

**TECHNICAL BULLETIN #2 | February 2021**

**What is the ToR?**  
The ToR sets out the framework for the planning and decision-making process to be followed during the preparation of the EA.

**What is the EA?**  
The EA is a study, which assesses the potential environmental effects (positive or negative) of this Waste Management Plan.

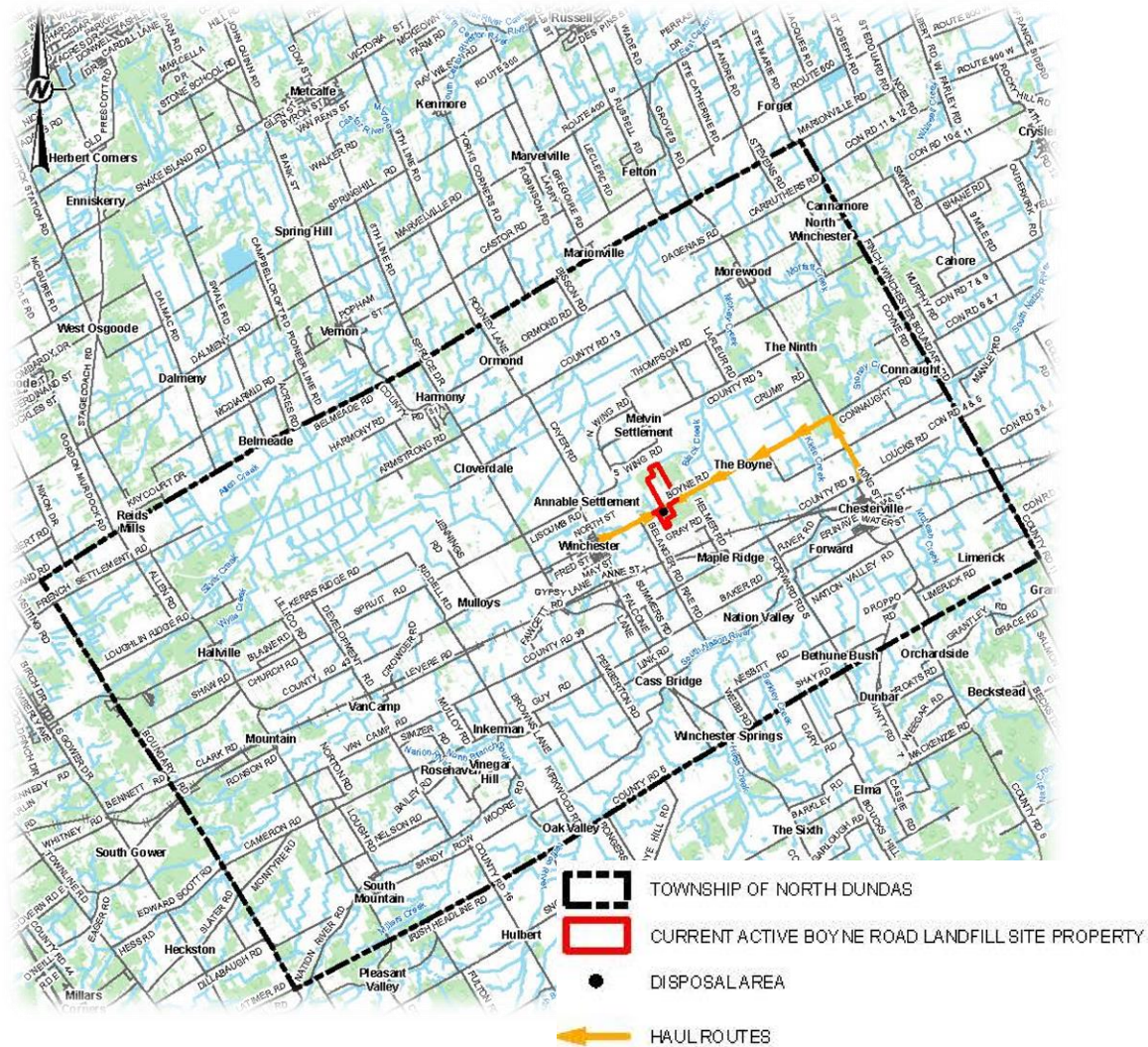
**Environmental Assessment**  
An Environmental Assessment (EA) of the Township of North Dundas (Township) Waste Management Plan (WMP) is being undertaken under the provincial *Environmental Assessment Act*. As part of the EA Study, the Township will: evaluate 'Alternatives To' the Waste Management Plan, identify the preferred WMP, characterize the existing environmental conditions, identify and develop 'Alternative Methods' of waste management, compare the 'Alternative Methods', identify mitigation measures and determine net environmental effects.

**Terms of Reference (ToR)**  
The ToR for the EA of the Township's Waste Management Plan was approved by the Minister of Environment, Conservation and Parks in July 2020.

**Did You Know?**  
The purpose of this EA is to provide environmentally safe and cost-effective long-term waste management for the Township of North Dundas for a 25 year planning period.

