



# Ruby Road Waste Disposal Site Capacity Expansion Environmental Screening Process

## Public Consultation Event No.2

July 26, 2008

*Eganville Curling Club*



## Introduction

- Township is examining the feasibility of a capacity expansion and re-opening of the Ruby Road Waste Disposal Site
- This meeting has been scheduled to provide:
  - Information update on project work to date
  - Opportunity to collect public input
- Meeting format:
  - Slide presentation
  - Question and answer period
  - Open house session



## Presentation Outline

- Project Background
- Brief overview of the governing Environmental Screening (ES) process
- Summary of the project to date
- Review of work completed to this point
- Outline of the further studies and tasks to be completed

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## The Problem Identified

- Current estimates of landfill capacity within the Township indicate approximately 4 years remaining life
- Long-term waste management solution has yet to be identified



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## A Solution for Consideration

- Township used the results of previous studies to identify the most practical solutions to the problem of diminishing waste disposal capacity
- Viable Solution Option: expansion of Ruby Road waste disposal site to provide 25-year capacity based on the fact that:
  - Existing waste operations already at the site
  - Lands required to expand the capacity are available
  - Favorable surface and subsurface site conditions

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## Why Expand vs. a New Site?

- new landfill site requires more land than expansion of an existing site
- comparative cost of developing a landfill expansion usually less
- site development costs will be less as the expansion can make use of some of the existing infrastructure
- new site usually requires more drilling and other investigations than for an existing site expansion to gain sufficient understanding of site
- property costs may also be higher for a new site since more property is required to be purchased than when expanding an existing site
- operational costs are reduced for an expansion as it could be phased into the operation of the existing site
- long-term monitoring costs would be relatively greater with a new site as it would be an additional facility for which long-term management and monitoring is required

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## Environmental Screening (ES)

- In order to better understand if the Ruby Road WDS can be expanded safely, Council commissioned ES
- Described in Ontario Regulation 101/07 under the Environmental Assessment Act (EAA)
- Regulation is directed in part at small, rural waste disposal sites
- To be commenced prior to progression of concrete project planning, site layout, and project design



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## ES Objectives

- Determine feasibility of capacity expansion at Ruby Road waste site
  - Identify and quantify environmental impacts
  - Establish mitigation measures to minimize negative impacts
  - Provide conceptual design and operations
- To contribute to a successful long-term waste management strategy for the residents of the Township

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## Subject of Study

- Expansion of Ruby Road waste site to provide 25-year waste disposal capacity
- Amendment of the existing Certificate of Approval (CofA) for the waste disposal site to incorporate:
  - New terms and conditions of site operations
  - An increase of not more than 100,000 m<sup>3</sup> to existing approved capacity
- MOE still required to approve expansion following application and technical review (separate process)

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## Size of Proposed Expansion

- Even after proposed expansion it will be considered a small operation that will fill at relatively slow rate

Landfill Size Classification	Annual Waste Deposition (tonne/year)	Capacity * (cubic metres, m <sup>3</sup> )	Example Landfills
Small	250 to 5,000	12,500 to 250,000	Ruby Road
Medium	5,000 to 150,000	250,000 to 7,500,000	Peterborough, OVWRC
Large	150,000 to 350,000	7,500,000 to 17,500,000	Essex County
Mega	Over 350,000	Over 17,500,000	Green Lane, Carp, Keele Valley

\* based on 25 years and emplacement density of 0.5 tonnes/m<sup>3</sup>

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## ES Considerations

- How the environment will be affected directly or indirectly by the project
- What actions if any are needed to prevent, change, mitigate, or remedy the effects upon the environment
  - *In this context, "Environment" means all the surrounding environmental conditions including natural, socio-cultural, economic, technical and built, and other.*

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## Must have regard for...

