



BURNSIDE

St. Marys Future Solid Waste Disposal Needs Environmental Assessment

Public Information Centre #2

Thursday, June 23, 2016

5:00 PM to 7:00 PM

Municipal Operations Center

408 James Street South, St. Marys, ON N4X 1B6



Welcome to PIC#2

Please:

- Sign In
- Please ask questions about the project.

During Public Information Centre #1 (PIC#1) we:

- Compared *Waste Export* against *Landfill Expansion*; Landfill Expansion was preferred
- Discussed work programs to evaluate *Alternative Methods* for landfill expansion

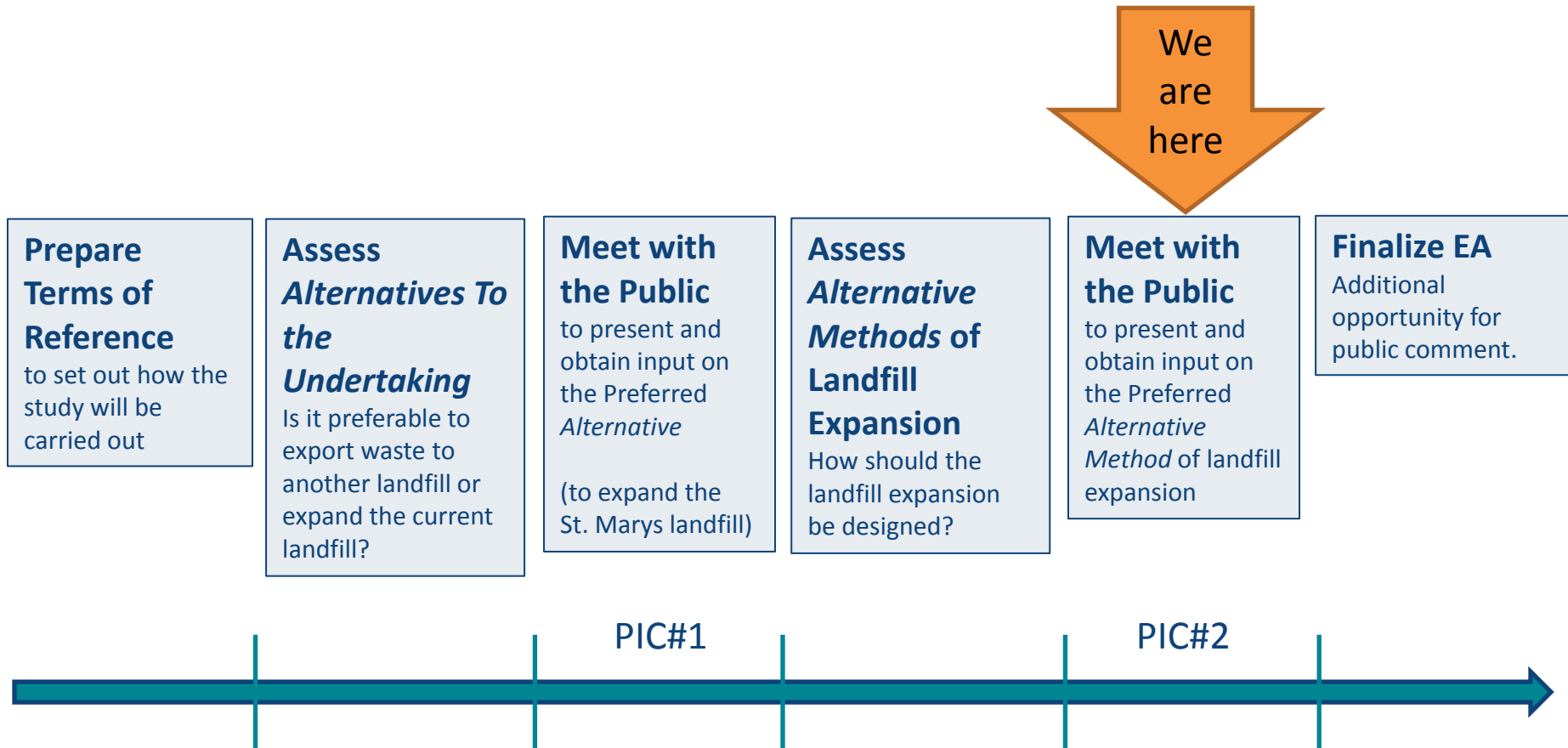
This Public Information Centre, PIC#2, is to:

- Present our evaluations of the *Alternative Methods* for landfill expansion
 - technical, social/cultural, economic and natural environment factors
- Obtain feedback on
 - The *Alternative Methods* evaluation and the preferred *Method*
 - Landfill expansion considerations

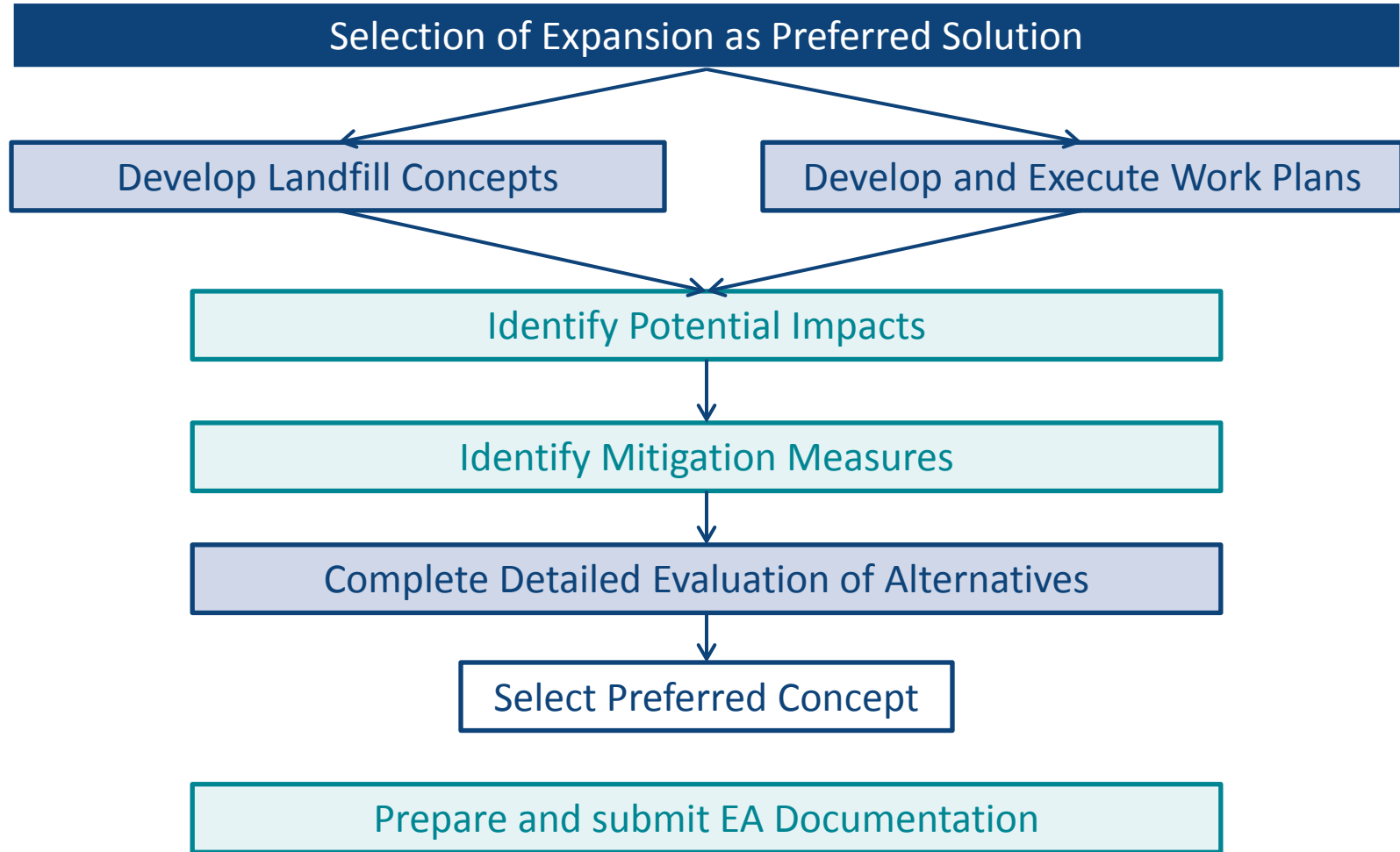
Background

- This EA process was initiated to determine the best way of dealing with future waste disposal
 - St. Marys landfill operates under MOECC approval
- Expanding the St. Marys landfill was preferred
- Work Plans were developed and reviewed
- *5 Alternative Methods* of expansion concepts were developed and Work Plans completed to:
 - Identify potential impacts
 - Compare and rank the *Methods*
 - Create mitigation strategies for the preferred *Method*