**Waste Management Plan Study Area**  
The study area for the Township's Waste Management Plan, consisting of the full Township land area, is shown below.

**EA Process Tips**  
The Environmental Assessment Process requires the study to consider an option to "Do Nothing" along with the list of options being considered in the study.



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**Results of the Diversion Study:**

A combination of waste diversion options is proposed for the preferred waste diversion system. The preferred combined waste diversion system includes:

- Backyard Composting of Food Organics
- Dual Stream Recycling Program
- Curbside Collection of Leaf and Yard Waste and Composting at the Boyne Road Landfill Site
- Use of Existing and New Waste Management Policies

**What Environmental Components are Relevant to ‘Alternatives To’?**

Environmental components comprising the natural, social, economic / financial and technical environment were considered as follows:

- Atmosphere (air quality and noise)
- Geology and hydrogeology
- Surface water
- Biology (aquatic and terrestrial ecosystems)
- Agriculture and land use
- Archaeology
- Cultural heritage (landscapes and resources)
- Socio-economic (nuisance such as noise, litter, etc.; cost and timing of approvals; cost of implementation)
- Transportation (road network)
- Technical considerations (ability of Township to operate)

Criteria associated with these components to evaluate the ‘Alternatives To’ are suggested as follows:

**What are ‘Alternatives To’?**

‘Alternatives To’ are functionally different ways of approaching and dealing with the problem or opportunity (which is to provide environmentally safe and long-term waste management).



**Environmental Components, Evaluation Criteria and Indicators for Evaluation of ‘Alternatives To’**

Environmental Component	Evaluation Criteria	Indicator(s)
Atmosphere	<ul style="list-style-type: none"> <li>▪ Potential effects on air quality (including dust, odour, GHG)</li> <li>▪ Potential effects on noise</li> </ul>	<ul style="list-style-type: none"> <li>▪ Qualitative amount and/or type of emissions generated/offset due to alternative.</li> <li>▪ Qualitative amount of non-renewable resources conserved.</li> <li>▪ Qualitative relative expected amount of noise from alternative.</li> </ul>
Geology and Hydrogeology	<ul style="list-style-type: none"> <li>▪ Potential effects on groundwater resources</li> </ul>	<ul style="list-style-type: none"> <li>▪ Qualitative expected effect on groundwater quality at the property boundary.</li> </ul>

Environmental Component	Evaluation Criteria	Indicator(s)
Surface Water	<ul style="list-style-type: none"> <li>Potential effects on surface water resources</li> </ul>	<ul style="list-style-type: none"> <li>Qualitative expected effect on surface water quality within the site-vicinity.</li> <li>Qualitative expected change in peak flows (within the on-site surface water management system and at the property boundary).</li> <li>Qualitative expected degree of off-site effects on surface water quantity within the site-vicinity.</li> </ul>
Biology	<ul style="list-style-type: none"> <li>Potential effects on natural environment features (aquatic and terrestrial ecosystems)</li> </ul>	<ul style="list-style-type: none"> <li>Qualitative amount of disturbance of terrestrial and aquatic environment.</li> </ul>
Agriculture and Land Use	<ul style="list-style-type: none"> <li>Potential effects on existing land use and agriculture</li> </ul>	<ul style="list-style-type: none"> <li>Approximate number or types of land use conflicts.</li> </ul>
Archaeology	<ul style="list-style-type: none"> <li>Potential effects on archaeology</li> </ul>	<ul style="list-style-type: none"> <li>Approximate degree of archaeological potential.</li> </ul>
Cultural Heritage	<ul style="list-style-type: none"> <li>Potential effects on cultural environment (cultural heritage landscapes, cultural heritage resources)</li> </ul>	<ul style="list-style-type: none"> <li>Approximate degree of potential for built/cultural heritage resources.</li> </ul>
Socio-Economic	<ul style="list-style-type: none"> <li>Potential site operational effects on sensitive off-site receptors (i.e., noise, litter, air quality)</li> <li>Relative costs and timing of approvals</li> <li>Relative cost of implementation (capital and operational costs)</li> </ul>	<ul style="list-style-type: none"> <li>General attitude of public toward alternative.</li> <li>Approximate proximity of alternative to potential sensitive receptors.</li> <li>Approximate cost per tonne.</li> <li>Approximate type or amount of potential revenue offsets.</li> <li>Approximate types of approvals required for alternative and level of effort to attain the approval.</li> </ul>
Transportation	<ul style="list-style-type: none"> <li>Potential effect on road network</li> </ul>	<ul style="list-style-type: none"> <li>Qualitative assessment of additional tonnage and resulting number of trucks to site due to selected alternative.</li> </ul>
Technical Considerations	<ul style="list-style-type: none"> <li>Relative ability of the Township to operate</li> <li>Relative technical risks associated with the operation of the alternative</li> </ul>	<ul style="list-style-type: none"> <li>Availability of examples where technology used with similar waste tonnage.</li> <li>Types of barriers to implementation.</li> </ul>

