

Appendices

Appendix A

Glossary of Terms

Acronym	Definition
AANDC	Aboriginal Affairs and Northern Development Canada
C of A	Certificate of Approval
CAZ	Contaminant Attenuation Zone
C&D	Construction and Demolition
D&O	Design & Operations
DFO	Fisheries and Oceans Canada
EA	Environmental Assessment
EA Act	Ontario Environmental Assessment Act
EC	Environment Canada
ECA	Environmental Compliance Approval
EPA	Environmental Protection Act
GHG	Greenhouse Gases
GRT	Government Review Team
HC	Health Canada
IC&I	Industrial Commercial and Institutional
MCK	Mohawk Council of Kahnawà:ke
MDWS	Mayer Waste Disposal Site
MMAH	Ontario Ministry of Municipal Affairs and Housing
MNRF	Ontario Ministry of Natural Resources and Forestry
MECP	Ontario Ministry of the Environment, Conservation and Parks
MHSTCI	Ministry of Heritage, Sport, Tourism and Culture Industries
MTO	Ontario Ministry of Transportation
NHS	Natural Heritage System
OH	Open House
OMAFRA	Ontario Ministry of Agriculture, Food & Rural Affairs

Acronym	Definition
CLC	Citizen Liaison Committee
PPS	Provincial Policy Statement
PSW	Provincially Significant Wetland
ROC	Record of Conversation
SAR	Species at Risk
SWM	Stormwater Management System
TC	Transport Canada
ToR	Terms of Reference

Unit	Definition
Ha	Hectare
Km	Kilometre
L	Litre
M	Metre
m3	Cubic metres

Term	Definition
Advantage	A relative term used to indicate that a particular condition is deemed to offer a benefit when compared to another condition.
Alternative Methods of Carrying out the Undertaking (Interchangeable with Alternative Methods)	Different ways of doing the same activity.
Approval	Permission granted by an authorized individual or organization for an undertaking to proceed. This may be in the form of program approval, certificate of approval or provisional certificate of approval.
Built Environment	The human-made surroundings that provide the setting for human activity.
Category	A broader category, group or element of the environment used for classifying a given set of criteria.
Certificate of Approval	A licence or permit issued by the MECP for the operation of a waste management site/facility (now referred to as an Environmental Compliance Approval).

Term	Definition
Commitments	Represents a pledge from a proponent about a certain course of action, that is, "I will do this, at this time, in this way." Proponents document obligations and responsibilities, which they agree to follow, in environmental assessment documentation. The Minister of the Environment, Conservation and Parks, with the agreement of Cabinet, has the authority to give approval to proceed with the undertaking. The commitments within the document are often made legally binding as a condition of approval.
Compliance Monitoring	An assessment of whether an undertaking has been constructed, implemented, and/or operated in accordance with the commitments made in the environmental assessment and the conditions of the Environmental Assessment Act approval.
Construction and demolition (C&D) waste	Solid waste produced in the course of residential, commercial, industrial or institutional building construction, demolition or renovation (e.g., lumber, brick, concrete, plaster, glass, stone, drywall, etc.).
Cover material	Material used to cover the waste in the disposal cells during or following landfilling operations. May be daily, intermediate or final.
Criteria/ Criterion	A set of principles or standards used to compare and judge alternatives. (plural = "criteria", singular = "criterion").
Cultural Environment	The ways of living developed by a community and passed on from generation to generation, including customs, practices, places, objects, artistic expressions, and values.
Design and operations (D&O) plan	A document required for obtaining a Certificate of Approval, which describes in detail the function, elements or features of the landfill site/facility, and how a landfill site/facility would function including its monitoring and control/management systems.
Design capacity (Total Disposal Volume)	The maximum total volume of air space available for disposal of waste at a landfill site for a particular design (typically in m ³); includes both waste and daily cover materials, but excludes the final cover.
Disadvantage	A relative term used to indicate that a particular condition is deemed to be unfavourable or of an inferior condition when compared with another condition.
Easement	A legally recognized property right held by a person or a group to make use of land for a limited purpose, such as construction.
Economic Environment	The economic conditions that influence the life of humans or a community, including factors such as employment, income, and wealth.
Environmental Compliance Approval (ECA)	Technical approval of the Facility issued by MECP under Sections 9 and 27 of the Environmental Protection Act and Section 53 of the Ontario Water Resources Act).
Environment	As defined by the Environmental Assessment Act, environment means: <ul style="list-style-type: none"> – air, land or water, – plant and animal life, including human life, – the social, economic and cultural conditions that influence the life of humans or a community, – any building, structure, machine or other device or thing made by humans, – any solid, liquid, gas, odour, heat, sound, vibration or radiation resulting directly or indirectly from human activities, or – any part or combination of the foregoing and the interrelationships between any two or more of them (ecosystem approach).

Term	Definition
Environmental Assessment	<p>A systematic planning process that is conducted in accordance with applicable laws or regulations aimed at assessing the effects of a proposed undertaking on the environment. Evaluation criteria are considerations or factors taken into account in assessing the advantages and disadvantages of various alternatives being considered.</p> <p>For the purposes of this Terms of Reference, an Environmental Assessment refers to the process and related documentation, including the submission of a Terms of Reference and final Environmental Assessment Report for approval by the Minister of the Environment, in accordance with the requirements of Part II.3 of the EA Act.</p>
Environmental Assessment Act (EA Act)	<p>Legislation that defines a decision-making process used to promote good environmental planning by assessing the potential effects of certain activities on the environment. The purpose of the EA Act is the betterment of the people of the whole or any part of Ontario by providing for the protection, conservation, and wise management in Ontario of the environment.</p>
Environmental Effect	<p>The effect that a proposed undertaking or its alternatives has or could potentially have on the environment, either positive or negative, direct or indirect, short- or long-term.</p>
Evaluation	<p>A formal process for comparatively assessing the advantages and disadvantages of alternatives (see Evaluation Methodology).</p>
Evaluation Methodology	<p>A formal process for comparatively assessing the advantages and disadvantages of alternatives and establishing an order of preference among alternatives.</p>
Hazardous waste	<p>Any residual hazardous materials which by their nature are potentially hazardous to human health and/or the environment, as well as any materials, wastes or objects assimilated to a hazardous material. Hazardous waste is defined by Ontario Regulation 347 and may be explosive, gaseous, flammable, toxic, radioactive, corrosive, combustible or leachable.</p>
Impact Assessment	<p>The process of studying and identifying the future consequences of a current or proposed action.</p>
Indicator	<p>Indicators are specific characteristics of the evaluation criteria that can be measured or determined in some way, as opposed to the actual criteria, which are fairly general.</p>
Industrial, commercial, and institutional (IC&I) wastes	<p>Wastes originating from the industrial, commercial, and institutional sectors. Landfill gas. The gases produced from the wastes disposed in a landfill; the main constituents are typically carbon dioxide and methane, with small amounts of other organic and odour-causing compounds.</p>
Landfill site	<p>An approved engineered site/facility used for the final disposal of waste.</p>
Mitigation	<p>Action(s) that remove or alleviate to some degree the potential negative effects associated with an activity.</p>
Monitoring	<p>A systematic method for collecting information using standard observations according to a schedule and over a sustained period of time.</p>
Natural Environment	<p>A term that encompasses all living and non-living things occurring naturally on Earth or some region thereof.</p>
Net Effects	<p>Positive or negative environmental effects of a project and related activities that will remain after mitigation and impact management measures have been applied.</p>
Net Effects Analysis	<p>The process of determining and documenting the net effects associated with each indicator for each alternative being considered.</p>
Non-hazardous waste	<p>Non-hazardous wastes includes all solid waste that does not meet the definition of hazardous waste and includes designated wastes such as asbestos waste.</p>

Term	Definition
Potential Effect	An effect that is deemed possible to result from an activity.
Preferred Alternative	<p>The alternative selected as the undertaking for which approval will be sought, based on an approach for identifying a preferred alternative, namely:</p> <ul style="list-style-type: none"> – Identify a recommended Alternative Method – Consult review agencies and the public on the recommended alternative – Confirm or select the preferred alternative based on the comments received.
Proponent	<p>A person who:</p> <ul style="list-style-type: none"> – carries out or proposes to carry out an undertaking, or – is the owner or person having charge, management or control of an undertaking
Public	Means the general public, individual members of the public who may be affected by or have an interest in a project and special interest groups.
Ranking	To arrange (alternatives) according to their rank from first to last.
Rationale	Explanation of the logical reasons or principles employed in consciously arriving at a decision or estimate.
Reasoned Argument/ Trade-off Method	A comparative evaluation method based on net effects / advantages and disadvantages and explained in narrative terms (rationale). The process of examining the net effects and key trade-offs of each alternative in order to provide a clear rationale for the preferred alternative.
Recommended Alternative Method	An Alternative Method selected as first place based on the results of a comparative evaluation process.
Record of Consultation	Describes the consultation activities undertaken during the preparation of the EA Terms of Reference.
Review Agencies	Means government agencies, ministries, or public authorities or bodies whose mandates require them to have jurisdiction over matters affected or potentially affected by projects.
Service life	The period of time during which the components of a properly designed and maintained engineered facility will function and perform as designed.
Site life	The period of time during which the landfill can continue to accept wastes.
Social Environment	Represents the external conditions under which people engage in social activity within their community.
Terms of Reference (ToR)	The first step in an application for approval to proceed with a project or undertaking under the Environmental Assessment Act is the submission of a Terms of Reference (ToR) for the Environmental Assessment (EA). Public and agency consultation is required on the preparation and submission of the ToR to the MECF. Approval is required by the MECF. If approved, the ToR provides a framework / work plan for the EA
Trade-offs	Trade-offs A balancing of attributes, all of which are not attainable at the same time. Giving up of one thing in return for another

Appendix B

Evaluation Criteria and Indicators

Preliminary Evaluation Criteria and Indicators for Assessing the Alternative Methods of Carrying Out the Undertaking

The preliminary evaluation criteria and indicators for assessing the Alternative Methods of Carrying Out the Undertaking as part of the Mayer Waste Disposal Site (MWDS) Environmental Assessment (EA) include those set out in **Tables B.1 to B.12**. The preliminary evaluation criteria and indicators are grouped according to the following components based on the definition of the environment as provided in the EA Act: Natural, Built, Social, Economic, and Cultural. In addition, the potential data sources for the criteria and indicators are provided in **Table B.1 to B.12**.

Evaluation criteria and indicators for Design and Operations has also been included in these Tables. The preliminary evaluation criteria and indicators will be finalized during preparation of the MWDS EA.

