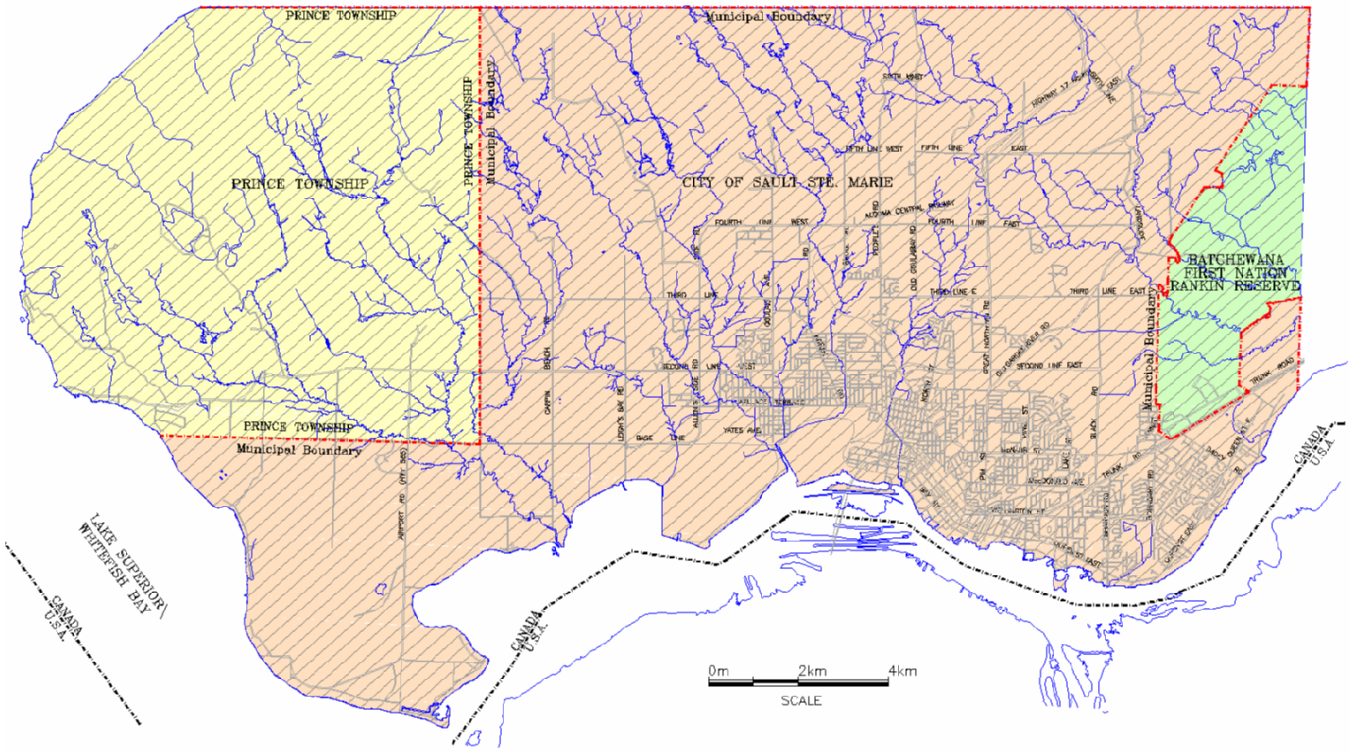
City of Sault Ste. Marie

SOLID WASTE MANAGEMENT PLAN ENVIRONMENTAL ASSESSMENT TERMS OF REFERENCE



March 2005
Revised July 2005

engineers
architects
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CITY OF SAULT STE. MARIE

SOLID WASTE MANAGEMENT PLAN ENVIRONMENTAL ASSESSMENT TERMS OF REFERENCE

TSH Project No. 38-60319

FOREWORD

This document is the Environmental Assessment Terms of Reference (ToR) for the City of Sault Ste. Marie Solid Waste Management Plan. Comments received on the Draft Environmental Assessment Terms of Reference Document have been incorporated, where appropriate. Input received on the draft document, along with the City responses, is provided in the Supplementary Consultation Document.

Comments on the EA Terms of Reference must be submitted by April 11, 2005 and should be directed to:

Mr. Khaleed Khalfan
Project Officer
Ministry of the Environment
Environmental Assessment and Approvals Branch
2 St. Clair Avenue West, 14th Floor
Toronto, Ontario M4V 1L5
Phone: (416) 314-8311
Fax: (416) 314-8452
Email: khaleed.khalfan@ene.gov.on.ca

The EA Terms of Reference and Supplementary Public Consultation Document can be downloaded from the City's website at:

www.cityssm.on.ca/wastemanagement/wastemgmt_main.thm

They are also available at the following locations during regular business hours:

- Civic Centre Engineering and Planning – Level 5, 99 Foster Drive
- 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

For further information on this project, please contact:

Mr. Don Elliott, P.Eng.
Manager of Construction and Environmental Engineering
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P6A 5N1
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OR

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July 6, 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
TSH Project No. 38-60319

We are pleased to submit the Solid Waste Management Plan Environmental Assessment Terms of Reference. The comments received from the public and government review agencies have been incorporated where appropriate.

