhance waste diversion through system enhancements and more equitable user fee structures. **Congratulations Sault Ste. Marie! Thanks to your response and participation, the residential waste diversion rate has increased from 9% in 1999 to 34% in 2009.**

The City plans to continue to promote and explore 3Rs (reduce, reuse, recycle) programs to further reduce the quantity of waste disposed. It is however recognized that some residual waste will continue to be generated for the foreseeable future that will require disposal.

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The Environmental Assessment was initiated in 2006 and governmental, public, stakeholder and First Nation input was obtained on functionally different ways of managing municipal solid waste through the summer and fall of 2007. In the summer of

2010 the City reached an important milestone in its Environmental Assessment process. **The preferred waste management alternative for the City was identified as increased waste diversion and landfilling of the residual waste.**

The first steps in the Environmental Assessment Process are documented in the reports below.

1. **Solid Waste Management Environmental Assessment – Waste Quantity Projections and Existing Environment Profile** – waste quantity projections are developed for the 40-year planning period and the existing study area environment is described.
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Although not included within the City's Environmental Assessment process it is noteworthy that the City has committed to supply a portion of its municipal solid waste for processing in a privately owned and operated steam reformation (i.e. energy-from-waste) plant. The Elementa Group is currently completing an environmental screening (i.e. a streamlined Environmental Assessment) and a new plant is scheduled to become operational some time in the future. Any waste diverted to this facility in the future will reduce the quantity of waste disposed in the City's landfill thus increasing the site life of the landfill.

CURRENT ENVIRONMENTAL ASSESSMENT ACTIVITIES

The City remains committed to investigating, implementing and supporting programs to increase waste diversion through 3Rs initiatives. Since the implementation of 3Rs initiatives does not require Environmental Assessment (EA) Act approval, the EA study is now focusing on alternative methods of landfilling residual waste. The key objective of this phase of the study is to find an environmentally suitable location for the development of additional landfill capacity.

The first step to be completed in this phase consists of completing a non-site specific evaluation of two alternatives: developing a new landfill and expanding an existing landfill. This step will provide initial focus to the search for additional landfill capacity.

A preliminary evaluation of these alternatives has been completed by the project team. We are now seeking input from the public and stakeholders regarding the evaluation and the preliminary findings. We are also seeking input on the criteria to be used in the next step of the project which will involve the comparison of specific sites.

A Public Input Session is being conducted on Tuesday, April 19, 2011, from 6:30 to 9:00 p.m. in the Russ Ramsay Board Room, Level 3, Civic Center.

We will provide background information, update you on the City's achievements in increasing waste diversion and discuss the alternative approaches to landfilling residual solid waste. A principle objective of the session is to confirm whether the City should focus its efforts to obtain additional disposal capacity by expanding an existing landfill site or finding a location for a new site.

More details regarding the Public Input Session are included in the Newsletter.

You are also encouraged to view the Solid Waste Management Environmental Assessment - Alternative Methods – Step 1 (Landfill Expansion versus Development of a New Site) report in advance of the session.

If you are unable to attend the public input session, we encourage you to complete the online survey at www.surveymonkey.com/B3DHFRM to provide comments.

Comments and questions may be directed to:

Mr. Rick Talvitie, P.Eng.
Project Manager
AECOM Canada Ltd.
523 Wellington Street East
Sault Ste. Marie, ON P6A 4J4

Phone: 705-942-2612
Fax: 705-942-3642
Email: rick.talvitie@aecom.com

Mrs. Susan Hamilton Beach, P.Eng.
Land Development and Environmental Engineer
City of Sault Ste. Marie
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Phone: 705-759-5385
Fax: 705-541-7165
Email: s.hamiltonbeach@cityssm.on.ca

If you would like to receive future information and notifications via email, please forward your email address to nancy.maahs@aecom.com. Please include the title "City of SSM Waste Disposal EA" in your message.

Solid Waste Management Environmental Assessment

Project Progress Update for Council

February, 2016

Introductions

- AECOM has been involved in the City's waste management planning activities since 2000 and Dillon has been involved with the design, development and operation of the City's Fifth Line landfill since the late 80's.
- AECOM and Dillon have teamed to deliver the waste management Environmental Assessment.
- Rick Talvitie, P.Eng. (AECOM) is the overall Project Manager and Karla Kolli (Dillon) is managing Dillon's work streams.