- Environmental Protection Act
- Ministry of the Environment – *Procedure B-7-1 - Determination of Contaminant Limits and Attenuation Zones*
- Ontario Regulation 232/98 – *Landfilling Sites*
- Ministry of the Environment Landfill Standards – *A Guideline on the Regulatory and Approval Requirements for New or Expanding Landfilling Sites*
- Ontario Regulation 347 – *General – Waste Management*

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## Roles and Responsibilities

- Municipal Council
  - The Proponent to the undertaking
  - Establishes a Working Group to direct the ESP
- Ministry of the Environment (MOE)
  - Provides input and guidance to the Proponent on the ESP process
  - Assists the Proponent with coordination of the Interested Parties
- Interested Parties
  - Information pertaining to the site is requested from Interested Parties to provide knowledge of associated aspects of the ESP
- Public Liaison Committee
  - Acts on behalf of public interest
- General Public
  - Provide input on the ESP and the project

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## Project Activities

- Prepare and Publish Notice of Commencement of Environmental Screening Project
- Working Group Meetings and Progress Reports, Public Liaison Committee Liaison, Aboriginal Liaison
- Identify Problem or Opportunity & Provide Project Description
- Apply screening criteria checklist to identify potential environmental effects
- Describe the potential environmental effects, concerns and issues to be addressed
- 2007 Working Group Meetings and Progress Reports, Public Liaison Committee Liaison, Aboriginal Liaison
- Consult with interested persons, Aboriginal peoples and government agencies to identify any issues or concerns
- Public Consultation Event No. 1
- Conduct studies and assessment of potential environmental effects
- **Public Consultation Event No.2**
- Develop impact management measures
- Consult with interested persons and government agencies to identify any issues or concerns
- Public Consultation Event No. 3
- Confirm no significant net effects and all concerns resolved
- Conduct additional studies and assessment of effects and impact management measures (if required)
- Prepare Environmental Screening Report - DRAFT
- 2009 Working Group Meetings and Progress Reports, Public Liaison Committee Liaison, Aboriginal Liaison
- Completion of Environmental Screening Report
- Notice of Completion of Environmental Screening Report
- Environmental Screening Report Review Posting (60 days)

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## ESP Progress to Date

- Consultation
  - On-going consultation with Interested Parties and general public
  - Public Consultation Event No. 1 in February 2008
  - Flyers and Newsletters to public
  - Establishment of Public Liaison Committee with regular meetings



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## ESP Progress to Date

- Technical
  - Collection, assessment and documentation of data
  - Completion of major studies
  - Preparation of further studies and mitigation techniques



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## Environmental Screening Investigations

- Ground and Surface Water Quality
- Land Uses
- Air and Noise Quality
- Biological (terrestrial, vegetative, aquatic)
- Heritage and Cultural Resources
- Visibility/Aesthetics
- Socio-economic
- Traffic and Roads

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## Completed Investigations

- Initial Environmental Impact Study
- Supplementary Environmental Impact Studies
- Stage I and II Archaeological Assessment
- Traffic Impact Study
- Prelim. Hydrogeological Assessment



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## Environmental Impact Study

- April 2008
- Findings include:
  - No significant features identified
  - Long distance to any watercourse
  - Presumed wildlife may be drawn to scavenge at the proposed site causing competition, predation or waste being spread off-site
  - Recommended that further Supplementary Studies be conducted including:
    - Breeding Bird Survey
    - Other Possible Species at Risk
    - Vascular Plant Survey
    - Fish Habitat

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## Supplementary Biological Studies Findings

- June/July 2008
- Breeding Bird Survey, Vascular Plant Survey, and Other Possible Species at Risk conclusions:
  - No threatened or endangered species or other significant species were observed
- Fish Habitat conclusions:
  - No aquatic vegetation or fish were observed



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## Archaeological Assessment

- May 2008
- Findings include:
  - future development in the proposed project area will not impact any existing buildings, cemeteries, or other standing sites of historical or architectural significance
  - no artifacts were uncovered
  - there are no significant archaeological concerns associated with this project


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## Traffic Impact Investigation

- First few years there will be a reduction of trucks since there will be no transfer of garbage off the site 
- 2-3 trucks per week once the other sites no longer accept garbage
  - worst case was used which assumed ALL residual waste in the Township would eventually go to Ruby Road WDS
  - calculated using estimates of population projection, waste diversion and waste production

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## Traffic Impact Investigation

- Varies according to the season with more trucks per week (~3-4) in the summer and less (~1-2) in the winter
  - Truck traffic in the summer months increases due to:
    - seasonal population increase results in generation of more waste
    - the need for waste to be transferred for final disposal more frequently during the warm months due to odour, vermin, etc.

