Supporting Document 3-7

Socio-Economic Environment Effects Assessment Report

Eastern Ontario Waste Handling Facility Future Development Environmental Assessment

GFL Environmental Inc.

Moose Creek, Ontario

June 12, 2023

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Executive Summary

HDR Corporation was contracted by GFL Environmental Inc. (GFL) to conduct an assessment of the effects of the future development of the Eastern Ontario Waste Handling Facility (EOWHF) on the Socio-Economic Environment as part of the EOWHF Future Development Environmental Assessment (EA). The purpose of this Effects Assessment Report is to present the potential environmental effects of the alternative methods on the Socio-Economic Environment, a comparison of the net effects of each alternative method, the selection of a preferred alternative, an assessment of the environmental effects of the preferred alternative, and commitments and monitoring.

The EA is being carried out in accordance with the requirements of the *Ontario Environmental Assessment Act* (*OEAA*) and Terms of Reference (ToR), which was approved by the Ministry of Environment, Conservation and Parks (MECP) on January 14, 2021.

The purpose of the proposed undertaking is to provide approximately 15.1 million cubic metres (m^3) of additional landfill disposal capacity at the existing EOWHF over a 20-year planning period, with operations anticipated to begin in 2025 and closure anticipated in 2045. The undertaking will enable GFL to continue to provide disposal services for residual non-hazardous solid waste to their customers once the landfill reaches its currently approved disposal capacity and continue to provide economic support to the local community over the long term. No changes to the approved fill rates or site access routes are proposed.

Two alternative methods for carrying out the undertaking were identified in the approved ToR and are developed to a preliminary conceptual design level in the Conceptual Design Report (CDR). Alternative Method 1 consists of implementing the future development through five stages: one stage adjacent to and north of the existing landfill (Stage 5[1]); and four stages oriented east-west within the future development lands (Stages 6 through 9). Alternative Method 2 consists of implementing the future development through four stages: one stage adjacent to and north of the existing landfill (Stage 5); and three stages oriented north-south within the future development lands (Stages 6 through 8). For both alternative methods, the design of the stages will be consistent with the existing landfill design. Visual screening will be constructed along the north and east perimeters and a portion of the south perimeter consisting of earthen berms and/or vegetation plantings.

The study areas for the Socio-Economic Environment are as follows:

- On-site Study Area – the existing EOWHF, and the future development area comprising the eastern half of Lot 16, Lots 14 and15, and the majority of Lot 13 of Concession 10 east of the EOWHF.

[1] The current EOWHF comprises Stages 1 through 4.

- Social Off-site Study Area – all properties located within 1 km of the On-site Study Area. For properties that are bisected by the 1 km radius line, the entire property is included in the Social Off-site Study Area.
- Economic Off-site Study Area – the area within the municipal boundaries of the United Counties of Stormont, Dundas and Glengarry, the City of Cornwall, and the areas within the Municipality of Casselman, Township of Russell, and The Nation Municipality within the United Counties of Prescott and Russell.

A net effects assessment was carried out for the two alternative methods following the methods outlined in the approved ToR incorporating the information contained in the CDR, the Socio-Economic Environment Existing Conditions Report, and the results of the effects assessments for air quality, noise, and odour. The results of the net effects assessment were used in a comparative evaluation of the two proposed alternatives methods.

It was determined that both alternative methods will result in beneficial effects to the local community through the extended duration of employment at the site and local businesses for an additional 20 years, the continued provision of cost-effective and environmentally-secure waste management services to municipalities and businesses across Eastern Ontario for an additional 20 years, the addition of as much as $300 million to be contributed during that timeframe to the local economy through the procurement of local goods and services, and continued annual financial contributions to the Township of North Stormont for an additional 20 years and direct financial contributions in the form of public donations. Both alternative methods will result in the partial relocation of Manderley Turf Products' sod production operations, and the displacement of a small portion of agricultural operations. No net effects were identified to the number of residents, residents and their use of property, or the visual landscape with the provision of visual screening.

As the results of the net effects assessment are the same for each alternative method, there is no substantial difference between the alternative methods from a socio-economic perspective, and no preferred alternative is identified. The same advantages and disadvantages apply to each of the alternative methods.

No Socio-Economic environmental effects monitoring is proposed for the EOWHF landfill. The commitments associated with the Socio-Economic Environment are as follows:

- The site's operating hours will remain unchanged and no additional large equipment will be required.
- No changes to traffic volumes beyond currently-approved levels or changes to waste haul routes are anticipated as a result of the future development.
- GFL will continue to provide lands to Manderley Turf Products by agreement, and the displacement will be phased as the stages are developed.
- GFL will continue to employ a variety of proactive measures to minimize nuisance effects related to noise, dust, odour, litter, and vectors and vermin, and provide prompt attention to nuisance complaints to mitigate any adverse effects to the surrounding community.

- The future development will be of similar height to the existing EOWHF landfill.
- Visual screening will be constructed along the north and east perimeters and a portion of the south perimeter consisting of earthen berms and/or vegetation plantings. The visual screening should be at least 2.4 m (8 feet) high on the northern, eastern, and southern perimeters, and at least 4.5 m (16 feet) high in the northeastern corner of the perimeter to mitigate visual impacts.

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Acronyms, Units and Glossary

Acronyms

Acronym	Definition
CDR	Conceptual Design Report
EOWHF	Eastern Ontario Waste Handling Facility
GFL	GFL Environmental Inc.
GHG	Greenhouse Gas
HDR	HDR Corporation
LFG	Landfill Gas
MECP	Ministry of Environment, Conservation and Parks
OEAA	*Ontario Environmental Assessment Act*
OES	Ontario Electronic Stewardship
ToR	Terms of Reference

Units

Unit	Definition
km	kilometre
m	metre
masl	metres above sea level
ou/m^3	odour units per cubic metre

Glossary

Term	Definition
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
Bulking Material	Material such as woodchips added to high nitrogen materials like food scraps to provide a carbon source and increase the porosity of the compost.
Capacity (Disposal Volume)	The 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.
Composting	The controlled microbial decomposition of organic matter, such as food and yard wastes, in the presence of oxygen, into finished compost (humus), a soil-like material. Humus can be used in vegetable and flower gardens, hedges, etc.
Composting facility	A facility designed to compost organic matter either in the presence of oxygen (aerobic) or absence of oxygen (anaerobic).

Glossary

Term	Definition
Environment	As defined by the *Ontario Environmental Assessment Act* (*OEAA*), environment means: • 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).
Environmental Assessment	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	Evaluation criteria are considerations or factors taken into account in assessing the advantages and disadvantages of various alternatives being considered
Greenhouse gas	Any of the gases whose absorption of solar radiation is responsible for the greenhouse effect, including carbon dioxide, methane, ozone, and the fluorocarbons.
Indicators	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
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
Landfill site	An approved engineered site/facility used for the final disposal of waste. Landfills are waste disposal sites where waste is spread in layers, compacted to the smallest practical volume, and typically covered by soil.
Leachate	Liquid that drains from solid waste in a landfill and which contains dissolved, suspended and/or microbial contaminants from the breakdown of this waste.
Methane gas	A colourless, odourless highly combustible gas often produced by the decomposition of decomposable waste at a landfill site. Methane is explosive in concentrations between 5% and 15% volume in air.
Mitigation	Measures taken to reduce adverse impacts on the environment.
Proponent	A person who: • carries out or proposes to carry out an undertaking; or • is the owner or person having charge, management or control of an undertaking.
Receptor	The person, plant or wildlife species that may be affected due to exposure to a contaminant.
Terms of Reference	A Terms of Reference is a document that sets out detailed requirements for the preparation of an Environmental Assessment.
Undertaking	Is defined in the *Ontario Environmental Assessment Act* (*OEAA*) as follows: • An enterprise or activity or a proposal, plan or program in respect of an enterprise or activity by or on behalf of Her Majesty in right of Ontario, by a public body or public bodies or by a municipality or municipalities; • A major commercial or business enterprise or activity or a proposal, plan or program in respect of a major commercial or business enterprise or activity of a person or persons other than a person or persons referred to in clause (1) that is designated by the regulations; or • An enterprise or activity or a proposal, plan or program in respect of an enterprise or activity of a person or persons, other than a person or persons referred to in clause (a), if an agreement is entered into under section 3.0.1 in respect of the enterprise, activity, proposal, plan or program ("enterprise").

Glossary

Term	Definition
Waste	Refuse from places of human or animal habitation; unwanted materials left over from a manufacturing process.

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1 Introduction

HDR Corporation was contracted by GFL Environmental Inc. (GFL) to conduct an assessment of the effects of the future development of the Eastern Ontario Waste Handling Facility (EOWHF) on the Socio-Economic Environment as part of the EOWHF Future Development Environmental Assessment (EA).

The EA is being carried out in accordance with the requirements of the *Ontario Environmental Assessment Act* (*OEAA*) and Terms of Reference (ToR), which was approved by the Ministry of Environment, Conservation and Parks (MECP) on January 14, 2021.

The environment was divided into environmental aspects, components and evaluation criteria consistent with the *OEAA* and as listed in **Table 1-1**. Existing conditions reports and effects assessment reports have been prepared to address the environmental components.

Table 1-1. Environmental Aspects, Components and Evaluation Criteria

Environmental Aspect	Environmental Component	Evaluation Criteria
Natural Environment	Atmospheric Environment	• Air Quality • Noise • Odour
	Geology and Hydrogeology	• Groundwater Quality • Groundwater Quantity
	Surface Water Environment	• Surface Water Quality • Surface Water Quantity
	Ecological Environment	• Terrestrial Ecosystems • Aquatic Ecosystems
Socio-Economic Environment	Economic	• Economic Effects on / Benefits to Local Community
	Social	• Effects on Local Community • Visual Impact of Facility
Cultural Environment	Cultural Environment	• Cultural Heritage Resources • Archaeological Resources
Built Environment	Transportation	• Effects from Truck Transportation along Access Roads
	Current and Planned Future Land Use	• Effects on Current and Planned Future Land Uses
	Aggregate Extraction and Agricultural	• Aggregate Resources • Effects on Agricultural Land

The purpose of the proposed undertaking is to provide approximately 15.1 million cubic metres (m^3) of additional landfill disposal capacity at the existing EOWHF over a 20-year planning period, with operations anticipated to begin in 2025 and closure anticipated in 2045. The undertaking will enable GFL to continue to provide disposal services for

residual non-hazardous solid waste to their customers once the landfill reaches its currently approved disposal capacity and continue to provide economic support to the local community over the long term. No changes to the approved fill rates or site access routes are proposed.

Two alternative methods for carrying out the undertaking were identified in the approved ToR and are developed to a preliminary conceptual design level in the Conceptual Design Report (CDR). Both alternative methods provide a landfill volume of approximately 15.1 million m^3 based on the approved fill rate of 755,000 tonnes per year over a 20 year planning period. Studies completed for the EOWHF have indicated that, based on the underlying soils, the design alternatives are limited to varying lateral configurations with a consistent height. Both alternative methods will continue to use established operating procedures currently in place at the EOWHF and would maximize the use of existing site infrastructure.

Alternative Method 1 (**Figure 1-1**) consists of implementing the future development through five stages: one stage adjacent to and north of the existing landfill (Stage 5[2]); and four stages oriented east-west within the future development lands (Stages 6 through 9). Stages 6 through 8 will be identical in size, while Stages 5 and 9 will be smaller. A stormwater management system will be constructed consisting of conveyance ditches around the perimeter of each stage and a retention pond located northwest of Stage 8. The existing pond located northeast of Stage 5 will be modified to attenuate peak flows if required.

Alternative Method 2 (**Figure 1-2**) consists of implementing the future development through four stages: one stage adjacent to and north of the existing landfill (Stage 5); and three stages oriented north-south within the future development lands (Stages 6 through 8). Stages 6 and 7 will be identical in size, while Stages 5 and 8 will be smaller. A stormwater management system will be constructed consisting of conveyance ditches around the perimeter of each stage and a retention pond located north of Stages 6 and 7. The existing pond located northeast of Stage 5 will be modified to attenuate peak flows if required.

For both alternative methods, the design of the stages will be consistent with the existing landfill design. Visual screening will be constructed along the north and east perimeters and a portion of the south perimeter consisting of earthen berms and/or vegetation plantings. A new road entrance will be constructed from Laflèche Road, which will include a new scale facility.

The purpose of this Effects Assessment Report is to present the potential environmental effects of the alternative methods on the Socio-Economic Environment, a comparison of the net effects of each alternative method, the selection of a preferred alternative, an assessment of the environmental effects of the preferred alternative, and commitments and monitoring. The results from this study will be documented in an EA Study Report in accordance with the approved ToR, which will be submitted to the MECP for review.

[2] The current EOWHF comprises Stages 1 through 4.