Table B.1 Proposed Evaluation Criteria: Natural Environment—Atmospheric Environment

Environmental Component	Evaluation Criteria	Indicators	Data Sources
Air Quality	Effect of air quality on off-site receptors	<ul style="list-style-type: none"> – Predicted off-site point of impingement concentrations ($\mu\text{g}/\text{m}^3$) of indicator compounds – Number of off-site receptors potentially affected (residential properties, public facilities, businesses, and institutions) 	<ul style="list-style-type: none"> – Air and Odour Existing Condition Report (GHD, 2022) – Environment Canada or MECP hourly meteorological data and climate normals – National Air Pollution Surveillance (NAPS) Ambient Air Monitoring – Site ambient air monitoring, continuous emissions monitoring data – Applicable MECP guidelines and technical standards (i.e., O. Reg.419/05 Schedule 2, Schedule 3 and Schedule 6 Standards) – Aerial photographic mapping and field reconnaissance – Off-Site receptors confirmed on recent mapping – Emissions Summary and Dispersion Modelling (ESDM) reports – Annual Monitoring Reports for MWDS – Available background ambient air data – Waste materials and leachate characterization and sampling data – Proposed facility characteristics – Landfill design and operation data and associated topography
Noise	Effect of noise on off-site receptors	<ul style="list-style-type: none"> – Predicted off-Site noise level – Number of off-Site receptors potentially affected (residential properties, public facilities, businesses, and institutions). 	<ul style="list-style-type: none"> – Noise Existing Conditions Report (GHD, 2022) – Site-specific equipment noise measurements – Manufacturer provided noise specifications – Applicable MECP guidelines and technical standards (Noise guidelines for landfill sites, October, 1998; NPC-300, August, 2013; NPC-233). – Aerial photographic mapping and field reconnaissance to confirm off-Site receptors – Land Use Zoning Plans – Acoustic Assessment Reports – Annual Monitoring Reports for MWDS – Proposed facility operational characteristics and scenarios – Landfill design and operation data and associated topography – Atmospheric Existing Conditions Report

Environmental Component	Evaluation Criteria	Indicators	Data Sources
Odour	Effect of odours on off-site receptors	<ul style="list-style-type: none"> – Predicted off-Site odour concentrations ($\mu\text{g} / \text{m}^3$ and odour units) – Number of off-Site receptors potentially affected (residential properties, public facilities, businesses, and institutions) 	<ul style="list-style-type: none"> – Air, Odour and Meteorology Existing Condition Report (GHD, 2022) – Published odour studies for similar source types – Site specific odour source data and/or ambient odour monitoring data – Environment Canada or MECP hourly meteorological data and climate normals – Applicable MECP guidelines and technical standards (i.e., O. Reg. 419/05 Schedule 2, Schedule 3 and Schedule 6 Standards) – Site odour complaints history – Annual Monitoring Reports for MWDS – Aerial photographic mapping and field reconnaissance – Off-site receptors confirmed on recent mapping – Odour assessment reports – Waste materials and leachate characterization and sampling data – Proposed facility characteristics – Landfill design and operation data and associated topography – Atmospheric Existing Conditions Report

Table B.2 Proposed Evaluation Criteria: Natural Environment—Geology and Hydrogeology

Environmental Component	Evaluation Criteria	Indicators	Data Sources
Groundwater Quality	Effect on groundwater quality	<ul style="list-style-type: none"> – Predicted effects to groundwater quality at property boundaries and off-site – Predicted effects to Predicted effects to Source Water Protection Area 	<ul style="list-style-type: none"> – Hydrogeology Existing Conditions Report (GHD, 2022) – Hydrogeological and geotechnical studies – Water well records – Determination of water well users in the area – Annual Monitoring Reports for MWDS – Proposed leachate control concept designs – Environment Canada Canadian Climate Normals – Leachate generation assessment – Provincial Water Quality Monitoring Network (PWQMN) – MECP Source Water Protection Plan
Groundwater Flow	Effect on groundwater flow	<ul style="list-style-type: none"> – Predicted effects to groundwater flow at property boundaries and off-site 	<ul style="list-style-type: none"> – Hydrogeology Existing Conditions Report (GHD, 2022) – Hydrogeological and geotechnical studies – Water well records – Determination of water well users in the area – Annual Monitoring Report for MWDS – MECP Source Water Protection Plan

Table B.3 Proposed Evaluation Criteria: Natural Environment—Surface Water Resources

Environmental Component	Evaluation Criteria	Indicators	Data Sources
Surface Water Quality	Effect on surface water quality (Contaminants associated with waste disposal sites have the potential to seep or runoff into surface water)	<ul style="list-style-type: none"> – Predicted effects on surface water quality on-site and off-site 	<ul style="list-style-type: none"> – Surface Water Existing Conditions Report (GHD, 2022) – Air photos – Facility layout, drainage maps and figures – Proposed on-site stormwater management concept designs for vertical expansion alternatives – Existing leachate management system – Annual Monitoring Report for MWDS
Surface Water Quality	Effect on surface water quantity (The construction of physical works may disrupt natural surface drainage patterns and may alter runoff and peak flows. The presence of the facility may also affect base flow to surface water)	<ul style="list-style-type: none"> – Predicted change in drainage areas – Predicted occurrence and degree of off-site effects 	<ul style="list-style-type: none"> – Interviews and discussions with staff, MECP, Conservation Authorities, and Environment Canada – Published water quality and flow information from MECP, Environment Canada and conservation authorities – Site reconnaissance – PWQMN – Annual Reports and previously submitted stormwater reports for previously prepared EA and CofA's

Table B.4 *Proposed Evaluation Criteria: Natural Environment—Terrestrial & Aquatic*

Environmental Component	Evaluation Criteria	Indicators	Data Sources
Terrestrial Ecosystems	Effect on terrestrial ecosystems	<ul style="list-style-type: none"> – Predicted impact on vegetation communities – Predicted impact on wildlife habitat – Predicted impact on vegetation and wildlife including rare, threatened or endangered species 	<ul style="list-style-type: none"> – Natural Environment Existing Conditions Report (GHD, 2022) – Previous site surveys – Site investigations – MNRF databases – United Counties of Prescott and Russell Official Plan
Aquatic Ecosystems	Effect on aquatic ecosystems	<ul style="list-style-type: none"> – Predicted impact on aquatic habitat – Predicted impact on aquatic biota 	<ul style="list-style-type: none"> – Natural Environment Existing Conditions Report (GHD, 2022) – Previous site surveys – Site investigations – Ministry of Natural Resources and Forestry (MNRF) databases – United Counties of Prescott and Russell Official Plan

Table B.5 *Proposed Evaluation Criteria: Cultural Environment—Archaeology and Cultural*

Environmental Component	Evaluation Criteria	Indicators	Data Sources
	Effect on built heritage resources and cultural heritage landscapes	<ul style="list-style-type: none"> – Number and type of built heritage resources and cultural heritage landscapes displaced or disrupted 	<ul style="list-style-type: none"> – Published data sources (e.g., Township of Champlain) – United Counties of Prescott and Russell Official Plan (2018) and Draft Official Plan (2022) – Ministry of Heritage, Sport, Tourism and Culture Industries Screening
	Effect on known or potential significant archaeological resources	<ul style="list-style-type: none"> – Number and type of potentially significant, known archaeological sites affected. – Area (ha) of archaeological potential (i.e., lands with potential for the presence of significant archaeological resources) affected. 	<ul style="list-style-type: none"> – Published data sources (e.g., Township of Champlain) – Ministry of Heritage, Sport, Tourism and Culture Industries Screening

Table B.6 *Proposed Evaluation Criteria: Built Environment—Transportation*

Environmental Component	Evaluation Criteria	Indicators	Data Sources
Effects from truck	Effect on traffic	<ul style="list-style-type: none"> – Potential for traffic collisions – Level of Service at intersections around the MWDS 	<ul style="list-style-type: none"> – Transportation Existing Conditions Report (GHD, 2022) – – Previous traffic studies

			– Township of Champlain data
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Table B.7 *Proposed Evaluation Criteria: Built Environment—Land Use*

Environmental Component	Evaluation Criteria	Indicators	Data Sources
Effects on current and planned future land uses	Effect on existing land uses	– Current land use	– Land Use and Economic Environment Existing Conditions Report (GHD, 2022) – Township of Champlain Zoning By-law – Aerial photographic mapping and field investigations
	Effect on approved/planned land uses	– Number, extent, and type of approved/planned land uses affected	– Land Use and Economic Environment Existing Conditions Report (GHD, 2022) – United Counties of Prescott and Russell Official Plan – Township of Champlain Zoning By-law – Township of Champlain development data and plans

Table B.8 *Proposed Evaluation Criteria: Built Environment—Site Design & Operation*

Environmental Component	Evaluation Criteria	Indicators	Data Sources
Site design and operational characteristics	Potential to provide service for disposal	– Ability of Alternative Methods to provide disposal capacity for post-diversion solid, non-hazardous industrial residual material	– Existing Design and Operations Plan Domestic Landfill Expansion Report (GHD, 2014) – Business Case Analysis Supporting Document #1 (GHD, 2022) – Conceptual Designs and drawings
	Cost of facility	– Approximate relative cost of Alternative Methods	– Existing Design and Operations Plan Domestic Landfill Expansion Report (GHD, 2014) – Business Case Analysis Supporting Document #1 (GHD, 2022) – Conceptual Designs and drawings – Cost estimates

Table B.9 *Proposed Evaluation Criteria: Socio-Economic—Economic*

Environmental Component	Evaluation Criteria	Indicators	Data Sources
Effects on/benefits to local community	Economic benefit to the Township of Champlain and local community	– Employment at site (number and duration)	<ul style="list-style-type: none"> – Land Use and Economic Environment Existing Condition Report (GHD, 2022) – Business Case Analysis document – Alternative methods – Total volume of post-diversion solid, non-hazardous residual material calculated to be received

Table B.10 *Proposed Evaluation Criteria: Socio-Economic—Social*

Environmental Component	Evaluation Criteria	Indicators	Data Sources
Visual impact of facility	Effect on views of the facility	– Predicted changes in views of the facility from the surrounding area	<ul style="list-style-type: none"> – Land Use Existing Conditions Report (GHD 2022) – Alternative methods – Site grading plans – Aerial mapping and field investigation

Appendix C

Proposed Work Plans

Appendix C-1 - Geology & Hydrogeology Work Plan

The Geology and Hydrogeology Work Plan addresses both groundwater quality and groundwater flow. The following tasks will be undertaken to characterize existing environmental conditions within the Final Study Area, predict and assess potential environmental effects, determine mitigation measures and compare alternative methods of carrying out the undertaking:

- Compile and interpret information from existing data sources, including data sources listed in Table 1.1.
- Conduct Site investigations to confirm Site information compiled from existing documentation and document the findings in the Geology & Hydrogeology Existing Conditions Report that will form an appendix to the Mayer Waste Disposal Site EA Report.
- Based on the Conceptual Designs developed for the Alternative Methods:
 - Conduct predictive modelling of contaminating lifespan as per Ontario Regulation 232/98 for each alternative method.
 - Based on the Alternative Methods and the results of predictive modelling, identify the potential effects of each alternative on the geological and hydrogeological environment.
 - Apply mitigation measures to determine the net effects for each Alternative Method and compare the degree of net effects using the criteria and indicators for the geological and hydrogeological component, rank the Alternative Methods and identify the Recommended Alternative from a geological and hydrogeological perspective.
- Once the Preferred Method has been identified and additional details developed from a design and operations perspective, an impact assessment will be carried out so that the potential environmental effects can be identified with more certainty and will include more site-specific impact management measures and groundwater monitoring requirements can be clearly identified. The information and analysis will be documented in a Geology and Hydrogeology Impact Assessment Report that will form an appendix to the Mayer Waste Disposal Site EA.

