



# CLC Meeting 26 - Materials

Southwestern Landfill Environmental Assessment

March 10, 2017

Dear CLC members,

Please find enclosed the materials for the upcoming CLC meeting on **Wednesday, March 22, 2017** at 6:00 pm (dinner will be available at 5:30 pm).

In general, this meeting will focus on the work plans for the Social, Agriculture, Economic, and Agricultural studies. Enclosed are the work plans and summaries of the work plans in addition to other meeting materials:

- 1) CLC Meeting 26 Agenda
- 2) Business Arising Report
- 3) Summary of Updated Draft Social Technical Work Plan
- 4) Updated Draft Social Technical Work Plan (updates are identified)
- 5) Summary of Updated Draft Agriculture Technical Work Plan
- 6) Updated Draft Agriculture Technical Work Plan (updates are identified)
- 7) Summary of Updated Draft Economic Technical Work Plan
- 8) Updated Draft Economic Technical Work Plan (updates are identified)
- 9) Summary of Updated Draft Archaeology Technical Work Plan
- 10) Updated Draft Archaeology Technical Work Plan (updates are identified)
- 11) October 26 CLC meeting Draft Summary – please provide any comments by March 21, when it will be posted on [walkerea.com](http://walkerea.com)

The transcript for CLC meeting 25 (February 22, 2017) is not yet available. It will be distributed as soon as possible.

Looking forward to seeing you at the CLC meeting.

Warm regards,

Becky Oehler  
Community Engagement Manager  
905-680-3675, [boehler@walkerind.com](mailto:boehler@walkerind.com)

**Date:** Wednesday, March 22, 2017

**Time:** 6:00 pm – 9:00 pm  
(Dinner will be available at 5:30)

**Location:** 160 Carnegie Street, Ingersoll (Lower Meeting Room)

**Meeting Materials:**

- Updated Draft Work Plan Summaries
- Meeting 25 Business Arising Report

	Description	Lead	Duration	End Time
1	<b>Welcome</b>	Facilitator	5 min	6:05
2	<b>Objectives and Review of Agenda</b>	Facilitator	5 min	6:10
3	<b>Presentation &amp; Discussion</b> <i>Topics: Summaries of Updated Draft Work Plans</i> <ol style="list-style-type: none"> <li>1. Social (Consultant Available)</li> <li>2. Agriculture</li> <li>3. Economic/Financial</li> <li>4. Archaeology (postponed to April meeting)</li> </ol> <b>10-minute break at 7:40 pm</b>	ALL	2 hr, 30 min	8:40
4	<b>CLC Update &amp; Correspondence</b>	ALL	15 min	8:55
5	<b>Action Items &amp; Next Meeting</b>	ALL	5 min	9:00
6	<b>CLC Discussion with EA Advisor</b>	CLC/AG	1 hour	10:00

## Objectives of this Document

- Provide a summary on how the upcoming social study will be conducted.
- Highlight the key changes that were incorporated in the technical work plan as a result of public consultation.
- Obtain final input from the local community, other stakeholders, and First Nations prior to beginning the technical study, which is scheduled to occur between Spring 2017 and Spring 2018.

## Technical Study Approach

There are 13 technical work plans that will be finalized by May 2017. Each work plan explains a particular study that will assess the proposed landfill. All studies must follow the same assessment approach found in Section 8.2 of the Approved Amended Terms of Reference (paraphrased here):

- Describe the **environment potentially affected**
- Carry out an **evaluation of the potential environmental effects**
- Carry out an evaluation of any additional actions that may be necessary to **prevent, change or mitigate (any negative) environmental effects**
- Prepare a description and evaluation of the **environmental advantages and disadvantages** of the proposed undertaking, accounting for any mitigation measures that would be implemented (net effects).
- Prepare **monitoring, contingency, and impact management plans** to remedy net environmental effects.

In this case, “**environment**” means the natural, social, and economic environment.

## What is included in the Social Study?

**Definition:** The social study is the process of analyzing the intended and unintended social consequences, both positive and negative, of a project on a community and recommending methods to reduce and manage any residual negative effects.

The social study will report on the potential for effects on:

- **People’s way of life:** where and how people live, work, play and interact on a day-to-day basis
- **The community:** cohesion, stability, character, services and facilities
- **The environment:** the cumulative effects of possible changes in the quality of air, water, dust and noise, as well as other nuisances that may be experienced such as litter, pests, or visibility
- **Traditional activities:** Indigenous land resources and interests

## Study Area

<b>On-Site &amp; Site Vicinity</b>	<ul style="list-style-type: none"> <li>• <i>On-Site</i>: the waste disposal facility and associated buffer zones</li> <li>• <i>Site Vicinity</i>:                             <ul style="list-style-type: none"> <li>○ All properties within a 2 km radius from the proposed landfill buffer zone</li> <li>○ Extended to include all properties up to the nearest road (e.g., Highway 401) as appropriate, as well as the community of Beachville, towards the western boundary of Woodstock</li> </ul> </li> </ul>
<b>Along the Haul Routes</b>	<ul style="list-style-type: none"> <li>• Includes all properties within approximately 500 m on either side of Highway 6 running north from the interchange at Highway 401 to the proposed landfill site entrance</li> </ul>
<b>Wider Area</b>	<ul style="list-style-type: none"> <li>• County of Oxford, Township of Zorra, Township of South West Oxford, Town of Ingersoll</li> </ul>
<b>Traditional Lands</b>	<ul style="list-style-type: none"> <li>• Effects on land resources, traditional activities or other interests of Aboriginal communities</li> </ul>

## Specific Approach for the Study

**1) Review of Background Information:** To establish a baseline (or community profile) and allow for an analysis of the existing social context for the project.

*Examples of background research information:*

- Field mapping of residences, businesses, farm operations and community facilities/service areas
- Statistics Canada and other federal departmental data
- Municipal data, including planning data
- Conservation Authority information
- Municipal vision statements, economic development and sustainability plans, infrastructure and recreational plans etc.
- First Nation / Aboriginal community land use, traditional knowledge, and socio-economic data
- Information available from public facilities and institutions, community groups, and organizations

**2) Collection of Field Data:** using current dialogue platforms put in place by Walker, the consultant will work alongside Walker using a variety of formats to capture a full-range of data including:

- Review workshops documents, Community Liaison Committee meetings (CLC), First Nation Workshops
- Group Meetings / Focus Groups
- Interviews and Survey with Residents

**3) Data Analysis:** Results on how the proposed landfill will interact with the community, both positive and negative, with full consideration of the community's concerns and aspirations. For significant effects, a social management plan will be designed and may include:

- Actions to avoid, or reduce adverse impacts.
- Actions to maximize beneficial impacts.
- Policies/Programs to ensure a timely and appropriate response to potential and unanticipated impacts.
- Policies/Programs for establishing and maintaining co-operative, harmonious relationships between the project proponent and the community.

## Assumptions & Guiding Documents

### Key Assumptions:

- Landfill design meets O.Reg. 232/98 standards.
- Site design (Facility Characteristics Assumptions).
- Landfill design has flexibility to accommodate other potential end uses, determined at the time of closure.
- Carmeuse Lime mining at the proposed site will continue to approximately 2025. Between 2025 and 2035, mining will shift north of Road 64.
- Haul route and site entrance remains the same throughout construction and operations.

### Key Guidance Documents/Standards:

- Provincial standards, regulations and guidelines (Ontario Municipal Board, 1997)
- Government of Ontario's Code of Practice for Preparing and Reviewing Environmental Assessments in Ontario (January, 2014)
- Other standards, regulations and guidelines upon which the Social Assessment will be based will include relevant criteria for defining nuisance and other effects, including air quality (e.g., dust, odour), noise and traffic

## Key Community Input

The following list summarizes key input received during the development and review of the Terms of Reference and input received to-date from community members, organizations, other interested stakeholders, and First Nations:

- Concern about potential impacts such as noise, odour, vibration, dust, and visual effects
- Change in the satisfaction with living in the area
- Change in the sense of health, safety and well-being of the community
- Concern regarding loss of enjoyment of private property as well as public and recreational features
- Concern about potential impacts to property value

## Key Updates to Technical Work Plans

Key changes between the Draft Technical Work Plans (from the Terms of Reference) and the Updated Technical Work Plans, based on public, government and peer review:

- Provided more detail about the scope and objectives for each of the data collection methods.
- Confirmed the number, timing and general areas for the Kitchen Table meetings and personal and/or telephone interviews to be undertaken.
- Provided more detail about the scope for the assessment of effects on land resources, traditional activities or other interests of Aboriginal communities.

## Technical Experts & Reviewers

SLR (Canada) Ltd. will be carrying out the social study along with Intellipulse Inc. who will be responsible for implementing the public attitude research. Technical reviewers of the Updated Draft Social Technical Work Plan and study results will include:

- Joint Municipal Coordinating Committee (JMCC) Peer Review Team
- Government Review Team
- Other peer reviews as agreed to by Walker

The Updated Draft Social Technical Work Plan is now available for comment by government reviewers, the Joint Municipal Coordinating Committee Peer Review Team, and other interested parties.

**DOCUMENT ACCESS:** Online at [www.walkerea.com](http://www.walkerea.com) or by contacting us at 1-855-392-5537 or [info@walkerea.com](mailto:info@walkerea.com).

**SUBMIT COMMENTS:** By mail/in-person: Walker Environmental, 160 Carnegie St. Ingersoll, ON, N5C 4A8

By email: [info@walkeea.com](mailto:info@walkeea.com)

# Agriculture

## Summary Updated Technical Work Plan



### Southwestern Landfill Environmental Assessment

## Objectives of this Document

- Provide a summary on how the upcoming agriculture study will be conducted.
- Highlight the key changes that were incorporated in the technical work plan as a result of public consultation.
- Obtain final input from the local community, other stakeholders, and First Nations prior to beginning the technical study, which is scheduled to occur between Spring 2017 and Spring 2018.

## Technical Study Approach

There are 13 technical work plans that will be finalized by May 2017. Each work plan explains a particular study that will assess the proposed landfill. All studies must follow the same assessment approach found in Section 8.2 of the Approved Amended Terms of Reference:

- Describe the **environment potentially affected**
- Carry out an **evaluation of the potential environmental effects**
- Carry out an evaluation of any additional actions that may be necessary to **prevent, change or mitigate (any negative) environmental effects**
- Prepare a description and evaluation of the **environmental advantages and disadvantages** of the proposed undertaking, accounting for any mitigation measures that would be implemented (net effects).
- Prepare **monitoring, contingency, and impact management plans** to remedy the net environmental effects

In this case, “**environment**” means the natural, social, and economic environment.

## What is included in the Agriculture Study?

*The agriculture study will produce a report about any potential impacts the proposed landfill could have on agriculture.*

Examples of potential impacts:

- A change in agricultural land
- A change in farming operations

“Agriculture” includes:

- Agricultural resources
- Agricultural facilities
- Agricultural operations

**Definition:** Agriculture is the science, art, or practice of cultivating of soil, producing of crops, and raising of livestock.

## Study Area

<b>On-Site &amp; Site Vicinity</b>	<ul style="list-style-type: none"> <li>• The area proposed for the waste facility plus its associated buffer zones.</li> <li>• All agricultural lands and facilities situated immediately adjacent to the proposed landfill.</li> </ul>
<b>Along the Haul Routes</b>	<ul style="list-style-type: none"> <li>• All farm properties located on both sides of the haul route.</li> <li>• Includes access to both farm facility laneways and field access points.</li> </ul>
<b>Wider Area</b>	<ul style="list-style-type: none"> <li>• Refers to the larger agricultural area around the proposed site. Agricultural census data describing the broader agricultural context in Zorra and South-West Oxford Townships and Oxford County will be used.</li> </ul>

## Specific Approach for the Study

**1) Review of Background Information:** to provide an agricultural context for the landfill proposal and establish agricultural baseline conditions. Background information includes:

- **Land resource characteristics supporting agriculture:** including soil, drainage, topography and micro-climate considerations to determine soil capability for common field crops and site suitability for specialty crops
- **Agricultural land use and related activities:** including livestock production, specialty crop and common field crop production and general agricultural use associated with farm operations or facilities and supporting agri-business support services and facilities.

**2) Collection of Field Data** will include the following:

- Within the *Site Vicinity*, mapping of agricultural and nonagricultural land use.
- An integrated landowner survey and liaison with interested agriculture stakeholder groups.

**3) Data Analysis:**

- Background and field data collection will form the basis for assessing the potential impact on agriculture.
- The report will include:
  - Characterization of the nature of the onsite, adjacent and surrounding agricultural resources and production.
  - The level of agricultural resource capability and the type and intensity of production and investment.
  - The potential for displacement of existing or rehabilitated agricultural land due to the proposed landfill.
  - The potential fragmentation effects on agricultural and farmland continuity due to the proposed landfill.



## Assumptions & Guiding Documents

### Key Assumptions:

- Agriculture will continue as a dominant economic sector in Oxford County.
- Agriculture will continue to be a prominent land-use surrounding the proposed landfill site both during and following the closure of the waste facility.
- Storm water in contact with the active and open working area will be directed to a leachate collection system for full treatment as landfill leachate.
- Daily cover will be applied and dust, litter, bird and pest controls will be put in place to control nuisance effects.
- Potential end uses will include passive green space and agriculture.

### Key Guidance Documents/Standards

- Soil Survey of Oxford County (Report No. 28, of the Ontario Soil Survey) and the published Upgrade of Soil Survey Information for Oxford County, December, 1996.
- Canada Land Inventory soil capability for agriculture mapping (OMAFRA AgMaps).
- Provincial mapping of artificial (tile) land drainage.
- Existing land use mapping as available from Oxford County (Interactive GIS Mapping).
- Provincial Policy Statement Draft Policies and Local Official Plan designations and associated policies for the study areas, as they may relate to agriculture.
- Carmeuse Quarry Rehabilitation Site Plan.

## Key Community Input

The following list summarizes key input received during the development and review of the Terms of Reference and input received to-date from community members, organizations, other interested stakeholders, and First Nations:

- Concern for potential impacts on agricultural lands including flooding or drainage disruption
- Concern for potential impacts on agricultural activities and production

## Key Updates to Technical Work Plans

- Study area illustration and reinforced recognition of boundary flexibility in relation to study findings.
- Additional indicator/measure to recognize farm business impacts.
- Inclusion of agricultural land use forecasting during operations and post-closure.
- Inclusion of climate change information for the period during operations and post-closure.
- Refinements to the listing of background data to be collected and reviewed.
- Agricultural characterization to include the quarry rehabilitation and specialty crop production potential.
- Refinement to expand the analyses to include impacts on support services and suppliers and on farm community character and cohesion.

## Technical Experts & Reviewers

Conna Consulting Inc. will be carrying out the agriculture study. Technical reviewers of the Updated Draft Agricultural Technical Work Plan and study results will include:

- Joint Municipal Coordinating Committee (JMCC) Peer Review Team
- Government Review Team
- Other peer reviews as agreed to by Walker

The Updated Draft Agriculture Technical Work Plan is now available for comment by government reviewers, the Joint Municipal Coordinating Committee Peer Review Team, and other interested parties.

**DOCUMENT ACCESS:** Online at [www.walkerea.com](http://www.walkerea.com) or by contacting us at 1-855-392-5537 or [info@walkerea.com](mailto:info@walkerea.com).

**SUBMIT COMMENTS:** By mail/in-person: Walker Environmental, 160 Carnegie St. Ingersoll, ON, N5C 4A8

By email: [info@walkerea.com](mailto:info@walkerea.com)

## Objectives of this Document

- Provide a summary on how the upcoming economic study will be conducted.
- Highlight the key changes that were incorporated in the technical work plan as a result of public consultation.
- Obtain final input from the local community, other stakeholders, and First Nations prior to beginning the technical study, which is scheduled to occur between Spring 2017 and Spring 2018.

## Technical Study Approach

There are 13 technical work plans that will be finalized by May 2017. Each work plan explains a particular study that will assess the proposed landfill. All studies must follow the same paraphrased assessment approach found in Section 8.2 of the Approved Amended Terms of Reference:

- Describe the **environment potentially affected**
- Carry out an **evaluation of the potential environmental effects**
- Carry out an evaluation of any additional actions that may be necessary to **prevent, change or mitigate (any negative) environmental effects**
- Prepare a description and evaluation of the **environmental advantages and disadvantages** of the proposed undertaking, accounting for any mitigation measures that would be implemented (net effects).
- Prepare **monitoring, contingency, and impact management plans** to remedy the net environmental effects

In this case, “**environment**” means the natural, social, and economic environment.

## What is included in the Economic Study?

**Definition:** The economic study will identify the potential economic and financial effects associated with the proposed landfill, and will measure the potential changes in business revenues, business profits, finances, and/or jobs.

It includes the following areas of study:

1. Impact on businesses (income and land use)
2. Effects on employment
3. Project-associated business opportunities
4. Public costs and liabilities
5. Effects on municipal tax bases and finance
6. Effects on the cost of service for customers
7. Effects on the provincial and federal tax bases
8. Property value effects

## Study Area

<b>On-Site &amp; Site Vicinity</b>	<ul style="list-style-type: none"> <li>• Displacement and disruption to area businesses</li> <li>• Property value effects</li> <li>• Public costs and liabilities</li> </ul>
<b>Along the Haul Routes</b>	<ul style="list-style-type: none"> <li>• Displacement and disruption to area businesses</li> <li>• Property value effects</li> <li>• Public costs and liabilities</li> </ul>
<b>Wider Area</b>	<ul style="list-style-type: none"> <li>• Public costs and liabilities</li> <li>• Effects on municipal tax bases and finance</li> <li>• Effects on cost of service for customers</li> <li>• Effects on provincial and federal tax bases</li> </ul>

## Specific Approach for the Study

- 1) Review of Background Information:** Existing data will be considered and incorporated, as appropriate. This may include but is not limited to: economic development reports, municipal finance documents, real estate sales records and databases, waste management industry reports, and Statistics Canada data.
- 2) Collection of Field Data:** Economic and financial information will also be obtained through the collection of field data, including a business inventory and interviews with property owners.
- 3) Data Analysis:** carrying out predictions, estimates and forecasts of the potential economic impacts including:

  - Potential impacts on property value.
  - Potential effects on local businesses.
  - Direct, indirect, and induced impacts on employment, labour income, gross domestic product and provincial, federal and property income taxes.
  - Potential cost and revenue impacts of the proposed landfill on lower tier municipalities and the County of Oxford using municipal financial models.
  - Southwestern Ontario customer cost within current waste management systems, and the prospective customers’ cost for using the proposed landfill.
  - Economic implications of greenhouse gas (GHG) emissions under the Province’s new cap and trade program.

## Assumptions & Guiding Documents

### Key Assumptions:

- Site operations for approximately twenty years, after which the site will be closed and vegetated.
- Leachate and storm water controls will continue to be operated post-closure.
- Landfill gas emissions will be managed through flaring and/or beneficial use.
- No significant change in the land use or zoning is anticipated in the site vicinity.
- New residential and commercial development is not anticipated within the 1km Study Area.
- The majority of new growth is anticipated to occur in the 5km Study Area.

### Key Guidance Documents/Standards:

- Bill 151, 2016: Waste Free Ontario Act
- Bill 172, 2016: The Climate Change Mitigation and Low-Carbon Economy Act (Climate Change Act)
- MOECC, 2015: Draft Strategy for a Waste Free Ontario: Building the Circular Economy
- Development Charges Act, Reg. 82/98

## Key Community Input

The following list summarizes key input received during the development and review of the Terms of Reference and input received to-date from community members, organizations, other interested stakeholders, and First Nations:

- Concern for potential impacts on area businesses including commercial farm operations.
- Interest in the potential for local area job creation and new business opportunities.
- Concern for potential imposition of costs and liabilities on local area municipalities.
- Concern for potential property value effects or revenue stream (both residential and commercial).
- Interest in the potential impact on of the proposed landfill on existing waste management programs and their customers.

## Key Updates to Technical Work Plan

Key changes between the Draft Technical Work Plans (from the Terms of Reference) and the Updated Technical Work Plans (updated draft; not yet finalized), based on public, government and peer review:

- Addition of economic analysis of potential greenhouse gas (GHG) emissions
- Use of Teranet on-line data to assist with the determination of property value effects
- Inclusion of a section describing key assumptions related to Facility Characteristics, Land Use Forecast and Climate Change (Section 6).

## Technical Experts & Reviewers

Keir Corp. will be carrying out the economic study. Technical reviewers of the Updated Draft Economic Technical Work Plan and study results will include:

- Joint Municipal Coordinating Committee (JMCC) Peer Review Team
- Government Review Team
- Other peer reviews as agreed to by Walker

The Updated Draft Economic Technical Work Plan is now available for comment by government reviewers, the Joint Municipal Coordinating Committee Peer Review Team, and other interested parties.

**DOCUMENT ACCESS:** Online at [www.walkerea.com](http://www.walkerea.com) or by contacting us at 1-855-392-5537 or [info@walkerea.com](mailto:info@walkerea.com).

**SUBMIT COMMENTS:** By mail/in-person: Walker Environmental, 160 Carnegie St. Ingersoll, ON, N5C 4A8

By email: [info@walkerea.com](mailto:info@walkerea.com)

## Items from Meeting 25

Business Arising		Responsibility	Response	Status
1	Walker to relay to Carmeuse that a CLC member requested the Environmental Registry posting comment period be extended.	Walker Environmental	DF will contact Carmeuse and provide correspondence to CLC. (See letter on next page.)	Complete
2	MOECC representative to determine if there are currently any MOECC Orders on Carmeuse (Beachville) and provide information to CLC.	MOECC	The London District Office of the Ministry of the Environment and Climate Change currently does not have any outstanding ministry orders associated with Carmeuse Lime (Canada) Limited.	Complete
3	Walker to provide a summary about how Species at Risk are identified.	Walker Environmental		In Progress
4	Walker to provide information about why the air quality study area is different than the ecology study area, with attention to the fact that air quality affects ecology.	Walker Environmental	Walker to contact technical consultants.	In Progress
5	Walker to update the Facility Characteristics document to reflect how many workers will be required to manage and operate the leachate treatment facility, and to provide information to the CLC regarding staffing the facility (24 hour staffing or not).	Walker Environmental	Information/Update on request will be provided at CLC Meeting 26 on March 22, 2017.	In Progress

Mr. Chris Martin  
Regional Environmental Manager  
Carmeuse Lime & Stone (Canada) Limited  
P.O. Box 190, County Road 6  
Ingersoll, ON N5C 3K5

3-Mar-2017

Dear Mr. Martin:

**Re: ER Comment Period re: Licence No. 2130, 2129 and 2136**

At our Community Liaison Committee Meeting (CLC) on February 22, 2017, we received a request from a CLC member to contact you regarding the current posting on the Ontario Environmental Registry regarding the application to amalgamate Licences No. 2130, 2129 and 2136. The member requested that Walker forward to Carmeuse the members request to extend the comment period.

Please consider this letter as our fulfillment of the request.

Warm regards,



Darren Fry  
Project Director, SWLF EA



## Carry Over Items from CLC Meetings in 2016 (Meetings 16-24)

Business Arising		Responsibility	Response	Status
1	Clarify in the Facility Characteristics Assumptions report the total amount of waste that may be acceptable per year.	Walker Environmental	Walker will add the following statement to the first bullet in Section 3.2.3 of the Facility Characteristics Assumption Report: "Therefore, the total combined waste receipt may be up to 1,100,000 cubic metres per year"	In Progress
2	Walker to make revisions to the Cumulative Effects Summary.	Walker Environmental	Walker will revisit the Cumulative Effects Summary with the CLC at the April 26, 2017 CLC Meeting 27.	In Progress
3	Request to let the CLC know the outcomes of them meeting between the Traffic Consultant and the Ministry of Transportation	Walker Environmental	Walker will notify the CLC when Correspondence Material is posted online.	In Progress
4	Update visual impacts work plan include the landfill map from the Approved Terms of Reference which includes the outline to Karn Road.	Walker Environmental	Walker will edit the map to show Karn Rd. in the study area.	In Progress
5	Provide MTO with community and public concerns relating to traffic and contingency planning	DF	In progress Walker will provide this information to the MTO.	In Progress

## Carry-Over Items from Meetings during ToR Phase:

Business Arising		Responsibility	Status
1	Revisit the Mayor of Ingersoll regarding municipal green initiatives.	DF	In Progress DF to discuss with Mayor of Ingersoll.
2	Clarify question – is there a mental health study being done?	DF	In Progress The question will be referred to the Economic expert for consideration during the EA

Business Arising		Responsibility	Status
3	Evaluate the connection between HHRA and Economic Impact assessment in criteria table regarding potential economic impacts on area health system. (Show the link on the EA Criteria Table)	DF	In Progress This comment will be referred to the Economic expert for consideration during the EA.
4	Determine if there will be a truck wash. If so, identify if there will be a liner under the truck wash.	DF	In Progress This comment will be referred to the landfill design team for consideration during the EA.
5	Combinations of quarry and landfill monitoring and the margin of error – create data analysis from the South Landfill comparing the predictions with the actual data.	DF	In Progress This comment will be referred to each expert for inclusion in the background data collection task during the EA.
6	Intrinsic to review their landfill-specific human health risk assessments literature and its performance evaluation of what has been predicted and what the results are to identify any trends and gaps.	DF	In Progress Will be included when the work plans are finalized.
7	Provide information on Richmond Landfill. Intrinsic will see what information is available from work they may have done.	JT	In Progress Intrinsic to follow up regarding public HHRA information.
8	Look at establishing sensitive receptors that will include industrial and businesses such as Carmeuse, Blue-con and Federal White.	DF	In Progress This comment will be referred to the HHRA expert for consideration during the EA.
9	Provide a report on health trends based on information available from local, provincial and federal sources that pertains to this region as soon as possible, and be made available for the human health risk assessment and to the CLC.	DF	In Progress This comment will be referred to the HHRA expert for inclusion in the background data collection task during the EA.
10	If the CLC is aware of local natural/environmental events, provide information to Walker who will then pass it along to Golder Associates.	CLC	Ongoing
11	Contact the Agricultural agencies and let them know the CLC Members would like to attend the meeting when they meet with the technical expert.	DF	In Progress

## CLC Meeting 26

Other documents sent as materials, but not included as pages in this Appendix (to cut down on duplication, paper waste and/or very large digital files):

- 1) Updated Draft Technical Work Plan (red-line version):
  - a. Social: [http://www.walkerea.com/uploads/609/Doc\\_636247386643262827.pdf](http://www.walkerea.com/uploads/609/Doc_636247386643262827.pdf)
  - b. Agriculture: [http://www.walkerea.com/uploads/601/Doc\\_636247389974857634.pdf](http://www.walkerea.com/uploads/601/Doc_636247389974857634.pdf)
  - c. Economic: [http://www.walkerea.com/uploads/609/Doc\\_636247506634566783.pdf](http://www.walkerea.com/uploads/609/Doc_636247506634566783.pdf)
- 2) Transcript: [http://www.walkerea.com/uploads/1130/Doc\\_636292283813395238.pdf](http://www.walkerea.com/uploads/1130/Doc_636292283813395238.pdf)

*Please contact us at [info@walkerea.com](mailto:info@walkerea.com) or toll-free at 1-855-392-5537 if you require assistance accessing these documents online or in hard copy.*

# Southwestern Landfill CLC #27

## Meeting Summary

**Date:** April 26, 2017  
**Time:** 6:00 p.m. – 9:30 p.m.  
**Location:** 160 Carnegie Street, Ingersoll (Lower Meeting Room)

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### MEETING OVERVIEW

The purpose of the CLC Meeting 27 was to present and discuss the air quality, human health risk assessment (HHRA), noise/vibration, and archaeology updated technical work plans. The air quality & noise/vibration and HHRA consultants attended the meeting to answer questions and listen to CLC members input.

### Agenda # 2 – Discussion on Facility Characteristics

- Walker proposed that the discussion on Facility Characteristics be postponed to a CLC Meeting in May and members agreed. The suggestion was made to accommodate the limited time available at the April meeting to review the updated work plans.
- There was, however, a brief discussion in response to a CLC member's question on whether changing the location of the ancillary facilities to the North-East corner of the footprint conflicted with the Approved Terms of Reference (ToR) or the Provincial Policy Statement (PPS). The CLC member indicated that this question was being raised because the revised location is on aggregate reserves.
- Walker explained that this change to the Facility Characteristics is still within the scope of the Approved ToR. In addition, Walker stated that since the facilities are temporary (i.e. not a permanent land use; used to treat leachate during the contaminating lifespan of the landfill) it does not prevent future mining of the aggregate reserve and therefore is not in conflict with the PPS.

### Agenda # 3 – Discussion on Walker's Presentation of Updated Technical Work Plans

#### Air Quality

- Walker presented the [Summary of Updated Air Quality Work Plan](#), which includes a description of how the study will be carried out. In particular, Walker reviewed the types of receptor locations (neighbourhoods, public parks, nature trails, etc), how the potential for blowing litter will be analyzed, and how greenhouse gas emissions will be assessed.
- Some CLC members commented that they felt there was a lack of precision/detail in the Air Quality Work Plan.
  - The Air Quality consultant acknowledged that not all of the information is known and that during background data collection, more detail on how the study will be conducted will be defined.
- A number of questions/comments on the Air Quality work plan were discussed:
  - **Study Area** – A CLC member asked for confirmation that 5 km is the minimum study area distance.
    - For the study area, the consultant clarified that the full 5 km study area will be studied. The modeling will follow the Ministry of the Environment and Climate Change's (MOECC) Air Dispersion Modeling Guideline. If modeling reveals potential impacts beyond 5 km, the study area will be extended accordingly.
  - **Receptor Locations** – Some CLC members indicated that they wanted to know the exact location of the receptors.

# Southwestern Landfill CLC #27

## Meeting Summary

- The consultant explained that the receptor locations will be identified, in coordination with other studies like the Human Health Risk Assessment (HHRA). The objective is to select locations with the highest potential for impacts. They will be selected after the air dispersion modeling is completed.
- **Modeling and Monitoring** – Some CLC members asked questions on what parameters will be modeled and what monitoring will be undertaken. They also wanted to know who determines the adequacy of the modeling.
  - The consultant explained that the MOECC's Government Review Team will provide their assessment on the adequacy of the proposed modeling and monitoring programs.
  - During the background study, existing data will be collected and reviewed. For some parameters there may be adequate information already available. For others, monitoring may be required to gather additional data. The consultant said that it's unlikely there is sufficient data available for Volatile Organic Compounds, so monitoring is very likely for those parameters. The data collected from background information and from monitoring will define the current state of air quality in the area (baseline).
  - Modelling will be undertaken to determine the potential effects of the landfill on air quality. The proposed landfill must be modelled (rather than monitored) because it does not currently exist.
- **Landfill Gas Modeling** - A CLC member requested that all 23 compounds for the landfill gas dispersion modeling be included in the final report regardless if they are above or below the threshold currently set for mapping.
  - The consultant confirmed that all results of the 23 compounds will be reported in a table and that the compounds above threshold will be plotted on a map.
- **Litter** - A CLC member asked how litter at the various stages of the landfill lifespan will be evaluated.
  - The consultant explained that the landfill will be modeled at different heights throughout the lifespan of the project to determine the potential for blowing litter. This process will identify the zones of highest potential impact off-site and lead to recommendations for mitigation measures such as litter fences and litter control employees.
- **Climate Change** - A CLC member asked how climate change will be considered in the Air Quality study.
  - The consultant specified that the greenhouse gas (GHG) emissions from the landfill and associated truck traffic will be calculated and included in the study.
  - Walker elaborated that climate change is being looked at from two perspectives; 1) the potential impact on climate change from the landfill (GHG emissions/reductions) and 2) how climate change (ie. increased storm severity) could impact landfill operations (adapting to climate change that is occurring).

### Human Health Risk Assessment (HHRA)

- Walker presented the [Summary of the Updated HHRA Work Plan](#). Walker explained that the HHRA will use information collected from other studies to evaluate the potential risk to human health from the proposed landfill.

# Southwestern Landfill CLC #27

## Meeting Summary

- Updates to the work plan include types of receptor locations and the addition of the Supplementary Health Review in response to the MOECC Amendment.
- A number of questions/comments on the HHRA Work Plan were discussed:
  - **Priority concern** - CLC members indicated to the consultant that health and safety of the community is a top concern.
  - **Human Health Determinants** - A CLC member asked for further information on the Supplementary Health Review including when the Human Health Determinants will be finalized. The consultant explained that the purpose of the Supplementary Health Review is to incorporate a human health lens to the Economic and Social Studies. The consultant indicated that he will need to wait until these two studies are underway to meet with the Medical Officer of Health to finalize which determinants will be included.
  - **Food Chain** - A CLC member was interested in knowing how the full food chain from animal to humans will be studied.
    - The consultant explained that the primary exposure routes for agriculture will be aerial deposit and inhalation. The HHRA study will review, model, and evaluate the maximum cumulative predicted levels of contaminant ingestion by humans via animals (ingestion) and other sources.
  - **Difference between HIA and HHRA** - A CLC member asked about the difference between the Human Impact Assessment (HIA) and the Human Health Risk Assessment (HHRA) and if he thought the HHRA is suitable for this project.
    - The consultant indicated that the HIA is a broader determinant of health effects and that HHRA is typically included within an HIA. The HHRA is used to predict risks from exposures that will be studied in the EA. He explained that for the purpose of this project, the HHRA with the Supplementary Health Review will provide a robust understanding of the potential impacts to human health.

### Noise/Vibration

- Walker presented the [Summary of the Updated Noise/Vibration Work Plan](#), which includes key assumptions, community input and updates to the work plan.
- A number of questions/comments on the work plan were discussed:
  - **Expected Effects** - A CLC Member asked Walker and the consultant, based on their experience, what kind of noise and frequency can be expected from the proposed landfill.
    - The consultant indicated that the proposed facility can expect similar noise and vibration as the South Landfill because of its size. Noise information from the South Landfill and other landfill operations of comparable size will be reviewed during background data collection. In addition, the proposed landfill will be modelled and recommendations for noise reductions could include such things as purchasing quieter equipment and modifying operating hours.
    - Walker added that the South Landfill in Niagara does meet the regulatory requirements for noise levels and that some of the noise reduction operating practices includes enclosed equipment, low frequency backup alarms, and no tailgate slamming policy.
  - **MOECC Guidelines and Carmeuse Operations** - A CLC member offered the opinion that the MOECC guidelines for noise was going to be difficult for Walker to meet and wondered how

# Southwestern Landfill CLC #27

## Meeting Summary

Walker will be able to achieve acceptable level of noise, especially with the additive noise from Carmeuse.

- The consultant agreed that the guidelines for noise may present some challenges but it is achievable even with Carmeuse operations nearby, which is similar to Walkers operations adjacent to quarrying in Niagara. He indicated that Walker will be required to stay within the guidelines of 55 decibels during the day and 45 decibels at night.
- If there are elevated readings, Walker and Carmeuse will need to work together to identify acceptable good co-habitation practices to manage acceptable noise levels.

### Archaeology

- Walker presented the [Summary of the Updated Archaeology Work Plan](#).
- Updates to the work plan include clarification on the archaeological process, specifically in determining the area of study and of potential, as well as the addition of background information provided by OPAL and First Nations discussions.
- Walker indicated that in any location where the land will be disturbed by the proposed landfill, the archaeology consultants will complete an assessment and if there is anything found, the consultant will recommend how to proceed.
- A CLC member asked if the new location of the leachate treatment plant will be included.
- Walker responded that yes, it will be part of the study area.
- Walker also indicated that First Nations will likely participate with the archaeology consultants in the field data collection.

### **Agenda #4 – CLC Correspondence**

- Walker provided a summary of Public Event that took place on Wednesday April 19, 2017. Walker indicated that although there was low attendance, there were good discussions on the studies, on groundwater protection, the landfill liner, and traffic.
- Walker mentioned that they presented a project update to the Oxford County Federation of Agriculture board and at a Carmeuse Staff meeting in the past month.
- Walker updated the CLC that they are in the process of scheduling meetings with the Peer Review Team and the Government Review Team for the review of the Updated Technical Work Plans.
- Walker confirmed that at the next CLC meeting in May, there would a discussion on the Facility Characteristics, the Ecology consultant would attend and Walker would provide more information on the timeline for when the consultants will be out in the community completing the technical studies.

### **Closing Remarks - Adjournment**

The next CLC meeting will be held on Wednesday May 24, 2017.

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*Prepared by Katrina Kroeze, CLC Documenter.*

*Approved by Laurie Bruce, CLC Facilitator.*

*If you have any questions about this summary, please call 416-992-9669 or email [communitylaisoninfo@gmail.com](mailto:communitylaisoninfo@gmail.com)*

*If you have questions for Walker, please call 1-855-392-5537 or email [info@walkereq.com](mailto:info@walkereq.com)*



# CLC Meeting 27 - Materials

Southwestern Landfill Environmental Assessment

April 13, 2017

Dear CLC member,

Please find enclosed the materials for the upcoming CLC meeting on **Wednesday, April 26, 2017** at 6:00 pm (dinner will be available at 5:30 pm).

The meeting will focus on the updated work plans for Air Quality, Human Health Risk Assessment (HHRA), Noise & Vibration and Archaeology. The Air Quality and the HHRA Consultants will be available to answer questions.

**Materials:**

1. Agenda
2. Business Arising Report
3. Summaries & Red-line versions of updated work plans (note: Archaeology was provided last meeting)
4. Memorandum (see below)
5. Facility Characteristics Rev. 2
6. Updated Cumulative Effects Work Plan
7. Transcript

The March meeting summary is not yet complete, and will be provided at the April CLC meeting.

There have been a few revised or added documents for the project (enclosed):

1. Facility Characteristics Revision 2
2. Memorandum: For all Parties Reviewing Updated Technical Work Plans (related to Facility Characteristics Assumptions revision 2)
3. Cumulative Effects Work Plan (updated to reflect CLC input regarding lack of clarity)

Please let me know if you have any questions in advance of our meeting on the 26<sup>th</sup>.

Warm regards,

Becky Oehler  
Community Engagement Manager  
905-680-3675, [boehler@walkerind.com](mailto:boehler@walkerind.com)





# CLC Meeting 27 - Agenda

## Southwestern Landfill Environmental Assessment

**Date:** Wednesday, April 26, 2017

**Time:** 6:00 pm – 9:00 pm  
(Dinner will be available at 5:30)

**Location:** 160 Carnegie Street, Ingersoll (Lower Meeting Room)

**Meeting Materials:**

- Updated Draft Work Plan Summaries
- Meeting 26 Business Arising Report

	Description	Lead	Duration	End Time
1	Welcome	Facilitator	5 min	6:05
2	Objectives and Review of Agenda	Facilitator	5 min	6:10
3	Facility Characteristics Assumptions (Rev. 2)	WEG	15 min	6:25
<b>Presentation &amp; Discussion</b>				
<i>Topics: Summaries of Updated Draft Work Plans</i>				
4	<ol style="list-style-type: none"> <li>1. Air Quality (Consultant Available)</li> <li>2. Human Health Risk Assessment (Consultant Available)</li> <li>3. Noise/Vibration</li> <li>4. Archaeology (carried over from March meeting)</li> </ol>	WEG	2 hr, 20 min	8:45
5	CLC Update & Correspondence	ALL	10 min	8:55
6	Action Items & Next Meeting	ALL	5 min	9:00
7	CLC Discussion with EA Advisor	CLC/AG	1 hour	10:00

## Objectives of this Document

- Provide a summary on how the upcoming air quality study will be conducted.
- Highlight the key changes that were incorporated in the technical work plan as a result of public consultation.
- Obtain final input from the local community, other stakeholders, and First Nations prior to beginning the technical study, which is scheduled to occur between Spring 2017 and Spring 2018.

## Technical Study Approach

There are 13 technical work plans that will be finalized by May 2017. Each work plan explains a particular study that will assess the proposed landfill. All studies must follow the same assessment approach found in Section 8.2 of the Approved Amended Terms of Reference (paraphrased here):

- Describe the **environment potentially affected**
- Carry out an **evaluation of the potential environmental effects**
- Carry out an evaluation of any additional actions that may be necessary to **prevent, change or mitigate (any negative) environmental effects**
- Prepare a description and evaluation of the **environmental advantages and disadvantages** that would remain after prevention and mitigation measures are implemented (net effects)
- Prepare **monitoring, contingency, and impact management plans** for net environmental effects

In this case, “**environment**” means the natural, social, and economic environment.

## What is included in the Air Quality Study?

The Air Quality study assesses the potential effects on air quality from the proposed landfill from such things as dust, landfill gas emissions, odour, and blowing litter.

<b>Dust</b>	Using standards, predicted dust will be compared against the baseline assessment to determine if the level is acceptable or if other prevention/mitigation measures would be required.
<b>Air Quality</b>	Air quality includes vehicle tail pipe emissions, landfill gas emissions, combustion emissions from landfill gas flaring operations and other sources (waste sources).
<b>Landfill Gas</b>	23 different compounds of interest for landfill gas that will be assessed according to the MOECC Guide to Assess Air Impacts from Landfills, including greenhouse gases.
<b>Odour</b>	The potential impacts from odour will be estimated, taking into account the design of the landfill site and the location of neighbouring properties.
<b>Blowing Litter</b>	Blowing litter is waste that does not stay on-site. The potential for blowing litter and the associated impact zones will be studied.

## Study Area

<b>On-Site &amp; Site Vicinity</b>	<ul style="list-style-type: none"> <li>• Extends to approximately 5 km from the proposed landfill footprint</li> </ul>
<b>Along the Haul Routes</b>	<ul style="list-style-type: none"> <li>• 500m on both sides of the haul route</li> </ul>
<b>Receptor Locations</b>	<ul style="list-style-type: none"> <li>• There will be a number of identified receptor locations (places where people are) that will be used to determine the potential effects of the proposed landfill.</li> </ul>

## Specific Approach for the Study

### 1) Background Information Review:

- Relevant technical reports in Carmeuse's library including 5-years of complaints regarding air quality issues
- Five years' worth of hourly meteorological data from local MOECC approved site
- Existing ambient air quality monitoring (Carmeuse and MOECC)
- Existing Environmental Compliance Approval(s) (Air/Noise)
- Sensitive locations for receptors

### 2) Collection of Field Data:

- Site visit to examine the proposed landfill location and surrounding area (topography), and to determine receptor locations.
- Review current contaminant levels and verify on-going dust data for baseline (current) conditions.
- Determine if historical data meet the needs for this evaluation, and supplement it with additional field monitoring and sampling, where necessary.

### 3) Data Analysis: the baseline (current) information and future predictions will be used to:

- Compare modeling results to MOECC air quality limits and guidelines
- Assess baseline, future proposed and post-closure scenarios for greenhouse gas emissions from stationary and mobile sources of emissions.
- Evaluate the environmental effects
- Evaluate the cumulative effects of the proposed landfill in addition to existing local operations
- Recommend mitigation measures to prevent, change or mitigate adverse environmental effects, if required
- Describe and evaluate any environmental advantages and disadvantages
- Recommended monitoring and contingency plans, as well as triggering mechanisms

Based on the results, a detailed recommendation section will be developed for each parameter (i.e., dust, air quality, odour, greenhouse gas and blowing litter) to help minimize the potential for off-site impacts. If needed, monitoring programs, contingency plans, and triggering mechanisms will be developed.

## Assumptions & Guiding Documents

### Key Assumptions:

- Facility characteristics including site development, on-site infrastructure, designated haul route.
- Site operations for approximately twenty years, after which the site will be closed and vegetated.
- Landfill gas emissions will be managed through flaring and/or beneficial use.
- New residential and commercial development is not anticipated within the 1km Study Area.
- Current and future Carmeuse operations for cumulative effects considerations.

### Key Guidance Documents/Standards:

- Ontario Regulation 419 Standards and Guidelines, Ambient Air Quality Criteria MOECC Guidance Documents (Odour).
- Interim Guideline to Estimate and Assess Air Impacts, MOECC
- Ontario Ambient Air Quality Criteria, MOECC
- Air Contaminants Benchmarks List: standards, guidelines and screening levels for assessing point of impingement concentrations of air contaminants, 2017

## Key Community Input

The following list summarizes key input received during the development and review of the Terms of Reference and input received to-date from community members, organizations, other interested stakeholders, and First Nations:

- Request for receptor locations near daycare or child care facilities, heritage cemetery, heritage farms, and nature trails.
- Concern for gas emissions from landfill and on-site vehicles.
- Concern for dust from construction activities, landfill operations, and on-site and off-site vehicles.

## Key Updates to Technical Work Plan

Key changes between the Draft Technical Work Plans (from the Terms of Reference) and the Updated Technical Work Plans, based on public, government and peer review:

- Addition of potential locations for receptors to be used during the study and for monitoring
- Inclusion of a section describing key assumptions related to facility characteristics, land use forecast and climate change.
- Addition of how the greenhouse gas emissions will be assessed and blowing litter data analyzed.

## Technical Experts & Reviewers

RWDI will be carrying out the air quality study. Technical reviewers of the Updated Draft Air Quality Technical Work Plan and study results will include:

- Joint Municipal Coordinating Committee (JMCC) Peer Review Team
- Government Review Team
- Other peer reviews as agreed to by Walker

The Updated Draft Air Quality Technical Work Plan is now available for comment by government reviewers, the Joint Municipal Coordinating Committee Peer Review Team, and other interested parties.

**DOCUMENT ACCESS:** Online at [www.walkerea.com](http://www.walkerea.com) or by contacting us at 1-855-392-5537 or [info@walkerea.com](mailto:info@walkerea.com).

**SUBMIT COMMENTS:** By mail/in-person: Walker Environmental, 160 Carnegie St. Ingersoll, ON, N5C 4A8

By email: [info@walkeea.com](mailto:info@walkeea.com)

# Human Health Risk Assessment

## Summary Updated Technical Work Plan



### Southwestern Landfill Environmental Assessment

## Objectives of this Document

- Provide a summary on how the upcoming human health risk assessment (HHRA) will be conducted.
- Highlight the key changes that were incorporated in the technical work plan as a result of public consultation.
- Obtain final input from the CLC and community members prior to beginning the technical study, which is scheduled to occur between Spring 2017 and Spring 2018.

## Technical Study Approach

There are 13 technical work plans that will be finalized by May 2017. Each work plan explains a particular study that will assess the proposed landfill. All studies must follow the same assessment approach found in Section 8.2 of the Approved Amended Terms of Reference (paraphrased here):

- Describe the **environment potentially affected**
- Carry out an **evaluation of the potential environmental effects**
- Carry out an evaluation of any additional actions that may be necessary to **prevent, change or mitigate (any negative) environmental effects**
- Prepare a description and evaluation of the **environmental advantages and disadvantages** that would remain after prevention and mitigation measures are implemented (net effects)
- Prepare **monitoring, contingency, and impact management plans** for net environmental effects

In this case, **“environment”** means the natural, social, and economic environment.

## What is included in the HHRA Study?

The Human Health Risk Assessment (HHRA) uses information collected from other studies to evaluate the potential risk to human health from the proposed landfill.

The study will provide information on any potential risk to human health. Risk will be assessed without the proposed landfill (current conditions) and then with the proposed landfill (predicted conditions).

For there to be a risk to human health, there has to be an overlap of three things: a hazard, an exposure pathway, and a receptor. The diagram to the right shows this overlap.



## Study Area

<b>On-Site &amp; Site Vicinity</b>	<ul style="list-style-type: none"> <li>• <i>On-site</i> extends to approximately 5 km from the proposed landfill.</li> <li>• The area will vary depending on the exposure pathway examined. For instance, air quality will be considered up to 5 km, or beyond where necessary, whereas water quality and quantity will take into account where there would be discharge to surface water and where groundwater would be lowered due to landfill activities.</li> </ul>
<b>Along the Haul Routes</b>	<ul style="list-style-type: none"> <li>• At least 500 m on both sides of the haul route.</li> </ul>
<b>Receptor Locations</b>	<ul style="list-style-type: none"> <li>• There will be a number of identified receptor locations (places where people are) that will be used to determine the potential effects of the proposed landfill.</li> <li>• Receptor locations include features such as neighbourhoods, businesses, and recreational areas.</li> </ul>

## Specific Approach for the Study

**1) Background Information and Data Collection:** Background measurements and predicted future air concentrations for the relevant contaminants will be provided by the Air Quality study and water concentrations will be provided by the Groundwater/Surface Water study.

**2) Data Analysis:** Calculations are done on the gathered information to predict individual exposure to specific chemicals, the potential risk to health from exposure, and consideration for chemical mixtures.

- For all contaminants identified, the “worst-case scenario” approach will be used for each receptor-type (infant, toddler, child, adolescent, and adult) considering different exposure pathways (inhalation, ingestion, and skin contact) to ensure a conservative assessment.
- If there is potential for negative impacts to human health, there will be recommendations for risk management and mitigation measures.

In addition, a **Supplementary Health Review** will be conducted and will include:

- A review of the social and economic assessments by the health expert to see if there is any potential for related health effects, and, if so, a plan to further assess them.
- Further consultation with the Oxford County Medical Officer of Health as the studies proceed.
- Recommendations to enhance positive effects and mitigate any negative effects on human health and well-being.

## Assumptions & Guiding Documents

### Key Assumptions:

- Site operations for approximately twenty years, after which the site will be closed and vegetated.
- Double Generic Liner with compacted engineered backfill ranging from 5m to 22m on the quarry floor.
- Leachate will be collected in the landfill liner system and then treated.
- No significant change in the land use or zoning is anticipated in the site vicinity.
- Community growth and expansion is not anticipated within the 1km Study Area. The majority of growth anticipated to occur in the 5km Study Area.
- Climate change assumptions (temperature and precipitation) will be considered during this study.

### Key Guidance Documents/Standards:

- Procedures for the Use of Risk Assessment under Part XV.1 of the Environmental Protection Act. (MOE, 2005)
- Rationale for the Development of Soil and Ground Water Standards for Use at Contaminated Sites in Ontario. (MOE, 2011)
- Federal Contaminated Sites Risk Assessment in Canada. Part I: Health Canada Guidance on Human Health Preliminary Quantitative Risk Assessment (Health Canada, 2012a)
- Federal Contaminated Sites Risk Assessment in Canada. Part II: Health Canada Toxicological Reference Values and Chemical-Specific Factors Version 2.0 (Health Canada, 2010)
- Federal Contaminated Sites Risk Assessment in Canada. Part V: Guidance on Complex Human Health Detailed Quantitative Risk Assessment for Chemicals (Health Canada, 2009)

## Key Community Input

The following list summarizes key input received during the development and review of the Terms of Reference and input received to-date from community members, organizations, other interested stakeholders, and First Nations:

- Concern for potential health issues due to:
  - Exposure to air emissions from the landfill and trucking vehicles using the haul route
  - Ingestion from home gardens or agricultural food that are impacted by landfill air emissions
  - Contact with soils contaminated by emissions from the facility
  - Exposure to groundwater or surface water contamination due to discharges by the facility



## Key Updates to Technical Work Plans

Key changes between the Draft Technical Work Plans (from the Terms of Reference) and the Updated Technical Work Plans, based on public, government and peer review:

- Edits to the introduction of the Technical Work Plan to reflect activities since the Terms of Reference
- Update to the list of potential receptor locations
- Addition of the Supplementary Health Review in response to the MOECC Amendment
- Incorporation of facility characteristics, planning assumptions, and climate change details relevant to the study

## Technical Experts & Reviewers

Intrinsic Inc. will be carrying out the HHRA technical study. Technical reviewers of the Updated Draft HHRA Technical Work Plan and study results will include:

- Joint Municipal Coordinating Committee (JMCC) Peer Review Team
- Oxford County Medical Officer of Health
- Government Review Team
- Other peer reviews as agreed to by Walker

The Updated Draft HHRA Technical Work Plan is now available for comment by government reviewers, the Joint Municipal Coordinating Committee Peer Review Team, and other interested parties.

**DOCUMENT ACCESS:** Online at [www.walkerea.com](http://www.walkerea.com) or by contacting us at 1-855-392-5537 or [info@walkerea.com](mailto:info@walkerea.com).

**SUBMIT COMMENTS:** By mail/in-person: Walker Environmental, 160 Carnegie St. Ingersoll, ON, N5C 4A8

By email: [info@walkerea.com](mailto:info@walkerea.com)

## Objectives of this Document

- Provide a summary on how the upcoming noise/vibration study will be conducted.
- Highlight the key changes that were incorporated in the technical work plan as a result of public consultation.
- Obtain final input from the local community, other stakeholders, and First Nations prior to beginning the technical study, which is scheduled to occur between Spring 2017 and Spring 2018.

## Technical Study Approach

There are 13 technical work plans that will be finalized by May 2017. Each work plan explains a particular study that will assess the proposed landfill. All studies must follow the same assessment approach found in Section 8.2 of the Approved Amended Terms of Reference (paraphrased here):

- Describe the **environment potentially affected**
- Carry out an **evaluation of the potential environmental effects**
- Carry out an evaluation of any additional actions that may be necessary to **prevent, change or mitigate (any negative) environmental effects**
- Prepare a description and evaluation of the **environmental advantages and disadvantages** that would remain after prevention and mitigation measures are implemented (net effects)
- Prepare **monitoring, contingency, and impact management plans** for net environmental effects

In this case, “**environment**” means the natural, social, and economic environment.

## What is included in the Noise/Vibration Study?

**Definition:** an acceptable level of noise/vibration is that which does not disturb the daily enjoyment of activities within a community. If noise exceeds this level due to a project or activity, then mitigation measures are needed.

### The Noise/Vibration Study will:

1. Identify noise-sensitive receptors within the vicinity of the proposed landfill.
2. Measure ambient (background) noise levels at receptor locations.
3. Measure noise levels from existing operations (such as quarry activities).
4. Model noise levels from the proposed landfill.
5. Model cumulative impacts from the proposed landfill and Carmeuse operations.

## Study Area

<b>On-Site &amp; Site Vicinity</b>	<ul style="list-style-type: none"> <li>• Extends to approximately 5km from the proposed landfill</li> <li>• If modeling predictions indicate noise/vibrations beyond 5km, the study area will be adjusted accordingly</li> </ul>
<b>Along the Haul Routes</b>	<ul style="list-style-type: none"> <li>• 500m on both sides of the haul route</li> <li>• If modeling predictions indicate noise/vibrations beyond 500m, the study area will be adjusted accordingly</li> </ul>
<b>Receptor Locations</b>	<ul style="list-style-type: none"> <li>• There will be a number of receptor points in sensitive locations to determine the potential effects from the proposed landfill</li> </ul>

## Specific Approach for the Study

- 1) Review of Background Information:** A key input to the noise study will be road traffic data including:
  - Existing road traffic volume broken down by flow of traffic related or unrelated to Carmeuse operations.
  - Projected future landfill-related traffic volumes along the haul route.
  - Normal background noise will be traffic noise not related to Carmeuse or Walker operations.
- 2) Collection of Field Data:** The noise study will rely on data collected through field studies, for modeling of future conditions, assessments of compliance, and placement of field receptors.
- 3) Data Analysis:** Will follow the applicable guidelines for carrying out modeling and predictions for noise/vibration levels as a result of the proposed landfill. If noise is determined to exceed acceptable levels, noise mitigation measures and a landfill noise management plan will be developed.

### Mitigation Measures may include:

- Adding perimeter berms.
- Altering the facility characteristics and activities to limit noise levels or rescheduling operating hours.
- Adding localized, portable noise barriers near the working face of the landfill.

### The Landfill Noise Management Plan would outline:

- Required noise mitigation measures
- Complaint response and investigation procedures
- Monitoring procedures and frequency
- Triggering mechanisms for the review and potential addition of alternative noise mitigation measures

## Assumptions & Guiding Documents

### Key Assumptions:

- The study will consider all physical facility characteristics and activities for all phases of the project including, construction, operation and closure.
- Site operations for approximately twenty years, after which the site will be closed and vegetated.
- No significant change in the land use or zoning is anticipated in the site vicinity.
- New residential and commercial development is not anticipated within the 1km Study Area.
- Current and future Carmeuse operations will be considered for cumulative effects.

### Key Guidance Documents/Standards:

- Landfill Standards: A Guideline on the Regulatory and Approval Requirements for New or Expanding Landfilling Site (MOECC, 2012).
- Ministry of the Environment and Climate Change (MOECC) Noise Pollution Control (NPC) Guidelines: 102, 103, 104, 115, 300, and 233.
- MOECC Guidelines: D-4 “Land Use on or Near Landfills”, “Noise Guidelines for Landfill Sites”, and “A Guideline on Regulatory and Approval Requirements for New or Expanding Landfilling Sites”
- ISO 9613-1: Acoustics – Attenuation of Sound During Propagation Outdoors Part 1 and Part 2.

## Key Community Input

The following list summarizes input received during the development and review of the Terms of Reference and input received to-date from community members, organizations, other interested stakeholders, and First Nations:

- Concern for the potential noise from the site operations, construction activities and cumulative impacts with Carmeuse operations.
- Potential for noise from an increase in traffic related activities from the proposed landfill.
- Importance of receptors located at sensitive locations such as daycare centres and farms.
- Importance of minimizing noise along nature trails.

## Key Updates to Technical Work Plan

Key changes between the Draft Technical Work Plans (from the Terms of Reference) and the Updated Technical Work Plans, based on public, government and peer review:

- Revisions to Introduction to reflect activities that have occurred since the Terms of Reference
- Addition of a section describing key assumptions related to facility characteristics, land use forecast and climate change
- Modifications as to how the field data collection and modelling will occur

## Technical Experts & Reviewers

RWDI will be carrying out the noise/vibration study. Technical reviewers of the Updated Draft Noise/Vibration Technical Work Plan and study results will include:

- Joint Municipal Coordinating Committee (JMCC) Peer Review Team
- Government Review Team
- Other peer reviews as agreed to by Walker

The Updated Draft Noise/Vibration Technical Work Plan is now available for comment by government reviewers, the Joint Municipal Coordinating Committee Peer Review Team, and other interested parties.

**DOCUMENT ACCESS:** Online at [www.walkerea.com](http://www.walkerea.com) or by contacting us at 1-855-392-5537 or [info@walkerea.com](mailto:info@walkerea.com).