Figure 1-1. Alternative Method 1

Figure 1-2. Alternative Method 2

2 Effects Assessment Methods

Using the evaluation criteria, indicators, rationale, and data sources from the approved ToR, and the existing conditions from the Socio-Economic Environment Existing Conditions Report, the effects assessment is carried out as follows:

- predict the potential environmental effects for each alternative method (Section 3);
- identify the preferred alternative based on a comparative evaluation of the potential environmental effects of each alternative method (Section 4); and
- conduct an effects assessment on the preferred alternative, including the identification of mitigation measures and monitoring programs (Sections 4 and 5).

2.1 Predict Potential Environmental Effects for Alternative Methods

The potential environmental effects for each alternative method are identified based on the application of the evaluation criteria, indicators and data sources in the approved ToR and based on the maximum allowable waste receipt level for the EOWHF landfill. The potential effects can be positive or negative, direct or indirect, and short- or long-term. Mitigation measures are identified to minimize or mitigate the potential effects and then the net effects are evaluated taking into consideration the application of mitigation measures.

2.1.1 Study Areas

The existing EOWHF is located within the Township of North Stormont, approximately 5 km north-northwest of the village of Moose Creek, Ontario, and 5 km east of the village of Casselman, Ontario, on the western half of Lot 16 and Lots 17 and 18, Concession 10, Township of North Stormont, United Counties of Stormont, Dundas and Glengarry, near the intersection of Highway 417 and Highway 138. The municipal street address for the facility is 17125 Laflèche Road, Moose Creek, Ontario. The lands to the east of the existing EOWHF being considered for the future development include the eastern half of Lot 16, Lots 14 and 15, and the majority of Lot 13 of Concession 10. The existing EOWHF encompasses a site area of 189 hectares, while the lands to the east of the existing EOWHF being considered for future development include approximately 240 hectares.

The study areas include the existing site as well as potentially affected surrounding areas. The on-site and off-site study areas identified for the EA in the approved ToR are as follows (**Figure 2-1**):

- On-site Study Area – the existing EOWHF, and the future development area comprising the eastern half of Lot 16, Lots 14 and 15, and the majority of Lot 13 of Concession 10 east of the EOWHF; and
- Off-site Study Area – the lands in the vicinity of the future development extending approximately 1 kilometre from the On-site Study Area.

For the social component of the Socio-Economic Environment effects assessment, the Off-site Study Area includes all properties located within 1 km of the On-site Study Area. For properties that are bisected by the 1 km radius line, the entire property is included in the Off-site Study Area, although not shown on **Figure 2-1**. The 1 km radius was deemed appropriate for this study to provide local context.

For the economic component of the Socio-Economic Environment effects assessment, the Off-site Study Area comprises the area within the municipal boundaries of the United Counties of Stormont, Dundas and Glengarry, the City of Cornwall, and the areas within the Municipality of Casselman, Township of Russell, and The Nation Municipality within the United Counties of Prescott and Russell as shown on **Figure 2-2**.

Figure 2-1. Study Areas for the Social Environmental Component

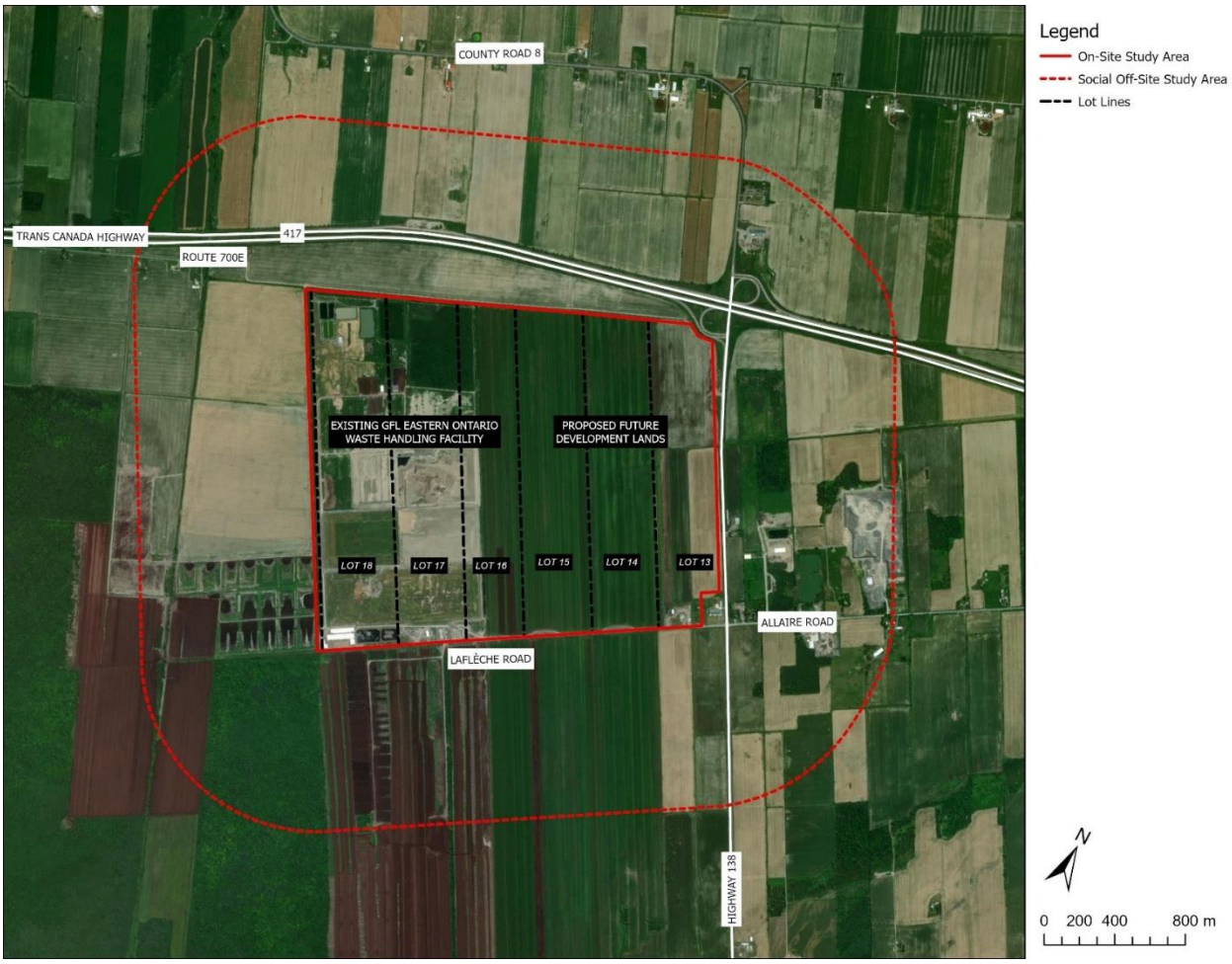
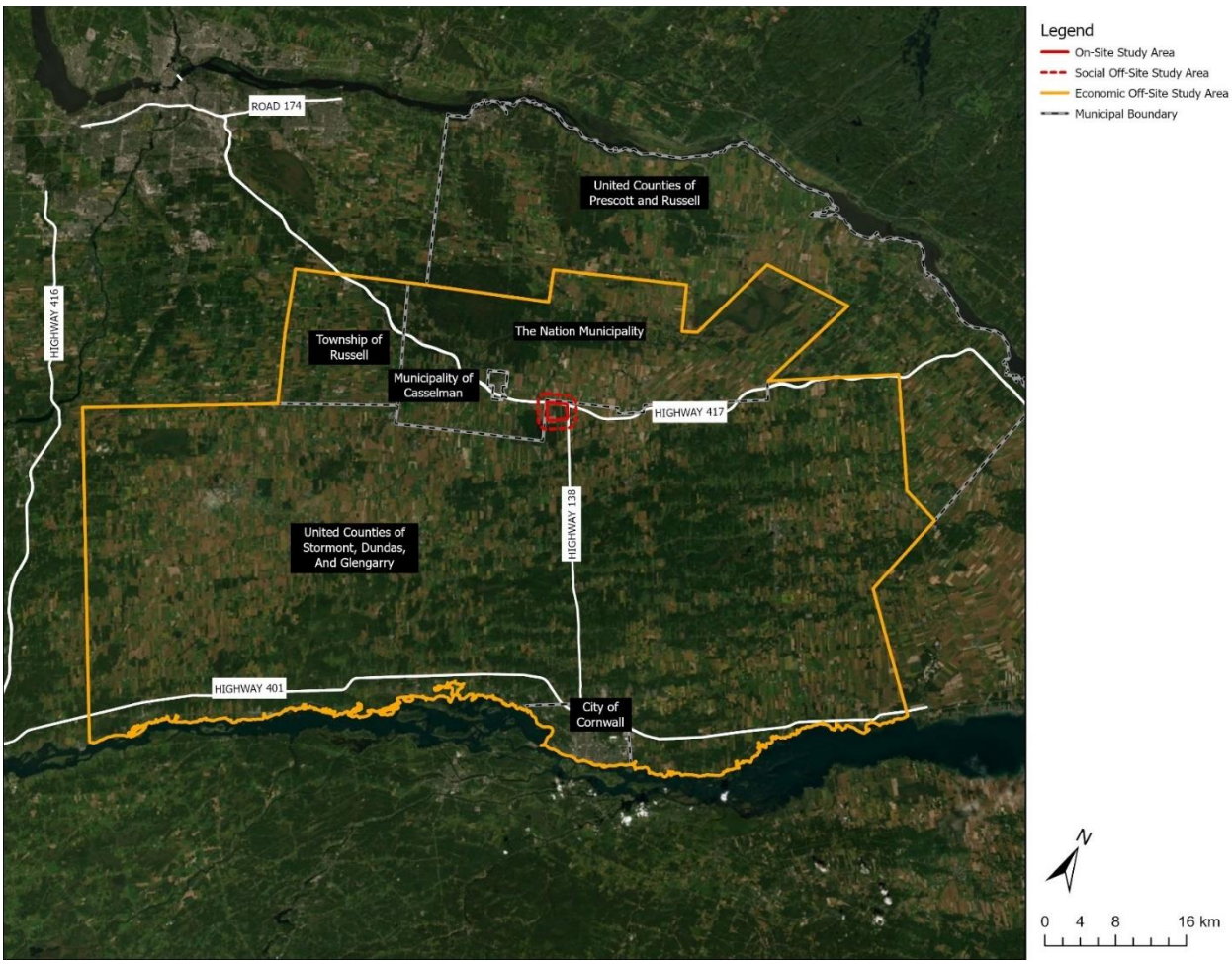


Figure 2-2. Study Areas for the Economic Environmental Component



2.1.2 Evaluation Criteria, Indicators and Data Sources

The evaluation criteria, rationale, indicators and data sources used for the Socio-Economic Environment effects assessment as per the approved ToR are provided in **Table 2-1**.

Table 2-1. Evaluation Criteria, Indicators and Data Sources for the Socio-Economic Environment

Evaluation Criteria	Rationale	Indicators	Data Sources
Socio-Economic Environment			
Economic			
Economic effects on/benefits to local community	The continued operation of the landfill could have economic effects on and/or provide economic benefits to the local community, which may include an increase or decrease in employment.	• Employment at site (number and duration) • Local business employment • Displacement of business activities • Opportunities for the provision and procurement of products and/or services • Financial contributions to the local community	• Census and municipal data for the Township of North Stormont, United Counties of Stormont, Dundas and Glengarry, the City of Cornwall, and The Nation Municipality and Municipality of Casselman in the United Counties of Prescott-Russell • Proposed facility characteristics • Landfill design and operations data
Social			
Effects on local community	Waste disposal facilities can potentially affect local residents and businesses in the vicinity of the site.	• Number of residents • Number and type of local businesses • Predicted changes to use of property	• Mapping and field reconnaissance • Census information and municipal data • Proposed facility characteristics • Landfill design and operations data
Visual Impact of Facility	The contours of the waste disposal facility may affect the visual character of a landscape.	• Predicted changes in perceptions of landscapes and views	• Site grading plans • Aerial mapping and field reconnaissance • Proposed facility characteristics • Existing landfill design and operations data • Regional topographic mapping

2.1.3 Key Design Considerations and Assumptions

The alternative methods of carrying out the undertaking are described in detail in the CDR. Regarding the alternative methods, the key design considerations and assumptions as they relate to the Socio-Economic Environment are described below.

Key design considerations for the Socio-Economic Environment include construction or operation activities that could affect the local community from an economic or social perspective or the visual character of the landscape. A brief summary of existing conditions as it relates to the criteria and indicators presented in **Table 2-1** is provided for context below. The existing conditions information provided is extracted from the Socio-Economic Existing Conditions Report (HDR Corporation, 2022) unless otherwise stated.

Summary of Existing Conditions

Local Community Economics

North Stormont has the smallest labour force, the lowest unemployment rate, and highest participation rate compared to other municipalities in the United Counties of Stormont, Dundas and Glengarry. Based on the projected place of work employment by municipality within United Counties of Stormont, Dundas and Glengarry from 2016 to 2036[3], all municipalities are expected to experience a declining number of jobs as the economy changes and people commute to other municipalities including the Cities of Cornwall and Ottawa.

The top three industry sectors in the United Counties of Stormont, Dundas and Glengarry are health care and social assistance, retail trade, and manufacturing, providing 36% of the total employment. Waste management is included within the administrative and support, waste management and remediation services industry, which comprises approximately 5% of employment within the United Counties.