Table 1.1 Preliminary Evaluation Criteria, Indicators and Data Sources

Environmental Component	Evaluation Criteria	Indicators	Data Sources
Geology & Hydrogeology	Effect on groundwater quality	<ul style="list-style-type: none"> – Predicted effects to groundwater quality at property boundaries and off-site – Predicted effects to Source Water Protection Area 	<ul style="list-style-type: none"> – Hydrogeological and geotechnical studies – Water well records – Determination of water well users in the area – Annual Monitoring Reports for Mayer Waste Disposal Site – Proposed leachate control concept designs – Environment Canada Canadian Climate Normals – Leachate generation assessment

Environmental Component	Evaluation Criteria	Indicators	Data Sources
			<ul style="list-style-type: none"> - Provincial Water Quality Monitoring Network (PWQMN) - Geology and Hydrogeology Existing Conditions Report - Source Water Protection Plan
Geology & Hydrogeology	Effect on groundwater flow	<ul style="list-style-type: none"> - Predicted effects to groundwater flow at property boundaries and off-site - Predicted effects to Source Water Protection Area 	<ul style="list-style-type: none"> - Hydrogeological and geotechnical studies - Water well records - Determination of water well users in the area - Annual Monitoring Report for SCRF - Geology and Hydrogeology Existing Conditions Report - Source Water Protection Plan

Appendix C-2 - Surface Water Resources Work Plan

The Surface Water Resources Work Plan addresses both surface water quality and surface water quantity. The following tasks will be undertaken to characterize existing environmental conditions within the Final Study Area, predict and assess potential environmental effects, determine mitigation measures and compare alternative methods of carrying out the undertaking:

- Compile and interpret information from existing data sources, including data sources listed in **Table 2.1**
- Conduct Site investigations to confirm site information compiled from existing documentation and document the findings in the Surface Water Existing Conditions Report that will form an appendix to the Mayer Waste Disposal Site EA Report.
- Based on the Conceptual Designs developed for the Alternative Methods:
 - Predict and assess future surface water runoff and peak flows and quality conditions associated with each of the alternative methods.
 - Compare these predictions to the existing conditions; determine changes and potential adverse effects on downstream watercourses; determine if mitigation measures are required and, if so, develop mitigation (i.e., engineered stormwater management measures/facilities).
 - Based on the Alternative Methods and the results of predictive modelling, identify the potential effects of each alternative on the surface water environment.
 - Apply mitigation measures to determine the net effects for each Alternative Method and compare the degree of net effects using the criteria and indicators for the surface water component, rank the alternatives, and identify the Recommended Alternative from a surface water perspective.
- Once the Preferred Method has been identified and additional details developed from a design and operations perspective, an impact assessment will be carried out so that the potential environmental effects can be identified with more certainty and will include more site-specific impact management measures and monitoring requirements can be clearly identified. The information and analysis will be documented in a Surface Water Impact Assessment Report that will form an appendix to the Mayer Waste Disposal Site EA.

Table 2.1 Preliminary Criteria, Indicators and Data Sources

Environmental Component	Evaluation Criteria	Indicators	Data Sources
Surface Water Resources	Effect on surface water quality	<ul style="list-style-type: none"> – Predicted effects on surface water quality on-site and off-site 	<ul style="list-style-type: none"> – Topographic maps – Surface Water Existing Conditions Report – Aerial imagery – Facility layout, drainage maps and figures – Proposed on-site stormwater management concept designs for expansion alternatives – Existing leachate management system – Annual Monitoring and Progress Reports for Mayer Waste Disposal Site – Interviews and discussions with staff, Ministry of the Environment, Conservation and Parks (MECP), Conservation Authorities, and Environment Canada
Surface Water Resources	Effect on surface water quantity	<ul style="list-style-type: none"> – Predicted change in drainage areas – Predicted occurrence and degree of off-site effects 	<ul style="list-style-type: none"> – Interview and discussions with Town of Hawkesbury and the Township of Champlain – Published water quality and flow information from MECP, Conservation Authorities, and Environment Canada – Site investigations – Provincial Water Quality Monitoring Network (PWQMN) – Provincial Water Quality Objectives (PWQO) and Canadian Water Quality Guidelines (CWQG) – Background reports and documentation submitted for previously prepared EA's – Design and Operations Plan for the Mayer Waste Disposal Site – Ontario GeoHub – Existing ECA's and CofA's for the Site

Appendix C-3 - Terrestrial & Aquatic Environment Work Plan

The Terrestrial and Aquatic Environment Work Plan addresses both terrestrial ecosystems and aquatic ecosystems. The following tasks will be undertaken to characterize the existing terrestrial and aquatic environmental conditions within the Final Study Area, predict and assess potential environmental effects, determine mitigation measures and compare alternative methods of carrying out the undertaking:

- Compile and interpret information from existing data sources, including data sources listed in **Table 3.1**
- Conduct Site investigations to confirm site information compiled from existing documentation and document the findings in the Terrestrial and Aquatic Environment Existing Conditions Report that will form an appendix to the Mayer Waste Disposal Site EA Report.
- Based on the Conceptual Designs developed for the Alternative Methods:
 - Predict and assess potential impacts of the alternative methods on the terrestrial and aquatic ecosystem.
 - Apply mitigation measures to determine the net effects for each Alternative Method and compare the degree of net effects using the criteria and indicators for the Terrestrial and Aquatic Environment component, rank the Alternative Methods and identify the Recommended Alternative from a Terrestrial and Aquatic Environment perspective.
- Once the Preferred Method has been identified and additional details developed from a design and operations perspective, an impact assessment will be carried out so that the potential environmental effects can be identified with more certainty and will include more site-specific impact management measures and monitoring requirements can be clearly identified. The information and analysis will be documented in a Terrestrial and Aquatic Environment Impact Assessment Report that will form an appendix to the Mayer Waste Disposal Site EA.

Table 3.1 Criteria, Indicators and Data Sources

Environmental Component	Evaluation Criteria	Indicators	Data Sources
Terrestrial & Aquatic Environment	Effect on terrestrial ecosystems	<ul style="list-style-type: none"> – Predicted impact on vegetation communities – Predicted impact on wildlife habitat – Predicted impact on vegetation and wildlife including rare, threatened or endangered species 	<ul style="list-style-type: none"> – Previous site surveys – Site investigations – MNRF databases – United Counties of Prescott and Russell Official Plan – Eastern Ontario Conservation Authority databases – Natural Environment Existing Conditions

Environmental Component	Evaluation Criteria	Indicators	Data Sources
Terrestrial & Aquatic Environment	Effect on aquatic ecosystems	<ul style="list-style-type: none"> – Predicted impact on aquatic habitat – Predicted impact on aquatic biota 	<ul style="list-style-type: none"> – Previous site surveys – Site investigations – Ministry of Natural Resources and Forestry (MNRF) databases – United Counties of Prescott and Russell Official Plan – Eastern Ontario Conservation Authority databases – Natural Environment Existing Conditions

Appendix C-4 - Land Use Work Plan

The Land Use Work Plan addresses both existing land uses and visual or views from the existing Mayer Waste Disposal Site. The following tasks will be undertaken to characterize the existing land use environmental conditions within the Final Study Area, predict and assess potential environmental effects, determine mitigation measures and compare alternative methods of carrying out the undertaking:

- Compile and interpret information from existing data sources, including data sources listed in **Table 4.1**
- Conduct Site investigations to confirm site information, (land uses, viewpoints and viewsheds) compiled from existing documentation and document the findings in the Land Use Existing Conditions Report that will form an appendix to the Mayer Waste Disposal Site EA Report.
- Based on the Conceptual Designs developed for the Alternative Methods:
 - Predict and assess potential impacts of the alternative methods on the existing land uses and viewpoints from the Mayer Waste Disposal Site utilizing visualization software and simulations.
 - Apply mitigation measures to determine the net effects for each Alternative Method and compare the degree of net effects using the criteria and indicators for the land use Environment component, rank the Alternative Methods and identify the Recommended Alternative from a land use Environment perspective.
- Once the Preferred Method has been identified and additional details developed from a design and operations perspective, an impact assessment will be carried out so that the potential environmental effects can be identified with more certainty and will include more site-specific impact management measures and monitoring requirements can be clearly identified. The information and analysis will be documented in a Land Use Environment Impact Assessment Report that will form an appendix to the Mayer Waste Disposal Site EA.

