

An aerial photograph of a landfill site. In the foreground, there is a road and a cluster of buildings, including a large white one with a blue roof and a smaller green one. The landfill itself is a large, flat area with some vegetation and a winding path. The background shows a dense forest.

Town of Saugeen Shores

Review of Potential for Landfill Optimization

Waste Management Environmental Assessment

Public Meeting
October 28, 2024

Purpose of the Undertaking

The purpose is to address the problem of diminishing capacity at the Town's Southampton Landfill Site through the assessment and determination of a long-term strategy for the management of the Town's residual waste.

The Town is proposing an expansion of its existing active landfill site and is seeking approval for additional waste disposal capacity to help manage the community's residual waste locally through the optimization of its existing facility.

The process is necessary because the remaining capacity at the Southampton Landfill Site (the Town's only operating waste disposal facility) is expected to be exhausted by about 2030-2032.

Project Description

Landfill optimization can be accommodated at the existing site without the need to acquire additional lands. The general project description, including the main components of the proposed undertaking, includes the following:

- Study period will be 40-years
- The existing service area, limited to the Town of Saugeen Shores, will be maintained
- It is projected that the Town will generate about 330,000 tonnes of residual waste (non-diverted)
- It is estimated that an additional 725,000 m³ of airspace capacity will be needed (residual waste & interim cover)
- 26.3-hectares has been delineated to the west of the existing approved landfill footprint as a potential future additional landfill area. The landfill footprint would be further refined through the EA process.
- The environmental management system would include provisions for a landfill liner & leachate collection system
- Increased Diversion: A source separated organics (SSO) program has the potential to significantly reduce the amount of waste destined for the landfill. The Town intends to include an SSO feasibility study in its 2025 business plan (subject to the final approval of council).

Note: The purpose and description of the proposed project will evolve through the EA process and will be subject to further evaluation and review.

The Approval Process

The Town is seeking approval for its landfill optimization project under the Environmental Assessment Act (EAA). The required Comprehensive Environmental Assessment is to be undertaken in two parts:

Step 1: Preparation of a Terms of Reference (ToR)

The ToR outlines the detailed workplan which, upon approval, provides the framework for the subsequent Environmental Assessment.

Step 2: Conduct the Environmental Assessment Study

This process examines development options for the physical expansion of the Site. The potential for *environmental* effects are identified, identifying the net effects of the alternatives on the environment. It includes a comparative assessment of 'Alternative Methods' and identifies a Preferred Development Method.

environment is applied in broad terms that includes the natural, social, cultural, technical and economic 'environments'

The Town will submit Proposed ToR to the MECP for review and decision.

The decision to approve or reject the ToR, or approve with conditions, is made.

Once the ToR is approved, the Town can begin to prepare the EA.

Terms of Reference (ToR)

The ToR is developed with extensive community engagement and consultation with the Government Review Team (GRT) and Indigenous communities.

	PLANNING PROCESS: Development of the Proposed Terms of Reference (ToR)				
	Notice of Commencement of ToR and PIC No.1	Invitation to Community Meeting	Notice of Draft Proposed ToR and PIC No.2	Staff Report: Council Resolution re. Proposed ToR	Notice of Submission of ToR
Project Notification					
Circulation of Project Notice (Per Distribution List)	April 23, 2024		October 15, 2024	Early 2025	
Invitation to Community Meeting (Limited Public Distribution)		June 5, 2024			
Engagement 'Periods'					
Comment Periods: Although comments can be received anytime during the process, assigned comment periods ensure that the process can proceed.	April 23 to May 24 Comments directed to Project Team		Oct 15 to Nov 22 Comments directed to Project Team		30-days Comments directed to MECP
In-Person Engagement Opportunities					
1. PIC No.1: Public Open House and Presentation	May 9, 2024				
2. Community Meeting (re. Representative landfill areas)		June 19th, 2024			
3. PIC No.2: Presentation to Council			October 28th, 2024		
Project Website: Engagement Opportunities & Document Availability for Review					
Project Website	Published	Updated, as needed			
Comment Form: To submit comments to the Project Team	← Ongoing (Available throughout the project process) →				
Posting of Questionnaire: Ranking of 'Alternatives To'	April 23 to May 24				

Following the issuance of the Notice of Submission of Proposed ToR to the MECP, a 30-day review period is given. Comments at this step of the process are to be made directly to the MECP Project Officer assigned to the Project.

