

City of Sault Ste. Marie

Solid Waste Management Environmental Assessment – Impact Assessment and Environmental Assessment Reporting Work Plan

Prepared by:

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Project Number:

60395

Date:

April, 2013

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April 5, 2013

Ms. Catherine Taddo, P. Eng.
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Dear Ms. Taddo:

Project No: 60395

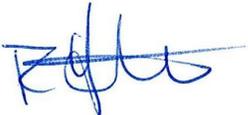
**Regarding: Solid Waste Management Environmental Assessment – Impact Assessment
and Environmental Assessment**

Considerable work has been completed to date in advancing the Waste Management Environmental Assessment. A preferred solution (enhanced 3R's to reduce residual waste and landfilling of residual waste) and a preferred method for disposing of residual waste (landfill expansion) have been identified through the EA process.

The attached summary document outlines what has been done to date and the tasks and activities that will be undertaken to facilitate the preparation of the Environmental Assessment Act (EAA), Environmental Protection Act (EPA) and Ontario Water Resources Act (OWRA) approvals submissions. The tasks and activities have been summarized for each of the disciplines that will be engaged to identify and address anticipated environmental effects.

We look forward to working with City staff and engaging stakeholders, government agencies, First Nation communities and the general public to complete the remainder of the work program.

Sincerely,
AECOM Canada Ltd.



Rick Talvitie, P. Eng.
Branch Manager

RT:nm
Encl.

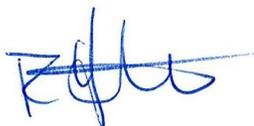
Distribution List

# of Hard Copies	PDF Required	Association / Company Name
1	Yes	City of Sault Ste. Marie
1		Dillon Consulting
1		AECOM
1		Project Webpage, Batchewana First Nations, Garden River First Nations, Prince Township, Métis Nation of Ontario, Missanabie Cree, Chiefs of Ontario, MOE, MTC, ORC, IO

Revision Log

Revision #	Revised By	Date	Issue / Revision Description

Signatures



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Table of Contents

Statement of Qualifications and Limitations

Letter of Transmittal

Distribution List

		page
1.	Introduction and Background	1
1.1	Alternatives to the Undertaking	1
1.2	Alternatives Methods	2
2.	Impact Assessment and ECA Application Work Plan	4
2.1	Biology (terrestrial and aquatic).....	4
2.2	Geotechnical.....	5
2.3	Groundwater.....	5
2.4	Atmospheric (acoustic and air quality).....	6
2.5	Surface Water.....	6
2.6	Socio-economic.....	7
2.7	Visual	9
2.8	Traffic.....	9
2.9	Archaeological/Culture.....	10
2.10	Planned Land Use	10
2.11	EA Report and Design and Operations Report	11
2.12	Public Consultation	12

Appendices

Appendix A. Preliminary Test Hole Locations

1. Introduction and Background

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 continues to investigate various ways to divert waste from disposal by promoting and developing programs that support the 3R's hierarchy: reduce, reuse and then recycle.

The other component of solid waste management planning, waste disposal, requires the completion of an Environmental Assessment (EA) under the *Environmental Assessment Act*. The City's EA Terms of Reference (ToR), prepared to guide the EA planning process for future waste management, was approved by the Ministry of the Environment (MOE) in September, 2005.

Since that time the City has inventoried the environment within the study area, prepared population projections, analysed historical waste quantities, developed solid waste quantity projections, and identified and evaluated "alternatives to" or functionally different ways of managing residual waste and alternative methods of landfilling waste. The "alternatives to" and "alternatives methods" evaluations are summarized in the following subsections.

1.1 Alternatives to the Undertaking

In June 2007, the "Waste Quantity Projections and Existing Environment Profile" Working Paper and the "Alternatives to the Undertaking" Working Paper were released. The latter report describes the "alternatives to" considered, the results of the comparative evaluation of "alternatives to" and the public and stakeholder input received to date.

The City considered the following "alternatives to":

- Increased waste diversion (ie. developing and promoting programs that support waste reduction, reuse and recycling);
- Incineration and high heat processes;
- Landfill;
- Export of waste; and
- Do – nothing.