The EOWHF has been identified as a major employer in the United Counties of Stormont, Dundas and Glengarry (excluding the City of Cornwall). GFL employs approximately 40 staff from several municipalities surrounding the EOWHF: approximately 79% of the EOWHF's employees reside in the United Counties of Stormont, Dundas and Glengarry (including the City of Cornwall); and approximately 21% reside in the United Counties of Prescott and Russell. Most employees reside within a 30-minute drive of the EOWHF, and over a third have been employed at the EOWHF for more than 6 years.

GFL supports a number of community initiatives and participates in several programs and committees in the local area. The EOWHF provides significant economic contributions to the local economy through provision of jobs, purchase of local goods and services, community support, payment of property taxes, and financial contributions to the local municipality. GFL provides cost-effective and environmentally-secure waste management services[4] to municipalities and businesses across Eastern Ontario, including over 500 villages, towns, and cities. In addition, the EOWHF also provides landfill disposal capacity to Indigenous communities within the region.

Local Community Social Environment

The EOWHF is located in a predominantly rural area with few neighbours and some agricultural, quarry and recycling operations. The rural area is predominantly agricultural, with cash crops of corn and soybeans being the main agricultural activity. The site is adjacent to peat and sod farming operations.

The population of North Stormont is approximately half of the other municipalities in the United Counties of Stormont, Dundas and Glengarry and has remained relatively static

[3] United Counties of SDG. (February 4, 2018). Official Plan: Consolidated July 18, 2018. Retrieved March 31, 2020, from https://www.sdgcounties.ca/sites/default/files/documents/SDG%20Official%20Plan%20-%20V.4.0%20Consolidated_0.pdf.

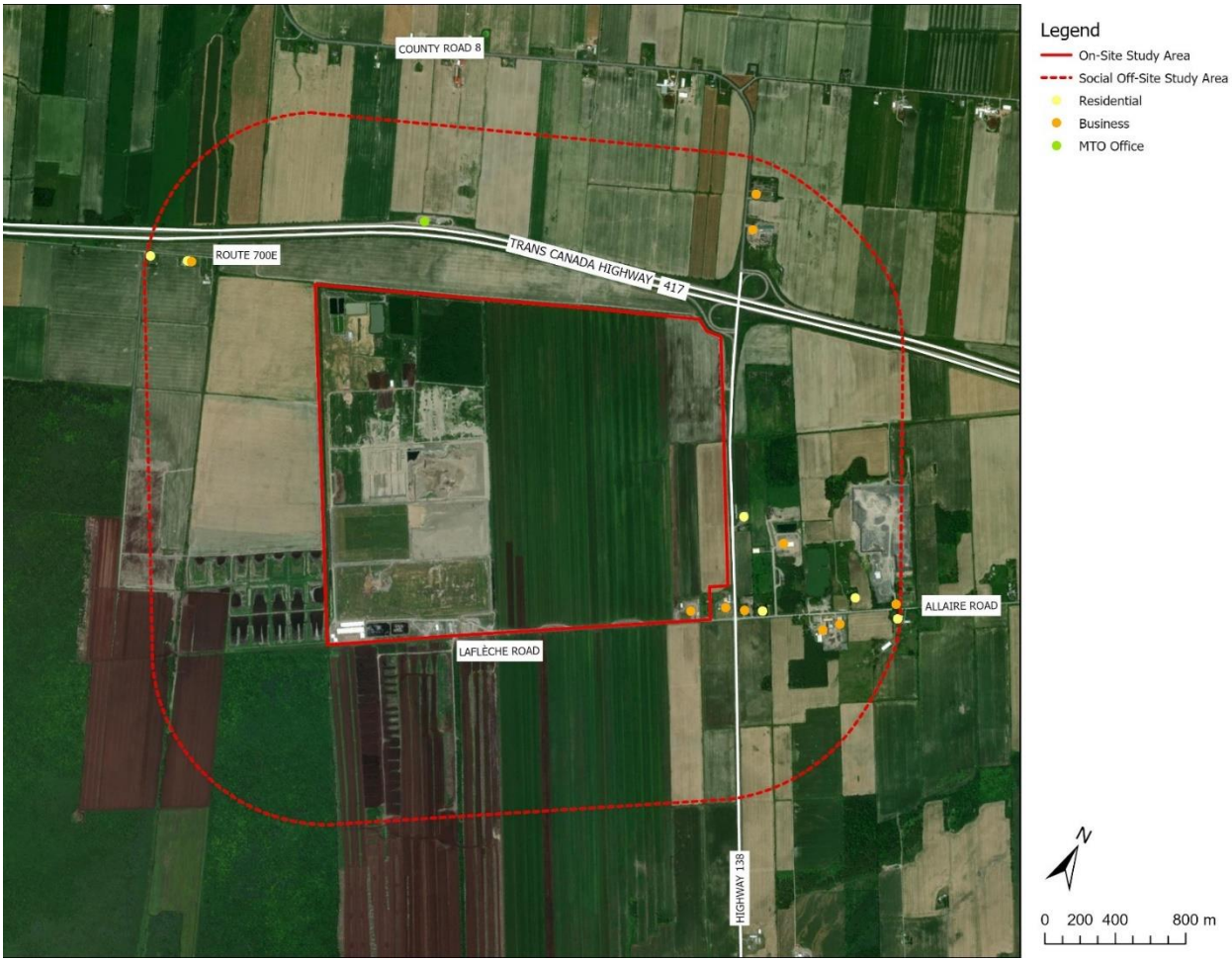
[4] These services include waste collection, organics composting, recycling, tire collection, and residential drop-offs.

over the last few years. In general, the municipalities in the United Counties of Stormont, Dundas and Glengarry have experienced low population growth since 2016 with the exception of North Stormont and South Stormont at 7.7% and 3.5% growth, respectively. The Township of North Stormont has a population of approximately 7,400 (2021) and had the highest rate of growth (i.e., highest positive net change) of all the surrounding municipalities in the United Counties of Stormont, Dundas and Glengarry since 2016.

There are six existing residences within the Social Off-site Study Area, located to the northwest and east of the EOWHF and future development lands. These residences are shown as yellow dots on **Figure 2-3**.

Based on an average of 2.3 people per household[5], approximately 14 people are predicted to be living within the Social Off-site Study Area. There are a number of properties located to the north of the EOWHF along Concession 8 that partially fall within the Social Off-site Study Area; however, the physical residences are located beyond the 1 km distance from the On-site Study Area. As of the end of 2021, no construction of additional residences is planned within the Social Off-site Study Area.

Figure 2-3. Map of Potential Receptors within the Social Off-site Study Area



[5] Statistics Canada, 2016 Census, Average number of persons in private households for United Counties of Stormont, Dundas and Glengarry.

A total of 14 businesses are located within the Study Areas, one within the On-site Study Area and 13 within the Social Off-site Study Area, which are shown as orange dots on **Figure 2-3**. The majority of these businesses are located east and northeast of the On-site Study Area. There are no recreational resources (e.g., parks, walking trails), schools, churches or other community resources located in the On-site or Social Off-site Study Areas or in the vicinity of the EOWHF.

Various nuisance-related effects are typically associated with landfills (e.g., litter, vectors and vermin, noise, odour, and dust) and can affect residents and their use of property. A brief summary of existing conditions as they relate to these issues is provided below.

Noise: The On-site Study Area is bounded on two sides by highways (Highways 417 and 138) and on one side by a local road (Laflèche Road); all of which contribute towards sources of noise from car and truck traffic. Other sources of noise in the area are agricultural equipment (e.g., tractors, combines, etc.), and equipment used for peat extraction and sod farming on adjacent agricultural properties. Within the EOWHF, sources of noise from the landfill operations include the operation of waste trucks, excavation equipment, and compactors. The site is operated in accordance with the MECP “Noise Guidelines for Landfill Sites”.

Dust: Depending upon weather conditions and on-site operations and activities, there is potential for dust to be generated at the EOWHF. The EOWHF is surrounded by agricultural operations that can also contribute to increased dust levels due to the area’s peat soil, sand access roads, land preparation, sod farming, and crop harvesting.

Odour: Odour at the EOWHF may originate from waste accepted at the landfill and organics processing facility as well as some construction and operational activities, including screening and turning of compost. There are occurrences of other ambient odours in the vicinity of the EOWHF related to nearby agricultural operations such as fertilizer applications. Each year, GFL conducts a landfill gas well installation project, which requires the disturbance of the waste mass. This type of project typically results in a brief increase in odour emissions before a significant and sustained decrease once the wells are commissioned, and are typically carried out during the winter when people are inside.

Litter: GFL employs a number of effective mitigation measures to control litter at the EOWHF. The presence of vectors and vermin (e.g., rodents, seagulls) at the landfill site can sometimes be a concern due to the potential to create a nuisance to surrounding residences and agricultural activities. GFL uses a number of effective control measures to discourage and prevent the presence of vectors and vermin.

GFL strives to be a good community partner through the establishment of preventive measures and prompt attention to nuisance complaints to mitigate adverse effects to the surrounding community. GFL employs a variety of proactive measures to minimize nuisance effects related to noise, dust, odour, litter, and vectors and vermin on the surrounding environment. From 2015 through 2021, there were only 20 complaints reported, the majority of which (18) were related to odour, while one complaint was related to birds and one was related to litter. All of the odour complaints except for one were made prior to 2019. No complaints were received related to noise or dust.

Visual Landscape

The EOWHF is situated on land that is relatively flat. Land use surrounding the facility consists of agriculture (corn and soybeans), peat extraction, and sod farming. The operational EOWHF is relatively unobtrusive and has a low profile; it is difficult to see the landfill, particularly from the south, east, and west viewpoints. There are small woodlots and tree plantings surrounding the EOWHF, particularly along the north and south side of Highway 417, which obstruct the view of the landfill. There are currently no tree plantings or berms along Highway 417 or Highway 138 to obstruct the views of the future development lands. The views of the future development could potentially be obtrusive particularly from the eastern properties and Highway 138. Residences along Allaire Road are surrounded by woodlots and tree plantings which obstruct the view of the future development site.

Design Considerations and Assumptions

The construction and operation of Alternative Methods 1 and 2 will take place within the On-site Study Area. Both alternative methods will continue to use established operating procedures currently in place at the EOWHF (e.g., operating hours, nuisance control measures, etc.) and will maximize the use of existing site infrastructure. The type and number of landfill equipment used at the existing landfill will continue to be used for the future development.

No additional employment positions will be created as a result of the future development beyond the current number of positions; however, the site is expected to operate for an additional 20 years thereby extending the timeframe of employment, and will continue to require goods and services from surrounding communities.

Vehicles currently travel to the site via Highway 417, Highway 138 and Laflèche Road, or via Highway 401, Highway 138 and Laflèche Road. No changes to traffic volumes beyond currently-approved levels or changes to waste haul routes are anticipated as a result of the future development.

Landfill hours of operation are not anticipated to change as a result of the future development:

- normal hours of operation for receiving waste at the site are 7:00 a.m. to 6:00 p.m. Monday to Friday and 7:00 a.m. to 5:00 p.m. on Saturdays; and
- normal hours of operation for on-site equipment to allow for daily site preparation and placement of daily/interim cover are 6:30 a.m. to 6:30 p.m. Monday to Friday and 6:30 a.m. to 5:30 p.m. on Saturdays.

The site is closed on Sunday and all statutory holidays . The hours of operation may be reduced if waste quantities are consistently low over an extended period.

GFL employs a variety of proactive measures to minimize nuisance effects related to noise, dust, odour, litter, and vectors and vermin on the surrounding environment. These established measures, detailed below, are expected to continue at the EOWHF and future development until landfill closure.

Noise Control Practices

The expanded landfill will operate according to the MECP's Noise Guidelines for Landfill Sites. Throughout the landfilling of Stages 5 through 8 or 9, standard noise control practices will be applied such as:

- Minimizing equipment noise by carrying out regular manufacturer-specified maintenance;
- Confining construction activities under normal conditions to regular operating hours, weather permitting;
- Developing the stages such that the landfill mound acts as a barrier to minimize the noise impact between equipment and hauling routes and the site perimeter, where possible;
- Constructing and maintaining screening buffers for Stages 5 through 8 or 9 along the northern, eastern, and southern portions of the site perimeter;
- Maintaining the existing screening berms along the northern and western portions of the existing EOWHF site perimeter for Stage 5; and
- Planting trees to enhance noise screening.

Dust Control Measures

Dust is an inherent part of landfilling operations, particularly during long dry spells when rain does not wet down well-travelled roads. The main source of dust is on-site access roads, particularly if unpaved, and equipment movement around the landfill working area. Dust control measures may include the following:

- The use of gravel as the surface material of unpaved roads, which includes the areas from the scales to the working area;
- The application of water or dust suppressants on roads during dry periods as necessary;
- Regular maintenance of roads as part of normal site operations;
- Speed limits of 19 km/h imposed to reduce the agitation of dust and particulates from the road; and
- Operating on the working face of the landfill below the grade level of the surrounding lands on windy days, where possible.