Table 4.1 Criteria, Indicators and Data Sources

Environmental Component	Evaluation Criteria	Indicators	Data Sources
Land Use	Effect on existing land uses	– Current land use	– Aerial photographic mapping and field investigations – Land Use Existing Conditions Report
Land Use	Effect on views of the facility	– Predicted changes in views of the facility from the surrounding area	– Alternative methods – Site grading plans – Aerial mapping and field investigation – Land Use Existing Conditions Report

Appendix C-5 – Atmospheric Environment Work Plan

The Atmospheric Environment Work Plan addresses air quality, noise, and odour. The following tasks will be carried out to characterize existing atmospheric environmental conditions within the Final Study Area, predict and assess potential environmental effects, determine mitigation measures (if required) and compare alternative methods of carrying out the undertaking:

- Compile and interpret information from existing data sources, including data sources listed in Table 5-1
- Conduct Site investigations to confirm site information compiled from existing documentation and finalize location and nature of potential off-site receptors and document the findings in the Atmospheric Existing Conditions Report that will form an appendix to the Mayer Waste Disposal Site EA Report.
- Compile and document climate normals for the project site and document the existing climatic conditions.
- Consult with the Ministry of Environment, Conservation and Parks (MECP) and other members of the Government Review Team (GRT) on the modelling protocols to be used in the assessment.
- Complete on-site odour sampling to characterize sources of odour and provide data for input to the air quality and odour assessments.
- Update existing noise measurements on-site for environmentally significant mechanical noise sources (stationary and mobile landfill equipment) and off-site measurements as necessary to input into an acoustical model to determine the existing baseline environmental noise levels at potential sensitive points of reception.
- The development of an AERMOD atmospheric dispersion model for the site, (prepared in accordance with MECP’s Air Dispersion Modelling Guide for Ontario (ADMGO)) which will be used to predict effects of the proposed operations. The sources of the data will be reviewed with the MECP prior to finalization of the modelling dataset
- The development of an applicable noise prediction model for the Site, which will be used to predict effects of the proposed operations.
- Based on the Conceptual Designs developed for the Alternative Methods:
 - Predict and assess potential impacts (including cumulative effects for particulate) of the alternative methods from an atmospheric perspective, including assessing emissions from the Alternative Methods in accordance with applicable MECP guidance documents. The assessment will focus on the predicted maximum air quality and odour effects associated with each of the Alternative Methods. This study will focus on property line and sensitive receptors.
 - Predict and assess potential impacts from a noise perspective in accordance with applicable MECP Noise guidelines. Noise generation from existing equipment operating at the site will be based on measurements from the existing landfill or data from a database of similar and representative noise sources. This will be followed by the execution of a noise prediction model for each alternative method. The results of this study will predict the worst-case, one-hour, off-site environmental noise impacts from each of the alternative methods at the points of reception subject of the study. A point of reception means an MECP prescribed location on a noise sensitive land use (existing dwelling or zoned land use) where noise from a stationary source is received.
 - If required apply mitigation measures to determine the net effects for each Alternative Method and compare the degree of net effects using the criteria and indicators for the Atmospheric component,

rank the Alternative Methods and identify the Recommended Alternative from an Atmospheric Environment perspective

- Once the Preferred Method has been identified and additional details developed from a design and operations perspective, an impact assessment will be carried out so that the potential environmental effects can be identified with more certainty and will include more site-specific impact management measures and monitoring requirements can be clearly identified. The information and analysis will be documented in an Atmospheric Environment Impact Assessment Report (in accordance with MECP reporting guidelines/requirements) that will form an appendix to the Mayer Waste Disposal Site EA.

Table 5.1 Criteria, Indicators and Data Sources

Environmental Component	Evaluation Criteria	Indicators	Data Sources
Atmospheric Environment	Effect of air quality on off-site receptors	<ul style="list-style-type: none"> – Predicted off-site point of impingement concentrations ($\mu\text{g}/\text{m}^3$) of indicator compounds – Number of off-site receptors potentially affected (residential properties, public facilities, businesses, and institutions) – Community Health Assessment 	<ul style="list-style-type: none"> – Environment Canada or MECP hourly meteorological data and climate normals – National Air Pollution Surveillance (NAPS) – Site ambient air monitoring, continuous emissions monitoring data – Applicable MECP guidelines and technical standards (i.e., O.Reg. 419/05 Schedule 3 and Schedule 6 Standards) – Aerial photographic mapping and field reconnaissance – Off-Site receptors confirmed on recent mapping – Emissions Summary and Dispersion Modelling (ESDM) reports – Annual Monitoring Reports for Mayer Waste Disposal Site – Available background ambient air data – Waste materials and leachate characterization and sampling data – Proposed facility characteristics – Landfill design and operation data and associated topography – Air and Odour Existing Conditions Report – Community Health Assessment Reviews
	Effect of odours on off-site receptors	<ul style="list-style-type: none"> – Predicted off-Site odour concentrations ($\mu\text{g} / \text{m}^3$ and odour units) – Number of off-Site receptors potentially affected (residential properties, public facilities, businesses and institutions) 	<ul style="list-style-type: none"> – Published odour studies for similar source types – Site specific odour source data and/or ambient odour monitoring data – Environment Canada or MECP hourly meteorological data and climate normals – Applicable MECP guidelines and technical standards (i.e., O.Reg. 419/05 Schedule 3 and Schedule 6 Standards) – Site odour complaints history – Annual Monitoring Reports for Mayer Waste Disposal Site

Environmental Component	Evaluation Criteria	Indicators	Data Sources
			<ul style="list-style-type: none"> – Aerial photographic mapping and field reconnaissance – Off-site receptors confirmed on recent mapping – Odour assessment reports – Waste materials and leachate characterization and sampling data – Proposed facility characteristics – Landfill design and operation data and associated topography – Air and Odour Existing Conditions Report
	Effect of noise on off-site receptors	<ul style="list-style-type: none"> – Predicted off-Site noise level – Number of off-Site receptors potentially affected (residential properties, public facilities, businesses, and institutions). 	<ul style="list-style-type: none"> – Site-specific equipment noise measurements – Manufacturer provided noise specifications – Applicable MECP guidelines and technical standards (Noise guidelines for landfill sites, Oct, 1998; NPC-300, August, 2013; NPC-233). – Aerial photographic mapping and field reconnaissance to confirm off-Site receptors – Land Use Zoning Plans – Acoustic Assessment Reports – Annual Monitoring Reports for Mayer Waste Disposal Site – Proposed facility operational characteristics and scenarios – Landfill design and operation data and associated topography – Existing Conditions Report

Appendix C-6 – Transportation Work Plan

The Transportation work plan addresses traffic operations. The following tasks will be undertaken to characterize the existing conditions within the Final Study Area, predict and assess potential traffic impacts, determine mitigation measures and compare alternative methods of carrying out the undertaking:

- Compile and interpret information from existing data sources, including data sources listed in **Table 6.1**
- Conduct Site investigations to confirm site information compiled from existing documentation and document the findings in the Transportation existing conditions that will form an appendix to the Mayer Waste Disposal Site EA Report.
- Based on the Conceptual Designs developed for the Alternative Methods:
 - Predict and assess future traffic conditions associated with each of the alternative methods.
 - Based on the Alternative Methods and the results of traffic modelling, identify the potential effects of each alternative on road network and intersections.
 - Compare these effects to the existing conditions; determine if mitigation measures are required and, if so, develop mitigation.
 - Apply mitigation measures to determine the net effects for each Alternative Method and compare the degree of net effects using the criteria and indicators for the transportation component, rank the alternatives, and identify the Recommended Alternative from a transportation perspective.
- Once the Preferred Method has been identified and additional details developed from a design and operations perspective, an impact assessment will be carried out so that the potential environmental effects can be identified with more certainty and will include more site-specific impact management measures and monitoring requirements can be clearly identified. The information and analysis will be documented in a Transportation Impact Assessment Report that will form an appendix to the Mayer Waste Disposal Site EA.

Table 6.1 Criteria, Indicators and Data Sources

Environmental Component	Evaluation Criteria	Indicators	Data Sources
Transportation	Effect on traffic	<ul style="list-style-type: none"> – Potential for traffic collisions – Level of Service at intersections around the Mayer Waste Disposal Site 	<ul style="list-style-type: none"> – Previous traffic studies – Traffic Existing Conditions Report

Appendix C-7 – Economic Environment Work Plan

The Economic Environment Work Plan addresses various economic aspects including land use. The following tasks will be undertaken to characterize the existing environmental conditions within the Final Study Area, predict and assess potential environmental effects, determine mitigation measures and compare alternative methods of carrying out the undertaking:

- Compile and interpret information from existing data sources, including data sources listed in **Table 7.1**
- Conduct Site investigations to confirm site information compiled from existing documentation and document the findings in the Economic Environment Existing Conditions Report that will form an appendix to the Mayer Waste Disposal Site EA Report.
- Define costs of services to customers and economic benefits to local municipality
- Based on the Conceptual Designs developed for the Alternative Methods:
 - Predict and assess potential impacts of the alternative methods on current and planned future land uses.
 - Apply mitigation measures to determine the net effects for each Alternative Method and compare the degree of net effects using the criteria and indicators for the Economic Environment component, rank the Alternative Methods and identify the Recommended Alternative from an Economic Environment perspective.
- Once the Preferred Method has been identified and additional details developed from a design and operations perspective, an impact assessment will be carried out so that the potential environmental effects can be identified with more certainty and will include more site-specific impact management measures and monitoring requirements can be clearly identified. The information and analysis will be documented in an Economic Environment Impact Assessment Report that will form an appendix to the Mayer Waste Disposal Site EA.

Table 7.1 Criteria, Indicators and Data Sources

Environmental Component	Evaluation Criteria	Indicators	Data Sources
Economic	Effect on approved/planned land uses	– Number, extent, and type of approved/planned land uses affected	<ul style="list-style-type: none"> – United Counties of Prescott and Russell Official Plan – Township of Champlain Zoning By-law – United Counties of Prescott and Russell development data and plans – Economic Existing Conditions Report
Economic	Economic benefit to the Township of Champlain and local community	– Employment at site (number and duration)	<ul style="list-style-type: none"> – Alternative methods – Total volume of post-diversion solid, non-hazardous residual material calculated to be received – Economic Impacts of the Mayer Waste Disposal Site – Economic Existing Conditions Report

Appendix C-8 – Archaeology and Built Heritage Work Plan

The Archaeology and Built Heritage Work Plan addresses both archaeological resources and cultural and heritage resources (built and cultural landscapes).

The following tasks will be undertaken to characterize the existing environmental conditions within the Final Study Area, predict and assess potential environmental effects, determine mitigation measures and compare alternative methods of carrying out the undertaking:

- Complete the Cultural Heritage Screening Checklist from the Ministry of Tourism Culture and Sport (MTCS) and submit to MTCS to determine if further study is required.

Table 8.1 *Criteria, Indicators and Data Sources*

Environmental Component	Evaluation Criteria	Indicators	Data Sources
Archaeology and Built Heritage	Effect on known or potential significant archaeological resources	<ul style="list-style-type: none"> – Number and type of potentially significant, known archaeological sites affected. – Area (ha) of archaeological potential (i.e., lands with potential for the presence of significant archaeological resources) affected. 	<ul style="list-style-type: none"> – Published data sources (e.g., Township of Champlain) – Ministry of Tourism, Culture, and Sport Screening
Archaeology and Built Heritage	Effect on built heritage resources and cultural heritage landscapes	<ul style="list-style-type: none"> – Number and type of built heritage resources and cultural heritage landscapes displaced or disrupted 	<ul style="list-style-type: none"> – Published data sources (e.g., Township of Champlain) – Ministry of Culture, Tourism, and Sport Screening

Appendix C-9 – Design and Operations Work Plan

The Design and Operations Work Plan address both the ability of the site design to provide the service identified as well as providing the financial analysis (i.e., cost).