The evaluation identified increased waste diversion and landfill as the preferred alternatives for the City of Sault Ste. Marie. These alternatives have been supported through input received by the public.

It is noted that public input also supported incineration and high heat processes. A high heat process is incorporated in the City's overall waste management plan through the City's contractual relationship with a private sector Energy-from-Waste proponent, The Elementa Group (Elementa). The City has committed to supply a portion of the City's municipal solid waste for processing in Elementa's proposed steam reformation plant.

Although there is the potential for a significant proportion of the City's waste stream to be processed in the proposed Elementa steam reformation plant, the project has not met scheduled milestones and there are some risks associated with the future implementation of this innovative project.

Based on the current and future challenges the project may not proceed to the implementation phase, or may not reach its intended capabilities. For these reasons it has been assumed, within the context of this Environmental Assessment, that all residual waste will be managed in a landfill site.

In the event the Elementa project is implemented and reaches partial or full capacity, there will continue to be a need to manage residual 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 landfill capacity but may impact the projected longevity of a new or expanded landfill.

1.2 Alternatives Methods

The "alternative methods" (i.e. alternative landfill locations and designs) evaluation, was carried out in two steps as follows:

- Step 1** Generic non-site specific comparison of a new landfill to an expansion of an existing landfill; and
- Step 2** Identification of specific sites or expansion options based on the outcome of Step 1 and the comparison of these sites or options.

The key objective of the "alternatives methods" evaluation is to find an environmentally suitable location for the development of additional landfill capacity that is needed.

The generic comparison of developing a new landfill site versus expanding an existing landfill site was carried out at a general level of detail. Step 1 considers the different types of areas within the City where a new landfill site could be located including remote, rural, and urban areas. Specific site locations and characteristics were not considered in Step 1.

After evaluating both options (site expansion versus new site), the preliminary conclusion was that the expansion of an existing landfill is preferred. For several of the evaluation criteria/indicators it was not possible to establish a clear preference between the options at a generic level of detail. However, it was clear in the evaluation that an expansion is generally preferred over a new site as it will:

- Require less land and therefore displace fewer people and/or social and natural features;
- Disrupt fewer people as maintenance, mitigation and monitoring would continue at a closed site in addition to the operations at a new site if a new site was identified. Furthermore residents in the vicinity of an existing site have become accustomed to its operations and a relationship has been established between area residents and the City to focus on continual improvement of nuisance impacts;
- Cost less;
- Encounter fewer challenges in gaining technical approvals;
- Provide opportunities for effective phasing, and minimize the number of facilities the City has to look after.

These preliminary conclusions indicated that it is preferred to initially focus resources on developing a strategy to expand an existing site. This approach was also supported through input received by the public.

The EA process is iterative in nature and thus, the decision made in Step 1 does not necessarily preclude the consideration of other site options at a later stage of the EA process as more site specific information becomes available through the impact assessment (i.e. identification of potential environmental impacts and mitigation measures for the preliminary preferred site). If the detailed investigation of a site expansion results in unacceptable net effects a search for a new Greenfield site may be initiated.

Step 2 of the Alternatives Methods evaluation considered options to expand the City's existing landfill site.

Expansion options were developed that make best use of the existing site characteristics and the area available to expand.

Potential design constraints were considered in the development of expansion options. The site is limited in terms of footprint expansion as there is a hydro corridor along the western property boundary, Canon Creek flows along the eastern boundary and there is a large bedrock ridge along the northern boundary. Fifth Line runs east-west along the southern property boundary and a setback distance needs to be maintained between the site and the adjacent sensitive features (i.e. residences).

In general, the options considered included 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.

Based on the characteristics of the existing site, four conceptual expansion options were developed:

- Option 1 – West Expansion;
- Option 2 – West and North Expansion A;
- Option 3 – West and North Expansion B;
- Option 4 – West and South Expansion.

The evaluation was completed in two steps:

1. Identify the preferred horizontal and vertical expansion strategy; and
2. Confirm whether landfill mining should be included.