Focused Environmental Assessment

The ToR for this landfill optimization project has been prepared pursuant to subsection 17.4(2)(c) of the EAA. This is referred to as a 'focused EA'.

The Town is proceeding with a 'focused' EA, specifically with reference to the review and assessment 'Alternatives To'. Focused EA's are considered appropriate in cases where a significant amount of information is known, such that:

- i. Substantial work has previously been completed to analyze and assess the alternatives for the management of residual waste; and
- ii. A number of the alternatives can be eliminated from proceeding into the EA.

Alternatives To

A review of functionally different ways of meeting the Town's long-term waste management needs

'Alternatives To' identified to manage the Town's residual waste include:

1. Do Nothing
2. Landfill Optimization: Continued use of the existing Southampton Landfill
3. New Landfill: Establish a landfill elsewhere within the Town
4. Alternative Waste Management Technologies (i.e., Incineration)
5. Third Party: Landfill site closure and export of waste

The provision for enhanced waste diversion activities will be considered in conjunction with all the 'Alternatives To'. While these efforts will continue to serve to reduce the need for residual waste disposal, they are not expected to eliminate the need for a long-term waste management strategy.

Long-Term Waste Management Plan (2020)



Preliminary Preferred 'Alternative To' LANDFILL OPTIMIZATION

Recommended that the Town initiate background studies, including the evaluation of the suitability of the Southampton Landfill Site to accommodate additional capacity



Screening of Alternatives

A high-level look at the Alternatives to determine the feasibility prior to detailed investigations.

For this undertaking, the screening of two 'Alternatives To' is being completed as part of the development of the Terms of Reference

ALTERNATIVE TO	WORK COMPLETED
Alternative to Establish a New Landfill Site	Screening Report: Citing of Potential Alternate Landfill Locations & Assessment of Landfill Alternatives. Two representative landfill areas were identified within CLI Class 1 and 2 lands. This concept was advanced into a comparative evaluation and assessment of Landfill Alternatives.
Alternative Waste Management Technologies	Technical Memorandum: Applicability of Alternative Waste Management Technologies

Note: The supporting documentation is subject to public and agency comment and will be considered by the Minister in the decision whether to authorize a more limited scope of alternatives in the EA.

Establish a New Landfill Site within the Town

Step 1: Citing of Potential Alternate Locations

Potential alternate landfill site locations were cited based on a desktop analysis various planning, policy and natural constraints.