The distance from Highway 138 to the proposed entrance to the future development is approximately 500 m, which is anticipated to minimize the amount of mud tracked from the site onto public highways. GFL may also consider use of wheel wash equipment to minimize mud tracking, which has not been required to-date.

Odour Control

The potential sources of odour during the active phases of each stage are waste at the working face and landfill gas (LFG). Waste that is brought to the site with a strong odour is placed at the toe of the working face and covered immediately with other less

odourous waste or soil cover. The application of cover soils at the end of the working day also controls odour.

GFL carries out a consistent landfill surface scan program to identify and repair leaks in the landfill cover to maximize LFG capture. Any leaks in the cover detected as a result of these regular inspections will be repaired to reduce emission of LFG. The LFG collection system will be installed immediately following the filling of the first two cells and will be connected to the existing on-site LFG to Energy facility while the excess gas will be diverted to the on-site flare. The LFG connection system will be progressively expanded each year as site development occurs. The low permeability final cover will be constructed progressively and will also serve to minimize the emission of LFG-related odours.

GFL will continue to strive to keep odours to a minimum through the continued utilization of the following additional measures:

- Negative air pressure in the composting facility;
- Exterior biofilter system for the compost facility;
- Daily cover used on tipping face;
- Odour control misting systems;
- Avoidance of processing of leaf and yard waste material when southerly winds are occurring;
- Continued use of a full-scale weather station to gauge wind direction and velocity; and
- Monitoring of weather conditions that may increase potential for odours with certain activities.

Litter Management

Litter control for the future development is anticipated to include the following:

- The working face of the landfill will be kept to a minimum width to reduce litter generation, and lightweight waste material will be covered with other waste or soil, as soon as possible.
- Waste trucks will be required to properly cover their waste loads to prevent waste from escaping and will only be permitted to remove tarps in a dedicated tarp removal area close to the working face. Trucks with loads not properly secured will be refused entry to the landfill and these occurrences will be recorded.
- Portable litter control fences will be placed around, and immediately downwind, of the working area to capture wind-blown litter.
- Perimeter fencing will be placed in strategic areas around the future development lands, which can also act as litter fencing.
- Litter pickup will be conducted as required with extra staff collecting litter following windy days and in the spring after snowmelt when snow is no longer covering litter. Special attention will be given to the spaces between portable and permanent fences, and litter control fences will be cleaned regularly.

- Litter will be collected from off-site adjacent properties on an as-needed basis.

Vectors and Vermin Management

The presence of vectors and vermin (e.g., rodents, seagulls) at a landfill site can sometimes be a concern due to the potential to create a nuisance to surrounding residences and agricultural activities. Animals may be attracted to a landfill because it provides a habitat for foraging; however, because the working area is compacted and covered daily with soil, rodents and insects do not tend to persist at modern landfills and do not generally create issues.

Birds, such as ring-billed and herring gulls, may become a nuisance by attending adjacent or nearby properties, creating noise, fouling those sites, and causing damage to earthworm populations on agricultural lands. To address the control of gull numbers, a bird control program was initiated by GFL, which will continue for the future development.

GFL uses a number of control measures to discourage and prevent vectors and vermin including:

- Minimizing the size of the working face;
- Using daily and intermediate cover materials;
- Encouraging growth of tall grass and vegetated banks at the stormwater management ponds to discourage birds from loafing;
- Placing specified risk material (SRM) immediately into the landfill upon receipt and covering SRM with sufficient cover material;
- Using bird-scaring pyrotechnics (e.g., bangers) to discourage gulls from gathering overhead and from congregating on tipping faces and loafing areas.
- Using falconry contractors with trained birds of prey to frighten gulls away from the landfill;
- Daily observations of seagull numbers; and
- Obtaining damage or danger permits from the Canadian Wildlife Service on an annual basis.

2.2 Comparative Evaluation and Identification of the Preferred Alternative

The two alternative methods are comparatively assessed and evaluated using the criteria and indicators to identify the preferred alternative. The differences in the potential environmental effects remaining following the implementation of potential mitigation/management measures (i.e., net effects) are used to identify and compare the advantages and disadvantages of each alternative method.

The net environmental effects are utilized in a comparison of the two alternative methods to one another at the criteria and indicator level for each discipline. The following two--step method was applied to carry out the comparative evaluation for the Socio-Economic Environment:

1. Identify the predicted net effect(s) associated with each alternative method for each indicator and assign a preference rating (i.e., Preferred, Not Preferred, No Substantial Difference); and
2. Rate each alternative method at the criteria level (i.e., Preferred, Not Preferred, No Substantial Difference) based on the identified preference rating for each indicator and provide a rationale.

2.3 Effects Assessment of the Preferred Alternative

An assessment of the environmental effects of the preferred alternative is carried out considering the same criteria, indicators and data sources, taking into account potential mitigation/management measures and cumulative effects. The effects assessment of the preferred alternative will be presented in the EA Study Report.

3 Net Effects Assessment

To identify the potential effects of the EOWHF future development on the Socio-Economic Environment, the proposed future development is examined to determine if it will have:

- an economic effect or benefit on the local community through employment opportunities (new or continued), displacement of business activities, opportunities for the provision and procurement of products and/or services, and financial contributions to the local community;
- an effect on the local community through effects on residents or businesses, or predicted changes to use of property; or
- a visual impact through changes in perceptions of landscapes and views.

The results of the net effects assessment for each alternative method are provided in Sections 3.1 and 3.2.

3.1 Alternative Method 1

The net effects assessment for Alternative Method 1 is provided below for the Economic and Social components of the Socio-Economic Environment and is summarized in **Table 3-1**.

3.1.1 Economic Environment

GFL has successfully operated the EOWHF since 1999 and it has become an important addition to the local community by creating employment opportunities, hosting educational events and facility tours, contributing financially to the Township of North Stormont, and supporting local initiatives within the community.

Economic effects on or benefits to the local community resulting from a project can occur through employment opportunities (new or continued), displacement of business activities, opportunities for the provision and procurement of products and services, and financial contributions to the local community.

Employment

Based on employment projections between 2016 and 2036, all municipalities within the United Counties of Stormont, Dundas and Glengarry are expected to experience a declining number of jobs as the economy changes and people commute to other municipalities including the Cities of Cornwall and Ottawa[6].

Although North Stormont has the smallest labour force compared to other municipalities within United Counties of Stormont, Dundas and Glengarry, it has the lowest unemployment rate and highest participation rate. Alternative Method 1 can help sustain a healthy participation rate within North Stormont and surrounding municipalities by continuing to provide job opportunities, both direct and indirect, as the future development will extend the life of the EOWHF's landfill.

GFL employs staff from several municipalities surrounding the EOWHF and aims to provide stable long-term employment. A total of approximately 40 employees currently work at the EOWHF. Approximately 69% of current employees are residents of the United Counties of Stormont, Dundas and Glengarry, 21% reside in the United Counties of Prescott and Russell, and 10% reside in Cornwall. Over a third of the EOWHF employees have been employed at the facility for more than 6 years.

Alternative Method 1 is not anticipated to result in any changes to the number of employment positions at the EOWHF; however, the facility is expected to operate for an additional 20 years thereby extending the duration of employment at the site and through procurement from local businesses.

Displacement of Business Activities

A total of 14 businesses are located within the Study Areas, one within the On-site Study Area and 13 within the Social Off-site Study Area, which are shown as orange dots on **Figure 2-3**. The local business located within the On-site Study Area, Manderley Turf Products, leases the majority of the future development lands for the production of sod and turf products and a portion of their operations would be displaced by the future development. The partial displacement of Manderley Turf Products' operations will be phased over time as the stages are developed, and will be mitigated through the continued provision of lands for sod production by agreement. Another portion of the future development lands are leased by the former property owner for an agricultural operation. Although this agricultural operation will also be displaced, a lease is in place detailing exit arrangements.

Provision of Products and/or Services

GFL provides cost-effective and environmentally-secure waste management services to municipalities and businesses across Eastern Ontario, including over 500 villages, towns, and cities. These services include waste collection, organics composting, recycling, tire collection, and residential drop-offs. The EOWHF's customer base includes municipalities within the United Counties of Stormont, Dundas and Glengarry, United

[6] United Counties of SDG. (February 4, 2018). Official Plan: Consolidated July 18, 2018. Retrieved March 31, 2020, from https://www.sdgcounties.ca/sites/default/files/documents/SDG%20Official%20Plan%20-%20V.4.0%20Consolidated_0.pdf

Counties of Prescott and Russell, United Counties of Leeds and Grenville, Lanark County, Renfrew County, Lennox and Addington County, Hastings County and Prince Edward County. The majority of these municipalities have long term (e.g., 15 years) waste disposal contracts at the EOWHF through their responsible authority (i.e., Township, Town, City or County). In addition, the EOWHF also provides landfill disposal capacity to Indigenous communities within the region.

The EOWHF has an existing landfill gas-to-energy facility. GFL, via its business partner, has a contract with the Ontario Power Authority as part of the Feed-in-Tariff (FIT) program to produce 4.2 MW of renewable energy from methane collected from the landfill and the facility is operating at its peak electrical production. The facility is designed to allow expansion and doubling of electrical production; however, the Ontario government has cancelled the FIT program and no new contracts are being issued. The plant is operating at its peak electrical production and has the capacity to manage additional gas volumes collected from future landfill development via in-place flare stacks.

Alternative Method 1 will allow for the continued provision of these waste management and energy services for an additional 20 years.

Procurement of Products and/or Services and Local Business Employment

GFL endeavours to utilize local businesses and services in support of its operation to the extent possible. GFL relies on a variety of vendors to maintain its operations at the EOWHF, contributing up to approximately $15 million annually to the local economy through the procurement of local goods and services.

In general, GFL utilizes the following goods and services from the local community:

- Utilities (i.e., electricity, telephone, propane, power);
- Stone and sand aggregate materials;
- Machinery and parts;
- Labour; and
- Consulting and lab services.

GFL procures products and services from the following local businesses within 1 km of the EOWHF (i.e., within the Social Off-site Study Area): Calco Soils; GFL Environmental Inc. Soil Remediation Facility; Moose Creek Tire Recycling; and AL Blair Construction Ltd.

Alternative Method 1 will allow for the continued procurement of these products and services for an additional 20 years, resulting in a contribution of as much as $300 million to the local economy.

Financial Contributions to the Local Community

GFL supports a number of community initiatives and participates in several programs and committees in the local area. Initiatives that GFL has been involved in and/or provided financial support to the community through include:

- Supporting local charities, sports teams, community events;

- Participating and/or supporting environmental committees and events; and
- Providing financial support to municipalities, schools, and educational institutions.

Details are provided in the Socio-Economic Existing Conditions Report (HDR Corporation, 2022).

GFL supports the Township of North Stormont through a host community agreement and payment of municipal taxes. GFL entered into a 20-year agreement (i.e., the Host Community Agreement) with the Township of North Stormont in 2001 under which GFL agreed to provide the Township with an annual monetary contribution. With the expiry of the 2001 Host Community Agreement in 2021, a new 20-year Host Community Agreement was negotiated between GFL and the Township of North Stormont to take effect in 2022. Under the new Agreement, GFL will continue to provide an annual financial contribution to the Township and will also make direct financial contributions in the form of public donations as follows:

- $25,000 donation to the Iroquois Cenotaph project in 2022;
- $500,000 donation to the Moose Creek Recreation Facility in 2022;
- $500,000 donation to the Moose Creek Recreation Facility in 2023;
- $130,000 for a fire rescue van for the Finch Fire Station in 2024; and
- $130,000 for a fire rescue van for the Crysler Fire Station in 2024.

Alternative Method 1 will allow GFL to continue to financially contribute to the local community.

3.1.2 Social Environment

Waste disposal facilities can potentially affect local residents and businesses in the vicinity of the site. Population can increase or decrease as a result of changes to employment. Residents and their use of property can be affected through disturbance from noise, dust, odour, litter, vectors and vermin, and changes to the visual landscape.

Population

North Stormont has a population of 7,400 (2021) and had the highest rate of growth (i.e., highest positive net change) of all the surrounding municipalities in the United Counties of Stormont, Dundas and Glengarry between 2016 and 2021. The EOWHF is located in a rural area. There are six existing residences within the Social Off-site Study Area; however, GFL has acquired the residence located directly east of the EOWHF future development lands (1397 Highway 138, shown as a yellow dot on **Figure 2-3**), which will no longer be in use as a residence at the start of construction. No new residential developments are planned within the Social Off-site Study Area.

Alternative Method 1 is not anticipated to result in any changes to the number of employment positions at the EOWHF; consequently, no changes to population are anticipated within the Social Off-site Study Area as a result of employment for the EOWHF future development.

Local Businesses

As noted in Section 3.1.1, 14 businesses are located within the Study Areas, one within the On-site Study Area and 13 within the Social Off-site Study Area. These businesses include administrative offices, commercial operations, recycling and remediation, aggregate and soil supply, and waste and equipment storage.