The preliminary conclusion reached through the evaluation process was that Option 3 – West and North Expansion B with landfill mining included was preferred. This option includes an 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. The average depth of the west expansion is 11 m and is 7 m shallower than the other options. A liner is proposed beneath all expansion areas, mined areas and a significant proportion of the interface between the new and existing waste. Furthermore, a horizontal leachate collector is proposed along the new western footprint boundary to replace the existing purge well system.

Expansion to the west requires relocation of the public drop off area, inbound and outbound scales, scale house and maintenance building.

The estimated additional disposal capacity is 4.2 million m³ (i.e. 2.32 million tonnes) assuming that current waste densities are achieved.

The soil surplus generated by the base excavation is expected to supply soil for cover needs (i.e. 1,687,000 m³ (soil available) – 1,328,000 m³ (daily, interim and final cover needs) = 359,000 m³ surplus).

The next step in the process is to develop a preliminary design and complete a detailed impact assessment. We have provided below a detailed summary of the proposed work plan for the next steps.

2. Impact Assessment and ECA Application Work Plan

The focus of this phase of our work plan is to prepare an Impact Assessment for the preferred expansion strategy and prepare a comprehensive EA Document using the previously prepared interim reports together with the reporting prepared through this phase of the project.

Within this phase, a preliminary design will be prepared. In preparing the preliminary design, opportunities to mitigate potential effects will be incorporated. The mitigation strategy will document the City's commitment throughout the design, construction, operation and closure/post-closure phases for the preferred alternative.

A contingency plan will also be developed should unanticipated effects be identified through the monitoring program.

Our strategy is to prepare the supporting documentation for the key approvals concurrently. The key approvals include Environmental Assessment Act (EAA), Environmental Protection Act (EPA), and Ontario Water Resources Act (OWRA). The advantages of preparing a single document that will address all of the approval requirements include:

- information required for one approval can also be used for another approval; thereby reducing the overall project costs;
- more efficient use of time for Ministry of Environment (MOE) Approvals staff (ie: only need to be engaged once); and
- the overall implementation schedule is shortened by avoiding staged approval submissions.

We propose to undertake a “kick-off” meeting with MOE staff to present and obtain concurrence on this proposed approach prior to initiating the work. We will also conduct a progress meeting with the MOE following the completion of the impact assessment.

The next phase will include broad expertise in a number of distinct disciplines including:

- Biology (terrestrial and aquatic);
- Geotechnical;
- Groundwater;
- Atmospheric (acoustic and air quality);
- Surface water;
- Socio-economic;
- Visual;
- Traffic;
- Archaeological/cultural; and
- Planned land use.

The proposed work within each of these disciplines is summarized in the following subsections.

2.1 Biology (terrestrial and aquatic)

This work will be coordinated by AECOM and carried out by Dillon biologists and shall include:

- Undertake a review of secondary source information and consult with relevant agencies to determine the potential natural areas, aquatic features, species at risk and/or rare vegetation communities.

- Complete field studies consisting of an Ecological Land Classification (ECL) to characterize vegetation, a vegetation survey, wildlife habitat assessment and general aquatic assessment. This work will also serve to confirm some of the findings from the background review and agency consultation.
- Identify and map terrestrial and aquatic features.
- Determine the significance and sensitivity of natural features affected by the preferred option.
- Identify the potential impacts to the natural environment, including residual effects.
- Propose mitigation and environmental enhancement measures to avoid or mitigate potential impacts.
- Identify natural heritage permits or approvals required to facilitate implementation of the preferred option for landfill expansion.
- Prepare a technical memorandum to document the approach and study results.

2.2 Geotechnical

The preferred expansion option includes significant excavation depths which will require careful consideration of slope stability and constructability. This work will be coordinated and carried out by AECOM staff and shall consist of the following key tasks and activities:

- Undertake a review of background information including historical geotechnical information, design reports, operational procedures and conceptual/preliminary designs.
- Perform a visual inspection of the site and develop a drilling program.
- Carry out geotechnical investigation to characterize subsurface and groundwater conditions to support design development. Drill approximately eleven deep test holes at different locations within the existing site and proposed expansion. These test holes will be advanced to bedrock or to a maximum depth of 20m below the existing ground surface. Two to three standpipe piezometers will be installed to facilitate groundwater monitoring in selected test holes. Access preparation will be required at some locations to facilitate drilling work. (Note: the access preparation is excluded from this work plan and it has been assumed that it could be completed by Public Works staff).
- Perform preliminary stability analysis to investigate the critical instability conditions during the construction stages and at the final construction stage.
- Prepare geotechnical report documenting the investigation and our geotechnical recommendations related to the design, development and construction of the proposed work.