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 ENVIRONMENTAL ASSESSMENT
TERMS OF REFERENCE

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LIST OF ABBREVIATIONS

C & D	Construction and Demolition
City	City of Sault Ste. Marie
EA	Environmental Assessment
EA Act	Environmental Assessment Act
EPA	Environmental Protection Act
GMEF	Green Municipal Enabling Fund
HSW	Household Special Waste
IC&I	Industrial, Commercial and Institutional
MOE	Ministry of the Environment
MRF	Materials Recycling Facility
OCC	Old Corrugated Cardboard
OWRA	Ontario Water Resources Act
ToR	Terms of Reference
TSH	Totten Sims Hubicki Associates
WDO	Waste Diversion Ontario

CITY OF SAULT STE. MARIE
SOLID WASTE MANAGEMENT PLAN ENVIRONMENTAL ASSESSMENT
TERMS OF REFERENCE

1. INTRODUCTION

1.1 Proponent

The City of Sault Ste. Marie (City) is the proponent for this environmental assessment.

1.2 Background

The City has a population of approximately 75,000 residents. Waste management services for this population are provided by the City and include a combination of waste diversion and disposal. Waste is currently disposed in the City landfill site located north of Fifth Line East and west of Kings Highway 17. The site has approximately 9 years of remaining capacity.

The City offers an extensive curbside recycling program which services approximately 23,000 households. In addition the program services 2,200 multi-residential units and will be expanded to include the schools in the City.

It is estimated that approximately 12,100 backyard composters have been distributed to residents. The City has established a permanent Household Special Waste Facility (HSW) at the public works yard.

The City collects leaf and yard waste 3 times per year and plans to expand this to bi-weekly collection from May to November.

The City has banned old corrugated cardboard (OCC) from the landfill.

The City introduced a 4 bag residential limit on January 1, 2004 which was reduced to 3 bags on May 1, 2004 and 2 bags on January 1, 2005. Tipping fees at the landfill have also been increased.

Through these programs, approximately 7,500 tonnes of residential material were diverted from disposal in 2003. This represents a residential diversion rate in 2003 of over 29% as reported to Waste Diversion Ontario (WDO).

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 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 those 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 this Terms of Reference Document, 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.

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 disposal capacity is required. The first key step in the process is the preparation of the Terms of Reference (ToR) for the Environmental Assessment.

1.3 Purpose of the EA Terms of Reference

The preparation of an EA Terms of Reference and subsequent submission to the Minister of the Environment for review and approval, is a requirement of the Ontario Environmental Assessment Act.

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 site.

As per subsection 6(2)(a) of the *Environmental Assessment Act*, the EA will be prepared in accordance with the requirements set out in Subsection 6.1(2) of the *EA Act*.

Subsection 6.1(2) states:

"6.1(2) …. the environmental assessment must consist of,

(a) a description of the purpose of the undertaking;

(b) a description of and a statement of the rationale for,

(i) the undertaking,

(ii) the alternative methods of carrying out the undertaking, and

(iii) the alternatives to the undertaking;

(c) a description of:
  (i) the environment that will be affected or that might reasonably be expected to be affected, directly or indirectly,
  (ii) the effects that will be caused or that might reasonably be expected to be caused to the environment, and
  (iii) the actions necessary or that may reasonably be expected to be necessary to prevent, change, mitigate or remedy the effects upon the environment, by the undertaking, the alternative methods of carrying out the undertaking and the alternatives to the undertaking;

(d) an evaluation of advantages and disadvantages to the environment of the undertaking, the alternative methods of carrying out the undertaking and the alternatives to the undertaking; and

(e) a description of any consultation about the undertaking by the proponent and the results of the consultation."

A number of supplementary documents to the Terms of Reference have been produced and provide additional information. The most current is a report summarizing the consultation activities undertaken during the preparation of the Solid Waste Management Plan and this Terms of Reference. In addition, the comments received from the public and government review agencies are summarized with the City's responses.

Other reports available include those prepared as part of the Solid Waste Management Plan and include:

- Waste Diversion System Components Report, February 2001
- Residential Waste Composition Study - Summer/Fall 2000, March 2001
- Organic Waste Diversion Report, April 2001
- Alternative Waste Diversion (Collection Systems Options Report), June 2001;
- Waste Collection and Disposal Report, July 2002;
- Business and Implementation Plan, February 2003; and
- Co-composting Feasibility Study, February 2004.

These supporting documents are not intended to be part of the Terms of Reference and thus do not require approval.

2. PURPOSE OF THE PROPOSED UNDERTAKING

The purpose of this undertaking is to address the problem of diminishing disposal capacity and provide long-term environmentally safe solid waste disposal capacity for the City and area.

In 2003 a total of 76,000 tonnes of residential, Industrial, Commercial and Institutional (IC&I) and biosolids waste was landfilled. Based on the current rate of landfilling, it is estimated that there are approximately 9 years of remaining disposal capacity in the City's existing landfill site. Given the limited existing disposal capacity, the City would like to secure a long-term solution to their waste disposal needs.

3. DESCRIPTION OF THE PROPOSED UNDERTAKING

Given the time required to obtain approval for any new disposal capacity, the City has initiated an EA process to identify the preferred method of addressing the problem of diminishing disposal capacity. The EA planning process will identify the preferred method of addressing the problem of diminishing disposal capacity and will meet the requirements of the EA Act (Subsection 6.1(2)). Once the process is complete, a description of the proposed undertaking will be prepared and included in the EA document.

The undertaking will address the non-hazardous residential, industrial, commercial and institutional (IC&I), construction and demolition (C & D) and biosolids wastes anticipated to be handled by the City.