The operations of one local business, Manderley Turf Products, will be displaced by the future development; however, this displacement will be phased over time as the stages are developed, and will be mitigated through the continued provision of lands for sod production. At this time, the location of these additional lands has not been identified. Manderley Turf Products owns lands on the south side of Laflèche Road that are used for sod production, so it is assumed that the future development will result in the partial displacement of one local business and its business type (sod production) from the Social Off-site Study Area.

The effect of the EOWHF future development on the local economy through procurement of products and/or services from local businesses is described in Section 3.1.1. Alternative Method 1 will allow for the continued procurement of products and services for an additional 20 years.

Noise

GFL employs a variety of proactive measures to minimize nuisance effects related to noise as outlined in Section 2.1.3. From 2015 through 2021, no complaints were received related to noise. The site's operating hours will remain unchanged and no additional large equipment will be required for either alternative method.

The Noise Effects Assessment Report (HGC Engineering, 2022) indicated that there will be a minor increase in noise as a result of the future development; however, the noise level will be below the MECP's sound level limits at the closest residences. Consequently, noise from Alternative Method 1 is not anticipated to have an effect on residents and their use of property.

Dust

GFL employs a variety of proactive measures to minimize nuisance effects related to dust as outlined in Section 2.1.3. From 2015 through 2021, no complaints were received related to dust.

The construction and operation of Alternative Method 1 will generate releases of fugitive dust, mainly associated with road dust from on-site haul roads. The modelling results in the Air Quality and Odour Effects Assessment Report (Ramboll Canada Inc., 2022) indicated that the concentration of Suspended Particulate Matter (SPM) (i.e., dust) exceeded the relevant standard by 88% at the site boundary, but fell below the standard within 350 m. Concentrations at the sensitive receptors (i.e., residences) are not expected to exceed the relevant standard. Consequently, dust from Alternative Method 1 is not anticipated to have an effect on residents and their use of property.

Odour

There are a number of existing potential sources of odour in and around the Social Off-site Study Area which have the potential to generate odour emissions under adverse circumstances. From 2015 through 2021, there were 18 complaints received related to odour. All of the odour complaints except for one were made prior to 2019.

For the effects assessment, the worst-case conditions were modelled for each alternative method, and included the new composting facility location on lands south of the existing EOWHF. The Air Quality and Odour Effects Assessment Report (Ramboll Canada Inc., 2022) concluded that Alternative Method 1 could result in a small increase in off-site odour concentrations relative to existing conditions (maximum 1.64 ou/m^3 vs. 1.47 ou/m^3, a 12% increase, at the most impacted receptor), which is predicted to occur 1.1% of the time (474 10-minute exceedances over 5 years). Odour is non-linear and is based on a logarithmic scale; therefore, anything less than a factor of 2 is generally not noticeable, and a 12% increase would be imperceptible. In addition, the maximum odour values tend to occur during calm meteorological periods with low winds, which typically occur during nighttime hours.

GFL employs a variety of proactive measures to minimize nuisance effects related to odour as outlined in Section 2.1.3, and these measures are expected to continue as part of the future development to mitigate the potential odorous emissions from on-site operations. GFL will continue to provide prompt attention to nuisance complaints to mitigate any adverse effects to the surrounding community.

Although Alternative Method 1 could result in a minor increase in odour concentrations at off-site receptors, the increased concentrations are minimal (as outlined above) so they would be imperceptible and unlikely to result in a change in use of property.

Litter

Existing litter control measures are outlined in Section 2.1.3. These measures are expected to continue throughout the operation of the EOWHF future development. The working face of the landfill will continue to be minimized to reduce litter generation, and daily waste cover and litter fencing will be used.

From 2015 through 2021, only one complaint was received related to litter. GFL will continue to provide prompt attention to nuisance complaints to mitigate any adverse effects to the surrounding community.

It is anticipated that Alternative Method 1 will have no effect on residents and their use of property from litter.

Vectors and Vermin

The existing control measures for vectors and vermin outlined in Section 2.1.3 are expected to continue throughout the operation of the EOWHF future development. The working face of the landfill will continue to be minimized to reduce the presence of vectors and vermin.

From 2015 through 2021, only one complaint was received related to birds. GFL will continue to provide prompt attention to nuisance complaints to mitigate any adverse effects to the surrounding community.

It is anticipated that Alternative Method 1 will have no effect on residents and their use of property from vectors and vermin.

Visual Landscape

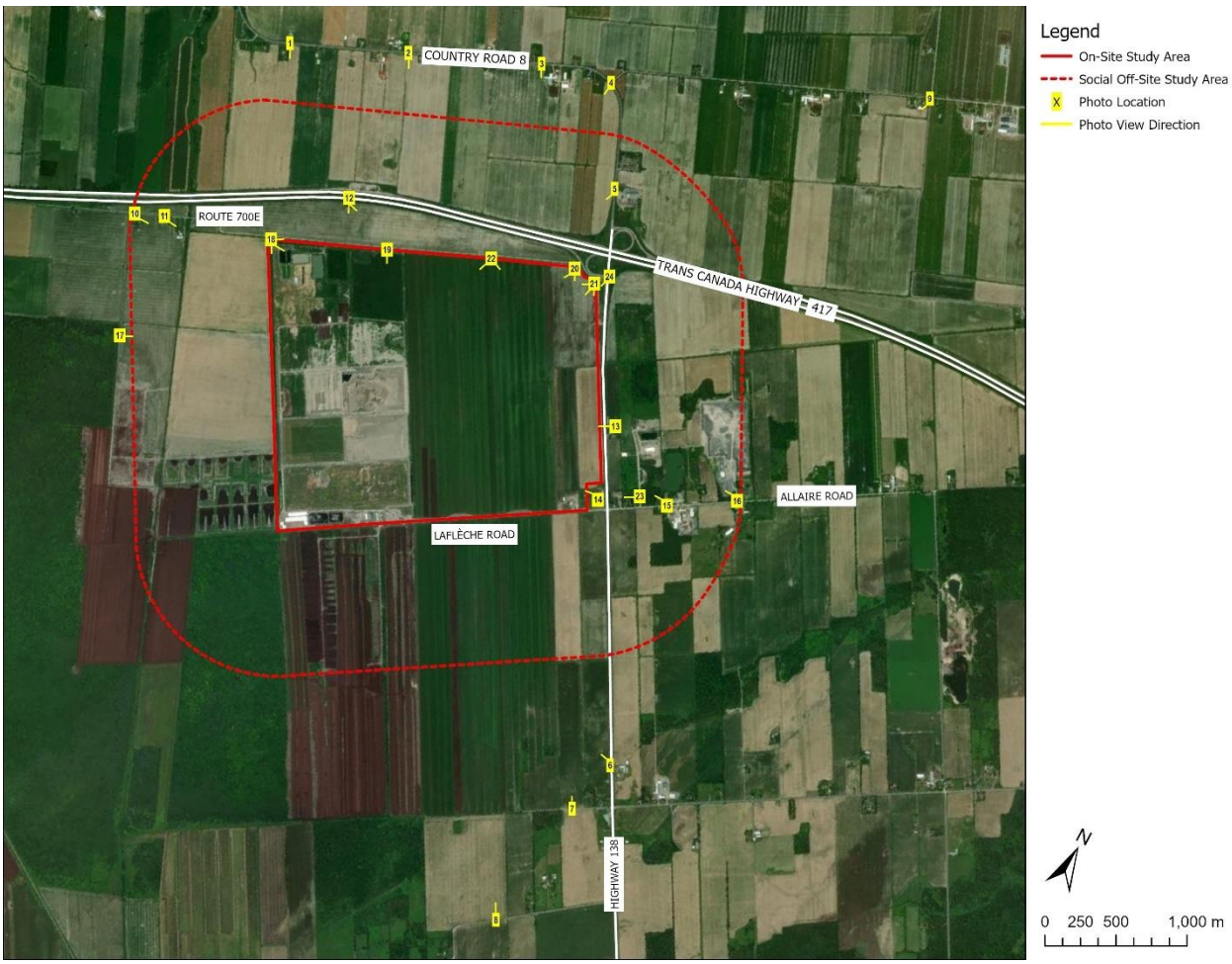
The contours of the waste disposal facility may affect the visual character of the landscape. The EOWHF is situated on land that is relatively flat, surrounded by agricultural lands. The existing EOWHF landfill has a low profile, which makes it difficult to see, particularly from the south, east, and west viewpoints. The overall height of the existing landfill is approximately 15 m, or 80 metres above sea level (masl). Alternative Method 1 comprises five stages as shown on **Figure 1-1**, with the following maximum elevations:

- Stage 5 – 78.5 masl;
- Stages 6 through 8 – 81 masl; and
- Stage 9 – 77.5 masl.

There are currently no tree plantings or berms along Highway 417 or Highway 138 to obstruct the views of the future development lands; therefore, the views of the future development could potentially be obtrusive particularly from the eastern properties and Highway 138. Residences along Allaire Road are surrounded by woodlots and tree plantings which obstruct the view of the future development lands.

As part of the characterization of existing conditions, photos were taken of the EOWHF and future development lands from various locations within the Social Off-site Study Area. These locations are shown on **Figure 3-1**.

Figure 3-1. Photo Locations



For the purposes of the visual assessment, the following photo locations were selected for use in the visual modelling:

- Location 6, which although outside of the Social Off-site Study Area, provides a view of the facility from the south while travelling northbound along Highway 138;
- Location 11, which represents the view from the closest residence northwest of the existing EOWHF site;
- Location 12, which provides a view of the facility from the north while traveling along Highway 417;
- Location 13, which represents the view from the closest residence east of the future development lands and from Highway 138 directly adjacent to the site;
- Location 17, which provides a view of the facility from the west;
- Location 23, which provides a view of the facility from the east and represents the view from the closest residence along Allaire Road (refer to **Figure 2-3**); and
- Location 24, which represents the view of the future development lands from the highway interchange at Highways 138 and 417.

For each photo location, a visual representation of the EOWHF future development was created from the appropriate perspective based on the conceptual design shown on **Figure 1-1**, which was then incorporated into the photo taken from that location. The future development was rendered as it would be at closure, with all stages fully developed and final cover in place, as this represents the maximum visual impact. For visual screening purposes, it was assumed that the visual screening would be provided solely by vegetation (i.e., trees) to simplify the modelling. The results of the visual modelling are provided below for Alternative Method 1.

Photo Location 6 faces northwest toward the EOWHF from Highway 138, approximately 800 m south of the southern edge of the Social Off-site Study Area (i.e., beyond the Social Off-site Study Area). Laflèche Road and the future development site can be seen in the distance past the corn fields in the foreground. Although Alternative Method 1 is visible from this location, it is located in the background, is a similar height to the existing EOWHF landfill, and the vegetated cover allows the landfill to blend into the surrounding landscape; therefore, Alternative Method 1 is not expected to change the visual character of the landscape, especially as crops grow and conceal the view. The view would be transient from this location as vehicles travel along Highway 138.

View from Photo Location 6

Photo Location 11 faces toward the northwest corner of the existing EOWHF site from the closest residence along Route 700E. Alternative Method 1 would not be visible from this location, as the view would be obstructed by the existing EOWHF landfill, surrounding trees, and structures on the neighbouring property.

View from Photo Location11

Photo Location 12 represents the line of sight to the EOWHF from the Ministry of Transportation scale house on Highway 417. The view of Alternative Method 1 from this location will be partially obscured by existing trees. The vegetated cover allows the landfill to blend into the surrounding landscape; therefore, Alternative Method 1 is not expected to change the visual character of the landscape. The view would be transient from this location as vehicles travel along Highway 417.

View from Photo Location 12 facing South

View from Photo Location 12 facing Southeast

Photo Location 13 faces west toward the EOWHF future development lands from the closest residence to the east. There is no existing vegetation to obstruct the view of Alternative Method 1 from this location. As previously noted, for visual screening purposes, it was assumed that the visual screening would be provided solely by vegetation (i.e., trees). The visual modelling determined that a visual screening with a total height of 2.4 m (8 feet) would be sufficient to obstruct the view of the tallest stages of Alternative Method 1 (i.e., Stages 6 through 8) as shown in the photo below. The visual screening may consist of earthen berms and/or vegetation plantings. As previously noted, this location will no longer be in use as a residence at the start of construction. With the visual screening in place, Alternative Method 1 is not expected to change the visual character of the landscape.

View from Photo Location 13 with 2.4 m (8') trees

Photo Location 17 represents the view of the existing EOWHF site from the western edge of the Social Off-site Study Area. The existing EOWHF landfill can be seen beyond the corn fields. Alternative Method 1 would not be visible from this location, as the view would be obstructed by the existing EOWHF landfill and surrounding trees; therefore, it is not expected to change the visual character of the landscape.

View from Photo Location 17

Photo Location 23 provides the view of the future development lands from the east and represents the view from the closest residence along Allaire Road. The Champion Mushroom building can be seen through the tree cover. The view of Alternative

Method 1 from this location would be almost completely obstructed by the existing trees; therefore, it is not expected to change the visual character of the landscape.