**SUBMIT COMMENTS:** By mail/in-person: Walker Environmental, 160 Carnegie St. Ingersoll, ON, N5C 4A8

By email: [info@walkerea.com](mailto:info@walkerea.com)



# Memorandum

**To:** All Parties Reviewing Updated Technical Work Plans

**From:** Joe Tomaino, Walker Environmental

**Date:** April 6, 2017

**Re:** **Southwestern Landfill EA-Updated Technical Work Plans Review**

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Further to the circulation of the Updated Technical Work Plans for review and comment, we are providing the following addenda to be considered when reviewing each of the Updated Technical Work Plans. These addenda will be included in the finalization of the Technical Work Plans.

**Update #1 Facility Characteristics Assumptions –Rev.02:**

- Update of leachate discharge reference to (Section 1.7.3 of Facility Characteristics Report V2): Treated water will be discharged to the Patterson-Robbins Drain in proximity to the leachate treatment plant (the previous version referenced the Thames River).
- A Revised Surrounding Area Map is attached; referencing the location of the leachate treatment facility.

**Update #2 Draft Hydrogeological Work Program**

- The Technical Memorandum dated April 5<sup>th</sup> from Golder Associates is attached.

**DATE** April 6, 2017

**PROJECT No.** 1664706-M02

**TO** Joe Tomaino  
Walker Environmental Group

**FROM** Sean McFarland, Keith Lesarge

**EMAIL** Sean\_McFarland@golder.com;  
Keith\_Lesarge@golder.com

**DRAFT HYDROGEOLOGICAL TECHNICAL WORK PROGRAM – SOUTHWESTERN LANDFILL PROPOSAL**

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### **Introduction**

The following provides the detailed scope of work for the hydrogeological assessment described in the following document:

“Draft Southwestern Landfill Proposal Groundwater/Surface Water Assessment Work Plan” prepared by Golder Associates Ltd., Report No. 1664706-R01, dated February 8, 2017

The work program is preliminary, based on the information reviewed to date and may be revised based on input from Walker or review of addition background information. The work program consists of the following tasks:

- Task 1 – Data Review and Site Reconnaissance
- Task 2 – Water Well Inventory
- Task 3 – On-site Borehole Drilling and Monitoring Well Installations
- Task 4 – Offsite Boreholes and Monitoring Wells
- Task 5 – Borehole Geophysics
- Task 6 – Hydraulic Conductivity Testing
- Task 7 – Groundwater Quality Sampling and Analysis
- Task 8 – Groundwater Flow Modeling
- Task 9 – Water Balance
- Task 10 – Karst Study
- Task 11 – Hydrogeological Net Effects Assessment
- Task 12 – Groundwater Monitoring Program
- Task 13 – Data Analysis and Reporting

---

**Golder Associates Ltd.**

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Golder Associates: Operations in Africa, Asia, Australasia, Europe, North America and South America

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## Task 1 – Data Review and Site Reconnaissance

The data review and site reconnaissance task will consist of the following activities:

- A review will be undertaken of regional geological mapping, groundwater studies, source water protection studies and the other available sources of information to characterize the potential hydrogeological conditions in the area.
- A site reconnaissance will be completed to corroborate the results of the desktop review and document general site drainage and identify potential groundwater dependent receptors in the area; and,
- Available site specific studies previously undertaken will be obtained and reviewed to corroborate hydraulic conductivity in the bedrock aquifer(s) and groundwater flow directions, as estimated from the proposed intrusive program.

## Task 2 – Water Well Assessment

An inventory of private and public water wells in the vicinity of the site will be carried out based on the Ontario Ministry of Environment and Climate Change (MOECC) water well records. A door-to-door survey will be carried out for wells within 500 metres of the property boundary. This task will utilize previous water well surveys conducted at the site.

## Task 3 – On-site Borehole Drilling and Monitoring Well Installations

A total of seven borehole locations are proposed around the perimeter of the site and in the central area of the site, the locations of which are shown on Figure 1, attached. A schematic of the boreholes and monitoring well construction details is provided on the attached Figure 2.

Borehole locations 1 through 4 will be completed around the perimeter of the Site where overburden material is inferred to be present. Five boreholes will be drilled into the bedrock at each of these locations and instrumented with monitoring wells. The deepest of these (borehole "A" on Figure 2) will be cored and the shallower four will be advanced using air rotary methods. The core will be logged for lithology, fractures (depth and orientation) and geotechnical indices including total core recovery (TCR), solid core recovery (SCR), and rock quality designation (RQD).

The deep borehole ("A" on Figure 2) will be completed in the rock beneath the depth of the quarry floor at each location, in the lower portion of the Amherstburg Formation or the upper portion of the Bois Blanc Formation, at an approximate depth of 100 feet (ft) (30 metres (m)) beneath the bedrock surface. An intermediate depth borehole, ("B" on Figure 2), will also be installed beneath the depth of the quarry floor at each location, in the Amherstburg Formation, at an approximate depth of 70 ft (21 m) beneath the bedrock surface. Both boreholes will be installed with monitoring wells that will be utilized to monitor vertical hydraulic gradients beneath the site. The shallower boreholes ("C" and "D" on Figure 2) will be completed to respective depths of 50 and 25 ft (15 and 7.5 m) behind the existing quarry face, in the Lucas formation, with the borehole "D" completed in the fractured zone. The shallowest borehole ("E" on Figure 2) will be completed at or near the base of overburden materials at each location. A monitoring well will be installed in each of the boreholes to monitor groundwater levels surrounding the landfill and will be used to assess lateral hydraulic gradients in the vicinity of the landfill and lateral flow in the surrounding bedrock.



At borehole locations 5 through 7, two boreholes will be completed below the quarry floor, the deeper of which will be cored. The deeper borehole ("A" on Figure 2) will be completed to a depth of 50 ft (15m), in the lower portion of the Amherstburg Formation or the upper portion of the Bois Blanc Formation. The shallower depth borehole, ("B" on Figure 2), will be advanced to a depth of 20 feet (6m), in the Amherstburg Formation.

The groundwater level data obtained from the on-site monitoring wells will be used for calibration of the groundwater flow model.

#### **Task 4 – Offsite Boreholes and Monitoring Wells**

Three boreholes, locations 8 through 10 on Figures 1 and 2, will be drilled and instrumented adjacent to the Thames River. Each borehole location will be instrumented with two monitoring wells to allow for assessment of hydraulic gradients in the vicinity of the Thames River as part of the assessment of groundwater flow and groundwater-surface water interactions. The deeper borehole ("A" on Figure 2) will be completed in the Lucas formation at an approximate depth of 50 feet (15m). The shallower borehole ("B" on Figure 2) will be completed in the shallow, fractured portion of the Lucas formation approximately 20-25 ft (6-7.5 m) below the bedrock surface. A mini-piezometer will be installed at each of these locations in the vicinity of the Thames River in order to assess the shallow groundwater gradients in the immediate vicinity of the river.

The deeper of these (borehole "A" on Figure 2) will be cored and the shallower will be advanced using air rotary methods. The core will be logged for lithology, fractures (depth and orientation) and geotechnical indices including total core recovery (TCR), solid core recovery (SCR), and rock quality designation (RQD).

Additional offsite borehole locations will be identified to obtain additional hydrogeological offsite information on the overburden and bedrock for groundwater level contouring and for calibrating of the groundwater flow model.

#### **Task 5 – Borehole Geophysics**

The open boreholes will be geophysically logged at each cored hole location for natural gamma and conductivity following drilling. The geophysical logging will identify the shale and limestone intervals in each borehole which will be used to design the appropriate intervals for the wells screens and seals in the monitoring wells. The open boreholes will also be video-logged to evaluate the downhole geology as well as the potential presence of karstic features. The boreholes will be pumped to lower the water level in the wells and induce flow into the borehole. The flow into the borehole will be logged using an impeller flow meter to evaluate the inflow in the borehole (e.g., fractures) which will be used for the karst evaluation.

#### **Task 6 – Hydraulic Conductivity Testing**

The hydraulic conductivity of the bedrock will be evaluated through packer testing of the deep borehole at 10 foot (3 m) intervals at each location. Rising and/or falling head tests will also be conducted in the monitoring wells to estimate the hydraulic conductivity of the monitoring intervals. A pumping test is included in the karst component of this work program which will provide an estimate of the transmissivity of the bedrock beneath the proposed landfill.

#### **Task 7 – Groundwater Quality Sampling and Analysis**

Groundwater quality samples will be obtained from each of the monitoring wells on a quarterly basis and analyzed for a broad suite of general chemistry. This information will provide background water quality to be used in the evaluation of the landfill design and monitoring program.

## **Task 8 – Groundwater Flow Modeling**

A three-dimensional groundwater flow model will be developed to support the landfill design and approvals process. The groundwater flow modeling will be calibrated to existing conditions used to assess the hydrogeological aspects of the design and net environmental effects in the operating and post-closure stages of the landfill. The modeling will be utilized to assess the degree of natural hydraulic containment through inward groundwater flow to the engineered landfill facility. The modeling will be used to develop groundwater seepage estimates that will be utilized for landfill design and a water balance. The modeling will also be used to evaluate groundwater and surface water interactions along adjacent water courses.

## **Task 9 – Water Balance**

A water balance will be developed by incorporating data from an Environment Canada water budget, analysis of quarry pumping records, groundwater seepage estimates from the modeling, surface water inputs and modeling of the landfill infiltration. This information will be used to estimate the groundwater and surface water inputs and outputs related to the landfill design. The water balance will also provide analysis of groundwater-surface water interactions. The water balance will include conceptual models for existing conditions and the operational and post-closure stages of the proposed landfill.

## **Task 10 – Hydrogeological Net Effects Assessment**

A hydrogeological assessment will be conducted to evaluate the potential net effects of the proposed landfill on surrounding groundwater and surface water resources and receptors (including the surrounding water wells). This will include an analysis of the hydraulic containment scenario under operating conditions and post closure conditions.

## **Task 11 – Karst Study**

A karst study will be conducted to determine the potential presence of karst in the area that may be relevant to the landfill design, the net effects analysis and the monitoring program. The study will involve examination of potential karstic features in areas of exposed bedrock and potentially tracer testing. The karst study will be conducted by Dr. Stephen Worthington, a recognized karst expert, in conjunction with Golder Associates.

The karst work program will involve:

- An initial inspection of the quarry faces and bedrock exposures in the area to assess any karstic features;
- A conductivity and temperature survey of the river will be conducted by boat using probes to identify potential zones of groundwater discharge along the Thames River and the area will be investigated for the potential presence of springs;
- The flow into the deep boreholes will be logged using an impeller flow meter to identify potential zones of groundwater discharge. The boreholes will be video-logged to determine whether they are potentially related to karstic features; and,
- A 72 hour pumping test will be performed including tracer tests to assess the potential presence of karst.

## **Task 12 – Groundwater Monitoring Program**

Following the installation of the monitoring wells, pressure transducers equipped with dataloggers, configured to record water levels and temperatures at regular intervals, would be installed at key locations. The data would be downloaded quarterly, at which time a complete round of water level measurements will be carried out. The collected data will be used to assess the horizontal and vertical groundwater gradients. Hydraulic response testing

will also be carried out on selected monitoring wells in order to determine the *in situ* hydraulic conductivity of the screened interval for each well.

In conjunction with the quarterly water level monitoring events, groundwater sampling will be undertaken in order to determine the seasonal variations in groundwater quality. Groundwater samples will be collected using dedicated sampling equipment and analysed by an independent accredited laboratory for the parameters listed in Section 10 of O. Reg. 232/98, as well as for a suite of groundwater quality indicator parameters.

This baseline information will be used to evaluate landfill performance and confirm that there are no negative hydrogeological effects during the operational and post-closure periods of the landfill

### **Task 13 – Data Analysis and Reporting**

A hydrogeological report will be prepared summarizing the results of the hydrogeological work program. The report will include:

- Borehole records and monitoring well installation details;
- Hydraulic conductivity test results;
- Groundwater quality sampling methodology and analytical results;
- Water balance methodology and results; and,
- Methodology and results of net effects analysis.

### **Preliminary Schedule**

The field program is expected to take about two months to complete. It is anticipated that monitoring will occur over the course of one year (seasonally). Following the completion of the field program, the data analysis will be initiated and completed within approximately one month's time. A draft report will be prepared for submission within approximately one month of completion of data analysis. The final report would be provided shortly after receipt of review comments.

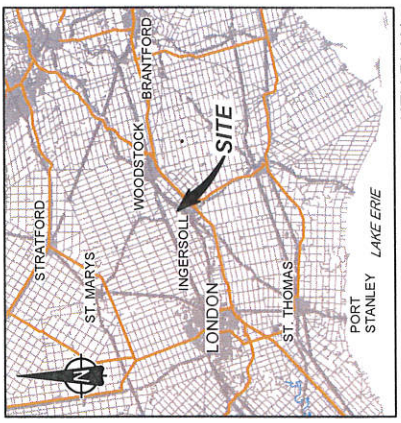
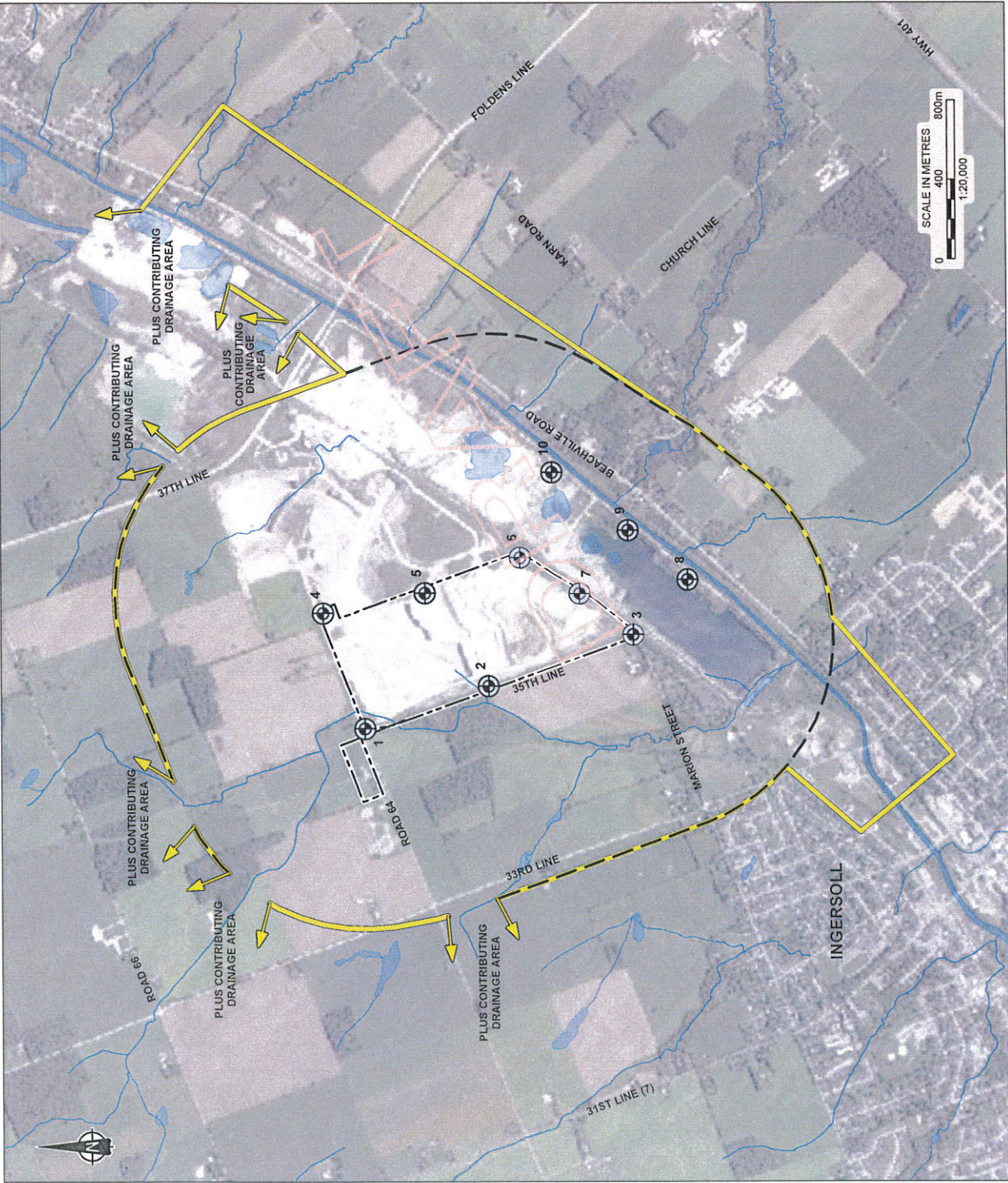
### **GOLDER ASSOCIATES LTD.**

Sean McFarland, PhD, P.Geo.  
Principal, Senior Hydrogeologist

Keith G. Lesarge, M.Sc., P. Geo.  
Principal

SM/KL/ly

Attachments: Figure 1  
Figure 2



KEY PLAN

**LEGEND**

- PROPOSED BOREHOLE MONITORING WELL
- ON-SITE
- SITE VICINITY GROUNDWATER
- SITE VICINITY SURFACE WATER

**REFERENCE**

- DRAWING BASED ON:
- 1) BING IMAGERY AS OF JANUARY 11, 2017 (IMAGE DATE UNKNOWN);
  - 2) WALKER ENVIRONMENTAL, FIGURE 5, "APPROVED AMENDED TERMS OF REFERENCE, MAY 20, 2016";
  - 3) MNR LIC. OBTAINED 2009. PRODUCED BY GOLDER ASSOCIATES LTD UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEEN'S PRINTER 2017; AND
  - 4) CANMAP STREETFILES V2008.4.

**NOTES**

THIS DRAWING IS SCHEMATIC ONLY AND IS TO BE READ IN CONJUNCTION WITH ACCOMPANYING TEXT.  
ALL LOCATIONS ARE APPROXIMATE.

**PROJECT**  
GROUNDWATER/SURFACE WATER  
ASSESSMENT WORK PLAN  
BEACHVILLE, ONTARIO

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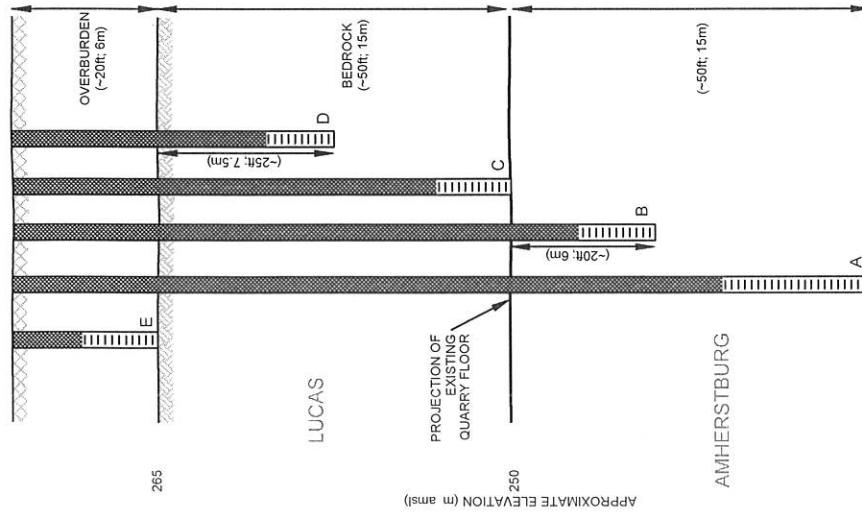
**TITLE**  
**PROPOSED BOREHOLE/MONITORING WELL  
LOCATION PLAN**

PROJECT No.	1664705	FILE No.	1664705-M02001
CADD	DCH	SCALE	AS SHOWN
CHECK		DATE	Apr 05/17

**Golder Associates**

FIGURE 1

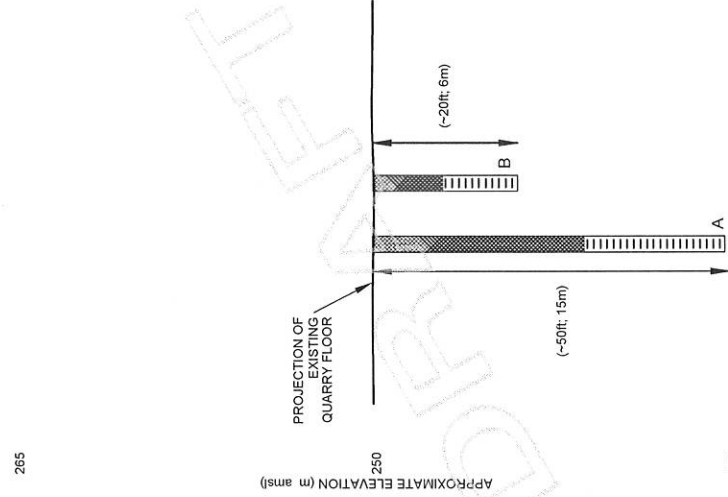
**BOREHOLE/MONITORING WELL LOCATIONS 1-4**



235

**NOTES**  
 10 PACKER TESTS/BOREHOLE A  
 20 RISING HEAD TESTS / GROUNDWATER SAMPLES

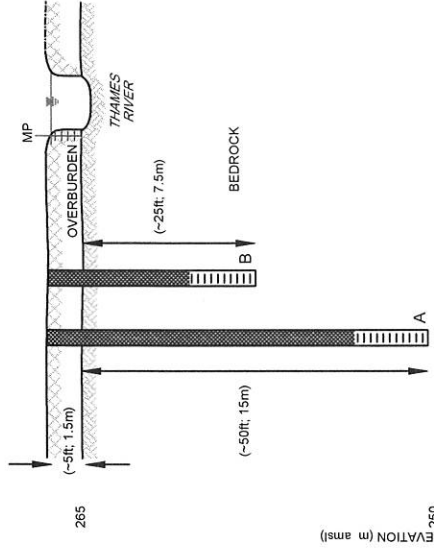
**BOREHOLE/MONITORING WELL LOCATIONS 5-7**



235

**NOTES**  
 5 PACKER TESTS/BOREHOLE A  
 6 RISING HEAD TESTS / GROUNDWATER SAMPLES

**BOREHOLE/MONITORING WELL LOCATIONS 8-10**



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**NOTES**  
 5 PACKER TESTS/BOREHOLE A  
 6 RISING HEAD TESTS / GROUNDWATER SAMPLES

**GENERAL NOTES**

THIS DRAWING IS SCHEMATIC ONLY AND IS TO BE READ IN CONJUNCTION WITH ACCOMPANYING TEXT.

ALL LOCATIONS ARE APPROXIMATE.

PROJECT: GROUNDWATER/SURFACE WATER ASSESSMENT WORK PLAN BEACHVILLE, ONTARIO

**SCHEMATIC SKETCHES OF BOREHOLES/MONITORING WELLS**

PROJECT No. 1664706		FILE No. 1664706-M02002	
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Golder Associates			FIGURE 2

## Items from Meeting 26

Business Arising		Responsibility	Response	Status
1	Follow up with CLC regarding how their input on technical work plans throughout the ToR and EA have been considered.	Walker Environmental		In Progress
2	Review & discuss flexibility of the study area based on interactions with other studies namely, air quality.	Walker Environmental	Update Work Plan Summaries and update CLC at CLC Meeting #27 - April 26, 2017.	In Progress
3	Historical Map website for Niagara	Walker Environmental	Niagara Navigator: <a href="https://maps-beta.niagararegion.ca/Navigator/">https://maps-beta.niagararegion.ca/Navigator/</a>	Complete

## Carry Over Items from CLC Meetings in 2016 (Meetings 16-25)

Business Arising		Responsibility	Response	Status
1	Walker to provide a summary about how species at risk are identified.	Walker Environmental		In Progress
2	Walker to make revisions to the Cumulative Effects Summary & Work Plan.	Walker Environmental	Walker will revisit the Cumulative Effects Summary with the CLC at the April 26, 2017 CLC Meeting 27.	Complete
3	Request to let the CLC know the outcomes of them meeting between the Traffic Consultant and the Ministry of Transportation	Walker Environmental	Walker will notify the CLC when Correspondence Material is posted online.	In Progress
4	Update visual impacts work plan include the landfill map from the Approved Terms of Reference which includes the outline to Karn Road.	Walker Environmental	Walker will edit the map to show Karn Rd. in the study area.	Complete
5	Provide MTO with community and public concerns relating to traffic and contingency planning	DF	In progress Walker will provide this information to the MTO.	In Progress

## CLC Meeting 27

Other documents sent as materials, but not included as pages in this Appendix (to cut down on duplication, paper waste and/or very large digital files):

- 1) Updated Draft Technical Work Plan (red-line version):
  - a. Air Quality:  
[http://www.walkerea.com/uploads/602/Doc\\_636262164698581674.pdf](http://www.walkerea.com/uploads/602/Doc_636262164698581674.pdf)
  - b. Human Health Risk Assessment:  
[http://www.walkerea.com/uploads/607/Doc\\_636262080201736252.pdf](http://www.walkerea.com/uploads/607/Doc_636262080201736252.pdf)
  - c. Noise & Vibration:  
[http://www.walkerea.com/uploads/608/Doc\\_636262163978911744.pdf](http://www.walkerea.com/uploads/608/Doc_636262163978911744.pdf)
- 2) Updated Draft Cumulative Effects Work Plan (updates based on CLC feedback during CLC Meeting #24):  
[http://www.walkerea.com/uploads/938/Doc\\_636199857165257936.pdf](http://www.walkerea.com/uploads/938/Doc_636199857165257936.pdf)
- 3) Transcript: [http://www.walkerea.com/uploads/1139/Doc\\_636317356397165596.pdf](http://www.walkerea.com/uploads/1139/Doc_636317356397165596.pdf)

Please contact us at [info@walkerea.com](mailto:info@walkerea.com) or toll-free at 1-855-392-5537 if you require assistance accessing these documents online or in hard copy.

# Southwestern Landfill CLC #28

## Meeting Summary

**Date:** May 24, 2017  
**Time:** 6:00 p.m. – 9:30 p.m.  
**Location:** 160 Carnegie Street, Ingersoll (Lower Meeting Room)

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### MEETING OVERVIEW

The purpose of the CLC Meeting 28 was to present and discuss the Facility Characteristics Assumptions Report (Revision 2) and revisit the Summary of the Updated Ecology Work Plan and the Summary of the Updated Cumulative Effects Work Plan. In addition, the ecology consultant attended the meeting to answer questions and listen to CLC members input.

### MEETING DETAILS BY AGENDA ITEM

#### Agenda # 3 – Discussion on Facility Characteristics

Walker presented an overview of the Facility Characteristics Assumptions document, which describes the landfill design and operational features that will be assumed when the technical studies are undertaken. These assumptions are reflected in the 12 technical work plans.

Walker highlighted key revisions to the document (released March 2017):

- Updated location for the leachate treatment plant in section 1.7.3 (Leachate Treatment) to the north-west of the proposed landfill footprint.
- Addition of odour control assumptions in section 3.7, which include but are not limited to, a small working face, daily cover, ongoing refinements to landfill gas collection and leachate treatment systems.
- Addition of a minimum of 1 operator each for the landfill gas and leachate treatment plant facilities.

CLC Members had the following questions and comments:

**Requirements of finalization** - A CLC member asked since the Facility Characteristics Assumptions document provides the basis for the scope of work for the technical work plans why doesn't the document need to be finalized before beginning the studies?

- Walker explained that the document outlines a set of assumptions which are not final.
- They can be revised and refined throughout the EA process based on consultation with the community, peer review and government review, however, the assumptions must be consistent with the approved Terms of Reference.
- If there are any significant changes the technical studies, Walker would need to consider the implications of the change.



# Southwestern Landfill CLC #28

## Meeting Summary

- **Leachate Treatment Facility and Climate Change-** A CLC member raised two concerns about the release of leachate. The first concern was how the pipe would cross the Patterson drain (over/under). The second concern was how climate change impacts, leading to dry summers, might increase the amount of time the bed of Patterson-Robbins Drain is dry, which would result in less water flow to dilute the effluent discharged from the leachate treatment plant.
  - Walker explained that at this point they don't know if the pipe will go over or under the Patterson-Robbins Drain. With respect to lower flows in the Thames River, water from the Drain or the Thames River is not needed to dilute the treated water from the leachate treatment plant – it must meet all requirements before it ever enters the natural environment. The information that the Drain sometimes has a dry bed was noted. That information is relevant to the surface water and ecology studies, as well as understanding the impact of climate change.
- **Liner & Monitoring System for Leachate Ponds** - A few CLC members asked what kind of liner and monitoring system will be used for the leachate holding ponds and what contingencies will be put in place.
  - Walker explained that although there is no set standard for leachate treatment pond liners because they are site-specific, there will be an engineered liner that will have to be approved for use at the site.
  - As an example, some ponds are engineered with levels of safety including automated systems that are monitored and control the amount of leachate being pumped for treatment, as well as sampling points that allow the landfill operator to detect if leachate had moved through the liner.

### Agenda # 4 – Discussion on Updated Technical Work Plans

#### Ecology

- Walker presented the [Summary of Updated Ecology Work Plan](#), which includes the study of aquatic and terrestrial life (water and land).
- The technical consultant provided an overview of how Species at Risk will be studied. He explained that one of the first steps for the ecology study will be to meet with the Ministry of Natural Resources and Forestry to review and confirm the list of Species at Risk anticipated in the area. The Endangered Species Act is the legislation that will guide the ecology consultants in their study of Species at Risk, including identification of protection or avoidance measures.
- CLC Members presented their questions and comments:
  - **Study Area & Timing for Field Work** - CLC members asked a question on the timing for completing the studies and how the study area was determined. The consultant explained that:
    - Sampling and surveying will be conducted multiple times throughout the four seasons and that if they are unable to go out shortly to catch the spring bird breeding season, they will need to do that work next spring.
    - The ecology study will evaluate the sensitivity and significance of a species interaction with the project. (ie. a species may be sensitive, but the significance of the potential impact may be low if the species is farther away)

# Southwestern Landfill CLC #28

## Meeting Summary

- The study area was determined based on best practices for similar environmental impact studies; it is highly unlikely that beyond 500 m there will be any species directly affected by the project. However, the study area for terrestrial ecosystems is 1000 m. For aquatic ecosystems, the study area is nearby watercourses, upstream and downstream. Also, the study area is flexible should the results of the study determine that there is potential interaction and impact that exceeds the identified study area.
- **Quarry Lake Sampling** - CLC members were interested in knowing if there will be sampling of the quarry lake.
  - The consultant explained that, as a result of the inputs received by the CLC and other community members, there will be sampling completed at the quarry lake.

### Cumulative Effects

- Walker presented the a summary of the [Updated Cumulative Effects Work Plan](#). Walker explained that this work plan has been revised as a result of the input received by the CLC; specifically there has been an improvement to the explanation of how cumulative effects will be assessed.
- Walker indicated that the changes do not reflect a change in methodology, only how that information is presented in the document. The methodology is still consistent with what was put forward during the Terms of Reference.
- Walker explained that cumulative effects will be assessed in two ways:
  - **Multi-Source Assessment:** evaluates how the same type of effect from different sources can be combined. For example, how noise from landfill activities, traffic, construction, and regular day-to-day activities generate a cumulative impact.
  - **Multi-Stressor Assessment:** evaluates multiple types of effects on a single receptor. For example, the combination of noise, dust and visual impacts on a nearby resident could cumulatively be a significant adverse effect.
- CLC Members presented their questions and comments:
  - **Cumulative Effects Coordination** - A CLC member asked who is responsible for ensuring that cumulative effects are appropriately addressed and incorporated.
    - The consultants are responsible for incorporating cumulative effects. Some studies will be more focused on multi-source effects, like air (ie. dust from traffic, quarry activities, and landfilling), while some studies will be more focused on multi-stressor effects, like social (ie. cumulative impact of odour, dust and noise on a nearby resident).
    - Effects are evaluated for each of the 41 EA criteria (Table A-1 in the Approved Amended Terms of Reference). An example of a multi-stressor criterion is #10: Disruption to use and enjoyment of residential properties. The Social study that will address that criteria in their report by bringing together data from other studies, as well as information collected from community members.

# Southwestern Landfill CLC #28

## Meeting Summary

- **Cumulative Effects Threshold** – A CLC member asked if multi-stressor cumulative effects will be evaluated beyond the individual thresholds (ie. could odour, dust, and noise each be below the individual thresholds, but still produce a significant effect?).
  - Walker stated that multi-stressor cumulative effects will be evaluated beyond the individual thresholds associated with each study.

### Concluding the Technical Work Plans Phase

- Walker took the time to acknowledge CLC members for their commitment to taking the time to review and discuss each of the updated technical work plans over the past five meetings.
- Walker indicated that they are still in the process of receiving inputs from the Peer Review Teams. Once completed, Walker will review comments received, forward feedback to the appropriate technical consultant who will either address the feedback through modifications to the work plan or if not, will provide a response as to why.
- All comments received from the various interested parties, as well as responses, will be posted to the project website when complete.
- CLC members encouraged Walker to provide them with key updates and information as community members frequently ask members questions about the process, the timelines and what the CLC is doing.

### **Agenda #5 – CLC Correspondence**

- **Updating CLC During the Summer** - Walker will continue to provide CLC members with correspondence and updates on the technical studies.
- **Community Consultation** - A CLC member indicated that the word “technical” throughout this last phase may have caused some community members to not participate in providing input.
  - Walker acknowledged that the information was “technical” however, it was not meant to dissuade people from providing input on how the studies will be completed. Walker will look for ways to avoid this issue in the future.
- **Ingersoll Chamber of Commerce Presentation** - Walker indicated that they made a presentation to the Ingersoll Chamber of Commerce Board of Directors.
  - The purpose of the presentation was to provide an update on the project, discuss the technical work plans, particularly the economic work plan.
  - The Board Members asked questions on the anticipated number of jobs, potential economic benefits and impacts. They also stressed the importance of water protection.
- **MTO Meeting** - Walker provided an overview of a meeting with the Ministry of Transportation (MTO).

# Southwestern Landfill CLC #28

## Meeting Summary

- Walker relayed to MTO the CLC and community concerns about the proximity of the service centre interchange with the haul route exit. The MTO will be providing data for information purposes to Walker on traffic at this section of the 401.
- The MTO will be providing Walker with written memo summarizing the meeting details and comments on the traffic study.
- **Walker Clarification from last CLC meeting** - Walker clarified a question that was asked about the rumour of Carmeuse intent to “burn garbage”.
  - Walker indicated that “burning garbage” which is considered incineration would require approval under the Environmental Assessment Act and would require consultation with the community.
  - Walker thought the CLC may be interested in a relatively new provincial regulation called [Ontario Regulation 79/15: Alternative Low-Carbon Fuels](#). This act permits the use of low-carbon alternative/engineered fuels for large emitters.
  - It is possible that in the Province’s effort to reduce greenhouse gas emissions, that Carmeuse is looking at this as an option for their operations.
  - Walker recommended that if anyone has any further interest in this topic, that they contact Carmeuse directly.
- **Site Visits to Niagara** - A CLC member asked about future upcoming site visits to Niagara.
  - Walker responded that although there are no site visits scheduled, that there is an open-door policy to CLC and community members to visit the Walker Campus in Niagara. If multiple people are interested, a tour can be arranged.

### Closing Remarks - Adjournment

The next CLC meeting will be held on Wednesday September 20, 2017.

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*Prepared by Katrina Kroeze, CLC Documenter.*

*Approved by Laurie Bruce, CLC Facilitator.*

*If you have any questions about this summary, please call 416-992-9669 or email [communitylaisoninfo@gmail.com](mailto:communitylaisoninfo@gmail.com)*

*If you have questions for Walker, please call 1-855-392-5537 or email [info@walkerea.com](mailto:info@walkerea.com)*

May 12, 2017

Dear CLC member,

Please find enclosed the materials for the upcoming CLC meeting on **Wednesday, May 24, 2017** at 6:00 pm (dinner will be available at 5:30 pm).

The meeting will focus on Revision 2 of the Facility Characteristics Assumptions document, the updated ecology technical work plan, cumulative effects (as requested), as well as the CLC meeting schedule for the remainder of 2017, and closing out some other items (business arising).

The Ecology consultant will be available to answer questions. We discussed the updated ecology work plan in February, but we felt that it warranted further conversation, including time with the consultant. Specifically, there were questions from the CLC about Species at Risk that can be addressed.

**Materials:**

1. Agenda
2. Summary of Updated Ecology Work Plan & Red-Lined version of Ecology Work Plan (mailed in February, 2017)
3. Proposed CLC meeting schedule for remainder of 2017
4. Business Arising Report
  - Attachments include reviews of the Interim Report for Alternative Methods by the MOECC and the JMCC Peer Review Team.
5. Draft summary of CLC Meeting 27 (April 26, 2017) – *please let us know if you have any comments by May 31, 2017, after which it will be posted online.*
6. Transcript for CLC Meeting 27 (April 26, 2017)

Please let me know if you have any questions in advance of our meeting on the 24<sup>th</sup>.

Warm regards,

Becky Oehler  
Community Engagement Manager  
905-680-3675, [boehler@walkerind.com](mailto:boehler@walkerind.com)

**Date:** Wednesday, May 24, 2017

**Time:** 6:00 pm – 9:00 pm  
(Dinner will be available at 5:30)

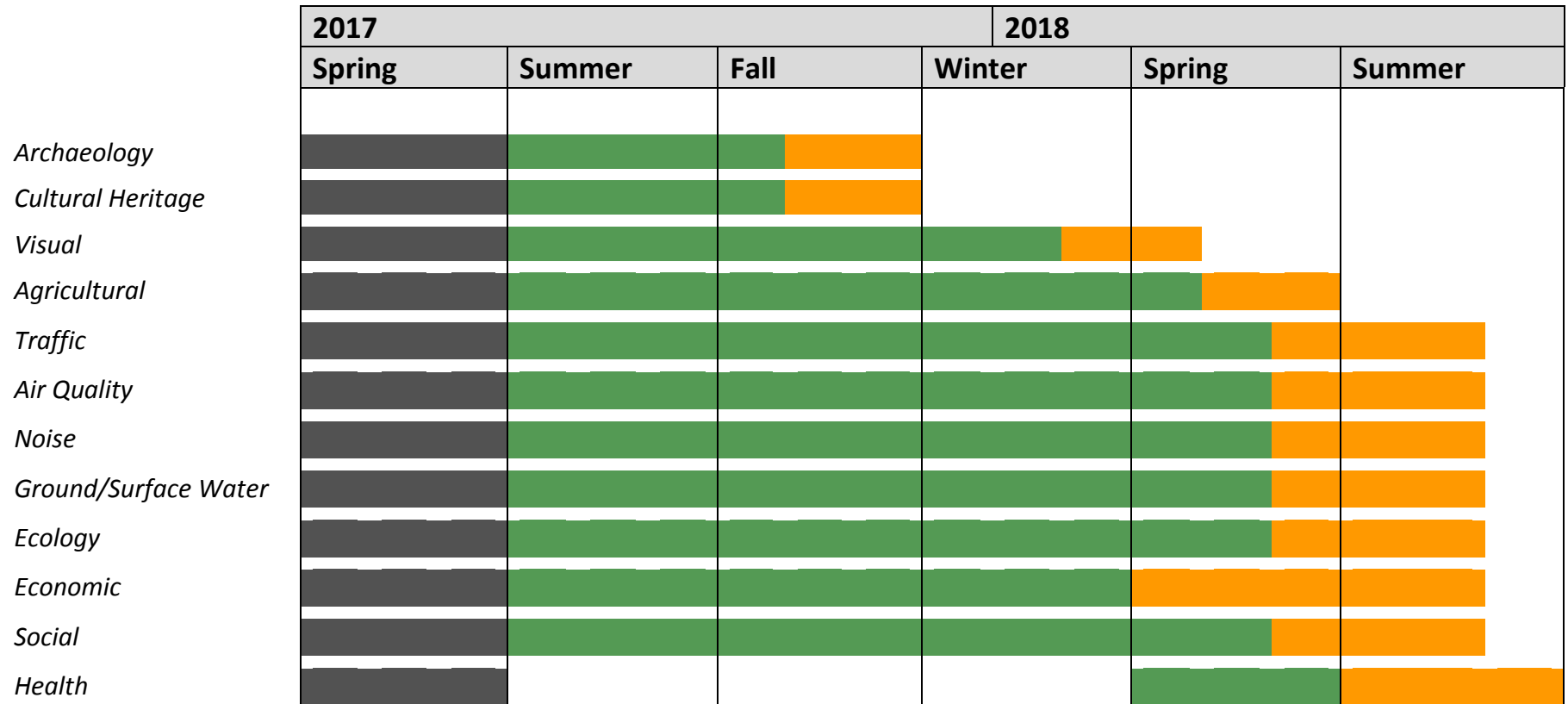
**Location:** 160 Carnegie Street, Ingersoll (Lower Meeting Room)

**Meeting Materials:**

- Summary of Updated Ecology Work Plan
- Facility Characteristics Assumptions (Revision 2)
- CLC Meeting Schedule
- Meeting 27 Business Arising Report

	Description	Lead	Duration	End Time
1	<b>Welcome</b>	Facilitator	5 min	6:05
2	<b>Objectives and Review of Agenda</b>	Facilitator	5 min	6:10
3	<b>Facility Characteristics</b> <ul style="list-style-type: none"> <li>• <i>Revision 2 - Updates</i></li> <li>• <i>Questions &amp; Answers</i></li> </ul>	WEG	45 min	6:55
4	<b>Finalization of the Technical Work Plans</b> <ul style="list-style-type: none"> <li>• <i>Ecology (Consultant Available)</i> <ul style="list-style-type: none"> <li>○ <i>Including Species at Risk</i></li> </ul> </li> <li>• <i>Updated Cumulative Effects Work Plan</i></li> </ul>	WEG	1 hr 45 min	8:40
5	<b>CLC Update &amp; Correspondence</b> <ul style="list-style-type: none"> <li>• <i>Business Arising Report</i></li> <li>• <i>CLC schedule for remainder of 2017</i></li> </ul>	ALL	15 min	8:55
6	<b>Action Items &amp; Next Meeting</b>	ALL	5 min	9:00
7	<b>CLC Discussion with EA Advisor</b>	CLC/AG	1 hour	10:00

## Estimated<sup>1</sup> Technical Study Schedule



- Legend:**
- Work Plan Updates & Background Data Collection
  - Field Work/Data Collection
  - Analysis & Report Preparation

The coloured bars are not intended to represent continual activity, only the seasons during which activities will be carried out.

<sup>1</sup> This schedule is an estimate for the main activities in each study. Schedule subject to change as the work proceeds.

## Proposed Schedule for Remainder of 2017:

### **CLC Meeting 28 – May 24, 2017**

- Wrap up Updated Technical Work Plans
- Facility Characteristics

### **CLC Meeting 29 – Sept 20, 2017\***

- Technical Study Progress
- CLC Correspondence
- \*3<sup>rd</sup> Wednesday instead of 4<sup>th</sup>  
*(to accommodate a scheduling conflict)*

### **CLC Meeting 30 – Nov 22, 2017**

- Technical Study Progress
- CLC Correspondence



# CLC Quality Review - May 2017

## PURPOSE OF A QUALITY REVIEW

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Completing a quality review is common practice for organizations that are committed to learning, innovating and improving the value and relevance of their work. A review is meant to reflect on the past year's efforts and evaluate what worked well and what can be improved. To be specific, this review is meant to evaluate if the updated CLC Charter was respected, if the CLC is meeting its objectives, if members are actively participating and if the facilitation process is efficient. For this review to be fruitful, each CLC member should assess the past year's meetings and clearly identify how the CLC could improve to better meet its objectives. Results will be shared at the next meeting.

## QUALITY REVIEW QUESTIONS

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**1. Overall, I believe this year's work of the CLC corresponds to the purpose outlined in the Charter.**

*"The purpose of the CLC will be to review and provide input to the Environmental Assessment (EA) for the Southwestern Landfill Proposal." - CLC Charter.*

*(1 - strongly disagree, 2 - somewhat disagree, 3 - neutral, 4- somewhat agree, 5 - strongly agree)*

1      2      3      4      5

*Lessons learned & Suggestions:*

**2. Please rate the quality of the CLC meetings, specifically**

<i>Room.....</i>	1	2	3	4	5
<i>Location.....</i>	1	2	3	4	5
<i>Duration.....</i>	1	2	3	4	5
<i>Time of the day.....</i>	1	2	3	4	5
<i>Frequency.....</i>	1	2	3	4	5
<i>Number of participants.....</i>	1	2	3	4	5

**3. I think that the CLC meetings are well-managed: clear agenda, fair allocation of time, availability of meeting materials and accurate CLC summaries.**

*(1 - strongly disagree, 2 - somewhat disagree, 3 - neutral, 4- somewhat agree, 5 - strongly agree)*

1      2      3      4      5

*Lessons learned & Suggestions:*

**4. I think the Facilitator efficiently manages the meeting, provides a suitable amount of time for discussion, and appropriately facilitates difficult discussions.**

1      2      3      4      5

*Lessons learned & Suggestions:*

**5. I think that the consultation materials and information provided to by Walker have been concise, complete and clear for me to provide input.**

*(1- strongly disagree, 2 - somewhat disagree, 3 - neutral, 4- somewhat agree, 5 - strongly agree)*

1      2      3      4      5

*Lessons learned & Suggestions:*

**6. a) I feel that during meetings, CLC members are respectful, open and honest.**

1      2      3      4      5

**6. b) I feel that during meetings, Walker representatives are respectful, open and honest.**

1      2      3      4      5

*Lessons learned & Suggestions:*

**7. I feel that I am listened to and that my concerns have been properly recorded and responded to.**

*(1 - strongly disagree, 2 - somewhat disagree, 3 - neutral, 4- somewhat agree, 5 - strongly agree)*

1      2      3      4      5

*Lessons learned & Suggestions:*

**8. I believe my participation on the CLC is meaningful and I am actively providing input representing community interests, goals, and aspirations so that Walker can better align the environmental assessment and proposal based on the input.**

1      2      3      4      5

*Lessons learned & Suggestions:*

**9. I actively relay information discussed at CLC meetings to other members of my community.**

*(1 - strongly disagree, 2 - somewhat disagree, 3 - neutral, 4- somewhat agree, 5 - strongly agree)*

1      2      3      4      5

*Lessons learned & Suggestions:*

**10. I believe the composition of the CLC is representative of our community and reflects their values and priorities.**

1      2      3      4      5

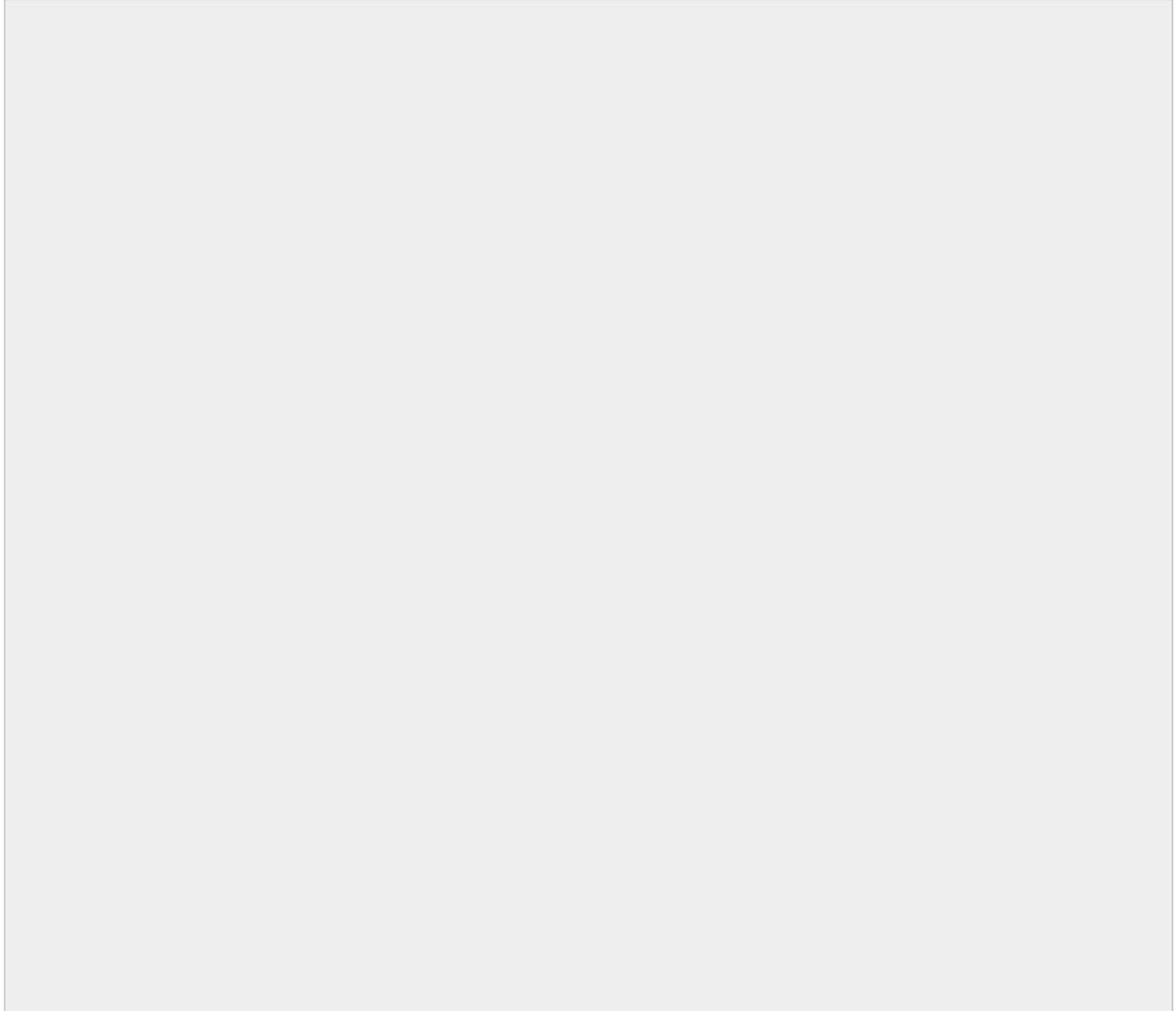
*Lessons learned & Suggestions:*

## CLC Quality Review - May 2017

### CONCLUDING STATEMENT

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*Anything else that was not covered in the review?*



**Your Name (optional):** \_\_\_\_\_

*Thank you for completing the 2016/2017 Quality Review. This will help improve the CLC moving forward. All responses will be collected by Laurie Bruce and Katrina Kroeze, Independent Facilitation Team. If you have any questions about this quality review, please call 416-992-9669 or email [communitylaisoninfo@gmail.com](mailto:communitylaisoninfo@gmail.com).*

## Items from Meeting 27

Business Arising		Responsibility	Response	Status
1	Update Surrounding Area Map included in the Facility Characteristics Memo with correct Carmeuse property boundaries.	Walker Environmental	Walker has updated the map in the online version of the memo. It can be accessed at <a href="http://www.walkerea.com/uploads/1136/Doc_636274395553078602.pdf">http://www.walkerea.com/uploads/1136/Doc_636274395553078602.pdf</a> .	Complete
2	What area of the Carmeuse property is Walker looking to purchase?	Walker Environmental	<i>Ontario Regulation 232/98, under the Environmental Protection Act, requires the holder of an environmental compliance approval (ECA) for a landfill site to own the entire site. The Landfill Standards 2012 further state that "...the applicant or holder of the Environmental Compliance Approval as required by Regulation 232/98 must own the entire site, including the waste fill area and the buffer area, unless the site is located on Crown land."</i> Walker will comply with these regulations and standards.	Complete
3	Will Walker actively quarry out part of Site License #2136?	Walker Environmental	Site License 2136 is approved to be quarried under the <i>Aggregate Resources Act</i> . It is expected that current quarry operator will continue to actively quarry in License 2136.	Complete
4	The CLC would like to have an explanation of how leachate ponds are built (environmental protections).	Walker Environmental	<p>Information about how leachate ponds are constructed will be provided at the May 24, 2017 CLC meeting.</p> <p><u>Background information about design requirements and reviews:</u></p> <p>An engineering design for a leachate treatment facility, including any leachate holding ponds, has to be prepared by the proponent (in this case, Walker and its engineering consultants) and submitted to the MOECC for review and approval before it can be built or operated.</p> <p>Section 4.1 of the Landfill Standards lists all of the engineering details that have to be prepared and included in the application, including: "detailed plans, specifications and descriptions of any leachate collection, treatment and disposal system necessary to control leachate, including construction and quality assurance and quality control procedures for the system components and system installation" (O. Reg. 232/98, S.6.(2)(c)(viii). Engineering experts at the MOECC review these plans to ensure that, among other things, they will protect groundwater, surface water and the environment (LFS, Section 4.1).</p>	In progress

5	Would anything go into the Lake (Carmeuse flooded quarry)?	Walker Environmental	At this stage in the EA process, Walker does not envision directing any effluent from the onsite leachate treatment facility or storm water into the flooded quarry south of the CN tracks.	Complete
10	Ministry's comments & JMCC's comments on the Alternative Methods Interim Report.	Walker Environmental	Links to documents: <a href="#">JMCC Peer Review Team Review of Alternative Methods Interim Report</a> <a href="#">MOECC Review of Alternative Methods Interim Report</a> (Documents enclosed for members receiving these materials by mail)	Complete
11	Provide the CLC with an outline of the estimated schedule of technical studies over the next year.	Walker Environmental	Walker will provide a timeline outlining the general technical studies schedule at the CLC meeting on May 24, 2017.	In Progress

## Carry Over Items from CLC Meetings (Meetings 16-26)

Business Arising		Responsibility	Response	Status
1	Show CLC members how their input on technical work plans throughout the ToR and EA has been considered.	Walker Environmental	Walker will discuss and demonstrate how input received from consultation activities is managed and considered at the CLC meeting on May 24, 2017.	In Progress
2	Review & discuss flexibility of the study areas and integration of disciplines and studies.	Walker Environmental	Walker will review this topic at the CLC meeting on May 24, 2017.	In Progress
3	Walker to provide a summary about how species at risk are identified.	Walker Environmental	The ecology consultant will attend and answer questions on species at risk at the CLC meeting on May 24, 2017.	In Progress
4	Walker to make revisions to the Cumulative Effects Summary & Work Plan to clarify and provide a document that can be easily understood and communicated to community members.	Walker Environmental	Walker will revisit the Cumulative Effects Summary at the CLC meeting on May 24, 2017.	In Progress
5	Request to let the CLC know the outcomes of the meeting between the Traffic Consultant and the Ministry of Transportation	Walker Environmental	Walker will provide information to the CLC about the outcomes of the meeting between the Traffic Consultant and the MTO.	In Progress



6	Update visual impacts work plan include the landfill map from the Approved Terms of Reference which includes the outline to Karn Road.	Walker Environmental	Walker will include Karn Rd. in the study area in the finalized technical work plan for Visual Impacts.	Complete
7	Provide MTO with community and public concerns relating to traffic and contingency planning (i.e. Emergency Detour Routes).	DF	Walker will provide this information to the MTO.	In Progress

### Carry-Over Items from Meetings during ToR Phase:

Business Arising		Responsibility	Status
1	Revisit the Mayor of Ingersoll regarding municipal green initiatives.	Walker Environmental	On-going. Walker remains open to exploring opportunities and working with municipalities and community groups on waste management/resource recovery and environmental initiatives.
2	Clarify question – is there a mental health study being done?	Walker Environmental	In Progress Supplementary Health Assessment, included in the HHRA
3	Evaluate the connection between HHRA and Economic Impact assessment in criteria table regarding potential economic impacts on area health system. (Show the link on the EA Criteria Table)	Walker Environmental	Complete The health implications due to the economic impacts of the proposed project will be evaluated as part of the planned Health Assessment using information from the Economic Impact Assessment stream.
4	Determine if there will be a truck wash. If so, identify if there will be a liner under the truck wash.	Walker Environmental	Complete The need for a truck wheel wash will be evaluated and referred to the landfill design team for consideration during the EA.
5	Combinations of quarry and landfill monitoring and the margin of error – create data analysis from the South Landfill comparing the predictions with the actual data.	Walker Environmental	Complete This comment has been referred to each expert for inclusion in the background data collection task during the EA.
6	Intrinsic to review their landfill-specific human health risk assessments literature and its performance evaluation of what has been predicted and what the results are to identify any trends and gaps.	Walker Environmental	In Progress A brief literature review will be conducted as part of the initial phase of the HHRA to identify any issues (i.e., trends or data gaps) that arose in similar landfill assessments, and ensure the current HHRA/HA is robust enough to address these concerns.

Business Arising		Responsibility	Status
7	Provide information on Richmond Landfill. Intrinsic will see what information is available from work they may have done.	Walker Environmental	Complete Intrinsic conducted a HHRA in support of a provincial EA for the proposed expansion of the existing Richmond Landfill in 2006/7. Intrinsic was not involved with the original EA for the existing landfill, nor did we conduct an assessment of the existing conditions. The expansion to the Richmond landfill ultimately did not proceed.
8	Look at establishing sensitive receptors that will include industrial and businesses such as Carmeuse, Blue-con and Federal White.	Walker Environmental	In Progress The common list of sensitive receptor locations are currently being established for all of the relevant EA streams, and will include relevant industrial/commercial locations that may pose unique exposure circumstances beyond worst-case residential.
9	Provide a report on health trends based on information available from local, provincial and federal sources that pertains to this region as soon as possible, and be made available for the human health risk assessment and to the CLC.	Walker Environmental	In Progress A summary of community health status will be provided as part of the Health Assessment report based on health summary statistics available from the local MOH and relevant provincial agencies (e.g., Cancer Care Ontario).
10	If the CLC is aware of local natural/environmental events, provide information to Walker who will then pass it along to Golder Associates.	CLC	Completed.
11	Contact the Agricultural agencies and let them know the CLC Members would like to attend the meeting when they meet with the technical expert.	Walker Environmental	Completed. Walker has been meeting directly with Agricultural organizations and local farmers.