Objectives of the Update

- Review project need;
- Overview of EA process;
- Historical overview of the waste management Environmental Assessment tasks and activities completed to date;
- Present the conclusions and recommendations from the most recent work stream - Impact Assessment for the preferred landfill expansion option;
- Summarize next steps; and
- Answer questions.

Project Need

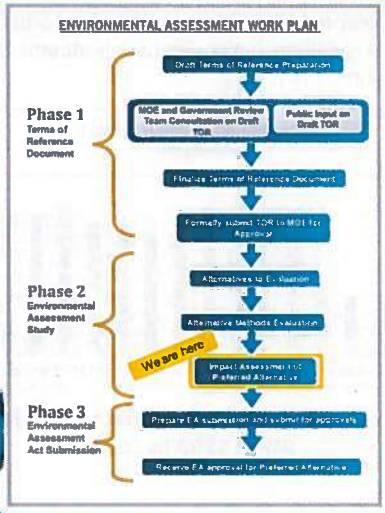
- **The estimated remaining service life of the existing landfill is 6.8 years (at the end of 2014). The estimated site life may be impacted by future population changes, in-situ subsidence and waste generation, diversion and disposal rates.**
- Despite significant success in enhancing waste diversion, additional disposal capacity is required.

What is an EA?

Purpose = *"to protect the environment and quality of life of the people of the province; and facilitate the wise management of the natural resources of the province".*

- The EA Process is a transparent decision-making process used to promote good environmental planning by assessing potential effects of certain activities or projects on the natural and human environment. The EA process serves several important purposes:
  - Allowing projects to receive input from a wide variety of sources, including the federal, provincial and municipal levels of government, First Nations, stakeholders and the public.
  - Identifying potential problems prior to construction
  - Promoting good environmental planning practices
  - Improving community acceptance
  - Better protecting the environment

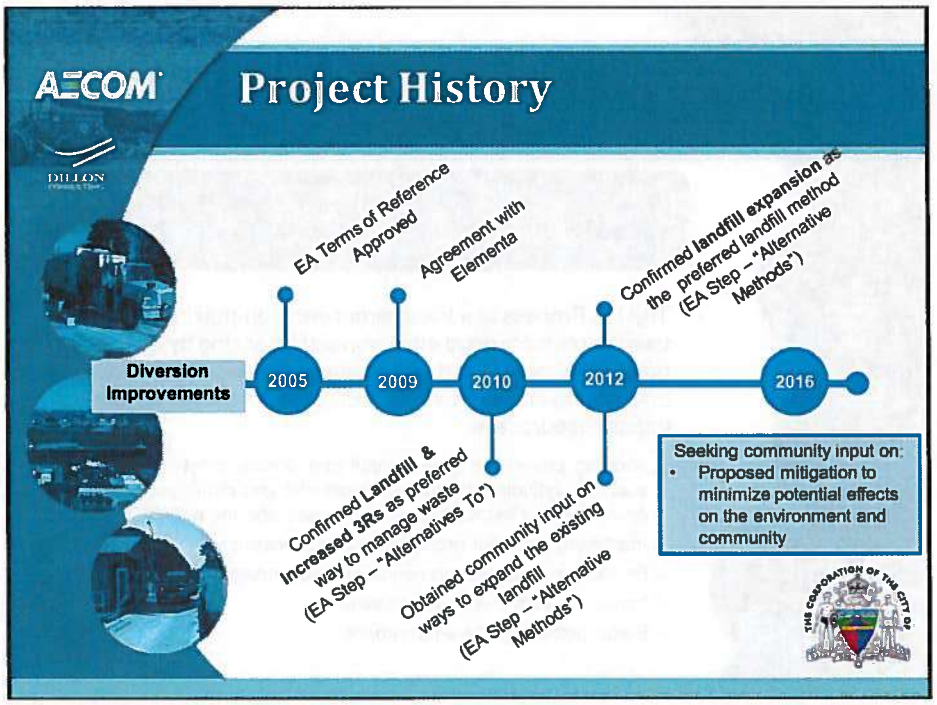
The EA Process



Consultation to date has included:

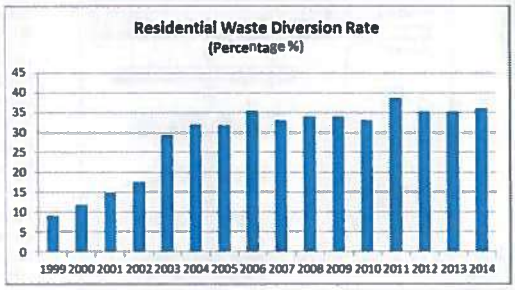
- Newsletters
- Public Input Sessions and meetings with First Nations and other stakeholders in the summer/fall of 2007
- Public Information Center and meetings with First Nations and other stakeholders in the summer of 2010
- Public Input Session and correspondence with First Nations and other stakeholders in April 2011
- Public Input Session and correspondence with First Nations and other stakeholders in March 2012

Project History



Diversion

- Waste Management Planning – series of reports completed early to mid-2000's resulting in significant enhancements to residential waste diversion



Increased residential diversion rate from 9% in 1999 to 35%!

Landfill & Increased 3Rs - Rationale

EA Step – "Alternatives to" Conclusion

Based on the results of the evaluation and input received the preferred long-term approach to managing waste in SSM is:

- Increased 3Rs (Reduce/Reuse/Recycle); and
- Landfilling residual waste.

Why?

- Can comply with regulations and policies.
- City is experienced with these waste management initiatives.
- Flexible to changes in the waste stream (e.g. population, waste generation, diversion).
- Can accept non-hazardous residual waste from a Waste-to-Energy facility.
- Cost efficient.

Landfill Expansion - Rationale

EA Step – "Alternative Methods" Conclusion

Based on the results of the evaluation and input received the preferred method of landfilling waste = expansion of an existing site.

Why?

- Likely less potential for displacement and disruption.
- Only one landfill site to manage and maintain.
- Cost effective.
- Community adaptation.
- Likely fewer challenges in gaining approvals.

North and West Expansion with Mining – Rationale

EA Step – "Alternative Methods" Conclusion

Based on the results of the evaluation and input received, the preferred expansion option = Option 3 - North and West Expansion B with Landfill Mining.

Why?

- Site development (i.e. geometry and storm water management) enhanced relative to Options 2 and 4.
- Reduced average excavation depth in west expansion area (i.e.11m).
- Includes a liner beneath the waste within the western portion of the existing disposal footprint enhancing long term ground water quality.
- Includes a liner over existing waste in areas of overlap to further enhance ground water quality.
- Meets target capacity at current estimated waste densities.

Preferred Option

- Existing Landfill Area
- Proposed Horizontal Expansion Area
- Proposed Landfill Mining Area

Preferred Option

- Fully engineered site with a liner installed in expansion areas, mined areas, and interfaces between new and existing waste.
- Horizontal collector at west edge of new footprint.
- Staged expansion of the landfill gas management system.
- Construction of a biosolids processing facility.

Impact Assessment

What is it?

- Focused investigation and analysis to identify potential impacts to the environment resulting from the construction or changes in the operation of the expanded landfill.
- Also includes consideration of potential opportunities for enhanced mitigation that otherwise would not likely be implemented in the absence of the proposed expansion.

Impact Assessment

- The detailed impact assessment required expertise in the following disciplines:
  - ✓ Biology (terrestrial and aquatic);
  - ✓ Geotechnical;
  - ✓ Groundwater;
  - ✓ Atmospheric (acoustic and air quality);
  - ✓ Surface water;
  - ✓ Socio-economic;
  - ✓ Visual;
  - ✓ Traffic;
  - ✓ Archaeological/cultural; and
  - ✓ Planned land use.