The City has already extensively evaluated the diversion potential available. This information will be revisited to assist in defining the additional disposal capacity required; however, waste diversion activities do not require EA Act approval and therefore are not part of the undertaking in this Terms of Reference.

4. ALTERNATIVES

The EA Act makes reference to two types of alternatives: "alternatives to" a proposed undertaking, and "alternative methods" of carrying out the proposed undertaking. "Alternatives to" a proposed undertaking are functionally different ways of managing solid non-hazardous wastes and biosolids. "Alternative methods" are different ways of performing the same activity. Each is discussed in greater detail in the following sections.

4.1 "Alternatives to" the Undertaking

The following "alternatives to" the undertaking, or alternative ways of managing solid waste will include but not be limited to:

- **Increased Waste Diversion** – Currently the City's waste diversion programs include curbside collection of recyclables, processing recyclables at the MRF, household special waste facility, ban on OCC at landfill, leaf and yard waste collection, and large item diversion at the landfill and user pay program. Through these programs the residential diversion rate was reported to be 29% in 2003. An increase in waste diversion would divert more waste from disposal thus reducing the need for additional disposal capacity. An increase in waste diversion could include increased capture efficiencies for existing blue box materials, composting or emerging technologies. Specific methods of diversion have been documented as part of the Solid Waste Management Planning Study and will be carried forward into the EA.

- **Incineration and High Heat Processes** – There are a number of processes that involve the burning of waste or the transformation of waste through the application of heat in an oxygen-deprived environment. Existing technologies include mass burn and refuse-derived fuel and newer emerging technologies include pyrolysis, gasification and others. In most cases a residual is left over that requires disposal at a landfill facility. The specific technologies and locations for an incineration facility will not be included in the identification and evaluation of "alternatives to". This level of detail will be included in the next step (i.e. Alternative Methods) should incineration be identified as a preferred "alternative to" following the initial screening process.

- **Landfill** - Currently the City disposes its municipal waste in the City landfill. This alternative involves the creation of new disposal capacity through landfilling of the City's solid non-hazardous waste in an expansion of the existing site or through the development of a new site. Landfill expansion typically involves adding more waste on top of existing waste fill (vertical expansion) or increasing the size of the area where waste fill is deposited (horizontal expansion). Landfill mining could also be considered a method of landfill expansion. A new landfill could be a natural attenuation site (relying on natural protection) or an engineered site with a leachate collection system.

  It is not intended to define this "alternative to" by identifying specific sites. Specific locations would be considered during the evaluation of alternative methods, if landfill was found to be a preferred "alternative to".

- **Export of Waste Outside the Service Area** – This alternative involves the export of all or a portion of the service area's waste to a disposal facility outside of the service area. The identification and evaluation of this alternative will not include a specific location. Specific sites will be considered in the next step (i.e. Alternative Methods).

- **Do Nothing** – As part of the EA process, it is common to include the do-nothing alternative as a base case. The potential benefits and impacts of all other alternatives will be compared to the base case to confirm whether the status quo is acceptable.

4.2 "Alternatives to" Criteria

The criteria proposed for the evaluation of "alternatives to" will include but not be limited to those presented in Table 4.1. If during the course of the evaluation, or through comments received from the public, First Nations and government review agencies, any additional criteria are identified modifications to the criteria would be undertaken with a rationale provided.

TABLE 4.1
PROPOSED EVALUATION CRITERIA – "ALTERNATIVES TO" EVALUATION

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" 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 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 cost of the alternative.

4.3 Alternative Methods Criteria

Once a preferred "alternative to" is selected, different methods of delivering this alternative will be identified and evaluated. The EA will identify a reasonable range of alternative methods for consideration. For example, should a landfill be identified as the preferred way to address the issue of diminishing disposal capacity, the alternative methods evaluation could include a generic comparison of a new landfill to expansion of the existing site. The criteria proposed for the evaluation of alternative methods will include but not be limited to those presented in Table 4.2. These criteria will be adjusted and appropriate indicators identified depending on the alternatives being evaluated and input from the public, First Nations and government agencies.

TABLE 4.2
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. • Compare potential for impacts related to air quality, noise and dust.
Social-Cultural Environment	• Compare potential for displacement or disruption to residents and agricultural operations. • 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. • Compare potential for impacts to public health and safety.
Economics	• Compare potential for displacement or disruption to existing businesses. • Compare potential for impacts on agriculture/forestry/ mining industry.
Cost	• Compare potential cost of alternative.
Technical Considerations	• Compare potential for providing necessary service.
Transportation	• Compare potential for affects on airports. • Compare potential for affects on traffic volumes. • Compare potential for impacts of haulage truck traffic on the movement of farm equipment.

5. DESCRIPTION OF THE EXISTING ENVIRONMENT AND POTENTIAL EFFECTS

An inventory of the environmental conditions in the Service Area will be undertaken as part of the EA. The profile developed for the environment and potential effects will initially be very generic. More detailed information will be obtained as the EA progresses. The following provides a brief description of the Service Area and existing environment.

5.1 Service Area and Study Area

The Study Area will be further defined after the "alternatives to" evaluation has been completed.

The Service Area for the existing disposal site is shown on Figure 1 and includes the City of Sault Ste. Marie, Township of Prince and Rankin Reserve. It is anticipated that The Service Area for this study will remain the same. This does not preclude the Service Area from changing should circumstances during the EA dictate the need for change.