Environmental Assessment Process



Evaluation Process



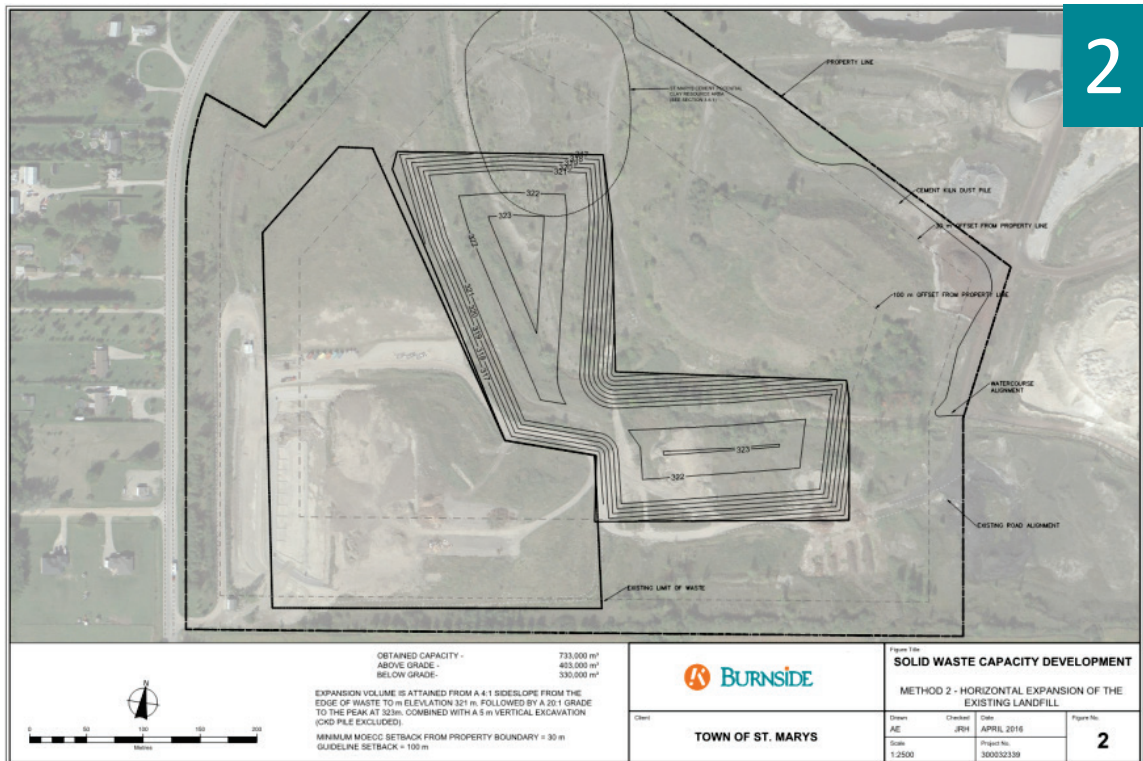
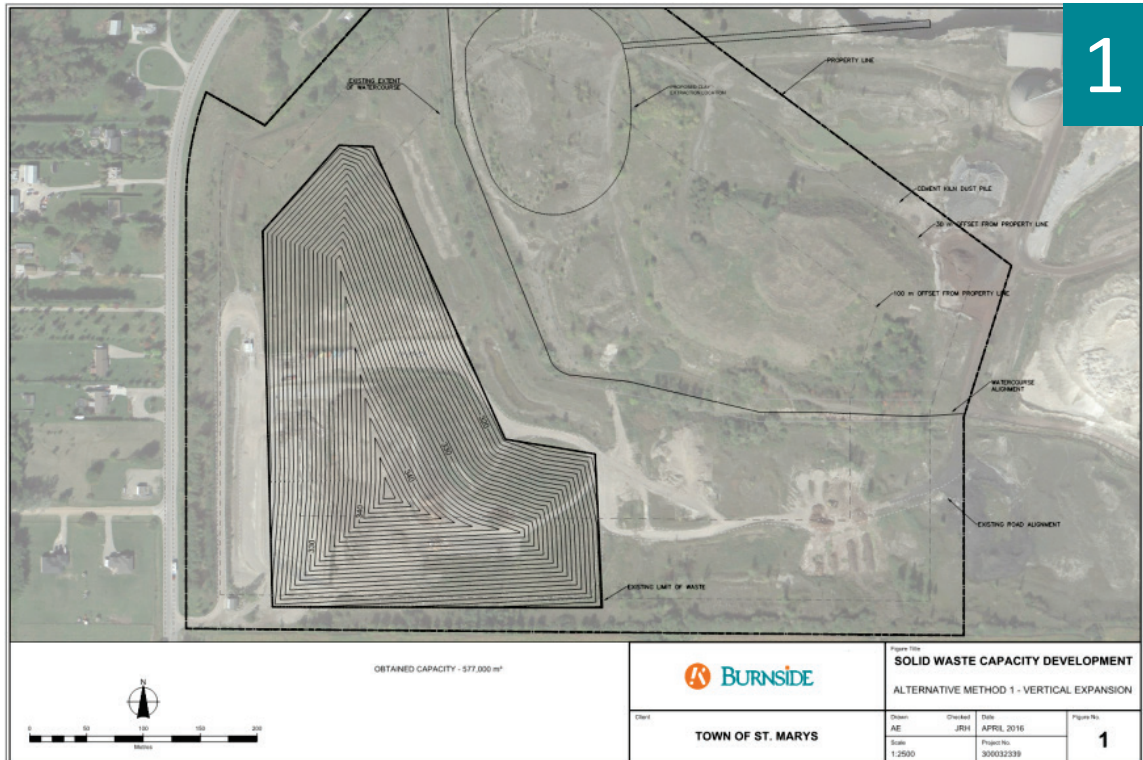
Preliminary Expansion *Methods*