The geotechnical investigation and associated recommendations will also be used during the detail design and construction phases.

2.3 Groundwater

The existing site has been active since the 1960's and there is a well established network of monitoring wells with a significant level of historical monitoring data. The existing monitoring data indicates the site is generally in compliance with reasonable use criteria. The reporting will focus on the historical performance of the leachate management features and the proposed enhanced future leachate management system. This work will be coordinated by AECOM staff, carried out by Dillon hydrogeologists and shall include:

- Undertake a review of all historical data and reporting.
- Summarize historical performance of the leachate management features.
- Document the proposed leachate management enhancements.

- Develop contingency plans including trigger mechanisms in liaison with the Design and Operations discipline which will include measures to be used if the landfill does not perform as expected.
- Develop a revised monitoring plan for the site.
- Prepare a technical memorandum to document the approach and study results.

2.4 Atmospheric (acoustic and air quality)

The Acoustic and Air Quality Assessments will involve determining the baseline conditions and then modelling the impacts associated with expanding the landfill which includes the landfill mining component. This work will be coordinated by AECOM staff and carried out by Dillon staff and shall include:

- Undertake a review of background information and data and develop an inventory of facilities and equipment that may be impacting air quality.
- Identify future sources of emissions.
- Complete a dust impact assessment for the site and site access route;
- Complete a noise impact assessment for the site and site access route;
- Complete an odour impact assessment for the site;
- Identify potential impacts and develop measures to mitigate the impacts; and
- Prepare a technical memorandum to document the approach and study results.

It is assumed that no background air and noise modelling or source testing for air and noise will be required. Baseline conditions will be established through modelling and based on previous studies completed for the site (to extract relevant source information).

For the three impact assessments noted above, it is assumed that up to three modelling iterations may be required.

2.5 Surface Water

The surface water assessment will involve the development of a storm water management plan (SWMP) to manage and control runoff generated within and adjacent to the site. The assessment will also consider potential impacts to surface water quality including the identification of mitigation measures and net effects. This work will be coordinated and carried out by AECOM staff and shall consist of the following key tasks and activities:

- Collect and review all relevant background data including:
 - EA Terms of Reference (TSH, 2005);
 - EA Phase 1 Study Report;
 - previous surface water studies, monitoring reports and hydrologic/hydraulic modelling prepared for the site and surrounding area (D&O report, drainage design drawings, etc.);
 - topographic mapping and aerial photos of site and site vicinity;
 - historical stream flow data, water quality data, etc.; and
 - concept design drawings for preferred alternative.
- Determine treatment and control requirements for the landfill expansion area & associated facilities with due consideration of the existing drainage system and storm water management strategy.
- Explore opportunities to incorporate SWM to treat and/or control existing site area.
- Carry out analyses to confirm drainage conveyance and storage requirements (i.e., ditches, culverts, stormwater management ponds, etc.).
- Develop a surface water mitigation strategy considering various alternative measures over the short term and long term.

- Carry out surface water net effects assessment (i.e., with mitigation in place) on surface water quality and quantity.
- Review existing surface water monitoring plan for current landfill site as well as regulatory criteria and parameter thresholds.
- Revise/modify existing plan as required to account for new landfill expansion. Resultant plan will identify the type, location, frequency and reporting requirements for all surface water monitoring.
- Prepare a contingency plan to address potential surface water impacts should adverse effects be identified through subsequent monitoring.
- Review proposed undertaking and confirm regulatory approvals/permitting required for surface drainage system including:
 - SSMRCA;
 - MNR;
 - DFO;
 - MOE; and
 - First Nations.
- Prepare a technical memorandum to document the approach and study results. The reporting will include a storm water management plan.