5.2 Existing Environment

Natural Environment

The City has a river valley setting and its most prominent physical feature is the Lake Superior/St. Mary's River shoreline. The shoreline defines the southerly boundary of the community and contains provincially significant wetland areas. The river is home to many species of freshwater fish and aquatic life. There are many tributaries within the community that also support aquatic life and lead to the Great Lakes watershed. Furthermore, forested areas cover approximately 40% of the community and are home to many species of flora and fauna.

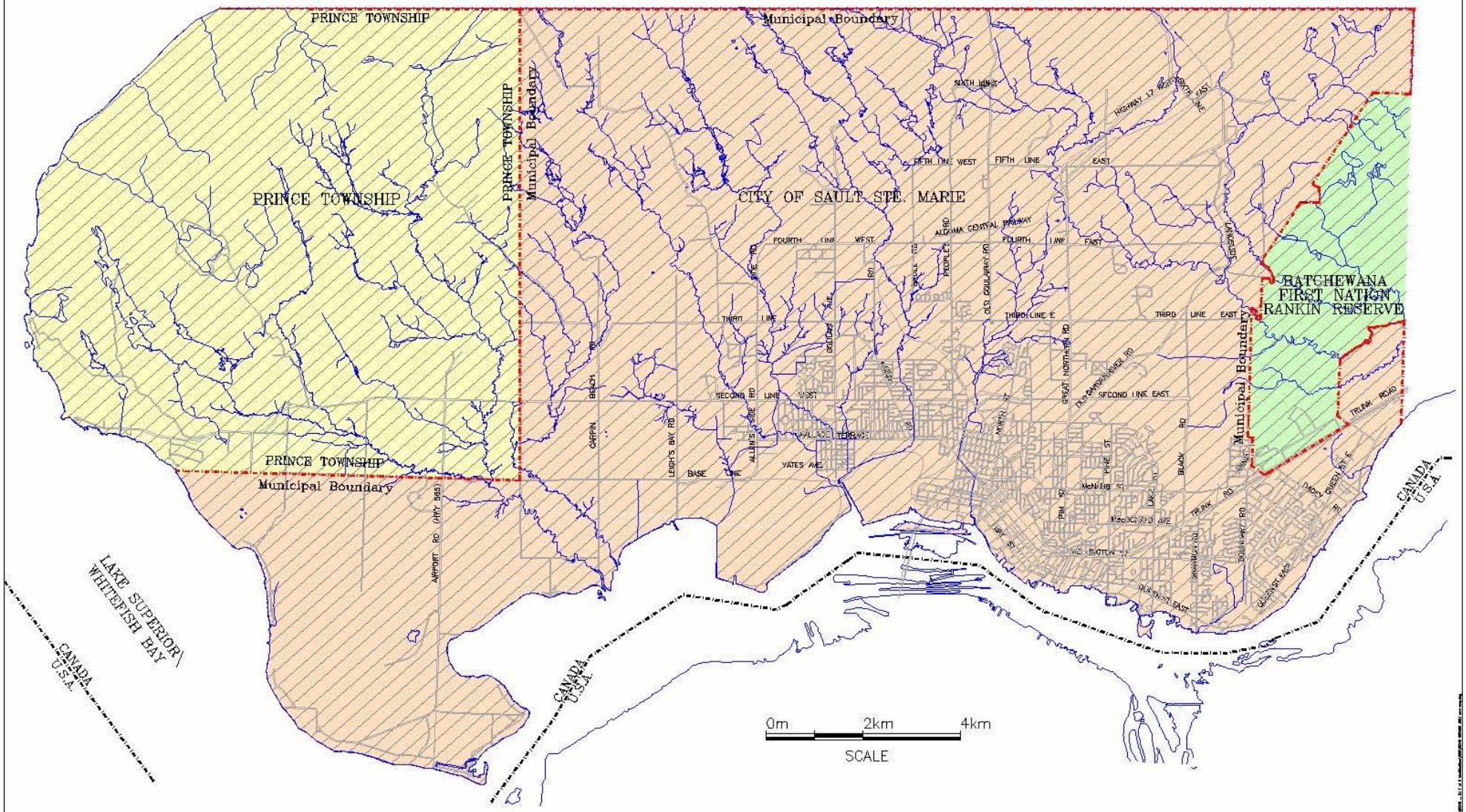
The Algonquin and Nippising lowland plateaus created by various prehistoric lake levels define the form of the community. The lowland plateaus have two levels with the first being only a few feet above the river and the second approximately 30 m higher. The outcroppings of Precambrian rock of the Canadian Shield highland at the north of the community create a physical limit to possible urban settlement. The northern portion of the community also has significant deposits of mineral resources lying above a significant aquifer that is utilized by many as a source of drinking water.

Social/Cultural Environment

The City has a population of approximately 75,000 permanent residents and some temporary residents that attend the local university and college. The city experienced population growth until the 1990's when it stagnated and in recent years it has been in decline from its peak of approximately 81,000 residents.

Economic Environment

The City has long been a centre of industrial and commercial development in Northern Ontario. The steel and forestry sectors employ the bulk of the labour force while other sectors such as government services, call-centres, and health services also make important contributions to the local economy. In recent times the tourism sector has become a growing sector of the economy by capitalizing on the natural beauty that surrounds the city.