## Becky Oehler

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**From:** Steve Hollingshead <shollingshead@routcom.com>  
**Sent:** Wednesday, June 14, 2017 2:36 PM  
**To:** [REDACTED]  
**Cc:** Darren Fry; Becky Oehler; Joe Tomaino  
**Subject:** RE: Questions on Cumulative Assessment

Hi [REDACTED]

Hope you are doing well, and I'm sure you are happy to see the end of that little heat wave.

As usual you have sent along some very good questions and I appreciate the time you take to read and think about the EA (certainly not everyone's cup of tea!). Answers are below, but I suggest that if any of them don't make sense to you then I may not have understood your questions and we should follow up with a chat.

### **In assessing, is a worst-case scenario employed?**

"Worst case" scenarios are dealt with through contingency and emergency response plans required for our *Environmental Protection Act* application, and will be documented in our Design & Operations report. Those will cover a wide range of "worst cases" like power failures, road closures, equipment failure, liner leakage, spills, etc., etc. You don't ever expect or plan for these events to happen, but you have to prepare for them just in case.

The EA is based on normal or typical operating conditions, so that you are characterizing the environmental advantages and disadvantages of the proposed undertaking in the way that it is expected to operate day-to-day and year-to-year. However, in carrying out their assessments, the experts will generally choose conservative assumptions or scenarios, or examine a range, and there are also additional factors of safety imbedded in most of the standards that they apply to their work.

### **Who takes the lead in the multi-stressor assessment?**

The experts take the lead in the assessment on a criterion-by-criterion basis. The experts have been assigned those criteria in the EA Criteria Table (Table A-1 in the ToR). Our EA criteria were designed as cumulative effects criteria right from the beginning, so the multi-stressor assessment is not a different set of criteria (or a separate study). Multi-stressors could come up in many of our EA criteria as we work through the analyses, but the obvious ones are EA Criteria #9, 10, 15, 16, 20, 22, 23, 34, 35, 36, 38, and 41. If you look at those criteria and their definitions in Table A-1 you can see how the effects being assessed in each case are cumulative effects that can arise from a combination of different stressors.

### **What role will the various discipline experts play in this assessment?**

The lead expert for each EA criterion (Table A-1 in the ToR) will be responsible to work with the other disciplines to obtain the information and input necessary to assess that particular criterion. Table A-2 in the ToR illustrated some of the key inter-connections we expect, but it's not limited to these and it can evolve as the data collection and analyses progress.

### **Will the rationale for criteria with respect to multi stressors be presented to ensure that all scenarios are covered? How will various combinations of stressors be defined and identified?**

As mentioned above, the EA criteria, definitions and rationale were already presented in Table A-1 in the ToR; they include the multi-stressor criteria. The results of those assessments will be documented criterion-by-criterion in each of the technical reports prepared by the experts, and then consolidated and summarized in the EA report.

**In multi-source assessment, there are obvious indicators based on standards and regulations but what indicators are used for multi-stressors? Are there relevant data sources to refer to? Given the subjectivity of the stress/disturbance, what thresholds will be used?**

The experts who have been assigned each criterion have laid out their indicators and data sources in their respective work plans.

As you've correctly observed, many of the indicators for the multi-stressor criteria are qualitative (subjective) rather than quantitative given that it's impossible to add "apples to oranges" (i.e., how do you quantitatively add the effects of dust, noise, traffic and so on?). So, instead, the idea is to first identify where there is a potential for multi-stressor effects, and then characterize their significance so mitigation and impact management can be applied wherever necessary and possible. The social assessment work plan contains some good examples, since it will deal with many of the multi-stressor criteria.

**How will [common receptor points] be determined for multi-stressors?**

Collaboratively among our experts. They have already held some preliminary conferences to discuss possible common receptor points and they will continue to work together to refine these as they collect more data and carry out their analyses throughout the EA studies. For instance, they will certainly re-visit this issue once they have carried out some initial field inventories.

I hope these answers make sense but as I mentioned, we can certainly discuss further if need be.

Regards.  
Steve.

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Stephen C. Hollingshead  
shollingshead@routcom.com  
(647) 244-5323

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**From:** [REDACTED]  
**Sent:** June-12-17 2:00 PM  
**To:** Steve Hollingshead  
**Cc:** Darren Fry; Becky Oehler  
**Subject:** Re: Questions on Cumulative Assessment

sorry I wrote this up on the fly...questions 2 on should refer to multi stressor assessment. I see I have confused them...sorry

On Mon, Jun 12, 2017 at 1:49 PM, [REDACTED] wrote:

Hi Steve

Given the number of questions I have, I have decided that an email may be the best way to communicate my questions about cumulative assessment.

As I mentioned at the last CLC meeting, I don't have a problem understanding the multi-source assessment. I did however; in the interim have one other than the question:

1. **In assessing, is a worst-case scenario employed?**

My main source of confusion is with the multi stressor assessment. I am relating it to the following analogy for my better understanding. I have a pot that is boiling over in the kitchen, the phone rings and someone knocks at the door. Independently each of these things is innocuous but combined will be a major source of stress. This is also a very subjective and given the person or circumstance, there may be varying effects.

So, I need to understand how this will be assessed so the following questions are related to multi-source assessment:

2. On page 5 of the work plan it states: *EA Technical Studies Interconnectivity Matrix*

*...Each EA criterion has been assigned a 'lead' expert for reporting purposes (see Table A-1). The lead expert is responsible for coordinating efforts with any other expert they determine necessary to effectively report on that criterion as well as providing information to other experts who need input from them to report on any other criteria.*

- **Who takes the lead in the multi-source assessment?**
- **What role will the various discipline experts play in this assessment?**

3. **Will the rationale for criteria with respect to multi stressors be presented to ensure that all scenarios are covered?**

- **How will various combinations of stressors be defined and identified?**

4. **In multi-source assessment, there are obvious indicators based on standards and regulations but what indicators are used for multi-stressors?**

- **Are there relevant data sources to refer to?**

5. As seen in my analogy above, independently each stressor may be under the standard yet combined will present a cumulative effect. **Given the subjectivity of the stress/disturbance, what thresholds will be used?**

6. In Appendix A under environment potentially affected: *Select common receptor points for the assessment of overlapping effects between study disciplines*. **How will this be determined for multi-stressors?**

I believe those are my questions for today. Looking forward to your response.



## **CLC Meeting 28**

Other documents sent as materials, but not included as pages in this Appendix (to cut down on duplication, paper waste and/or very large digital files):

- 1) Transcript: [http://www.walkerea.com/uploads/1146/Doc\\_636353837278785844.pdf](http://www.walkerea.com/uploads/1146/Doc_636353837278785844.pdf)

*Please contact us at [info@walkerea.com](mailto:info@walkerea.com) or toll-free at 1-855-392-5537 if you require assistance accessing this document online or in hard copy.*

# Southwestern Landfill CLC #29

## *Meeting Summary*

**Date:** September 20, 2017  
**Time:** 6:00 p.m. – 9:00 p.m.  
**Location:** 160 Carnegie Street, Ingersoll (Lower Meeting Room)

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### **MEETING OVERVIEW**

The purpose of the CLC Meeting 29 was for Walker to provide an update on the EA including the status of upcoming technical studies including field work. In addition, CLC members completed an annual review of their experience on the CLC over the past year and discussed revisions to the CLC Charter to clarify the roles of different types of participants in the CLC meetings.

### **MEETING DETAILS BY AGENDA ITEM**

#### **Agenda # 3 – CLC Annual Review**

- The facilitator recommended that an annual review of the CLC be completed at the first CLC meeting following the summer break every year.
- This annual review will assess the effectiveness of the CLC meetings over the preceding year, identify what is working effectively and areas for improvement, including modifications to the wording of the CLC Charter.
- The CLC took time during the meeting to complete the Quality Review form proposed by the Facilitating team.
- The facilitator had been advised prior to this meeting that there were questions regarding the respective roles of different types of participants. The Facilitator took this Annual Review agenda point to suggest modifications to the CLC charter to clarify the different participant types including Individual Local Stakeholders, Government Representatives, and Walker Representatives & Consultants.
- The facilitator's email was also added to the charter so that inquires related to the function of the CLC can be communicated directly to the facilitator.
- CLC members discussed the proposed changes and requested additional time to review.
- A revised version of the CLC Charter will be presented at the CLC Meeting 30 – November 22, 2017.

#### **Agenda # 4 – Discussion on EA Process Update**

- Walker presented the following updates on the EA:
  - There are still a couple of outstanding roundtable meetings with the technical experts, review teams and MOECC before publishing the Final Technical Work Plans.
  - There will be responses in the form of disposition tables, listed by technical discipline and commenter, containing all comments received on the Updated Technical Work Plans.



# Southwestern Landfill CLC #29

## *Meeting Summary*

- All finalized work plans and disposition tables will be published shortly on the project website and a notification will be sent to all CLC members.
- Walker presented an overview of the “Consultant Field Work Orientation” package that is provided to each consultant prior to beginning the field work. This orientation package includes information on:
  - environmental, health & safety training from Walker and Carmeuse;
  - requirements for advanced notice of field work activities;
  - day-of field work sign-in requirements; and,
  - proper identification and communications protocol for interactions with community members.
- Walker noted that some field work has started. Specifically:
  - the visual consultant took photographs in the spring from public viewpoints;
  - the traffic consultant took a one-day summer count of vehicle traffic; and,
  - the groundwater consultants have mobilized a drill rig and started the installing groundwater monitoring wells. The drill rig is expected to be onsite for 6-8 weeks.
- Walker explained that they are sending out notifications to announce the field work activities with a “Field Work Summary” as was committed to in the Terms of Reference. This includes notifying the technical experts, the JMCC and Ingersoll PRT and Aboriginal Communities. This notification was also provided to the CLC.
- Walker indicated that they can, when possible, arrange for CLC members to observe field work activities if possible and safe to do so.
- Members of the CLC suggested that Walker increase their reach for updating the community by putting project information in the Village Voice, sharing it with the municipalities and their social media channels, and to consider presenting at upcoming council meetings.
- Walker asked, on behalf of the social consultant, that a working group of 3-4 CLC members participate in a one-time, two-hour meeting, to review and provide input on the public attitude survey (telephone) questions which will be conducted as part of the social impact assessment.
- Members of the CLC agreed to participate and will let Walker know by email who from the CLC will attend.
- In addition, the CLC members mentioned that it would be helpful to have the survey questions provided in advance of the working group meeting to review and prepare accordingly.

# Southwestern Landfill CLC #29

## Meeting Summary

### Agenda #5 – CLC Correspondence

- **CLC Member visit to Niagara**
  - A CLC member went to Niagara for a site visit of Walker’s South Landfill operations and gave insights to the group about the experience.
  - Specifically, the CLC member found that it was extremely helpful to see a working quarry and landfill in action and ask questions directly to Walker during the tour and also to see the scale and size of the operations.
  - Walker indicated that there is an open invitation to CLC Members and to members of the public to visit the operations in Niagara.
- **CLC Quality Review Insights** – The facilitator team briefly reviewed the completed CLC Quality Review forms provided the CLC with some initial insights during the meeting, but will compile all results to provide a report and disclose it in a separate document that will be provided to the CLC members prior to the next CLC meeting.

### Closing Remarks - Adjournment

The next CLC meeting will be held on Wednesday November 22, 2017.

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*Prepared by Katrina Kroeze, CLC Documenter.*

*Approved by Laurie Bruce, CLC Facilitator.*

*If you have any questions about this summary, please call 416-992-9669 or email [communitylaisoninfo@gmail.com](mailto:communitylaisoninfo@gmail.com) If you have questions for Walker, please call 1-855-392-5537 or email [info@walkerea.com](mailto:info@walkerea.com)*



# CLC Meeting 29 - Materials

Southwestern Landfill Environmental Assessment

September 8, 2017

Dear CLC members,

Please find enclosed the materials for the upcoming CLC meeting on **Wednesday, September 20, 2017** at 6:00 pm (dinner will be available at 5:30 pm).

The meeting will focus on a CLC Review and an Update on the EA Process including the finalization of the work plans, field-work completed to date, and the process for informing the community during this phase of the EA.

Laurie and Katrina will be setting aside some time for CLC members to fill out the CLC Review Survey that was handed out at the CLC Meeting 28 in May at this upcoming meeting. If you have already filled out the form, Katrina let me know that it is not required to be completed again.

**Materials:**

1. Agenda
2. CLC Quality Review Survey

As a reminder, at the end of this past June, a print package with the CLC Meeting 28 Summary, the Business Arising Report, and the CLC Meeting 28 Transcripts was sent to all CLC Members. These materials complete the full package of the CLC Materials for the upcoming CLC Meeting on September 20, 2017.

Please let me know if you have any questions in advance of our meeting on the 20th.

Warm regards,

Becky Oehler  
Community Engagement Manager  
905-680-3675, [boehler@walkerind.com](mailto:boehler@walkerind.com)



# CLC Meeting 29 – Agenda

Southwestern Landfill Environmental Assessment

**Date:** Wednesday, September 20, 2017

**Time:** 6:00 pm – 9:00 pm  
(Dinner will be available at 5:30)

**Location:** 160 Carnegie Street, Ingersoll (Lower Meeting Room)

**Meeting Materials:**

- Agenda Item #3 CLC Quality Review Survey

	Description	Lead	Duration	End Time
1	Welcome	Facilitator	5 min	6:05
2	Objectives and Review of Agenda	Facilitator	10 min	6:15
	<b>CLC Annual Review</b>			
3	<ul style="list-style-type: none"> <li>• CLC quality review survey</li> <li>• CLC charter review</li> </ul>	Facilitator	30 min	6:45
	<b>Update on EA Process</b>			
4	<ul style="list-style-type: none"> <li>• EA process status</li> <li>• Work plan finalization</li> <li>• Process for field work &amp; field work completed to-date</li> <li>• Process for informing the community</li> <li>• Next steps</li> </ul>	WEG	40 min	7:20
	<b>10 Minute Break</b>			
5	CLC Correspondence	ALL	20 min	7:45
6	Action Items & Next Meeting	ALL	5 min	7:50
7	CLC Discussion with EA Advisor	CLC/AG	1 hour	8:50

## Summary of Field Work by Discipline

Study	Summary of Field Work
<b>Agriculture</b>	Mapping the land use to determine what is agricultural and what is non-agricultural, as well as describing the type of agricultural land/use.
	Talking with/surveying agricultural land owners and interested agricultural stakeholder groups.
<b>Air Quality</b>	Site visit to examine the proposed landfill location and surrounding area (topography), and to determine common receptor locations (receptor locations that will be used across different studies; developed in consultation with consultants from other studies).
	Air quality sampling will take place to fill in any gaps in data that currently exist (ie. existing data from Carmeuse, MOECC). Existence of gaps will be determined during the background information review before field work starts.
<b>Archeology</b>	<p>Data collection through walking the lands. Fields are walked at a fixed interval of no more than 5 meters between transects.</p> <ul style="list-style-type: none"> <li>• In ploughed areas, the surface of the ground is examined for artifacts that have been turned up due to agricultural practices. If an artifact is found, there will be an intensified 2 meter transect survey in a 30 m radius.</li> <li>• In unploughed areas, test pits measuring (30 cm diameter, 5 cm deep into subsoil) are dug and the soil is screened (6 mm wire mesh) for artifacts. If an artifact is found, the survey is intensified in the immediate vicinity, including a minimum of a 1 meter test pit placed over the original artifact location and 8 additional test pits in a radius of 2 m.</li> <li>• Any located artifacts are mapped using GPS and collected for analysis.</li> </ul>
<b>Cultural Heritage</b>	Field work to create an inventory of buildings and landscapes cultural value, which includes written observations, photographs, and supplemental historical research. Built heritage resources may include farmhouses, barns, silos, places of worship, dwellings, stores, cemeteries and above ground ruins. Cultural heritage landscapes may include roads, farm complexes, agricultural lands, waterscapes, quarries, and railway rights-of-way.
<b>Ecology</b>	In general, field work will including looking for species, but also looking at the types of habitat that are present in the area to identify what types of species are likely to live there, whether they are seen or not.
	For the criteria "Loss or Disturbance to Aquatic Life": Annual (Spring or late Fall) sampling of benthic invertebrates and semi-annual (Spring and Fall) sampling of the fish community, with attention to Species at Risk, both upstream and downstream of the proposed landfill site.
	For the criteria "Loss or Disturbance to Terrestrial Ecosystems": Field data will be collected throughout the seasons, including ecological land classification and floral surveys, species at risk/rare species survey, breeding bird surveys, amphibian visual and auditory surveys, winter wildlife use observations, and landscape connectivity using aerial photography and verified with a field inspection.
	For the criteria "Disease Transmission via Insects or Vermin": Assessed by identifying the primary vectors (types of insects/vermin that are present) and the likelihood of

	disease transmission based on the information available from the aquatic and terrestrial surveys.
	For the criteria "Aviation Impacts due to Gull Interference" (increased risk of bird strikes): Assessed using the Airport Bird Risk Assessment Process.
<b>Economic</b>	Face-to-face or telephone interviews with nearby businesses.
	Local resident/property owner questionnaire distribution and interviews (in collaboration with social study) to understand potential impacts to property values nearby.
	General visit of the area to note current conditions and changing circumstances, including noting real estate listings and property sales.
	Key stakeholder interviews: <ul style="list-style-type: none"> <li>• Municipal Officials (in collaboration with social study)</li> <li>• Business Associations</li> <li>• Chambers of Commerce</li> <li>• Tourist Associations/Groups (in collaboration with social study)</li> <li>• Ministry of Agriculture Officials (in collaboration with social study)</li> <li>• Local Agriculture Associations/Groups (in collaboration with social study)</li> <li>• Real Estate Representatives and Associations</li> </ul>
<b>Groundwater &amp; Surface Water</b>	Boreholes/monitoring wells will be drilled to characterize the groundwater quality, quantity, and flow direction/speed. Samples will be taken quarterly to detect variations due to seasons.
	The exposed bedrock (ie. quarry walls) will be mapped for rock characteristics, joint and bedding plane occurrence (frequency, pattern and orientation), and evidence of karst features.
	An inventory will be created of surface water uses from municipal, conservation authority, and MOECC records, supplemented by field inspection of surface water uses at key locations.
	The surface water flow and quality will be characterized by field measurements and samples (4 seasons) both upstream and downstream of the proposed landfill site. Includes locations in the Thames River and tributary streams that feed into the river.
<b>Health</b>	N/A – uses data collected from other studies.
<b>Noise</b>	Identification of noise-sensitive receptors within 5 km of the site through background research as well as a site visit to adjacent neighbourhoods. Noise associated with trucking on the haul route will also be considered when identifying noise-sensitive receptors.
	Noise levels from Carmeuse operations will be measured at the property boundary (20 minute measurements)
	Noise levels from specific pieces of Carmeuse equipment will be measured (ie. crushers, screening plants, haul trucks, rock drills, etc.).
<b>Social</b>	Kitchen Table/Small Group Meetings – held with groups of nearby residents. There will be two rounds of face-to-face discussions, each with a different focus: <ol style="list-style-type: none"> <li>a) At the start of the social study: <ul style="list-style-type: none"> <li>• Understanding neighbourhood and community-specific issues</li> <li>• Identifying potential effects of the landfill</li> </ul> </li> <li>b) After the initial effects assessment has been completed (results from other studies): <ul style="list-style-type: none"> <li>• Feedback on the results of the effects assessment</li> <li>• Comments or suggestions on ways to mitigate effects</li> </ul> </li> </ol>

These meetings are intended for the nearest neighbours to the proposed landfill, including:

- Residents living near Dunn's Corners (intersection of 66 Road and Townline Rd)
- Ingersoll residents living in the neighbourhood nearest the proposed landfill (northeastern Ingersoll)
- Beachville residents living in the neighbourhood nearest the proposed landfill (northwestern Beachville)
- Centreville residents

Local Resident Questionnaire – a survey provided to residents in Centreville, Beachville (extending toward Woodstock), and Ingersoll. The survey will be designed in collaboration with other disciplines seeking information from local residents (ie. agriculture and economic studies). The questionnaire will include questions with these objectives:

- Understand current attitudes toward the quarry site and proposed landfill
- Identify how residential/farm owners currently use and enjoy their property (personal or business) and how these might change as a result of the proposed landfill
- Understand how satisfied respondents are with living in their neighbourhoods and how the proposed landfill might affect their level of satisfaction
- Understand how respondents use the primary haul route and how this might change as a result of the proposed landfill
- Understand how committed respondents are to living/farming in the immediate vicinity of the proposed landfill
- Identify how respondents define their neighbourhood character and how they anticipate this might change as a result of the proposed landfill
- Obtain comments/suggestions on ways to mitigate effects of the proposed landfill

Public Attitude Research – a telephone survey over a broader area (County-wide) of approximately 65 questions, taking less than 20 minutes to answer. The survey will be designed in collaboration with other disciplines seeking information from local residents (ie. agriculture and economic studies). The survey will include questions with these objectives:

- Identify attitudes of people towards their community including their levels of satisfaction, major community issues and the importance of various public services to the community
- Identify community issues that affect people's personal health, safety and well-being and perceived ratings of their overall feeling of health and sense of well-being
- Identify issues in the community that affect the use and enjoyment of residential property
- Gauge people's attitudes towards, and perceptions of the Carmeuse site, Walker and the proposed landfill
- Identify the resident behaviour and activities conducted near the proposed landfill site (e.g., hiking trails, parks and conservation areas etc.)

	<ul style="list-style-type: none"> <li>• Examine the potential for effects of the landfill on people’s daily lives and any likely changes in attitudes towards their community or behavioural intentions that may be attributable to the project</li> <li>• Identify characteristics of the local residents (from length of residence in the community to household demographics) to assess differences in responses by various segments of the population</li> <li>• Obtain comments or suggestions on ways to mitigate effects of the proposed landfill</li> </ul> <p>Government Agency and Political Leader Interviews – interviews, coordinated with the economic and agricultural studies (where appropriate), will be undertaken with local/regional government representatives in planning and development (community/recreation) as well as Mayors and councilors. Includes:</p> <ul style="list-style-type: none"> <li>• County of Oxford</li> <li>• Township of South West Oxford</li> <li>• Township of Zorra</li> <li>• Town of Ingersoll</li> </ul> <p>Facility Operator and Key Stakeholder Interviews – in-person or telephone interviews with several community facility operators and/or other key stakeholders to:</p> <ul style="list-style-type: none"> <li>• Help confirm/verify information</li> <li>• Identify the likelihood of changing behaviours</li> <li>• Identify potential effects of the proposed landfill on facility operations and any likely changes in operations/attitudes toward the community or behavioral intentions that may be due to the proposed landfill</li> <li>• Obtain comments or suggestions on ways to mitigate effects of the proposed landfill</li> </ul> <p>Includes key stakeholders such as sports and recreation clubs, community facilities, community groups, Conservation Authority, nearest schools, organizers/operators of community festivals/events, etc.</p> <p>Day User Recreation Surveys – interviews with people using recreation facilities such as hiking trails and outdoor recreation/conservation areas.</p> <p>Aboriginal Land Use and Interests Research – Two focus groups with members of the First Nation communities that are located along the Thames River, downstream from the proposed landfill. The objective is to identify and describe land uses, human/ecologically sensitive sites, as well as to collect input into mitigation, management, monitoring, and enhancement measures.</p> <p>Held at two times:</p> <ol style="list-style-type: none"> <li>At the start of the social study</li> <li>After the initial effects assessment has been completed (results from other studies)</li> </ol> <p>Held with two different groups:</p> <ol style="list-style-type: none"> <li>Land users and knowledge holders</li> <li>First Nation Land and Resource Managers or Consultation Officers</li> </ol>
<b>Traffic</b>	<p>Site visit to the preferred haul route to catalogue its characteristics/conditions including:</p> <ul style="list-style-type: none"> <li>• Road characteristics (widths of road and shoulder, intersection configurations, rail crossings, pavement structure, signs/signals, etc).</li> <li>• Potential conflict points with trucks, pedestrians, cyclist, trail users, etc.</li> </ul>



	<ul style="list-style-type: none"> <li>• Turning and minimum sight distance/visibility deficiencies</li> <li>• Precise length of haul route</li> <li>• Residential/commercial driveways</li> <li>• Sensitive land uses along the route (ie. churches, schools, community centres, etc).</li> </ul>
	<p>Field surveys to record traffic counts and turning movements at key intersections along the haul route. The survey will identify peak periods. Speed surveys will also be carried out.</p>
<b>Visual</b>	<p>Field visits (travelling all community roads and walking trails) to identify viewpoints (places at which the view is taken as a “receptor”) where the site is visible and there is a potential for change as a result of the proposed landfill. The viewpoints will be photographed and described approximately 4 times through the various seasons including winter, which is the predicted worst case scenario, since leaves are off of the trees.</p>

## Items from CLC Meeting 28 – May 24, 2017

Business Arising		Responsibility	Response	Status
1	Provide CLC members with further detail on the contingency plans for the leachate treatment plant.	Walker Environmental	If the landfill is approved, Walker would be required to create contingency plans for the leachate treatment plant as part of the Environmental Compliance Approvals only after the EA is submitted and approved.	Complete
2	Provide CLC members with the procedures for waste acceptance of asbestos (designated substance). Specifically, how it is received, and contained to mitigate the risk of breathing in fibres.	Walker Environmental	<p><i>Response from the Walker Environmental Performance Department, who approve wastes entering Walker landfills:</i></p> <p>Walker Environmental Group landfills are permitted to accept asbestos containing materials (also known as ACMs) which is classified as a Designated Substance under Ontario Regulation 490. Asbestos is a naturally-occurring material that was historically used in building construction materials and in the vehicle manufacturing industry due to its insulating and fire resistance properties. Some examples of where ACMs can be found include: floor tiles, insulation on piping, roofing shingles, and vehicle brake pads manufactured before 1990. In 1990, the use of asbestos was banned due to the health effects on people when asbestos fibres are inhaled.</p> <p>Walker Environmental Group will typically see ACM waste when individuals or businesses undertake building renovations. In order to protect the health and safety of our workers, our customers and our neighbours, customers bringing in ACM waste are required to follow a detailed procedure in order to ensure that no asbestos fibres become airborne during transportation and disposal. As per Ontario Regulation 347, all ACM waste must be bagged prior to transport in designated packaging and the truck hauling the material must have specific emergency spill clean up materials onboard.</p> <p>When accepting and unloading ACM waste at the landfill, the following approach is followed:</p> <ul style="list-style-type: none"> <li>• Request to dispose of ACM waste at least 24-hours prior to anticipated date and time of disposal. This allows landfill operators to plan and prepare an area for acceptance</li> <li>• On day of receipt, the landfill operators will determine an area on the site where the ACM waste will be received. Areas are chosen to: <ul style="list-style-type: none"> <li>○ Minimize the risk of the packaging becoming punctured during receipt and burial of the material</li> <li>○ Ensure that the packaging will not roll down the working face during receipt</li> </ul> </li> <li>• Once unloaded, the material is covered immediately</li> </ul>	Complete

3	Provide CLC members with more information on how dusty materials are handled to prevent blowing dust, including sand from sandblasting.	Walker Environmental	Each type of waste that has the potential to be dusty is considered individually. In the case of sandblasting material, it is typically coarse enough that it can be offloaded, compacted, and buried without issue. However, in the case of finer materials, like powder, Walker typically requires that the material is bagged, since power has the tendency to become airborne during offloading. These types of handing requirements are discussed with the client before waste is shipped to the landfill. If a material arrives at the landfill that is unexpectedly dusty, water can be used to suppress the dust, and Walker follows up with the client to prevent issues in the future.	Complete
4	Provide CLC Members with more detail on how the multi-stressor cumulative effects will be evaluated.	Walker Environmental	See attachment – email from Steve Hollingshead to Mary Cooper, June 14, 2017 for written Q&A about cumulative effects.	Complete
5	Share with the CLC the Walker Niagara Campus Study from the University of Guelph on returning landfills to agricultural land use post-closure.	Walker Environmental	The study is available online at <a href="https://atrium.lib.uoguelph.ca/xmlui/handle/10214/5535">https://atrium.lib.uoguelph.ca/xmlui/handle/10214/5535</a> .	Complete
6	Post inputs received and response tables from the technical reviewers and other interested parties on the updated technical work plans.	Walker Environmental	Walker to send the CLC a notification once available on the project website.	In Progress

## Carry Over Items from CLC Meetings (Meetings 16-27)

Business Arising		Responsibility	Response	Status
1	Request to let the CLC know the outcomes of them meeting between the Traffic Consultant and the Ministry of Transportation	Walker Environmental	Walker provided a summary of the meeting and outcomes at the May 24, 2017 meeting.	Complete

## Carry-Over Items from Meetings during ToR Phase:

Business Arising		Responsibility	Response	Status
1	Revisit the Mayor of Ingersoll regarding municipal green initiatives.	Walker Environmental	Discussions with Mayor of Ingersoll will occur at key points in the EA process.	Ongoing
2	Clarify question – is there a mental health study being done?	Walker Environmental	A study of mental health is not part of the HHRA. However, the Supplementary Health Assessment, included in the HHRA, will evaluate the potential health impacts related to results from the economic and social studies.	Complete
3	Evaluate the connection between HHRA and Economic Impact assessment in criteria table regarding potential economic impacts on area health system. (Show the link on the EA Criteria Table)	Walker Environmental	The health implications due to the economic impacts of the proposed project will be evaluated as part of the Supplementary Health Assessment, which will use data from the economic study.	Complete
4	Determine if there will be a truck wash. If so, identify if there will be a liner under the truck wash.	Walker Environmental	This comment will be referred to the landfill design team for consideration during the EA.	Complete
5	Combinations of quarry and landfill monitoring and the margin of error – create data analysis from the South Landfill comparing the predictions with the actual data.	Walker Environmental	This comment will be referred to each expert for inclusion in the background data collection task during the EA.	Complete
6	Intrinsic to review their landfill-specific human health risk assessments literature and its performance evaluation of what has been predicted and what the results are to identify any trends and gaps.	Walker Environmental	A brief literature review will be conducted as part of the initial phase of the HHRA to identify any issues ( <i>i.e.</i> , trends or data gaps) that arose in similar landfill assessments, and ensure the current HHRA/HA is robust enough to address these concerns.	Complete
8	Look at establishing sensitive receptors that will include industrial and businesses such as Carmeuse, Blue-con and Federal White.	Walker Environmental	The common list of sensitive receptor locations are currently being established for all of the relevant EA streams, and will include relevant industrial/commercial locations that may pose unique exposure circumstances beyond worst-case residential.	Complete

Business Arising		Responsibility	Response	Status
9	Provide a report on health trends based on information available from local, provincial and federal sources that pertains to this region as soon as possible, and be made available for the human health risk assessment and to the CLC.	Walker Environmental	A summary of community health status will be provided as part of the Health Assessment report based on health summary statistics available from the local MOH and relevant provincial agencies (e.g., Cancer Care Ontario).	Complete
10	If the CLC is aware of local natural/environmental events, provide information to Walker who will then pass it along to Golder Associates.	CLC		Ongoing
11	Contact the Agricultural agencies and let them know the CLC Members would like to attend the meeting when they meet with the technical expert.	Walker Environmental		Ongoing

## **CLC Meeting 29**

Other documents sent as materials, but not included as pages in this Appendix (to cut down on duplication, paper waste and/or very large digital files):

- 1) Transcript: [http://www.walkerea.com/uploads/1171/Doc\\_636480006621257491.pdf](http://www.walkerea.com/uploads/1171/Doc_636480006621257491.pdf)

*Please contact us at [info@walkerea.com](mailto:info@walkerea.com) or toll-free at 1-855-392-5537 if you require assistance accessing this document online or in hard copy.*

# Southwestern Landfill CLC #30

## Meeting Summary

**Date:** November 22, 2017  
**Time:** 6:00 p.m. – 8:30 p.m.  
**Location:** 160 Carnegie Street, Ingersoll (Lower Meeting Room)

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### MEETING OVERVIEW

CLC Meeting 30 was focused on key four items:

- Present and discuss the results of the CLC Annual Performance Review
- Present and discuss proposed changes to the CLC Charter
- Provide information on the finalization of the technical work plans
- Provide an update on current and near-term field work

### MEETING DETAILS BY AGENDA ITEM

#### Agenda # 2 – Objectives and Review of Agenda

- The meeting objectives and agenda were reviewed
- A member requested that time be set aside at the start of the meeting for a brief question and answer period. There was a consensus to add an additional 10-minute agenda item at the beginning of the meeting. More extended discussion on topics not on the agenda will continue to be included in the CLC Correspondence section of the agenda.
- A member requested that a list of initials with names be provided to CLC members with the transcript.

#### Agenda # 3 – Results from CLC Annual Performance Review

- The facilitator presented an overview of the CLC Annual Performance Review summary (available online).
- There were recommendations made by respondents. Suggestions that will be adopted:
  - Facilitator to ask for follow-up questions on the subject being discussed prior to moving on to the next person in line. This would keep the subject from bouncing back and forth.
  - Additional breaks to reduce the amount of sitting time
  - A list of CLC-provided inputs will be captured as a table at the end of the CLC summary.
- A member requested that the full dataset from the CLC Annual Performance Review be provided.

#### Agenda #4 – CLC Charter

- The facilitator presented proposed edits to the CLC Charter.
- The edits include those seen at the last meeting, which were made by the facilitator, as well as additional comments recommended by a group of 5 CLC members and integrated by the facilitator.
- 2 members expressed objections to the language used to describe the role of Government Agency Observer Representatives, stating that they interpret the description to mean that the role is limiting the ability of those representatives to participate fully in the CLC meeting.
  - The facilitator requested that one of the objecting members propose edits to the language for clarity.

# Southwestern Landfill CLC #30

## Meeting Summary

### Agenda #5 – Final Work Plans & Disposition Tables

- All work plans and disposition tables are available online (and hard copies on request) except Human Health Risk Assessment (waiting on peer review roundtable meeting) and Air Quality/Noise (waiting on finalization of monitoring locations).
- Walker provided an overview of the Peer Review Roundtable Meetings, which were requested by the Joint Municipal Coordinating Committee (JMCC) for groundwater/surface water (held Sept 26), air/noise (held Sept 20), and human health risk assessment (HHRA) (to be held Nov 28).
  - Meetings include the JMCCC peer reviewer, the Walker consultant, the government reviewer(s) and the Ingersoll peer review.
  - A CLC member asked if they could observe the HHRA meeting.
- Walker reviewed key updates to the final work plans as identified in the presentation slides.

### Agenda #6 – Field Work Update

- Walker provided an update on the current and upcoming (near-term) field work (noted in presentation).
- Walker reviewed the groundwater well locations. There was some discussion (summarized below).
  - The number of wells decreased to 6 from the original 10 in consultation with peer reviewers. The consensus was to focus on wells farther from the site boundary to the west, since wells close to the quarry wall will have less water and less natural water flow due to quarry dewatering. Also, there are Carmeuse wells that will provide data. In addition, at each well site, there are actually multiple wells, drilled to different depths to capture different groundwater flow zones.
  - There no wells in the backfilled area to the east of the proposed landfill site because dewatering would make it dry and not reflective of groundwater movement in the area.
  - Carmeuse has wells that they monitor as part of the requirements of their environmental approvals. Walker has access to this data for use in the groundwater study.
  - The karst expert is not involved yet. He will look at the core, quarry walls, and historic data.
  - Walker used a white-board to draw and describe potential contingency plans for the unlikely event of a liner leak in two scenarios; 1) there is dewatering ongoing and 2) the water table has risen to its natural state (no dewatering). Both scenarios will have to be taken into account during detailed contingency planning during EPA approvals if the EA is approved.
  - Carmeuse discharges their dewatering water after rock dust is settled out in settling ponds. It is monitored in real time for suspended solids (rock dust) and typically discharges to the Thames River. If the suspended solids are too high, it is discharged to the flooded quarry. Question: Where does Carmeuse's dewatering water discharged? Does it go to Cemetery Creek?
    - Answer: The water goes through settling ponds to settle the suspended solids (dust) it carries. The water then goes through a sensor that detects the amount of suspended solids. If it is below a certain threshold, it is discharged to the Thames River.
  - Walker using data from the municipal wells in the area as background information for the groundwater study.
- Walker identified that the Air Quality study will use data from MOECC monitors as well as new information from monitoring stations installed by Walker's air quality consultant.



# Southwestern Landfill CLC #30

## Meeting Summary

### Agenda #7 – CLC Correspondence

- CLC member question: Does the EA include a Design & Operations report?
  - Answer: The Design and Operations report is not a required part of the EA. However, it's important that the EA include information about what the facility would be like.
- CLC member question: Is there a comment period for Environmental Compliance Approvals?
  - Answer from MOECC representative: Yes, there is a comment period. It's typically 45 days, but it can vary depending on the approval.
- CLC member question: How long are Environmental Compliance Approvals processes?
  - Answer from MOECC representative: It varies depending on the approval and project type, but for complex approvals it can be quite lengthy. For example, some air approvals are 2 years.
- Walker noted that their operations typically continue with a Community Liaison Committee during other approvals and operations. The MOECC representative noted that this is a typical requirement.
- Walker provided information on the upcoming public event Nov. 28-30 at their office. There will be a separate table for CLC members to meet with attendees (as requested by CLC previously).
- Walker noted their recent consultation activities, including presenting at Zorra and South West Oxford councils, meeting with nearest neighbours, meeting with nearby First Nations chiefs, councils, and other representatives. Walker also presented at a recent event at Oneida Nation on the Thames. Walker's presentation to Ingersoll council has been deferred until December 11<sup>th</sup>.
  - Municipal representatives noted that the Zorra and South West Oxford presentations were posted on their websites beforehand. Zorra meeting had no observers. SWOX meeting had observers.
  - A municipal representative noted that the council found the presentation useful as an update.
- A member thanked community resource and agency representatives for attending the meeting and providing their knowledge their role as a resource to CLC individual community members.

### Closing Remarks - Adjournment

- Walker invited CLC members to a dinner on Wednesday, December 13 to thank them for the time they have invested in the CLC. A similar dinner was held in 2016 and was an opportunity for informal discussion. Walker will send out an invitation and ask members' who plan to attend to RSVP.

The next CLC meetings will be held on Wednesday, February 21, 2018 and Wednesday, May 23, 2018.

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*Prepared by Ashley Van Dinther, CLC Documenter.*

*Approved by Laurie Bruce, CLC Facilitator.*

*If you have any questions about this summary, please call 416-992-9669 or email [communityliaisoninfo@gmail.com](mailto:communityliaisoninfo@gmail.com)*

*If you have questions for Walker, please call 1-855-392-5537 or email [info@walkerea.com](mailto:info@walkerea.com)*

# Southwestern Landfill CLC #30

## Meeting Summary

### CLC Input

The table below tracks input from CLC members, including the topic, input, and Walker's response or action.

Topic	Input	Response/Action
CLC management	CLC member proposed that there be a short question and answer agenda item at the beginning of each meeting.	CLC came to a consensus that there should be 10 minutes set aside at the beginning of each meeting in the Agenda moving forward.
CLC management	CLC member would like to have a list of names with the initials that are used in the transcript.	Walker will provide this list to CLC members moving forward.



# CLC Meeting 30 - Materials

Southwestern Landfill Environmental Assessment

November 10, 2017

Dear CLC member,

Please find enclosed the materials for the upcoming CLC meeting on **Wednesday, November 22, 2017** at 6:00 pm (dinner will be available at 5:30 pm).

The meeting will include a review of the CLC Annual Performance Review, as well as a revised Charter. The Charter revisions are still in progress and will be made available at the meeting. Also, we will discuss the finalization of the technical work plans, including key updates, as well as field work that is currently occurring and upcoming.

#### Enclosed Materials:

1. Agenda
2. CLC Quality Annual Performance Review report
3. Presentation slides for items Agenda items 5 and 6
4. Work Plan Finalization – CLC Meetings Comment Disposition Table
5. Facility Characteristics Assumptions – CLC Comment Disposition Table
6. Draft CLC Meeting #29 Summary – *please let us know if you have any comments by November 30, 2017, after which it will be posted online.*
7. CLC Meeting #29 Transcript

There are a few other items we would like to note at this time, for your information:

- Two CLC members volunteered to pre-test the public attitude research (telephone) survey with WEG's social assessment consultant. This meeting will occur on November 29<sup>th</sup>.
- CLC members are invited to contact WEG if they are interested in observing specific field work. We are happy to coordinate if it is safe and reasonable to observe.
- There is a Southwestern Landfill Public Event from November 28-30, 2017. This event is an office open house, occurring in the downstairs meeting room of the Walker Environmental Office at 160 Carnegie St. in Ingersoll. (November 28 - 3 pm to 8 pm, November 29 – 9 am to 2 pm, November 30 – 3 pm to 8 pm)
- WEG received written comments regarding interim reporting documents including the Alternative Methods Assessment Interim Report and the Facility Characteristics Assumptions from the Joint Municipal Coordinating Committee, the Ingersoll PRT, and Walpole Island First Nation. WEG's responses to these comments have been posted online in the "EA Documentation" section under "Interim Environmental Assessment Documents (March 2016-Present)". Hard copies are available upon request.

Please let us know if you have any questions in advance of the November 22 meeting.

Warm regards,

Becky Oehler  
Community Engagement Manager  
905-680-3675, [boehler@walkerind.com](mailto:boehler@walkerind.com)



# CLC Meeting 30 – Agenda

Southwestern Landfill Environmental Assessment

**Date:** Wednesday, November 22, 2017

**Time:** 6:00 pm – 9:00 pm  
(Dinner will be available at 5:30)

**Location:** 160 Carnegie Street, Ingersoll (Lower Meeting Room)

**Meeting Materials:**

- Agenda
- CLC Annual Performance Review report
- Draft updated CLC Charter
- Presentation slides for items 5 and 6
- Work Plan Finalization – CLC Meetings Comment Disposition Table
- Facility Characteristics Assumptions – CLC Meetings Comment Disposition Table
- Draft CLC Meeting #29 Summary
- CLC Meeting #29 Transcript

	Description	Lead	Duration	End Time
1	Welcome	Facilitator	5 min	6:05
2	Objectives and Review of Agenda	Facilitator	5 min	6:10
3	Results from CLC Annual Performance Review	Facilitator	15 min	6:25
4	CLC Charter	CLC	15 min	6:40
5	Field Work Update	WEG	30 min	7:10
<b>Final Work Plans and Disposition Tables</b>				
6	<ul style="list-style-type: none"> <li>• Where to find them</li> <li>• Outstanding Items</li> </ul> <p><i>Key updates in final work plans</i></p>	WEG	30 min	7:40
7	Action Items & Next Meeting	ALL	10 min	7:50
8	CLC Discussion with EA Advisor	CLC/AG	1 hour	8:50

# Southwestern Landfill

## *CLC Annual Performance Review*

### **DRAFT REPORT**

October 2017

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#### **KEY OBJECTIVES**

An annual performance review of any committee is an important management tool for assessing strengths and weaknesses and for identifying opportunities for improvements that enhance communication and promote effective and efficient working relationships. Recognizing the value of a performance review, our facilitation team provided the CLC members with an opportunity to assess whether over the past year CLC objectives (as defined in the CLC Charter) have been met and if all participants, including the facilitator and Walker, are effectively enabling the dialogue between the community and Walker.

#### **THE APPROACH**

During the summer and at the CLC Meeting #29 on September 20, 2017, CLC members filled out a CLC Quality Review feedback form. The form included questions that reflected commitments in the CLC Charter. For the 2016/2017 CLC Annual Review, a total of 11 forms were completed; participants had the option of signing their name or remaining anonymous.

The facilitator recommended that moving forward, that there be an Annual Review of the CLC as a standing agenda at the first meeting back from the summer holidays. Members of the CLC agreed.

The findings from the eleven (11) sets of responses have been summarized by question. Walker (2 people) also completed the form but did not respond to questions related to an assessment of the effectiveness of their role.

#### **SUMMARY OF RESULTS**

Overall, the CLC members indicated that they are satisfied with the forum as a mechanism to be informed about the project and to provide the proponent with input. Many noted a significant shift in the quality of the CLC meetings in the past year, compared to previous years. Feedback from CLC members was that there is still room for improvement, especially in the three following areas:

- (1) CLC members recognized that Walker was genuinely invested in providing consultation material, but some still struggle with the amount and the complexity of information they needed to deal with, calling for additional effort to be concise, precise but remaining complete and transparent.
- (2) CLC members also believed members have generally been respectful, honest and open during the meetings, but some members believe the CLC members can still do better, despite their positions on the proposal.
- (3) The meeting is generally assessed to be too long and some suggested that more technical topics be covered in separate meetings to ensure the CLC meeting is more effective.

# Southwestern Landfill

## CLC Annual Performance Review

### DETAILED RESULTS

A form was provided to the CLC members with 10 statement-question to which each member had to rate if they strongly disagreed (1), somewhat disagreed (2), were neutral to (3), somewhat agreed (4) or strongly agreed (5). These are the summary of the 11 filled forms received. **Question 1 – Overall, I believe this year’s work of the CLC corresponds to the purpose outlined in the Charter.**

- The majority of the CLC members agrees or strongly agrees (9) with that statement while two (2) were neutral or somewhat disagreed.

**Question 2 – Quality of the CLC Meeting rated on a score of 5:**

- Room: 4.1/5
- Location: 4.4/5
- Duration: 3.6/5
- Time of the Day: 4.4/5
- Frequency: 4.3/5
- Number of Participants: 4.1/5

**Question 3 – I think that the CLC meetings are well-managed: clear agenda, fair allocation of time, availability of meeting materials and accurate CLC summaries.**

- The majority (9) of CLC members somewhat or strongly agree, while 1 CLC member somewhat disagreed with the statement. One (1) did not answer.

**Question 4– I think the Facilitator efficiently manages the meeting, provides a suitable amount of time for discussion, and appropriately facilitates difficult discussions.**

- The majority (9) of CLC members somewhat or strongly agreed, while 2 CLC members were neutral or somewhat disagreed.

**Question 5– I think that the consultation materials and information provided by Walker have been concise, complete and clear for me to provide input.**

- Four (4) CLC members somewhat agreed or strongly agreed with that statement, but four (4) felt neutral about it and one (1) somewhat disagreed. Two (2) CLC members (Walker) did not respond.

**Question 6 – About respect, openness and honesty**

**a) I feel that during meetings, CLC members are respectful, open and honest.**

Three people (3) somewhat disagreed, while four (4) felt neutral about the statement and three (3) somewhat agreed. One (1) did not respond.

**b) I feel that during meetings, Walker representatives are respectful, open and honest**

The majority (7) of CLC members somewhat or strongly agreed, while one (1) CLC member felt neutral and another (1) somewhat disagreed. Two (2) CLC members (Walker) did not respond

# Southwestern Landfill

## *CLC Annual Performance Review*

**Question 7– I feel that I am listened to and that my concerns have been properly recorded and responded to.**

- The majority (6) of CLC members somewhat or strongly agreed, while three (3) felt neutral or somewhat disagreed. Two (2) CLC members (Walker) did not respond.

**Question 8– I believe my participation on the CLC is meaningful and I am actively providing input representing community interests, goals, and aspirations so that Walker can better align the environmental assessment and proposal based on the input.**

- The majority (7) of CLC members somewhat or strongly agreed, while one (1) CLC member felt neutral and one (1) disagreed. Two (2) CLC members (Walker) did not respond.

**Question 9– I actively relay information discussed at CLC meetings to other members of my community.**

- The majority (6) of CLC members somewhat or strongly agreed, while three (3) felt neutral about it. Two (2) CLC members (Walker) did not respond.

**Question 10– I believe the composition of the CLC is representative of our community and reflects their values and priorities.**

- The majority (10) of CLC members somewhat or strongly agreed, while one (1) felt neutral about it.

### **ADDITIONAL COMMENTS**

- CLC members would like the materials to be distributed further in advance of the CLC meeting compared to current practice of 2 weeks prior.
- Some CLC members believe that the input provided at each meeting (to which they expect a response) are not clearly documented and disclosed.
- One CLC member recommends that if modifications are being made to the original versions of the materials before the meeting date, that a notification with a revision number and materials in tracked changes be distributed to ensure traceability.
- Some CLC members made specific comments that they enjoy having sufficient time with the EA Advisor and that, although time runovers did not occur often, the CLC meeting time should be respected.

A CLC member noted that it has been helpful to move non-agenda questions and discussions to the end of meetings to ensure that agenda items are covered.

### **SPECIFIC SUGGESTIONS FOR IMPROVEMENT**

- Where topics are more complex or long to handle, the CLC should organize a separate meeting dedicated to the topic or an alternative format (ex. working group or sub-

# Southwestern Landfill

## CLC Annual Performance Review

committee) to ensure high quality participation from CLC members in the primary forum.

- Facilitator to ask for follow-up questions on the subject being discussed before moving on to the next person in line. This would keep the subject from bouncing back and forth.
- There were suggestions for increased representation from near neighbours (Beachville Rd), real-estate, small businesses, and the farming community.
- Reduce frequency and length of meetings.
- Additional breaks or activity to reduce the amount of sitting time.
- A list of CLC provided inputs captured as an attachment to the CLC Summary.

### **CLOSING REMARKS**

Recommendations from the CLC for improving the quality of the meetings will begin at the CLC meeting #30 on November 22, 2017.

---

*Prepared by Katrina Kroeze, CLC Documenter.*

*Approved by Laurie Bruce, CLC Facilitator.*

*If you have any questions about this summary, please call 416-992-9669 or email [communitylaisoninfo@gmail.com](mailto:communitylaisoninfo@gmail.com)*

*If you have questions for Walker, please call 1-855-392-5537 or email [info@walkerea.com](mailto:info@walkerea.com)*



## Mission Statement

The *Community Liaison Committee* (CLC) is an advisory body that will provide a forum for community input and guidance to Walker Environmental Group during the (Environmental Assessment process) for a proposed landfill in a mined quarry in Zorra Township at the site known locally as Beachville Lime.

## Purpose and Mandate

The purpose of the CLC will be to review and provide input to the *Environmental Assessment* (EA) for the Southwestern Landfill Proposal. This input will be part of the public consultation activities required under Ontario's *Environmental Assessment Act*.

The Community Liaison Committee will:

- Provide Walker Environmental Group and its consultants an understanding of the characteristics of the site and neighbouring community.
- Provide Walker Environmental Group better understanding of community interests, goals and aspirations, and social and economic development objectives that will better align the proposal with the community.
- Help identify potential impacts, issues, concerns and opportunities that are important to the local community.
- Provide suggestions on mitigation or enhancement.
- Provide suggestions on public consultation efforts necessary to enhance community participation.

## Membership

By participating in the CLC, members agree to abide by this Committee Charter.

Walker Environmental Group acknowledges that membership on the CLC does NOT constitute support for the Southwestern Landfill Proposal.

~~Members participate in the CLC as individuals.~~

It is understood that the views and comments expressed by Committee Members do not necessarily represent the views of the community, the neighbourhood or specific community groups.

~~Members participate in the CLC as individuals. No CLC member may speak publicly or express an opinion on behalf of the CLC.~~

~~The CLC will consist of up to 13 local stakeholders (e.g., neighbours, interested public and members of community organizations) together with representatives from Walker Environmental Group and Observer Representatives from government agencies. CLC members will be selected by Walker Environmental Group and membership will be reviewed from time to time.~~

The CLC membership consists of three participant types:

- 1. Individual Local Stakeholders Individual Community Members** from Oxford County (e.g. neighbours, interested public and members of community organizations). Up to 13 individual local stakeholders individual community members will be represented on the CLC.
- 2. Government Agency Observer Representatives** act as representatives of their respective agency and expert resources in public policy, municipal planning, and environmental conservation. This can include, but is not limited to municipal, provincial (e.g. Ministry of the Environment and Climate Change (MOECC)) and the Upper Thames River Conservation Authority (UTRCA) representatives. Representatives are encouraged to provide input based on their personal knowledge and expertise of their respective fields/positions and to assist CLC by responding to members questions and concerns.
- 3. The Proponent: Walker Environmental Group** representatives and their consultants on the project.

Members of the CLC have been selected by Walker Environmental Group via an application process to provide a variety of personal experience and knowledge as residents in the rural and urban setting within the County of Oxford. CLC members will be selected by Walker Environmental Group and Membership will be reviewed from time to time. If deemed necessary, Walker Environmental Group may seek applications to fill a vacant seat and will consider recommendations from the Committee regarding membership.

Members are expected to:

- participate voluntarily
- work with the facilitator to establish working groups or subcommittees as required from time to time
- strive to attend all meetings
- declare any situation that is, or has the potential to be, a conflict of interest before agenda items are presented
- carry out their functions with integrity
- appreciate and be mindful of the level of technical knowledge of community members to ensure an inclusive and effective meeting
- adhere to the topics and timelines on agenda in order to move the discussion forward and provide time for substantive dialogue; Comments and questions not directly related to agenda item will be deferred to CLC update section of the agenda or as directed by facilitator
- act responsibly and fairly with the care, diligence and prudence of a reasonable individual respect all members' time, viewpoints and follow rules of decorum. Disrespectful and purposely disruptive behavior will not be tolerated and may result in expulsion from the meeting at the discretion of the facilitator.

CLC Members will participate voluntarily and will be reimbursed only for reasonable out of pocket expenses, as agreed to in advance by Walker Environmental Group.

~~In addition to the 13 local stakeholders, local governments and government agencies may choose to have staff members participate on the CLC as Members.~~

## Role of the Facilitator

The facilitator will preside over meetings and coordinate activities of the CLC. **Specifically**, the facilitator will:

- Be responsible for managing the meetings including timing of agenda items and adherence to this Committee Charter
- Be responsible for ensuring that discussions are focused to matters considered to be 'in scope' with this Committee Charter
- Moderate the discussion to ensure a balanced and inclusive exchange of ideas
- Encourage advice and feedback from all Members during meetings, with no tolerance for Members who make it difficult for others to have their opinions heard
- Determine and enforce options for managing disruptions to meeting decorum
- Promote consensus-based decision making when the opportunity arises

**The Facilitator will be selected by the Committee Members from a list of qualified and experienced individuals pre-approved by Walker Environmental Group. The facilitator is accessible to CLC members by email at [communityliaisoninfo@gmail.com](mailto:communityliaisoninfo@gmail.com). All communications related to the management of the CLC meetings including questions, comments, or concerns should be directed to the facilitator.**

## Committee Meetings

The agenda for each meeting will be set by Walker Environmental Group in consideration of the EA process and through discussion with the Committee. The agenda and meeting materials will be distributed to the Committee Members and Alternates at least 10 days in advance of a scheduling meeting. Committee meetings will generally include presentations by Walker Environmental Group and its technical consultants, opportunities to discuss materials and presentation content, review of any action items, review of agendas, and review of meeting summaries that will be made available to the public.

A quorum of Members is not necessary for Committee meetings to proceed.

From time to time, Committee Members may wish to establish working groups or sub-committees to address specific issues. Membership on working groups may be open to other interested stakeholders, with the consent of the Committee.

Committee members will provide input to Walker Environmental Group on the Southwestern Landfill Proposal. As an advisory body, the Committee will not make decisions on the EA process. Committee decisions will be reached by consensus, as moderated by the Facilitator. In the event that that a consensus cannot be reached, this can be noted as requested. Committee decisions will focus on the establishment of working groups or subcommittees, as well as the appointment of the Independent EA Advisor and Facilitator.

Committee meetings are scheduled by Walker Environmental Group with consideration to Member schedules. Committee meeting commitments during the EA phase are described in the Approved Amended Terms of Reference, and includes 10 meetings at various milestones. Walker Environmental Group will consider additional opportunities for meetings through discussion with the Committee. The Committee will meet throughout the Environmental Assessment process until the formal conclusion of the process or until such time that the committee has voted to disband and/or re-establish under a different mandate.

Meetings will be scheduled for at least two hours, with the option for an additional extra one hour, and/or additional meetings, in respect of the agenda. After each meeting, the Independent EA Advisor will be available to CLC Members for one hour of confidential discussion. A meal will be served for Committee Members and invited guests ½ hour prior to each meeting to accommodate everyone's busy schedules and provide an opportunity for informal discussion.

### Public Community Observers

All Committee meetings will be open to the public, with date, time and place of each meeting published on the Southwestern Landfill Proposal website, [www.walkerea.com](http://www.walkerea.com). **Members of the public in attendance at meetings will sit in a public Observer section of the meeting room and will not have speaking status.** Public observers who wish to discuss the content of the meeting may do so by email, phone or face-to-face meeting with a Walker Environmental Group Team Member. **Members of the public who wish to attend a Committee meeting should notify Walker Environmental Group seven days in advance of the meeting so that space and observer seating arrangements can be adjusted.** Walker Environmental Group will make efforts to accommodate members of the public, but cannot guarantee adequate space or seating even if advance notification of attendance is provided. Requests to attend meetings can be made by telephone to 1-855-392-5537-(1-855-3-WALKER), or by email to [info@walkerea.com](mailto:info@walkerea.com).

Public observers are expected to:

- act in a respectful and appropriate manner.
- refrain from side conversations as it is disruptive to the meeting and interferes with the effectiveness of the recording devices.

### Meeting Notes, Documentation and Administration

Meetings will be recorded in audio and will be transcribed. The transcription will be distributed to the Committee and posted on the project website. In addition, a meeting summary will be prepared after the meeting and provided to the CLC for review before being disclosed to the public.

Meeting notes and documentation produced or received by the Committee and its working groups will be made accessible to the public through the website [www.walkerea.com](http://www.walkerea.com). All members of the public are welcome to provide their comments on the information by email, phone or face-to-face meeting with a Walker Environmental Group Team Member.

Administrative services associated with the Committee and its working groups will be the responsibility of Walker Environmental Group.

A yearly CLC performance review will guide the CLC to seek continuous improvement in the quality and relevance of the dialogue.

## Independent Environmental Assessment Advisor

Walker Environmental Group acknowledges the complexities of the EA Act to those who are unacquainted with the process and have no other means to acquire advice and guidance to navigate its complexities. Separate forums are available to government agencies to engage with their agencies' technical specialists in their review of the Southwestern Landfill EA. Therefore, an independent third-party Environmental Assessment (EA) Advisor will be made available to advise the **Committee Individual Community Members** on requirements of the Environmental Assessment Process. This person will be a qualified expert in the requirements Ontario's *Environmental Assessment Act* and the process of undertaking Environmental Assessments.