View from Photo Location 23

Photo Location 24 represents the view of the future development lands from the highway interchange at Highways 138 and 417. There is minimal existing vegetation to obstruct the view of the future development landfill from this location. As previously noted, for visual screening purposes, it was assumed that the visual screening would be provided solely by vegetation (i.e., trees). The visual modelling determined that a visual screening with a total height of 2.4 m (8 feet) would not be sufficient to obstruct the view of the tallest stages of Alternative Method 1 (i.e., Stages 6 through 8) as shown in the first photo below, but that a total height of 4.5 m (16 feet) would be sufficient as shown in the second photo below. The visual screening may consist of earthen berms and/or vegetation plantings. The view from this location would be transient as vehicles travel through the area. With the visual screening in place, Alternative Method 1 is not expected to change the visual character of the landscape.

View from Photo Location 24 with 2.4 m (8') trees

View from Photo Location 24 with 4.5 m (16') trees

The visual modelling determined that views of Alternative Method 1 would be almost if not completely obstructed from the closest residences that are expected to exist at the time of construction; therefore, it would not affect residents and their use of property from changes to the visual landscape. Alternative Method 1 will result in a change to the landscape; however, it will be of similar height to the existing EOWHF landfill and visual screening will be provided to obstruct the view from transient locations (i.e., roadways) in the form of earthen berms and/or vegetation plantings. The visual screening should be at least 2.4 m (8 feet) high on the northern, eastern, and southern perimeters, and at least 4.5 m (16 feet) high in the northeastern corner of the perimeter to mitigate visual impacts. With the visual screening in place, Alternative Method 1 is not expected to change the visual character of the landscape.

Table 3-1. Net Effects Assessment – Alternative Method 1

Evaluation Criteria	Indicator	Key Design Considerations and Assumptions	Potential Effects	Mitigation Measures	Net Effects
Economic					
Economic effects on/benefits to local community	Employment at site (number and duration)	• No anticipated changes to the number of employment positions at the EOWHF as a result of the future development. • The site is expected to operate for an additional 20 years.	• Beneficial effect from extended duration of employment at site for an additional 20 years.	• None required	• Beneficial effect from extended duration of employment at site for an additional 20 years.
	Local business employment	• GFL relies on a variety of vendors to maintain its operations at the EOWHF, which contributes to indirect employment at local businesses. • The site is expected to operate for an additional 20 years.	• Beneficial effect from extended duration of employment at local businesses through procurement for an additional 20 years.	• None required	• Beneficial effect from extended duration of employment at local businesses through procurement for an additional 20 years.
	Displacement of business activities	• The future development lands are currently leased for agricultural operations and sod and turf production. • A lease is in place with the agricultural operator detailing the exit arrangements.	• The future development would partially displace the operations of one local business (Manderley Turf Products) who lease land from GFL and a small agricultural operation.	• The displacement will be phased as the stages are developed. • GFL will continue to provide lands to Manderley Turf Products by agreement.	• Partial relocation of Manderley Turf Products. • Displacement of a small agricultural operation.
	Opportunities for the provision and procurement of products and/or services	• GFL provides cost-effective and environmentally-secure waste management services to municipalities and businesses across Eastern Ontario, including over 500 villages, towns, and cities. • GFL contributes up to approximately $15 million annually to the local economy through the procurement of local goods and services. • The site is expected to operate for an additional 20 years.	• Beneficial effect of continued provision of cost-effective and environmentally-secure waste management services to municipalities and businesses across Eastern Ontario and energy via the landfill gas-to-energy facility for an additional 20 years. • Beneficial effect from as much as $300 million contributed to the local	• None required	• Beneficial effect of continued provision of cost-effective and environmentally-secure waste management services to municipalities and businesses across Eastern Ontario and energy via the landfill gas-to-energy facility

Table 3-1. Net Effects Assessment – Alternative Method 1

Evaluation Criteria	Indicator	Key Design Considerations and Assumptions	Potential Effects	Mitigation Measures	Net Effects
			economy through the procurement of local goods and services.		for an additional 20 years. • Beneficial effect from as much as $300 million contributed to the local economy through the procurement of local goods and services.
	Financial contributions to the local community	• GFL supports a number of community initiatives and participates in several programs and committees in the local area. • A new 20-year Host Community Agreement was negotiated between GFL and the Township of North Stormont to take effect in 2022.	• Beneficial effect of continued annual financial contributions to the Township of North Stormont for an additional 20 years. • Beneficial effect of continued direct financial contributions in the form of public donations.	• None required	• Beneficial effect of continued annual financial contributions to the Township of North Stormont for an additional 20 years. • Beneficial effect of continued direct financial contributions in the form of public donations.
Social					
Effects on local community	Number of residents	• There are six existing residences within the Social Off-site Study Area; however, GFL has acquired the residence located directly east of the EOWHF future development lands (1397 Highway 138), which was vacated in Summer 2022 and will be demolished. • No new residential developments are planned within the Social Off-site Study Area.	• No potential effect to number of residents.	• None required	• No net effects to number of residents.
	Number and type of local businesses	• There are 14 businesses located within the Study Areas; one within the On-site Study Area, and 13 within the Social Off-site Study Area.	• The future development would partially displace the operations of one local business (Manderley Turf Products).	• GFL will continue to provide lands to Manderley Turf Products by agreement.	• Possible decrease of one local sod production business due to the relocation of Manderley Turf Products.

Table 3-1. Net Effects Assessment – Alternative Method 1

Evaluation Criteria	Indicator	Key Design Considerations and Assumptions	Potential Effects	Mitigation Measures	Net Effects
		• The future development lands are currently leased for agricultural operations and sod and turf production.	• A small agricultural operation would be displaced; however, agricultural businesses would continue in the area.		
	Predicted changes to use of property	• Residents and their use of property can be affected through disturbance from noise, dust, odour, litter, vectors and vermin, and changes to the visual landscape. • GFL employs a variety of proactive measures to minimize nuisance effects related to noise, dust, odour, litter, and vectors and vermin as outlined in Section 2.1.3. • The site's operating hours will remain unchanged and no additional large equipment will be required. • GFL will continue to provide prompt attention to nuisance complaints to mitigate any adverse effects to the surrounding community. • The future development will be of similar height to the existing EOWHF landfill.	• No potential effect on residents and their use of property from noise. Noise level will be below the MECP's sound level limits at the closest residences. • No potential effect on residents and their use of property from dust. Concentrations at the sensitive receptors (i.e., residences) are not expected to exceed the relevant standard. • Alternative Method 1 could result in a minor increase in off-site odour concentrations; however, the increase from existing conditions would be imperceptible and unlikely to result in a change in use of property. • No potential effect on residents and their use of property from litter or vectors and vermin. • Alternative Method 1 would be almost if not completely obstructed by existing vegetation from the closest residences that are expected to exist at the time of	• GFL will continue to implement the odour control measures outlined in Section 2.1.3, and provide prompt attention to nuisance complaints to mitigate any adverse effects to the surrounding community.	• No net effects on residents and their use of property

Table 3-1. Net Effects Assessment – Alternative Method 1

Evaluation Criteria	Indicator	Key Design Considerations and Assumptions	Potential Effects	Mitigation Measures	Net Effects
			construction; therefore, it would not affect residents and their use of property from changes to the visual landscape.		
Visual Impact of Facility	Predicted changes in perceptions of landscapes and views.	• The future development will be of similar height to the existing EOWHF landfill (approximately 15 m in height or 80 masl). • Visual screening will be constructed along the north and east perimeters and a portion of the south perimeter consisting of earthen berms and/or vegetation plantings.	• Views of Alternative Method 1 would be almost if not completely obstructed from the closest residences that are expected to exist at the time of construction; therefore, it would not affect residents and their use of property from changes to the visual landscape. • Alternative Method 1 will result in a change to the landscape; however, it will be of similar height to the existing EOWHF landfill and visual screening will be provided to obstruct the view from transient locations (i.e., roadways) in the form of earthen berms and/or vegetation plantings.	• The visual screening should be at least 2.4 m (8 feet) high on the northern, eastern, and southern perimeters, and at least 4.5 m (16 feet) high in the northeastern corner of the perimeter to mitigate visual impacts.	• With the visual screening in place, Alternative Method 1 is not expected to change the visual character of the landscape.

3.2 Alternative Method 2

The net effects assessment for Alternative Method 2 is provided below for the Economic and Social components of the Socio-Economic Environment and is summarized in **Table 3-2**.

3.2.1 Economic Environment

As previously noted, GFL has successfully operated the EOWHF since 1999 and it has become an important addition to the local community by creating employment opportunities, hosting educational events and facility tours, contributing financially to the Township of North Stormont, and supporting local initiatives within the community.

Economic effects on or benefits to the local community resulting from a project can occur through employment opportunities (new or continued), and/or opportunities for the provision and procurement of products and services.

Employment

Based on employment projections between 2016 and 2036, all municipalities within the United Counties of Stormont, Dundas and Glengarry are expected to experience a declining number of jobs as the economy changes and people commute to other municipalities including the Cities of Cornwall and Ottawa[7].

Although North Stormont has the smallest labour force compared to other municipalities within United Counties of Stormont, Dundas and Glengarry, it has the lowest unemployment rate and highest participation rate. Alternative Method 2 can help sustain a healthy participation rate within North Stormont and surrounding municipalities by continuing to provide job opportunities as the future development will extend the life of the EOWHF's landfill.

GFL employs staff from several municipalities surrounding the EOWHF and aims to provide stable long-term employment. A total of 39 employees currently work at the EOWHF. Approximately 69% of current employees are residents of the United Counties of Stormont, Dundas and Glengarry, 21% reside in the United Counties of Prescott and Russell, and 10% reside in Cornwall. Over a third of the EOWHF employees have been employed at the facility for more than 6 years.

Alternative Method 2 is not anticipated to result in any changes to the number of employment positions at the EOWHF; however, the facility is expected to operate for an additional 20 years thereby extending the duration of employment at the site and through procurement from local businesses.

Displacement of Business Activities

A total of 14 businesses are located within the Study Areas, one within the On-site Study Area and 13 within the Social Off-site Study Area, which are shown as orange dots on

[7] United Counties of SDG. (February 4, 2018). Official Plan: Consolidated July 18, 2018. Retrieved March 31, 2020, from https://www.sdgcounties.ca/sites/default/files/documents/SDG%20Official%20Plan%20-%20V.4.0%20Consolidated_0.pdf

Figure 2-3. The local business located within the On-site Study Area, Manderley Turf Products, leases the majority of the future development lands for the production of sod and turf products and this portion of their operations would be displaced by the future development. The partial displacement of Manderley Turf Products' operations will be phased over time as the stages are developed, and will be mitigated through the continued provision of lands for sod production by agreement. Another portion of the future development lands are leased by the former property owner for an agricultural operation. Although this agricultural operation will also be displaced, a lease is in place detailing the exit arrangements.

Provision of Products and/or Services

GFL provides cost-effective and environmentally-secure waste management services to municipalities and businesses across Eastern Ontario, including over 500 villages, towns, and cities. These services include waste collection, organics composting, recycling, tire collection, and residential drop-offs. The EOWHF's customer base includes municipalities within the United Counties of Stormont, Dundas and Glengarry, United Counties of Prescott and Russell, United Counties of Leeds and Grenville, Lanark County, Renfrew County, Lennox and Addington County, Hastings County and Prince Edward County. The majority of these municipalities have long term (e.g., 15 years) waste disposal contracts at the EOWHF through their responsible authority (i.e., Township, Town, City or County). In addition, the EOWHF also provides landfill disposal capacity to Indigenous communities within the region.

The EOWHF has an existing landfill gas-to-energy facility. GFL, via its business partner, has a contract with the Ontario Power Authority as part of the Feed-in-Tariff (FIT) program to produce 4.2 MW of renewable energy from methane collected from the landfill and the facility is operating at its peak electrical production. The facility is designed to allow expansion and doubling of electrical production; however, the Ontario government has cancelled the FIT program and no new contracts are being issued. The plant is operating at its peak electrical production and has the capacity to manage additional gas volumes collected from future landfill development via in-place flaring stacks.

Alternative Method 2 will allow for the continued provision of these waste management and energy services for an additional 20 years.

Procurement of Products and/or Services

GFL endeavours to utilize local businesses and services in support of its operation to the extent possible. GFL relies on a variety of vendors to maintain its operations at the EOWHF, contributing up to approximately $15 million annually to the local economy through the procurement of local goods and services.

In general, GFL utilizes the following goods and services from the local community:

- Utilities (i.e., electricity, telephone, propane, power);
- Stone and sand aggregate materials;
- Machinery and parts;

- Labour; and
- Consulting and lab services.

GFL procures products and services from the following local businesses within 1 km of the EOWHF (i.e., within the Social Off-site Study Area): Calco Soils; GFL Environmental Inc.; Moose Creek Tire Recycling; and AL Blair Construction Ltd.

Alternative Method 2 will allow for the continued procurement of these products and services for an additional 20 years, resulting in a contribution of as much as $300 million to the local economy.