2.6 Socio-economic

A socio-economic impact assessment concentrates on identifying and analyzing any effects on the socio-economic environment arising from a proposed Project. It aims to identify and address key interactions between communities and the Project. The socio-economic environment is assessed in terms of a community's natural, physical, human, financial and social assets.

This analysis will take place at the neighbourhood level due to the relatively small study area and semi-rural nature of the location and will assess the impact of the proposed expansion on the quality of life for those living there and the surrounding businesses. The study area for the socio-economic assessment will include community features within a 1km radius of the Sault Ste. Marie landfill and along the access routes near the site.

Potential issues or impacts arising from this Project include:

- Increased levels of noise;
- Increased dust levels;
- Increased nuisance effects due to odour;
- Increased traffic flow and pedestrian safety;
- Increased volume of heavy vehicles;
- Effects on the use and enjoyment of personal property, open spaces and passive recreation opportunities;
- Economic effects on local businesses; and
- Changes to community character.

This work will be coordinated and carried out by AECOM staff and shall consist of the following key tasks and activities:

- Undertake a review of existing available data and information and conduct a field reconnaissance visit to obtain accurate information on the number of residences and community facilities in the area. This will include:
 - Confirm the number of residential properties in a 1km radius of the landfill;

- Establish number of parks and open spaces within the 1km boundary of the landfill;
- Establish the number of businesses and key employers located in the community surrounding the landfill;
- Record any recreational facilities that are in the study area; and
- Record any institutional properties in the study area (eg. educational establishments, health care facilities, care homes or places of worship).
- Field data will be complemented by secondary information gathered using desktop research to create an accurate picture of the important features in the study area. This will ensure that data are comparable across the study area and specific enough to allow impact assessment and create a socio-economic profile of the area.
- Prepare neighbourhood level mapping of potentially affected community features in the vicinity of the proposed project to help describe the social fabric of the study area neighbourhoods (i.e., homes, businesses, community and recreational facilities, open space utilized for passive recreational uses, etc). This information will provide a baseline picture of the social features in the study area and by marking the relevant features on a map, it is easy to see the overall impacts on the social fabric.
- Conduct stakeholder interviews to understand the effects the proposed expansion Project may have on the operations and activities of businesses and recreational facilities. It is assumed that around 10 interviews may need to be undertaken to address businesses in the area. The implementation of the stakeholder interviews will be undertaken in accordance with a detailed interview protocol and structured interview guides. These interviews will be conducted either in person or by telephone. The work will involve:
 - Developing a contact listing and database;
 - Developing an interview guide;
 - Conduct interviews (by telephone or online); and
 - Document interview results.
- Conduct recreational interview at the KOA Campground located directly across the landfill with the campground owners and campers. Ideally these interviews will be conducted during the summer months to ascertain how the Project may potentially affect campers use and enjoyment of the park and potential of return visits.
- Conduct a residents' survey to capture perspectives from area residents. The survey will be both electronic (to be completed on the internet) and available on hardcopy. It will be distributed in a number of ways to maximize survey return rates. These include:
 - During the field reconnaissance visit AECOM staff will drop off a paper copy of the survey (with information on how to complete the survey online) to each of the houses within an approximately 1km radius of the Project site.
 - The survey will also be made available on the City of Sault Ste. Marie website. A survey will allow those immediately affected by the Project to have their opinions and concerns recorded and addressed.
- The survey will cover the following:
 - Opinions on the area and major issues facing the area;
 - Opinions of well-being, including health and safety and use and enjoyment of their property and the surrounding area;
 - Potential effects of the Project on their day to day life; and
 - Changes in attitude to living in this area as a result of the Project.
- Identify mitigation measures to address potential impacts. Social impacts are largely determined by the effects from other aspects of the Project. For example, increased levels of noise can affect the use and enjoyment of personal property and public spaces. In order to conduct a social impact assessment it will be

necessary to integrate findings from other disciplines such as noise studies, odour, dust and traffic studies. Mitigation measures will be proposed to minimize any potentially adverse socio-economic impacts. This information will be collated and analyzed in order to determine if there are any residual effects on the socio-economic environment after the appropriate mitigation measures have been taken.