The Committee will select the Independent EA Advisor of their choice from a short-list of qualified and experienced individuals provided by Walker Environmental Group.

The Independent EA Advisor takes direction from, and reports to, the Facilitator of the CLC on behalf of the Committee.

Discussions between Committee members and the Independent EA Advisor are deemed to be private conversations. The Independent EA Advisor will not, unless requested by individual Committee members, share information about private discussions with Walker Environmental Group or any other parties.

The Independent EA Advisor will be contracted to, and paid by, Walker Environmental Group or one of its subsidiaries. Walker Environmental Group reserves the right to set limits on the costs for the work of the Independent EA Advisor, in consultation with the CLC.

## Alternates and Resignations

CLC Members may not be able to attend each meeting. Some CLC Members may wish to have an alternate who can attend in the case of an absence. It will be the responsibility of the respective CLC Member to provide the alternate with a suitable briefing in advance of the meeting so that the alternate is sufficiently prepared at the meeting.

CLC Members who wish to have an alternate will submit the name of their alternate to Walker Environmental Group. Alternates are specific to one CLC Member and cannot be the Alternate for multiple CLC Members.

If a Member's alternate wishes to be present at a meeting at the same time as the Member, the alternate must notify Walker Environmental Group and reserve a public observer seat. If an alternate is present at a meeting representing the member, the alternate will be assumed to be speaking on behalf of the Member.

In the event that a Committee Member wishes to resign, they will provide notice in writing to Walker Environmental Group. If a Member resigns, their seat is vacant and Walker Environmental Group may

seek applications to fill the vacant seat and will consider recommendations from the Committee regarding membership.

Walker Environmental Group reserves the right to amend this Charter from time to time.

Draft



CLC Meeting 30 – November 22, 2017

# **FIELD WORK UPDATE & WORK PLAN FINALIZATION**

# Agenda



Southwestern Landfill EA

1. Final Work Plans
2. Key Updates in Final Work Plans
3. Field Work Update



# Final Work Plans



Southwestern Landfill EA

- Available online at [www.walkerea.com](http://www.walkerea.com)
- Hard copies available on request
- Outstanding (Work Plans & Disposition tables):
  - HHRA (*Nov 28 peer review meeting*)
  - Air Quality (*finalization of monitoring location agreements*)

# Final Work Plans



## Southwestern Landfill EA



[Home](#) [Contact Us](#) [Feedback](#) [FAQ](#)

### Southwestern Landfill Environmental Assessment

<a href="#">About Us</a>	<a href="#">The Proposal</a>	<a href="#">Outreach</a>	<a href="#">Learn More About</a>	<a href="#">Newsfeed</a>	<a href="#">Documents</a>
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#### Technical Work Plans

[How Landfills Operate \(video\)](#)

[Financial Assurance](#)

#### Contact Us

##### Walker Environmental

160 Carnegie Street  
Ingersoll, ON N5C 4A8  
Toll Free: 1 (855) 392-5537

[Email Us](#)

## Technical Work Plans

A A A | | SHARE

The Technical Work Plans are an essential part of the Environmental Assessment process. They provide a guide for the technical studies carried out by experts in their field.

### Final Technical Work Plans (September 2017)

The final technical work plans are available. These work plans describe how the studies are being carried out. Thank you to everyone who reviewed the work plans and submitted comments. Walker appreciates your participation in this collaborative process. You can access the final work plans on the [Technical Work Plans documents page](#) or click below:

- [Agriculture](#)
- [Air Quality](#) - Final work plan not yet available; will be issued after a meeting among technical experts regarding the HHRA.
- [Archaeology](#)
- [Cultural Heritage and Heritage Landscape](#)
- [Cumulative Effects](#)

[www.walkerea.com](http://www.walkerea.com)

## Peer Review Roundtable Meetings

- Requested for Air, Groundwater/Surface Water, HHRA; Walker agreed
- Government reviewers, JMCC PRT, Ingersoll PRT, WEG consulting team
- Notes from roundtable meetings will be posted online once approved by attendees.

# Key Updates to Final Work Plans



Southwestern Landfill EA

## Archaeology

- Local history books noted by CLC members have been added (background data collection).

## Ecology

- A second winter wildlife survey was added.
- Addition of surveys for dragonflies, damselflies, and butterflies.
- Addition of text to clarify that operational activities that may disturb wildlife (ie. pest control activities) will be included in the study.
- Local nature/trail clubs noted by CLC members have been added (background data collection).
- Revision to note that fall survey (includes floral) to be conducted in September rather than October (risks early frost).
- Addition of text to indicate that information gathered from consultation with indigenous peoples will be utilized.

# Key Updates to Final Work Plans



Southwestern Landfill EA

## **Economic:**

- “Site Vicinity” study area extension to include all of the Town of Ingersoll
- Addition of study of potential impacts to Salford Landfill
- Employee count has been added as an indication of business scale.

## **Groundwater and Surface Water:**

- April 6, 2017 memo has been integrated into the final work plan.
- Daily surface water measuring times adjusted to be at dawn to capture dissolved oxygen minimum values.
- Addition of details regarding location and monitoring equipment of each surface water monitoring location.
- Additional detail added regarding groundwater flow modelling.

# Key Updates to Final Work Plans



Southwestern Landfill EA

## **Social:**

- “Site Vicinity” study area extension to include all of the Town of Ingersoll
- Update to include CLC working group to pre-test the public attitude research (telephone) survey
- Addition of Canterbury Folk Festival as an opportunity to conduct a survey.
- Revision to reflect change in kitchen table meeting protocol (WEG to attend start of meeting then to excuse themselves unless specifically invited to stay by participants).

## **Traffic:**

- Language updated to note that all relevant school boards will be included in the review of school bus routes.

# Key Updates to Final Work Plans



Southwestern Landfill EA

## **Visual Impact:**

- Additional language throughout for clarity.
- Additional language to specifically note Karn Rd. as an area where the site is visible.
- List of viewpoints has been expanded to reflect recommendations from CLC members.

## **All Work Plans**

- WEG took time to critically review all work plans for accuracy and consistency. We took seriously the comments on the importance of this aspect.

# Field Work Update



Southwestern Landfill EA

## **Current:**

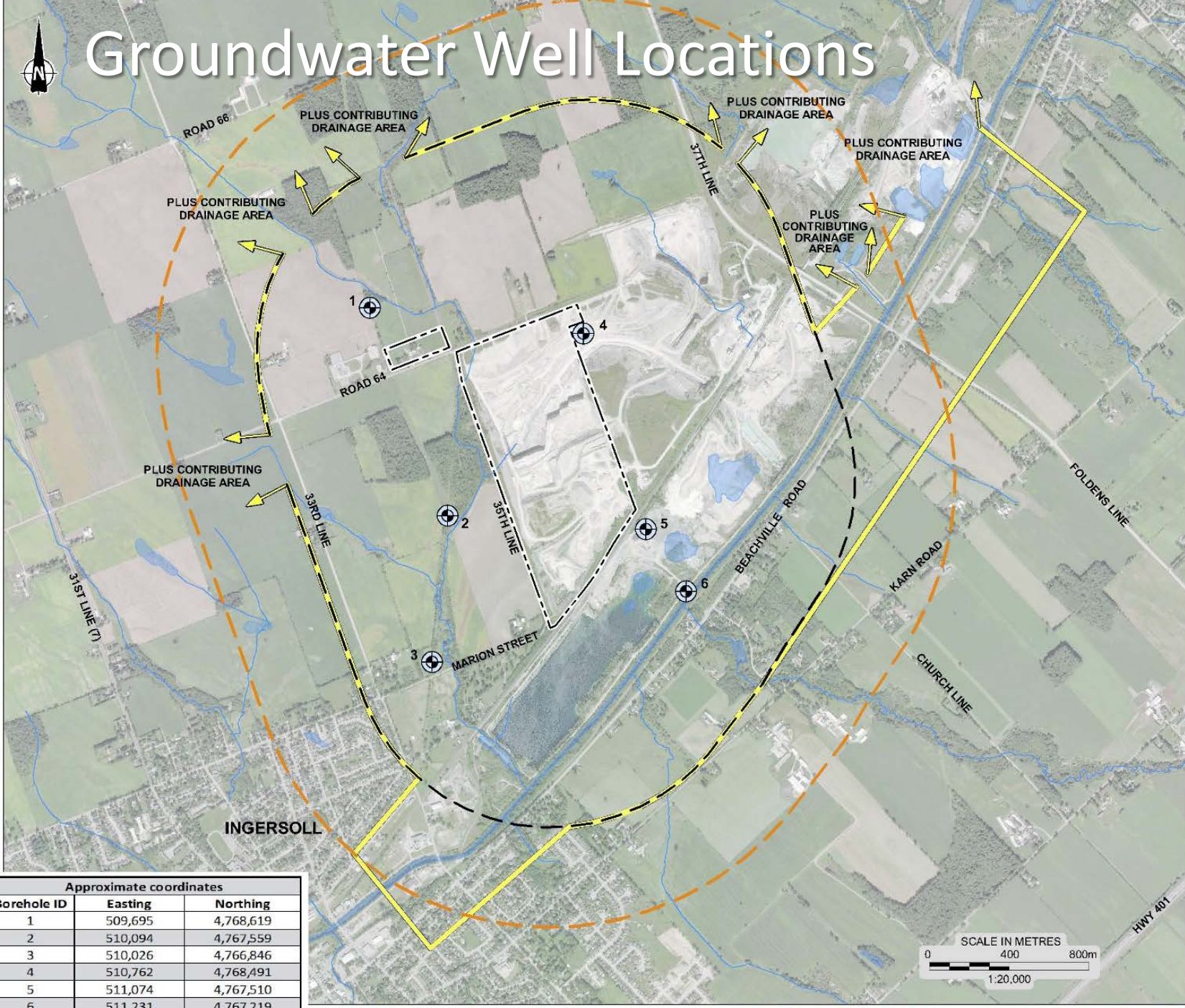
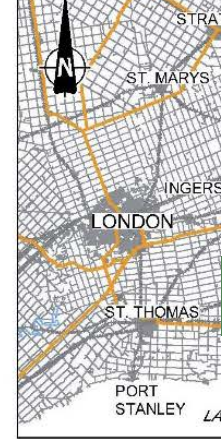
- Drilling groundwater monitoring wells
- Finalizing exact locations for air quality monitors
- Surface water monitoring stations install mid-end Nov

## **Upcoming:**

- Telephone social survey upcoming after pre-test with CLC members
- Visual Impact site visit in late Nov - Dec (leaves off)
- Cultural Heritage site visit in late Nov - Dec (leaves off)
- Winter wildlife survey may begin in Dec



# Groundwater Well Locations



## LEGEND

- PROPOSED BOREHOLE
- STUDY AREAS:**
- ON-SITE
- SITE VICINITY
- SITE VICINITY 500m FROM SITE

## REFERENCE

- DRAWING BASED ON :
- 1) BING IMAGERY AS OF (DATE UNKNOWN);
  - 2) WALKER ENVIRONMENTAL CONSULTANTS AMENDED TERMS OF REFERENCE (MNR LIO, OBTAINED FROM ASSOCIATES LTD UNDER THE ACCESS TO INFORMATION ACT, PRINTED BY THE MINISTRY OF NATURAL RESOURCES AND FORESTRY, CANADA, 2017);
  - 3) CANMAP STREETVIEW

## NOTES

THIS DRAWING IS SCHEMATIC AND NOT TO BE USED FOR CONSTRUCTION OR AS A BASIS FOR ANY DECISIONS IN CONJUNCTION WITH ANY OTHER DOCUMENTS. BING IMAGERY USED FOR LOCATION ONLY AND NOT TO BE USED FOR DISTANCE MEASUREMENTS. ALL LOCATIONS ARE APPROXIMATE.

Approximate coordinates		
Borehole ID	Easting	Northing
1	509,695	4,768,619
2	510,094	4,767,559
3	510,026	4,766,846
4	510,762	4,768,491
5	511,074	4,767,510
6	511,231	4,767,219



PROJECT: GROUNDWATER ASSESSMENT BEACHVILLE

DATE: [ ]

**PROPOSED BOREHOLE LOCATIONS**



Hole #3



Measuring water level during packer testing

## Air Quality Monitoring

- Will use MOECC data (critical review of data with MOECC)
- New monitoring:
  - Volatile Organic Compounds (VOCs)
  - Total reduced sulphurs
  - PM10 and 2.5

## Items from CLC Meeting 30 – November 22, 2017

Business Arising		Responsibility	Response	Status
1	CLC member proposed that there be a short question and answer agenda item at the beginning of each meeting.	WEG	CLC came to a consensus that there should be 10 minutes set aside at the beginning of each meeting in the Agenda moving forward.	Complete
2	CLC member would like to have a list of names with the initials that are used in the transcript.	WEG	Walker will provide this list to CLC members moving forward.	Complete
3	CLC member would like to have the full dataset from the CLC Performance Review, in addition to the summary report.	WEG	The dataset is appended to this Business Arising report.	Complete
4	Two CLC members noted issues with language in the Charter regarding government agency observer representatives; they felt it can be interpreted that these representatives cannot fully participate.	CLC members	The facilitator recommended that the participant(s) provide recommended changes to the language for her to consider.	In Progress
5	It would be helpful to have a map of all of the wells that will provide data considered during the groundwater study (municipal, private, Carmeuse).	WEG	Walker will work on getting this map prepared. It may come after the background information review is complete (consultant has reviewed all well information).	In Progress
6	CLC member would like to observe the Human Health Risk Assessment roundtable meeting (November 28 <sup>th</sup> ).	WEG	Walker has no objections but will follow-up on the request with other roundtable meeting participants. <i>Follow-up: Walker confirmed that a CLC member is welcome to observe the HHRA roundtable meeting.</i>	Complete
7	MOECC representative to confirm Carmeuse dewatering discharge point(s).	WEG	Discharge points confirmed as described during meeting. <i>(See appended email from Emilia Kuisma, MOECC)</i>	Complete

## Carry Over Items from CLC Meetings (Meetings 16-29)

Business Arising		Responsibility	Response	Status
1	Post inputs received and response tables from the technical reviewers and other interested parties on the updated technical work plans.	Walker Environmental	Walker to send the CLC a notification once available on the project website.	In Progress

## Carry-Over Items from Meetings during ToR Phase:

Business Arising		Responsibility	Response	Status
1	Revisit the Mayor of Ingersoll regarding municipal green initiatives.	Walker Environmental	Discussions with Mayor of Ingersoll will occur at key points in the EA process.	Ongoing
10	If the CLC is aware of local natural/environmental events, provide information to Walker who will then pass it along to Golder Associates.	CLC		Ongoing
11	Contact the Agricultural agencies and let them know the CLC Members would like to attend the meeting when they meet with the technical expert.	Walker Environmental		Ongoing



**From:** [Ashley Van Dinther](#)  
**To:** [Becky Oehler](#)  
**Subject:** FW: November 22, 2017 CLC Follow-up Question  
**Date:** Thursday, November 30, 2017 12:15:19 PM

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**From:** Kuisma, Emilia (MOECC) [mailto:Emilia.Kuisma@ontario.ca]

**Sent:** Thursday, November 30, 2017 11:12 AM

**To:** [REDACTED]

[REDACTED]an.McDonald@ontario.ca>;

Papageorgiou, Agni (MOECC) <Agni.Papageorgiou@ontario.ca>

**Subject:** November 22, 2017 CLC Follow-up Question

Good morning [REDACTED],

Further to the CLC meeting last week I committed to follow-up on the question below.

Please see the response below.

If you have any further questions please let me know.

Thanks,  
[REDACTED]

### **Question from the CLC if any discharge from the Carmeuse quarry goes to Cemetery Creek?**

- No, currently water is not being discharged to the Cemetery Creek. See explanation below.

### **Water discharge from the Carmeuse property**

Carmeuse is permitted to dewater their quarry to allow for the mining of limestone. The groundwater is pumped into a sump which then flows through the quarry property to a series of settling ponds.

After going through the settling ponds, the water is collected into a sump and is then pumped and discharged to the Thames River.

If the parameters for discharge cannot meet allowable limits (total suspended solids) for discharge to the Thames River, then it is diverted to the West Quarry Pond.

The West Quarry Pond, is an approximate 950 metre long by 270 metre wide by 20 metre deep pond (located on the south west end of the Carmeuse property).

Carmeuse does not currently discharge water from the West Quarry Pond.

Should Carmeuse wish to discharge water from the West Quarry Pond it is permitted through an outlet pipe that drains to an on-site channel. The channel drains into Cemetery Creek. Cemetery Creek ultimately discharges to the Thames River.



The discharge would only be permitted if it meets the discharge requirements (pH, total suspended solids and passes an annual toxicity test).

Emmilia Kuisma

Issues and Projects Coordinator- London District Office

Ministry of the Environment and Climate Change

Ministère de l'Environnement et de l'Action en matière de changement climatique

Phone: (519) 873-3060

Email: [emmilia.kuisma@ontario.ca](mailto:emmilia.kuisma@ontario.ca)

### **CLC Meeting 30**

Other documents sent as materials, but not included as pages in this Appendix (to cut down on duplication, paper waste and/or very large digital files):

- 1) CLC Meetings Comment Disposition Tables on Work Plan Finalization:  
[http://www.walkerea.com/uploads/1173/Doc\\_636429024076627511.pdf](http://www.walkerea.com/uploads/1173/Doc_636429024076627511.pdf)
- 2) CLC Meetings Comment Disposition Table – Facility Characteristics:  
[http://www.walkerea.com/uploads/1176/Doc\\_636957801545141856.pdf](http://www.walkerea.com/uploads/1176/Doc_636957801545141856.pdf)
- 3) Transcript: [http://www.walkerea.com/uploads/1182/Doc\\_636512802936148041.pdf](http://www.walkerea.com/uploads/1182/Doc_636512802936148041.pdf)

*Please contact us at [info@walkerea.com](mailto:info@walkerea.com) or toll-free at 1-855-392-5537 if you require assistance accessing these documents online or in hard copy.*

# Southwestern Landfill CLC #31

## Meeting Summary

**Date:** February 21, 2018  
**Time:** 6:00 p.m. – 9:00 p.m.  
**Location:** 160 Carnegie Street, Ingersoll (Lower Meeting Room)

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### MEETING OVERVIEW

The purpose of the CLC Meeting 29 was for Walker to provide an update on the status of the field work being carried out as part of the technical studies and collect input from the CLC members. There was a fulsome discussion about the completed, current, and upcoming field work, including an in-depth discussion about air quality monitoring. Walker sought input from CLC members about how the study results will be discussed at future CLC meetings.

### MEETING DETAILS BY AGENDA ITEM

#### Agenda # 3 – Key Follow-Up Items from Previous Meeting

- A member noted that the Oxford County airshed is in the top 3 most heavily burdened airsheds in Southwestern Ontario. The MOECC representative was unsure of this designation and asked the member to provide the report so it can be discussed.
- Walker confirmed that the Air Quality study includes cumulative effects (current baseline conditions plus predicted emissions from the proposed Southwestern landfill)
- Walker confirmed that there is a Human Health Risk Assessment included as one of the studies, not a Health Impact Assessment.
- Walker was asked if OPAL's hydrogeologist could get access to the Carmeuse Lime site to carry out an investigation. Walker noted that as the owner, Carmeuse would need to provide site access permission, and requested a scope of work.

#### Agenda # 4 – Field Work Update

- Walker provided an update on the field work that has recently been carried out, including
  - Completion of installation of groundwater monitoring wells
  - Installation of air monitoring equipment
  - Winter wildlife survey (ecology study)
  - Identification of surface water monitoring locations
  - Completion of public attitude survey (by telephone) County-wide (social study)
  - Initial site visits for agriculture, cultural heritage, and visual studies
- The upcoming spring season is particularly important for the ecology study due to the breeding season.
- Air Monitoring Discussion:
  - Walker's monitoring stations are co-located with existing MOECC monitoring stations so that the data can be used together
  - Some CLC members expressed concern about one of the locations due to the presence of large vegetation nearby (trees). It was noted that there are guidelines for where to locate air monitoring stations, and stations must be maintained so they are in compliance with the guidelines (i.e. cutting back brush).

# Southwestern Landfill CLC #31

## Meeting Summary

- CLC members are interested in more information about the original rationale for the placement of the MOECC monitoring stations in their current locations.
- Information was provided on the type of air monitoring equipment used at the MOECC and Walker monitoring stations (provided after the meeting in the Business Arising report. In both cases, they are High-Volume air samplers).
- There were discussions on how the Carmeuse alternative low-carbon fuels (ALCF) trial would effect the air study. The CLC was advised that if the trial is approved, Carmeuse will carry out extensive monitoring during the trial, and Walker will get the dates/times of the Carmeuse trial so they can see what their air monitoring data shows. The purpose of the trial is to identify whether the alternative low-carbon fuel will be effective in reducing emissions.
- There were discussions about the assumptions that are made during air quality modelling, which include standard best-practise assumptions as well as site-specific assumptions. Some of the assumptions come from the Facility Characteristics Assumptions report by Walker, which provides information about what the Southwestern Landfill site would be like if approved.
- A member expressed concern about the air modelling AirMod because it is an American-created system, and their environmental protections are becoming more relaxed. In response, it was clarified that AirMod is not the criteria (standards of air quality), it is only the way air quality is modelled, so it will not be impacted by any changes to US standards.
- Ecology: CLC members provided input about birds of prey in the area, including Bald Eagles (nesting at Pittock Lake) and Peregrine Falcons nesting on/near the Carmeuse property.
- Surface Water: Walker will take into account the current quality and quantity of surface water in local streams. As an example, perhaps road salt is very high in a stream, and in that case Walker may need to treat salt levels in leachate to a higher standard than the provincial standard. This is an example of how cumulative effects are taken into account.

### Agenda #5 – CLC Correspondence

- A member raised a concern about accounting for more severe weather events. Walker confirmed they will account for more severe weather events (including flooding and drought) in their design and planning.
- While government agencies have provided comments on the work plans, Walker confirmed that there is no approval process for the technical work plans. Final work plans are posted on the project website at <http://www.walkerea.com/en/learn-more-about/Technical-Work-Plans.asp>
- Walker asked for input from the CLC on how results from the studies will be presented to the CLC.
  - Members noted they will be looking for summaries, since the reports will be very technical. Summaries should focus on what the results mean to the community.
  - Recommendation that the summary report includes the steps taken, a list of assumptions, the effects without mitigation, the mitigation measures, and net effects (with mitigation).
- There was discussion about lack of knowledge in the community about the project. A member expressed that many of the questions they hear are about things from the Terms of Reference. Walker indicated that they are working to provide information, and asked for recommendations for improving outreach. A member recommended addressing the most common questions (traffic, odour, water, need, etc.) A member recommended that Walker post information at local places like the grocery store, LCBO, etc.
- Walker provided information on recent outreach activities, including presenting to local municipal councils and meeting with representations of a number of First Nations.

# Southwestern Landfill CLC #31

## Meeting Summary

- Walker noted they have acquired Gro-Bark, and are partnering with Stelco and General Motors on projects to reduce greenhouse gas emissions.

### Closing Remarks - Adjournment

Any final recommended adjustments to the CLC Charter should be submitted by March 9, 2018.

The next CLC meetings will be held on Wednesday May 23, 2018 and Wednesday August 22, 2018.

*Prepared by Ashley Van Dinther (Walker Environmental)*

*Approved by Laurie Bruce, CLC Facilitator.*

*If you have any questions about this summary, please call 416-992-9669 or email [communitylaisoninfo@gmail.com](mailto:communitylaisoninfo@gmail.com) If you have questions for Walker, please call 1-855-392-5537 or email [info@walkerea.com](mailto:info@walkerea.com)*

### CLC INPUT

The table below tracks input from CLC members, including the topic, input, and Walker's response or action.

Topic	Input	Response/Action
Air Quality study	Concern regarding Air Quality monitoring location at the Bell Building due to the presence of close vegetation.	There are requirements for siting and maintenance of air quality monitoring locations, outlined in the MOECC's <a href="#">Operations Manual for Air Quality Monitoring in Ontario</a> , which includes considerations like distance from obstructions like trees and buildings, distance from roadways, height, power availability, landowner permission and security. Walker's monitoring stations are in compliance with the <i>Operations Manual</i> .
Ecology study	CLC members provided input about birds of prey in the area, including Bald Eagles (nesting at Pittock Lake) and Peregrine Falcons nesting on/near the Carmeuse property.	Walker will provide this information to the ecology consultant for consideration during the study.
Presentation of study results to CLC	<ul style="list-style-type: none"> <li>▪ Members noted they will be looking for summaries, since the reports will be very technical. Summaries should focus on what the results mean to them.</li> <li>▪ Recommendation that the summary report includes the steps taken, a list of assumptions, the effects without mitigation, the mitigation measures, and net effects (with mitigation).</li> </ul>	Walker will take this input into account as they prepare to consult with the CLC on the results of the technical studies.
Community Consultation	A member expressed that many of the questions they hear from community members are about things from the Terms of Reference. A member recommended addressing the most common questions (traffic, odour, water, need, etc.) A member recommended that Walker post information at local places like the grocery store, LCBO, etc.	Walker will take these recommendations into account as they continue to consult and engage with the local community throughout the EA process.



# CLC Meeting 30 - Materials

Southwestern Landfill Environmental Assessment

February 1, 2018

Dear CLC member,

Please find enclosed the materials for the upcoming CLC meeting on **Wednesday, February 21, 2018** at 6:00 pm (dinner will be available at 5:30 pm).

The meeting will include an update on the status of Field Work. The Agenda for this meeting is brief, so **if you have any topics you would like to discuss, please let us know**. We'd be happy to engage in a discussion about topics you're interested in, which could include topics relating to Environmental Assessments, how landfills are built and operated, the waste management industry in general, or other. This is a great time to explore those topics and we would be happy to prepare materials and discussion tools on topics of interest.

**Enclosed Materials:**

1. Agenda
2. Business Arising Report
3. Draft CLC Meeting #30 Summary – *please let us know if you have any comments by February 28, 2018, after which it will be posted online.*
4. CLC Meeting #30 Transcript (with reference key for initials)

Please let us know if you have any questions in advance of the February 21 meeting.

Warm regards,

Becky Oehler  
Community Engagement Manager  
905-680-3675, [boehler@walkerind.com](mailto:boehler@walkerind.com)



# CLC Meeting 31 – Agenda

Southwestern Landfill Environmental Assessment

**Date:** Wednesday, February 21, 2018

**Time:** 6:00 pm – 9:00 pm  
(Dinner will be available at 5:30)

**Location:** 160 Carnegie Street, Ingersoll (Lower Meeting Room)

**Meeting Materials:**

- Agenda
- Business Arising Report
- Draft CLC Meeting #30 Summary
- CLC Meeting #30 Transcript

	Description	Lead	Duration	End Time
1	Welcome	Facilitator	5 min	6:05
2	Objectives and Review of Agenda	Facilitator	5 min	6:10
3	<b>Key Follow-Up Items from Previous Meeting</b> <ul style="list-style-type: none"> <li>• New standing agenda item to address brief questions relating to the previous meeting.</li> </ul>	Facilitator	10 min	6:20
4	Field Work Update	WEG	20 min	6:40
5	CLC Correspondence*	WEG	15 min	6:55
6	Action Items & Next Meeting	ALL	5 min	7:00
7	CLC Discussion with EA Advisor	CLC/AG	1 hour	8:00

\*Time allotted for CLC Correspondence may be extended if there are topics of interest CLC members would like to discuss.



CLC Meeting 31 – February 21, 2018

# SWLF EA - FIELD WORK UPDATE



# Final Work Plans



Southwestern Landfill EA

- Final Air and Health Work Plans are now posted
- Air and Health disposition tables are now posted
- Final Air work plan includes a map with monitoring locations.
- Upcoming: meeting to discuss common receptor locations now that initial background data collection and some field work is complete
  - Multi-disciplinary (Air/Noise, Economic, Health, Social, Visual)

# Field Work Update



Southwestern Landfill EA

- Winter field work is on schedule
- Looking forward: Spring Field Work
  - Bulk of Ecology field work (breeding season)
  - Monitoring groundwater, surface water, and air at established stations

# Field Work Update



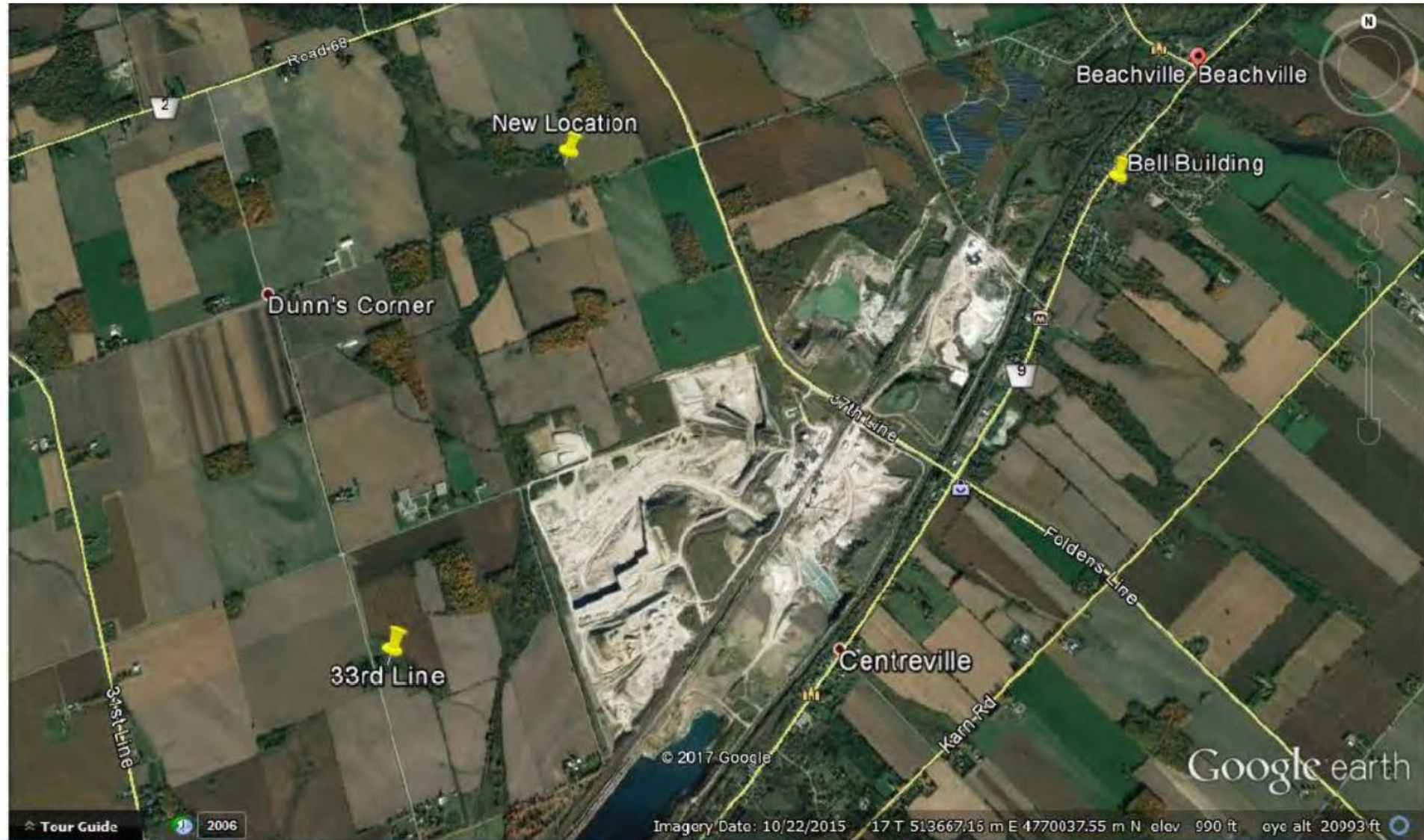
Southwestern Landfill EA

## Air Quality

- Air monitoring stations planned installation by end of next week (March 2, 2018)
  - Co-located with existing MOECC monitoring stations
- Monitors will be checked and filter changed monthly
- Map of the 3 monitoring stations is included in the final work plan

# Air Quality Monitoring Locations

Source: Final Air Quality Work Plan



# Field Work Update



Southwestern Landfill EA

## **Agriculture**

- Field visits three days in December to drive the area and collect observations about agricultural land use in the area

## **Cultural Heritage**

- December site visit to drive the area and collect observations about cultural heritage (buildings) and heritage landscapes

# Field Work Update



Southwestern Landfill EA

## Ecology

- Winter wildlife survey completed February 12
- Carried out 2 days after a significant snowfall (as required)
- Primary purpose is to look for evidence of animals in winter, including tracks in snow
- Initial report: Conditions were good, evidence observed for following species:

### Mammals:

Eastern Cottontail	Coyote
Field Mouse	Red Fox
Eastern Gray Squirrel	Mink
White-tailed Deer	

### Birds:

Wild Turkey	Black-capped Chickadee
American Crow	Dark-eyed Junco
Canada Goose	White-breasted Nuthatch
Red-tail Hawk	Downy Woodpecker

*Note: There will be many more opportunities to observe wildlife during other ecology field work.*

# Field Work Update

## Groundwater & Surface Water

- Groundwater well drilling is complete
  - 6 locations, 20 total monitoring points (multiple “nested” wells at each location to monitor different depths)
- Surface water monitoring stations installed in the fall are being monitored as per the work plan



Drilling at location #3

# Groundwater Well Locations



**Note:**  
Wells are installed at depths where there are “flow zones” (where water is flowing). This can be in the overburden (soil) or in the rock beneath. At stations 4-6, there either is no overburden (quarry floor), or there is no flow in the overburden.

**Station 1**  
4 Monitoring Wells  
• 3 bedrock  
• 1 overburden

**Station 4**  
2 Monitoring Wells  
• 2 bedrock

**Station 2**  
4 Monitoring Wells  
• 3 bedrock  
• 1 overburden

**Station 5**  
3 Monitoring Wells  
• 3 bedrock

**Station 6**  
2 Monitoring Wells  
• 2 bedrock

**Station 3**  
5 Monitoring Wells  
• 3 bedrock  
• 2 overburden

**LEGEND**

- BOREHOLE/MONITORING WELL
- STUDY AREAS:
  - ON-SITE
  - SITE VICINITY GROUNDWATER
  - SITE VICINITY SURFACE WATER
  - 500m FROM SITE

**REFERENCE**

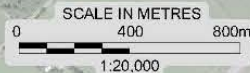
- DRAWING BASED ON :
- 1) BING IMAGERY AS OF 2017 (DATE UNKNOWN);
  - 2) WALKER ENVIRONMENTAL CONSULTANTS LTD. AMENDED TERMS OF REFERENCE, OBTAINED 2017;
  - 3) MNR LIO, OBTAINED 2017, BY GOLDER ASSOCIATES LTD UNDER LICENSE FROM THE MINISTRY OF NATURAL RESOURCES AND FORESTRY, PRINTED 2017; AND
  - 4) CANMAP STREETFILES

**NOTES**

THIS DRAWING IS SCHEMATIC AND NOT TO BE USED FOR CONJUNCTION WITH ACCOMPANYING DATA. BING IMAGERY USED FOR ILLUSTRATION AND NOT TO BE USED FOR LOCATION. ALL LOCATIONS ARE APPROXIMATE.

**Borehole Coordinates (UTM Nad83 zone 17)**

Borehole ID	Easting	Northing
1	509,693	4,768,617
2	510,081	4,767,575
3	510,015	4,766,841
4	510,772	4,768,389
5	510,871	4,767,245
6	511,280	4,767,200

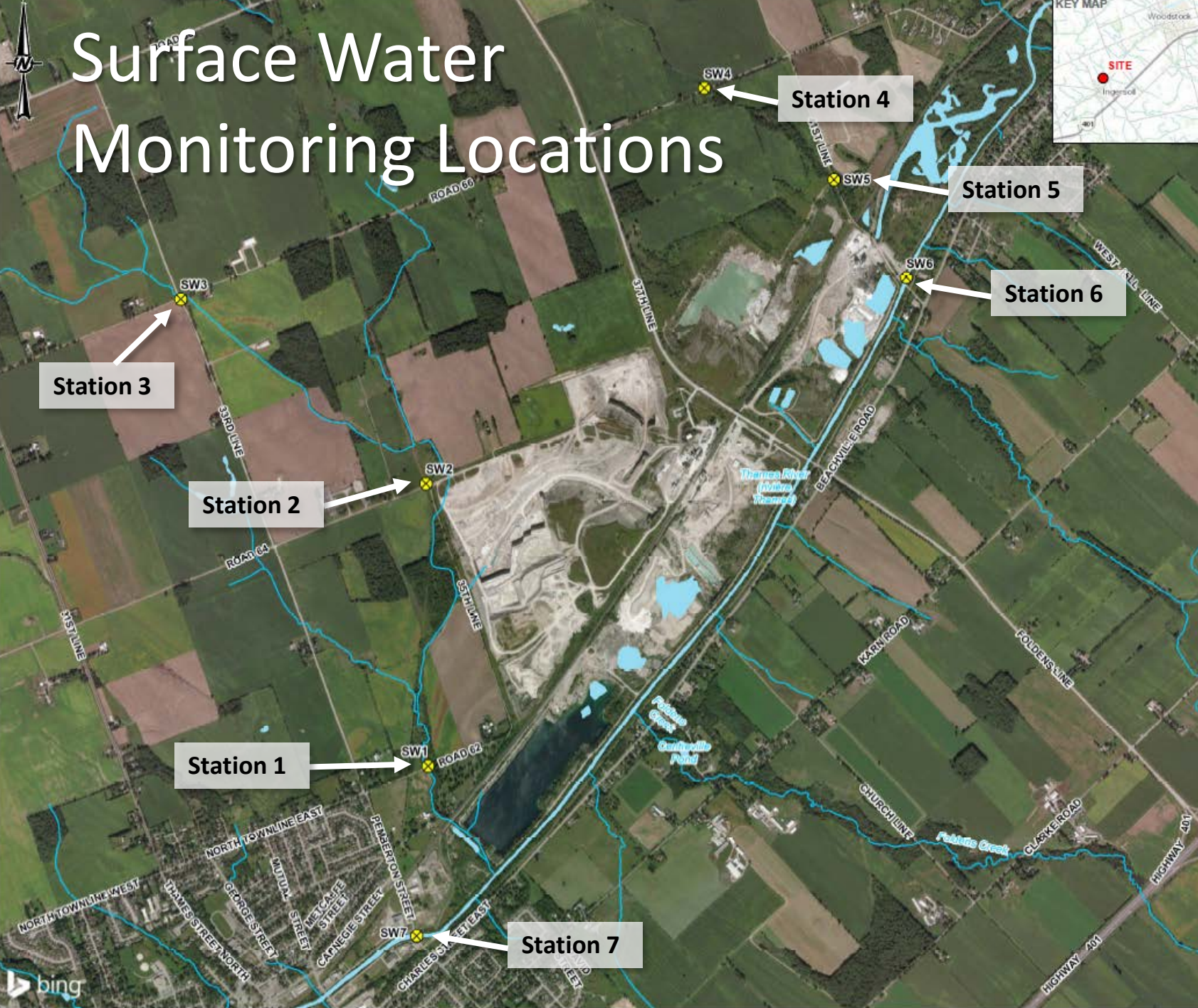


PROJECT: GROUNDWATER ASSESSMENT BEACHVILLE

TITLE: BOREHOLE/MONITORING WELL LOCATIONS

9





# Field Work Update



Southwestern Landfill EA

## **Social**

- Public attitude survey (telephone) completed in December (County-wide)

## **Visual**

- Site visit to take photos early December
- Carried out when leaves were off the trees for maximum site visibility

## Items from CLC Meeting 30 – November 22, 2017

Business Arising		Responsibility	Response	Status
1	CLC member proposed that there be a short question and answer agenda item at the beginning of each meeting.	WEG	CLC came to a consensus that there should be 10 minutes set aside at the beginning of each meeting in the Agenda moving forward.	Complete
2	CLC member would like to have a list of names with the initials that are used in the transcript.	WEG	Walker will provide this list to CLC members moving forward.	Complete
3	CLC member would like to have the full dataset from the CLC Performance Review, in addition to the summary report.	WEG	The dataset is appended to this Business Arising report.	Complete
4	Two CLC members noted issues with language in the Charter regarding government agency observer representatives; they felt it can be interpreted that these representatives cannot fully participate.	CLC members	The facilitator recommended that the participant(s) provide recommended changes to the language for her to consider.	In Progress
5	It would be helpful to have a map of all of the wells that will provide data considered during the groundwater study (municipal, private, Carmeuse).	WEG	Walker will work on getting this map prepared. It may come after the background information review is complete (consultant has reviewed all well information).	In Progress
6	CLC member would like to observe the Human Health Risk Assessment roundtable meeting (November 28 <sup>th</sup> ).	WEG	Walker has no objections but will follow-up on the request with other roundtable meeting participants. <i>Follow-up: Walker confirmed that a CLC member is welcome to observe the HHRA roundtable meeting.</i>	Complete
7	MOECC representative to confirm Carmeuse dewatering discharge point(s).	WEG	Discharge points confirmed as described during meeting. <i>(See appended email from Emilia Kuisma, MOECC)</i>	Complete

## Carry Over Items from CLC Meetings (Meetings 16-29)

Business Arising		Responsibility	Response	Status
1	Post inputs received and response tables from the technical reviewers and other interested parties on the updated technical work plans.	Walker Environmental	Walker to send the CLC a notification once available on the project website.	In Progress

## Carry-Over Items from Meetings during ToR Phase:

Business Arising		Responsibility	Response	Status
1	Revisit the Mayor of Ingersoll regarding municipal green initiatives.	Walker Environmental	Discussions with Mayor of Ingersoll will occur at key points in the EA process.	Ongoing
10	If the CLC is aware of local natural/environmental events, provide information to Walker who will then pass it along to Golder Associates.	CLC		Ongoing
11	Contact the Agricultural agencies and let them know the CLC Members would like to attend the meeting when they meet with the technical expert.	Walker Environmental		Ongoing



### **CLC Meeting 31**

Other documents sent as materials, but not included as pages in this Appendix (to cut down on duplication, paper waste and/or very large digital files):

- 1) Transcript: [http://www.walkerea.com/uploads/1203/Doc\\_636579256784623522.pdf](http://www.walkerea.com/uploads/1203/Doc_636579256784623522.pdf)

*Please contact us at [info@walkerea.com](mailto:info@walkerea.com) or toll-free at 1-855-392-5537 if you require assistance accessing this document online or in hard copy.*

# Southwestern Landfill CLC #32

## Meeting Summary

**Date:** May 23, 2018  
**Time:** 6:00 p.m. – 9:00 p.m.  
**Location:** 160 Carnegie Street, Ingersoll (Lower Meeting Room)

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**Start Time: 6:05 pm**

### Materials

1. Agenda
2. Business Arising Report –sent March 29
3. Draft CLC # 31 meeting Summary – sent March 29
4. Presentation – Field Work Update & Upcoming CLC consultation proposal

### MEETING DETAILS BY AGENDA ITEM

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#### Agenda Item # 3 – Key Follow-up Items from Previous Meeting

- **Discussion – OPA 197**
  - A member asked if there are any parts of OPA 197 that do not apply to the Walker proposal
  - Walker stated that the sections of OPA 197 that Walker appealed apply to the SWLF EA. Walker appealed how these policies would be coordinated, and incorporated, with provincial policy and provincial legislation.
- **Discussion – What is the concept/definition of a willing host?**
  - A member asked - Why did Walker not have a willing host approach as part of their site selection process?
  - Walker stated that the concept of a willing host is not a requirement of the environmental assessment process currently. It was also noted that there are many challenges associated with the willing host process.

#### Agenda Item # 4 – Field Work Update

- Walker is on schedule with completing the ongoing field work the upcoming spring season being particularly important for the ecology study. The late arrival of spring has condensed the spring surveys making the past few weeks particularly busy.
- The JMCC ecologist was on site Monday, May 14, 2018 to meet with Walker's ecologist and observe field work at the proposed site.
- Field Liaison Representatives from the Mississaugas of the New Credit First Nation have been observing the environmental studies, as have near neighbours who expressed interest in observing field work.
- Multiple CLC members expressed interest in observing the fall aquatic survey at the flooded quarry. Walker will discuss the coordination for bringing in observers with the ecology consultant and Carmeuse.
- Walker noted that the ecologist has observed snapping turtles at the Centreville Pond. A CLC member asked why the ecologist is not carrying out a turtle survey on other ponds toward Beachville. **Walker will raise this question with the ecologist and get back to the CLC with a response.**

## Southwestern Landfill CLC #32 - Meeting Summary

### Agenda Item #5 – CLC Member Field Work Observation Experience

- Two CLC members spoke about their experience observing the different field surveys.
- A member noted that they were impressed with the ecologists' skill and knowledge. Another member noted that the ecologists were thorough with their work and explained everything in great detail.
- A member explained the process of an electrofishing survey that they observed. The survey identified four fish species - creek chub, black nose dace, white sucker, brook stickleback.
- A CLC member asked if the ecologists noted any invasive species. The CLC member who observed the survey said yes, they noted any invasive species they found.

### Agenda Item #6 – Proposed CLC Consultation Plan for upcoming milestones

- Walker is looking for feedback on how the CLC would like to review information and provide input on the baseline scenario results, design & mitigation details, and the draft EA Report.
- Walker suggested presenting the baseline results over two CLC meetings, using pictures and graphs wherever possible and summarizing the information accordingly.
- There was consensus that it would be best to discuss the results and what they mean rather than explaining the methodology of the study again. However, it will be important to note where there were changes in methodology from the final work plan.
- A member recommended that where there are technical terms to include a glossary.
- A few members indicated that Walker should be careful not to over-load meeting agendas with too much information (focus on most relevant information and consider additional meetings)
- A member recommended that Walker pair "heavier" topics with "lighter" topics in the same meeting to reduce overloading a single meeting.
- There was a discussion about how climate change and cumulative effects will be presented. Walker noted that this information will be integrated into the discussion of the final results from the studies, including design & mitigation.
- **Walker thanked members for the input and said they will provide a more detailed timeline at the next meeting.**

### Agenda Item #7 – CLC Correspondence

- A member requested an addition to the August agenda – a discussion about the current quarry sump and how it would be integrated into the SWLF, including how the water would be managed during/after construction of the landfill. It was suggested by a member that a diagram would be helpful. **Walker will prepare a diagram and include a detailed review at the next meeting.**
  - Another CLC member asked how/when water management would change hands from Carmeuse to Walker.
  - Another CLC member asked about the depth of the current sump and what issues could arise due to landfill construction.
  - Walker used a white board to describe the sump's current operation and how it could be integrated into a contingency scenario for the landfill, similar to Niagara's contingency plan.
- The CLC EA advisor recommended a review of Facility Characteristics before discussion of results.
- A member asked if Walker is gathering information from farmers about spraying their fields because there could be an impact from additional birds in the area. Another member noted there is a farmer nearby who uses a helicopter for spraying fields. **Walker to follow up with study team with this question and will provide a response to the CLC.**



## Southwestern Landfill CLC #32 - Meeting Summary

- A member noted that Carmeuse is currently stockpiling off-spec lime at the north wall of the quarry. Is there any concern about using this material as base for the landfill (different compaction than soil)? Walker responded that this is something they are aware of and are integrating into the engineering plans as they continue to be developed.
- Walker is continuing to engage with several First Nations and the Métis Nation of Ontario. The Mississaugas of the New Credit First Nations have Field Liaison Representatives that are trained in environmental and archaeology surveys, including traditional knowledge. They have been observing the ecology and groundwater/surface water surveys and will observe archaeology field work in the fall. Both the Chippewas of the Thames and Six Nations have also expressed interest in observing archaeology.
- A member asked what work the JMCC PRT has observed. Walker noted that reviewers have visited the site and observed the groundwater drilling. To date, the town of Ingersoll's review team has not sent any observers although they have expressed interest.

### Agenda Item #8 – Action Items and Next Meeting

#### Discussion regarding Air Quality Monitoring, to be discussed at the next meeting.

- There will be an MECP (formerly the MOECC) air quality expert at the August 22 meeting to answer questions, as requested by CLC members. Please submit questions by July 31, 2018. Walker will send a reminder mid-July regarding the July 31 deadline for the submission of questions.
- **Walker advised that they will provide links to historical air quality reports on their website.**
- A member noted they continue to have questions regarding historical data. Walker confirmed this topic has been relayed to the MECP. Walker confirmed that there are two historical data sets.
  - 2008 and prior - Industry-managed data that used the GRIMM monitoring system. There are issues with and gaps in this data. Walker's consultants confirmed this data would NOT be used in Walker's air study.
  - 2013 to present – Walker stated that MEECP Hi-Vol monitoring systems provide good quality data. This data will be used in Walker's air study.
- Questions posed by CLC members that will be forwarded to the MECP:
  - How is historical data being used?
  - Is there a minimum/maximum wind speed required for the monitor to get a proper reading?
  - How were the locations of the MECP monitors decided? (convenience, cooperative landowner, or the best location?)
  - Provide a characterization of the area's air quality today (snap shot).
  - There are concerns that the Bell Building monitoring station does not meet the requirements for air monitoring stations. Please clarify if and how this station meets requirements.
  - Are the results comparable between the Bell Building monitoring station and the previous location at the school?
  - Why does Walker not need a monitoring station to the southeast of the proposed landfill site? We know that the landowner where the MECP station is located would not allow, but why did Walker not need to find another site?

#### Next Meetings:

August 22, 2018 and November 21, 2018

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Meeting Adjourned: 8:55pm

Notes Prepared by: Ashley Van Dinther

# Southwestern Landfill CLC #32 - Meeting Summary

## CLC INPUT

The table below tracks input from CLC members, including the topic, input, and Walker’s response or action.

<b>Topic</b>	<b>Input</b>	<b>Response/Action</b>
Air Quality study	<p>Questions for MECP air quality expert (to attend next meeting):</p> <ol style="list-style-type: none"> <li>1. How is historical data being used?</li> <li>2. Is there a minimum/maximum wind speed required for the monitor to get a proper reading?</li> <li>3. How were the locations of the MECP monitors decided? (convenience, cooperative landowner, or the best location?)</li> <li>4. Provide a characterization of the area’s air quality today (snap shot).</li> <li>5. There are concerns that the Bell Building monitoring station does not meet the requirements for air monitoring stations. Please clarify if and how this station meets requirements.</li> <li>6. Are the results comparable between the Bell Building monitoring station and the previous location at the school?</li> <li>7. Why does Walker not need a monitoring station to the southeast of the proposed landfill site? We know that the landowner where the MECP station is located would not allow, but why did Walker not need to find another site?</li> </ol>	Walker to provide questions to MECP.
Upcoming CLC Consultation	<p>Recommendations from CLC members:</p> <ul style="list-style-type: none"> <li>▪ There was consensus that it would be best to discuss the results and what they mean rather than explaining the methodology of the study again. However, it will be important to note where there were changes in methodology from the final work plan.</li> <li>▪ A member recommended that where there are technical terms to include a glossary.</li> <li>▪ A few members indicated that Walker should be careful not to overload meeting agendas with too much information (focus on most relevant information and consider additional meetings)</li> <li>▪ A member recommended that Walker pair “heavier” topics with “lighter” topics in the same meeting to reduce overloading a single meeting.</li> </ul>	Walker to take these recommendations into consideration as they prepare to consult with the CLC on the baseline scenario, design & mitigation, and the draft EA.
Ecology Study	Recommendation to ask nearby farmers if they use helicopters or planes to spray their fields, since they could be impacted by more birds in the area (bird strikes).	Walker to discuss with ecology consultant.

May 11, 2018

Dear CLC member,

Please find enclosed the materials for the upcoming CLC meeting on **Wednesday, May 23, 2018** at 6:00 pm (dinner will be available at 5:30 pm).

The meeting will include an update on field work, including CLC members discussing their experience observing recent field work. There will also be a discussion about upcoming consultation with the CLC as we near the end of the EA process, including upcoming milestones and the number and timing of meetings.

**Enclosed CLC Meeting 32 Materials:**

1. Agenda
2. Presentation – Field Work Update & Upcoming CLC Consultation Proposal

Follow-up materials related to CLC Meeting 31 were sent on March 29, 2018, including the Business Arising Report, Draft Meeting Summary, and Transcript. If you have any comments on or recommended changes to the Draft Meeting 31 Summary, please provide them to Laurie Bruce at 416-992-9669 or [communityliasoninfo@gmail.com](mailto:communityliasoninfo@gmail.com) by May 31, 2018.

Other items to note:

- An air quality expert from the MOECC will attend the August 22, 2018 CLC meeting to answer questions
- The MOECC approved the Carmeuse Alternative Low-Carbon Fuels Trial on April 5, 2018. For more information about this trial visit <http://carmeusebeachville.com/> or contact Christopher Martin at Carmeuse ([Christopher.martin@carmeusena.com](mailto:Christopher.martin@carmeusena.com) or 519-423-6283 x.273)

Please let me know if you have any questions in advance of our meeting on the 23<sup>th</sup>.