The following tasks will be undertaken to characterize the existing environmental conditions within the Final Study Area, predict and assess potential environmental effects, determine mitigation measures and compare alternative methods of carrying out the undertaking:

- Compile and interpret information from existing data sources, including data sources listed in **Table 9.1**
- Conduct Site investigations to confirm site information compiled from existing documentation and document the findings as part of the Conceptual Designs that will be prepared for each of the Alternative Methods.
- Based on the Conceptual Designs developed for the Alternative Methods:
 - Identify the potential effects of each alternative from a Design and Operations perspective.
 - Apply mitigation measures to determine the net effects for each Alternative Method and compare the degree of net effects using the criteria and indicators for the Design and Operations component, rank the Alternative Methods and identify the Recommended Alternative from a Design and Operations perspective.
- Once the Preferred Method has been identified and additional details developed from a design and operations perspective, an impact assessment will be carried out so that the potential environmental effects can be identified with more certainty and will include more site-specific impact management measures and groundwater monitoring requirements can be clearly identified. The information and analysis will be documented in the Design and Operations Report that will form an appendix to the Mayer Waste Disposal Site EA.

Table 9.1 Criteria, Indicators and Data Sources

Environmental Component	Evaluation Criteria	Indicators	Data Sources
Design & Operations	Potential to provide service for disposal	– Ability of Alternative Methods to provide disposal capacity for post-diversion solid, non-hazardous industrial residual material	– Existing Design and Operations Report – Conceptual Designs
Design & Operations	Cost of facility	– Approximate relative cost of Alternative Methods	– Existing Design and Operations Report – Conceptual Designs Cost estimates

Supporting Document # 1 - Rationale and Needs Assessment



Business Case Analysis

Supporting Document #1

**Mayer Waste Management - Landfill
Expansion Environmental Assessment**

Mayer Waste Management

October 05, 2023

→ **The Power of Commitment**

Project name		Mayer Waste Management - Landfill Expansion Environmental Assessment					
Document title		Business Case Analysis Supporting Document #1 Mayer Waste Management - Landfill Expansion Environmental Assessment					
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1. Introduction

The Ministry of Environment, Conservation and Parks (MECP) Code of Practice: Preparing and Reviewing Terms of Reference for Environmental Assessments in Ontario (January 2014), which EA Act outlines how a Proponent can proceed under subsection 6(2)(c) and 6.1(3) if the Proponent is further along in the defined planning process and additional detail is known regarding its proposal. As an example, the Code of Practice states:

...what is reasonable for one Proponent to implement may not be reasonable for another when trying to solve a similar problem because the circumstances between Proponents may vary widely. A private sector Proponent's inability to expropriate land or implement public programs will influence the range of alternatives it may examine.

As it relates to the Proponent and its business, the Code of Practice also makes reference to private sector Proponents in the waste industry as follows:

The private sector Proponent may only consider landfill or on-site diversion because:

- It cannot implement a municipal waste diversion program such as curbside recycling;*
- Export would affect their business; and,*
- Thermal technology is not economically viable because waste volumes are too small.*

Justification for preparing the ToR with a predetermined purpose of the undertaking and alternatives to is provided in detail within this Supporting Document.

781998 Ontario Inc. (Mayer Waste Management) is a privately owned and operated company, conducting business in the Province of Ontario and servicing waste management needs within Ontario and Quebec. As such, the question as to whether there is a need for the services that Mayer Waste Management provides is largely based on business decisions. Similarly, the question as to how the company provides these services is a business decision.

There is an economic opportunity and communal need associated with the ability of the existing Domestic Landfill to accept additional domestic waste and solid non-hazardous industrial waste. This opportunity is based, in part, on an internal business case for adding disposal capacity at the existing Domestic Landfill, which included a review of waste generation within key relevant municipal areas not limited to the United Counties of Prescott and Russell and the Greater Ottawa-Gatineau Area. The Greater Ottawa-Gatineau Area is defined as the City of Ottawa, the City of Gatineau, and the surrounding municipalities adjacent to the two cities¹. Metropolitan areas are defined by the level of economic interdependence between a central city and surrounding municipalities.

During the analysis of potential options, Mayer Waste Management considered waste management legislation. While Ontario works towards its goal of zero waste, as identified in the *Waste Free Ontario Act* and in particular the *Strategy for a Waste Free Ontario: Building the Circular Economy*, there will still be a need for landfill space. The Strategy also discusses how the Province would carefully consider the need and location of landfills, including the expansion of existing sites. Adding capacity to the existing Domestic Landfill would ensure that Mayer Waste Management can continue to provide non-hazardous solid waste disposal capacity and would not put Mayer Waste Management at an economic disadvantage within the local marketplace and allow the company to continue to compete within the Ontario market.

The Mayer Domestic Landfill falls within an area designated as Waste Management Policy Area within the jurisdiction of the UCPR Official Plan². The objectives of the Waste Management Policy Area are to ensure the provision of appropriate waste management infrastructures for on-going development in an environmentally sustainable manner. The permitted use within this area is limited to existing municipal or private solid waste disposal sites, public or private wastewater disposal facilities, recycling and composting facilities, and waste transfer stations.

¹ City of Ottawa Planning, Infrastructure, and Economic Development. 2019. New Official Plan - The Greater Ottawa-Gatineau Area. Retrieved from: [New Official Plan - The Greater Ottawa-Gatineau Area \(ehq-production-canada.s3.ca-central-1.amazonaws.com\)](http://ehq-production-canada.s3.ca-central-1.amazonaws.com)

² [UPCR Official Plan](#)

The business case analysis clearly identified a continued demand for disposal capacity for this type of waste. With this in mind, the EA process has been initiated to examine the various alternatives available to Mayer Waste Management to develop increased capacity for the disposal of domestic waste and solid non-hazardous industrial waste to implement Mayer Waste Management's internal business plan.

As a private sector Proponent with a current facility (i.e., the Mayer Waste Disposal Site), there are a limited number of reasonable ways of approaching or dealing with the opportunity of providing increased disposal capacity. These would typically include the establishment of a new landfill or expanding the capacity of an existing site, such as the Domestic Landfill. Given the capital costs associated with the development of a new landfill, and the difficulties in securing an adequate or suitable site, it can be reasonably argued that the creation of a new landfill may not be a practical alternative to address the economic opportunity of providing increased disposal capacity for a private sector Proponent, such as Mayer Waste Management. Accordingly, it is generally accepted that the most reasonable way of approaching this opportunity of providing increased capacity by a private sector Proponent with an existing, permitted and operational facility, would be to look at the various ways in which capacity can be increased at an existing site.

Based on the opportunity that has prompted the initiation of the EA process and the fact that Mayer Waste Management is a private sector Proponent, there are a limited number of reasonable ways in which the economic opportunity can be addressed; and, that the most reasonable way of addressing the opportunity is to examine the various ways in which capacity at the existing Domestic Landfill can be increased. Accordingly, as the ToR identifies that a predetermined "Alternative To" has been determined, approval is being sought to prepare an Environmental Assessment in accordance with subsections 6(2)(c) and 6.1(3) of the Act.

Discussion on the business plan and economic opportunity (Purpose of the Undertaking), as well as what options Mayer Waste Management is able to consider, was prepared within the context of Mayer Waste Management operating the Mayer Waste Disposal Site as a private facility within the Province of Ontario and is highlighted in the sections that follow.

2. Background

The MWDS is owned by 781998 Ontario Inc. and known as Mayer Waste Management (the Proponent). The MWDS is operated by Gilles R. Mayer Sanitation Ltd. (Mayer Sanitation). The Site is located east of the Town of Hawkesbury along County Road 17 and is geographically situated within the Township of Champlain (**Figure 2.1**) and has been in operation since 1955. The Site is approved to accept domestic waste generated within the Town of Hawkesbury and the Township of Champlain and solid non-hazardous industrial waste generated within the County of Prescott and Russell, County of Stormont, Dundas and Glengarry, County of Hastings, County of Leeds and Grenville, County of Frontenac, County of Lennox and Addington, City of Ottawa, County of Lanark, and Canton de Grenville, Québec. The landfill operates under an Amended Environmental Compliance Approval (ECA), No. A471506 issued on 14 April 2020.

The Site encompasses 36.34 hectares of land, consisting of 11.94 hectares of waste disposal area and 24.40 hectares of combined buffer zone and Contaminant Attenuation Zone (CAZ).

The Site contains two distinct landfills; the Domestic Landfill and the Industrial Landfill, which have separate Approvals. The Domestic Landfill, which is the subject of this EA, is 5.53 ha in size and operates under Amended ECA No. A471506 issued on 14 April 2020. Landfilling at the Domestic Landfill was approved for an additional capacity of 451,700 cubic metres (m³) in accordance with Condition No. 7(2) of the ECA.

The Industrial Landfill operates under Amended ECA No. A471507 issued on 15 March 2021. Landfilling at the Industrial Landfill was completed in June 2003 and has been closed in accordance with the Closure Plan, Industrial Landfill (Conestoga-Rovers & Associates (CRA), March 1995). Placement of final cover over the Industrial Landfill was completed in 2008.

Other permits and approvals applicable to the Site include:

- ECA 5786-666R45 for Industrial Sewage permitting the construction and operation of the storm water management system.
- ECA 4191-9JTNTW for Air, permitting the construction and operation of the passive landfill gas venting system.
- Aggregate Extraction Permits issued under the Aggregate Resources Act: Permit 6007 for the extraction of aggregates from the eastern buffer zone, permit 5852 for the extraction of aggregate from the western buffer zone, and Permit 5879 for the extraction of aggregate from the central buffer zone.