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LEGEND

- CITY OF SAULT STE. MARIE
- TOWNSHIP OF PRINCE
- BATCHEWANA FIRST NATION RANKIN RESERVE
- SERVICE AREA

No.	DATE	BY

DESIGNED
DRAWN JT
CHECKED
APPROVED
PROJECT No. 60319
SCALE AS SHOWN

Sault Ste. Marie Waste Management Plan

GENERAL SERVICE AREA PLAN

FIGURE 1

Transportation Environment

The City is a major transportation centre because it is on the Trans Canada Highway, the St. Lawrence Seaway, and the national railway network. Furthermore, the City possesses an international airport and has the only road link from Canada to the United States between Thunder Bay and Sarnia.

5.3 Potential Effects

Over the course of the EA, the environmental components to be examined will represent the full definition of the environment in the EA Act. Table 5.1 provides an overview of the environmental components that will be included in the evaluation of alternatives and/or the assessment of effects of the preferred disposal alternative. Not all the components will be included in each step of the process. Because many of the components are site specific, they will not be utilized in the EA process until facility locations are identified. The comparison of alternatives and the assessment of the potential effects will include consideration of both short term and long term impacts. Generally the assessment of potential effects will be considered over the estimated contaminating life span of the alternative.

TABLE 5.1
ENVIRONMENTAL COMPONENTS TO BE CONSIDERED IN EVALUATIONS

Environmental Component	Indicators
Natural Environment	
Biology	• Terrestrial systems on site, off site and in the vicinity of the current or potential site. • Aquatic habitat and fisheries on site, off site and in the vicinity of the current or potential site. • Presence of wildlife on site, off site and in the vicinity of the current or potential site. • Presence of medicinal plants on site.
Geology/Hydrogeology	• Geological conditions. • Groundwater flow and quality. • Geological/hydrogeological complexity. • Wellhead protection areas of municipal supply wells. • Groundwater use (private and municipal). • Development of future water resources.
Surface Water	• Watersheds. • Drainage paths. • Surface water flows and quality.
Socio-Cultural Environment	
Archaeology	• Presence of known or potential archaeological resources on site.
Heritage	• Presence of known heritage landscapes on site.

TABLE 5.1
ENVIRONMENTAL COMPONENTS TO BE CONSIDERED IN EVALUATIONS

Environmental Component	Indicators
Social	• Presence of existing residences on site, off site, in the vicinity of the current or potential site and along the access route(s). • Presence of institutional, community and recreational features on the site, off site, in the vicinity of the current or potential site and along access route(s). • Presence of First Nations reserves and communities and spiritual, cultural or ceremonial and traditional use sites. • Community characteristics. • Community concerns.
Planned Land Use	• Official Plan designations and zoning on site, off site and in the site vicinity. • Future development proposed in the site vicinity and along the access route(s).
Visual	• Existing views/viewsheds of the facility in the site vicinity.
Atmospheric	
Dust Noise Air Quality	• Ambient (baseline) dust conditions. • Ambient (baseline) noise conditions. • Ambient (baseline) air quality conditions.
Economic	
Agricultural/Forestry/Mining	• Presence of or potential for agricultural/forestry and mining activity on site, off site and in the vicinity of the current or potential site.
Businesses	• Presence of business enterprises on site, off site, in the vicinity of the current or potential site and along site access route(s).
Transportation	• Proximity of the site to airports. • Traffic safety along site access routes. • Traffic operations along site access routes.
Tourism	• Presence of tourist enterprises on site, off site, in the vicinity of the current or potential site and along site access route(s).

6. ENVIRONMENTAL ASSESSMENT WORK PLAN

6.1 General

The overall EA process will involve the following key phases:

- Phase 1 – Terms of Reference Document
- Phase 2 – Environmental Assessment Study
- Phase 3 – Environmental Assessment Act Submission

The key steps in each of these phases are highlighted in Figure 2 and discussed in greater detail below.

6.2 Phase 1 – Terms of Reference Document

Within the Terms of Reference development stage, there are three basic steps:

- Step 1 involves the preparation of the draft Terms of Reference document;
- Step 2 involves soliciting public and government input into the draft Terms of Reference document; and
- Step 3 involves finalizing and submitting the Terms of Reference document to the MOE for formal review and approval.

Following approval of the Terms of Reference document, the City would initiate the EA.

6.3 Phase 2 – Environmental Assessment Study

The key activities to be completed as part of the EA study include the "alternatives to" evaluations and the alternative methods evaluation.