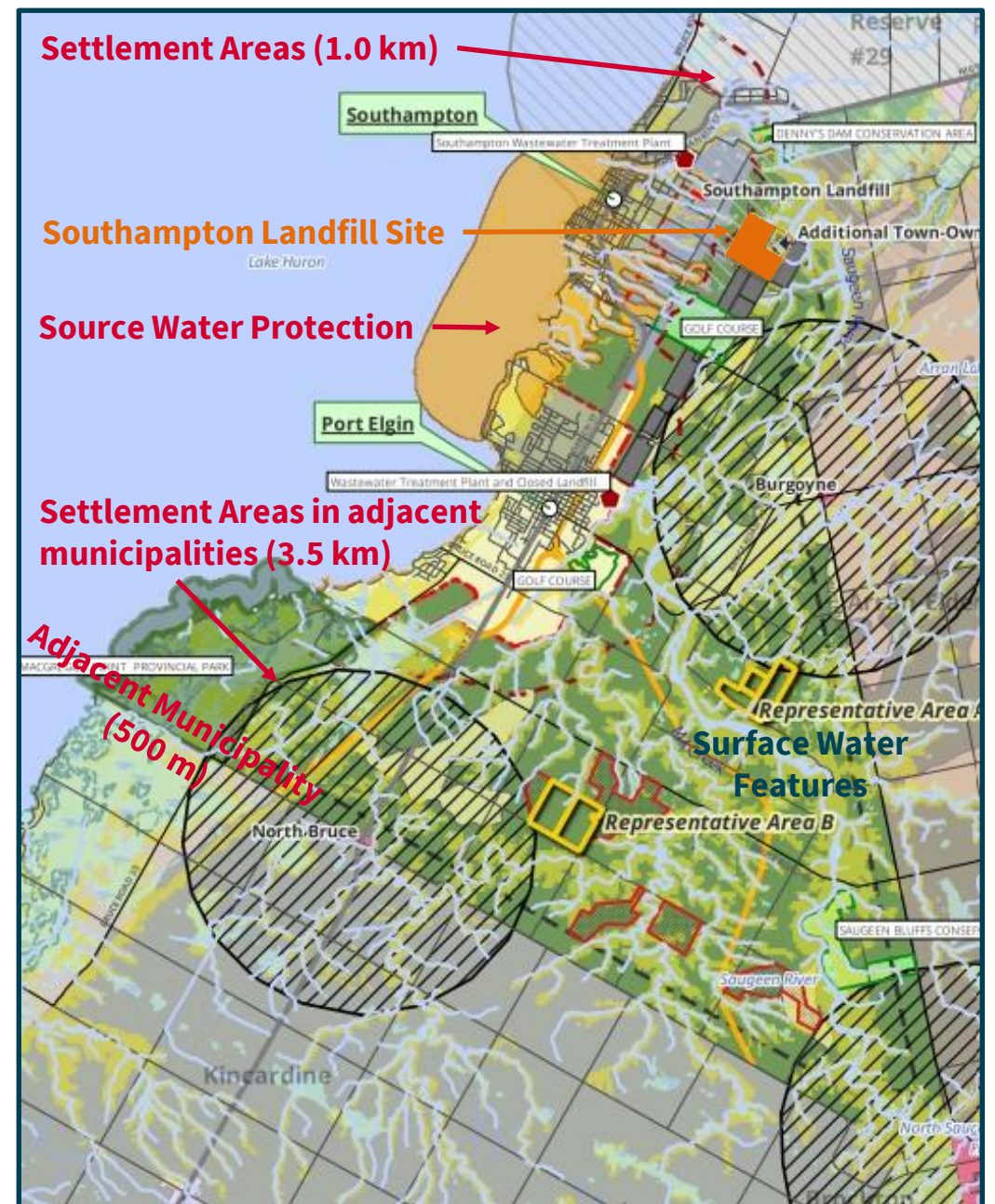
Step 2: Evaluation & Assessment of 'Landfill Alternatives'

Detailed comparison of the Landfill Alternatives including representative landfill areas and landfill optimization.

Key factors considered included:

- Relative impacts from site operations
- Official Plan Re-designation: Agricultural Areas (CLI Class 1&2)
- Property ownership, site access and facilities
- Leachate collection and treatment options
- Planning process, implementation timeframe and certainty of approval

The identification of land areas as locations that could potentially accommodate the establishment of a new landfill site does not suggest that landfilling would be supported or viable in these locations.



Outcome of Assessment (New Landfill)

The purpose of the screening process is ultimately to identify whether establishing a New Landfill warrants additional consideration in the Environmental Assessment

STEP 1	<u>Citing of Potential Alternate Landfill Locations (Desktop Analysis):</u> Determination of property parcels and areas that could potentially support the development of a landfill at an alternate location within the Town and selection of representative property parcels that, based on a desktop review of various constraints, appear to be viable locations within a general area for a landfill.		
STEP 2	Preliminary evaluation & assessment of <i>Landfill Alternatives</i> , including comparison of: <ul style="list-style-type: none"> ■ Representative Landfill Area A ■ Representative Landfill Area B ■ Landfill Optimization Alternative: Continued Use of the Southampton Landfill Site 		
POSSIBLE OUTCOME	A. Preference Not Determined	B. New Landfill Preferred	C. Landfill Optimization Preferred
EA Process	Carry both alternatives into the EA for further review	Carry <i>New Landfill Alt.</i> into EA for further review	Carry <i>Landfill Optimization Alt.</i> into EA for further review
	Continue to explore other landfill site location opportunities within the Town and compare to the <i>Landfill Optimization Alternative</i> .	Advance the site selection process. Continue to explore opportunities for a new landfill site and confirm site location and feasibility.	Identify possible optimization alternatives for the existing Southampton Landfill Site.

There were three possible outcomes to the evaluation and assessment of the 'Landfill Alternatives'.