DRAFT

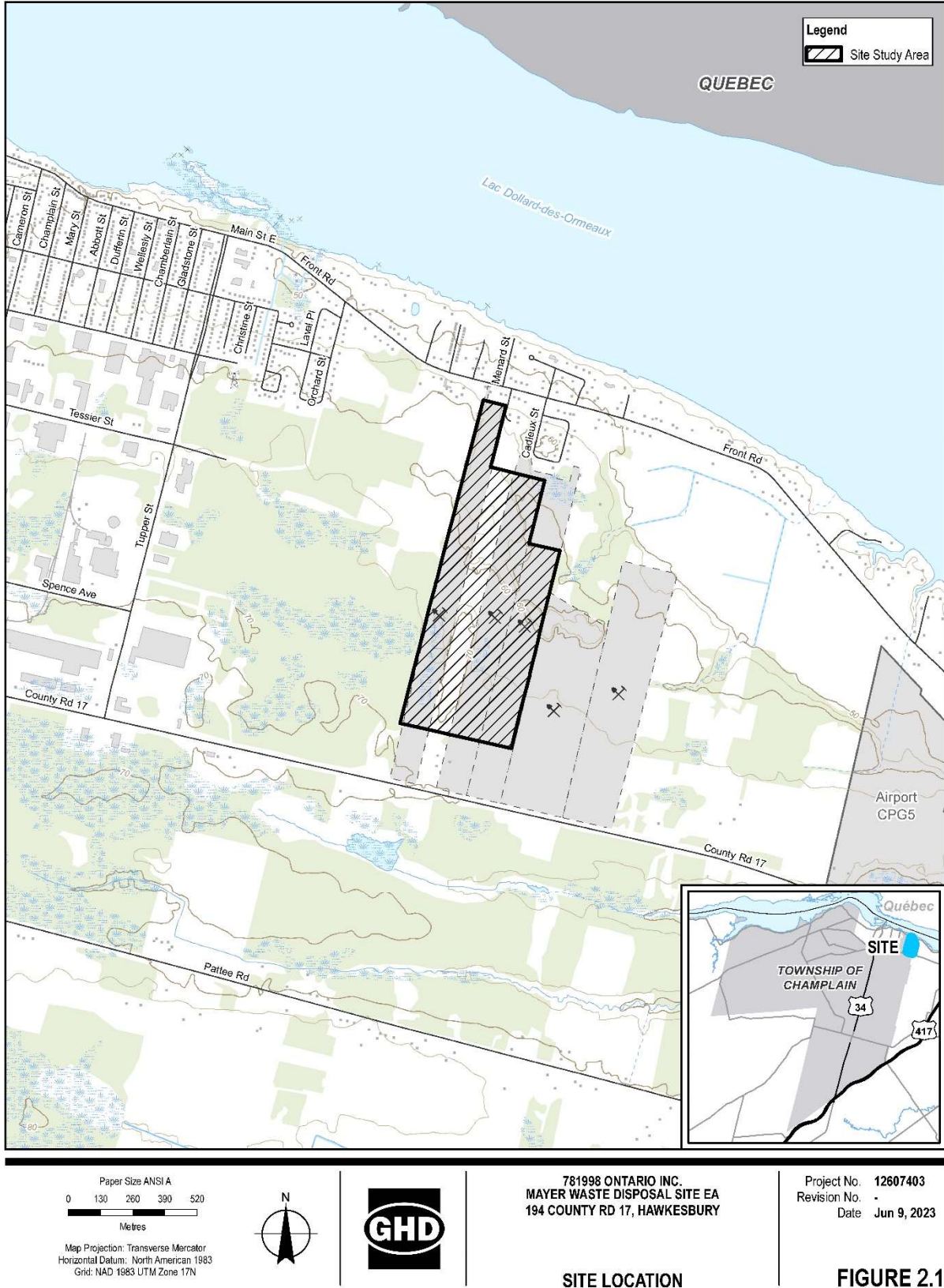


Figure 2.1 Site Location

2.1 Site Description

Access to the Site is gained via a service road entering from County Road 17, which provides access to both the Domestic and Industrial Landfills. Access is also provided to the on-Site visitor/registration trailer, storage areas, maintenance garage, and former residential dwellings. The Mayer Waste Processing Facility permitted under separate Amended ECA No. 4462-AD6P6S (issued Dec 1, 2020), is situated south of the Site, and also accessed by the service road. Operation of this facility has not commenced to date. Upon implementation of this facility, it will provide for enhanced materials recovery and diversion from landfilling.

The Site is topographically characterized by the landfill mounds of both the Domestic and Industrial Landfills which are separated by an eastward flowing drainage channel. Portions of the Site not landfilled are generally characterized by aggregate extraction pits and/or undeveloped sections of land. The undeveloped portions of the Site are further characterized by the presence of low to medium canopy and deciduous vegetation, particularly to the northeast of the Site.

2.2 Service Area

The Domestic Landfill is approved to accept domestic waste generated within the Town of Hawkesbury and the Township of Champlain and solid non-hazardous industrial waste generated within the County of Prescott and Russell, County of Stormont, Dundas and Glengarry, County of Hastings, County of Leeds and Grenville, County of Frontenac, County of Lennox and Addington, City of Ottawa, County of Lanark, and Canton de Grenville, Québec. The industrial portion of the waste generally consists of shingles, scrap metal, white goods, cardboard, glass, wooden boxes, and building demolition materials.

For general reference, the Mayer Waste Processing Facility, permitted under separate Amended ECA, is approved to accept non-hazardous solid waste from residential, commercial, industrial and institutional sources, leaf and yard waste, contaminated soil³ and wood waste generated within the Provinces of Ontario and Quebec.

2.3 Landfill Volumes and Site Life

The remaining airspace at the landfill as of November 3, 2021, was calculated to be 84,755 m³ using annual survey methods.

Over the ten-year period from 2012 through 2021, the airspace for the Domestic Landfill has been steadily reduced on average by an approximate 15,700 m³ per year. The airspace is consumed over time by both deposited waste and approved daily/interim waste covering materials (e.g., soils or used shingles). The daily and interim waste covering materials represent approximately 20% of the overall airspace, or approximately 3,100 m³ per year. The deposited waste represents on average approximately 12,600 m³ per year.

The remaining Site life for the Domestic Landfill is dependent on the quantity of materials deposited in a given year. Using the average airspace consumption for the ten-year period from 2012 through 2021, the Site Life can be calculated to be approximately 5 years from November 2021. The Domestic Landfill is approved to divert select materials (e.g., recyclables) from landfilling as feasible. These materials are directed to other permitted facilities and thus, overall Site life duration is extended, and airspace is preserved for necessary landfilling of residual materials. Upon operation of the Mayer Waste Processing Facility, Mayer Waste Management anticipates a range of 30 to 60 percent rate for materials diversion. At around 45 percent materials diversion, the estimated Site life may be calculated to be approximately 12 years from November 2021.

³ With respect to contaminated soil, the Owner shall ensure analyses of representative samples of the waste stream are conducted at an accredited laboratory, to verify that the contaminated soil is not liquid waste, hazardous waste, as defined by Regulation 347, prior to acceptance of the contaminated soil at the Site.

3. Purpose of the Undertaking and Options Analysis

The Proponent has provided waste management and disposal service to municipalities and Institutional, Commercial and Industrial (IC&I) waste generators since 1955. The site provides local municipal waste management, through recovery and recycling, and landfilling of residuals, within 5 km of Hawkesbury City Hall and 10 km of Champlain City Hall. The need for, and opportunity to provide, waste management and disposal services for municipalities and businesses in the Hawkesbury area is well established and well understood.

Landfill expansions, such as the former Site expansion approved in 2004, provide for an injection of funds to further implement engineered controls that enhance community and environmental protection and allows for continued local waste management service that meets public needs. Without an expansion, the local capacity to manage waste materials is substantially impacted starting from 2026 to 2033 and onwards.

In its role as a local private-sector provider of waste disposal capacity, the Proponent's primary consideration for the proposal is the business opportunity presented by the need for local, environmentally sound waste disposal capacity by its traditional municipal and commercial clients. The expansion will extend the value and employment from this existing local waste management asset and provide ongoing community access to landfilling of residual materials and transfer station.

Mayer Waste Management embarked on an internal business planning process to examine options related to long-term disposal capacity in order to continue providing waste management disposal services to clients beyond the current approved capacity at the Domestic Landfill. The company determined that a long-term solution for additional non-hazardous solid residual waste disposal capacity was required to provide it with flexibility in how best to serve its existing local clients while remaining competitive provider of waste management services.

As part of the business plan, Mayer Waste Management reviewed the following:

- The current non-hazardous solid waste residual material generated in Ontario.
- Historic volumes accepted at the Mayer Waste Management Site.
- Anticipated future growth in the surrounding communities and Greater Ottawa-Gatineau Area.
- Development and analysis of potential long-term disposal capacity options that Mayer Waste Management could potentially implement in order to continue providing waste management disposal services to its customers.

A summary of the main elements of the business planning exercise is provided in detail within the subsequent section of this Document.

3.1.1 Ontario Waste Generation– Overview

The Waste-Free Ontario Act, 2016 and its accompanying Strategy for a Waste-Free Ontario: Building the Circular Economy (Strategy) established a framework for changes with regards to responsibility for the management of resources, the provision of oversight and enforcement and creation of synergies between various pieces of legislation to achieve the stated outcomes. It seeks to alter the current linear pattern of production, consumption and disposal towards circularity and an aspirational goal of 'zero waste'. By doing so, economic growth and prosperity is reconciled with environmental outcomes.

However, as the Strategy outlines, while the province as a whole works towards its goal of zero waste, there will still be a need for landfill space in the interim. At the time of implementing the Waste-Free Ontario Act and Strategy, the government forecasted the need for approximately 16 new or expanded landfills required by 2050, based on current waste generation rates. Recent reporting provided by the Ontario Waste Management Association (OWMA) has determined that based on waste disposal volumes/ weights from 2017 to 2019, coupled with additional approved capacity (but not yet built) shows that the province has approximately 144,476,000 tonnes, which translates to roughly

15.5 years of landfill capacity (depleted in 2036)⁴ (Figure 3.1). Should legislative or economic changes result in waste no longer being exported to the United States, Ontario’s available landfill capacity will be exhausted sooner, by the year 2032 or in 10.5 years (Figure 3.1).

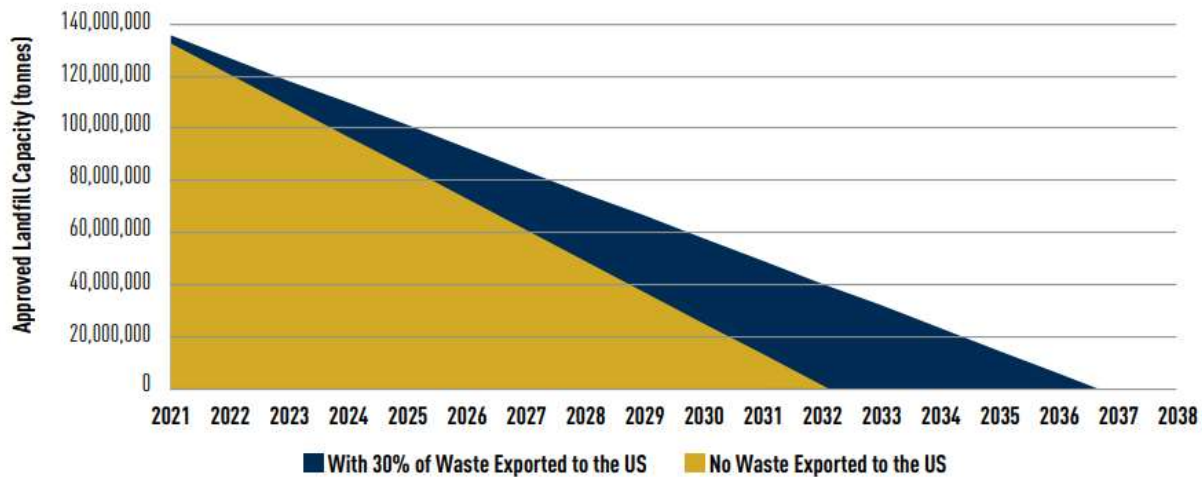


Figure 3.1 Ontario’s Remaining Landfill Capacity in Years

Private landfills now account for 53 percent of landfill capacity in Ontario, up from 36 percent in 2017 and the trend of Municipalities utilizing private sector capacity is increasing due to limited capacity of their own or the ability/desire to establish new capacity for their residents⁵. The majority of Ontario’s remaining capacity is increasingly limited to a handful of sites. Importantly, this means local management of waste materials is becoming more difficult to achieve, and the related need to haul waste materials long distances is increased. Based on OWMA’s database, 60 percent of Ontario’s remaining landfill capacity is concentrated to seven sites (both private and public), while 85 percent of remaining capacity is held by 15 sites (both private and public). Recognizing that this represents all types of waste from various sectors, it nevertheless demonstrates the amount of waste generated in Ontario as well as the amount landfilled in Ontario or exported to landfills in the US. Further, it reinforces the fact that the amount of landfill capacity remaining in Ontario is decreasing – for all sectors.