- Developed during Phase 1 (Export versus Expansion) then refined in Phases 3 & 4
- Factors included
 - Total capacity required
 - Overall peak height
 - Required additional land use
 - Impact on neighbours
 - Compatibility with existing infrastructure
 - Efficient use of sites potential capacity
 - Impact of landfill development on watercourse
 - Financial implications

Alternative Methods

- Footprint and contour concepts were prepared for each *Alternative Method*
 - Represent how expansion *could* look; not final designs
- Adjustments to concepts will be made:
 - Based on stakeholder consultation
 - During EA Report preparation
 - As part of the detailed design (following EA Approval)
- Adjustments may include:
 - Specifics of footprint and contours
 - Efforts to mitigate potential impacts
 - Optimizing infrastructure (best current and future use)
- **Drawings are not final**

Alternative Methods 1 & 2



Alternative Method 3



OBTAINED CAPACITY - 756,000 m³
 ABOVE GRADE - 506,000 m³
 BELOW GRADE - 250,000 m³

EXPANSION VOLUME IS ATTAINED FROM A 4:1 SIDESLOPE FROM THE EDGE OF THE WASTE TO ELEVATION OF 323m, FOLLOWED BY A 20:1 SLOPE ON THE PEAK, COMBINED WITH A 5m VERTICAL EXCAVATION (CKD PILE EXCLUDED).