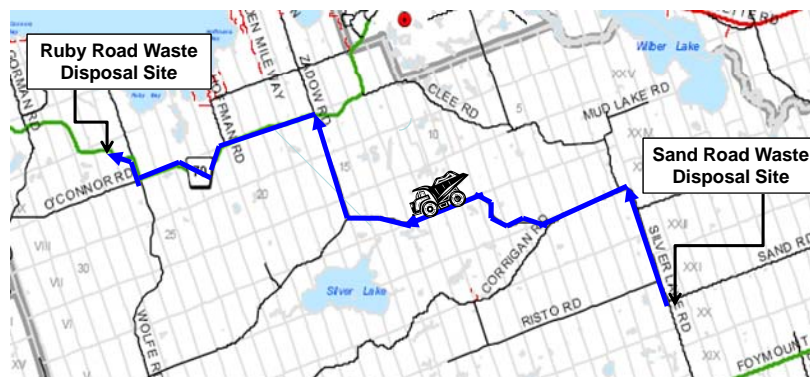
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## Traffic Route From Sand Road Waste Disposal Site



Silver Lake Road → Zadow Road → Ruby Road

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## Hydrogeological Assessment

- 3 additional monitoring wells installed to better understand groundwater dynamics at the subject property
- completed preliminary mass balance calculations using worst-case scenario
  - concentrations of typical leachate indicator parameters are not expected to exceed the RUC at the property boundary

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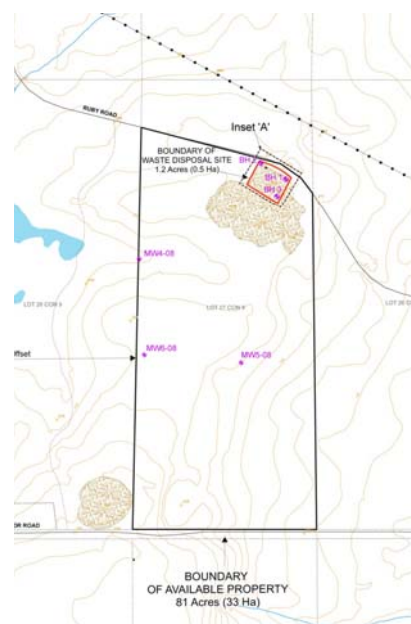
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## Detailed Hydrogeological Study In Progress

A detailed hydrogeological study is being completed, which will include groundwater modeling using Visual Modflow software.



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## Additional Studies and Analyses

- Land Use and Resource Analysis
- Noise and Air Impact Study

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## Reasonable Questions

- Does the site have the **necessary natural attenuation** potential?
- What are the **mitigation measures** necessary to proceed with the project?
- If the site is deemed to be viable, then how is it **best constructed**?
- Is the expansion of capacity the **most feasible option**?

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## If Determined Feasible....

- Designed to protect **surface water and groundwater** resources as well as other components of the environment
- Prescribed designs implemented to achieve Ontario's **environmental protection standards**
- Formally **engineered** and developed using information such as **hydrogeological and geological data**

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## More to be determined...

- Further potential impacts at site and surrounding area
- Mitigation measures necessary to proceed with the project
- Most feasible plan for the site given the mitigation requirements

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## The Investigation Continues

- Summer 2008
  - Further studies (e.g. hydrogeological, noise impact assessment)
- Fall 2008
  - Detailed work plan and field studies concluded
  - Assessment of data, compilation of details, and evaluation of effects
  - Public Consultation Event No. 3
- Winter 2009
  - Preparation of Environmental Screening Report and supporting documents

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## Dispelling the Myths

- An expansion of the Ruby Road WDS would create a Mega-Dump.
- There is a high risk of contamination to Golden Lake from an expanded WDS.
- Natural attenuation is an outdated and unsafe method that is not used today.
- The Township is creating a new WDS at Ruby Road.
- This is an expensive and quick fix to waste disposal in the Township of Bonnechere Valley.
- Truck traffic to and from the site will be constant.

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## Get the Facts

- More detailed information can be obtained at:
  - Township of Bonnechere Valley office
  - [www.bonnecherevalleytwp.com](http://www.bonnecherevalleytwp.com)
  - Contact Cambium Environmental Inc.
    - [john.desbiens@cambium-env.com](mailto:john.desbiens@cambium-env.com)
    - 1.866.217.7900

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## What do you think?



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## Open House Session



- Please help yourself to refreshments
- Please take a moment to complete a questionnaire (or take one home)
- Please ask questions or provide your comments to meeting organizers

*Thank you for attending and participating  
in the Ruby Road Waste Disposal Site  
Capacity Expansion Public Consultation  
Event No.2*