



## **Appendix S**

### Summary of Meetings on Alternatives To the Undertaking



## **Upper York Sewage Solutions Environmental Assessment**

# **Results of the Additional Participant Consultation on the Alternatives To the Undertaking Stage of the UYSS EA**

**Prepared for:  
The Regional Municipality of York**

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Results of the Additional Participant  
Consultation on Alternatives To the Undertaking  
Upper York Sewage Solutions EA



## Table of Contents

1.0	Introduction	1
2.0	Summary of Meetings and Presentations	1
3.0	Summary of Comments Received	2
4.0	Summary of Responses to Questions Asked During Meetings	10

## List of Tables

Table 1	Summary of Meetings and Presentations on the Recommended Alternative To the Undertaking	1
Table 2	Summary of Comments Received and How the Comments will be Considered	2

## 1.0 Introduction

This report summarizes the results of the additional participant consultation held as part of the Alternatives To the Undertaking stage of the Upper York Sewage Solutions (UYSS) Environmental Assessment (EA). As requested by York Region, the UYSS project team held individual meetings with various participants leading up to the June 28 and 29, 2011 Public Information Forums (PIFs). In parallel with these efforts, representatives from York Region also presented to local municipal councils within the study area.

These consultation events were held with participants who had previously expressed an interest in the project or were identified as having a potential interest in the project. A summary of the meetings and presentations are included in **Section 2** of this report.

The individual meetings and presentations were held to provide information and elicit comments on the UYSS EA as well as to address questions relevant to the tentatively recommended Alternative to the Undertaking (Lake Simcoe Water Reclamation Centre Alternative). A summary of the comments received and how they will be considered is included in **Section 3** of this report. As part of meetings, the project team asked three open ended questions of the participants to ensure constructive feedback was obtained. A summary of the comments heard in response to these questions is included in **Section 4** of this report.

## 2.0 Summary of Meetings and Presentations

As discussed in Section 1, meeting participants were identified who had previously expressed an interest in the project or were identified as having a potential interest in the project. Participants were contacted by e-mail and later by follow up telephone calls. They were provided with background on the UYSS project and the tentatively recommended alternative, and asked if they or another individual from their organization would be willing to meet with the project team to discuss the project further.

The following 24 participant groups were offered the opportunity to meet with the project team:

- Brouwer Sod Farms
- Cardinal Golf Club
- East Gwillimbury Developers Group
- Town of East Gwillimbury
- Environmental Defense
- Friends of the Rouge
- Georgian Bay Association
- Town of Georgina
- Ladies of the Lake
- Lake Simcoe Science Forum
- Lake Simcoe Region Conservation Authority
- Queensville Sod Farm Ltd.
- Rescue Lake Simcoe Coalition
- Save the Oak Ridges Moraine (STORM) Coalition
- Save the Maskinonge
- Sierra Club of Ontario
- Silver Lakes Golf & Country Club
- South Lake Simcoe Naturalists
- University of Guelph Turf Grass Institute
- Windfall Ecology Centre
- York Region Public Health
- York Federation of Agriculture
- York Region Environmental Alliance
- York Simcoe Naturalists

Meetings were held with 12 of these participant groups. The remaining 12 groups either declined or did not respond. In addition, representatives from York Region delivered two presentations to local municipal councils. The complete list of meetings in chronological order is included in **Table 1** below.

**Table 1 Summary of Meetings and Presentations on the Recommended Alternative To the Undertaking**

<b>Participant Group</b>	<b>Meeting Date</b>	<b>Attendees from Participant Group</b>
Town of East Gwillimbury Committee of the Whole	April 18, 2011	Town of East Gwillimbury Council
Town of Georgina	April 20, 2011	Sue Plamondon, Chief Administrative Officer Bob Magloughlen, Director of Engineering and Public Works Harold Lenters, Director of Planning and Building
Lake Simcoe Region Conservation Authority	April 27, 2011	Mike Walters, General Manager, Watershed Management Rob Baldwin, Director, Planning and Development Services
Town of Georgina Committee of the Whole	May 2, 2011	Town of Georgina Council
Town of East Gwillimbury	May 12, 2011	Ken Neale, Communications Director
Georgian Bay Association	May 20, 2011	Bob Duncanson Jeremy Gawen
Developers in East Gwillimbury and MMM Group	May 26, 2011	Joanne Barnett, Kerbel Group Fraser Nelson, Metrus Development Inc. Paul Baily, Sharon Development Group Bob Webb, MMM Group Adolfo Emer, MMM Group
Lake Simcoe Coordinating Committee and Science Committee	May 26, 2011	Lake Simcoe Coordinating Committee and Science Committee
Ladies of the Lake	May 30, 2011	Annabel Slaight
Save the Oak Ridges Moraine (STORM) Coalition and Save the Maskinonge	May 30, 2011	Debbe Crandall Debbie Gordon