Warm regards,

Becky Oehler  
Community Engagement Manager  
905-680-3675, [boehler@walkerind.com](mailto:boehler@walkerind.com)



# CLC Meeting 32 – Agenda

## Southwestern Landfill Environmental Assessment

**Date:** Wednesday, May 23, 2018

**Time:** 6:00 pm – 9:00 pm  
(Dinner will be available at 5:30)

**Location:** 160 Carnegie Street, Ingersoll (Lower Meeting Room)

**Meeting Materials:**

- Agenda
- Presentation – Field Work Update & Upcoming CLC Consultation Proposal
- Business Arising Report – sent March 29
- CLC Meeting 31 Summary – sent March 29
- CLC Meeting 31 Transcript – sent March 29

	Description	Lead	Duration	End Time
1	Welcome	Facilitator	5 min	6:05
2	Objectives and Review of Agenda	Facilitator	5 min	6:10
3	Key Follow-Up Items from Previous Meeting	Facilitator	10 min	6:20
4	CLC Member Field Work Observation Experience	CLC	20 min	6:40
5	Field Work Update	WEG	15 min	6:55
6	Proposed CLC Consultation on Baseline Scenario, Design & Mitigation, and Draft EA <ul style="list-style-type: none"> <li>• Discussion</li> </ul>	WEG CLC	45 min	7:40
7	CLC Correspondence	WEG	15 min	7:55
8	Action Items & Next Meeting	ALL	5 min	8:00
9	CLC Discussion with EA Advisor	CLC/AG	1 hour	9:00



CLC Meeting 32 – May 23, 2018

**FIELD WORK UPDATE &  
UPCOMING CLC CONSULTATION PROPOSAL**

# Field Work Completed

## Southwestern Landfill EA

### Groundwater/ Surface water

- Fall
- Winter
- Spring
- Summer
- Fall/Winter 2018

### Air Quality

- Winter
- Spring
- Summer
- Fall

### Noise and Vibration

- Winter
- summer

### Visual

- Fall
- Winter
- Summer

### Cultural Heritage

- Fall
- Winter
- Summer

### Social/Economic

- Fall
- Winter
- Summer
- Winter 2018

The technical studies have started...  
**Field Work You May See in Oxford County**



FALL 2017	WINTER 2017-2018	SPRING 2018	SUMMER 2018	FALL 2018
<b>Groundwater/Surface Water</b> <ul style="list-style-type: none"> <li>Install groundwater monitoring wells.</li> <li>Describe and evaluate the rock and soil.</li> <li>Measure the water cond ions (e. depth and flow) in wells.</li> <li>Install surface water monitoring stations and take measurements.</li> </ul>	<b>Groundwater/Surface Water</b> <ul style="list-style-type: none"> <li>Monitor groundwater quality and quantity.</li> <li>Collect data and take measurements at surface water monitoring stations.</li> <li>Analyze surface water chemistry.</li> </ul>	<b>Groundwater/Surface Water</b> <ul style="list-style-type: none"> <li>Monitor groundwater quality and quantity.</li> <li>Collect data and take measurements at surface water monitoring stations.</li> <li>Analyze surface water chemistry.</li> </ul>	<b>Groundwater/Surface Water</b> <ul style="list-style-type: none"> <li>Monitor groundwater quality and quantity.</li> <li>Collect data and take measurements at surface water monitoring stations.</li> <li>Analyze surface water chemistry.</li> <li>Study the quarry walls and look for springs to check for karst features.</li> </ul>	<b>Groundwater/Surface Water</b> <ul style="list-style-type: none"> <li>Monitor groundwater quality and quantity.</li> <li>Collect data and take measurements at surface water monitoring stations.</li> <li>Analyze surface water chemistry.</li> </ul>
	<b>Air Quality</b> <ul style="list-style-type: none"> <li>Install air monitoring stations and monitor air quality.</li> </ul>	<b>Air Quality</b> <ul style="list-style-type: none"> <li>Monitor air quality.</li> </ul>	<b>Air Quality</b> <ul style="list-style-type: none"> <li>Monitor air quality.</li> </ul>	<b>Air Quality</b> <ul style="list-style-type: none"> <li>Monitor air quality.</li> </ul>
	<b>Ecology</b> <ul style="list-style-type: none"> <li>Identify animal tracks and study habitat after groundf.</li> <li>Look for raptor and heron nests to study in Spring/Summer.</li> </ul>	<b>Ecology</b> <ul style="list-style-type: none"> <li>Study animals, plants and habitats in streams.</li> <li>Study plant life, including any rare species.</li> <li>Observe breeding birds and identify songbirds by sound.</li> <li>Survey of dragonflies, damselflies and butterflies.</li> </ul>	<b>Ecology</b> <ul style="list-style-type: none"> <li>Study fish and plants in the flooded quarry.</li> <li>Observe mammals and their habitats.</li> <li>Study plant life, including mapping any rare species.</li> <li>Survey of dragonflies, damselflies, and butterflies.</li> </ul>	<b>Ecology</b> <ul style="list-style-type: none"> <li>Study animals, plants and habitats in streams.</li> <li>Observe crows and their nests.</li> <li>Study plant life, including mapping any rare species.</li> <li>Survey of dragonflies, damselflies and butterflies.</li> </ul>
	<b>Noise &amp; Vibration</b> <ul style="list-style-type: none"> <li>Measure noise at the property boundary.</li> </ul>		<b>Noise &amp; Vibration</b> <ul style="list-style-type: none"> <li>Measure noise at the property boundary.</li> </ul>	
	<b>Visual</b> <ul style="list-style-type: none"> <li>Take pictures of the site from different places in the community.</li> </ul>			
	<b>Cultural Heritage</b> <ul style="list-style-type: none"> <li>Take pictures of buildings and landscapes.</li> </ul>			
	<b>Social / Economic</b> <ul style="list-style-type: none"> <li>Telephone, mail-out, and in-person surveys.</li> </ul>		<b>Archaeology</b> <ul style="list-style-type: none"> <li>Flow areas and dig test pits to look for artifacts.</li> </ul>	<b>Human Health</b> <ul style="list-style-type: none"> <li>Analyze data collected in other studies to report on any potential risks to human health.</li> </ul>

# Field work – Up Next

## Southwestern Landfill EA

### Dragonfly, Damselfly, Butterfly Survey

- June – August

### Breeding Birds

- May – July

### Vascular Plant & Vegetation Communities

- May – October

### Species at Risk/Rare Species

- May – October

### Archeology

- May – August



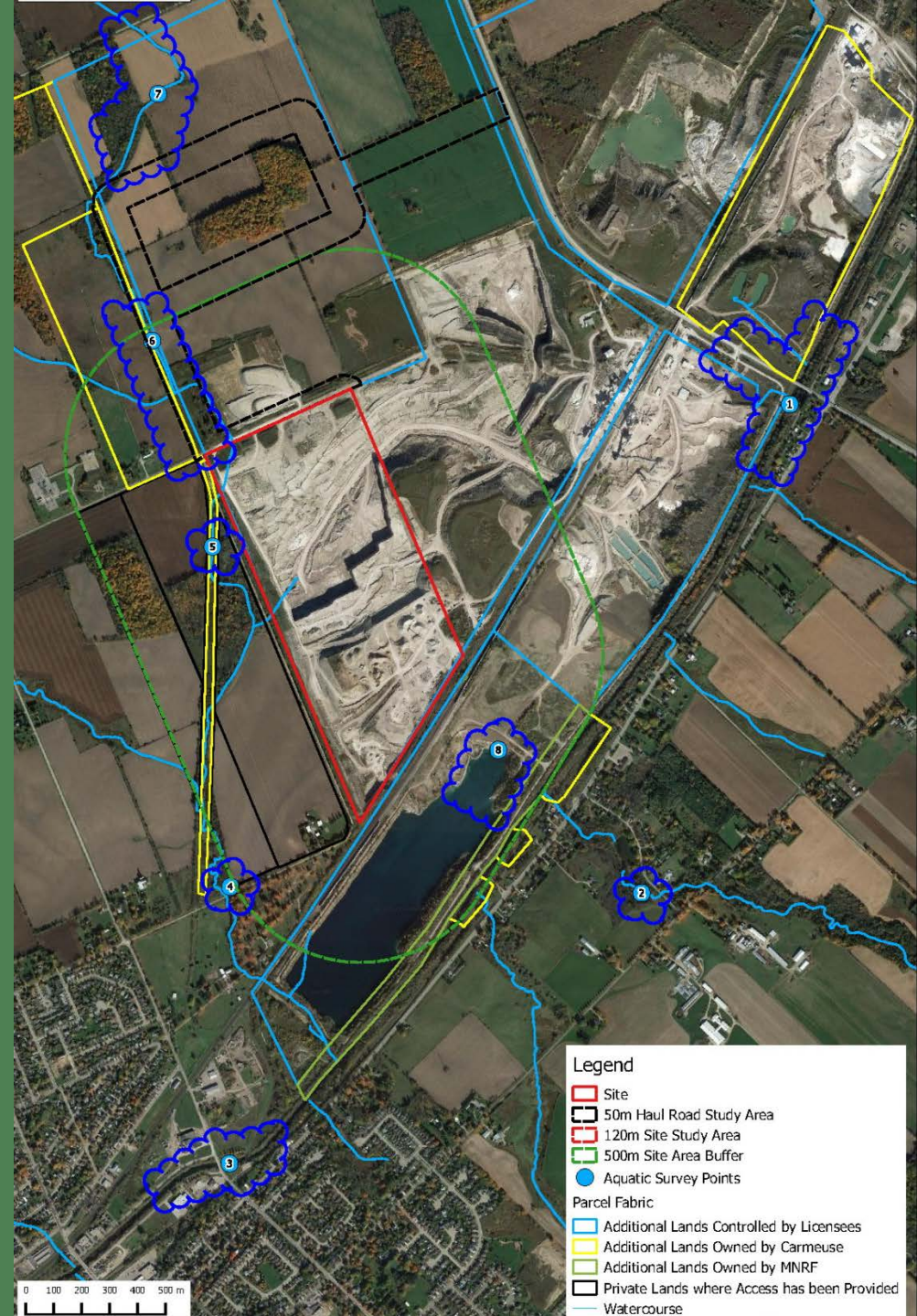
### Ongoing Field work (conducted in all 4 season)

- Groundwater/ Surface Water
- Air quality
- Ecology
- Social/Economic

# Aquatic Survey Map

## Survey includes:

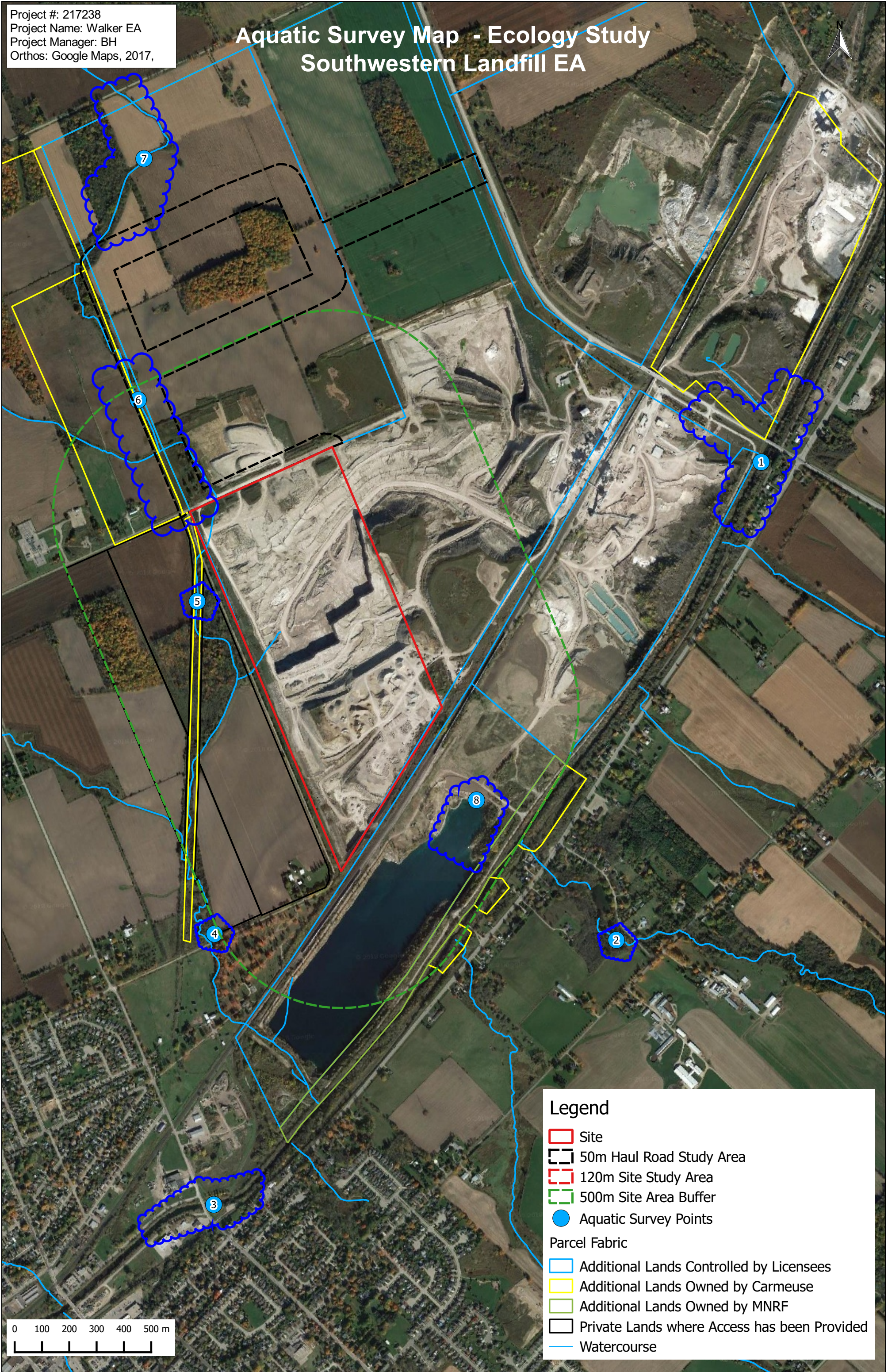
- Benthic invertebrates (animals that live in sediment underwater)
- Fish species
- Fish habitat
- Assessments at each of the exposure and reference locations specified on the map.





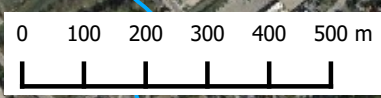
Project #: 217238  
Project Name: Walker EA  
Project Manager: BH  
Orthos: Google Maps, 2017,

# Aquatic Survey Map - Ecology Study Southwestern Landfill EA



**Legend**

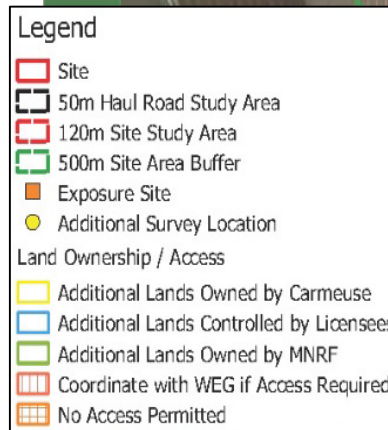
- Site
- 50m Haul Road Study Area
- 120m Site Study Area
- 500m Site Area Buffer
- Aquatic Survey Points
- Parcel Fabric
  - Additional Lands Controlled by Licensees
  - Additional Lands Owned by Carmeuse
  - Additional Lands Owned by MNRF
  - Private Lands where Access has been Provided
  - Watercourse



# Amphibian Survey Map

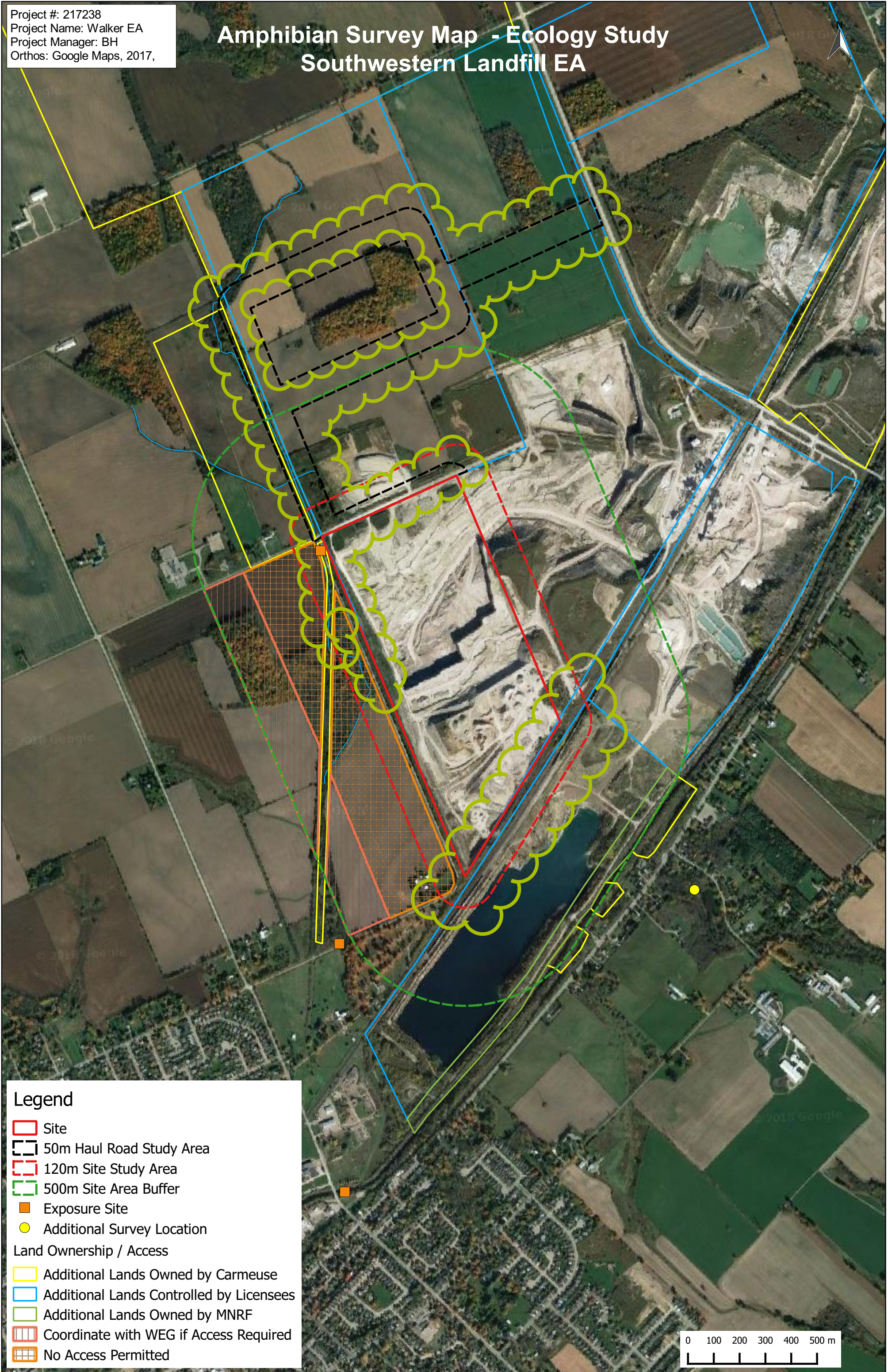
## Survey includes:

- Listening for frog calls during breeding season in the evening.
- First round of surveys will occur once night time temperatures stay about 5°C, which typically occurs between April 15 – April 30.
- The second round of surveys will occur once night time temperatures reach 10°C, which typically occurs between May 1 – May 15.
- The third round of surveys will occur once night time temperatures reach 17°C., which typically occurs between June 15 – June 30.



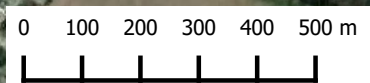
Project #: 217238  
Project Name: Walker EA  
Project Manager: BH  
Orthos: Google Maps, 2017,

# Amphibian Survey Map - Ecology Study Southwestern Landfill EA



## Legend

- Site
- 50m Haul Road Study Area
- 120m Site Study Area
- 500m Site Area Buffer
- Exposure Site
- Additional Survey Location
- Land Ownership / Access
  - Additional Lands Owned by Carmeuse
  - Additional Lands Controlled by Licensees
  - Additional Lands Owned by MNRF
  - Coordinate with WEG if Access Required
  - No Access Permitted



# Turtle Survey Map

## Survey includes:

- Looking for turtles and turtle habitat from shore and by canoe.
- During sunny periods and when air temperatures is at least 10°C or on partially overcast days when air temperature is above 15°C and air temperature is greater than water temperature

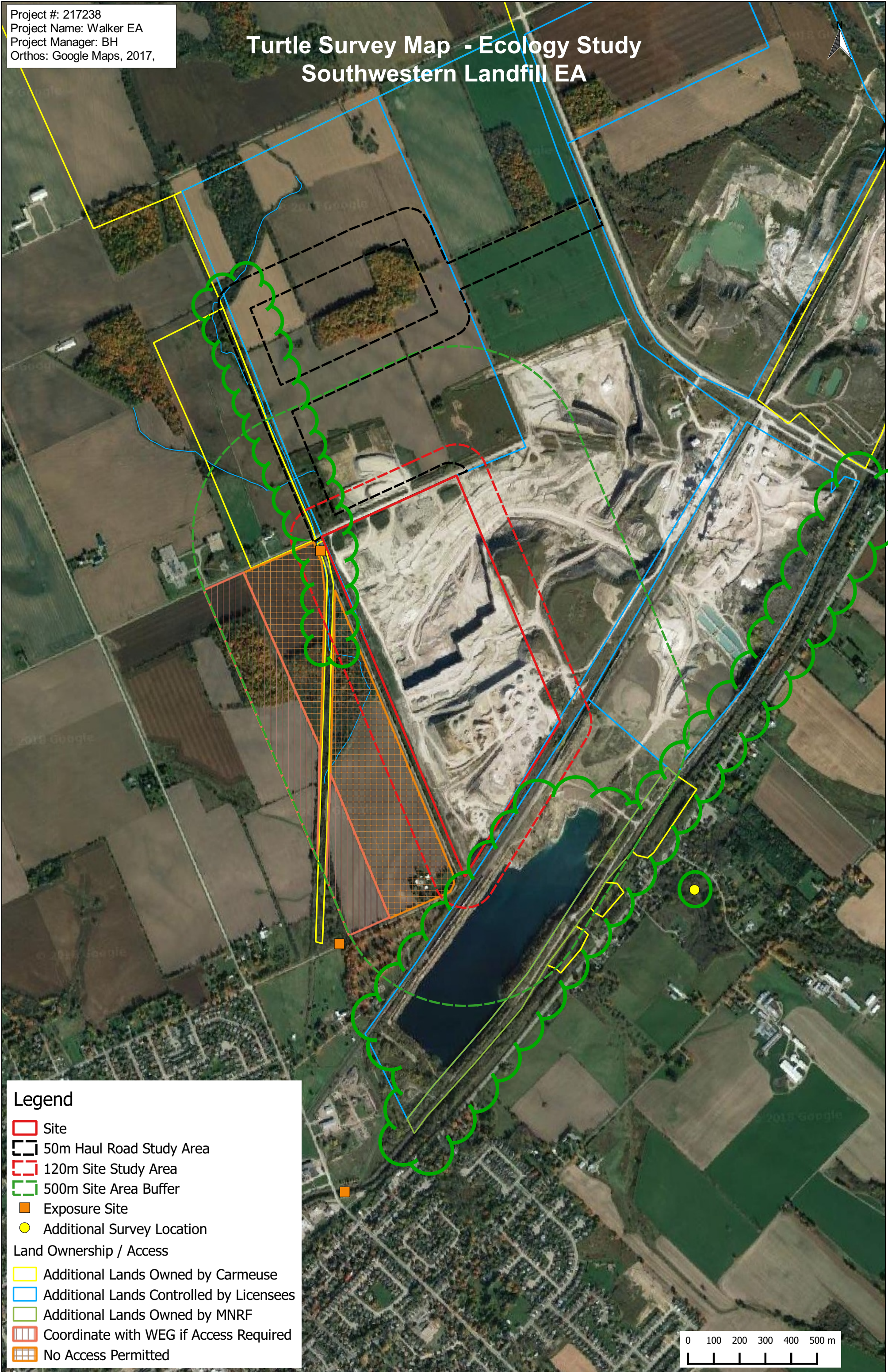


### Legend

- Site
- 50m Haul Road Study Area
- 120m Site Study Area
- 500m Site Area Buffer
- Exposure Site
- Additional Survey Location
- Land Ownership / Access
  - Additional Lands Owned by Carmeuse
  - Additional Lands Controlled by Licensees
  - Additional Lands Owned by MNRF
  - Coordinate with WEG if Access Required
  - No Access Permitted

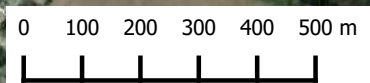
Project #: 217238  
Project Name: Walker EA  
Project Manager: BH  
Orthos: Google Maps, 2017,

# Turtle Survey Map - Ecology Study Southwestern Landfill EA



## Legend

- Site
- 50m Haul Road Study Area
- 120m Site Study Area
- 500m Site Area Buffer
- Exposure Site
- Additional Survey Location
- Land Ownership / Access
  - Additional Lands Owned by Carmeuse
  - Additional Lands Controlled by Licensees
  - Additional Lands Owned by MNRF
  - Coordinate with WEG if Access Required
  - No Access Permitted



# Upcoming CLC Consultation



Southwestern Landfill EA

## **August CLC meeting:**

- Attendance by MOECC Air Quality expert to answer questions
- Field work update

# Upcoming CLC Consultation



Southwestern Landfill EA

## Proposal for Baseline Results:

- 2 meetings: November 2018 and **March?** 2019  
(commitment in ToR CLC comment disposition: 2 meetings)
- Review what the current environment is like (without the proposed landfill)
- Discussion tool will be consultation summaries (final report will not be available yet)

# Upcoming CLC Consultation



Southwestern Landfill EA

## **Proposal for Design & Mitigation:**

- 2 Meetings: May and June 2019  
(commitment in section 10.2 of ToR: 1 meeting)
- Review modeled/projected landfill impacts with and without additional mitigation
- Discussion tool will be consultation summaries (final report will not be available yet)



# Upcoming CLC Consultation



Southwestern Landfill EA

## **Proposal for Draft EA:**

- 1 Meeting: between August and October 2019
- Overview of Draft EA, explanation of any sections we have not yet reviewed together
- Overview of the Record of Consultation main document (organization, where to find your input)
- Discussion tool will be the main documents of the Draft EA and the Record of Consultation

## Items from CLC Meeting 31 – February 21, 2018

Business Arising		Responsibility	Response	Status
1	Provide report with information about Oxford County's airshed quality ranking as discussed during the meeting.	CLC member MF		
2	If permissible, provide a map of local MOECC air quality monitoring stations and the age of the stations/equipment.	MOECC	<p><u><a href="#">Information from Emilia Kuisma, Issues and Projects Coordinator, London District Office (via email March 5, 2018; attached)</a></u></p> <p>A map has been provided of the MOECC air quality monitoring stations in the vicinity of the proposed SWLF site. <b>(Map is attached to this report.)</b></p> <p>The ministry's TE-5170 High Volume air samplers (HiVols), were installed at the current monitoring stations in August 2013. Three of the five units were brand new at the time of installation. The two remaining units were from available stock in the ministry's air laboratory. Some of the components in these units were up to 10 years old at the time of installation. The instruments consist of a weather-proof aluminum shelter, and various components (motor brushes, horns, rubber gaskets) which are replaced several times throughout each year, or as needed. All ministry HiVols are maintained and calibrated to ensure that samples are collected in accordance with the <a href="#">Operations Manual for Air Quality Monitoring in Ontario</a>.</p> <p>Note- One of the four ministry monitoring locations in Beachville has two HiVol units at that location.</p>	Complete
3	Provide rationale for placement of local MOECC air quality monitoring stations and what constitutes an appropriate air monitoring location (requirements).	MOECC	<p><u><a href="#">Information from Emilia Kuisma, Issues and Projects Coordinator, London District Office (via email March 5, 2018; attached)</a></u></p> <p>The ministry has carried out air monitoring in the Beachville area since 1975. The number and location of monitoring sites has changed over time.</p> <p>Monitoring locations and parameters were chosen based on the sources that the ministry was interested in studying (specifically, particulate from major quarry operations in the Beachville area), prevailing wind directions, and logistical considerations, in accordance with the siting criteria outlined in the ministry's <a href="#">Operations Manual for Air Quality Monitoring in Ontario</a> (including distance from obstructions like trees and buildings, distance from roadways, height, power availability, landowner permission and security). Based on the</p>	Complete

			<p>predominant westerly winds, the westernmost monitoring station is typically considered “upwind” of the quarry operations, and provides information on “background” air quality. The other locations were selected to be downwind of local industrial sources of particulate. The ministry ensures that all of its monitoring stations are operated and maintained in accordance with the <i>Operations Manual</i>.</p> <p>Note- The ministry’s Beachville air monitoring program was designed to study the impacts of major quarry operations on local particulate levels.</p> <p>As part of Walker’s Air Study Work Plan, Walker is required to monitor additional parameters associated with landfilling activities (sulphur compounds, volatile organic compounds, and additional particulate fractions). Walker will use this data to characterize ambient air quality as a part of their Environmental Assessment, which will evaluate the effects of the proposed undertaking on air quality.</p>	
4	Provide rationale for the MOECC air monitoring location at the Bell building.	MOECC	<p><u>Information from Emilia Kuisma, Issues and Projects Coordinator, London District Office (via email March 5, 2018; attached)</u></p> <p>The ministry has operated an air monitoring station on Vine Street, Beachville, since 1975. This station was previously located on the roof of St. Anthony’s school at 12 Vine Street. Due to an impending change in ownership of this property, the ministry relocated the station to the Bell property in 2017. The Bell property is located approximately 90 metres from the historical Vine Street monitoring site, which provides continuity in data collection and benefits data analysis. The ministry’s <a href="#">Operations Manual for Air Quality Monitoring in Ontario</a> contains guidelines for selecting and locating air monitoring equipment – there are considerations including distance from obstructions like trees and buildings, distance from roadways, height, power availability, and security. The ministry’s station on the Bell property meets all this criteria.</p> <p>Note - The monitoring instruments at this site are located on a platform and not on the roof of the Bell building. The ministry ensures that the site is maintained (vegetation is removed or maintained as needed, etc.).</p>	Complete
5	If possible, provide opportunity for CLC to discuss air quality monitoring requirements, standards, etc. with experts.	Walker	In progress.	In progress

6	Confirm the type of air monitors that are being used for the SWLF study.	Walker	<p>Excerpts from the <a href="#">Final Air Quality Work Plan</a>, section 7.3.1.1 <i>Proposed Monitoring Plan</i>:</p> <p><i>“The samples will be collected using General Metal Works standard High-Volume air samplers outfitted accordingly with PM10 and PM2.5 inlet heads.”</i></p> <p><i>“The filters will consist of Glass Fibre filters (unless otherwise specified by the MOECC) that will be supplied and conditioned by an accredited laboratory. The filters will be conditioned and pre and post weighed by an accredited laboratory.”</i></p>	Complete
7	Provide links to reports and data about Oxford County air quality.	Walker	<p>The Oxford County website contains reports regarding air quality. <a href="http://www.oxfordcounty.ca/airquality">http://www.oxfordcounty.ca/airquality</a></p>	Complete
8	Provide data/information about prevailing local wind directions.	Walker	<p>In order to evaluate prevailing wind conditions, RWDI reviewed several sites including the Ontario Ministry of the Environment and Climate Change (MOECC) station at the Bell Building, London International Airport, Simcoe Automated Station and Waterloo-Wellington International Airport.</p> <p>Attached is a map of the air monitoring stations with the wind roses for each of these locations. In all datasets, the prevailing wind direction is from the West to South. The MOECC local meteorological station also notes wind directions from the Northeast to East and Northwest to West as frequent but less frequent than the West to South wind directions.</p>	Complete
9	Provide rationale for not locating an air monitoring station to the southeast of the proposed site.	Walker	<p>The original intent was to co-locate Walker’s monitoring stations with 4 local MOECC stations. Walker’s was instructed that permission would need to be obtained by the land owners to use the properties for the purposes of Walker’s study. Walker approached all of the current landowners where the MOECC stations are located and two (2) of the four (4) sites provided permission to Walker for the use of their property (33<sup>rd</sup> Line and Bell Canada Building). The remaining landowners declined to allow Walker access to their property to install additional monitoring equipment. This includes the property to the southeast of the site. As such, in consultation with the MOECC, Walker obtained permission for a new station along Road 66 (owned by Carmeuse) for the installation of the monitoring station; however permission was not obtained from landowners to the Southeast.</p>	Complete

10	Provide more information about how baseline traffic emission data is gathered (no air quality monitors along the haul route).	Walker	<p>From Section 7.6.1 <i>Haul Route Traffic Dispersion Modelling</i> of the Final Traffic Technical Work Plan:</p> <p><i>“The modelling will be based on an assessment of five years’ worth of meteorological conditions coupled with background ambient levels and peak traffic conditions to be provided by WEG Traffic consultant.”</i></p> <p>This means that the emissions from traffic will be modelled by the air quality consultant based on traffic data from the traffic consultant (numbers and types of vehicles) as well as weather conditions.</p> <p>Find the Final Traffic Work Plan at  <a href="http://www.walkerea.com/uploads/602/Doc_636548186990385422.pdf">http://www.walkerea.com/uploads/602/Doc_636548186990385422.pdf</a></p>	Complete
11	Provide map of areas covered during the winter wildlife survey.	Walker	Map is provided (attached). The surveyed areas are outlined in light blue (“cloud” shaped outline).	Complete
12	Update groundwater monitoring location map to identify the updated location of borehole 5. The original location was abandoned due to drilling issues.	Walker	Groundwater map has been updated in the presentation for the CLC meeting. It is also appended to this report.	Complete
13	Provide additional information about the surface water monitoring locations. (i.e. are dataloggers being used, what does the field technician do when they visit the monitoring location)	Walker	<p>Stations not on the Thames River have installed equipment to record water level data. The Thames River stations did not need this equipment because there is a lot of existing data on water levels in the Thames River from the Upper Thames River Conservation Authority.</p> <p><i>Monthly</i> – each of the 7 stations are visited to measure in-situ parameters (i.e. pH, temperature, dissolved oxygen, conductivity).</p> <p><i>Quarterly</i> – a sample is taken from each of the 7 stations and sent to a certified laboratory for analysis (i.e. quantify the amount of metals, hydrocarbons).</p>	Complete
14	Notify the CLC in the event Carmeuse receives approval for the alternative fuel trial.	Walker	In the event that Carmeuse receives approval for the alternative low-carbon fuel trial, Walker will notify the CLC.	In progress
15	Provide more information about the alternative fuel trial at Carmeuse.	Walker	More information on the Carmeuse alternative low-carbon fuel (ALCF) demonstration project can be found on their website at <a href="http://carmeusebeachville.com/">http://carmeusebeachville.com/</a> , including a video, infographic, and written descriptions. ACLF page: <a href="http://carmeusebeachville.com/alcf-facts/">http://carmeusebeachville.com/alcf-facts/</a>	Complete

## Carry Over Items from CLC Meetings (Meetings 16-30)

Business Arising		Responsibility	Response	Status
1	Two CLC members noted issues with language in the Charter regarding government agency observer representatives; they felt it can be interpreted that these representatives cannot fully participate.	CLC members	The facilitator recommended that the participant(s) provide recommended changes to the language for her to consider.	In Progress
2	It would be helpful to have a map of all of the wells that will provide data considered during the groundwater study (municipal, private, Carmeuse).	WEG	Walker will work on getting this map prepared. It may come after the background information review is complete (consultant has reviewed all well information).	In Progress
3	Post inputs received and response tables from the technical reviewers and other interested parties on the updated technical work plans.	Walker Environmental	Walker to send the CLC a notification once available on the project website.	In Progress

## Carry-Over Items from Meetings during ToR Phase:

Business Arising		Responsibility	Response	Status
1	Revisit the Mayor of Ingersoll regarding municipal green initiatives.	Walker Environmental	Discussions with Mayor of Ingersoll will occur at key points in the EA process.	Ongoing
10	If the CLC is aware of local natural/environmental events, provide information to Walker who will then pass it along to Golder Associates.	CLC		Ongoing
11	Contact the Agricultural agencies and let them know the CLC Members would like to attend the meeting when they meet with the technical expert.	Walker Environmental		Ongoing

**From:** Kuisma, Emilia (MOECC)  
**To:** [Becky Oehler](#); [Ashley Van Dinther](#)  
**Cc:** [Papageorgiou, Agni \(MOECC\)](#); [Kuisma, Emilia \(MOECC\)](#); [Lafrance, Crystal \(MOECC\)](#); [McDonald, Dan \(MOECC\)](#); [Wrigley, Rob \(MOECC\)](#); [Crompt, Dan \(MOECC\)](#); [Slivar, Bob \(MOECC\)](#); [Jutzi, Mallory \(MOECC\)](#)  
**Subject:** Feb 21- Walker CLC meeting follow-up items for MOECC  
**Date:** Monday, March 05, 2018 10:20:15 AM  
**Attachments:** [beachville\\_MonitoringLocations\\_Feb2018.pdf](#)

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Good morning Becky and Ashley,  
Please find attached and below the information that was requested of the ministry at the February 21, 2018 CLC meeting.  
Please let me know if you have any further questions.  
Many thanks,  
Emilia

**Question: The CLC made a formal request for a map of all the locations. Emilia to look into what the ministry can provide.**

Please see the attached map.

**Question: How old are the ministry's HiVols used at each of the ministry's monitoring sites?**

The ministry's TE-5170 High Volume air samplers (HiVols), were installed at the current monitoring stations in August 2013. Three of the five units were brand new at the time of installation. The two remaining units were from available stock in the ministry's air laboratory. Some of the components in these units were up to 10 years old at the time of installation. The instruments consist of a weather-proof aluminum shelter, and various components (motor brushes, horns, rubber gaskets) which are replaced several times throughout each year, or as needed. All ministry HiVols are maintained and calibrated to ensure that samples are collected in accordance with the [Operations Manual for Air Quality Monitoring in Ontario](#).

Note- One of the four ministry monitoring locations in Beachville has two HiVol units at that location.

**Question: Why was the Bell building chosen as a site for the ministry's air monitor? What was the rationale.**

The ministry has operated an air monitoring station on Vine Street, Beachville, since 1975. This station was previously located on the roof of St. Anthony's school at 12 Vine Street. Due to an impending change in ownership of this property, the ministry relocated the station to the Bell property in 2017. The Bell property is located approximately 90 metres from the historical Vine Street monitoring site, which provides continuity in data collection and benefits data analysis. The ministry's [Operations Manual for Air Quality Monitoring in Ontario](#) contains guidelines for selecting and locating air monitoring equipment – there are considerations including distance from obstructions like trees and buildings, distance from roadways, height, power availability, and security. The ministry's station on the Bell property meets all this criteria.

Note - The monitoring instruments at this site are located on a platform and not on the roof

of the Bell building. The ministry ensures that the site is maintained (vegetation is removed or maintained as needed, etc.).

**Question: Why were the ministry sites (all 4) chosen for air monitoring in the first place? What was the scientific rationale? Are they in the best locations?**

The ministry has carried out air monitoring in the Beachville area since 1975. The number and location of monitoring sites has changed over time.

Monitoring locations and parameters were chosen based on the sources that the ministry was interested in studying (specifically, particulate from major quarry operations in the Beachville area), prevailing wind directions, and logistical considerations, in accordance with the siting criteria outlined in the ministry's *Operations Manual for Air Quality Monitoring in Ontario* (including distance from obstructions like trees and buildings, distance from roadways, height, power availability, landowner permission and security). Based on the predominant westerly winds, the westernmost monitoring station is typically considered "upwind" of the quarry operations, and provides information on "background" air quality. The other locations were selected to be downwind of local industrial sources of particulate. The ministry ensures that all of its monitoring stations are operated and maintained in accordance with the *Operations Manual*.

Note- The ministry's Beachville air monitoring program was designed to study the impacts of major quarry operations on local particulate levels.

As part of Walker's Air Study Work Plan, Walker is required to monitor additional parameters associated with landfilling activities (sulphur compounds, volatile organic compounds, and additional particulate fractions). Walker will use this data to characterize ambient air quality as a part of their Environmental Assessment, which will evaluate the effects of the proposed undertaking on air quality.

Emmilia Kuisma

Issues and Projects Coordinator- London District Office

Ministry of the Environment and Climate Change

Ministère de l'Environnement et de l'Action en matière de changement climatique

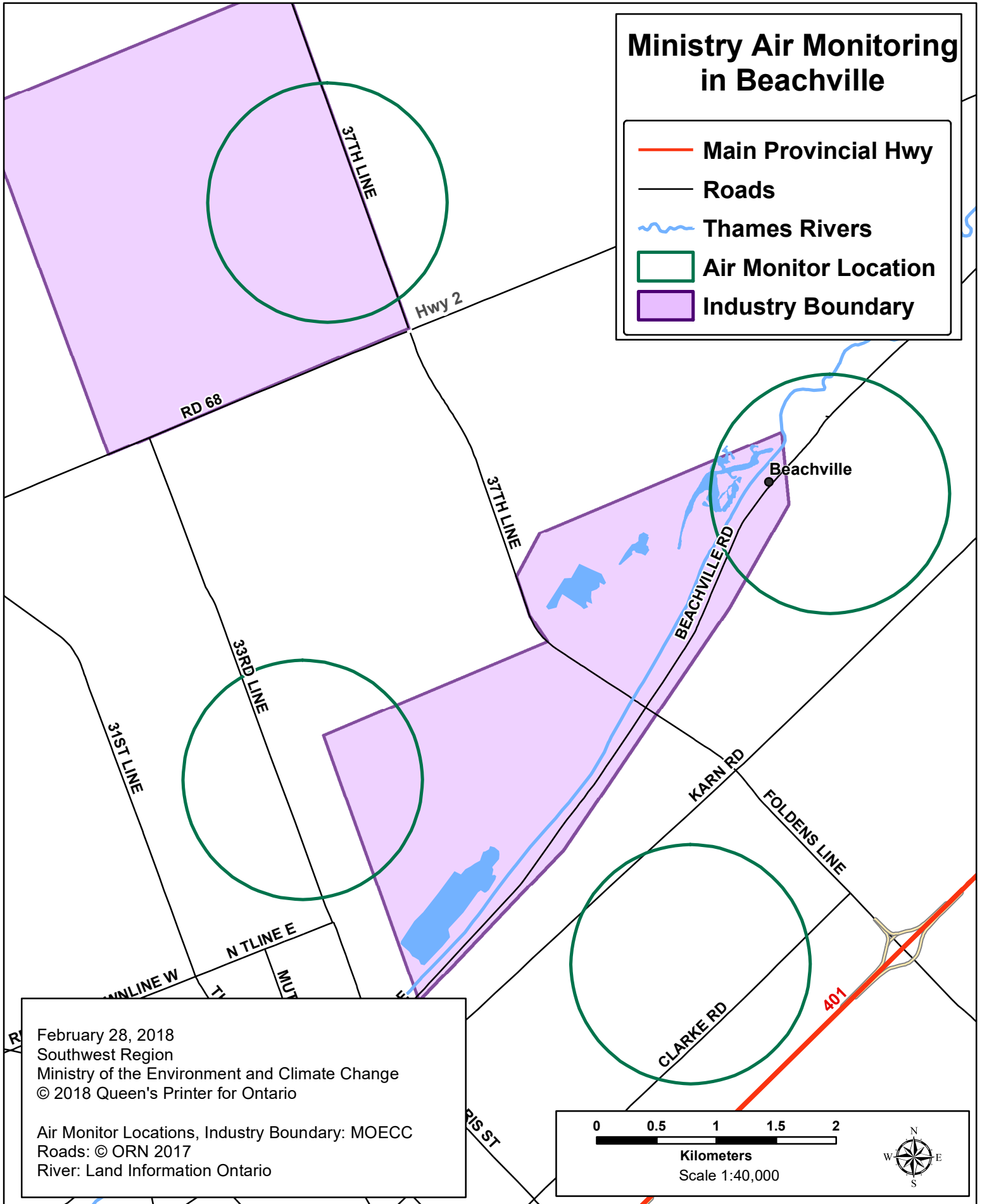
Phone: (519) 873-3060

Email: [emmilia.kuisma@ontario.ca](mailto:emmilia.kuisma@ontario.ca)



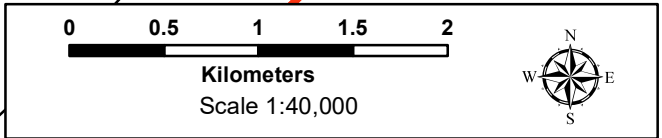
# Ministry Air Monitoring in Beachville

-  Main Provincial Hwy
-  Roads
-  Thames Rivers
-  Air Monitor Location
-  Industry Boundary

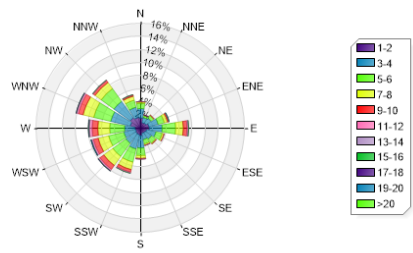


February 28, 2018  
 Southwest Region  
 Ministry of the Environment and Climate Change  
 © 2018 Queen's Printer for Ontario

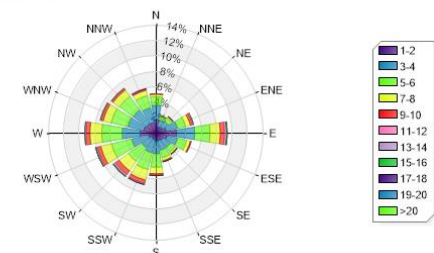
Air Monitor Locations, Industry Boundary: MOECC  
 Roads: © ORN 2017  
 River: Land Information Ontario



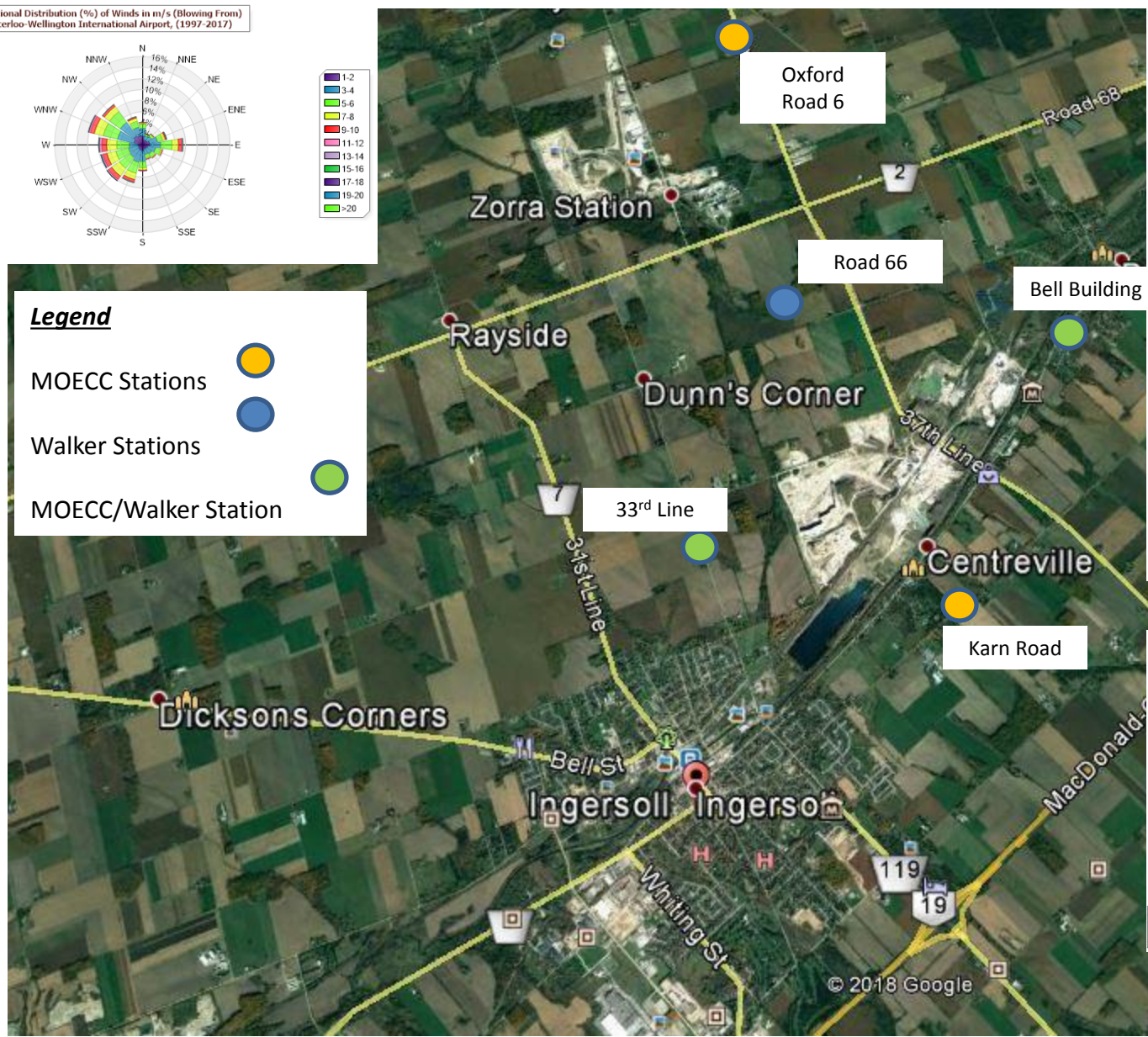
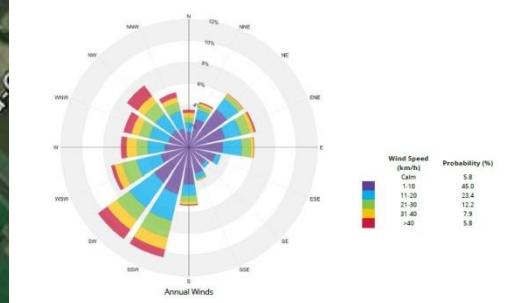
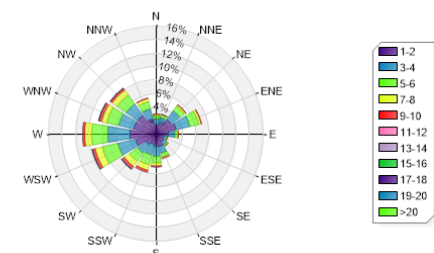
Directional Distribution (%) of Winds in m/s (Blowing From) Waterloo-Wellington International Airport, (1997-2017)



Directional Distribution (%) of Winds in m/s (Blowing From) London International Airport, (1995-2015)



Directional Distribution (%) of Winds in m/s (Blowing From) Simcoe Automated Station, (1979-1999)



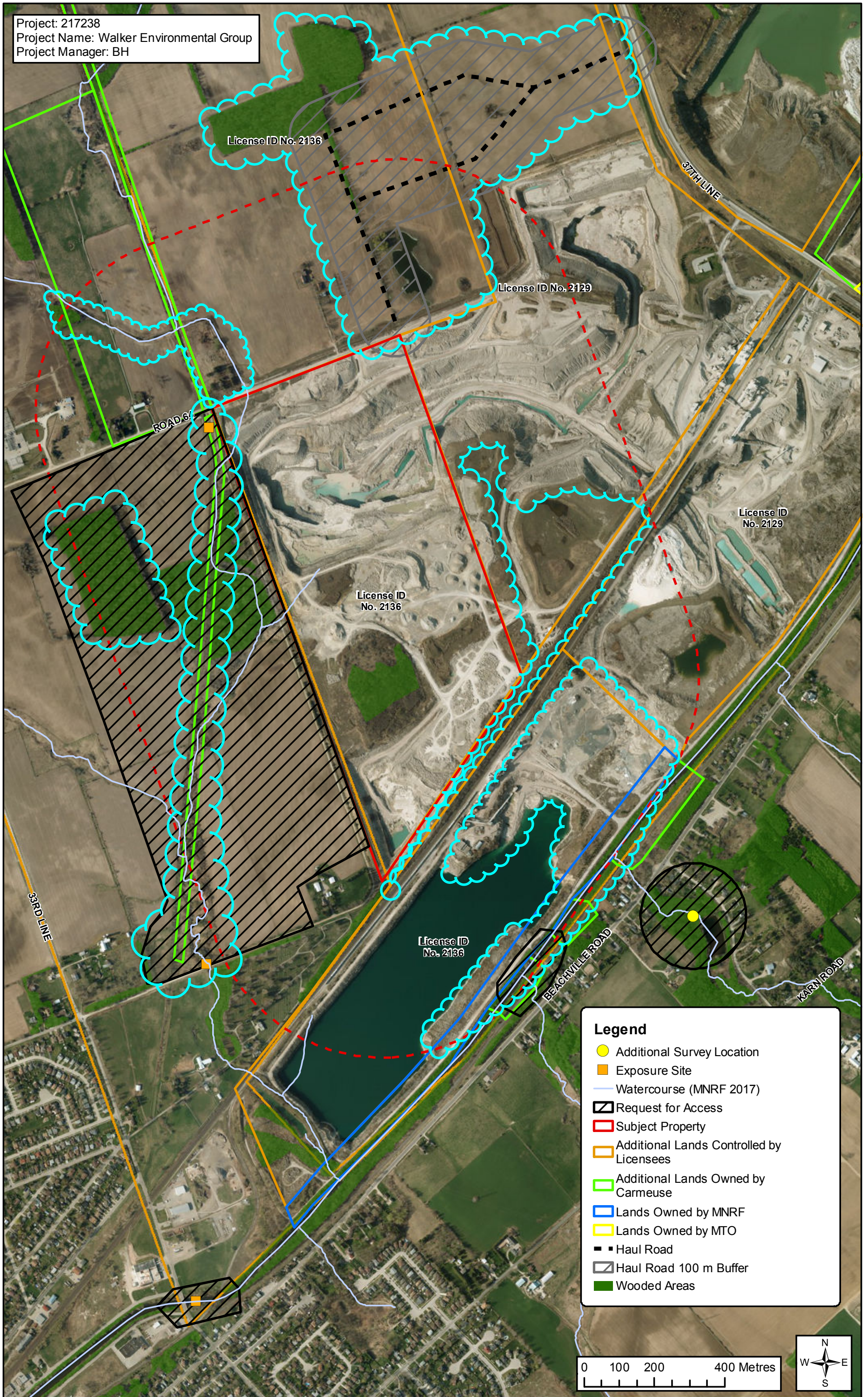
**Legend**

- MOECC Stations
- Walker Stations
- MOECC/Walker Station

© 2018 Google

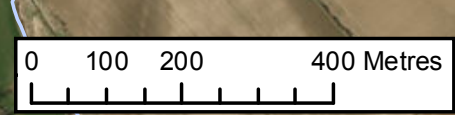
# SWLF Ecology Winter Wildlife Survey Areas (outlined in light blue)

Project: 217238  
 Project Name: Walker Environmental Group  
 Project Manager: BH

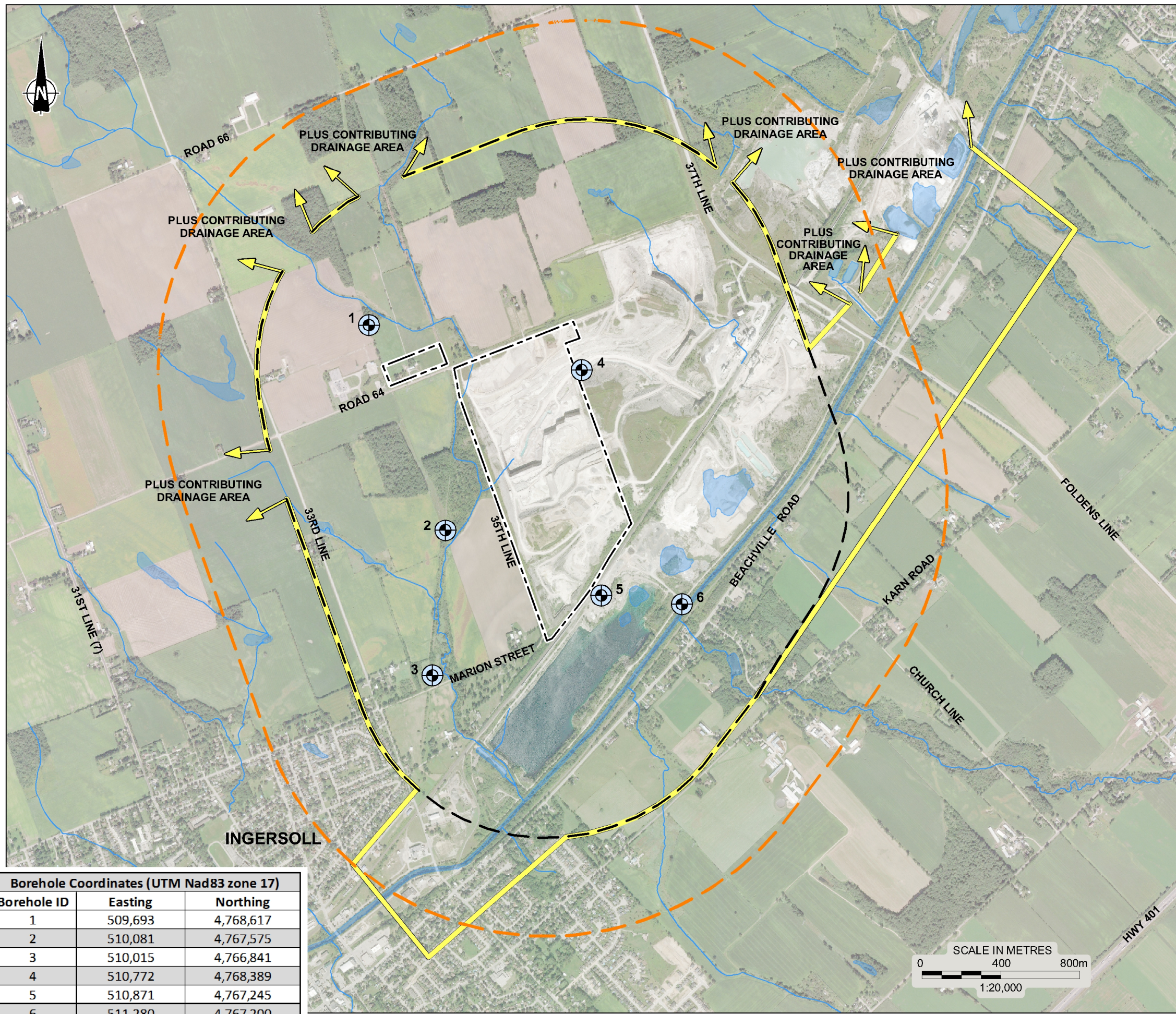


**Legend**

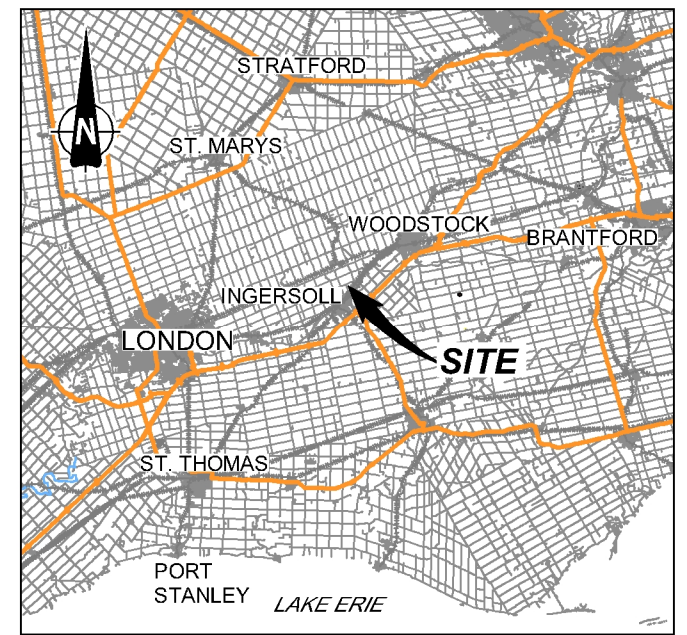
- Additional Survey Location
- Exposure Site
- Watercourse (MNRF 2017)
- Request for Access
- Subject Property
- Additional Lands Controlled by Licensees
- Additional Lands Owned by Carneuse
- Lands Owned by MNRF
- Lands Owned by MTO
- Haul Road
- Haul Road 100 m Buffer
- Wooded Areas



Drawing file: 1664706-G06001.dwg Mar 14, 2018 - 4:53pm



Borehole Coordinates (UTM Nad83 zone 17)		
Borehole ID	Easting	Northing
1	509,693	4,768,617
2	510,081	4,767,575
3	510,015	4,766,841
4	510,772	4,768,389
5	510,871	4,767,245
6	511,280	4,767,200



KEY PLAN

**LEGEND**

- BOREHOLE/MONITORING WELL
- STUDY AREAS:
  - ON-SITE
  - SITE VICINITY GROUNDWATER
  - SITE VICINITY SURFACE WATER
  - 500m FROM SITE VICINITY GROUNDWATER

**REFERENCE**

- DRAWING BASED ON :
- 1) BING IMAGERY AS OF AUGUST 16, 2017 (IMAGE DATE UNKNOWN);
  - 2) WALKER ENVIRONMENTAL, FIGURE 5, "APPROVED AMENDED TERMS OF REFERENCE, MAY 20, 2016";
  - 3) MNR LIO, OBTAINED 2009, PRODUCED BY GOLDER ASSOCIATES LTD UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2017; AND
  - 4) CANMAP STREETFILES V2008.4.

**NOTES**

THIS DRAWING IS SCHEMATIC ONLY AND IS TO BE READ IN CONJUNCTION WITH ACCOMPANYING TEXT.  
 BING IMAGERY USED FOR ILLUSTRATION PURPOSES ONLY AND NOT TO BE USED FOR MEASUREMENTS.  
 ALL LOCATIONS ARE APPROXIMATE.