6.3.1 "Alternatives to" Evaluation

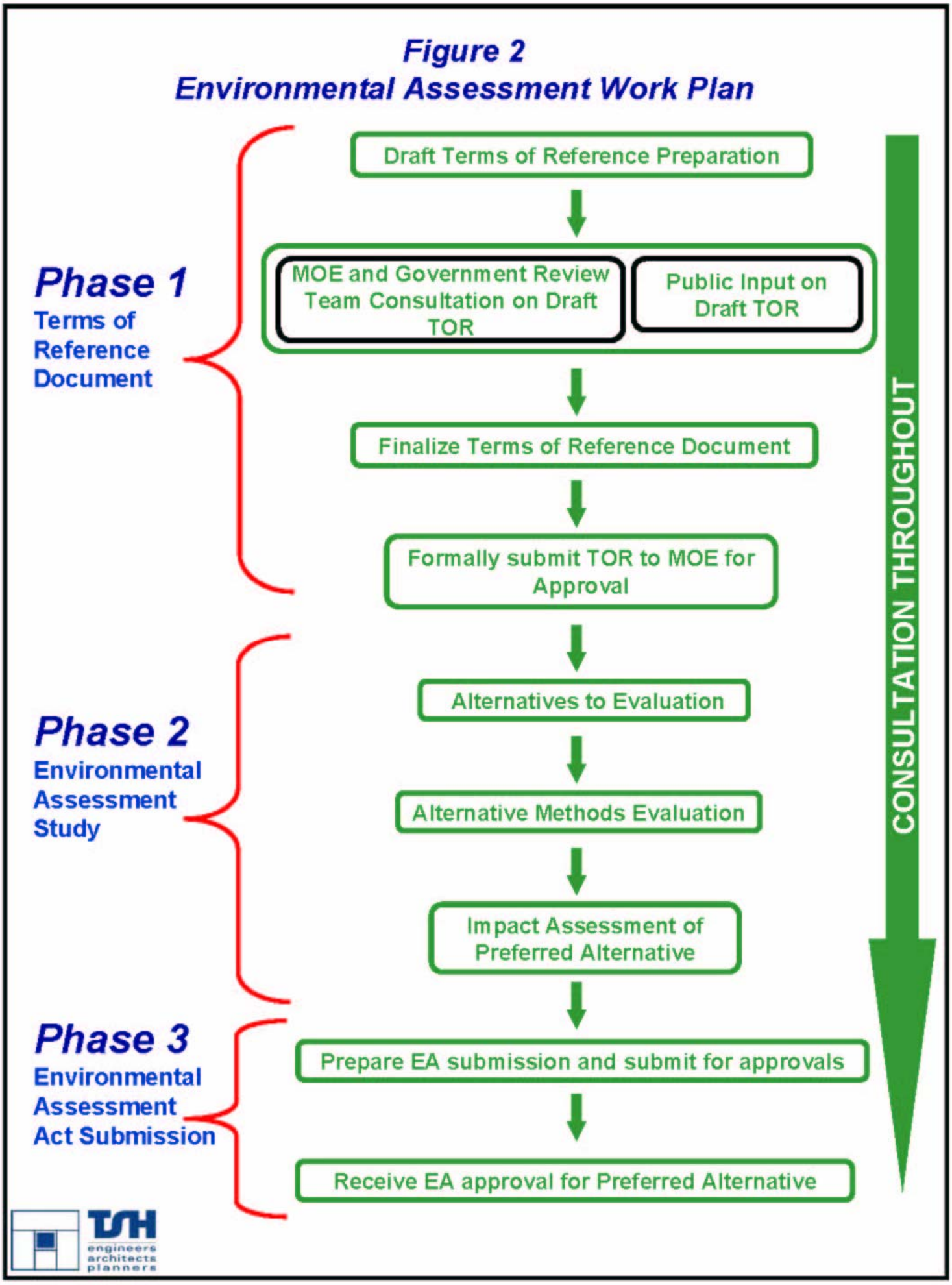
As noted previously, the evaluation of alternatives will be carried out at a conceptual level. The specific locations and technologies for the identified "alternatives to" will not be included.

Each of the alternatives will be discussed and ranked from the most preferred to the least preferred for each of the proposed criteria outlined in Section 4.2. Discussions with the public and First Nations will occur on whether there is a difference in the relative importance for the criteria. If so, this will be reflected in the evaluation. The "alternative to" ranked as most preferred for the most criteria will be considered the preferred overall. This does not preclude the proponent from revisiting the "alternatives to" evaluation should the preferred alternative not be feasible in the alternative methods evaluation.

6.3.2 "Alternative Methods" Evaluation

Once a preferred "alternative to" is selected, different methods of delivering this alternative will be identified and evaluated. The EA will identify a reasonable range of alternative methods for consideration.

Figure 2
Environmental Assessment Work Plan



TSH engineers architects planners

In general, data will be collected for each alternative method based on the final set of criteria/indicators developed.

There are a number of different ways to use the collected data to evaluate the alternatives and the selection of an appropriate method depends on the data that is collected. We believe that the following are important considerations regardless of the evaluation method selected:

- method is easy to understand;
- results are clear and make sense based on the data collected;
- decisions can be followed through the evaluation process; and
- the public has access to all the data used in the evaluation.

A qualitative evaluation method is proposed. The following summarizes the main steps in the evaluation:

- data will be presented showing the relative net effects of the alternatives (i.e. effects assuming a level of mitigation based on the criteria presented). It is expected that the data set will involve a combination of numeric and descriptive data;
- the alternatives will be ranked in order of preference for each criterion and then summarized by criteria group (e.g. natural environment, socio-cultural environment, etc.);
- the evaluation criteria/criteria groups will then be ranked in terms of their relative importance taking into account public, First Nations and government review agency input. This will determine the criteria/criteria groups that will have the greatest to least influence in selecting the preferred alternative;
- the advantages and disadvantages of each of the alternatives will be comparatively evaluated reflecting the relative importance of each criterion/criteria group. It is expected that this comparison will be conducted by comparing pairs of alternatives (i.e. Alternative 1 versus Alternative 2). The preferred alternative of the two will be carried forward for comparison with the next alternative until a single alternative is identified as being preferred to all others;
- the alternative that on balance has the most advantages and least disadvantages will be recommended as the preferred alternative and carried forward for detailed effects assessment and mitigation related evaluation.