Financial Contributions to the Local Community

GFL supports a number of community initiatives and participates in several programs and committees in the local area. Initiatives that GFL has been involved in and/or provided financial support to the community through include:

- Supporting local charities, sports teams, community events;
- Participating and/or supporting environmental committees and events; and
- Providing financial support to municipalities, schools, and educational institutions.

Details are provided in the Socio-Economic Existing Conditions Report (HDR Corporation, 2022).

GFL supports the Township of North Stormont through a host community agreement and payment of municipal taxes. GFL entered into a 20-year agreement (i.e., the Host Community Agreement) with the Township of North Stormont in 2001 under which GFL agreed to provide the Township with an annual monetary contribution. With the expiry of the 2001 Host Community Agreement in 2021, a new 20-year Host Community Agreement was negotiated between GFL and the Township of North Stormont to take effect in 2022. Under the new Agreement, GFL will continue to provide an annual financial contribution to the Township and will also make direct financial contributions in the form of public donations as follows:

- $25,000 donation to the Iroquois Cenotaph project in 2022;
- $500,000 donation to the Moose Creek Recreation Facility in 2022;
- $500,000 donation to the Moose Creek Recreation Facility in 2023;
- $130,000 for a fire rescue van for the Finch Fire Station in 2024; and
- $130,000 for a fire rescue van for the Crysler Fire Station in 2024.

Alternative Method 2 will allow GFL to continue to financially contribute to the local community.

3.2.2 Social Environment

Waste disposal facilities can potentially affect local residents and businesses in the vicinity of the site. Population can increase or decrease as a result of changes to employment. Residents and their use of property can be affected through disturbance from noise, dust, odour, litter, vectors and vermin, and changes to the visual landscape.

Population

North Stormont has a population of 7,400 (2021) and had the highest rate of growth (i.e., highest positive net change) of all the surrounding municipalities in the United Counties of Stormont, Dundas and Glengarry between 2016 and 2021. The EOWHF is located in a rural area. There are six existing residences within the Social Off-site Study Area; however, GFL has acquired the residence located directly east of the EOWHF future development lands (1397 Highway 138, shown as a yellow dot on **Figure 2-3**), which will no longer be in use as a residence at the start of construction. No new residential developments are planned within the Social Off-site Study Area.

Alternative Method 2 is not anticipated to result in any changes to the number of employment positions at the EOWHF; consequently, no changes to population are anticipated within the Social Off-site Study Area as a result of employment for the EOWHF future development.

Local Businesses

As noted in Section 3.1.1, 14 businesses are located within the Study Areas, one within the On-site Study Area and 13 within the Social Off-site Study Area. These businesses include administrative offices, commercial operations, recycling and remediation, aggregate and soil supply, and waste and equipment storage.

The operations of one local business, Manderley Turf Products, will be displaced by the future development; however, this displacement will be phased over time as the stages are developed, and will be mitigated through the continued provision of lands for sod production. At this time, the location of these additional lands has not been identified. Manderley Turf Products owns lands on the south side of Laflèche Road that are used for sod production, so it is assumed that the future development will result in the partial displacement of one local business and its business type (sod production) from the Social Off-site Study Area.

The effect of the EOWHF future development on the local economy through procurement of products and/or services from local businesses is described in Section 3.1.1. Alternative Method 2 will allow for the continued procurement of products and services for an additional 20 years.

Noise

GFL employs a variety of proactive measures to minimize nuisance effects related to noise as outlined in Section 2.1.3. From 2015 through 2021, no complaints were received related to noise. The site's operating hours will remain unchanged and no additional large equipment will be required for either alternative method.

The Noise Effects Assessment Report (HGC Engineering, 2022) indicated that there will be a minor increase in noise as a result of the future development; however, the noise level will be below the MECP's sound level limits at the closest residences. Consequently, noise from Alternative Method 2 is not anticipated to have an effect on residents and their use of property.

Dust

GFL employs a variety of proactive measures to minimize nuisance effects related to dust as outlined in Section 2.1.3. From 2015 through 2021, no complaints were received related to dust.

The construction and operation of Alternative Method 2 will generate releases of fugitive dust, mainly associated with road dust from on-site haul roads. The modelling results in the Air Quality and Odour Effects Assessment Report (Ramboll Canada Inc., 2022) indicated that the concentration of Suspended Particulate Matter (SPM) (i.e., dust) exceeded the relevant standard by 56% at the site boundary, but fell below the standard within 150 m. Concentrations at the sensitive receptors (i.e., residences) are not expected to exceed the relevant standard. Consequently, dust from Alternative Method 2 is not anticipated to have an effect on residents and their use of property.

Odour

There are a number of existing potential sources of odour in and around the Social Off-site Study Area which have the potential to generate odour emissions under adverse circumstances. From 2015 through 2021, there were 18 complaints received related to odour. All of the odour complaints except for one were made prior to 2019.

For the effects assessment, the worst-case conditions were modelled for each alternative method, and included the new composting facility location on lands south of the existing EOWFH. The Air Quality and Odour Effects Assessment Report (Ramboll Canada Inc., 2022) concluded that Alternative Method 2 could result in a small increase in off-site odour concentrations relative to existing conditions (maximum 1.85 ou/m^3 vs. 1.47 ou/m^3, a 26% increase, at the most impacted receptor), which is predicted to occur 1.5% of the time (638 10-minute exceedances over 5 years). Odour is non-linear and is based on a logarithmic scale; therefore, anything less than a factor of 2 is generally not noticeable, and a 26% increase would be imperceptible. In addition, the maximum odour values tend to occur during calm meteorological periods with low winds, which typically occur during nighttime hours.

GFL employs a variety of proactive measures to minimize nuisance effects related to odour as outlined in Section 2.1.3, and these measures are expected to continue as part of the future development to mitigate the potential odorous emissions from on-site operations. GFL will continue to provide prompt attention to nuisance complaints to mitigate any adverse effects to the surrounding community.

Although Alternative Method 2 is expected to result in a minor increase in odour concentrations at off-site receptors, the increased concentrations are minimal (as outlined above) so they would be imperceptible and unlikely to result in a change in use of property.

Litter

Existing litter control measures are outlined in Section 2.1.3. These measures are expected to continue throughout the operation of the EOWHF future development. The working face of the landfill will continue to be minimized to reduce litter generation, and daily waste cover and litter fencing will be used.

From 2015 through 2021, only one complaint was received related to litter. GFL will continue to provide prompt attention to nuisance complaints to mitigate any adverse effects to the surrounding community.

It is anticipated that Alternative Method 2 will have no effect on residents and their use of property from litter.

Vectors and Vermin

The existing control measures for vectors and vermin outlined in Section 2.1.3 are expected to continue throughout the operation of the EOWHF future development. The working face of the landfill will continue to be minimized to reduce the presence of vectors and vermin.

From 2015 through 2021, only one complaint was received related to birds. GFL will continue to provide prompt attention to nuisance complaints to mitigate any adverse effects to the surrounding community.

It is anticipated that Alternative Method 2 will have no effect on residents and their use of property from vectors and vermin.

Visual Landscape

The contours of the waste disposal facility may affect the visual character of the landscape. The EOWHF is situated on land that is relatively flat, surrounded by agricultural lands. The existing EOWHF landfill has a low profile, which makes it difficult to see, particularly from the south, east, and west viewpoints. The overall height of the existing landfill is approximately 15 m, or 80 masl. Alternative Method 2 comprises four stages as shown on **Figure 1-1**, with the following maximum elevations:

- Stage 5 – 78.5 masl; and
- Stages 6 through 8 – 81 masl.

There are currently no tree plantings or berms along Highway 417 or Highway 138 to obstruct the views of the future development lands; therefore, the views of the future development could potentially be obtrusive particularly from the eastern properties and Highway 138. Residences along Allaire Road are surrounded by woodlots and tree plantings which obstruct the view of the future development site.

As part of the characterization of existing conditions, photos were taken of the EOWHF and future development lands from various locations within the Social Off-site Study Area. These locations are shown on **Figure 3-1**. The rationale behind the selection of these photo locations and the visual assessment method are described in Section 3.1.2. The results of the visual modelling are provided below for Alternative Method 2.

Photo Location 6 faces northwest toward the EOWHF from Highway 138, approximately 800 m south of the southern edge of the Social Off-site Study Area (i.e., beyond the Social Off-site Study Area). Laflèche Road and the future development site can be seen in the distance past the corn fields in the foreground. Although Alternative Method 2 is visible from this location, it is located in the background, is a similar height to the existing EOWHF landfill, and the vegetated cover allows the landfill to blend into the surrounding landscape; therefore, Alternative Method 2 is not expected to change the visual

character of the landscape, especially as crops grow and conceal the view. The view would be transient from this location as vehicles travel along Highway 138.

View from Photo Location 6

Photo Location 11 faces toward the northwest corner of the existing EOWHF site from the closest residence along Route 700E. Alternative Method 2 would not be visible from this location, as the view would be obstructed by the existing EOWHF landfill, surrounding trees, and structures on the neighbouring property.

View from Photo Location11

Photo Location 12 represents the line of sight to the EOWHF from the Ministry of Transportation scale house on Highway 417. The view of Alternative Method 2 from this location will be partially obscured by existing trees. The vegetated cover allows the landfill to blend into the surrounding landscape; therefore, Alternative Method 2 is not expected to change the visual character of the landscape. The view would be transient from this location as vehicles travel along Highway 417.

View from Photo Location 12 facing South

View from Photo Location 12 facing Southeast

Photo Location 13 faces west toward the EOWHF future development lands from the closest residence to the east. There is no existing vegetation to obstruct the view of

Alternative Method 2 from this location. As previously noted, for visual screening purposes, it was assumed that the visual screening would be provided solely by vegetation (i.e., trees). The visual modelling determined that a visual screening with a total height of 2.4 m (8 feet) would be sufficient to obstruct the view of the tallest stages of Alternative Method 2 (i.e., Stages 6 through 8) as shown in the photo below. The visual screening may consist of earthen berms and/or vegetation plantings. As previously noted, this location will no longer be in use as a residence at the start of construction. With the visual screening in place, Alternative Method 2 is not expected to change the visual character of the landscape.

View from Photo Location 13 with 2.4 m (8') trees

Photo Location 17 represents the view of the existing EOWHF site from the western edge of the Social Off-site Study Area. The existing EOWHF landfill can be seen beyond the corn fields. Alternative Method 2 would not be visible from this location, as the view would be obstructed by the existing EOWHF landfill and surrounding trees; therefore, it is not expected to change the visual character of the landscape.

View from Photo Location 17

Photo Location 23 provides the view of the future development lands from the east and represents the view from the closest residence along Allaire Road. The Champion Mushroom building can be seen through the tree cover. The view of Alternative Method 2 from this location would be almost completely obstructed by the existing trees; therefore, it is not expected to change the visual character of the landscape.

View from Photo Location 23

Photo Location 24 represents the view of the future development lands from the highway interchange at Highways 138 and 417. There is minimal existing vegetation to obstruct the view of the future development landfill from this location. As previously noted, for

visual screening purposes, it was assumed that the visual screening would be provided solely by vegetation (i.e., trees). The visual modelling determined that a visual screening with a total height of 2.4 m (8 feet) would not be sufficient to obstruct the view of the tallest stages of Alternative Method 2 (i.e., Stages 6 through 8) as shown in the first photo below, but that a total height of 4.5 m (16 feet) would be sufficient as shown in the second photo below. The visual screening may consist of earthen berms and/or vegetation plantings. The view from this location would be transient as vehicles travel through the area. With the visual screening in place, Alternative Method 2 is not expected to change the visual character of the landscape.

View from Photo Location 24 with 2.4 m (8') trees

View from Photo Location 24 with 4.5 m (16') trees

The visual modelling determined that views of Alternative Method 2 would be almost if not completely obstructed from the closest residences that are expected to exist at the time of construction; therefore, it would not affect residents and their use of property from changes to the visual landscape. Alternative Method 2 will result in a change to the landscape; however, it will be of similar height to the existing EOWHF landfill and visual screening will be provided to obstruct the view from transient locations (i.e., roadways) in the form of earthen berms and/or vegetation plantings. The visual screening should be at least 2.4 m (8 feet) high on the northern, eastern, and southern perimeters, and at

least 4.5 m (16 feet) high in the northeastern corner of the perimeter to mitigate visual impacts. With the visual screening in place, Alternative Method 2 is not expected to change the visual character of the landscape.