PROJECT		GROUNDWATER/SURFACE WATER ASSESSMENT WORK PLAN BEACHVILLE, ONTARIO	
TITLE		<b>BOREHOLE/MONITORING WELL LOCATION PLAN</b>	
	PROJECT No.	1664706	FILE No. 1664706-G06001
	CADD	DCH	Mar 14/18
	CHECK		
		SCALE	AS SHOWN
		<b>FIGURE 1</b>	

## **CLC Meeting 32**

Other documents sent as materials, but not included as pages in this Appendix (to cut down on duplication, paper waste and/or very large digital files):

- 1) Transcript: [http://www.walkerea.com/uploads/1219/Doc\\_636681329818278126.pdf](http://www.walkerea.com/uploads/1219/Doc_636681329818278126.pdf)

*Please contact us at [info@walkerea.com](mailto:info@walkerea.com) or toll-free at 1-855-392-5537 if you require assistance accessing this document online or in hard copy.*

# Southwestern Landfill CLC #33

## Meeting Summary

**Date:** August 22, 2018  
**Time:** 6:00 p.m. – 9:00 p.m.  
**Location:** 160 Carnegie Street, Ingersoll (Lower Meeting Room)

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**Start Time: 6:04 pm**

### Materials

1. Agenda
2. Business Arising Report
3. CLC Meeting 32 Summary
4. CLC Meeting 32 Transcript (mailed)
5. Presentation-MECP Air Quality Expert
6. Presentation-Field Work Update & Upcoming CLC Consultation Timeline, FCA Review

### MEETING DETAILS BY AGENDA ITEM

---

## Agenda Item #2-Objectives of Meeting and Review of Agenda

- **Objectives**
  - To hear a presentation from Mallory Jutzi, Air Quality Analyst from the Ministry of the Environment, Conservation and Parks (MECP).
  - To receive and update from Walker on fieldwork and the timeline of the remaining consultation items. Walker will also provide a brief review of facility characteristics assumptions review.

## Agenda Item # 3 – Key Follow-up Items from Previous Meeting

- **Discussion – Bird Air Strikes and Aviation**
  - A CLC member expressed concern with the response given in item 6 of Business Arising Report (BAR). The item identified that bird strikes are typically measured in the number of strikes per 10,000 aircraft movements. The member is concerned that this does not consider the number of emergency helicopters and crop sprayers in the area, which could be a concern for the proposed landfill.
  - Walker confirmed that the information in the BAR was from Beacon Environmental.
  - Members responded by commenting there should be a way to anticipate the level of gulls or other birds at a landfill, and questioned what measures are in place for when a colony of birds disperses quickly. Members would like Walker to follow-up with Beacon to assess the level of risk of bird impacts to all aircrafts, and clarify why the number of strikes per 10,000 aircraft movements is used.

## Agenda Item # 4 – Air Quality Presentation

- **Introduction- Mallory Jutzi**
  - Mallory Jutzi is an Air Quality Analyst with the Ministry of Environment, Conservation and Parks (MECP) West Region Office in London. One of her main roles is to assess monitoring data from ambient air quality monitoring stations across the southwestern region. Ms. Jutzi reviews proposals for various projects from an air quality perspective and is directly involved in the review of Walker's air quality monitoring program.

## Southwestern Landfill CLC #32 - Meeting Summary

- **Key findings from the MECP 2016 and 2017 air monitoring results:**
  - The MECP air monitors show that, currently, air quality around the proposed landfill site meets their ambient air quality criteria. Metals are low with no exceedances. Suspended particulate concentrations have declined from historical levels and have been consistent over the last few years.
- **Walker's Air Study Plan**
  - In addition to the background information and data collected from MECP monitors, Walker is required to monitor additional parameters associated with landfill activities such as, but not limited to, additional particulate fractions, sulphur compounds and VOCs. The air quality consultants will use collected data to characterize current air quality as a part of their Environmental Assessment, which will evaluate the effects of the proposed landfill on air quality.
- **CLC INPUT**
  - Table 1 below tracks input from CLC members during Air Quality Presentation

**Table 1. CLC Input during MECP Presentation**

Topic	CLC Input/Question	Ministry Response	Actions
<b>Location of Air Monitors and Siting Criteria</b>	<p>CLC discussed the monitoring equipment located at the Bell building. The CLC feels this particular station may not meet ministry criteria.</p> <p>CLC questioned how the locations of the Ministry's monitors were decided. Concern was also raised by CLC that the monitors may be affected by burn barrels on neighbouring properties.</p>	<p>The MECP recently visited the station and determined it meets the criteria.</p> <p>Ms. Jutzi stated that the monitoring locations were chosen based on the sources that the Ministry was interested in studying, prevailing wind direction and logistical considerations.</p>	<p>Ms. Jutzi to follow up on nearby burn barrels.</p> <p>MECP to provide a link or hard copy of the Operations Manual for Air Quality Monitoring in Ontario to CLC members.</p>
<b>Site Security for Air Quality Monitors and Quantity of samples</b>	<p>CLC raised questions about site security (i.e visible power cords that could be cut and unlocked gates).</p> <p>Associated discussion about lost samples and the acceptable number of lost samples.</p>	<p>Ms. Jutzi acknowledged that people could access the monitors. That would result in lost data, but the monitors are maintained regularly, and as long as 75% of data is viable, then the data set is good.</p>	<p>MECP to provide information on the data completeness for each monitoring station for the last 2 years in the Beachville area.</p>
<b>Quantity of Air Monitors</b>	<p>CLC members concerned whether there are enough monitors.</p>	<p>The MECP considers Walker's proposal to monitor at three locations acceptable for characterizing ambient air quality in the study area.</p>	
<b>Wind direction and sample collection</b>	<p>CLC members had questions regarding the prevailing wind direction in Beachville. CLC members note their experience with wind direction and the potential influence of local topography.</p>	<p>The wind is predominantly coming from the southwest and south-southwest, based on data collected at the MECP's weather stations.</p> <p>Jutzi acknowledges local topography can play a role in localized wind impacts.</p>	<p>MECP to look into topography of the area-Beachville and its potential effects on wind direction</p>

## Southwestern Landfill CLC #32 - Meeting Summary

<b>Comparison of Air Monitoring Data</b>	The MECP was asked how the MECP and Walker’s air monitoring data will be compared?	The MECP provided Walker with a full set of data from 2016 and 2017. This data set along with current monitoring data will be assessed by RWDI, and will be part of the Environmental Assessment.	
<b>Background Air Quality Data</b>	The CLC asked If monitoring shows that there is a high level of a certain particulate, does that mean the project will not go through?	The CLC Advisor responded that this will not necessarily be the case. If there is already an exceedance of a certain particulate on ambient air quality, it may suggest a project will not make a significant difference on overall air quality.	

### Agenda Item #5 – Field Work Update

- **Remaining Field Work**

- Ecology- fieldwork continues. Fish studies of the quarry are underway.
  - The CLC requested to observe a fish study which, in response, was raised with the consultant Beacon Environmental . Beacon advised Walker that they were concerned about the Health and Safety implications since the studies would be done by boat). In addition, Beacon advised Walker they have an internal policy discouraging field technicians from presenting findings before data has been reviewed. Instead, Beacon has suggested they come in and talk about their findings in the next meeting (November 28<sup>th</sup>).
- Groundwater & Surface Water- three of the ground water monitoring rounds are competed.
  - Municipal sources and nearby residential well studies continue.
- Air Monitoring-will continue until February 2019.
- CLC requested that Walker follow up with the traffic consultant to determine what information has been received from the MTO including the County Road 6 interchange.
- CLC requested that the economic numbers used to create the September Community Exchange be shared with the CLC. Walker said this information will be provided in the Draft EA report.

### Agenda Item #6 – Overview of Remaining Consultation Activities

- **The next two meetings: November 2018 and February 2019**

- These meetings will review the existing conditions (i.e. an overview of the current conditions around the site. Note that originally the first 2019 meeting had previously been planned for March but was subsequently changed to February)

- **CLC Input about Remaining Consultation Activities**

- In the EA draft, CLC members would like to see a table included that clearly identifies their concerns the findings associated with their concern, and how their concern is being addressed.
- CLC Members feel that the November meeting is heavy in terms of information and the disciplines being discussed. Would like the Archeology baseline studies to be pushed to the March meeting (now the February meeting) if it cannot be addressed in November.

- **Discussion on the release of the draft Environmental Assessment**

- Walker’s goal is to have a draft EA available in May 2019. The draft EA will be distributed to everyone at the same time, including JMCC, First Nations, Government agencies, community members, and other interested parties.
- CLC discussion on what a good time would be to schedule meetings to work through the draft EA.



# Southwestern Landfill CLC #32 - Meeting Summary

## Agenda Item #7 – Facility Characteristics Assumptions Review

### ▪ Discussion on the Facility Characteristics Assumptions

- Refer to Walker website for FCA review, link in Walker presentation, page 9.
- Walker is responding to a request by the CLC for an additional discussion regarding the current and future quarry sumps and how they will be considered in the proposed SWLF design and operations. A visual aid and further clarification on the quarry sump can be found in *Walker Presentation Slides 15-18*.

## Agenda Item #9 – Action Items and Next Meeting

### Next Meetings:

November 28<sup>th</sup>, 2018 and February 27, 2019 (originally set as March 27 in meeting)

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Meeting Adjourned at 9:47pm

Notes Prepared by: Ashley Van Dinther

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### CLC INPUT

The table below tracks input from CLC members, including the topic, input, and Walker's response or action.

<u>Topic</u>	<u>Input</u>	<u>Response/Action</u>
Air Quality	Various input to the Ministry of Environment, Conservation and parks (MECP) as noted in Table 1	Action items for the MECP as noted in Table 1
CLC meetings for existing conditions	Move Archaeology to February to decrease number of topics at November meeting	Agreed

August 8, 2018

Dear CLC member,

Please find enclosed the materials for the upcoming CLC meeting on **Wednesday, August 22, 2018** at 6:00 pm (dinner will be available at 5:30 pm).

This meeting will focus on a presentation and discussion on Air Quality with Mallory Jutzi, Air Quality Analyst from the Ministry of Environment, Conservation and Parks (MECP), formerly the MOECC. In addition, Walker will provide information about upcoming CLC consultation activities and a review of the Facility Characteristics Assumptions

The Facility Characteristics Assumptions review is intended to provide members with a refresher on the features of the proposed facility prior to starting our discussion of the baseline scenario (current environmental conditions) in November. As requested at the May meeting, the FCA discussion will include detail about the current quarry sump and its integration into the Southwestern Landfill design.

**Enclosed Materials:**

1. Agenda
2. Presentation – Field Work Update, Overview of Remaining Consultation Activities, Facility Characteristics Assumptions Review
3. Business Arising Report (items from CLC Meeting 32 – May 23, 2018)
4. Draft summary of CLC Meeting 32 (May 23, 2018)  
*Please let us know if you have any comments by August 31, 2018, after which it will be finalized and posted on our project website ([www.walkerea.com](http://www.walkerea.com))*
5. Transcript for CLC Meeting 32 (May 23, 2018)

Please let me know if you have any questions in advance of our meeting on the 22<sup>nd</sup>.

**Southwestern Landfill EA Facebook Page Launch**

The Walker Environmental Southwestern Landfill Environmental Assessment (EA) team is happy to announce that they have launched a project Facebook page. On the page you will find information about the ongoing Southwestern Landfill EA, as well as Walker news. We recognize that many people use Facebook to access information each day, and we hope that this Facebook page will make it easier to stay up to date on the EA.

If you'd like to learn more, you can Like and Follow the page, titled "Walker Environmental Southwestern Landfill" on Facebook. At this time, we are not able to moderate comments, so any submitted comments will not be posted.

Warm regards,

Becky Oehler  
Community Engagement Manager  
905-680-3675, [boehler@walkerind.com](mailto:boehler@walkerind.com)



# CLC Meeting 33 – Agenda

## Southwestern Landfill Environmental Assessment

**Date:** Wednesday, August 22, 2018

**Time:** 6:00 pm – 9:00 pm  
(Dinner will be available at 5:30)

**Location:** 160 Carnegie Street, Ingersoll (Lower Meeting Room)

**Meeting Materials:**

- Agenda
- Presentation – Field Work Update & Upcoming CLC Consultation Timeline
- Presentation – MECP Air Quality Expert
- Business Arising Report
- CLC Meeting 32 Summary
- CLC Meeting 32 Transcript

	Description	Lead	Duration	End Time
1	Welcome	Facilitator	5 min	6:05
2	Objectives and Review of Agenda	Facilitator	5 min	6:10
3	Q & A from Previous Meetings	Facilitator	10 min	6:20
4	Air Quality Presentation/Q&A – MECP	MECP	60 min	7:20
Break – 10 minutes				
5	Field Work Update	WEG	5 min	7:35
6	Overview of Remaining Consultation Activities	WEG	15 min	7:50
7	Facility Characteristics Review	All	20 min	8:10
8	CLC Correspondence	WEG	15 min	8:25
9	Action Items & Next Meeting	All	5 min	8:30
10	CLC Discussion with EA Advisor	CLC/AG	1 hour	9:30



**Air Quality Monitoring in Beachville**  
Walker Community Liaison Committee Meeting

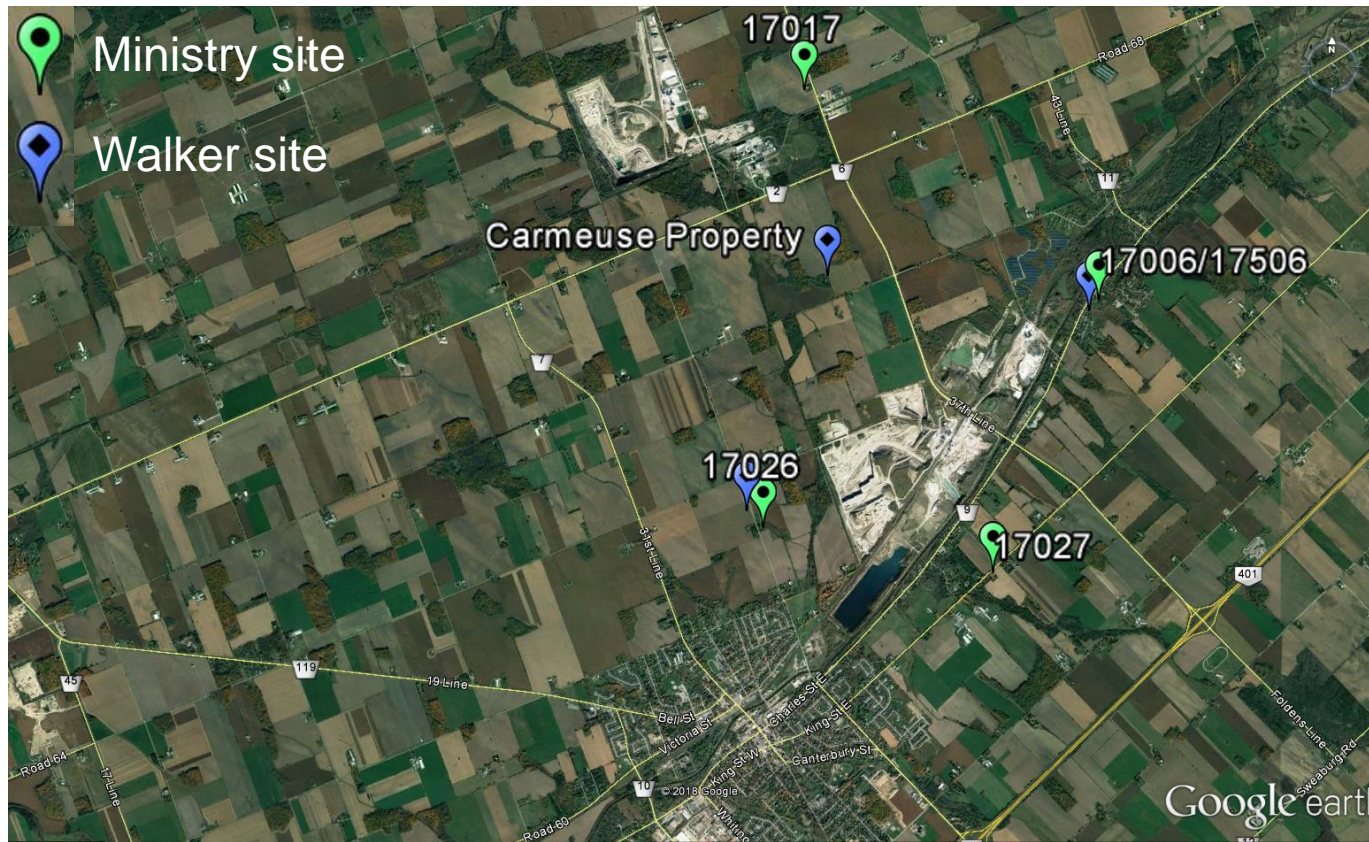
Mallory Jutzi, Air Quality Analyst  
Ministry of the Environment, Conservation and Parks  
August 22, 2018

# Objectives

- Review submitted questions from the CLC and ministry responses
- Discuss 2016-2017 Beachville air monitoring results
- Highlight recent air monitoring network updates

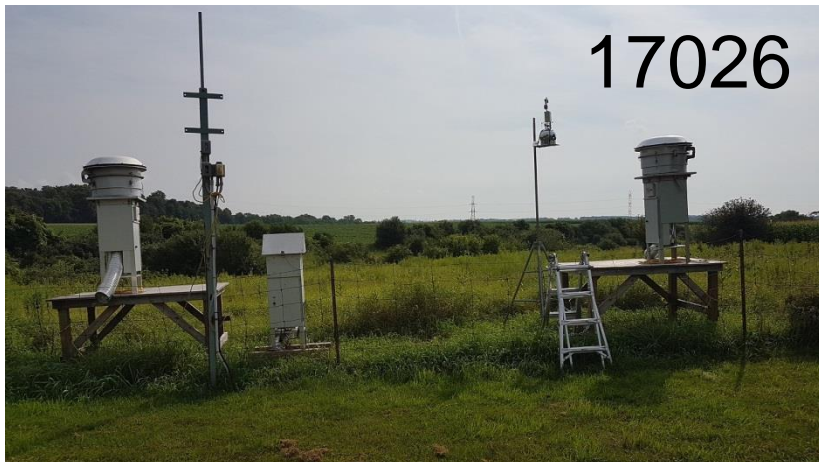
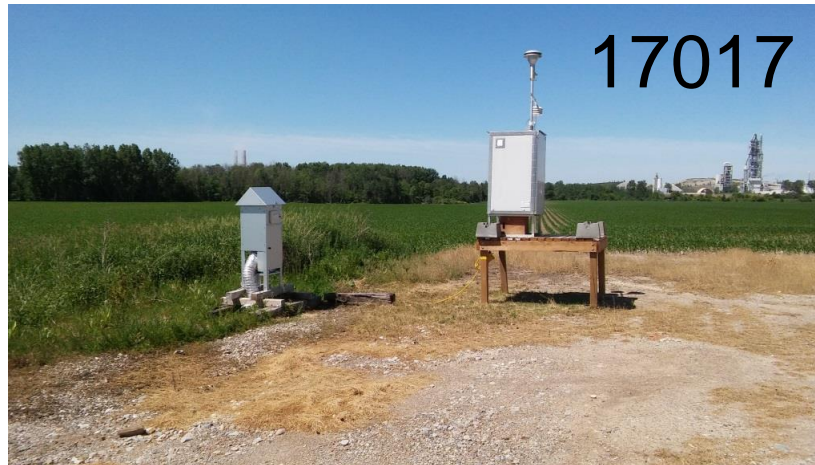
# Beachville Monitoring Locations

Overview of current monitoring locations in Beachville:



# Beachville Monitoring Locations

Overview of current monitoring locations in Beachville



# Beachville Monitoring Locations

Overview of current monitoring locations in Beachville



17006/  
17506



Walker -  
Carmeuse



# Beachville Monitoring Locations

## **CLC Question:** How were the locations of the ministry monitors decided?

The ministry has carried out air monitoring in the Beachville area since 1975. The number and location of monitoring sites has changed over time.

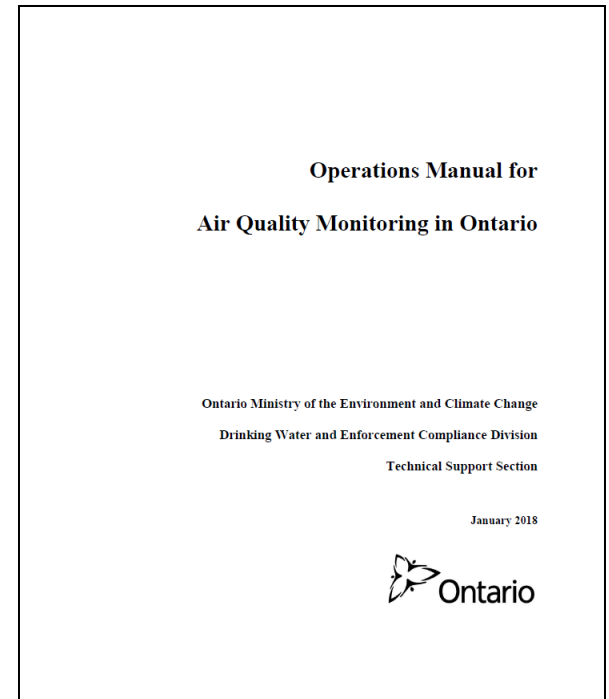
The ministry's Beachville air monitoring program was designed to study the impacts of major quarry, cement, and lime operations on local particulate levels.

Monitoring locations and parameters were chosen based on the sources that the ministry was interested in studying, prevailing wind directions, and logistical considerations, in accordance with the siting criteria outlined in the ministry's [\*Operations Manual for Air Quality Monitoring in Ontario\*](#).

# Siting Criteria

**CLC Question:** Does the air monitoring station at the Bell property meet the ministry's criteria from the *Operations Manual for Air Quality Monitoring in Ontario*?

The Operation Manual indicates that the siting criteria must be followed as closely as possible, however, recognizes that practical considerations may require some deviations from the criteria.



<https://www.ontario.ca/document/operations-manual-air-quality-monitoring-ontario-0>

# Siting Criteria

**CLC Question:** Does the air monitoring station at the Bell property meet the ministry's criteria from the *Operations Manual for Air Quality Monitoring in Ontario*?

Criteria	Met?
Greater than 20 metres from trees	✘
Distance from sampler to any air flow obstacle (building, terrain features, trees, etc.) must be >2x height of obstacle above the sampler	✓
Unrestricted airflow in 3 of the 4 wind quadrants	✓
No nearby furnace or incineration flues	✓
Distance from major roadways should be >20-25 m	✓
Height of sampler above ground	✓



Figure: Station 17006/17506 (Bell building) in relation to the former station location (12 Vine Street), and the upwind industrial source. The distances from samplers to the closest tree lines are marked (17.7 m and 24 m).

# Siting Criteria

**CLC Question:** Does the air monitoring station at the Bell property meet the ministry's criteria from the *Operations Manual for Air Quality Monitoring in Ontario*?

- This station meets all the criteria except for distance from trees. The Operations Manual requires a distance of >20 metres and the closest trees are located 17.7 metres away from the samplers.
- The station is unobstructed in the direction of the industrial source.
- Other critical considerations: site security; distance from previous site locations for data comparison purposes.
- The ministry has determined that this station sufficiently meets the *Operations Manual* criteria.

# Data Comparison

**CLC Question:** Can a side-by-side comparison be provided of data from the old monitoring location at the school with the new monitoring location on the Bell property (moved in 2017)?

Yes, when more data is available – ideally, a minimum of one year of data collected at the new station location would be used for this type of comparison.

Station 17006/17506 moved from 12 Vine Street to the Bell building on Canfield Lane in September 2017.

The ministry can provide a comparison of the data at a future CLC meeting once a full year of the data is available.

# Historical Data Quality

**CLC Question:** We have heard there are issues with the quality of historical data, and that historical data will be used in the air quality study. Is the historical data good quality? How will the historical data be used?

**Industry data (2003-2013):** industry conducted self-monitoring of particulate (TSP, PM<sub>10</sub>, and PM<sub>2.5</sub>) using GRIMM particulate samplers. The ministry determined that Carmeuse's particulate monitoring data could not be used to make conclusions on background air quality for Walker's EA.

**Ministry data (2013-present):** the ministry monitored TSP, PM<sub>10</sub>, and metals using high-volume particulate samplers. Data from 2016 and 2017 were provided to Walker for use in their air quality study, in order to assess background conditions of the study area.

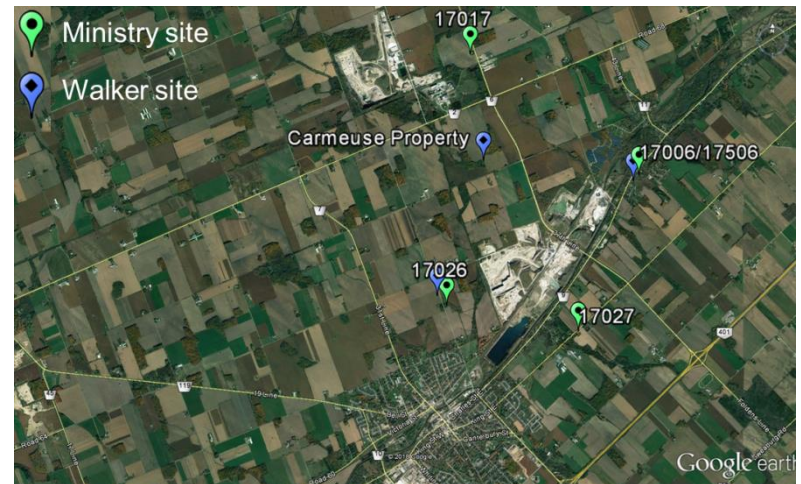
# Walker Monitoring Locations

**CLC Question:** Why was it decided that it was ok for Walker not to have a monitoring station to the east of the proposed landfill site (co-located with the ministry monitoring station)?

The number of stations the ministry considers acceptable for ambient air quality monitoring depends on the purpose of the study, the project, and the pollutants of interest.

Typically, when monitoring occurs, a minimum of two air monitoring stations are used (upwind and downwind of a source).

The ministry considers Walker's proposal to monitor at three locations (one upwind and two downwind) acceptable for characterizing ambient air quality in the Beachville area.



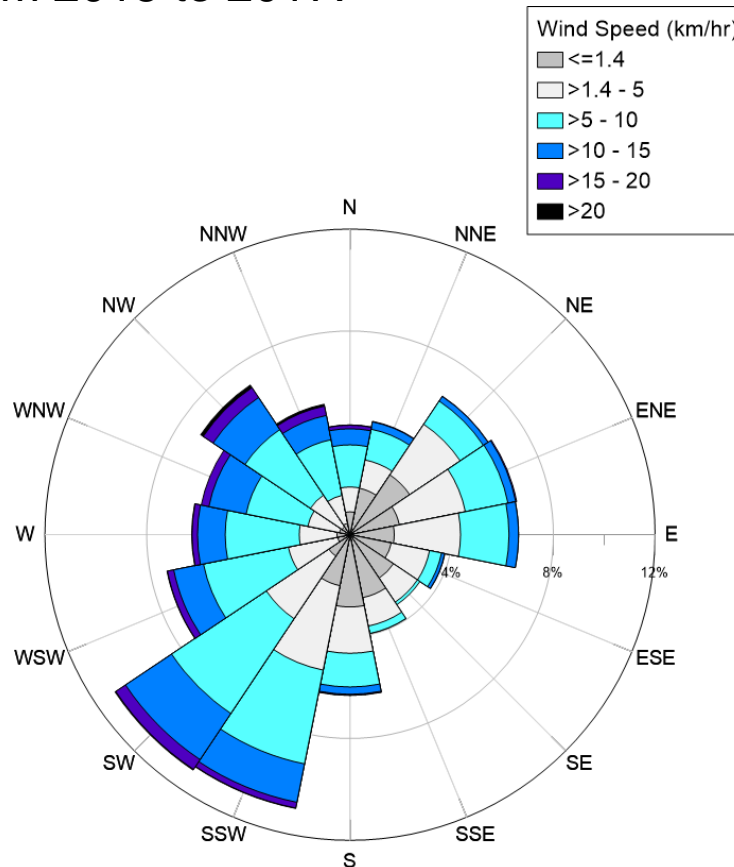
# Prevailing Wind Direction

## CLC Question: What is the prevailing wind direction in Beachville?

The wind is predominantly coming from the southwest and south-southwest, based on data collected at the ministry's Station 17006/17506 from 2015 to 2017.

**Figure:** Beachville wind rose (2015-2017). In a wind rose, each bin shows the percentage of time that wind was blowing from a particular direction and speed.

**Table:** The corresponding percentage of time that wind was coming from a particular direction.



Wind Direction	% of Time
N	4.3
NNE	4.5
NE	6.5
ENE	6.7
E	6.6
ESE	3.8
SE	3.3
SSE	4.0
S	6.3
SSW	11.0
SW	11.1
WSW	7.3
W	6.2
WNW	6.0
NW	7.1
NNW	5.2



# Wind speed

CLC Question: Is there a maximum or minimum wind speed required for the monitor to get a proper reading?

**Particulate monitors:** No, because the monitoring instruments have a controlled flow rate (for a hi-vol, 40 cubic feet per minute, about 19 litres per second). The same volume of air will be sampled on windy days as on calm days.

**Wind monitors:** Yes, there is a minimum wind speed required to get the propeller on the wind speed monitor to move (~0.4 m/s or 1.4 km/hr – a very light breeze).



A hi-volume particulate monitor



Collecting an exposed filter from a hi-volume particulate monitor



Wind speed and wind direction monitor

# 2016-2017 Air Quality Results

**CLC Question:** Can the ministry provide a characterization of the current air quality in Beachville (snap shot)?

The ministry has reviewed the results of particulate sampling in the Beachville area in 2016 and 2017.

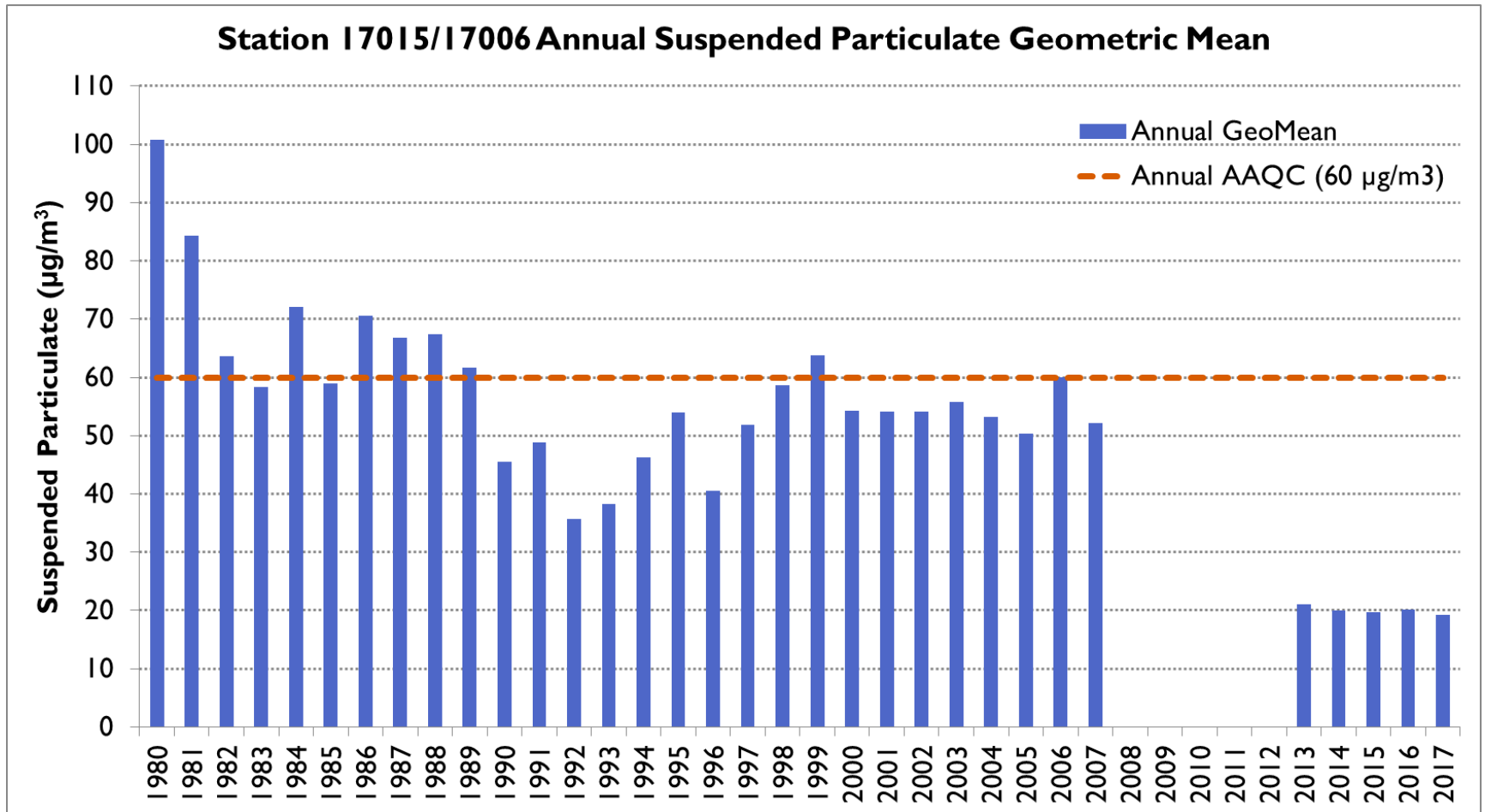
A summary of this review is available on the Southwestern Public Health website at: <https://www.swpublichealth.ca/your-environment/environmental-health/air-quality/beachville-area-air-quality>

Key results:

- Particulate concentrations were generally below the ministry's Ambient Air Quality Criteria (AAQC)
- Concentration of metals were very low, with no exceedances of applicable AAQC
- Suspended particulate concentrations have declined from historical levels and have been relatively stable over the last five years (2013-2017)

*Note: Previous ministry summaries are also available on the Health Unit's website.*

# 2016-2017 Air Quality Results



# 2016-2017 Air Quality Results

## Key results (continued):

- Suspended particulate concentrations were below the annual AAQC
- Exceedances of the 24-hour AAQC for total suspended particulate (TSP) ( $120 \mu\text{g}/\text{m}^3$ ) were observed in 3% of the samples collected at Station 17017  
TSP exceedances were not observed at the other three monitoring stations
- Exceedances of the 24-hour AAQC for  $\text{PM}_{10}$  ( $50 \mu\text{g}/\text{m}^3$ ) were observed in 1% of the samples collected at Station 17506



# Beta Attenuation Monitors (BAMs)

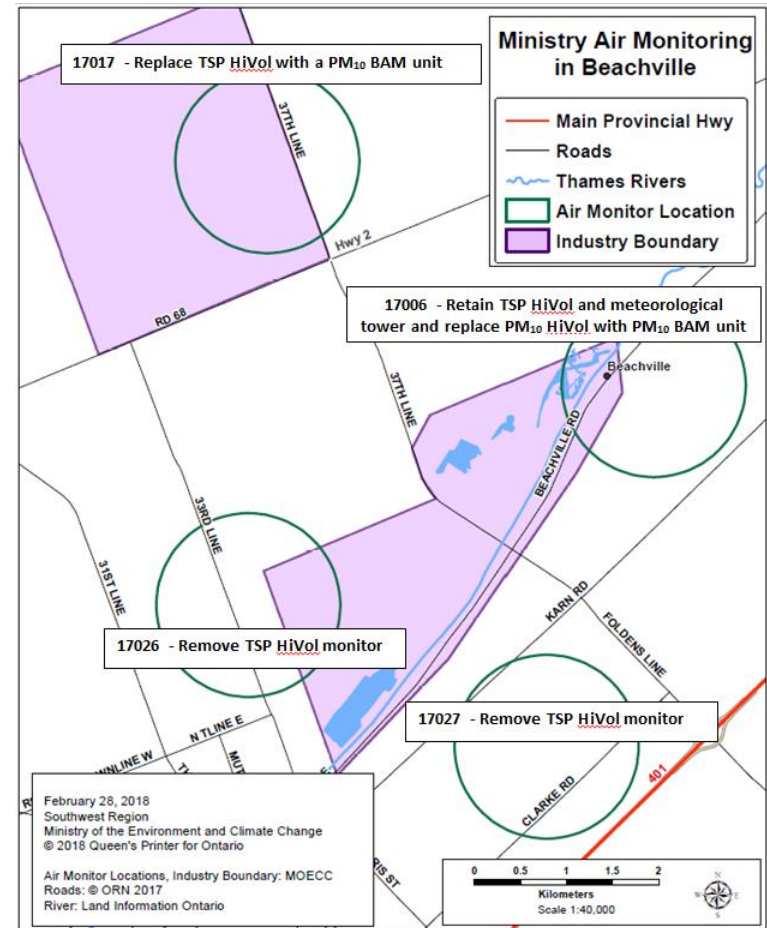
In May 2018, the ministry installed two continuous Beta Attenuation Monitors (BAMs) at Station 17017 and 17006/17506, which measure PM<sub>10</sub> on an hourly basis, 365 days per year.

The existing hi-volume monitors and new BAMS will be operated concurrently for a temporary period.

Depending on the performance of the BAMs, and after data quality and monitor reliability have been reviewed, the ministry intends on removing four of the five HiVol monitors. Stations 17017 and 17006/17506 would remain.

A summary of this information is available on the Health Unit's website:

<https://www.swpublichealth.ca/your-environment/environmental-health/air-quality/beachville-area-air-quality>

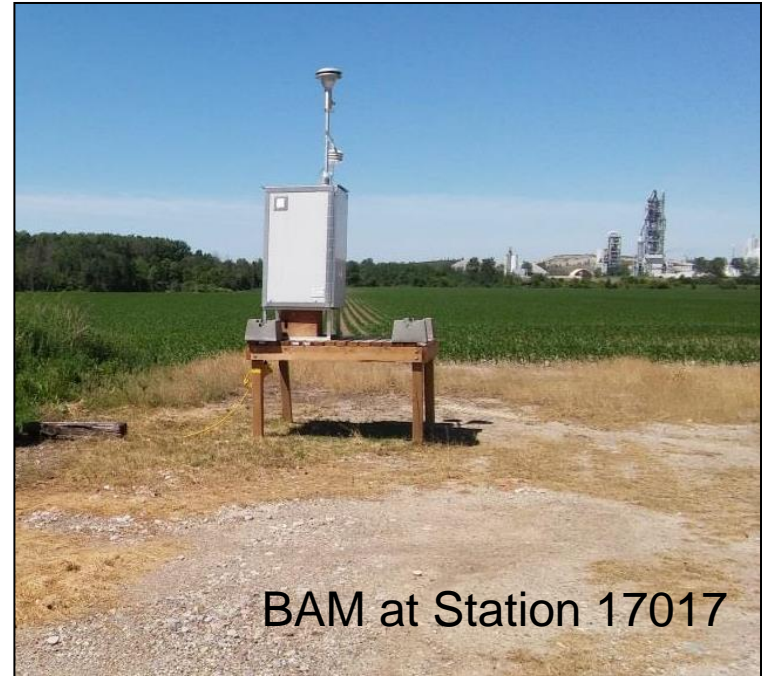


# Beta Attenuation Monitors (BAMs)

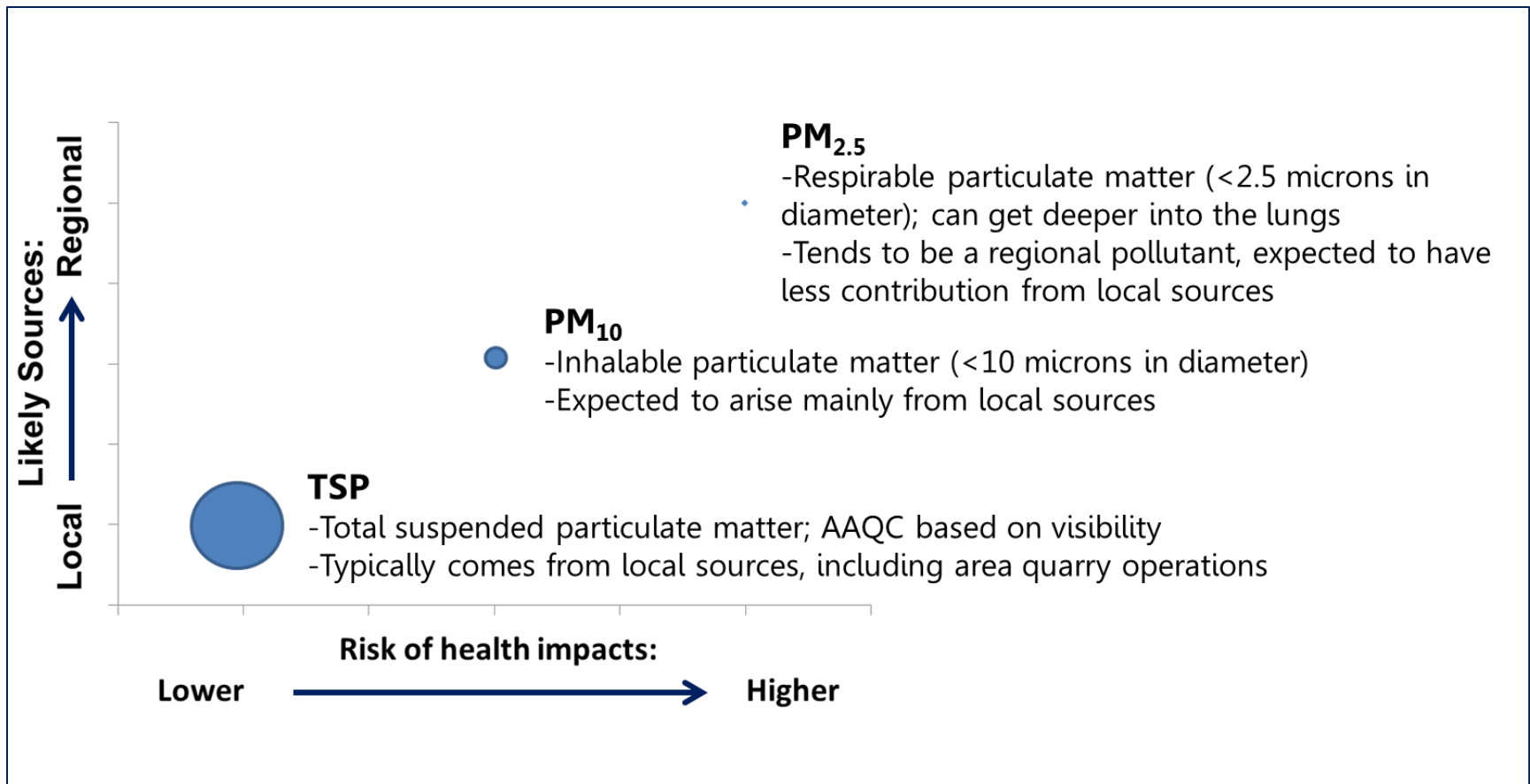
The ministry is focusing on monitoring  $PM_{10}$  because this particulate size fraction provides information relevant for assessing health impacts as well as contributions from local sources.

An hourly monitoring frequency provides high time resolution data, which can capture information on specific activities or incidents within the airshed.

With continuous data collection, fewer monitoring sites are required to capture air quality information. More data will be collected overall.



# Beta Attenuation Monitors (BAMs)



# Conclusion & Questions

The ministry's Beachville air monitoring program was designed to study the impacts of major quarry operations on local particulate levels.

As part of Walker's Air Study Work Plan, Walker is required to monitor additional parameters associated with landfilling activities (sulphur compounds, volatile organic compounds, and additional particulate fractions).

Walker will use this data to characterize ambient air quality as a part of their Environmental Assessment, which will evaluate the effects of the proposed undertaking on air quality.





CLC Meeting 33 – August 22, 2018

**FIELD WORK UPDATE**  
**OVERVIEW OF REMAINING CONSULTATION ACTIVITIES**  
**FACILITY CHARACTERISTICS ASSUMPTIONS REVIEW**

# Field Work since May Meeting



Southwestern Landfill EA

- Ecology surveys:
  - Basking Turtles
  - Breeding Birds
  - Amphibians
  - Dragonflies, Damselflies, Butterflies
  - Ecological Land Classification
- Groundwater monitoring
- Surface water monitoring
- Air monitoring



# Upcoming Field Work



Southwestern Landfill EA

- Ecology surveys, including fish and habitat survey in the flooded quarry
- Groundwater monitoring
- Surface water monitoring
- Air monitoring
- Archaeology survey

# EA & CLC Consultation Timeline



Southwestern Landfill EA

## CLC Consultation Summary

Aug 2018	Nov 2018	Mar 2019	May 2019	June 2019	July 2019	Fall 2019
<p><b><u>Meeting</u></b></p> <p>Present Remaining Consultation Activities Timeline</p> <p>Facility Characteristics Review</p>	<p><b><u>Baseline Meeting 1</u></b></p> <p><b>Summaries:</b></p> <ul style="list-style-type: none"> <li>- Air Quality</li> <li>- Ecology</li> <li>- Economic</li> <li>- Archaeology</li> </ul>	<p><b><u>Baseline Meeting 2</u></b></p> <p><b>Summaries:</b></p> <ul style="list-style-type: none"> <li>- Groundwater</li> <li>- Surface water</li> <li>- Social</li> <li>- Traffic</li> </ul>	<p>Provide Draft EA Report for Comment</p> <p><i>(no meeting)</i></p>	<p><b><u>Workshop</u></b></p> <ul style="list-style-type: none"> <li>- Review draft EA Report</li> <li>- Design &amp; Mitigation</li> <li>- Cumulative Effects</li> <li>- Climate Change</li> </ul>	<p><b><u>Potential Meeting</u></b></p> <p>Additional Design and Mitigation Discussion</p>	<p><b><u>Notice of Submission of EA meeting</u></b></p>

Dates are subject to change.

# EA & CLC Consultation Timeline



Southwestern Landfill EA

## Baseline Scenario – 2 meetings

- Discuss what the environment is currently like
- We propose to discuss only the studies that have the potential for significant baseline information, so that we can have a valuable in-depth discussion
- Consultation summaries will be provided

### Baseline Mtg #1

#### CLC Mtg 34 - Nov. 2018

- Ecology (with consultant)
- Air Quality
- Economic
- Archaeology

### Baseline Mtg #2

#### CLC Mtg 35 - Mar. 2019

- Groundwater/Surface Water
- Social
- Traffic

# EA & CLC Consultation Timeline



Southwestern Landfill EA

## Release of Draft EA – May 2019

- Release Draft EA for comments and carry out consultation activities on design & mitigation, including:
  - Design & Mitigation CLC Workshop
  - Draft EA Open Agenda CLC Meeting (agenda set by CLC members)

Next slides  
have more  
detail!

# EA & CLC Consultation Timeline



Southwestern Landfill EA

## **Design & Mitigation CLC Workshop – June 2019**

- Saturday workshop to review & gather your input on:
  - Study results (incl. cumulative effects) in relation to design & mitigation
  - Climate change impacts and mitigation measures
- Most of the studies and their results are interconnected, which means the proposed design & mitigation measures are also interconnected
  - Taking a day to review everything together, in context with all of the studies and the full EA report, will be valuable in creating a space for constructive input and in-depth dialogue

# EA & CLC Consultation Timeline



Southwestern Landfill EA

## **Draft EA Open Agenda – July 2019 (CLC Mtg 36)**

- Open agenda to follow up on items from the workshop, or other questions/comments/discussion on any aspect of the Draft EA.
  - We would be looking for questions/topics ahead of time in order to provide an agenda and materials, if necessary.

## **Notice of Submission of Final EA – Fall 2019 (CLC Mtg 37)**

- After Final EA has been submitted
- Discuss how CLC input was integrated into the EA



# EA & CLC Consultation Timeline



Southwestern Landfill EA

## Meeting Commitments

(ToR and CLC Comment Disposition Table)

- ✓ Notice of Commencement of the EA
- ✓ Identification and Evaluation of Alternatives
- ✓ Identification of the Preferred Alternative
- ✓ Development and Review of the Final Technical Work Plans

Plus  
**15 additional meetings**  
since the ToR was  
approved.

---

Finalization of the Baseline Scenario (at least 2 meetings)

Review of the Preferred Design and Mitigation Plans

Prior to release of the Draft EA

Prior to release of the Final EA

Notice of Submission of the EA

Design & Mitigation will be available with the Draft EA, we propose a full day workshop and post-workshop meeting.

# Facility Characteristics Review



Southwestern Landfill EA

- The intention this evening is to briefly review the Facility Characteristics Assumptions in advance of future meetings (existing baseline and design/mitigation)
- The last time we reviewed as a group was November 2016
- The full Facility Characteristics Assumptions Report can be found here:
  - [http://www.walkerea.com/uploads/1133/Doc\\_636264038099686965.pdf](http://www.walkerea.com/uploads/1133/Doc_636264038099686965.pdf)

# Facility Characteristics Review



Southwestern Landfill EA

## **Reminder: What is the Purpose of Facility Characteristics Assumptions?**

- To provide key assumptions about what the site will look like and how it will operate
- For use by the consultants completing Field Work and the Technical Studies for the SWLF EA
- Follows the Landfill Standards
- Are refined based on findings of the Environmental Assessment

# Facility Characteristics Review



Southwestern Landfill EA

## Key Characteristics (see figures)

Total Landfill Site Area	73.9 hectares
Waste Fill Area	54 hectares (132 acres)
Annual Waste Receipt	1.1 million tonnes/yr (inc. soil)
Approx. Average Waste Depth	33 metres
Estimated minimum backfill depth*	5.0 metres
Estimated maximum backfill depth*	22 metres
Estimated average backfill depth*	15 metres

\* Backfill is the soil that is used as fill between the bedrock bottom of the quarry and underside of the landfill liner system. It is shown as green on the following slides 15 and 16.



Figure 1: Site Plan

# Facility Characteristics Review

## Ancillary Infrastructure

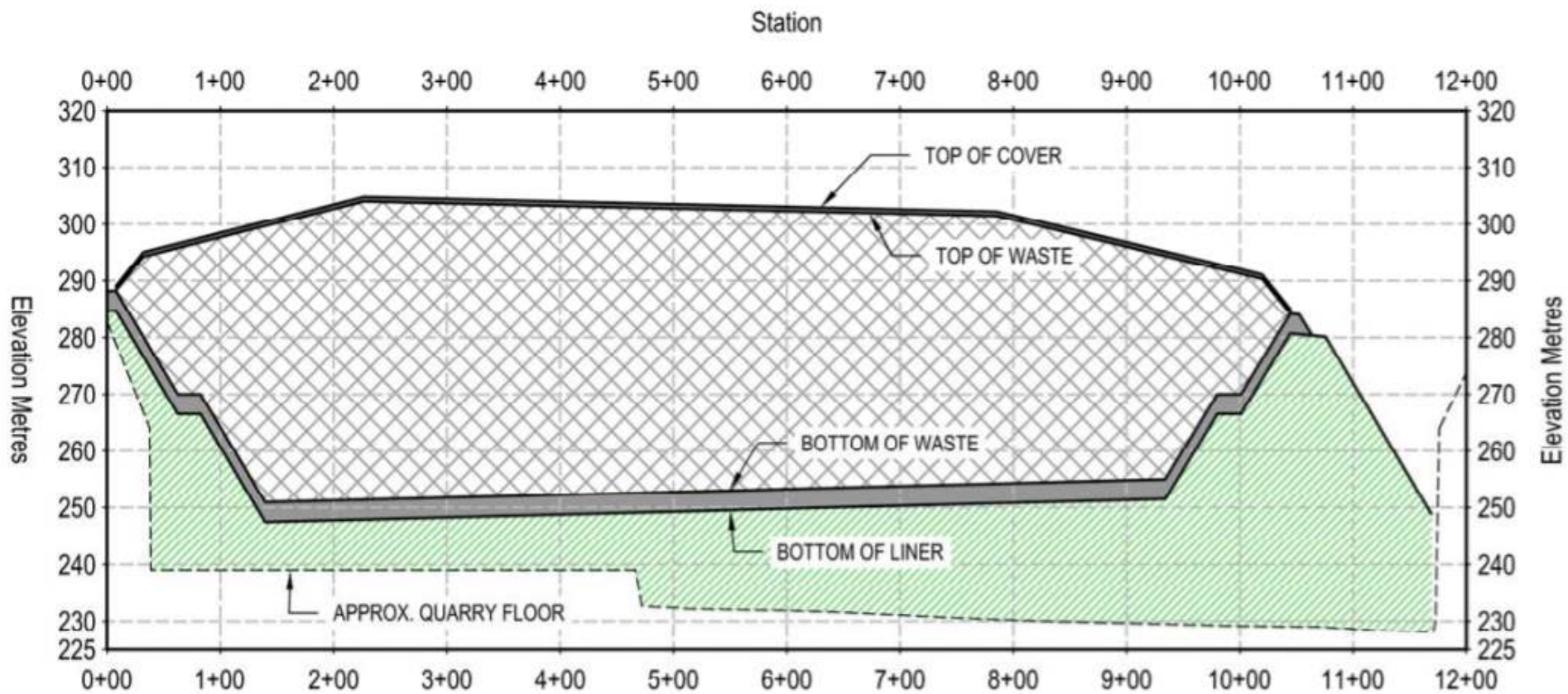
- Offices & Parking lots
- Storm water management
- Leachate holding pond(s)
- Leachate treatment plant
- Landfill gas flares
- Landfill gas utilization
- Equipment parking & maintenance shops
- Etc.

Northwest Corner

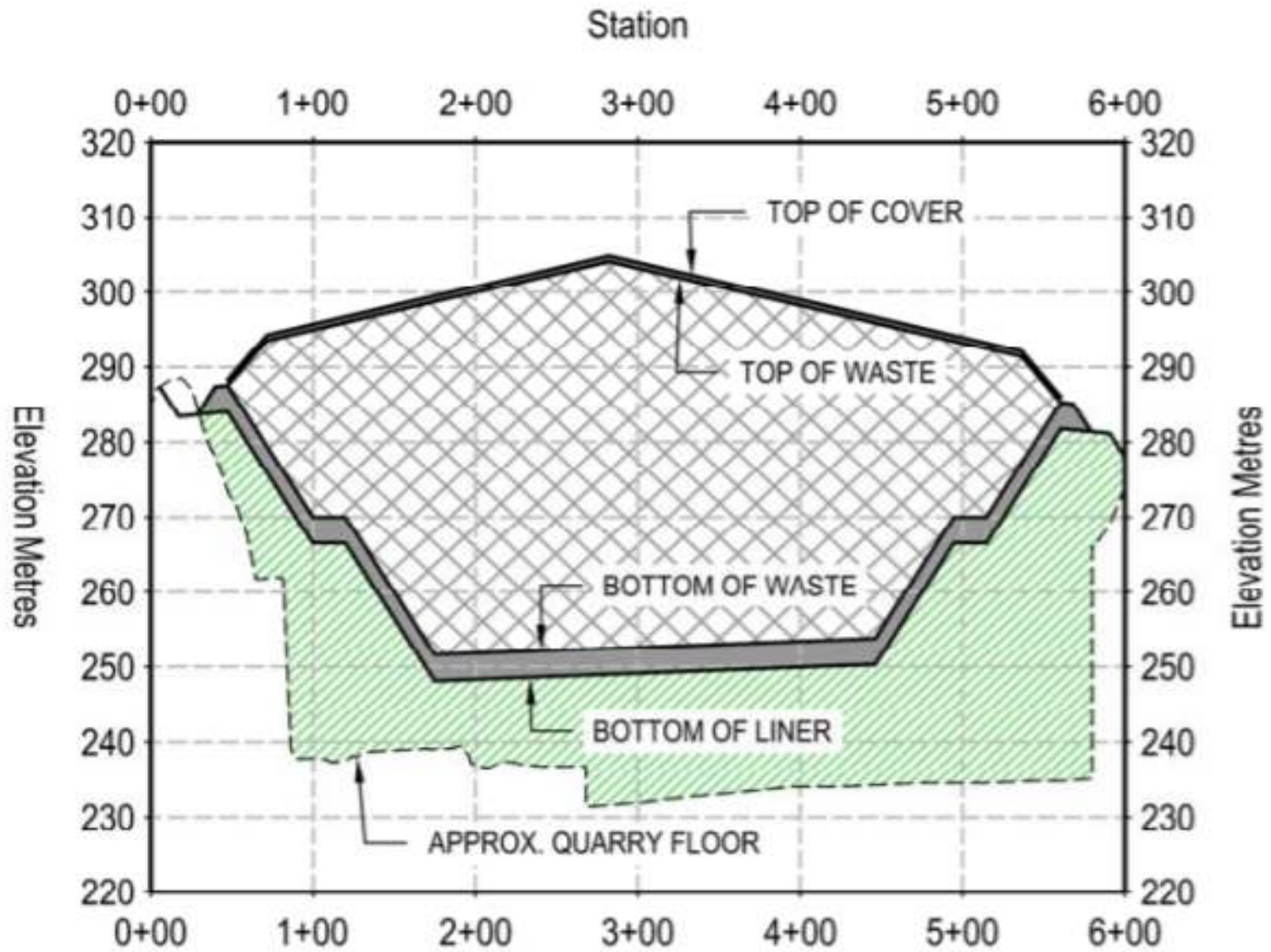


Southwest Corner





**North - South Section View**



**West - East Section View**



# Southwestern Landfill EA CLC Meeting #33

## Quarry Sump Discussion

Disclaimer – this presentation is provided in response to a request by the CLC to have additional discussion pertaining to the current and future quarry sumps and how they will be considered in the context of the proposed Southwestern Landfill design and operations. The information provided is conceptual and intended for discussion purposes only. It should not be reproduced or used for any other purposes.