- Prepare a technical memorandum to document the approach and study results. This report will contain the community features mapping and findings from the household and business surveys. These baseline findings will be combined with findings from other disciplines to produce an overall summary of socio-economic effects as well as enhancing any positive effects on the community.

2.7 Visual

Visual Impact Assessment is a sub-component of the Social-Cultural Environment criteria group. It is an important aspect of the overall process, in that it identifies where and determines to what extent the preferred alternative may visually impact the nature of the surrounding area and the manner in which the site is perceived.

This work will be coordinated and carried out by AECOM staff and shall consist of the following key tasks and activities:

- Collect and review available base information of the existing site and surrounding area with respect to topography, vegetation, land use, and recreational value.
- Identify possible viewpoints (both direction and distance) throughout the surrounding area from which the existing site and/or preferred landfill expansion alternative will be visible.
- Conduct an in-field inventory and analysis of the site and surrounding area to qualify the possible viewpoints determined in Step 1 and to address any other viewpoints that weren't previously identified. In addition, a photographic record will be collected of the site and surrounding areas to identify and document any significant natural features, vegetation composition, and general context.
- Prepare an existing conditions report to summarize the results of the data review and field reconnaissance.
- Using visual software integrated with photographs, digital terrain models of the site and the surrounding area, and site grading plans from the conceptual design report; superimpose the preferred expansion alternative to establish the appearance of the site from identified off-site viewpoints, during both operation and post-closure phases of the site. These visual simulations will show the nature of the site at various stages of its development taking into account the screening effects of vegetation growth over time.
- Develop strategies to mitigate identified negative visual impacts that aren't addressed by natural means (ie, effective screening created by existing vegetation or existing land features) and enhance potential positive views (ie. views that will compliment the surrounding area and secure a positive corporate image in the public's eye). The mitigating measures will be added to the visual simulation to convey a comprehensive realistic view of how the facility will appear throughout its operational life and beyond.
- Prepare a technical memorandum to document the approach and study results.

2.8 Traffic

The traffic assessment will include consideration of site related traffic associated with the construction/development phase and the operations phase. This will include waste haulage, as well as construction materials. The assessment will include consideration of on-site and site-vicinity traffic (ie. extending from the site along Fifth Line to Highway 17 and Old Goulais Bay Road). This work will be coordinated and carried out by AECOM staff and shall consist of the following key tasks and activities:

- Collect and review available base information including historical traffic volumes on area roads and the site access road. This information will be married with any available information regarding traffic volumes on area roads available through transportation planning reports prepared for the City of Sault Ste. Marie.
- Characterize and document the transportation network servicing the site.
- Obtain road appraisal information from the City of Sault Ste. Marie for the area roads and identify any planned capital improvements.
- Identify potential effects from traffic including the levels of service on area roadways and major intersections for various stages of the site development and operations.
- Develop mitigation measures (eg. the addition of turn lane(s)) to minimize any potentially adverse traffic related impacts. It will also be necessary to integrate findings from other disciplines such as noise and dust studies.
- Collate and analyze the information in order to determine if there are any residual traffic related effects after the appropriate mitigation measures have been considered.
- Prepare a technical memorandum to document the approach and study results.

2.9 Archaeological/Culture

An archaeological/cultural impact assessment concentrates on identifying and analyzing any effects on archaeological resources, cultural landscapes or built heritage features arising from a proposed Project. The cultural assessment will include consideration of potential on-site and site vicinity impacts. A stage 1 archaeological assessment was previously completed by Archaeological Resources Inc. which included the study area. The results of the study related to this project concluded that there are areas with archaeological potential within the proposed site. Given the results of the previous study, a Stage 2 assessment is proposed to further investigate the areas where archaeological potential exists. In addition, the existence and potential impacts on cultural landscapes or built heritage features will also be explored. This work will be coordinated by AECOM and undertaken by a qualified subconsultant and shall consist of the following key tasks and activities:

- Collect and review all available background information and reporting including the previous Stage 1 Archaeological Study.
- Conduct a Stage 2 Archaeological Assessment considering the scope of the proposed landfill expansion.
- Complete the Ministry of Tourism and Culture Screening Checklist for Impacts to Built Heritage and Cultural Heritage Landscapes.
- Confirm the need for any further investigations and analysis related to built heritage features and cultural landscapes within the study area.
- Identify potential archaeological resources and develop strategies to mitigate potential effects.
- Prepare a technical memorandum to document the approach and study results.