MINIMUM MOECC SETBACK FROM PROPERTY BOUNDARY = 30 m
 GUIDELINE SETBACK = 100 m

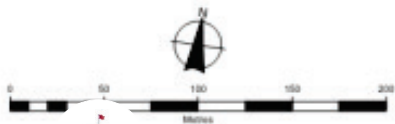
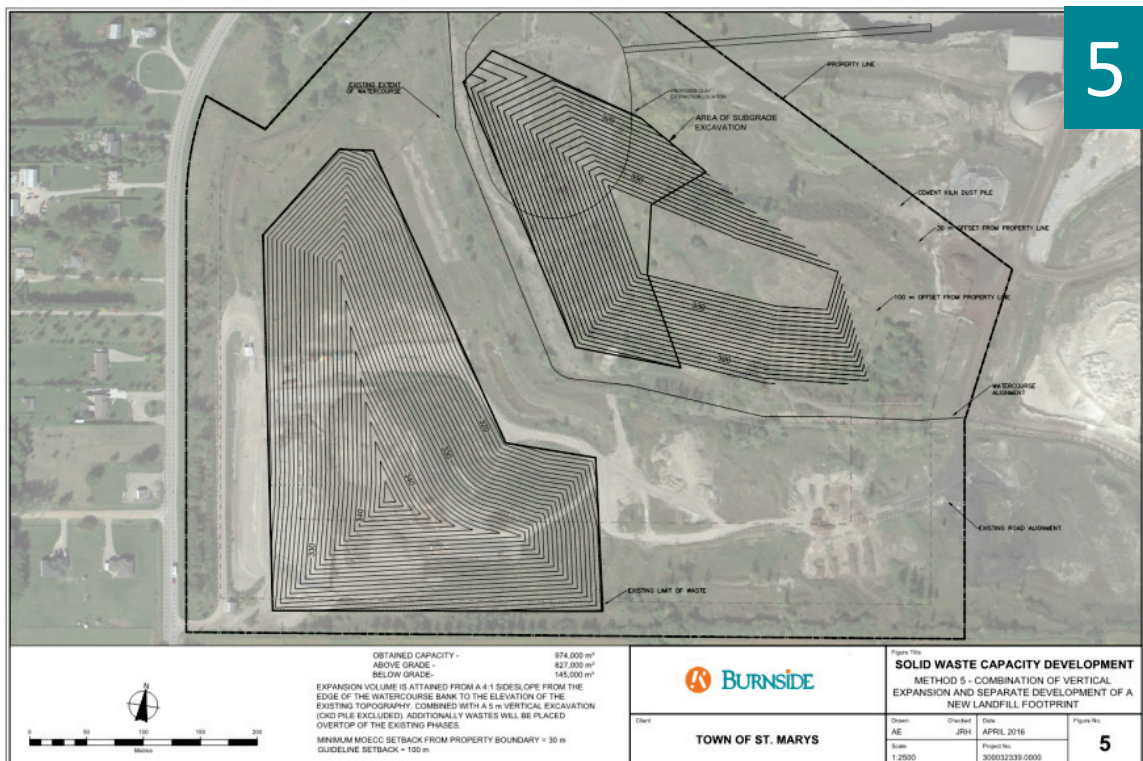
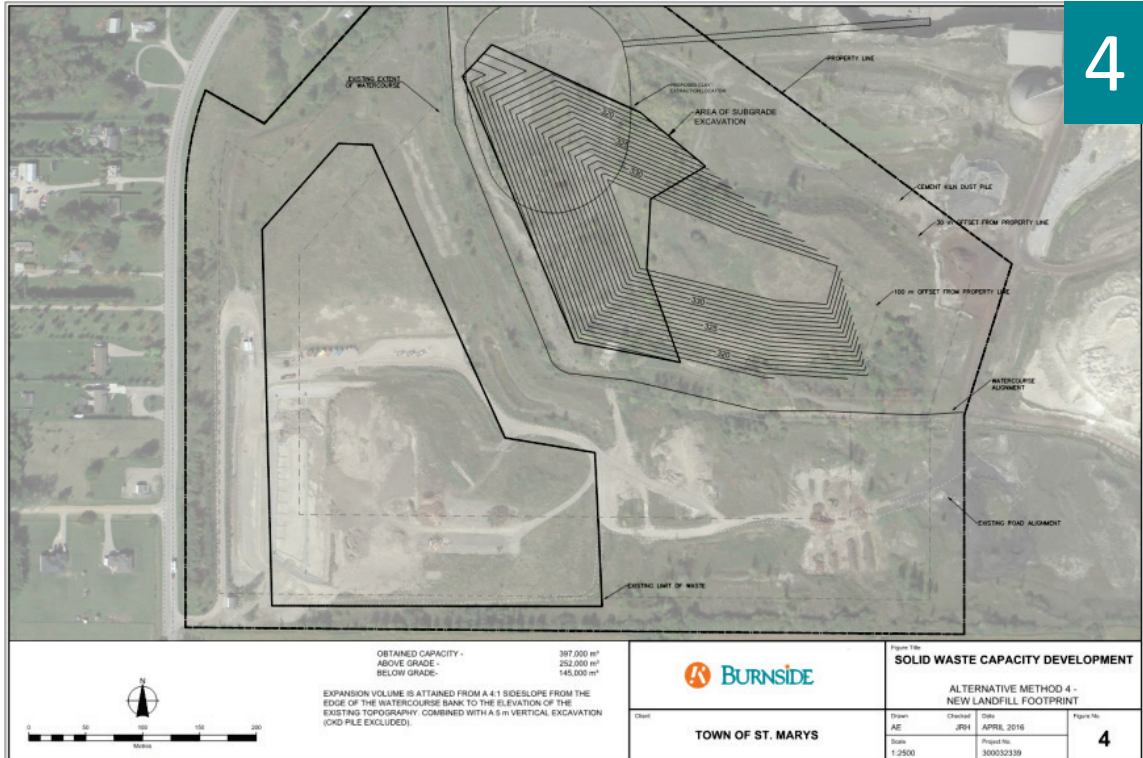