# Quarry Groundwater Sump

Southwestern Landfill EA

## Plan View

- Sumps advance as quarrying progresses
- Sumps will be connected by a ditch or French drain.
- Need and location for future sumps to be determined by quarry operations (locations noted are approximate)
- Sumps are approximately 5 x 5 m wide and 10 m deep

Current Quarry Sump

Potential Future  
Quarry Sump

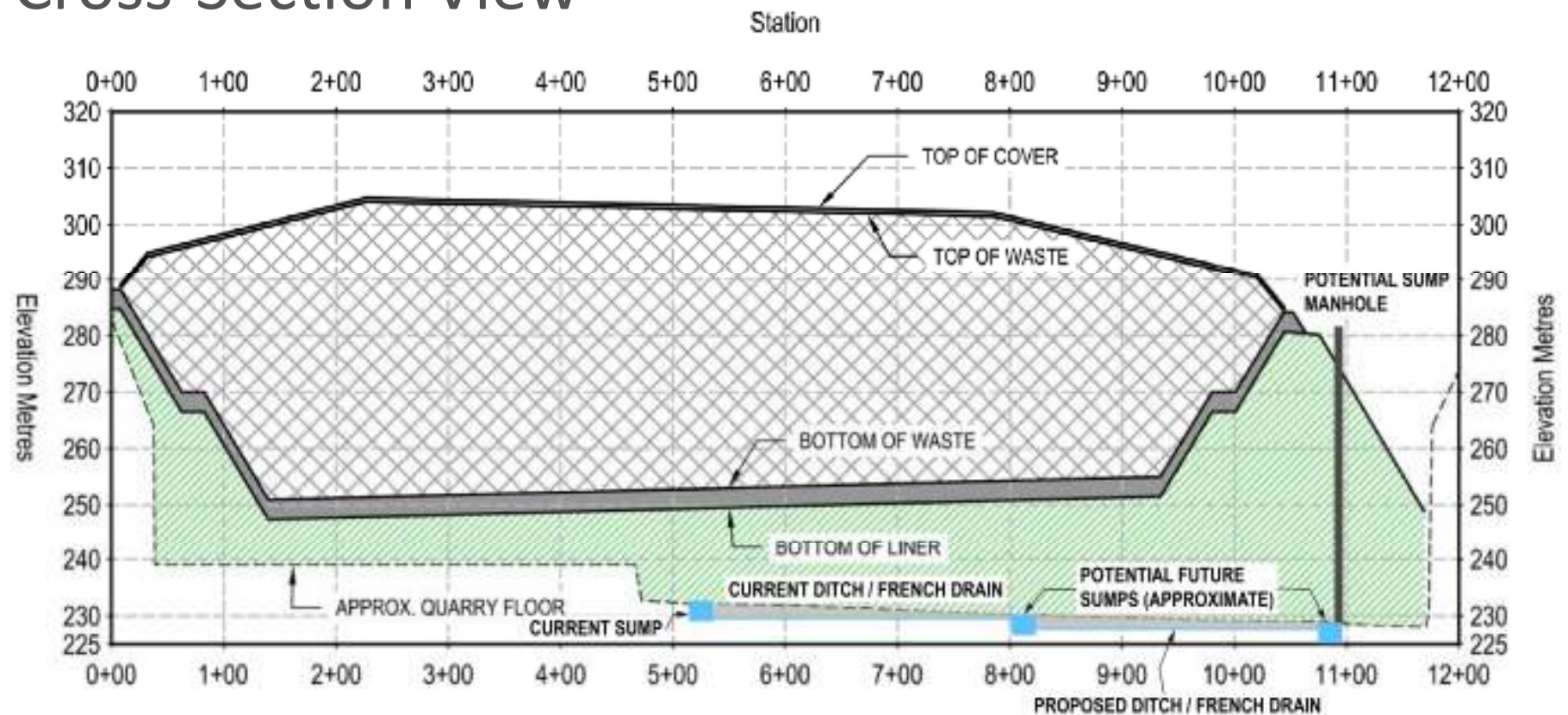
Potential Future  
Quarry Sump



# Quarry Groundwater Sump

Southwestern Landfill EA

## Cross-Section View



**North - South Section View**

## Items from CLC Meeting 32 – May 23, 2018

Business Arising		Responsibility	Response	Status
1	Multiple CLC members expressed interest in observing the fall aquatic survey at the flooded quarry.	WEG	Walker will discuss observers with the ecology consultant and Carmeuse.	In Progress
2	Walker noted the ecologist had observed snapping turtles at the Centreville Pond. A CLC member asked why the ecologist is not carrying out a turtle survey on other ponds toward Beachville.	WEG	Walker to discuss with ecologist.	In Progress
3	Request for an addition to the August agenda – a discussion about the current quarry sump and how it would be integrated into the SWLF, including how the water would be managed during/after construction of the landfill on top. A visual of the cell on top would be helpful.	WEG	Included in August agenda and CLC 33 presentation.	Complete
4	How/when will water management change	WEG	Will be addressed in CLC 33 presentation (above).	Complete

	hands from Carmeuse to Walker?			
5	What is the depth of the current sump and what issues could arise due to landfill construction?	WEG	Will be addressed in CLC 33 presentation (above). Current quarry groundwater sump is approximately 5m x 5m x 10m deep.	Complete
6	Is Walker gathering information from farmers about spraying their fields? There could be an impact from additional birds in the area. A CLC member noted there is a farmer nearby who uses a helicopter for spraying fields.	WEG	Walker reviewed this input with the ecology expert. Bird strikes are typically measured in the number of strikes per 10,000 aircraft movements (for example at Canadian airports when flights are in bird hazard zones). Given the number of crop spraying movements (very few), the fact that they occur in the growing season when birds are dispersed at breeding colonies, and spraying is typically performed with slow flying aircraft, this is unlikely to represent a measurable risk. It was also noted that spraying aircraft work at low altitudes which are well within bird hazard zones. Operators are aware of bird hazard risks and they mitigate for it accordingly.	Complete
7	Provide names and links to historical air quality reports.	WEG	<p>Oxford County manages websites with historic local air quality information. The websites can be found here: <a href="http://www.oxfordcounty.ca/Your-Government/Speak-up-Oxford/Campaign-Details/ArticleId/3712/Beachville-area-air-shed-work-plan-2015">http://www.oxfordcounty.ca/Your-Government/Speak-up-Oxford/Campaign-Details/ArticleId/3712/Beachville-area-air-shed-work-plan-2015</a>.</p> <p><a href="http://www.oxfordcounty.ca/Your-Government/Speak-up-Oxford/Campaign-Details/ArticleId/5648/2016-DRAFT-Beachville-area-air-quality-assessment">http://www.oxfordcounty.ca/Your-Government/Speak-up-Oxford/Campaign-Details/ArticleId/5648/2016-DRAFT-Beachville-area-air-quality-assessment</a></p> <p>Specifically, the MECP provided results of its air quality monitoring program which can be found here: <a href="http://www.oxfordcounty.ca/Portals/15/Documents/Public%20Health/Beachville/MO ECC%20-%20Beachville%20Air%20Monitoring%20Memo%20to%20HU%20.pdf">http://www.oxfordcounty.ca/Portals/15/Documents/Public%20Health/Beachville/MO ECC%20-%20Beachville%20Air%20Monitoring%20Memo%20to%20HU%20.pdf</a></p>	Complete

## Carry Over Items from CLC Meetings (Meetings 16-31)

Business Arising		Responsibility	Response	Status
1	It would be helpful to have a map of all of the wells that will provide data considered during the groundwater study (municipal, private, Carmeuse).	WEG	Walker will work on getting this map prepared. It may come after the background information review is complete (consultant has reviewed all well information).	In Progress
2	Post inputs received and response tables from the technical reviewers and other interested parties on the updated technical work plans.	WEG	Walker to send the CLC a notification once available on the project website.	Complete

## Carry-Over Items from Meetings during ToR Phase:

Business Arising		Responsibility	Response	Status
1	Revisit the Mayor of Ingersoll regarding municipal green initiatives.	Walker Environmental	Discussions with Mayor of Ingersoll will occur at key points in the EA process.	Ongoing
10	If the CLC is aware of local natural/environmental events, provide information to Walker who will then pass it along to Golder Associates.	CLC		Ongoing
11	Contact the Agricultural agencies and let them know the CLC Members would like to attend the meeting when they meet with the technical expert.	Walker Environmental		Ongoing

### **CLC Meeting 33**

Other documents sent as materials, but not included as pages in this Appendix (to cut down on duplication, paper waste and/or very large digital files):

- 1) Transcript: [http://www.walkerea.com/uploads/1231/Doc\\_636795292016897732.pdf](http://www.walkerea.com/uploads/1231/Doc_636795292016897732.pdf)

*Please contact us at [info@walkerea.com](mailto:info@walkerea.com) or toll-free at 1-855-392-5537 if you require assistance accessing this document online or in hard copy.*

# Southwestern Landfill CLC #34

## Meeting Summary

**Date:** Wednesday, November 28, 2018  
**Time:** 6:00 p.m. – 9:00 p.m.  
**Location:** 160 Carnegie Street, Ingersoll (Lower Meeting Room)

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**Start Time: 6:00 pm**

### Materials

1. Agenda
2. Business Arising Report
3. CLC Meeting 33 Summary
4. CLC Meeting 33 Transcript (mailed)
5. Presentation-Beacon Ecology Expert, Ecology Preliminary Existing Conditions
6. Presentation-Preliminary Existing Conditions for Economics, and Air Quality

### MEETING DETAILS BY AGENDA ITEM

---

## Agenda Item #2-Objectives of Meeting and Review of Agenda

### Objectives

- To hear a presentation from Beacon Environmental Consultant, JoAnne Lane on preliminary existing conditions for ecology.
- To hear a presentation from Walker Environmental Group employee, Becky Oehler on preliminary existing conditions for economics and air quality.

## Agenda Item # 4 – Preliminary Existing Conditions

### Overview by Walker

- Information on how the presentation slides were created: Walker created the slides based on the information provided by the ecology, economics and air quality consultants.
- Presentation can be accessed through this link [http://www.walkerea.com/uploads/1232/Doc\\_636795296118097721.pdf](http://www.walkerea.com/uploads/1232/Doc_636795296118097721.pdf).
- Review of topic of presentation – preliminary existing conditions (the environment that is currently present in the local area). Results are preliminary because the final reports for each study are not yet written.

### Presentation by JoAnne Lane – Ecology Study Preliminary Existing Conditions

- The majority of the ecology field work is complete
- Ecology studies focused on certain species of birds, fish, butterflies, damselflies, dragon flies, invertebrates, reptiles, amphibians and mammals, as well as plants
- The Ecology team did background research before going into the field, then conducted their surveys.
  - During field studies, ecologists look for species as well as habitat. It's unlikely they would see every animal in the area, but they can tell which species are likely to be present due to the local habitat
- General findings: the existing ecological conditions are generally consistent with what would be expected within agricultural areas and areas with aggregate extraction within rural southwestern Ontario.



# Southwestern Landfill CLC #34 - Meeting Summary

## Presentation by Walker – Economic Study Preliminary Existing Conditions

- There are four areas of focus: Business Economy, Project Economics (not discussed because they are not existing conditions), Municipal Finance, and Property Value.
- Business Economics: There is a healthy business economy, and there is growth in manufacturing (particularly in the automotive industries).
- Municipal Finance: Zorra, South West Oxford, and Ingersoll have positive economic conditions based on population and housing, municipal revenues and key financial indicators.
- Property Values: Residential values are increasing in value in Ingersoll, Woodstock and Beachville (refer to graph on slide 33). Farmland prices in Oxford County are the highest in Ontario.

## Presentation by Walker – Air Quality Preliminary Existing Conditions

- Majority of substances meet Ministry standards.
- Hydrogen sulphide and chloroform had some exceedances in the spring.
  - Unlikely that these are associated with Carmeuse quarrying activity, still investigating the sources.

**Table 1. Key Discussion Points during Presentations**

Topic	CLC Input/Question	Walker Environmental Group Response	Actions
<b>Information on Existing Conditions</b>	Much of the information discussed during the presentations is preliminary: some studies, such as the air quality monitoring, is not complete. Members would like to see more of a background going into the draft than what is available during this meeting.	WEG recognizes that there will be additional information. WEG will notify the CLC of notable additional information.	Notify CLC of additional notable information on existing conditions.
<b>Documents Reviewed for Ecology Study</b>	A list of background sources for ecology were listed during presentation (i.e Christmas Bird Count). Some of the sources listed did not provide information.	WEG to follow up with Beacon Environmental on what sources provided information on the slides, and CLC to confirm if Ingersoll Naturalist Club sent Beacon Environmental local data.	WEG to follow up with Beacon Environmental  CLC to confirm if data was provided by Ingersoll Naturalist Club to Beacon Environmental
<b>Climate Change and Air Quality</b>	If landfill impacts are modelled, based on existing conditions, how will climate change be taken into account?  Are higher winds taken into account as part of	Climate change is considered during the impact study. In addition, Walker Environmental Group develops climate change plans for each of its sites. This helps the company plan and manage changing climate conditions (i.e. the South Landfill in Niagara did a climate adaption exercise to account for changes to climate change).	Climate change is included in the impact assessment, which will be part of the Draft EA.  RWDI will consider windy days in their assessment, and Walker will be developing a contingency plan for high wind events. (Note: we currently have a plan like this for the South Landfill in Niagara.)

# Southwestern Landfill CLC #34 - Meeting Summary

## Agenda Item #5 – CLC Correspondence

- Walker provided an updated CLC meeting schedule, based on current Draft EA timelines.
- The CLC discussed that there will be a meeting at the release of Draft EA where CLC members will receive copies of the EA and appendices (appendices by USB key unless otherwise requested) and Walker will provide an overview of how to navigate the documents. Walker will also present key findings (i.e. executive summary) as well as results that the CLC has expressed particular interest in throughout past meetings.
- After the meeting at release of Draft EA, CLC members will notify Walker as to topics of interest for additional meetings during the Draft EA review period.

## Agenda Item #6 – Action Items and Next Meeting

- Actions items are captured in the Business Arising Report, part of the materials for the next CLC meeting.

**Next Meeting:** February 27, 2019

Meeting Adjourned at 8:50 pm  
Notes Prepared by: Emily Sykes

## CLC INPUT

The table below tracks input from CLC members, including the topic, input, and Walker’s response or action.

Topic	Input	Response/Action
Ecology – local species	<ul style="list-style-type: none"> <li>• Trumpet swans and snow owls have been seen in the area</li> <li>• Woodland voles have been seen at the Centreville Conservation Area</li> <li>• Peregrine Falcons are well documented in the area</li> </ul>	<ul style="list-style-type: none"> <li>• Beacon to confirm that snowy owls and trumpet swans are included in the background information provided by the public</li> <li>• Woodland voles are very hard to identify, and are often confused with other types of voles (even by experts). Beacon requests that CLC members provide information (times of year/precise locations) about Woodland Vole sightings</li> <li>• Beacon is aware of the peregrine falcons in the area</li> </ul>
Air Quality – Bell Building station	There are burn barrels against the fence of the Bell Building (45 gallon drums, rusty) in the yards of homes that back onto the fence.	<ul style="list-style-type: none"> <li>• Walker to ask RWDI if they have any concerns about the Bell Building station</li> </ul>
Air Quality – potential sources of hydrogen sulphide	<ul style="list-style-type: none"> <li>• At Federal White, people wear respirators on site due to SO<sub>2</sub>, and there are warnings on site</li> <li>• Sulphur is in fertilizer spread on local agricultural fields</li> </ul>	<ul style="list-style-type: none"> <li>• RWDI is looking into these and any other potential sources of hydrogen sulphide</li> </ul>

November 16, 2018

Dear CLC member,

Please find enclosed the materials for the upcoming CLC meeting on **Wednesday, November 28, 2018** at 6:00 pm (dinner will be available at 5:30 pm).

The meeting will focus on the existing conditions for the ecology, economic, and air quality studies. A representative from Beacon Environmental will attend the meeting to discuss the existing conditions for ecology.

**Materials:**

1. Agenda
2. Presentation – Ecology, Economic, and Air Quality existing conditions
3. Business Arising Report – including two attachments:
  - Responses from Ministry of Environment, Conservation and Parks for questions raised at Meeting 33 (August 22, 2018)
  - Written responses to questions from [REDACTED]
4. Draft summary of CLC Meeting 33 (August 22, 2018) – *please let us know if you have any comments by November 30, 2018, when it will be finalized and posted online*
5. Transcript for CLC Meeting 33 (August 22, 2018)

Please let me know if you have any questions in advance of our meeting on the 28<sup>th</sup>.

Warm regards,

Becky Oehler  
Community Engagement Manager  
905-680-3675, [boehler@walkerind.com](mailto:boehler@walkerind.com)



# CLC Meeting 34 – Agenda

## Southwestern Landfill Environmental Assessment

**Date:** Wednesday, November 28, 2018

**Time:** 6:00 pm – 9:00 pm  
(Dinner will be available at 5:30)

**Location:** 160 Carnegie Street, Ingersoll (Lower Meeting Room)

**Meeting Materials:**

- Agenda
- Presentation – Preliminary Existing Conditions (Ecology, Economics, Air Quality)
- Business Arising Report
- CLC Meeting 33 Summary
- CLC Meeting 33 Transcript

	Description	Lead	Duration	End Time
1	Welcome	Facilitator	5 min	6:05
2	Objectives and Review of Agenda	Facilitator	5 min	6:10
3	Q&A from Previous Meeting	Facilitator	10 min	6:20
<b>Presentation: Preliminary Existing Conditions &amp; Discussion</b>				
	<ul style="list-style-type: none"> <li>• Ecology – consultant: Beacon Environmental</li> </ul>			
4	-----BREAK-----	WEG	120 mins	8:20
	<ul style="list-style-type: none"> <li>• Economic</li> <li>• Air Quality</li> </ul>			
7	CLC Correspondence	WEG	15 min	8:35
8	Action Items & Next Meeting	ALL	5 min	8:40
9	CLC Discussion with EA Advisor	CLC/AG	1 hour	9:40



CLC Meeting 34 – November 28, 2018

**PRELIMINARY EXISTING CONDITIONS:  
ECOLOGY, ECONOMIC, AIR QUALITY**

# Today's Discussion



## Southwestern Landfill EA

- The CLC expressed interest in meetings to discuss the findings on the current local environment, called existing conditions.
  - We have used the term “baseline” in the past, but we now realize the more accurate term is “existing conditions”
- The full reports aren't complete for any studies, and some field work is still ongoing (i.e. air monitoring)
- The consultants have provided information so we can discuss the existing conditions, but they are still preliminary
- Reports on how the landfill could impact existing conditions/baseline are not yet complete  
*(impacts & mitigation will be in the Draft EA in May 2019)*

# What are existing conditions?



Southwestern Landfill EA

**“Environment”**: social, economic and natural environment

**“Baseline scenario”**: the local environment as it is now, and how it is forecasted to be until landfill closure, with no landfill present (primarily from a land use planning perspective)

**“Existing conditions”**: the current local environment (one element of the baseline scenario that exists today)

# Today's Discussion



Southwestern Landfill EA

## Today – Preliminary Existing Conditions for:

- 1) Ecology – *Beacon Environmental presentation/Q&A*
- 2) Economic
- 3) Air Quality



Draft Existing Conditions

# Ecology

Aquatic & Terrestrial

Jo-Anne Lane

Beacon Environmental

## **General Findings:**

The existing ecological conditions are generally consistent with what would be expected within agricultural areas and areas with aggregate extraction within rural southwestern Ontario.

## Agencies contacted for background information:

- Fisheries and Oceans Canada (DFO)
- Ministry of Natural Resources and Forestry (MNRF)  
Aylmer District
- Upper Thames River Conservation Authority (UTRCA)

# Aquatic Habitat Characteristics

## Field Work Observed & Measured:

- Water depth, cover, sediment type, stream morphology, etc.

## Preliminary Findings:

- Minimal cover, simple morphology, cobble/gravel substrate at Thames sites
- More vegetated, more complex morphology, finer substrate at tributary sites

# Aquatic Habitat Water Quality



Southwestern Landfill EA

## **Field Work Observed & Measured:**

- Temperature, dissolved oxygen, total dissolved solids, pH, conductivity

## **Preliminary Findings:**

- Water temperature of tributaries lower than Thames
- pH tending to alkaline in most locations
- Dissolved oxygen within range of supporting aquatic life

# Fish Community

- 17 fish species captured during electrofishing as well as traps (hoop net and minnow)
- No rare, threatened, or endangered species were captured

## Cyprinids

Bluntnose Minnow  
Blacknose Dace  
Common Shiner  
Creek Chub  
Fathead Minnow

## Darters

Blackside Darter  
Fantail Darter  
Greenside Darter  
Johnny Darter  
Rainbow Darter

## Sunfishes & Basses

Bluegill  
Pumpkinseed  
Rock Bass  
Smallmouth Bass

## Sticklebacks

Brook Stickleback

## Suckers

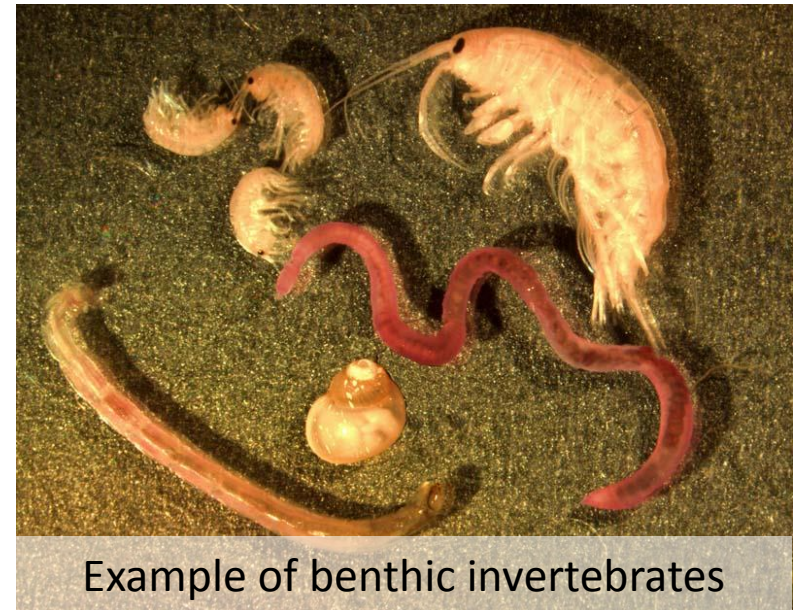
White Sucker

## Salmonids

Brown Trout

# Benthic Invertebrates

- Benthic invertebrates are animals that live in the bottom sediment underwater
- Can be an indicator of water quality
- Higher species diversity in Thames than in tributaries
  - This can indicate less organic pollution



# Freshwater Mussel

- No freshwater mussels observed in Thames River or tributaries
- Expected result based on information from:
  - Department of Fisheries and Oceans
  - Past studies in the area



## Background Information Sources:

- County of Oxford Natural Heritage Study;
- Ingersoll and District Nature Club
- Oxford Trails Committee
- Woodstock Natural Heritage inventory
- Christmas Bird Count data
- Ontario Breeding Bird Atlas data
- Transport Canada Airport Bird Strike data
- Airport Wildlife Management Plans
- UTRCA natural heritage data
- Knowledgeable local naturalists
- MNRF district office
- Official Plan policies and mapping

# Ecological Land Classification

**Purpose:** Classify the ecological communities and vegetation

**Surveys:** May 8, June 25, September 12

**Preliminary Summary:**

- Ten ELC communities mapped
- 220 Species of plants identified
- 73 Non-native (~33%); higher than average
- No Endangered, Threatened or species of Special Concern (19 Putative Butternut; see slide 23)
- No Provincially or Regionally Rare Species

# Breeding Birds

- 55 breeding bird species recorded
- **Highlights:**
  - Two species listed and protected under the *Endangered Species Act*: Bank Swallow (threatened), Eastern Meadowlark (threatened)
  - Five species considered area sensitive (present in large areas of habitat): American Redstart, Eastern Meadowlark, Grasshopper Sparrow, Savannah Sparrow, Yellow-throated Vireo
  - Great Blue Heron / Double-crested Cormorant / Turkey Vulture nesting colony on south side of quarry lake
  - Cliff Swallow and Northern Rough-winged Swallow colony in quarry wall on north side of quarry lake

# Crow Roost Survey

- Crow numbers at Salford Landfill highest from February through March - over 1,500 birds
- Christmas Bird Count data vary from 20 to 40,000, with a high of 90,000
- Crow roosts for the area, including crows using the Salford Landfill, occur in Woodstock along the north shore of Pittock Lake, industrial lands and large treed swamps south of Hwy. 401

# Bird Hazards (In progress)

Gull survey included visits to the study area, Salford Landfill, London Landfill/Quarry, Stratford Landfill, Tillsonburg Airport, Woodstock Aerodome, London Airport, Pittock Lake, and Wildwood Lake

## Key observations so far:

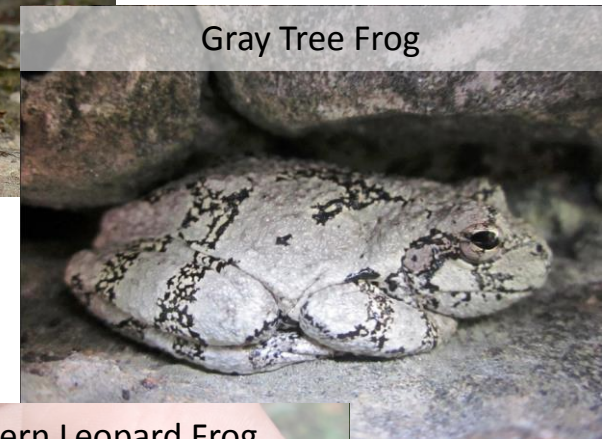
- Gull numbers vary throughout the year in the local area – from < 100 in January - February, to tens of thousands in September - November
- Peak gull number at Salford Landfill during fall was 4,000
- Larger London Landfill during fall peaked at 8,000 gulls
- Significant gull roost at Pittock Lake in October, November, early December with thousands of birds, lower numbers at the quarry lake, and Wildwood Lake

# Amphibians

## Southwestern Landfill EA

- Six common species

- American Toad
- Green Frog
- Gray Treefrog
- Northern Leopard Frog
- Northern Spring Peeper
- Wood Frog



- One location with larger numbers of breeding amphibians – marsh and swamp community northeast of Station 8

# Dragonflies, Damselflies, Butterflies

Southwestern Landfill EA

- 21 species of dragonfly/damselfly and 29 species of butterfly recorded
- Highlights:
  - Eastern Red Damselfly, River Bluet, Azure Bluet, all less common
  - Giant Swallowtail (migrant), Monarch (Special Concern), Wild Indigo Duskywing, Little Glasswing (uncommon)
  - No rare or protected species

# Mammals

- Surveys in February and October, plus observations
- 13 mammals and three reptiles, all commonly associated with rural southern Ontario
  - White-tailed Deer
  - Eastern Coyote
  - Red Fox
  - Eastern Cottontail
  - Deer Mouse
  - Mink
  - Gray Squirrel
  - Northern Short-tailed Shrew
  - Raccoon
  - Striped Skunk
  - Groundhog
  - American Beaver
  - Muskrat
  - Eastern Gartersnake
  - Midland Painted Turtle
  - Snapping Turtle



# Winter Wildlife

Southwestern Landfill EA

- Tracking (tracks, scat, etc.) and wildlife observations
- Nine species identified, all commonly associated with rural southern Ontario



# Turtles

## Southwestern Landfill EA

- Ten spring surveys to look for suitable habitat for Species at Risk turtles (none recorded)
- Most turtles observed at Centreville Pond Conservation Area and Thames River (Midland Painted Turtle, Snapping Turtle)
- A single Snapping Turtle recorded on two days within a remnant watercourse adjacent to the proposed haul route
- Five Midland Painted Turtles observed within the quarry lake on one occasion

Midland Painted Turtle

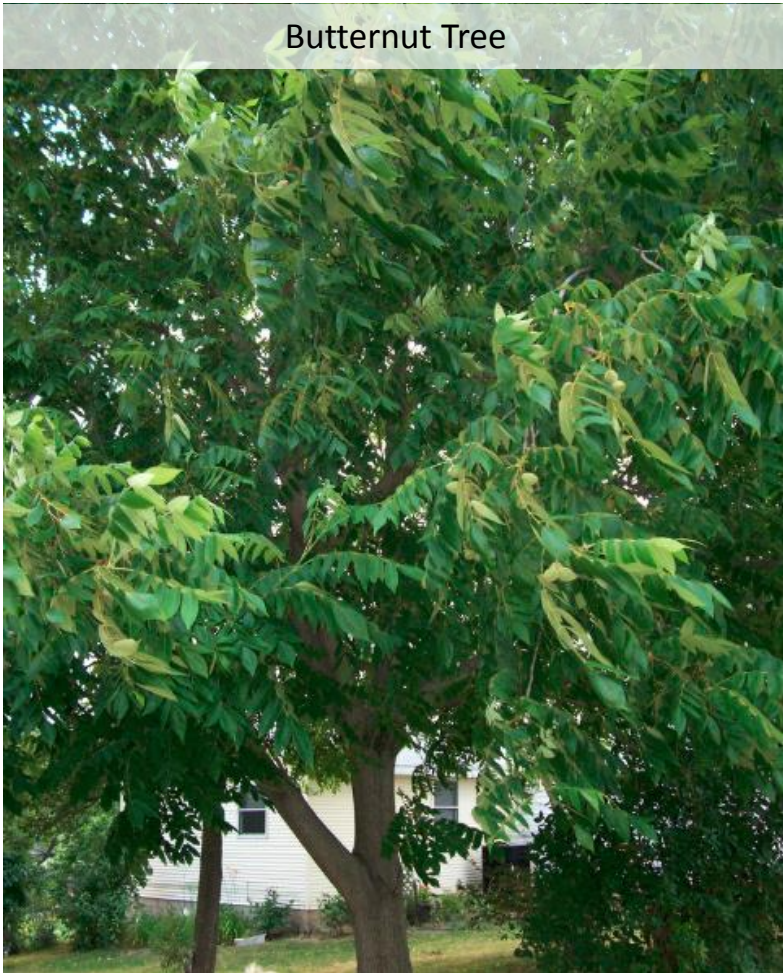


Snapping Turtle  
(Special Concern)



# Butternut Trees

Butternut Tree



- 19 putative Butternut trees were found in one location north of the proposed site
- The 19 trees were tested to see if they are pure Butternut trees or hybrids
- Results: all 19 trees are hybrids (i.e. not regulated under *Endangered Species Act*)

# Landscape Connectivity

- Local and regional pathways of connectivity within the study area
- Thames River is a regional corridor (fish, turtles, mammals, others)
  - *Spiny Softshell Turtles are known to occur upstream and downstream of the study area*
- Other watercourses, hedgerows were identified as local pathways for wildlife

## Local Knowledge Input from the CLC:

CLC Local Knowledge Input	Follow Up
Turkey Vulture roost along the railway tracks along the south end of the current quarry site	Turkey Vulture nesting site located on south side of quarry lake
Sightings of Great Blue Herons, Bald Eagles, Osprey	Heronry located on south side of quarry lake. Eagles and Osprey will occur on occasion.
Spiny Softshell turtles have been observed in the area	Thames River has been identified as a corridor for this species. No suitable basking or breeding habitat is present.

## Local Knowledge Input from the CLC:

CLC Local Knowledge Input	Follow Up
Crow migration route between Woodstock and Salford	A Crow roost survey was carried out (see slide 16)
Mammals seen in the area: deer, rabbits, coyote, fox, groundhog, woodland vole, beaver, raccoon, skunk, long tailed weasel, fisher, muskrat, possum, mink, badger, black/grey/red squirrels, chipmunks	A number of mammals have been recorded.  Team would like additional information on these observations. In particular, Woodland Vole, Long-tailed Weasel, Fisher and American Badger.

Draft Existing Conditions

# Economics

- There are four areas of focus:
  1. Business Economy
  2. Project Economics → Not Existing Conditions
  3. Municipal Finance
  4. Property Value
- There are existing conditions for each of these



# 1. Business Economy

## **Preliminary Findings:**

- Healthy business economy (particularly manufacturing)
- Growth in manufacturing, particularly in the automotive industries

# 3. Municipal Finance

- Zorra, South West Oxford and Ingersoll have positive economic conditions
  - Population and housing is growing
  - Municipal revenues are stable and sufficient to cover operating costs
  - All key financial indicators exceed provincial threshold levels (standards)

# 3. Municipal Finance

## Population & Households:

- For Zorra, South West Oxford and Ingersoll (2017):
  - Population = 26,800 (30% of Oxford County's population)
  - Households = 11,900 (26% of Oxford County's households)
- Population has grown in Ingersoll and South West Oxford since 2010, with a slight decrease in Zorra
- The number of households has grown in all three municipalities

# 4. Property Values

- Residential properties are increasing in value
- There is a high demand for local real estate and a low number of available homes
- Farm land prices in Oxford County are the highest in Ontario
- In Beachville, residential housing prices show strong growth. Many of the homes are on large, unique lots, so prices are higher than in typical urban settings

# 4. Property Values



Since 2000, Woodstock sale prices have increased faster than those in the Ingersoll or Beachville areas.

## Local Knowledge Input from the CLC:

CLC Local Knowledge Input	Follow Up
Oxford County planned to study Beachville water and wastewater servicing, which was to start in 2017	Kier Corp will find out the status of this study and its results in upcoming discussions with local municipal officials
The majority of businesses in the downtown core are owned by local residents living in Ingersoll	Agreed. This will be revisited as we model potential landfill impacts on the local economy.

Draft Existing Conditions

# Air Quality

Air monitors has been collecting data for different parameters, some that are already monitored by the Ministry of Environment, Conservation and Parks (MECP) and some that are not.

- Volatile Organic Compounds (VOCs)
- Sulphur compounds
- Particulate Matter
  - Total Suspended Particulate
  - PM<sub>10</sub>
  - PM<sub>2.5</sub>



## Preliminary Findings

- Majority of substances meet Ministry standards
- Hydrogen sulphide and chloroform had some exceedances in the spring
- It's unlikely that the exceedances are associated with quarrying activity because:
  - The exceedances were upwind and downwind of the facility
  - These parameters aren't associated with quarrying or lime kiln activity

## Local Knowledge Input from the CLC:

CLC Local Knowledge Input	Follow Up
<p>The valley can act as a wind tunnel. Take into consideration for the study, including escape litter.</p>	<p>Meteorological data will be used for the area, including a review of data collected by the Ministry at their monitoring station at the Bell Canada building.</p> <p>Topography will be taken into account when modeling the landfill impacts.</p>

## **CLC Meeting #34 - Definitions**

**Endangered species:** a wildlife species that is facing imminent extirpation or extinction<sup>1</sup>

**Extinct species:** a wildlife species that no longer exists<sup>1</sup>

**Extirpated species:** a wildlife species that no longer exists in the wild in Canada, but exists elsewhere in the wild<sup>1</sup>

**Rare species:** a species that is uncommon, scarce, or infrequently encountered on the landscape

**Special concern species:** a wildlife species that may become a threatened or an endangered species because of a combination of biological characteristics and identified threats<sup>1</sup>

**Threatened species:** a wildlife species that is likely to become endangered if nothing is done to reverse the factors leading to its extirpation or extinction<sup>1</sup>

<sup>1</sup>Species at Risk public registry: glossary of terms

<https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry/glossary-terms>

## CLC Meeting Schedule

After the August 22, 2018 CLC meeting, Walker received input on the proposed consultation schedule from CLC members through Anneliese Grieve, Independent CLC Advisor. The meeting schedule below reflects the comments received.

Dates may be adjusted to reflect changes in EA process timeline.  
Any changes will be discussed with the CLC.

Nov 28, 2018	Meeting – Baseline #1 <ul style="list-style-type: none"> <li>• Ecology (consultant attends)</li> <li>• Air Quality</li> <li>• Economic</li> </ul>
Feb 27, 2019	Meeting – Baseline #2 <ul style="list-style-type: none"> <li>• Groundwater/Surface Water</li> <li>• Social</li> <li>• Traffic</li> <li>• Archaeology</li> </ul>
Early May 2019	<i>Release of Draft EA</i> Meeting – Release of Draft EA <ul style="list-style-type: none"> <li>• Executive Summary (key findings)</li> <li>• Table of Contents Review (how to navigate the document and appendices)</li> </ul>
Jun 2019	Meeting - Design & Mitigation #1 <i>(Consultation on Draft EA)</i>
Jul 2019	Meeting - Design & Mitigation #2 <i>(Consultation on Draft EA)</i>
Aug 2019	Deadline for comments <i>(date TBD)</i>
Oct 2019	Meeting – Notice of EA Submission <i>(date TBD)</i>

### Notes:

- Walker will work to provide meeting transcripts and summaries as soon as possible after the May, June, and July meetings in order to make them available as a reference when CLC members are reviewing the Draft EA.

## Items from CLC Meeting 33 – August 22, 2018

Business Arising		Responsibility	Response	Status
1	CLC member would like Walker to contact Beacon and see if there is a way to anticipate the number of gulls or other birds at a landfill, and question what measures are in place for when a group of birds disperses quickly. Members would like Walker to follow-up with Beacon to assess the level of risk, and clarify why the number of strikes per 10,000 aircraft movements is sufficient.	WEG/Beacon		In Progress
2	CLC member noted that there are neighbours with burn barrels, and is concerned this may affect samples. Would like MOECP to ask field techs to follow-up on next visit.	MECP	<i>See MECP response in Attachment 1.</i>	Complete
3	CLC member requests Ministry to provide what the data completeness on each monitoring station of the last 2 years in the Beachville area is.	MECP	<i>See MECP response in Attachment 1.</i>	Complete
4	CLC member would like to see the air monitoring schedule. Ministry to email schedule/link to CLC member.	MECP	<i>See MECP response in Attachment 1.</i>	Complete
5	CLC member wants to know how local topography in the area might impact wind direction. Requested to have the Ministry look at recent data or studies in the area.	MECP	<i>See MECP response in Attachment 1.</i>	Complete
7	CLC members would like Walker to follow-up with traffic consultant, to see what information has been received from the MTO on the County Road 6 interchange.	WEG		In progress
8	Provide CLC answers to MC's questions that were sent via email and distribute to CLC members.	WEG	<i>See responses to MC's questions in Attachment 2.</i>	Completed

## Carry Over Items from CLC Meetings (Meetings 16-32)

Business Arising		Responsibility	Response	Status
9	It would be helpful to have a map of all of the wells that will provide data considered during the groundwater study (municipal, private, Carmeuse).	WEG	Walker will work on getting this map prepared. It may come after the background information review is complete (consultant has reviewed all well information).	In progress
10	Post inputs received and response tables from the technical reviewers and other interested parties on the updated technical work plans.	WEG	Walker to send the CLC a notification once available on the project website.	In progress

## Carry-Over Items from Meetings during ToR Phase:

Business Arising		Responsibility	Response	Status
11	Revisit the Mayor of Ingersoll regarding municipal green initiatives.	Walker Environmental	Discussions with Mayor of Ingersoll will occur at key points in the EA process.	Ongoing
12	If the CLC is aware of local natural/environmental events, provide information to Walker who will then pass it along to Golder Associates.	CLC		Ongoing
13	Contact the Agricultural agencies and let them know the CLC Members would like to attend the meeting when they meet with the technical expert.	Walker Environmental		Ongoing

## **Meeting 34 Business Arising Report – Attachment 1**

### **Responses from the Ministry of Environment, Conservation and Parks (MECP) to four questions posed by the Southwestern Landfill Community Liaison Committee at Meeting #33 on August 22, 2018.**

#### **Question 1:**

CLC member noted that there are neighbours with burn barrels, and is concerned this may affect samples. Would like MOECP to ask field techs to follow-up on next visit.

#### **MECP Response:**

The ministry staff have followed up on this item. On November 13, 2018, ministry staff attended the Bell monitoring site (Station 17006/17506) to look for burn barrels and did not observe any.

Historically, staff have not noticed any burning while on location. Should CLC members have information about active burning at the site we would ask that they contact the ministry to report it.

#### **Question 2:**

CLC member requests Ministry to provide what the data completeness on each monitoring station of the last 2 years in the Beachville area is.

#### **MECP Response:**

On an annual basis, all Beachville monitoring stations met the data completeness criteria in 2016 and 2017. On a seasonal basis, some stations did not meet the data completeness criteria for one or more season (these are indicated in red font in the tables below).

Ministry staff strive to meet the data completeness criteria as best as possible, and ensure that the air monitoring instruments are regularly inspected and maintained. However, samples may be invalidated for a variety of reasons, such as loss of power to the site, failure of instrument components, or damage to the sample filters due to field or laboratory conditions.

The tables below show the number of invalid samples at the ministry's total suspended particulate (TSP) and particulate matter less than 10 microns in diameter (known as PM10)

monitoring stations in Beachville for 2016 and 2017, and each of the four seasons (quarters Q1-Q4) within the respective two years.

The stations with 73% data completeness for a season were missing 4 of the potential 15 samples in that season. This is marginally below the data completeness criteria, and so the annual average is not anticipated to be strongly impacted by stations that have one or more season with 73% data availability.

There were 10 samples missed in the fourth quarter of 2017 at Station 17017, due to power issues at the site (the energy provider stopped the power supply to this site, and the ministry followed up to have it restored). As a result, the data completeness for this quarter was 33%. The 2017 annual data completeness at this station was 82%. However, the 2017 annual mean calculated at 17017 may be considered invalid under the Ministry's *Operations Manual for Air Quality Monitoring in Ontario* ("Operations Manual") due to the data completeness criteria not being met in Q4 of 2017.

Similarly, there were 5 samples missed in the fourth quarter of 2017 at Station 17027, due to a pump failure at the station, and operational issues. The 2017 annual data completeness at this station was 87%, however, the 2017 annual mean calculated at 17027 may be considered invalid under the *Operations Manual* due to the data completeness criteria of 67% in Q4.

The ministry's opinion is that valid annual means may be produced at stations 17017 and 17027, given the high percentage of data availability for Q1-Q3 (and noting that peak particulate concentrations at these sites tend to occur in Q2 and Q3). Interpretation of the data should take into consideration that 2017 Q4 is underrepresented in the results for these two stations.

The *Operations Manual* discusses data completeness for the purpose of calculating annual means. It should be noted that many aspects of data analysis (such as reviewing exceedances of 24-hour Ambient Air Quality Criteria, associations between particulate concentrations and wind direction, certain methods of trend analysis, and assessing differences in concentrations between the sites) consider individual data points rather than aggregated annual means. In many of these cases, one or two seasons not meeting the data completeness criteria would have minimal impact on data analysis and interpretation.



		Number of Invalid Samples				
		TSP				PM10
	Potential Sampling Days	17006	17017	17026	17027	17506
2016	61	3	5	5	2	7
2017	61	5	11	6	8	10
2016 - Q1	16	1	0	1	1	0
2016 - Q2	16	0	3	1	0	0
2016 - Q3	15	1	1	2	0	3
2016 - Q4	15	1	1	1	1	4
2017 - Q1	15	1	1	0	1	4
2017 - Q2	16	0	0	0	1	0
2017 - Q3	15	0	0	2	1	2
2017 - Q4	15	4	10	4	5	4

		Data Availability (%)				
		TSP				PM10
	Potential Sampling Days	17006	17017	17026	17027	17506
2016	61	95%	92%	92%	97%	89%
2017	61	92%	82%	90%	87%	84%
2016 - Q1	16	94%	100%	94%	94%	100%
2016 - Q2	16	100%	81%	94%	100%	100%
2016 - Q3	15	93%	93%	87%	100%	80%
2016 - Q4	15	93%	93%	93%	93%	73%
2017 - Q1	15	93%	93%	100%	93%	73%
2017 - Q2	16	100%	100%	100%	94%	100%
2017 - Q3	15	100%	100%	87%	93%	87%
2017 - Q4	15	73%	33%	73%	67%	73%

### Question 3:

CLC member would like a copy of the *Operations Manual for Air Quality Monitoring in Ontario* and all CLC members would like to see the air monitoring schedule. MECP to follow up.

#### MECP Response:

This was provided to the CLC member that requested it back in August 2018. See attached email. A hard copy was also sent in the mail.

1. The ministry's *Operations Manual for Air Quality Monitoring in Ontario* (January 2018). An electronic copy of the *Operations Manual* is available on the ministry's website: <https://www.ontario.ca/document/operations-manual-air-quality-monitoring-ontario-0>
2. The 2018 National Air Pollution Surveillance (NAPS) Network 6-day sampling schedule. This schedule is available on the Environment and Climate Change Canada NAPS Data Products website: <http://maps-cartes.ec.gc.ca/rnspa-naps/data.aspx>

### Question 4:

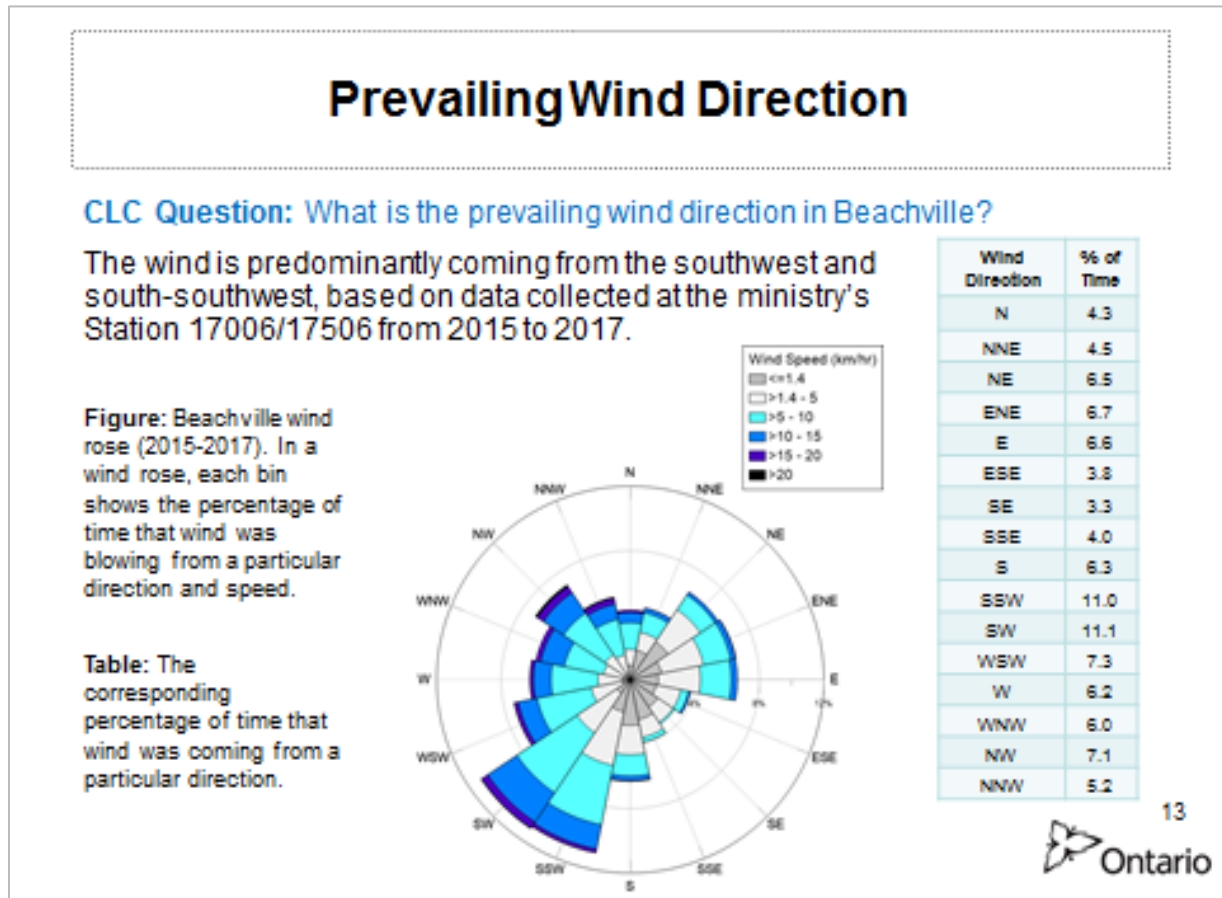
CLC member wants to know how local topography in the area might impact wind direction. Requested to have the Ministry look at recent data or studies in the area.

#### MECP Response:

- The ministry has a meteorological station (wind speed and wind direction monitor) at Station 17006, which was installed in November 2014. The information presented at the August 22 CLC meeting provided a summary of the wind data that was collected from this station for a three-year period (2015-2017; see slide from CLC presentation below). Over the full three-year period, winds were observed from all directions around the compass. The dataset showed that winds were observed most frequently from the south, south-southwest, and southwest for a total of 28.4% of the time. Winds were observed from the north, north-northwest, and northwest for a total of 16.6% of the time.
- Prior to November 2014, wind direction had been monitored periodically throughout the ministry's Beachville monitoring program, for example, during short-term monitoring projects and mobile monitoring surveys. These short-term meteorological datasets provided information relevant to the studies taking place at the time, but longer-term, continuous datasets are more appropriate for characterizing typical wind patterns in the Beachville area.
- The ministry acknowledges that differences in wind patterns from the long-term regime measured at Station 17006 (such as a greater frequency of north and northwest winds) could be experienced at a microscale level (that is, a small spatial scale, on the order of

several metres to about 100 metres) due to factors such as elevation, land cover, and proximity to buildings, trees, the Thames River valley, etc. Similarly, wind patterns vary depending on the timescale (daily, seasonal, annual). Differences in wind direction on a microscale level could be short-term (minutes, hours), which may not contribute substantially to the longer-term (multi-year) wind pattern for the region.

Information presented at Walker CLC meeting:



## Meeting 34 Business Arising Report - Attachment 2

### CLC Correspondence – CLC Questions

Sent to [REDACTED] 29-Aug-18 via email

#### **CLC Questions numbered below with respective Walker response:**

1. *With all the concerns being raised about plastics and the effects on our water and aquatic life, it was asked if Walker does any testing for nano plastics in the leachate at Thorold. Given that Walker is proposing an on-site treatment plant; will this concern be incorporated into the proposed site?*

Walker Response – Walker does not test for nanoplastics in leachate at its South Landfill in Niagara Falls. Leachate from the South Landfill undergoes pre-treatment onsite before it is discharged to the sanitary sewer for treatment at the municipal wastewater treatment plant. Leachate is tested several times per year to ensure it is compliant with Niagara Region’s Sewer Use By-Law. Monitoring for nanoplastics is not a requirement of the Environmental Compliance Approval (ECA) nor the Sewer Use By-Law at the South Landfill.

For the proposed Southwestern Landfill, an onsite leachate treatment plant is proposed. This dedicated treatment facility will be designed specifically for landfill leachate and will incorporate state of the art wastewater treatment technology. Specifically, the facility may include membrane filtration which is a final treatment step that can remove particles down to approximately 1 micron (1 micrometres) in size depending on the application. A micrometre is one millionth of a metre.

For additional context, nanoplastics are extremely small particles of plastic (one nanometre is one billionth of metre). Microplastics, which are defined by National Oceanic and Atmospheric Administration (NOAA) as less than 5 millimetres. (<https://en.wikipedia.org/wiki/Microplastics>)

2. *A recent post on social media stated, “...one of the pieces of the OMB ruling was that there needed to be proof of County requirement before Walker could be granted approval”.*

- a) *Can you clarify how/if the OMB ruling will affect your proposal with regards to County requirements?*

Walker Response – In addition to the Environmental Assessment (EA) approval, Walker will also need to obtain local planning approvals before the Southwestern Landfill can be developed. As part of these local planning approvals, the Southwestern Landfill will require an Official Plan Amendment. This amendment was always a requirement for the Southwestern Landfill.

The OMB (now Local Planning Approval Tribunal or LPAT) Final Order regarding Walker’s appeal of OPA 197 clarified how local planning requirements for new landfill sites would be integrated

and incorporated within the provincial legislation and policy. Regarding your question pertaining to “County requirements”, the modified OPA 197 language states where a new landfill cannot demonstrate it is “necessary to meet the County’s waste disposal needs”, there is a new criterion that requires the assessment of alternative sites. This criterion has been satisfied for the Southwestern Landfill through the March 2016 approval of the Terms of Reference, which includes the evaluation of alternative sites. Therefore, when the EA studies that are now underway are finished, we anticipate that we will be able to address all of the requirements of the County’s amended Official Plan.

*b) We know that the “need” argument was presented in the TOR and approved by the Minister; will this argument be revisited in the submission of the EA?*

Walker Response – Walker will not be revisiting the “need” for the proposed landfill in the EA Report as this aspect has already been accepted by the Minister with the approval of the Terms of Reference.

*c) In a related topic, the “alternatives to” a landfill were also presented in TOR and approved by Minister, will the alternatives to a landfill ie. Incineration and thermal technologies, etc. be revisited in the submission of the EA?*

Walker Response – Walker will not be revisiting the “Alternatives To” in the EA Report as this aspect has already been accepted by the Minister with the approval of the Terms of Reference.

*3. With the recent storms and trucks losing control on County Rd 6, many truck drivers have been commenting on lime on roads becoming extremely slippery when wet. They feel that these events would potentially increase with increased truck traffic. Are the traffic experts evaluating this as part of the road conditions in their studies? Are they factoring in weather event changes due to climate change?*

Walker Response – Walker is incorporating climate change (e.g., different frequency and magnitude of weather related events) in its assessment of the Southwestern Landfill. The traffic study will assess existing traffic conditions as well as the effects of increased traffic along the designated haul route. We will relay this specific concern about this reported observation of lime on local roads to the traffic expert and we will include a response to this concern as part of the EA. We will also inform Carmeuse of this reported observation.

### **CLC Meeting 34**

Other documents sent as materials, but not included as pages in this Appendix (to cut down on duplication, paper waste and/or very large digital files):

- 1) Transcript: [http://www.walkerea.com/uploads/1232/Doc\\_636900602276735527.pdf](http://www.walkerea.com/uploads/1232/Doc_636900602276735527.pdf)

*Please contact us at [info@walkerea.com](mailto:info@walkerea.com) or toll-free at 1-855-392-5537 if you require assistance accessing this document online or in hard copy.*

# Southwestern Landfill CLC #35 – Meeting Summary

**Date:** March 27, 2019  
**Time:** 6:00 p.m. – 9:30 p.m.  
**Location:** 160 Carnegie Street, Ingersoll (Lower Meeting Room)  
**Start Time:** 6:05 pm

## MEETING SUMMARY

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The primary purpose of CLC Meeting 35 was to discuss the preliminary existing conditions (current local environment) that were studied as part of the groundwater, surface water, traffic, social, and archaeology studies. There was also an update on the air quality monitoring, with additional results since the previous meeting in November 2018.

## MEETING DETAILS

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### Q&A from Previous Meeting (*Agenda Item #3*)

- A question was asked about what would happen if the EA legislation was changed after the Terms of Reference (ToR) was approved but before the EA was submitted. The response was that once a ToR is approved, the project proponent has the right to complete and submit the EA.
  - A CLC member stated that there was a case where an EA was stopped by the Ministry after the ToR was approved but prior to EA submission. This CLC member was asked to provide this case to the EA Advisor for review.

### Summary of CLC Quality Review Survey, Presented by CLC Facilitator (*added to Agenda*)

- Feedback was provided from only three members. Those responding felt that the CLC is adhering to the purpose of the group and the quality of the discussion is acceptable.
- CLC feel that they would like more wholesome answers instead of seeing generic information, however previous CLC feedback stated a wish to have more summarised information. Finding balance is important.
- Reminder for all parties in the room to participate in a respectful way.
- Additional comments provided during the discussion were as follows:
  - CLC members would like to receive business arising report and transcript more quickly when there are long gaps between meetings; Walker to providing within one month
  - CLC member would like to see raw data from the current and previous survey - facilitator to provide raw data

### Preliminary Existing Conditions & Discussion (*Agenda Item #4*)

The full presentation is available online at [http://www.walkerea.com/uploads/1293/Doc\\_636900607294063351.pdf](http://www.walkerea.com/uploads/1293/Doc_636900607294063351.pdf)

### Groundwater – Presented by Keith Lesarge, Golder & Associates

The groundwater study found that the current local groundwater environment is consistent with previous studies in the area. Groundwater in the local area flows inward toward the quarry because Carmeuse dewateres the quarry. Information about data collection was also shared.

#### Discussion Summary:

- Karst environment assessed during 3 site visits during wet and dry conditions, site photographs, and review of multiple core samples. Walker to provide a summary of karst findings when available.

## *Southwestern Landfill CLC #35 - Meeting Summary*

- Discussion about landfill design and the term “inward gradient”, regarding the definition of this term and its use in the design of the Southwestern Landfill. Walker to consider new discussion tools for this topic and include a discussion at a future meeting.
- Concern regarding low participation in the Private Well Survey. Golder notes that the pool of collected data is more than sufficient to draw conclusions regarding ground water in the area.
- Golder and Upper Thames River Conservation Authority are communicating regularly regarding groundwater models.

### **Surface Water – Presented by Keith Lesarge, Golder & Associates**

The surface water study found that both flow rates and water quality results for water bodies in the local area are consistent with expected results for agricultural areas in Southern Ontario. Both flow rates and water quality vary seasonally, with conditions typical of an agricultural environment.

#### Discussion Summary:

- Golder Associates is conducting the groundwater/surface water study and providing landfill engineering expertise to Walker. A CLC member raised a concern that Golder will benefit if the landfill is approved. Walker understands this concern, but notes that Golder’s employees are professionals and are bound to a strict code of professional ethics. As part of the peer review and government review process, the study results will be reviewed by other groundwater and surface water experts.
- Keith Lesarge confirmed that the flooded quarry (quarry lake) is included in the study including its interaction with groundwater in the area.

### **Traffic – Presented by Darren Fry, Walker Environmental Group**

The traffic study identified both weekday peaks (7:30-9:30am & 3:45-5:30pm) as well as weekend peaks (12:00-1:45pm) of vehicle counts in the study area. All current intersection wait times were deemed to have a “low potential for congestion” with the exception of the eastbound 401 off-ramp to Count Rd. 6 during the weekday afternoon peak (3:45-5:30pm). The westbound off ramp, although shorter than ideal, meets MTO requirements for existing conditions.

#### Discussion Summary:

- Landfills only receive waste during hours of operation. However, trucks are allowed to wait at the scales prior to opening as well as leave the facility just after closing.
- CLC members request additional information on the traffic study methodology, including for the assessment of intersection operations (see Business Arising Report). Walker to confirm with traffic consultant
- CLC member noted there is a very small shoulder on the hill near the County Rd 6 intersection with Beachville Rd. Consequently, concern was expressed by the CLC member about the lack of a safe place for a truck to pull over if there is a malfunction. Walker agreed to provide this input to the traffic consultant for consideration.
- CLC members expressed concern about planning for Highway 401 road closures. The Traffic study recognizes rerouting of the 401 due to emergencies is an issue of concern, therefore Walker agreed to include a list of potential traffic contingency measures in the EA. These contingency plans will be considered during post-EA approval.

### **Social – Presented by Darren Fry, Walker Environmental Group**

An overview of the types of field work conducted along with the key results gathered from the Local Resident Survey was provided.