Impact Assessment – Natural Environment Mitigation Strategies

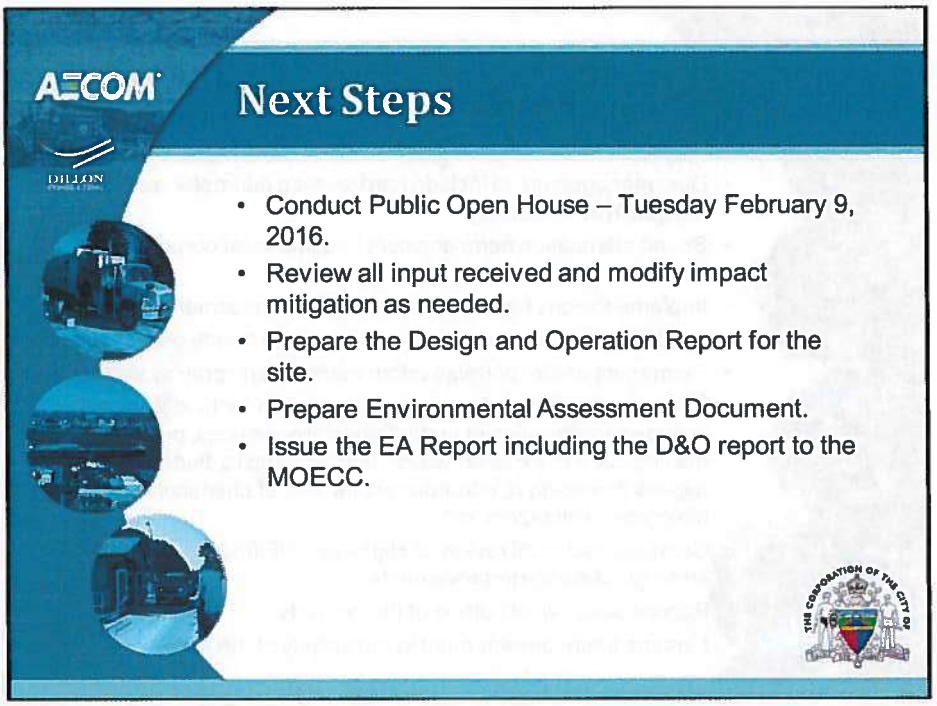
- Site design to mitigate potential for impact to groundwater. Also allows opportunity to address existing groundwater issues.
- Erosion and sediment controls to be implemented during construction (e.g. use silt fences to reduce risk of soil washing into watercourses).
- Woodland edge management (e.g. avoid using heavy machinery over roots of edge trees).
- Wildlife impact management during construction (e.g. avoiding bird nesting seasons when clearing).
- Apply a vegetative cap on final landform.
- Reforestation following closure to compensate for removal.
- Manage storm water to remove sediment and ensure no increase in peak flows in adjacent watercourses.

Impact Assessment – Social Environment Mitigation Strategies

- Dust management to include hard surface perimeter road and dust mitigation as necessary.
- Sound attenuation berm adjacent to south-west corner of compost pad.
- Implementation of a vermin and wildlife management plan.
- Landfill gas management to minimize green house gas emissions.
- Permanent and/or portable odour neutralizing spray system.
- Development of an odour management plan for landfill mining to include consideration of meteorological conditions, periphery odour misting, area of exposed waste, frequent application of cover, bypass screening of odourous waste; use of chemical and biological neutralizers, etc.
- Complete technical review of Highway 17/Fifth Line intersection and sight distance improvements.
- Rezone south-west portion of the property.
- Manage future development in the vicinity of the site.

Impact Assessment –Communication, Monitoring and Reporting

- Undertake a comprehensive ground and surface water monitoring program and report the results annually.
- Review the site development and operations annually, identify areas for improvement and report the results.
- Complete National Pollutant Release Inventory (NPRI) and landfill gas management reporting annually.
- Monitor future traffic volumes and Hwy 17/Fifth Line intersection operations.
- Monitor onsite and offsite odours and proactively manage mining operations.
- Monitor stormwater quality discharge from onsite ponds.
- Maintain regular communication with local residents
- Maintain a formal complaint recording and response procedure.


AECOM
DILLON
Next Steps
• Conduct Public Open House – Tuesday February 9, 2016.
• Review all input received and modify impact mitigation as needed.
• Prepare the Design and Operation Report for the site.
• Prepare Environmental Assessment Document.
• Issue the EA Report including the D&O report to the MOECC.