Figure Title
SOLID WASTE CAPACITY DEVELOPMENT

METHOD 3 - COMBINATION OF VERTICAL AND HORIZONTAL EXPANSION

Client TOWN OF ST. MARYS	Drawn AE	Checked JRH	Date APRIL 2016	Figure No. 3
	Scale 1:2500	Project No. 306032339		

Alternative Methods 4 & 5



Work Plans

- Air, Noise & Vibration
- Archaeological & Cultural Heritage
- Hydrology/Hydrogeology
- Natural Heritage (Biology)
- Socio-Economic

Work Plans identified:

- Data review and field studies to be undertaken
- Criteria to evaluate Alternative Methods
- How mitigation plans will be developed

Assessment Highlights






- Air, Noise & Vibration: site can be expanded without significant impacts (similar to current)
- Species At Risk (SAR) are present, requiring care during expansion
- Surface water, groundwater and soil conditions are favourable for expansion

Draft subject area reports are available at:

[www.townofstmarys.com/en/living-here/
Landfill-Environmental-Assessment.aspx](http://www.townofstmarys.com/en/living-here/Landfill-Environmental-Assessment.aspx)

Comparison of Alternative Methods

- Methods compared for:
 - A. Natural Environment
 - B. Cultural Environment
 - C. Aboriginal Connections to the Land
 - D. Socio-Economic
 - E. Financial
 - F. Technical
- Criteria assessed on a qualitative basis

Rankings	
Best	
	
	
	
Worst	

Evaluation Results

		Method 1	Method 2	Method 3	Method 4	Method 5
Natural Environment	Includes potential effects on air quality, climate change, groundwater, lakes and rivers, wildlife habitat, Endangered and Threatened species, potential use of aggregate resources.	●	◐	◐	◑	○
Cultural Environment	Includes potential effects on cultural and archaeological resources and heritage landscapes.	●	●	●	●	●
Aboriginal Connections to the Land	Includes consideration of Aboriginal rights, treaties, historical and traditional use of the land.	●	●	●	●	●
Socio-economic Factors	Includes conformity with municipal plans and policies, impacts to residents, local businesses and industries, quality of service, nuisance effects, aesthetics.	○	●	●	◑	◑
Financial Factors	Includes capital costs, operation and maintenance costs, long-term security/stability of costs and overall cost/tonne of waste.	●	●	●	○	◑
Technical Factors	Includes consideration of known/proven vs. emerging/untested technologies, approvals/agreements required and timeframe of the solution.	◐	◐	●	○	◑
Overall Ranking		◐	◑	●	○	◑

Preferred Method:
**Combination of Vertical
 and Horizontal Expansion**



Next Steps

- Consider all comments received on
 - Draft Subject Area Reports
 - Evaluations
 - Preferred Method
- Continue with ongoing consultation
- Prepare draft EA report for stakeholder review
- Finalize EA report submission to the MOECC

Thank - You

- We appreciate your participation
- If you have additional questions or comments please contact either

Dave Blake, C.E.T.

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