Table 3-2. Net Effects Assessment – Alternative Method 2

Evaluation Criteria	Indicator	Key Design Considerations and Assumptions	Potential Effects	Mitigation Measures	Net Effects
Economic					
Economic effects on/benefits to local community	Employment at site (number and duration)	• No anticipated changes to the number of employment positions at the EOWHF as a result of the future development. • The site is expected to operate for an additional 20 years.	• Beneficial effect from extended duration of employment at site for an additional 20 years.	• None required	• Beneficial effect from extended duration of employment at site for an additional 20 years.
	Local business employment	• GFL relies on a variety of vendors to maintain its operations at the EOWHF, which contributes to indirect employment at local businesses. • The site is expected to operate for an additional 20 years.	• Beneficial effect from extended duration of employment at local businesses through procurement for an additional 20 years.	• None required	• Beneficial effect from extended duration of employment at local businesses through procurement for an additional 20 years.
	Displacement of business activities	• The future development lands are currently leased for agricultural operations and sod and turf production. • A lease is in place with the agricultural operator detailing the exit arrangements.	• The future development would partially displace the operations of one local business (Manderley Turf Products) and a small agricultural operation.	• The displacement will be phased as the stages are developed. • GFL will continue to provide lands to Manderley Turf Products by agreement.	• Partial relocation of Manderley Turf Products. • Displacement of a small agricultural operation.
	Opportunities for the provision and procurement of products and/or services	• GFL provides cost-effective and environmentally-secure waste management services to municipalities and businesses across Eastern Ontario, including over 500 villages, towns, and cities. • GFL contributes up to approximately $15 million annually to the local economy through the procurement of local goods and services. • The site is expected to operate for an additional 20 years.	• Beneficial effect of continued provision of cost-effective and environmentally-secure waste management services to municipalities and businesses across Eastern Ontario for an additional 20 years. • Beneficial effect from as much as $300 million contributed to the local economy through the procurement of local goods and services.	• None required	• Beneficial effect of continued provision of cost-effective and environmentally-secure waste management services to municipalities and businesses across Eastern Ontario for an additional 20 years. • Beneficial effect from as much as $300

Table 3-2. Net Effects Assessment – Alternative Method 2

Evaluation Criteria	Indicator	Key Design Considerations and Assumptions	Potential Effects	Mitigation Measures	Net Effects
					million contributed to the local economy through the procurement of local goods and services.
	Financial contributions to the local community	• GFL supports a number of community initiatives and participates in several programs and committees in the local area. • A new 20-year Host Community Agreement was negotiated between GFL and the Township of North Stormont to take effect in 2022.	• Beneficial effect of continued annual financial contributions to the Township of North Stormont for an additional 20 years. • Beneficial effect of continued direct financial contributions in the form of public donations.	• None required	• Beneficial effect of continued annual financial contributions to the Township of North Stormont for an additional 20 years. • Beneficial effect of continued direct financial contributions in the form of public donations.
Social					
Effects on local community	Number of residents	• There are six existing residences within the Social Off-site Study Area; however, GFL has acquired the residence located directly east of the EOWHF future development lands (1397 Highway 138), which was vacated in Summer 2022 and will be demolished. • No new residential developments are planned within the Social Off-site Study Area.	• No potential effect to number of residents.	• None required	• No net effects to number of residents.
	Number and type of local businesses	• There are 14 businesses located within the Study Areas; one within the On-site Study Area, and 13 within the Social Off-site Study Area. • The future development lands are currently leased for agricultural operations and sod and turf production.	• The future development would partially displace the operations of one local business (Manderley Turf Products). • A small agricultural operation would be displaced; however, the	• GFL will continue to provide lands to Manderley Turf Products by agreement.	• Possible decrease of one local sod production business due to the relocation of Manderley Turf Products.

Table 3-2. Net Effects Assessment – Alternative Method 2

Evaluation Criteria	Indicator	Key Design Considerations and Assumptions	Potential Effects	Mitigation Measures	Net Effects
			agricultural business would continue in the area.		
	Predicted changes to use of property	• Residents and their use of property can be affected through disturbance from noise, dust, odour, litter, vectors and vermin, and changes to the visual landscape. • GFL employs a variety of proactive measures to minimize nuisance effects related to noise, dust, odour, litter, and vectors and vermin as outlined in Section 2.1.3. • The site's operating hours will remain unchanged and no additional large equipment will be required. • GFL will continue to provide prompt attention to nuisance complaints to mitigate any adverse effects to the surrounding community. • The future development will be of similar height to the existing EOWHF landfill.	• No potential effect on residents and their use of property from noise. Noise level will be below the MECP's sound level limits at the closest residences. • No potential effect on residents and their use of property from dust. Concentrations at the sensitive receptors (i.e., residences) are not expected to exceed the relevant standard. • Alternative Method 2 could result in a minor increase in off-site odour concentrations; however, the increase from existing conditions would be imperceptible and unlikely to result in a change in use of property. • No potential effect on residents and their use of property from litter or vectors and vermin. • Alternative Method 2 would be almost if not completely obstructed from the closest residences that are expected to exist at the time of construction; therefore, it would not affect residents and their use of property	• GFL will continue to implement the odour control measures outlined in Section 2.1.3, and provide prompt attention to nuisance complaints to mitigate any adverse effects to the surrounding community.	• No net effects on residents and their use of property

Table 3-2. Net Effects Assessment – Alternative Method 2

Evaluation Criteria	Indicator	Key Design Considerations and Assumptions	Potential Effects	Mitigation Measures	Net Effects
			from changes to the visual landscape.		
Visual Impact of Facility	Predicted changes in perceptions of landscapes and views.	• The future development will be of similar height to the existing EOWHF landfill (approximately 15 m in height or 80 masl). • Visual screening will be constructed along the north and east perimeters and a portion of the south perimeter consisting of earthen berms and/or vegetation plantings.	• Views of Alternative Method 2 would be almost if not completely obstructed by existing vegetation from the closest residences that are expected to exist at the time of construction; therefore, it would not affect residents and their use of property from changes to the visual landscape. • Alternative Method 2 will result in a change to the landscape; however, it will be of similar height to the existing EOWHF landfill and visual screening will be provided to obstruct the view from transient locations (i.e., roadways) in the form of earthen berms and/or vegetation plantings.	• The visual screening should be at least 2.4 m (8 feet) high on the northern, eastern, and southern perimeters, and at least 4.5 m (16 feet) high in the northeastern corner of the perimeter to mitigate visual impacts.	• With the visual screening in place, Alternative Method 2 is not expected to change the visual character of the landscape.

4 Comparative Evaluation of Net Effects and Identification of the Preferred Alternative

A comparative evaluation of the net effects of each alternative method and the identification of a preferred alternative are carried out in accordance with the methods described in Section 2.2. The results of the comparative evaluation are provided below.

4.1 Comparative Evaluation Results

No preferred alternative is identified from a Socio-Economic perspective as there are no substantial differences in the net effects between the alternative methods.

The results of the comparative evaluation for the Socio-Economic Environment are provided in **Table 4-1**.

Table 4-1. Comparative Evaluation of Net Effects for the Socio-Economic Environment

Evaluation Criteria	Indicators	Net Effects of Alternative Methods	
		Alternative Method 1	Alternative Method 2
Economic			
Economic effects on/benefits to local community	Employment at site (number and duration)	Beneficial effect from extended duration of employment at site for an additional 20 years. **No Substantial Difference**	Beneficial effect from extended duration of employment at site for an additional 20 years. **No Substantial Difference**
	Local business employment	Beneficial effect from extended duration of employment at local businesses through procurement for an additional 20 years. **No Substantial Difference**	Beneficial effect from extended duration of employment at local businesses through procurement for an additional 20 years. **No Substantial Difference**
	Displacement of business activities	Partial relocation of Manderley Turf Products. Displacement of a small agricultural operation. **No Substantial Difference**	Partial relocation of Manderley Turf Products. Displacement of a small agricultural operation. **No Substantial Difference**
	Opportunities for the provision and procurement of products and/or services	Beneficial effect of continued provision of cost-effective and environmentally-secure waste management services to municipalities and businesses across Eastern Ontario for an additional 20 years. Beneficial effect from as much as $300 million contributed to the local economy through the procurement of local goods and services. **No Substantial Difference**	Beneficial effect of continued provision of cost-effective and environmentally-secure waste management services to municipalities and businesses across Eastern Ontario for an additional 20 years. Beneficial effect from as much as $300 million contributed to the local economy through the procurement of local goods and services. **No Substantial Difference**

Table 4-1. Comparative Evaluation of Net Effects for the Socio-Economic Environment

Evaluation Criteria	Indicators	Net Effects of Alternative Methods	
		Alternative Method 1	Alternative Method 2
	Financial contributions to the local community	Beneficial effect of continued annual financial contributions to the Township of North Stormont for an additional 20 years. Beneficial effect of continued direct financial contributions in the form of public donations. **No Substantial Difference**	Beneficial effect of continued annual financial contributions to the Township of North Stormont for an additional 20 years. Beneficial effect of continued direct financial contributions in the form of public donations. **No Substantial Difference**
	Criteria Rating & Rationale	***There is no substantial difference between the alternative methods with regard to the economic benefits to the local community.*** No preferred alternative is identified from an economic perspective as there is no substantial difference in the net effects between the alternative methods.	
Social			
Effects on local community	Number of residents	No net effects to number of residents. **No Substantial Difference**	No net effects to number of residents. **No Substantial Difference**
	Number and type of local businesses	Possible decrease of one local sod production business due to the relocation of Manderley Turf Products. **No Substantial Difference**	Possible decrease of one local sod production business due to the relocation of Manderley Turf Products. **No Substantial Difference**
	Predicted changes to use of property	No net effects on residents and their use of property **No Substantial Difference**	No net effects on residents and their use of property **No Substantial Difference**
	Criteria Rating & Rationale	***There is no substantial difference between the alternative methods with regard to effects on the local community.*** No preferred alternative is identified from a local community perspective as there is no substantial difference in the net effects between the alternative methods.	

Table 4-1. Comparative Evaluation of Net Effects for the Socio-Economic Environment

Evaluation Criteria	Indicators	Net Effects of Alternative Methods	
		Alternative Method 1	Alternative Method 2
Visual Impact of Facility	Predicted changes in perceptions of landscapes and views.	With the visual screening in place, Alternative Method 1 is not expected to change the visual character of the landscape. **No Substantial Difference**	With the visual screening in place, Alternative Method 2 is not expected to change the visual character of the landscape. **No Substantial Difference**
	Criteria Rating & Rationale	***There is no substantial difference between the alternative methods with regard to the visual impact of the facility.*** No preferred alternative is identified from a visual impact perspective as there is no substantial difference in the net effects between the alternative methods.	

4.2 Advantages and Disadvantages of the Preferred Alternative

The differences in net effects are used to identify and compare the advantages and disadvantages of each alternative method. From a socio-economic perspective, there is no substantial difference between the two alternative methods, and no preferred alternative has been identified. As a result, the same advantages and disadvantages, listed in **Table 4-2** apply to both alternative methods.

Table 4-2. Advantages and Disadvantages of the Alternative Methods

Evaluation Criteria	Advantages	Disadvantages
Economic		
Economic effects on/benefits to local community	• The site is expected to operate for an additional 20 years. • Extended duration of employment for an additional 20 years. • Continued provision of cost-effective and environmentally-secure waste management services to municipalities and businesses across Eastern Ontario for an additional 20 years. • As much as $300 million contributed to the local economy through the procurement of local goods and services. • Continued annual financial contributions to the Township of North Stormont for an additional 20 years. • Continued direct financial contributions in the form of public donations.	• Partial relocation of Manderley Turf Products. • Displacement of a small portion of agricultural operations.
Social		
Effects on local community	• The site's operating hours will remain unchanged and no additional large equipment will be required. • No changes to traffic volumes beyond currently-approved levels or changes to waste haul routes are anticipated. • No net effects to number of residents. • No net effects on residents and their use of property.	• Decrease of one local sod production business due to the relocation of Manderley Turf Products.
Visual Impact of Facility	• No anticipated change on the visual character of the landscape.	• No disadvantages from a visual impact perspective are anticipated.

5 Commitments and Monitoring

No Socio-Economic environmental effects monitoring is proposed for the EOWHF landfill. The commitments associated with the Socio-Economic Environment are listed in Section 5.1.

5.1 Socio-Economic Commitments

The commitments associated with the Socio-Economic Environment are as follows:

- GFL will continue to provide lands to Manderley Turf Products by agreement, and the displacement will be phased as the stages are developed;
- GFL will continue to employ the proactive measures to minimize nuisance effects related to noise, dust, odour, litter, and vectors and vermin as outlined in Section 2.1.3;
- GFL will continue to provide prompt attention to nuisance complaints to mitigate any adverse effects to the surrounding community.
- The future development will be of similar height to the existing EOWHF landfill; and
- Visual screening will be constructed along the north and east perimeters and a portion of the south perimeter consisting of earthen berms and/or vegetation plantings. The visual screening should be at least 2.4 m (8 feet) high on the northern, eastern, and southern perimeters, and at least 4.5 m (16 feet) high in the northeastern corner of the perimeter to mitigate visual impacts.

6 References

HDR Corporation

2022 Socio-Economic Draft Existing Conditions Report. Eastern Ontario Waste Handling Facility Future Development Environmental Assessment.

HGC Engineering

2022 Noise Draft Effects Assessment Report. Eastern Ontario Waste Handling Facility Future Development Environmental Assessment.

Ramboll Canada Inc.

2022 Air Quality and Odour Draft Effects Assessment Report. Eastern Ontario Waste Handling Facility Future Development Environmental Assessment.