With the above in mind, it is concluded that developing local solutions to address in province waste management needs is environmentally responsible, financially sound, and provides for secure waste management infrastructure for the existing customer base.

3.1.2 Waste Received at the Site

As discussed in Section 2.2 the Domestic Landfill is currently approved to accept domestic waste from local municipalities and the Greater Ottawa-Gatineau Area.

The annual airspace (in volume, m³) consumed at the facility is reported annually to the MECP as identified below in Table 1. The calculated annual tonnage of deposited waste and daily/interim waste covering materials is also listed, using the assumption that compaction of materials represents approximately 0.8 tonnes/m³.

⁴ State of Waste in Ontario: Landfill Report, January 2021

⁵ Ibid.

Table 3.1 Domestic Landfill Airspace Consumption

Reporting Year	m ³ per Year	Tonnes per Year
2012	17,966	14,373
2013	15,841	12,673
2014	15,801	12,641
2015	17,520	14,016
2016	14,113	11,290
2017	13,485	10,788
2018	15,093	12,074
2019	15,541	12,433
2020 ⁽¹⁾	15,889	12,711
2021 ⁽¹⁾	15,889	12,711

Note: ⁽¹⁾ Represents half of the annual landfill airspace consumption calculated based on a comparison of landfill survey surfaces from 2019 and 2021. The 2020 survey surface was considered as being not reliable.

Domestic Waste

Currently the Domestic Landfill receives curbside collected residual waste (all non-diverted waste) from the Town of Hawkesbury and Township of North Glengarry. The curbside collection is under contract to Mayer Sanitation. The Site also accepts public drop-off.

The population of the Town of Hawkesbury is approximately 10,194⁶ with a -0.5 percent population change from 2016 to 2021. The Town is among the poorest municipalities in Canada⁷. Hawkesbury has the most social income housing units in all of Prescott-Russell with an aging population and has had several industry closures in the past decades which contributed to its low ranking. In 2017, approximately 27 percent of people in Hawkesbury/Grenville lived below the poverty line⁸.

The Mayer Waste Management Site is crucial facility to the Town of Hawkesbury as its close proximity to the Town (within 5 km of Hawkesbury City Hall) provides a substantial cost-effective waste disposal option due to relative fees associated with waste haulage. The operation of the facility, including the related Mayer Sanitation curbside collection, provides diverse local employment opportunities to an approximate 15 personnel on a full-time basis.

Non-hazardous Solid Industrial Waste

The industrial waste accepted from the current service area generally consists of shingles, scrap metal, white goods, cardboard, glass, wooden boxes, and building demolition materials. Major clients are the IKO Hawkesbury, which is a family-owned roofing, waterproofing, and insulation manufacturing company in Hawkesbury, Alexandria Moulding, a moulding manufacturer and distributor of wood and wood composite mouldings located in Alexandria, Township of North Glengarry, and Akwesasne in Cornwall Island.

The population of the United Counties of Prescott and Russell (UCPR) is approximately 95,639⁹ with a 7.1% population change from 2016 to 2021. The Greater Ottawa-Gatineau Area was the fourth-largest metro area in 2021 census growing from 1,371,576 in 2016 to 1,488,307 in 2021. The Greater Ottawa-Gatineau Area had an 8.5 percent population growth over the past five years (Statistics Canada, 2021) significantly higher than the national rate of 5.2

⁶ Statistics Canada. 2022. Town of Hawkesbury Census Profile, 2021 Census of Population.

⁷ The Review. 2017. Hawkesbury, Grenville and Lachute among poorest municipalities in Canada. Retrieved from <https://thereview.ca/2017/09/19/hawkesbury-grenville-and-lachute-among-poorest-municipalities-in-canada>

⁸ Ibid.

⁹ Statistics Canada. 2022. United Counties of Prescott and Russell Census Profile, 2021 Census of Population.

percent¹⁰. With the Greater Ottawa-Gatineau Area's increase in population growth business and municipalities will require additional industrial waste disposal capacity. The Mayer Waste Disposal Site is located within close proximity to where the majority of these materials are generated, reducing the need for long haul transport and therefore reducing greenhouse gas (GHG) emissions from longer haul travel to other locations within Ontario or outside of Canada.

3.1.3 Required Landfilling Capacity for Surrounding Municipalities

On average approximately 15,700 m³ of airspace of the Domestic Landfill is consumed each year. Referring to the above Section 2.3, the landfill Site Life may be calculated to range from 5 years to 12 years. Generally, between the year 2026 and 2033 the current approved Domestic Landfill airspace will be exhausted. As discussed above, there is a need for landfilling capacity. This is further demonstrated by the below review¹¹ and calculation of local requirements for landfill airspace for the Township of Champlain, the Town of Hawkesbury and the UCPR in 2021 and 2026 (Table 2). This includes consideration for the required airspace for daily and interim covering materials at an estimated 20% of the overall airspace, and also communities achieving a relatively improbable total diversion from landfill of waste organics (reflected at an estimated 30% of the waste stream).

Table 3.2 Required Landfilling Capacity for Surrounding Municipalities

Waste Generation Area	Year 2021		
	Capita	Approximated Total Waste Generated	Approximated Total Waste Not Diverted
	Tonnes per Year		
Township of Champlain	8,665	8,238	4,364
Town of Hawkesbury	10,194	9,691	5,134
United Counties of Prescott and Russell	95,639	90,922	48,170

Waste Generation Area	Year 2026			
	Approximated Capita	Approximated Total Waste Generated	Approximated Total Waste Not Diverted	Total Airspace Needed
	Tonnes per Year			m3 per Year
Township of Champlain	8,622	8,196	4,364	6,546
Town of Hawkesbury	10,123	9,623	5,109	7,663
United Counties of Prescott and Russell	102,429	97,377	47,833	71,749

As identified above, the approximated total non-diverted waste generated from just the Township of Champlain and the Town of Hawkesbury is 14,209 m³ in 2026. This represents approximately 90% of the total current annual airspace consumption for the Mayer Waste Management facility. The approximated total non-diverted waste estimate for the UCPR is 71,749 m³ in 2026, which represents over 450% the total current annual airspace consumption for the facility. Accordingly, within the UCPR alone, landfilling capacity in excess of the Mayer Waste Management Facility is required and local service remains a preferred outcome.

¹⁰ Ottawa Citizen. 2022. Ottawa-Gatineau regains spot as fourth-largest metro area in 2021 census. <https://ottawacitizen.com/news/local-news/ottawa-gatineau-regains-spot-as-fourth-largest-metro-area-in-2021-census>

¹¹ Based on Statistics Canada data from 2010, 2016, and 2021 as applicable for the Census and the Waste Management Industry Survey Program

3.1.4 Summary

Based on the landfill capacity needed in Township of Champlain, the Town of Hawkesbury, and the UCPR, let alone the Greater Ottawa-Gatineau Area Domestic Landfill, Mayer Waste Management has determined that there is a necessary and sustainable economic opportunity for the company to continue to provide disposal capacity for non-hazardous solid waste residual material.

3.2 Potential Options to address the Economic Opportunity

After identifying that there is an economic opportunity for Mayer Waste Management to continue to provide disposal capacity for domestic and industrial waste, Mayer Waste Management developed and analysed potential long-term disposal capacity options that it could potentially implement in order to continue providing waste management disposal services to Greater Ottawa-Gatineau Area businesses and customers. As part of the business plan, four potential options were developed and reviewed:

1. Status Quo – Maintain existing approvals for the current Domestic Landfill
2. Modify the Domestic Landfill – Increase the capacity for accepting non-hazardous solid waste
3. Develop a new landfill site – The new site would be established within the vicinity of the majority of customers and sources of waste materials
4. Export – Take residual materials to other approved facilities within the Province of Ontario

A summary of the options reviewed during a series of internal business planning sessions is provided below.

Status Quo

The status quo option would mean that the current Domestic Landfill would no longer have the capacity to accept non-hazardous solid waste after the currently approved capacity for waste is exhausted. As noted in Section 2.3, the timeframe from November 2021 to when landfilling capacity is exhausted can be calculated to be approximately 5 years (i.e., in 2026) or up to 12 years (i.e., in 2033). Mayer Waste Management would be required to find an alternative way to dispose of the non-hazardous solid waste collected at curbside by Mayer Sanitation and dropped off at the facility from local and regional customers. The Mayer Waste Disposal Site plays a critical role in supporting local municipalities and the local economy with a conveniently located landfill.

Under the status quo option, a number of long-standing users of the Domestic Landfill, including the Town of Hawkesbury, would be forced to haul their solid waste further to an appropriately sized and approved facility. Compared with the Mayer Waste Disposal Site, the next the closest permitted facility for the Town of Hawkesbury to send their waste is approximately 90 km further round trip from the Town of Hawesbury's City Hall. This would significantly increase the cost the Town of Hawesbury and other nearby users to manage their solid waste and would increase the associated carbon footprint.

Modify the Domestic Landfill to Increase Capacity

This option would utilize the existing Domestic Landfill and would add capacity for non-hazardous solid waste at the Site. This could occur on lands within the existing Site limit approved for the Domestic Landfill, and/or on lands adjacent to the approved existing Site limit.

Providing for additional capacity at this Site and expanding the footprint is not a new concept. In 2004 an EA was approved by the MECP, which allowed a 411,746 m³ increase in the approved capacity for non-hazardous solid waste through expanding the Domestic Landfill's footprint to 75 m in width (west to east) and 402 m in length (south to north). This expansion has currently allowed for approximately 20 years of local landfill capacity for generators within the approved service area.

Mayer Waste Management is looking to modify the existing Domestic Landfill to respond to the economic opportunity and need of providing additional disposal capacity for local municipalities and private costumers. This option would allow for Mayer Waste Management to continue to provide the Town of Hawkesbury and other local costumers a cost effective and an environmentally sound manner to dispose of their waste.