2.10 Planned Land Use

Under this discipline we will focus on identifying and analyzing any effects on existing and planned land uses arising from the proposed Project. This work will be coordinated and undertaken by AECOM and shall consist of the following key tasks and activities:

- Collect and review all available background information and reporting including the City's Official Plan and Zoning By-Law (Planning documents).
- Prepare a detailed inventory of land uses within the study area based on the table top review combine with a field reconnaissance visit.

- Identify and document any planned land uses changes within the study area.
- Confirm the proposed landfill expansion is consistent with the City Planning documents and identify any required Official Plan and/or Zoning By-law amendments.
- Reference and document any restrictive policies in the planning documents that may impact the implementation of the proposed expansion including the City's Drinking Water Source Protection Plan.
- Identify potential effects of the proposed expansion on existing and planned land uses in the study area.
- Develop mitigation and/or compensation strategies to address potential adverse effects.
- Prepare a technical memorandum to document the approach and study results.

2.11 EA Report and Design and Operations Report

An EA Report will be prepared in a manner that addresses the requirements of the EAA, EPA and OWRA. The Report will thoroughly document the data collected, analyses completed and the recommendations made as a result of this study. It will also include the results of the public and agency consultation program and influence that they had on the EA process. The existing Design and Operations Report will be updated to support an ECA application for the proposed expansion. This report will be included as an Appendix to the EA Report.

This work will be coordinated by AECOM and completed by Dillon and AECOM staff and shall include:

- Prepare Draft EA Report which will include previous reports, Impact Assessment reporting and a Design and Operations Report (see below) and ECA application for the expansion;
- Review Draft EA Report with agencies and interested stakeholders;
- Finalize EA Report; and
- Submit the final EA Report to the MOE for approval.

The preparation of the Design and Operations Report will focus on advancing the preferred conceptual design to a workable and functional preliminary design and will include a documented approach to developing and operating the expanded site. The documentation will be used to support an ECA application. The specific tasks to be completed in preparing the D&O Report include:

- Review of the original Design and Operations Report to identify changes that will be required in the operation of the expanded site.
- Development of an overall site development plan with due consideration of various waste management elements at the site including:
 - Expanded footprint;
 - Public drop-off;
 - Administration offices;
 - Maintenance facilities;
 - Leachate management;
 - Landfill gas management;
 - Energy generation;
 - Biosolids management;
 - Site access;
 - External access (Robinson); and
 - Waste diversion (blue box recyclables, WEEE, HHW, clean wood waste, tires, metals, C&D waste, others).

- Prepare a new report or update the previous report to reflect the approach to developing and operating the expanded site. The report will be prepared in sufficient detail to support the submission of an ECA application for the expanded site.

2.12 Public Consultation

The Environmental Assessment process is designed to be responsive to comments, issues or concerns that are raised by government agencies, stakeholders, First Nations and the general public. A comprehensive public consultation program has been devised to solicit input from a broad cross-section of people and interests, ensure issues are identified as early as possible in the process and provide a means for addressing and incorporating input received. The principle goals of the consultation process include:

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

A separate document has been prepared which summarizes the consultation activities completed to date. The public consultation activities to be undertaken in concert with the Impact Assessment and EA Reporting Phases will be co-ordinated by AECOM and carried out by Dillon and AECOM and shall include:

- Conduct two project review meetings with the MOE (prior to commencing the Impact Assessment and following its completion).
- Update the EMC committee at each of its regular meetings.
- Update the project website on three separate occasions (commencement of Impact Assessment, following the completion of the impact assessment and once the DRAFT EA report has been completed).
- Three newsletters (ie. commencement of Impact Assessment, in advance of the next public input session and once the EA document has been completed).
- Two public input sessions (one to discuss the preliminary preferred impact management strategy and the second to present the DRAFT EA document).
- Two meetings with each First Nation Community.
- One Council presentation once the DRAFT EA report has been completed.