6.3.3 Impact Assessment of Preferred Alternative

Once a preferred alternative is identified, a design concept will be prepared. In preparing the design concept, opportunities to mitigate potential impacts will be incorporated. Opportunities for mitigation during construction and operation will also be identified.

Based on the design concept, which includes mitigation, the potential for environmental effects, or net effects, will be assessed. The assessment of net effects will include effects associated with the construction, operation and any closure/post-closure periods of the undertaking. Should facilities be included in the preferred alternative, the potential effects on those around the facility, those who would work in the facility and those along any waste haul route to the facility will be considered.

The assessment of net effects will include consideration of components listed in Table 5.1 as appropriate.

Essentially, this section of the EA will represent the City's commitment to implement all the mitigation identified for the design, construction, operation, closure and post-closure of the preferred alternative.

6.3.4 Prepare EA Summary Documentation

Based on the results of the evaluation process, public input, First Nations input and government agency input, the EA documentation will be prepared and submitted to City Council for approval.

6.4 Phase 3 – Environmental Assessment Act Submission

The final EA documentation will be submitted to the MOE for approval once it has been approved by City Council. 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.

The EA documentation will show the traceability of the decision making process.

7. CONSULTATION PLAN

Since the initiation of the Solid Waste Management Plan in 2000, the City has placed an emphasis on working with the public, stakeholders and First Nations to develop an appropriate long-term solid waste management plan. The consultation undertaken as part of the Solid Waste Management Plan is presented in a separate report. The City recognizes the need to involve the public, stakeholders and First Nations 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 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; 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 all participants throughout the EA where appropriate. Further detail on the proposed Consultation Plan for the EA is included in the Consultation Supplementary Document.

Access to Information

All meeting announcements, reports, etc. will be placed on the City's web site. 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, libraries and other locations to provide other opportunities for access to information.

Workshops

Workshops will provide an opportunity for interested members of the public and First Nations 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 participant 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";

- 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.

First Nations Consultation

The Garden River and Batchewana First Nations and Métis Associations will be contacted throughout the EA. This could include participation in workshops or Public Open Houses held in the City or separate events held with the First Nations.

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 made the reasons why will be provided.

8. MONITORING STRATEGY

The EA will include the identification of a monitoring strategy and schedule to be put in place during the construction and operation of the preferred alternative. This monitoring will compare the anticipated potential impacts identified through the EA with the actual impacts. This strategy in the EA will also include commitment by the City to adjust their construction/ operation should unanticipated impacts be identified through the monitoring program.

A contingency plan will be developed should anticipated affects be identified through the monitoring program.

9. MODIFICATIONS TO THIS TERMS OF REFERENCE

While preparing the EA, it may be found that minor modifications to the EA approach described in the Terms of Reference will be necessary. Minor modifications could include adjustments to evaluation criteria, additional studies and changes to the consultation program in order to address public, stakeholders, First Nations and agency input. Any modifications will be undertaken in full consultation with all participants.

10. OTHER APPROVALS

The EA will outline any other approvals required for the preferred solution. Applications for approval under other provincial legislation will be made concurrently where appropriate. The other approvals required will depend on the nature of the preferred alternative but are likely to include:

- Environmental Protection Act (EPA);
- Ontario Water Resources Act (OWRA);
- Planning Act;
- Local Official Plan; and
- Zoning By-laws.

The potential for requiring any federal approvals will be discussed with the federal authorities and any approvals required noted in the EA document. Should a federal EA be required, it will be co-ordinated with the provincial EA process.

TABLE 1
SAULT STE. MARIE SOLID WASTE MANAGEMENT PLAN FINAL ENVIRONMENTAL ASSESSMENT TERMS OF REFERENCE
GOVERNMENT REVIEW TEAM COMMENT SUMMARY TABLE

Submitter	Summary of Comments	Proponent's Response	Status
Provincial Agencies			
Ontario Native Affairs Secretariat	• S. 7 of the ToR nor the Consultation Report specifies if First Nations have been contacted or which First Nations have been with respect to the ToR. • If a copy of the ToR has not been provided, it is recommended that a copy be provided to Batchewana First Nation, Garden River First Nation, and the Union of Ontario Indians with an opportunity to comment. • Clarify whether "Rankin Reserve" is aware and participating in the Plan Study.	Batchewana First Nation ("BFN"), Garden River First Nation ("GRFN"), Association of Iroquois and Allied Indians ("AIAI"),and Union of Ontario Indians ("UOI"), Métis Nation of Ontario ("MNO"), and Ontario Métis Aboriginal Association ("OMAA") where sent copies of the ToR document and consultation report. In addition the City has met with the Batchewana and Garden River First Nations, Métis Nation of Ontario, and Ontario Métis Aboriginal Association to explain the ToR and Environmental Assessment process.	Additional details on First Nations consultation has been added to Section 7 of the ToR. Refer also to the summary of First Nation Consultation attached)
Ministry of Agriculture and Food	• No concerns	No response required.	
Ministry of Northern Development and Mines	• No significant concerns • Encourages proponent to assess solid waste supply from areas north and east of the City, to be consistent with the purpose of the ToR.	Comment noted. Flexibility has been incorporated into the ToR to allow the service area to be defined as the EA progresses.	
Ministry of Natural Resources	• Sault North be added to the study area now in the initial stage of the EA. • Include the waste from Sault North in this waste management program. • In many instances the City is referred to when instead the Study Area should be referred to. • Table 4.2 – Public health and safety should be included • Table 4.2 – Consider impacts on tourism. • Table 5.1 – Consider tourism under "Economics".	Comment noted. Flexibility has been incorporated into the ToR to allow the service area to be defined as the EA progresses. A significant concern in expanding the proposed service area will be the equitable distribution of project costs. Public Health and safety will be considered. Tourism will be considered.	 Added to Table 4.2 under Socio-Cultural Environment. Tourism has been added to Table 5.1.