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**Preliminary Results of Comparison of Long Term Waste Management ‘Alternatives To’**

	<p><b>Landfill Site Closure and Export Waste for Disposal</b></p> <ul style="list-style-type: none"> <li>Boyne Road Landfill would be closed, waste diversion activities would continue</li> <li>Waste transfer station to accept waste and export for disposal</li> <li>Two possible disposal options (both owned and operated by private sector):             <ul style="list-style-type: none"> <li>Green for Life’s (GFL’s) Moose Creek Landfill (operating)</li> <li>Waste Management’s Ottawa (Carp) Landfill (currently closed)</li> </ul> </li> </ul>	<p><b>Less preferred overall</b> (Most preferred for biology, agriculture/land use, archaeology, cultural heritage, relative cost of approvals, ability of the Township to operate and technical risk. Least preferred for noise criteria.)</p> 
	<p><b>Landfill Site Expansion</b></p> <ul style="list-style-type: none"> <li>Increase disposal capacity of the Boyne Road Landfill (estimated at 460,000 m<sup>3</sup>)</li> <li>Waste diversion activities would likely continue at the site</li> </ul>	<p><b>Most preferred overall</b> (Most preferred for atmosphere, transportation, cultural heritage, and nuisance, ability of the Township to operate and cost of implementation criteria. Not least preferred for any criterion.)</p> 
	<p><b>Establish New Landfill Site in the Township</b></p> <ul style="list-style-type: none"> <li>Search and identify a new location for a disposal site within the municipality</li> </ul>	<p><b>Unreasonable to pursue</b> No reasonably suitable land available except near existing Boyne Road landfill</p> 
	<p><b>Alternative Waste Management Technologies</b></p> <ul style="list-style-type: none"> <li>Energy-from-Waste (high temperature combustion with energy recovery from heat produced)</li> <li>Search and identify a new site for this technology</li> <li>Private sector operator needed (beyond the Township capabilities)</li> </ul>	<p><b>Least preferred overall</b> (Most preferred for noise, groundwater and surface water criteria. Least preferred for atmosphere, biology, agriculture/land use, archaeology, cultural heritage, socio-economic and technical criteria.)</p> 
	<p><b>Enhanced Waste Diversion</b></p> <ul style="list-style-type: none"> <li>Zero-waste solution not presently considered possible or available to the Township</li> <li>No control over Industrial, Commercial and Institutional (IC&amp;I) waste generators (provincial jurisdiction)</li> <li>Implementing additional waste diversion programs would likely increase the residential waste diversion rate from approximately 23% to 33%</li> </ul>	<p><b>Not a stand alone solution</b></p>  
	<p><b>Do Nothing</b></p> <ul style="list-style-type: none"> <li>Benchmark alternative required in EAs for comparison purposes</li> <li>Boyne Road Landfill would be closed and any other solution for waste management for the Township would not be pursued (not a realistic option)</li> </ul>	<p><b>Unreasonable to pursue</b> <b>Negative potential environmental and health impacts</b></p> 

### What are 'Alternative Methods'?

'Alternative Methods' are different ways of doing the same activity (landfill expansion).

### What is a cumulative impact assessment?

A cumulative impact assessment reviews the potential effects of the proposed landfill expansion in combination with past, present and reasonably foreseeable future activities, where possible.

### Next Steps?

- Characterize existing environmental conditions at the Boyne Road Landfill for use in assessing the proposed expansion
- Collect feedback from stakeholders on the proposed 'Alternative To' and the preferred 'Alternative To'
- Update the projected residual waste for 2022-2047 using the results of the diversion study
- Identify and develop the 'Alternative Methods' for the preferred 'Alternative To' – landfill expansion of the Boyne Road Landfill
- Compare 'Alternative Methods' and identify the preferred method of landfill expansion
- Determine net effects on the environment
- Consider climate change impacts
- Assess cumulative impacts



### Climate change includes:

potential impact of climate change on the landfill expansion (i.e., climate change adaptation) and its potential impact on climate change (i.e., climate change mitigation).

## Next Consultation Activities:

Technical Bulletin #3: final results of the 'Alternatives To' assessment, describe each of the 'Alternative Methods' to be considered, the criteria for the comparative evaluation of those 'Alternative Methods' and the preliminary results of the comparison.

Open House #3: proposed EA and inform the public about the identification of the preferred Alternative Method, as well as inform them of the results of the existing conditions studies and the predicted effects on the environment, and the commitments the Township is making to mitigate any adverse effects.

## Questions, Feedback and Comments?

We encourage you to let us know your thoughts by sending your comments to [dfroats@northdundas.com](mailto:dfroats@northdundas.com) and/or using the attached comment form by March 1, 2021.

Or contact us at 613-774-2105 ext. 235 for any accessibility requirements.



If you would like to be notified of any project updates, please let us know and provide either an email address or your mailing address.