Establish a New Landfill Site

Under this option, Mayer Waste Management would initiate an EA and other required approval processes to find, construct and operate a new site. This would mean that the existing domestic landfill would continue to operate and accept waste until the maximum approved limit of this material is accepted (411,746 m³). The new facility would need to be built elsewhere within the UCPR in order to continue to serve their local customers and provide them with a cost effect manor to dispose of their waste without a significant increase in transportation costs. This would require that Mayer Waste Management determine an appropriate location and acquire the site for development. In order to achieve this alternative, a suitable site would need to be identified within the UCPR, as well as obtaining all necessary regulatory approvals and agreements.

There would be considerable uncertainty in the scope, timing and cost of the approval processes, which would be expected to take many years and the outcome itself would be uncertain. It is unlikely, that a new site could be approved and made operational by 2026-2033, the calculated range for the current disposal capacity of the Domestic Landfill to be exhausted.

The cost to obtain a suitable site, for approvals, construction and operation of a new facility would be significant, and it should be noted that a new landfill site has not been developed in Ontario in the last 15+ years.

Export to Other Disposal Facilities

This option assumes that the Domestic Landfill would be used until it reaches its approved solid, non-hazardous waste capacity limits. This alternative would see non-hazardous solid wastes that Mayer Sanitation collects delivered to the Mayer Waste Processing Facility which is situated south of the Site to provide enhanced materials recovery and diversion from landfilling. The residual waste will be transferred to other waste disposal facilities not owned by Mayer Waste Management that are able to accept solid, non-hazardous waste (e.g., GFL Environmental Inc.'s Moose Creek Landfill or City of Ottawa's Trail Road Waste Facility).

This option would allow for Mayer Sanitation to continue a portion of its business (i.e., collection and processing), but would rely on other operators for disposal. Further, the distance the waste will travel from the local municipalities and other customers will be greater as the nearest disposal option round trip is approximately 90 km further, thereby increasing the overall costs of disposal and GHG emissions associated with transportation.

3.2.1 Analysis of Options

Mayer Waste Management reviewed the pros and cons of the options described above, with the main evaluation lens on assessing whether the option would satisfy the economic opportunity that Mayer Waste Management is seeking to achieve by providing, long-term, cost effective, non-hazardous solid waste disposal capacity to meet existing and growing demands. A summary of the analysis is provided below.

Status Quo

- This option does not satisfy the economic opportunity or need for landfilling capacity.
- Closure of the existing Domestic Landfill in 5 to 12 years would create a significant gap in the company's services for long-standing customers. Including the Town of Hawkesbury, who currently contracts curbside collection to Mayer Sanitation for management at the facility.
- This option is not acceptable to Mayer Waste Management from an economic perspective, as it would place the company at a significant economic disadvantage within the local marketplace and decrease its ability to compete within the Ontario market and adjacent municipalities in Quebec.

- The additional trucking required to take the waste generated from local customers to disposal sites further away would increase GHG emissions and would not be consistent with Ontario’s current priorities relating to climate change and the Waste Free Ontario Act and Strategy, which calls for zero GHG emissions within the waste sector by 2030.
- The requirement to ship waste to other locations would also create a significant financial burden to the Town of Hawkesbury and other local customers over the course of the lifespan associated with the proposed additional capacity lifespan

Based on the above, Mayer Waste Management does not consider the status quo option as reasonable for its future business or its current customers.

Modify the Domestic Landfill to Increase Capacity

- This option would meet Mayer Waste Management’s economic goals by continuing to provide local and regional non-hazardous solid disposal capacity to its existing customers.
- The site operates in line with its ECAs , safely managing non-hazardous solid waste on a daily basis and undertaking required monitoring and reporting to the MECP.
- This option would be implemented with minimal issues (practically and economically) as the necessary infrastructure can be put in place in a cost-effective manner.
- The Domestic Landfill at the Mayer Waste Disposal Site has become an important contributor to the local community by creating employment opportunities and providing local residents with a convenient local site to dispose of waste.
- This option is consistent with applicable land use planning controls and will allow for continued service to local customers.
- This option is consistent with Ontario government priorities, namely climate change and reduction of GHG as proposed additional in capacity would extend the site life, which would avoid increased GHG emissions associated with transporting materials to other locations farther distances away.
- This option is consistent with the Ontario government’s Waste Free Ontario Act and Strategy regarding landfills, which states that “while Ontario strives for a waste-free future, there will still be a need for landfill space as we work towards this goal”, and also notes that new landfill space will be required in the province.
- Adding capacity to the Domestic Landfill would avoid considerable cost increases for current customers with transporting materials to other locations further away.

Based on the above, this option is the most practical, financially and economically viable option to address the identified business need to allow Mayer Waste Management to continue meeting the existing and growing demand for its operations in the long-term; making the most efficient use of an existing facility already designated for this purpose and site infrastructure already developed.

Establish a New Landfill Site

- Mayer Waste Management is not aware of other lands within the UCPR that have been identified as suitable for a new site that could accommodate the continuance of non-hazardous solid waste disposal services.
- As a private corporation, Mayer Waste Management does not have the powers of expropriation to obtain a site, if such a location existed.
- A new site within the UCPR would require additional approvals under the Planning Act (i.e., Official Plan and Zoning By-Law Amendments), adding a degree of uncertainty to the process.
- The development of a new site elsewhere in the UCPR is also not an economically attractive option. If a new site was identified and approved, it would require a significant investment with respect to land purchase, building, services and utility construction and creation of infrastructure and management.

- The ability to utilize the required infrastructure that is already in place at the current Mayer Waste Disposal Site would be lost. Making capital and operational investments elsewhere would put Mayer Waste Management at a financial disadvantage and make the business less competitive and not viable.
- It is unlikely that Mayer Waste Management could identify, purchase, secure approvals and construct a new site within a reasonable time period relative to the remaining lifespan for non-hazardous solid waste disposal at the Domestic Landfill.

Based on the above, this option is not practical from a timing standpoint relative to the remaining capacity at the existing site, nor is it economically acceptable to Mayer Waste Management, given a number of uncertainties and risk associated with obtaining an appropriate site as well as from a future approvals perspective.

Export to other disposal facilities

- Exporting of waste to another disposal facility does not satisfy Mayer Waste Management's economic goals or the need for local landfilling capacity.
- Relying on a third party for disposal is not economically acceptable as Site's customers would be charged for transport, transfer and disposal fees.
- Reliance on a third-party disposal facility would put Mayer Waste Management at a significant economic disadvantage competitively and would harm its ability to continue providing services to the local and regional customers.
- This option is also not consistent with Ontario government priorities, including climate change and reduction of GHG. The additional trucking required to take the waste generated by local customers further away, would increase GHG emissions and are not consistent with the current Ontario priorities relating to climate change and the Waste Free Ontario Act and Strategy, which calls for zero GHG emissions within the waste sector by 2030.
- The requirement to ship to other locations would create a financial burden to current customers, including the Town of Hawkesbury.

Based on the above, this option would put Mayer Waste Management and its customers at a significant financial and economic disadvantage in the market.

3.2.2 Preferred Option

Based on the work undertaken during the business case and planning process, the company determined that the most advantageous option to meet the long-term solution for additional non-hazardous solid waste capacity, while also continuing to operate its business and to meet their economic goals, is to modify the Domestic Landfill to increase the disposal capacity.

Mayer Waste Management has an opportunity to respond to the growing demands from local customers, including the Town of Hawkesbury to provide them with a safe, and environmentally sound facility to support the predicted population growth. Should local customers have to send their material to another facility farther away, it would add significant cost and environmental impact from increased transportation. Increasing capacity at the Domestic Landfill would avoid increased GHG emissions and thus align with Ontario's current priorities relating to climate change and the target of having zero GHG emissions within the waste sector by 2030. The preferred option would allow Mayer Waste Management to continue to provide approximately 15 well-paying jobs and a possibility of additional 4-5 more jobs.

The other options do not address Mayer Waste Management's economic goals or opportunity, nor do they avoid significant business risks that could put the company at a significant economic disadvantage within the waste sector in Ontario and relevant waste management within Quebec.

This preferred option will be considered further in the EA.

4. Future Role of the Mayer Waste Disposal Site

Based on the historic tonnages accepted at the Mayer Waste Disposal Site, Mayer Waste Management has determined that there is a sustainable market opportunity for the company to continue to provide disposal capacity for non-hazardous solid waste.

Given that Mayer Waste Management wishes to move forward with increasing capacity at the Mayer Waste Disposal Site to realize the economic opportunity established in its business plan, Mayer Waste Management undertook an internal review with respect to the total volume that could be accommodated by the Domestic Landfill. The initial capacity analysis was undertaken to determine; 1) the amount of material available that Mayer Waste Management could continue to capture; 2) how the Domestic Landfill could be modified to increase the approved capacity; and 3) the economic requirements to facilitate an increase in the Domestic Landfill's capacity. This initial capacity analysis was undertaken to guide the potential development of alternative methods, as well as to guide the economic considerations for the capacity expansion volume to be sought.

The remaining capacity of the Domestic Landfill is approximately 84,755 m³. The internal business case completed by Mayer Waste Management to explore the economic opportunity to continue to meet demand from local customers and increase the total capacity of non-hazardous solid waste reviewed a number of different capacity increase scenarios. An increase in capacity of 650,000 m³ was determined to be the most suitable scenario allowing Mayer Waste Management to provide long-term disposal option to existing and expanded local customer base for the next 20 years and to achieve their long-term financial goals.

5. Summary of Mayer Waste Management's Business Decisions

Given the economic opportunity that Mayer Waste Management may realize by providing long-term disposal capacity for local customers, Mayer Waste Management intends to consider the future operating role of this Domestic Landfill by increasing the overall capacity at the existing landfill. Mayer Waste Management is therefore preparing to undertake the EA to provide for the ongoing operation of the landfill to accept 650,000 m³ resulting in approximately 20 years of additional site life when considering both the existing and an expanded local customer base.

In keeping with the MECP Code of Practice, Mayer Waste Management determined the rationale for its proposed undertaking based on an analysis of the key opportunities including:

- Mayer Waste Management has an economic opportunity to provide a long-term waste disposal capacity for local customers and while remaining economically competitive in the waste sector in Ontario.
- Mayer Waste Management will continue to provide its existing customer base with a local, reliable, secure, and cost-effective disposal option for non-hazardous solid waste.
- Mayer Waste Management's proposal is consistent with the Ontario government's Waste Free Ontario Act and Strategy regarding landfills, which states that "while Ontario strives for a waste-free future, there will still be a need for landfill space as we work towards this goal", but also notes that new landfill space will be required in the province.
- Environmental impacts of GHG emissions will be minimized through a reduction in the number of waste related trucks hauling material over longer distances.