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	• Table 5.1 – Impacts on species at risk should be added under the Biology heading.	The impacts to species at risk will be considered under the current indicators in Table 5.1. The evaluation criteria included in the ToR represent a preliminary list. The additional evaluation criteria identified will be added to the evaluation matrices at the onset of the study. Additional criteria will also be considered as the process evolves.	
	• S. 9 indicates changes to the study area can be made but this is not stated in S. 9.5.	Comment noted.	
	• Ask the Sault North Planning Board to review the ToR.	The ToR has been provided to the Sault North Planning Board.	

Ministry of the Environment, Waste Unit	• Change "Household special waste" to "Household hazardous waste".
	• Table 4.1 Proposed Evaluation Criteria:
	  • Separate the natural environment from social/cultural consideration as in Table 4.2.
	  • Criteria should be further defined and broken into measurable components.
		The City refers to the existing facility as a Household Special Waste Facility.
		As indicated in the ToR the level of detail will increase as the EA proceeds.
		The criteria will be further defined as the EA progresses in the hope that additional input can be obtained from those participating in the consultation events.	

	• Lifecycle cost calculations can be open-ended. Suggests defining level of detail and set boundaries early on and applying the same to all alternatives.	The intent is to set boundaries at the onset of the study and apply the same level of detail to all alternatives.	The word lifecycle has been removed from Tables 4.1 and 4.2.

Ministry of the Environment, Technical Support Section, Northern Region	• Items to be included in Table 5.1 under the geology/hydrogeology component:
	  • Wellhead protection areas of municipal supply wells;
	  • Groundwater use (private and municipal); and,
	  • Development of future water resources.
		The additional evaluation criteria identified will be added to the evaluation matrices.	The criteria have been added to Table 5.1.

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Ministry of the Environment, Waste Management Policy Branch (Jim Hiraishi)	• Introduction is called "foreword" not "forward". • How will the demonstration facility affect the "alternatives to" in the context of evaluation? • How will the EA process accommodate the demonstration findings to ensure that pre-determining outcomes will not occur? • Finds the waste generation rate to be high. Will the higher rate be rationalized as part of the EA when capacities of "alternatives to" are considered?	Agreed. This is a demonstration facility the impact it will have will be a function of the stage the pilot study is at as the EA is undertaken. The City cannot wait for the demonstration pilot study to be complete. As it currently stands (June 21, 2005) the MOE has yet to issue a C of A for the facility. The intent will be to evaluate this technology in the same way as all other alternatives are considered. The benefit of the demonstration facility is that it will allow for more realistic inputs into the EA process (e.g. impacts can be more easily distinguished and quantified, costs will be more well defined, etc.) The waste generation rates are based on actual weighed tonnages accepted in the City's waste management system. The City has one of the few "closed" waste systems in the Province. All waste generated in the City by all sectors is either disposed in the landfill or captured in the diversion systems. Very little waste leaves the municipality. These generation rates represent the true waste generation in the City.	Changed.
Ministry of the Environment, Air and Noise	• The Terms of Reference did not address noise assessment. • Typical to include noise as a topic for consideration under "Socio-Cultural Environment" and/or "Economics". • This document only addressed noise under natural environment	Noise will also be considered under socio-cultural environment.	Noise moved to Socio-Environment in Table 5.1.

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Ministry of the Environment, Water and Wastewater	• No concerns	No response required.	
Ministry of the Environment, APEP (Stephanie Barnes on behalf of Paula Allen), Northern Region	• No concerns	No response required.	
Ministry of the Environment, Sudbury District Office	• No concerns	No response required.	
Federal Agencies			
Environmental Policy and Assessment Division: Great Lakes and Corporate Affairs Office	• Alternatives be assessed and compared using potential impacts from construction and operation/maintenance to decommissioning phases. • Natural Heritage feature impacts be discussed in terms of ecological functions. • Also use qualitative assessment for discussion of impacts on components of the natural environment.	The evaluations will include consideration of the full life-cycle of the facilities. These will be taken into consideration at later stages in the process. If the evaluation requires a qualitative assessment in order that a final decision can be made it will be used.	This is discussed in sections 5.3 and 6.3.3 of the ToR.
	• Commit to fully and clearly document potential transboundary environmental effects on First Nations lands.	To the extent that transboundary impacts can be identified and quantified they will be documented.	
Canadian Environmental Assessment Agency	• In order for CEAA to apply, there must be a project, a federal authority and a trigger under section 5(1) of the Canadian Environmental Assessment Act (CEAA). • A detailed project description will be required once the details of the project become known, to determine if the project will be subject to the CEAA.	Comments noted.	
Great Lakes Forestry Centre: Fisheries and Oceans Canada	• Be aware that most of the water bodies in the Sault Ste. Marie area are Canadian fishing waters and are protected un the federal Fisheries Act.	Comment noted.	

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Local Agencies			
Sault Ste. Marie Region Conservation Authority	• Concerns have been addressed.	No response required.	