## Southwestern Landfill CLC #35 - Meeting Summary

The field work conducted included:

- Recreational User Survey
  - Stakeholder Interviews
  - Kitchen Table Meetings
  - Public Attitude Survey (phone)
  - Local Resident Survey (mail)
- All residents in the vicinity of the site were sent the local resident survey
  - Study gathered information on what people value about their community, how they use their properties, and challenges facing their community.

### **Archaeology – Presented by Darren Fry, Walker Environmental Group**

The archaeology study did not identify any archaeological sites in the study area, and found a very small amount of calcined bone which was deemed insignificant. However, assessment of the leachate treatment plant area as well as the new section of the haul route still need to be assessed when the ground thaws.

### **CLC Correspondence (Agenda Item #5)**

#### **Air Quality Update – Presented by Darren Fry, Walker Environmental Group**

The air quality study will be completed on April 2<sup>nd</sup> marking a full year. Results gathered since the November meeting include: no exceedances of total suspended particulates (dust), no chloroform exceedances, two exceedances of hydrogen sulphide and three exceedances of total reduced sulphur (at two different locations).

#### **Discussion Summary:**

- The Ministry of the Environment, Conservation and Parks (MECP) will review the full year of data, including the identified exceedances.
- The MECP air monitoring station at the Bell building used to be in a different location. CLC member notes importance of reviewing the data to see if there was a significant change in results when the station location changed, and how this may affect the Southwestern Landfill air quality study. Walker to discuss with their air quality consultant (RWDI)

### **Action Items & Next Meeting (Agenda Item #6)**

#### **Release of Draft EA:**

- Tentative release date for Draft EA – end of June
- Discussion about format (i.e. electronic copy for download, copy of memory stick, hard copy) of the Draft EA for distribution to CLC members - Walker will work to accommodate requests for various formats.
- A CLC member suggested that Walker provide a the CLC with the table of contents in order for CLC members to determine which parts of the document they will want to receive, and become familiar with the general outline of the document.

#### **Next Meeting:**

- Next meeting to be held approximately one week after release of the Draft EA, on a Tuesday or Wednesday.

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Meeting Adjourned at 9:24pm

Notes Prepared by: Leslie Galloway

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## CLC INPUT

The table below tracks input from CLC members, including the topic, input, and Walker's response or action.

Topic	Input	Response/Action
CLC Annual Review	CLC members would like to receive business arising report and transcript more quickly when there are long gaps between meetings.	Walker to transcript and business arising report within one month.
Groundwater	Walker to consider new discussion tools for the topic of "inward gradient" and other groundwater scenarios and include a discussion at a future meeting.	Walker to follow up at a future meeting.
Traffic	CLC member noted very small shoulder on the hill near the County Rd 6/Beachville Rd intersection. Concern about lack of safe place should a truck break down or need to pull over at the bottom of this hill.	Walker to provide input to traffic consultant for consideration.
Traffic	CLC members concerned about the lack of data collected regarding the use of engine breaks at the intersection Rd. 6 northbound, as well as the lack of data collected regarding the frequency of train movements.	Walker to follow up with traffic consultant for more information on what was included in the study, and to provide CLC concern.
Traffic	CLC members expressed concern about planning for 401 road closures.	Walker to include a list of potential traffic contingency measures in the EA. These contingency plans will be considered during post-EA approvals.

## Becky Oehler

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**From:** Info@walkerea.com  
**Sent:** Friday, February 15, 2019 10:34 AM  
**To:** Info@walkerea.com  
**Subject:** CLC Meeting Materials - Meeting 35 February 27, 2019  
**Attachments:** 01 - Agenda CLC Mtg 35 - Feb. 27, 2019.pdf; 02 - CLC Meeting 35 Presentation.pdf; 03 - BA Report - Meeting 34.pdf; 04 - CLC Meeting 34 Summary\_draft.pdf; 05 - CLC Meeting 34 Transcript.pdf

Good morning CLC members and alternates,

Please find attached the materials for the upcoming CLC meeting on **Wednesday, February 27, 2019** at 6:00pm (dinner will be available at 5:30pm).

The meeting will focus on the preliminary existing conditions for the Groundwater / Surface Water, Traffic, Social, and Archaeology studies. A representative from Golder Associates will be attending the meeting to discuss the preliminary existing conditions for Groundwater.

**Materials:**

1. Agenda
2. Presentation – Groundwater / Surface Water, Social, Traffic, Archaeology preliminary existing conditions
3. Business Arising Report
4. Draft summary of CLC Meeting 34 (November 27, 2018) – please let us know if you have any comments by February 28, 2019, after which it will be finalized and posted online
5. Transcript for CLC Meeting 34 (November 27, 2018)

Please let me know if you have any questions in advance of our meeting on the 27<sup>th</sup>.

Warm Regards,  
Becky Oehler



# CLC Meeting 35 – New Meeting Date

Southwestern Landfill Environmental Assessment

March 7, 2019

Dear CLC member,

As you know, the February 27<sup>th</sup> CLC meeting was postponed due to poor weather. We have coordinated a new date, which is **Wednesday, March 27, 2019**, 6-9 pm.

The meeting materials sent out for the February 27<sup>th</sup> meeting will be used at the March 27<sup>th</sup> meeting.

Please let me know if you have any questions in advance of our meeting on March 27<sup>th</sup>.

Warm regards,

Becky Oehler  
Community Engagement Manager  
905-680-3675, [boehler@walkerind.com](mailto:boehler@walkerind.com)



# CLC Meeting 35 – Agenda

## Southwestern Landfill Environmental Assessment

**Date:** Wednesday, March 27, 2019

**Time:** 6:00 pm – 9:00 pm  
(Dinner will be available at 5:30)

**Location:** 160 Carnegie Street, Ingersoll (Lower Meeting Room)

**Meeting Materials:**

- Agenda
- Presentation – Preliminary Existing Conditions (Groundwater/ Surface Water, Traffic, Social, Archaeology,)
- Business Arising Report
- CLC Meeting 34 Summary
- CLC Meeting 34 Transcript

	Description	Lead	Duration	End Time
1	Welcome	Facilitator	5 min	6:05
2	Objectives and Review of Agenda	Facilitator	5 min	6:10
3	Q&A from Previous Meeting	Facilitator	10 min	6:20
<b>Presentation: Preliminary Existing Conditions &amp; Discussion</b>				
	<ul style="list-style-type: none"> <li>• Groundwater/ Surface water</li> </ul>			
4	---BREAK--- <ul style="list-style-type: none"> <li>• Traffic</li> <li>• Social</li> <li>• Archaeology</li> </ul>	WEG	120 mins	8:20
5	CLC Correspondence	WEG	15 min	8:35
6	Action Items & Next Meeting	ALL	5 min	8:40
7	CLC Discussion with EA Advisor	CLC/AG	1 hour	9:40



CLC Meeting 35 – February 27, 2019

**PRELIMINARY EXISTING CONDITIONS:  
GROUNDWATER/SURFACE WATER,  
TRAFFIC, SOCIAL, ARCHAEOLOGY**

# Today's Discussion



## Southwestern Landfill EA

- The CLC expressed interest in meetings to discuss the findings on the current local environment, called existing conditions.
- The full reports aren't complete for any studies, and some field work is still ongoing
- The consultants have provided information so we can discuss the existing conditions, but they are still preliminary
- Reports on how the landfill could impact existing conditions/baseline are not yet complete  
*(impacts & mitigation will be in the Draft EA in **Spring/Summer 2019**)*

# What are existing conditions?



Southwestern Landfill EA

**“Environment”**: social, economic and natural environment

**“Baseline scenario”**: the local environment as it is now, and how it is forecasted to be until landfill closure, with no landfill present (primarily from a land use planning perspective)

**“Existing conditions”**: the current local environment (one element of the baseline scenario that exists today)



# Today's Discussion



Southwestern Landfill EA

## Today – Preliminary Existing Conditions for:

- 1) Groundwater/Surface Water – *Golder Associates presentation/Q&A*
- 2) Traffic
- 3) Social
- 4) Archaeology

Preliminary Existing Conditions

# Groundwater & Surface Water

Presentation & Q&A with  
Golder Associates

**Study Area:** The primary study area is the area immediately adjacent to the landfill area that is directly affected by on-site activities

- Approximately 1 km from the site; the area where dewatering affects groundwater flow

## **Preliminary Existing Conditions:**

- The geology of the boreholes for the groundwater monitoring wells is consistent with the geologic understanding (literature) of the area
- Local groundwater flow is inward toward the quarry, due to dewatering activities
- Groundwater chemistry results are normal for the area and the water-bearing formations the water originates from
- Groundwater levels are lower at and near the quarry due to dewatering

## Notable Field Work Info:

- Location 5 monitoring wells were moved due to difficult drilling conditions (previously discussed with CLC)
- Low participation in voluntary private well survey (7 of 62)
- One well installed in overburden (soil) provided low yield and did not produce enough water to sample at any sampling event
- Monitoring wells on quarry floor were not sampled in Nov 2018 due to artesian conditions, which caused the well to freeze (inaccessible).

## Local Knowledge Input from the CLC:

CLC Local Knowledge Input	Follow Up
<p>Concern for potential impacts to municipal/private wells.</p>	<p>Golder obtained information about local wells from the MECP.</p> <p>Golder is in consultation with Municipal staff to obtain further information on active and historical public wells.</p> <p>A private well survey was distributed to 62 addresses in the study area. There were 7 responses, and those wells were sampled and measured.</p>

# Surface Water



Southwestern Landfill EA

**Purpose:** study of surface water flow conditions and water quality (for existing conditions)

**Study Area:** Carmeuse property, small creeks and agricultural drains, and the Thames River

## Preliminary Existing Conditions:

- Creeks and agricultural drains receive higher flows in the spring and early summer, with low or very low flows in the late summer and fall.
- The Thames River collects drainage from a large watershed and flows reflect seasonal trends in precipitation/snow melt
- Watercourses in the study area have typical water quality for agricultural land uses in southwestern Ontario



## Notable Field Work Info:

- Low stream flows in small creeks and agricultural drains, so flow monitoring was done near the downstream ends (more flow).
  - *Note: upstream information will be modeled based on drainage area*
- Some logistics delayed some initial sampling, but a full year will be completed as planned

# Surface Water



Southwestern Landfill EA

## Local Knowledge Input from the CLC:

CLC Local Knowledge Input	Follow Up
Cemetery Creek (Patterson-Robbins Drain) sometimes dries up in the summer.	Monitoring program did not record dry conditions in Cemetery Creek, however through historical precipitation records, it is reasonable to expect low stream rates and dry conditions.
Concern about potential impacts to the Thames River Valley as a flood plain.	Regulatory floodline mapping has been requested from UTRCA but not received yet at the time of writing. This information will be incorporated into the study.

Preliminary Existing Conditions

# Traffic

# Traffic – Study Area

County Road 6

*from:*

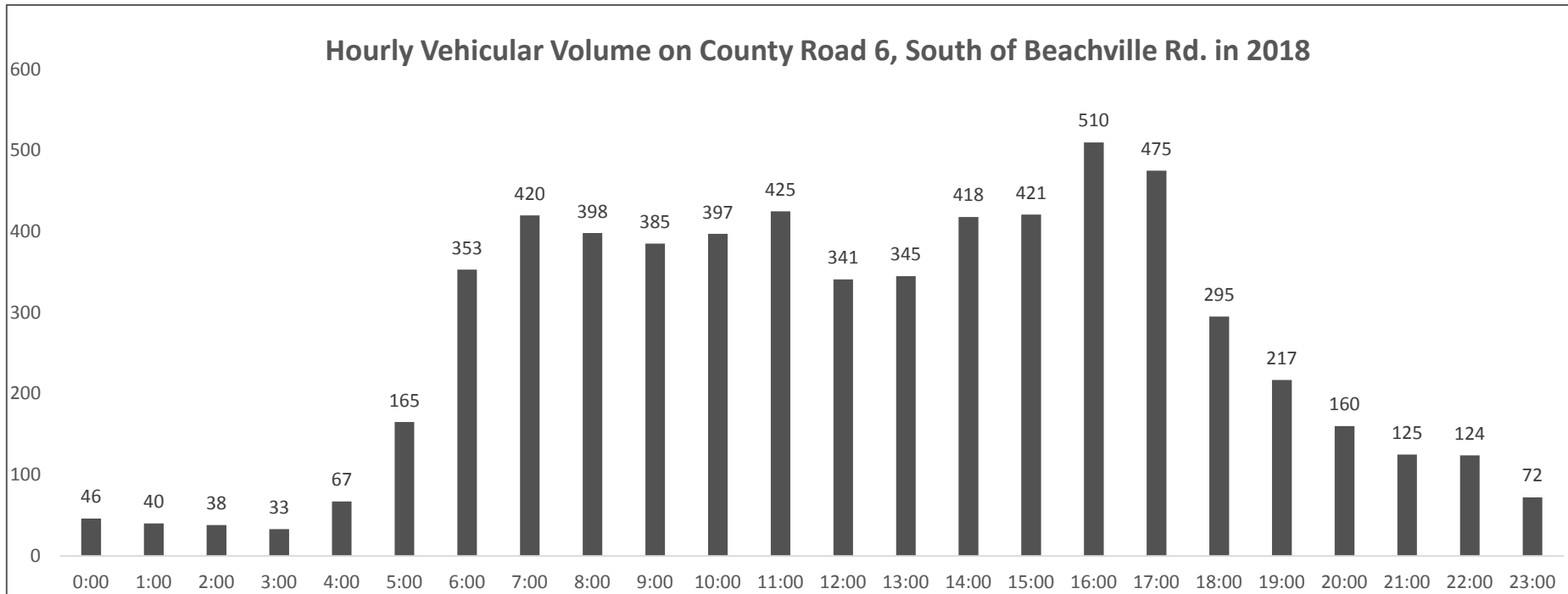
the 401 in the south

*to:*

County Road 2 (Dundas Street) in the north



# Traffic – Hourly Volume & Peaks



- Weekday AM peak: 7:30-8:30 am
- Weekday PM peak: 3:45-5:30 pm
- Saturday peak: 12:00-1:45 pm

# Traffic – Intersections

## Current intersection volumes are acceptable:

- All intersections (except one) are considered “uncongested” or “low potential for congestion” using standard traffic measurements
- The only intersection that is considered “high potential for congestion” is the eastbound off-ramp of the 401-County Road 6 interchange during the weekday PM peak (3:45-5:30 pm)
  - *This likely includes people who live in Oxford County and work in London (arriving home)*
- It is recognized that the westbound off-ramp shared with the service station is shorter than ideal. However, existing traffic volumes on this ramp are acceptable based on traffic measurements

# Traffic – Train Crossings

- Part of the study is to evaluate queuing (back-ups) during train crossings
- Ontario Southland Railway noted that train arrivals are random, but are primarily between 12:00 – 6:00 pm. As per their instructions, a survey was carried out between 2:30 – 5:30 pm on Nov. 15, 2018
  - *This was carried out after no trains were seen during other traffic count days*
- Unfortunately, no trains came by during the Nov. 15 survey, so cameras will be set up to evaluate queueing during train crossings

# Traffic – School Busses

11 schools operate busses on County Road 6 or the intersecting side streets in the study area:

1. College Avenue Secondary School
2. Ingersoll District Collegiate Institute (IDCI)
3. St. Marys Catholic High School
4. H.B. Beal Secondary School
5. Catholic Central High School
6. Woodstock Collegiate Institute
6. East Oxford Central Public School
7. Harrisfield Public School
8. St. Jude's Catholic School
9. Roch Carrier French Immersion Public School
10. Holy Family French Immersion Catholic Elementary School
11. Laurie Hawkins Public School



# Traffic – School Busses

- Morning: busses operate between 6:30-8:30 am
  - Most turns between 7:30-8:30 am
- Afternoon: busses operate between 2:30-5:30 pm
  - Most turns between 4:00-5:00 pm



## Local Knowledge Input from the CLC:

CLC Local Knowledge Input	Follow Up
<p>There is a Catholic School Board, private Christian Schools, Public School Board (TVDSB) and busses that carry local students to a London Christian High School. Ensure all of these are taken into consideration</p>	<p>Please see previous two slides regarding school busses.</p>
<p>Rail traffic in the community often includes long trains that cause traffic back-ups as well as trains that stop and block intersections. Recommendation to include a review of train movements and types as well as the frequency and length of time that crossings are blocked by train movements.</p>	<p>Unable to assess train queuing so far. Cameras will be set up to assess.</p>

## Local Knowledge Input from the CLC:

CLC Local Knowledge Input	Follow Up
<p><i>Work plan noted expected peaks in local traffic are 7-9 am, 4-6 pm, and Saturday 12-2pm (to be confirmed in the study)</i></p> <p>Community members noted there are people commuting for 7am shifts and 3pm shifts, also bus times (2:30 for high schools, 3:30 for primary schools)</p>	<p>Traffic counts were carried out to determine peak hours (see previous slides)</p>
<p>The first two weeks of July, CAMI shuts down for a summer holiday (i.e. traffic counts in that time will not have the typical traffic)</p>	<p>No traffic counts were conducted in the month of July when CAMI shuts down for a summer holiday.</p>

## Local Knowledge Input from the CLC:

CLC Local Knowledge Input	Follow Up
<p>During the summer months, County Road 6 is used by RVs.</p>	<p>Recreational vehicles are typically categorized under the medium and heavy vehicle groups. Traffic counts might have captured a few RVs; however, based on the agreed work plan, summer analysis was not included in the traffic study.</p> <p>It is standard practice for traffic counts to not be carried out in the summer due to lower volumes. The only exception is areas with heavy tourist volumes (i.e. tourist area of Niagara Falls)</p>
<p>During the winter, there's an increase in traffic from snowmobiles in the study area.</p>	<p>Traffic counts are typically conducted for non-winter road traffic conditions. Hence, this study did not account for snowmobiles in the analysis.</p>

## Local Knowledge Input from the CLC:

CLC Local Knowledge Input	Follow Up
<p>Re-routing of 401 accidents often causes an increase in the use of County Road 6 and other municipal roads near the proposed site. .</p>	<p>Traffic analysis is typically conducted for regular traffic conditions and not for special events or incidents.</p> <p>If there is an incident resulting in closure of Highway 401, vehicles would be directed to use the emergency detour route of Highway 401, which is Sweaburg Road, located south of Highway 401 , and beyond our study area.</p> <p>No official detour route exists north of Highway 401; however, we acknowledge that vehicles use other county roads instead of the emergency detour. Mitigation measures can be put in place to deter use of other routes for vehicles going to the landfill.</p>

Preliminary Existing Conditions

**Social**

The existing conditions include both:

- How people **currently** use and enjoy their property and community, AND
- How they **anticipate** they would be impacted by the presence of an operating landfill in their community

It's important to note that impacts that people anticipate may or may not materialize once the landfill is operating.

The results from other studies (i.e. air, noise, traffic), will be used to determine actual potential for social impacts to occur

# Social – Study Area

**On-site:** landfill facility area

**Site Vicinity:** West – all of Ingersoll

North – Highway 2

South – Highway 401

East – Woodstock municipal boundary

*(expanded based on CLC input to include all of Ingersoll)*

**Haul Route:** Properties within 500 m of the haul route

**Wider Area:** Oxford County



# Social – Field Work



Southwestern Landfill EA

- 1. Recreational User Survey:** surveyed 57 people using parks, trails, and outdoor recreational features in the Site Vicinity Study Area
- 2. Stakeholder Interviews:** held with 16 people with interests in the Site Vicinity Study area (i.e. hospital administrators, festival organizers, facility operators)
- 3. Public Attitude Research:** telephone survey with 1066 people across Oxford County
- 4. Local Resident Survey:** mail-in survey received from ~1350 residents from the Site Vicinity study area
- 5. Kitchen table Meetings:** ongoing

## Notes about the Local Resident Survey:

- Originally this survey was planned to go to 1 in 4 residences, but it was decided that the survey would be delivered to all households in the Site Vicinity study area
- The mail-out was done in early December via Canada Post. Some hand-delivered in rural areas
- The original due date was January 4<sup>th</sup> (a month after mail-out). Due to the Postal Strike, some surveys were not delivered until the end of December. We extended the deadline to January 18<sup>th</sup>, with notices on Facebook, our website, our office, our main phone number voicemail, and it was also in a London Free Press news article
- Thank to you everyone who shared the extended deadline with friends and family or via social media

# Social – Preliminary Findings



## Southwestern Landfill EA

- Most people value the “friendly, neighbourly, family oriented community” and the “peaceful nature and small town feeling” of their community, as well as “community support/closeness”
- Study area residents have indicated that they remain largely satisfied with living in their communities and rate their overall feeling of health and sense of well-being as either “excellent” or “good”.
- There is a wide range of factors that affect people’s current use and enjoyment of their property, including impacts from ongoing quarrying; issues such as road maintenance, traffic, speeding issues, availability and quality of community services (i.e., facilities, activities, and parks).

# Social – Preliminary Findings



## Southwestern Landfill EA

- The most important issue (or challenge) facing the communities in the study area, and Ingersoll in particular, is the proposed Southwestern Landfill
- People in Ingersoll specifically see the proposed landfill as a threat to the environment and their overall community character, use and enjoyment of property, including their property values
- Other important issues are the cost of living, poverty, health care, taxes and the desire for jobs

# Social – Preliminary Findings

## Impacts People Anticipate:

- Most people anticipate landfill impacts from the Southwestern Landfill, including increased dust, odour, noise, traffic
- People are concerned for the safety of drinking water (municipal and private wells) as well as the health of the Thames River
- There is also concern about “stigmatization” of the community, which people anticipate will affect property values

## Local Knowledge Input from the CLC:

CLC Local Knowledge Input	Follow Up
<p>Concern that physicians would move out of the area if the landfill was constructed, therefore affecting health outcomes for local community members.</p>	<p>To address this concern, SLR has assembled academic research and investigated case studies elsewhere. They have interviewed representatives of the local hospital and the Oxford County health agency.</p>
<p>Consider the Canterbury Folk Festival as an opportunity to come out and survey.</p>	<p>SLR requested to survey attendees outside the gates, but were denied access. Interviews have been undertaken with organizers of Harvest Festival and Pumpkin Fest and operators of local museums.</p>

Preliminary Existing Conditions

# Archaeology

**Study Purpose:** to determine if there are any archaeological sites in the study area and whether they are significant and requiring further assessment

**Study Area:** The project area, including potential areas of ground disturbance, such as the new section of the haul route and the area for the leachate treatment plant



# Archaeology – Field Work



Southwestern Landfill EA

- 1) Visual Survey:** significantly disturbed areas (stripped/quarried area)
- 2) Test Pit Survey:** non-agricultural areas (not to be ploughed)
  - 30 cm diameter test pits on a 5 metre grid, dug by hand ~ 5cm into the subsoil (minimum), soils screened through mesh to look for artifacts
- 3) Pedestrian Survey:** land is ploughed and weathered (needs to rain then dry out), then a crew walks the area and examines the ground surface for artifacts or materials that may indicate previous habitation

## Preliminary Existing Conditions:

- No archaeological sites have been identified
- A couple small fragments of calcined bone (burnt to a white and chalky state) were found.
  - *Not significant enough to be deemed an archaeological site*
- The area of the leachate treatment plant has not been surveyed yet; this will be when weather permits

## Items from CLC Meeting 33 – August 22, 2018

Business Arising		Responsibility	Response	Status
1	CLC member would like Walker to contact Beacon and see if there is a way to anticipate the number of gulls or other birds at a landfill, and question what measures are in place for when a group of birds disperses quickly. Members would like Walker to follow-up with Beacon to assess the level of risk, and clarify why the number of strikes per 10,000 aircraft movements is sufficient.	WEG/Beacon		In Progress
2	CLC member noted that there are neighbours with burn barrels, and is concerned this may affect samples. Would like MOECP to ask field techs to follow-up on next visit.	MECP	<i>See MECP response in Attachment 1.</i>	Complete
3	CLC member requests Ministry to provide what the data completeness on each monitoring station of the last 2 years in the Beachville area is.	MECP	<i>See MECP response in Attachment 1.</i>	Complete
4	CLC member would like to see the air monitoring schedule. Ministry to email schedule/link to CLC member.	MECP	<i>See MECP response in Attachment 1.</i>	Complete
5	CLC member wants to know how local topography in the area might impact wind direction. Requested to have the Ministry look at recent data or studies in the area.	MECP	<i>See MECP response in Attachment 1.</i>	Complete
7	CLC members would like Walker to follow-up with traffic consultant, to see what information has been received from the MTO on the County Road 6 interchange.	WEG		In progress
8	Provide CLC answers to MC's questions that were sent via email and distribute to CLC members.	WEG	<i>See responses to MC's questions in Attachment 2.</i>	Completed

## Carry Over Items from CLC Meetings (Meetings 16-33)

Business Arising		Responsibility	Response	Status
9	It would be helpful to have a map of all of the wells that will provide data considered during the groundwater study (municipal, private, Carmeuse).	WEG	Walker will work on getting this map prepared. It may come after the background information review is complete (consultant has reviewed all well information).	In progress
10	Post inputs received and response tables from the technical reviewers and other interested parties on the updated technical work plans.	WEG	Walker to send the CLC a notification once available on the project website.	In progress

## Carry-Over Items from Meetings during ToR Phase:

Business Arising		Responsibility	Response	Status
11	Revisit the Mayor of Ingersoll regarding municipal green initiatives.	Walker Environmental	Discussions with Mayor of Ingersoll will occur at key points in the EA process.	Ongoing
12	If the CLC is aware of local natural/environmental events, provide information to Walker who will then pass it along to Golder Associates.	CLC		Ongoing
13	Contact the Agricultural agencies and let them know the CLC Members would like to attend the meeting when they meet with the technical expert.	Walker Environmental		Ongoing



# CLC Meeting 35 – Follow-Up

Southwestern Landfill Environmental Assessment

April 26, 2019

Dear CLC member,

Please find enclosed follow-up materials to CLC Meeting #35, held on March 27, 2019. Materials include:

1. Business Arising Report – including three attachments:
  - CLC Annual Review Summaries (2017 and 2018)
  - Responses to questions regarding the traffic study from HDR (traffic consultant)
  - Map from Upper Thames River Conservation Authority showing flood hazard areas
2. Draft summary of CLC Meeting 35 – *please let us know if you have any comments by April 15, 2019, when it will be finalized and posted online*
3. Transcript for CLC Meeting 35

The date for the next CLC meeting is not yet finalized. As requested by CLC members at the March 27<sup>th</sup> meeting, the next CLC meeting will be set approximately one week after the Draft EA is released, on a Tuesday or Wednesday. We anticipate this meeting to occur in early summer.

Please let me know if you have any questions in advance of our next meeting.

Warm regards,

Becky Oehler  
Community Engagement Manager  
905-680-3675, [boehler@walkerind.com](mailto:boehler@walkerind.com)

## Items from CLC Meeting 35 – March 27<sup>th</sup> 2019

Business Arising		Responsibility	Response	Status
1	Provide case study which demonstrates a situation in which the project was denied by the MECP between the approval of the ToR and the submission of the EA.	CLC Member		
2	Provide raw data from both the previous two CLC Feedback surveys	Facilitator	Please <b><u>see attached reports</u></b> for the 2017 and 2018 CLC Feedback Surveys.	Complete
3	Provide a summary of the findings on the study of karst in the area (part of the groundwater study).	Walker Environmental	Not yet available at the time of writing; will be available in the final report for the groundwater study, which will be part of the documentation of the Draft EA.	Complete
4	Walker to consider new discussion tools for the topic of “inward gradient” and other groundwater scenarios and include a discussion at a future meeting.	Walker Environmental	Walker to include a discussion on the agenda at the next CLC meeting.	Complete
4	Confirm methodology of traffic study with consultant , regarding: <ul style="list-style-type: none"> <li>• If types of vehicles were noted</li> <li>• If emergency events were studied over the past year</li> <li>• If the use of engine breaks was documented</li> <li>• If road conditions were factored into the study</li> <li>• If school bus safety was factored into the study</li> <li>• Train frequency data collection</li> <li>• Level of congestion at an intersection</li> </ul>	HDR	Please <b><u>see attached responses</u></b> from HDR (traffic consultant)	Complete
6	Identify if the proposed landfill is to be located within the floodplain of the Thames River and if so, what the flood contingency plan would consist of	Walker Environmental	The Upper Thames River Conservation Authority is currently in the process of updating their floodplain mapping. According to the most recent flood mapping, done in the late 80’s and early 90’s, the proposed Southwestern Landfill does not sit within the flooding hazard area (floodplain) of the Thames River. ( <b><u>see attached map</u></b> )	
7	The MECP air monitoring station at the Bell building used to be in a different location. CLC member notes importance of reviewing the data to see if there was a significant change results when the station location changed, and if so, evaluating how this may affect the Southwestern Landfill air quality study.	Walker Environmental	Agreed. The Air Quality study will review data from the MECP Bell Building station and the data from this monitor’s previous location. The study will report on consistency between the data sets.	Complete

## Carry Over Items from CLC Meetings (Meetings 16-34)

Business Arising		Responsibility	Response	Status
8	It would be helpful to have a map of all of the wells that will provide data considered during the groundwater study (municipal, private, Carmeuse).	WEG	A map will be provided in the final report for the groundwater study, which will be part of the documentation of the Draft EA.	Complete
9	Beacon Environmental provided a list of background sources contacted. Not all of these sources provided information. CLC members would like to know what background sources were contacted and the level of contact.	BEACON ENVIRONMENTAL	Initial contact with these sources consisted of an email identifying the project, Beacon’s role in the project and the type of information that we were seeking. Sources that responded to these emails were followed up with as necessary with requests for clarification or additional information either via email or phone. If no response was received additional follow up emails were sent.  A summary of the resources / sources that were accessed / contacted is provided in <b>Table 2</b> .	Complete
10	CLC member noted there are some species such as the tundra swan and snowy owl that were not included in Beacon Environmental’s background research.	BEACON ENVIRONMENTAL	Tundra Swans and Snowy Owls have been recorded within Ingersoll area in the Christmas Bird Count and eBird data and by members of the CLC. Typically, an EA will focus on important habitat values that are associated with breeding, critical stop-over areas or critical winter habitat.  These two species occur across southern Ontario on migration and in some instances during winter but they do not breed in southern Ontario. Neither of these species are protected by the Endangered Species Act or federal Species at Risk Act as they are considered to be relatively common and/or secure in their typical habitats.  Habitats that are considered important to Tundra Swan in Southern Ontario are generally associated with agricultural fields that experience seasonal flooding. In the study area, important stopover habitat is not present as many of the fields are either tile drained or otherwise drain freely.  Good quality overwintering habitat for Snowy Owl in Southern Ontario generally consists of pastureland and grasslands where the owls hunt for prey during the winter months. Prime habitats are extensive grazing lands or meadows. Intensively farmed areas such as is present in the study area rarely support many owls for very long as their winter food supply are only present in low numbers.	Complete

<p>11</p>	<p>A CLC member would like more clarification on how corridors support the species (i.e if a bald eagle nests outside of the study area what is the level of attention given to them). The member is concerned with the language “will occur on occasion” if the species is nearby.</p>	<p>BEACON ENVIRONMENTAL</p>	<p><b><u>Corridor Working Definition:</u></b></p> <p>Corridors can be major river valleys or smaller creek valleys. They serve various ecological functions depending on their size and quality including providing shelter from predators and the elements, providing breeding habitat, connecting core natural areas and broadening the genetic pool for both animal and plant species.</p> <p>It is generally understood that in Southern Ontario, corridors provide pathways that encourage the spreading out of plant and animal species, having both positive impacts (listed above) and negative impacts, such as the spread of invasive species (ex. Giant Hog Weed).</p> <p><b><u>Corridor Assessment Procedure:</u></b></p> <p><b>Landscape Connectivity: the degree of importance corridors play in the environmental health of a specific area</b></p> <p>Landscape connectivity (the degree to which corridors function), was assessed by first identifying potential pathways using background information and aerial photography. These potential pathway assumptions were then tested using data collected through the background review and field surveys. This allowed for accurate evaluation of the relative importance of corridors to ecosystems existing in the study area.</p> <p><b><u>Preliminary Results:</u></b></p> <p>Through this assessment it was determined that the Thames River, south of the Site, represents a Regional movements corridor. Within this area the river, and the vegetation growing along its banks provide habitat for and allow for the movement of many aquatic, semi aquatic, and terrestrial species.</p> <p><b><u>Will Occur on Occasion:</u></b></p> <p>In general, the question of occasional occurrence is simply an acknowledgement that in southern Ontario, almost 300 species of birds migrate through the province twice a year (in the spring and fall), and that occasional occurrences can be anticipated in almost any small area.</p> <p><b><u>Bald Eagle:</u></b></p> <p>While Bald Eagles were not observed during surveys there are multiple records of them along the Thames River upstream and downstream of the study area on the internet site eBird.</p> <p>Based on these observations the Thames River is likely used periodically by this species for foraging / perching while migrating to and from other suitable habitats upstream and downstream of the study area.</p> <p>No nests for these species have been identified within the Site, Site Vicinity, Haul Routes, or Wider study areas that were accessed during surveys. A nest at Pittock Lake, which is approximately 12km west of the Site, has been identified by members of the CLC.</p>	<p>Complete</p>
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**Table 2:** Summary of resources/sources that were accessed/contacted for background information as part of the Ecology study

Source	Review/Contacted
Ingersoll and District Nature Club	Emailed twice no response.
Oxford Trail Committee	Emailed twice, response received December 5, 2018.
Ministry of Natural Resources Fish Dot Mapping	Fish Records Requested by Email from MNRF Aylmer Office (Emilee Hines/MAR 2018) and UTRCA (Michelle Fletcher/FEB 2018).
Ministry of Natural Resources Natural Heritage Information Centre	Reviewed during preparation of baseline conditions report.
Upper Thames River Conservation Authority. 2007. Woodstock Natural Heritage Inventory	Reviewed during preparation of baseline conditions report.
Cudmore, B., C.A. MacKinnon and S.E. Madzia. 2004. Aquatic species at risk in the Thames River watershed, Ontario. Can. MS Rpt. Fish. Aquat. Sci.	Reviewed during preparation of baseline conditions report.
Taylor, I., B. Cudmore, C.A. MacKinnon, S.E. Madzia and S. Hohn. 2004. The Thames River Watershed Synthesis Report	Reviewed during preparation of baseline conditions report.
Fisheries and Oceans Canada SAR Mapping	Reviewed during preparation of baseline conditions report.
Transport Canada Airport Bird Strike Data	Reviewed during preparation of bird hazard study.
Airport Wildlife Management Plans (3)	Reviewed during preparation of bird hazard study.
Christmas Bird Count data	Reviewed during preparation of bird hazard study / baseline conditions report
Ontario Breeding Bird Atlas Data (and other atlas data as available)	Reviewed during preparation of bird hazard study / baseline conditions report.
Upper Thames River Conservation Authority natural heritage data	Emailed multiple contacts regarding terrestrial, aquatics and species at risk and received responses.
Knowledgeable local naturalists	Contacted a single ecologist regarding observations of birds in the vicinity of the study area for bird hazard study / baseline conditions report. Unable to obtain contact information for others to date.
Ministry of Natural Resources District Office	Emailed MNRF Aurora district office and received response February 7, 2018.
Official Plan policies and mapping related to natural features	Reviewed during preparation of baseline conditions report
Oxford Natural Heritage Systems Study (ONHSS)	Reviewed during preparation of baseline conditions report
Community Liaison Committee	Information provided by members of the Community Liaison Committee to Walker were circulated to Beacon for review / incorporation into the baseline conditions report where appropriate

# Southwestern Landfill

## *CLC Annual Performance Review*

### **RESPONSE DATA**

October 2017

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#### **KEY OBJECTIVES**

An annual performance review of any committee is an important management tool for assessing strengths and weaknesses and for identifying opportunities for improvements that enhance communication and promote effective and efficient working relationships. Recognizing the value of a performance review, our facilitation team provided the CLC members with an opportunity to assess whether over the past year CLC objectives (as defined in the CLC Charter) have been met and if all participants, including the facilitator and Walker, are effectively enabling the dialogue between the community and Walker.

#### **THE APPROACH**

During the summer and at the CLC Meeting #29 on September 20, 2017, CLC members filled out a CLC Quality Review feedback form. The form included questions that reflected commitments in the CLC Charter. For the 2016/2017 CLC Annual Review, a total of 11 forms were completed; participants had the option of signing their name or remaining anonymous.

The facilitator recommended that moving forward, that there be an Annual Review of the CLC as a standing agenda at the first meeting back from the summer holidays. Members of the CLC agreed.

The findings from the eleven (11) sets of responses have been summarized by question. Walker (2 people) also completed the form but did not respond to questions related to an assessment of the effectiveness of their role.

#### **SUMMARY OF RESULTS**

Overall, the CLC members indicated that they are satisfied with the forum as a mechanism to be informed about the project and to provide the proponent with input. Many noted a significant shift in the quality of the CLC meetings in the past year, compared to previous years. Feedback from CLC members was that there is still room for improvement, especially in the three following areas:

- (1) CLC members recognized that Walker was genuinely invested in providing consultation material, but some still struggle with the amount and the complexity of information they needed to deal with, calling for additional effort to be concise, precise but remaining complete and transparent.
- (2) CLC members also believed members have generally been respectful, honest and open during the meetings, but some members believe the CLC members can still do better, despite their positions on the proposal.
- (3) The meeting is generally assessed to be too long and some suggested that more technical topics be covered in separate meetings to ensure the CLC meeting is more effective.

# Southwestern Landfill

## CLC Annual Performance Review

### DETAILED RESULTS

A form was provided to the CLC members with 10 statement-question to which each member had to rate if they strongly disagreed (1), somewhat disagreed (2), were neutral to (3), somewhat agreed (4) or strongly agreed (5). These are the summary of the 11 filled forms received. **Question 1 – Overall, I believe this year’s work of the CLC corresponds to the purpose outlined in the Charter.**

- The majority of the CLC members agrees or strongly agrees (9) with that statement while two (2) were neutral or somewhat disagreed.

**Question 2 – Quality of the CLC Meeting rated on a score of 5:**

- Room: 4.1/5
- Location: 4.4/5
- Duration: 3.6/5
- Time of the Day: 4.4/5
- Frequency: 4.3/5
- Number of Participants: 4.1/5

**Question 3 – I think that the CLC meetings are well-managed: clear agenda, fair allocation of time, availability of meeting materials and accurate CLC summaries.**

- The majority (9) of CLC members somewhat or strongly agree, while 1 CLC member somewhat disagreed with the statement. One (1) did not answer.

**Question 4– I think the Facilitator efficiently manages the meeting, provides a suitable amount of time for discussion, and appropriately facilitates difficult discussions.**

- The majority (9) of CLC members somewhat or strongly agreed, while 2 CLC members were neutral or somewhat disagreed.

**Question 5– I think that the consultation materials and information provided by Walker have been concise, complete and clear for me to provide input.**

- Four (4) CLC members somewhat agreed or strongly agreed with that statement, but four (4) felt neutral about it and one (1) somewhat disagreed. Two (2) CLC members (Walker) did not respond.

**Question 6 – About respect, openness and honesty**

**a) I feel that during meetings, CLC members are respectful, open and honest.**

Three people (3) somewhat disagreed, while four (4) felt neutral about the statement and three (3) somewhat agreed. One (1) did not respond.

**b) I feel that during meetings, Walker representatives are respectful, open and honest**

The majority (7) of CLC members somewhat or strongly agreed, while one (1) CLC member felt neutral and another (1) somewhat disagreed. Two (2) CLC members (Walker) did not respond

# Southwestern Landfill

## *CLC Annual Performance Review*

**Question 7– I feel that I am listened to and that my concerns have been properly recorded and responded to.**

- The majority (6) of CLC members somewhat or strongly agreed, while three (3) felt neutral or somewhat disagreed. Two (2) CLC members (Walker) did not respond.

**Question 8– I believe my participation on the CLC is meaningful and I am actively providing input representing community interests, goals, and aspirations so that Walker can better align the environmental assessment and proposal based on the input.**

- The majority (7) of CLC members somewhat or strongly agreed, while one (1) CLC member felt neutral and one (1) disagreed. Two (2) CLC members (Walker) did not respond.

**Question 9– I actively relay information discussed at CLC meetings to other members of my community.**

- The majority (6) of CLC members somewhat or strongly agreed, while three (3) felt neutral about it. Two (2) CLC members (Walker) did not respond.

**Question 10– I believe the composition of the CLC is representative of our community and reflects their values and priorities.**

- The majority (10) of CLC members somewhat or strongly agreed, while one (1) felt neutral about it.

### **ADDITIONAL COMMENTS**

- CLC members would like the materials to be distributed further in advance of the CLC meeting compared to current practice of 2 weeks prior.
- Some CLC members believe that the input provided at each meeting (to which they expect a response) are not clearly documented and disclosed.
- One CLC member recommends that if modifications are being made to the original versions of the materials before the meeting date, that a notification with a revision number and materials in tracked changes be distributed to ensure traceability.
- Some CLC members made specific comments that they enjoy having sufficient time with the EA Advisor and that, although time runovers did not occur often, the CLC meeting time should be respected.

A CLC member noted that it has been helpful to move non-agenda questions and discussions to the end of meetings to ensure that agenda items are covered.

### **SPECIFIC SUGGESTIONS FOR IMPROVEMENT**

- Where topics are more complex or long to handle, the CLC should organize a separate meeting dedicated to the topic or an alternative format (ex. working group or sub-

# Southwestern Landfill

## CLC Annual Performance Review

committee) to ensure high quality participation from CLC members in the primary forum.

- Facilitator to ask for follow-up questions on the subject being discussed before moving on to the next person in line. This would keep the subject from bouncing back and forth.
- There were suggestions for increased representation from near neighbours (Beachville Rd), real-estate, small businesses, and the farming community.
- Reduce frequency and length of meetings.
- Additional breaks or activity to reduce the amount of sitting time.
- A list of CLC provided inputs captured as an attachment to the CLC Summary.

### **CLOSING REMARKS**

Recommendations from the CLC for improving the quality of the meetings will begin at the CLC meeting #30 on November 22, 2017.

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*Prepared by Katrina Kroeze, CLC Documenter.*

*Approved by Laurie Bruce, CLC Facilitator.*

*If you have any questions about this summary, please call 416-992-9669 or email [communitylaisoninfo@gmail.com](mailto:communitylaisoninfo@gmail.com)*

*If you have questions for Walker, please call 1-855-392-5537 or email [info@walkerea.com](mailto:info@walkerea.com)*

# Southwestern Landfill

## *CLC Annual Performance Review*

### **RESPONSE DATA**

December 2018

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#### **KEY OBJECTIVES**

An annual performance review of any committee is an important management tool for assessing strengths and weaknesses and for identifying opportunities for improvements that enhance communication and promote effective and efficient working relationships. Recognizing the value of a performance review, our facilitation team provided the CLC members with an opportunity to assess whether over the past year CLC objectives (as defined in the CLC Charter) have been met and if all participants, including the facilitator and Walker, are effectively enabling the dialogue between the community and Walker.

#### **THE APPROACH**

During the summer and at the CLC Meeting #34 on November 28, 2018, CLC members were provided with a CLC Quality Review feedback form. The form included questions that reflected commitments in the CLC Charter. For the 2018 CLC Annual Review only three forms were submitted.

The findings from the three sets of responses have been summarized by question. Walker did not complete the form.

#### **RESULTS**

A form was provided to the CLC members with 10 statement-question to which each member had to rate if they strongly disagreed (1), somewhat disagreed (2), were neutral to (3), somewhat agreed (4) or strongly agreed (5). These are the summary of the 3 filled forms received.

#### **Question 1 – Overall, I believe this year’s work of the CLC corresponds to the purpose outlined in the Charter.**

- Two of the CLC members strongly agreed (5) and one somewhat agreed (4)
- One respondent indicated they are concerned consultants are not always listening to input
- One respondent indicated the change in the format with questions related to previous meetings upfront in the agenda keeps meetings on track and focused

# Southwestern Landfill

## *CLC Annual Performance Review*

### **Question 2 – Quality of the CLC Meeting rated on a score of 5:**

- Room: 5/5 for all respondents
  - Location: 5/5 for all respondents
  - Duration: 5/5 for all respondents
  - Time of the Day: 5/5 for all respondents
  - Frequency: 4/5 for one respondent and 5/5 for two respondents
  - Number of Participants: 5/5 (only two responses)
- One respondent commented that when meetings are spaced out to every three months sometimes difficult to get back to “landfill mode”
  - One respondent commented that the room can get small if all members and guests are in attendance

### **Question 3 – I think that the CLC meetings are well-managed: clear agenda, fair allocation of time, availability of meeting materials and accurate CLC summaries.**

- All three respondents indicated that they strongly agreed with this statement
- One respondent stated that the meetings are much better than they were before
- One respondent stated that the chair has done a good job running meetings and allowing for discussions without the meeting agenda being sidetracked
- One respondent commented that the materials are available well in advance of the meeting and the summaries are accurate

### **Question 4– I think the Facilitator efficiently manages the meeting, provides a suitable amount of time for discussion, and appropriately facilitates difficult discussions.**

- All respondents strongly agreed with this statement

### **Question 5– I think that the consultation materials and information provided by Walker have been concise, complete and clear for me to provide input.**

- One respondent somewhat disagreed (2), one respondent somewhat agreed (4) and one respondent strongly agreed.
- One respondent indicated that full reports should be provided, not just excerpts
- One respondent expressed the opinion that this is a very technical process and that it is difficult to reword in a manner that is suitable for non-professionals. Walker does its best but some data is too technical and nuanced to fully understand.
- One respondent stated that it is useful for definitions for terminology to be provided to the CLC members

# Southwestern Landfill

## *CLC Annual Performance Review*

### **Question 6 – About respect, openness and honesty**

- a) **I feel that during meetings, CLC members are respectful, open and honest.**
- All respondents strongly agreed (5)
- b) **I feel that during meetings, Walker representatives are respectful, open and honest**
- Two respondents strongly agreed (5) and one somewhat agreed (4)
  - One respondent stated that civility has been restored but, in some cases, CLC members have acted rudely to experts
  - One respondent stated that Walker has been honest, open and respectful
  - One respondent expressed concern that one of the consultants attending the CLC meeting was curt, defensive and dismissive

### **Question 7– I feel that I am listened to and that my concerns have been properly recorded and responded to.**

- Two respondents stated that they somewhat agreed (4) and one stated that they strongly agreed (5)
- One respondent expressed that responses to concerns are sometimes unsatisfactory
- One respondent stated that waiting for responses for 3 months between meetings can be frustrating.

### **Question 8– I believe my participation on the CLC is meaningful and I am actively providing input representing community interests, goals, and aspirations so that Walker can better align the environmental assessment and proposal based on the input.**

- Two respondents stated that they somewhat agreed (4) and one stated that they strongly agreed (5)
- One respondent offered the comment that the application will be judged on whether the science has proved there will not be any negative environmental impact despite the work by the CLC

### **Question 9– I actively relay information discussed at CLC meetings to other members of my community.**

- All respondents stated they strongly agreed.
- One respondent stated they would like meeting materials to be posted to the website ASAP after the meeting since they have discussions with community members



# Southwestern Landfill

## CLC Annual Performance Review

**Question 10– I believe the composition of the CLC is representative of our community and reflects their values and priorities.**

- All respondents stated that they strongly agreed (5)

### **ADDITIONAL COMMENTS**

- One CLC member indicated that while the CLC does not want the landfill, if it is approved, they want it to be operated in the best possible way and in a manner that is best for the community
- One CLC member indicated that they would like the opportunity to read the final draft before the general public gets it so that they are able to interpret the document if asked
- One CLC member stated that the monopolization of meetings has ended and they are far more efficient.

### **SPECIFIC SUGGESTIONS FOR IMPROVEMENT**

- CLC members and Walker representatives are reminded that there is an expectation that we will be respectful of each other. This message will be shared with all consultants attending CLC meetings.
- Efforts will be made to get the summary of the meeting and business arising distributed within the month following the meeting.
- Materials will be posted to the website in a timelier manner
- Members are encouraged to flag concerns as they arise with respect to answers they do not consider fulsome
- Definitions of key terms to be provided as support materials to CLC members

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*Prepared by Laurie Bruce, CLC Facilitator.*

*If you have any questions about this summary, please email [communitylaisoninfo@gmail.com](mailto:communitylaisoninfo@gmail.com)*

# Traffic Study Questions from CLC Meeting #35

## Responses Provided by HDR (Traffic Study Consultant)

### 1) Methodology questions:

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#### a. Were types of vehicles noted?

Response: Different type of vehicles were examined in the traffic study, including cars, medium trucks, and heavy trucks. School buses were classified as medium trucks but can be separated depending on the data sources. We understand there are farm vehicles but none were observed and none were specifically categorized in the traffic count sources. Example breakdown of medium and heavy truck percentages are summarized in the following table:

**Table 1: Truck Distribution – Extracted from Existing Data and Applied to Forecast Traffic**

Type	Location	AM Peak Hour	PM Peak	SAT Peak
Medium Truck	Passing Through Beachville / CR 6	30%	29%	35%
	Study Area Network	29%	28%	37%
Heavy Truck	Passing Through Beachville / CR 6	70%	71%	65%
	Study Area Network	71%	72%	63%

#### b. Were emergency events studied over the past year?

Response: Emergency events in which the EDR route was used along Highway 401 from 2013 to 2018 were studied over the past years based on the data provided by MTO. A total of 32 events occurred between 2013 and 2018, including twenty-six events related to collision, two events related to bridge construction, one event related to animal control, one related to OPP closure, and one related to weather conditions. Other than reporting/document these events, the traffic study does not comment or include any analysis of the EDR which are outside the haul route study corridor (i.e. south of Highway 401).

#### c. Was the use of engine breaks documented?

This is outside the scope of the traffic study.

#### d. Were road conditions (ie. pavement conditions, shoulder conditions) observed and reported?

Response: The road pavement conditions were observed and reported based on our field visits. There will be no geotechnical or pavement analysis conducted as this is outside the scope of the traffic study.

Beginning in the north end of the study area, the pavement condition along Country Road 6 can be characterized as:

- “Good” from Dundas Street to south of Beachville Road, except for:
  - Directly in front of the existing site driveways (2) where there are potholes and the condition is “poor”.
- “Fair” from south of Beachville Road to just south of the Highway 401 interchange, except for:
  - The north-south approaches at Beachville Road where the condition is “poor”; there is quite a bit of shoving and/or rutting occurring due to the high number of trucks stopping here;

- Potholes, transverse and longitudinal cracking at Clark Road where the condition is “poor”;
- Potholes, transverse and longitudinal cracking at the Highway 401 interchange where the condition is “poor”;
- “Fair” to the south of the Highway 401 interchange to Curry Road.

Shoulders were in good conditions during the field visit. Cars, medium trucks and heavy trucks have been observed to park on the shoulder.

**e. If school bus safety was factored into the study**

Response: School bus safety was factored into the study as it relates to documenting their volumes, routes, and observing their influence on intersection and bus stop operations. There were no historic school bus collisions on County Road 6. The traffic counts of existing traffic volumes considered the existing buses under medium truck category. As the existing traffic operations of the overall intersections are currently operating under acceptable performance levels, there were no operational issues related to school buses.

School buses which travelled on County Road 6 during the AM and PM periods were counted and summarized in the following table. These bus counts were incorporated into traffic and safety analysis of impacts of the increased truck volumes.

**Table 2: AM Peak Period Total Bus Counts (on County Road 6)**

Intersection	Northbound Approach	Southbound Approach	Eastbound Approach	Westbound Approach	Total
Road 66	1	0	1	1	3
Beachville Road	2	0	4	3	9
Karn Road	2	0	5	0	7
Clarke Road	3	1	2	1	7
Highway 401 North Ramps	1	3	1	4	9
Highway 401 South Ramps	2	6	0	0	8

**Table 3: PM Peak Period Total Bus Counts (on County Road 6)**

Intersection	Northbound Approach	Southbound Approach	Eastbound Approach	Westbound Approach	Total
Road 66	0	0	1	1	2
Beachville Road	0	0	3	5	8
Karn Road	0	1	1	4	6
Clarke Road	2	1	2	1	6
Highway 401 North Ramps	3	2	0	0	5
Highway 401 South Ramps	8	2	1	0	11

**f. Frequency of train movements – how you studied train movements (number, timing, etc.); how many trains/queueing were observed?**

Response: Train arrival is very random, and field observations within four days (October 17, 18; November 10, 15 in 2018) did not find any train arrival within the targeted surveyed time periods for those days. Therefore, HDR commissioned a video recording near the train track for six days from Feb 25, 2019 to March 02, 2019. The results for the frequency of train movements and queuing caused by the arrival of the train were summarized below:

- The maximum road blockage time by a train was 0:01:26 and the minimum road blockage time by a train was 0:00:20;
- The maximum queue was 3 vehicles. The distance between the train track and the intersection is 60 metres, which should be sufficient for 3 vehicles.

**g. Do you factor in how quickly a truck can top depending on seasonal conditions? How are winter driving conditions as well as snow removal vehicles factored in?**

Response: Winter truck performance was not part of the traffic study scope. There were no observations conducted during winter conditions, including observations of snow removal vehicles.

**h. Provide the standard methodology for determining the level of congestion in an intersection.**

Response: The level of congestion is measured by factors such as volume to capacity ratio (v/c ratio) and Level of Service (LOS). Level of service is based on the average control delay per vehicle for a given moment; while the volume to capacity (v/c) ratio is a measure of the degree of capacity utilized at an intersection. Delay is an indicator of how long a vehicle must wait to complete a movement and is represented by a letter between 'A' and 'F', with 'F' being the longest delay. The LOS is determined by how long a vehicle waits at an intersection, which includes any traffic control (signal) delay and delay caused by queues or waiting for a gap (for turning at unsignalized intersections).

There are 6 categories of LOS as shown in the table below. The descriptions under the “flow type” and “service” column are paraphrases from the County of Oxford (used in the TMP) and are slightly different when compared to the Highway Capacity Manual (HCM) definitions.

**Table 4: Level of Service Definitions used by County of Oxford**

Level of Service	Delay in Seconds <sup>1</sup> (Signalized Intersection)	Delay in Seconds <sup>2</sup> (Unsignalized Intersection)	v/c ratio <sup>3</sup> (of link)	Flow Type	Service <sup>4</sup>
A	≤10	≤10	0 to 0.59	Free Flow	Uncongested
B	> 10 and ≤20	> 10 and ≤15	> 0.60 to 0.69	Stable Flow	Low Potential For Congestion
C	> 20 and ≤35	> 15 and ≤25	> 0.70 to 0.79	Stable Flow	Low Potential For Congestion
D	> 35 and ≤55	> 25 and ≤35	> 0.80 to 0.89	Unstable Flow	High Potential For Congestion
E	> 55 and ≤80	> 35 and ≤50	> 0.90 to 1.00	Capacity	Congested
F	> 80	> 50	> 1.0	Forced Flow	Congested With High Potential For Diversion In Network That Results In System Wide Failure

<sup>1</sup> HCM 2000

<sup>2</sup> HCM 2000

<sup>3</sup> Oxford County Transportation Master Plan Study (2009)

<sup>4</sup> Oxford County Transportation Master Plan Study (2009)

## **2) Concern to be provided on behalf of CLC:**

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A CLC member noted very small shoulder on the hill near the County Rd 6/Beachville Rd intersection. Concern about lack of safe place for vehicle repair should trucks break down while climbing.

Response: The shoulder conditions were observed to be in good condition during our field visit. The shoulder widths are approximately 2.5m and were generally consistent on both sides of County Road 6 throughout the study area, based on our field visit and the Road Network Assessment Report prepared by Oxford County. The width may be tight for trucks to be fully stopped within the shoulder but these are standard shoulder widths. We did not observe any truck break downs.

## **3) Other Questions**

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### **a. County traffic study stating County Rd. 6 will have capacity constraints in the future – how is this being factored into the study?**

Response: Based on the annual average daily traffic (AADT) and traffic volume data provided by the County and collected by HDR, we used a 1% growth rate for the traffic volumes, which was consistent with the population growth rate and employment growth rate provided in the Oxford County Transportation Master Plan. In our future conditions analysis, we did not observe or determine any capacity issue for southbound traffic on County Road 6, north of Highway 401.



# Regulation Limit

Regulation under s.28 of the *Conservation Authorities Act*  
 Development, interference with wetlands, and alterations to shorelines and watercourses. O.Reg 157/06, 97/04.

## Legend

- Road Labels (1:64K)
- Road (1:64K)
  - Freeway
  - Expressway / Highway
  - Arterial
  - Collector
  - Local Street
  - Ramp
- Assessment Parcel
- Watercourse
  - Open
  - Tiled
- Unevaluated Wetland (UTRCA)
- Flooding Hazard
- Erosion Hazard
- Wetland Interference
- Regulation Limit

The Regulation Limit depicted on this map schedule is a representation of O.Reg 157/06 under O.Reg 97/04.  
 The Regulation Limit is a conservative estimation of the hazard lands within the UTRCA watershed. Depending on the specific characteristics of the hazard land and the land use proposed, the Regulation Limit may be subject to change.

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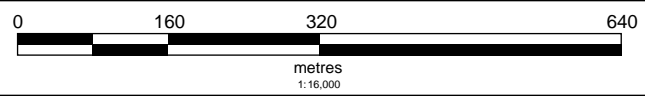
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This map is not a substitute for professional advice. Please contact UTRCA staff for any changes, updates and amendments to the information provided.

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Notes:  
 Proposed Landfill - (current Beachville Quarry), Township of Zorra  
 Map 1 of 5 - Natural Hazard Features  
 Created By: KW5 March 22, 2012

\* Please note: Any reference to scale on this map is only appropriate when it is printed landscape on legal-sized (8.5" x 14") paper.



### **CLC Meeting 35**

Other documents sent as materials, but not included as pages in this Appendix (to cut down on duplication, paper waste and/or very large digital files):

- 1) Transcript: [http://www.walkerea.com/uploads/1293/Doc\\_636927521686912248.pdf](http://www.walkerea.com/uploads/1293/Doc_636927521686912248.pdf)

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