Recommendation: Eliminate the 'Alternative to Establish a New Landfill Site' from being advanced into the EA

Alternative Waste Management Technologies

Incineration:

- Most common type of Waste-to-Energy technology
- Applicable to the treatment of municipal waste (post diversion) with variable composition

Benefits:

- Reduces the overall volume of waste by approximately 87%
- Generates energy in the form of heat and/or electricity

Challenges:

- Requires a consistent and large quantity of waste (i.e., 100,000 tonnes/year). This is greater than 10X the amount of waste currently landfilled by the Town. Significant commitments or partnerships with other communities would be required.
- Capital cost: Estimated to be greater than \$300 Million in upfront costs which is significant for a small municipality
- Does not eliminate the need for landfill capacity as the residual ash still requires disposal ($\pm 13\%$ of waste accepted)

FINDINGS: Thermal treatment technologies (i.e., incineration) would be both operationally and economically challenging. Therefore, these are not suitable for the Town.

- RECOMMENDATION: This 'Alternative To' be eliminated from being advanced into the EA -

Summary: Alternatives to be carried forward into the EA

As the requirements of the assessment of the New Landfill Alternative and Alternative Waste Management Technologies are addressed within the ToR, no further assessment is proposed to be included in the EA.

It is recommended that the alternatives to be carried forward into the EA be limited to the following:

- Alternative 1: Do Nothing (Serves as a baseline against which other alternatives can be compared)
- Alternative 2: Optimization of Landfill Capacity at the Town's Existing Southampton Landfill Site
- Alternative 5: Third Party - Export of Waste

Of these three remaining 'Alternatives To':

- Landfill optimization is identified as the Preferred Alternative for the Town to manage residual waste generated within its community
- Third-party export of waste can be implemented at any time through the process. A receiving facility could be pursued by the Town and be implemented under agreement with a third-party service provider. It is included as an alternative to compare the landfill optimization alternative to.

The primary public concerns brought forward during the first comment period included the following:

- i. Environmental impacts and financial implications
- ii. Locations of representative potential landfill site areas
- iii. Taking responsibility for waste generated by managing it within the community
- iv. Consideration for additional waste reduction initiatives, such as a green bin program

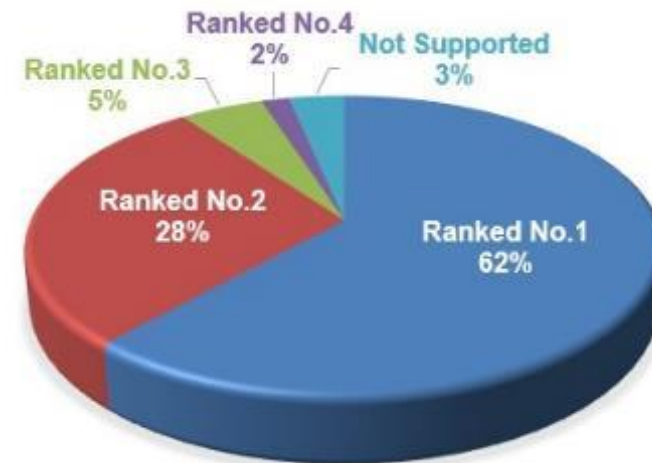
Questionnaire Results

An online survey was conducted to help the Town understand public sentiment while reviewing the 'Alternatives To' during the initial ToR stage of the EA.

Alternatives were ranked based on respondents' willingness to support the alternatives identified, including:

1. Optimization of the Existing Landfill Site
2. Establishment of a New Landfill Site
3. Alternative Technologies (Incineration)
4. Export of Waste

Optimization of the Southampton Landfill Site was ranked as the highest supported alternative 62% of the time.



The establishment of a New Landfill Site was the least supported alternative, with less than 10% selecting it as one of their top two preferred alternatives.

48% of the 60 respondents voiced strong opposition to a new landfill.



Next Steps

End of Comment Period: November 22, 2024

1. Continue to receive comments through the process
2. Finalize Proposed ToR
3. Present to Council: Resolution for submission of Proposed ToR

Formal Submission of the Proposed ToR to the MECP (Early 2025)

The Town will seek Ministry support to eliminate consideration for the Alternative to Establish a New Landfill Site and/or Alternative Waste Treatment Technologies from the Environmental Assessment.

The Minister may either:

- Approve the ToR
- Approve the ToR with amendments (or conditions)
- Reject the ToR

How can you participate & become informed?



Join our Project Mailing List



Complete the Questionnaire
(on Project Website)



Attend Public Information Centres



Review Documents and Provide Comment



Follow the Project or Visit the Project Website for Updates

www.engage.saugeenshores.ca/



Submit Comments:
Please Submit by
November 22, 2024

If you have project related comments or questions, please contact:

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