Participant Group	Meeting Date	Attendees from Participant Group
York Region Public Health Services	May 31, 2011	Joe Lamarca Steve Rebellato Mira Shnabel
Queensville Sod Farm Ltd. and University of Guelph Turf Grass Institute	June 14, 2011	Gerald Brower Eric Lyons Katerina Jordon

### 3.0 Summary of Comments Received

A variety of comments were received in response to the meetings held and presentations made; however, in general, the comments are grouped around the following topics:

- EA Process/Alternatives To Assessment
- Lake Simcoe
- Water Reuse
- Phosphorus Credits
- Growth
- Water Reclamation Centre Site
- Communication and Consultation

With this in mind, the specific comments relating to each topic is summarized in **Table 2** along with how they will be considered as part of the UYSS EA.

**Table 2 Summary of Comments Received and How the Comments will be Considered**

Comments Received	How The Comments Will be Considered
<b>EA Process/Alternatives To Assessment</b>	
<ul style="list-style-type: none"> <li>▪ Ensure you do not communicate a negative bias against Lake Ontario</li> </ul>	<ul style="list-style-type: none"> <li>▪ The Lake Simcoe Water Reclamation Centre Alternative was presented as the tentatively recommended alternative at the June 2011 Public Information Forums. Based on input received from participants, the Region will either confirm this as the preferred alternative, or select another alternative.</li> </ul>

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**Comments Received**

**How The Comments Will be Considered**

- Have you built the price of reclaimed water distribution, and price of phosphorus off-sets into comparison of costs?
  
- How was financial viability analyzed?
  
- A decision on the Water Reclamation Centre should not be made until the demonstration facility is complete

- A conceptual costing analysis has been undertaken for all of the Alternatives. The costs of a reclaimed water distribution system are included in the conceptual cost analysis of the Lake Simcoe Water Reclamation Centre alternative.
  
- Overall, the Net Present Value (NPV) costs (capital cost plus 50-year Operation and Maintenance NPV costs) of the Discharge to Lake Ontario and Lake Simcoe Water Reclamation Centre alternatives are comparable. There is opportunity to stage construction of the Lake Simcoe Water Reclamation Centre Alternative, which allows deferral of capital cost to match growth. The majority of the Discharge to Lake Ontario alternative would require full construction up front.
  
- The Lake Simcoe Water Reclamation Centre Alternative is currently the recommended alternative. In Fall 2011, a “preferred alternative” will be selected to move forward to the “Alternative Methods” stage of the Environmental Assessment. The Environmental Assessment will not be submitted until the demonstration facility has operated for one year.

**Lake Simcoe**

- What will be the impact of pharmaceuticals, endocrine disruptors?

- Research studies demonstrate that reverse osmosis, in combination with other wastewater treatment processes, has the highest efficacy for removal of microconstituents (including pharmaceuticals and personal care products).
  
- At this time there are no regulations in Ontario or the rest of the world regarding microconstituents removal for wastewater treatment plant discharges. Regulatory agencies and researchers are currently conducting studies on this subject to assess the fate, transport, and effects of microconstituents in effluent. Regulators will utilize that data to determine if such compounds need to be regulated.

Comments Received	How The Comments Will be Considered
<ul style="list-style-type: none"> <li data-bbox="191 344 748 401">▪ The health of Lake Simcoe impacts other communities around the Lake</li>   <li data-bbox="191 743 748 800">▪ Has potential implications for Source Water Protection and wellhead protection zones</li>   <li data-bbox="191 940 748 1031">▪ Phosphorus discharge concentration as compared to Duffins Creek, current septic systems, Holland Landing Lagoons</li>   <li data-bbox="191 1325 748 1409">▪ As part of Great Lakes Water Quality Agreement, there is a push to reduce near shore discharge contaminants</li> </ul>	<ul style="list-style-type: none"> <li data-bbox="818 344 1419 527">▪ York Region recognizes that communities on Lake Simcoe may have an interest in the UYSS EA. With that in mind, the UYSS project team made a presentation to the Lake Simcoe Coordinating and Science Committees on May 26, 2011.</li>   <li data-bbox="818 548 1419 730">▪ As well, on June 16, 2011, at the Invitation of the Lake Simcoe Region Conservation Authority and hosted by the Town of Innisfil, Regional Management presented to Chief Administrative Officer's from municipalities within the Lake Simcoe watershed.</li>   <li data-bbox="818 751 1419 934">▪ As part of assessing the Alternatives To the Undertaking, all Alternatives were assessed against the following criteria: "Is the alternative consistent with the Source Water Protection – South Georgian Bay Lake Simcoe Source Protection Region?"</li>   <li data-bbox="818 955 1419 1304">▪ The Water Reclamation Centre discharge concentration of total phosphorus would be in the range of 0.01 to 0.02 mg/L. By comparison, the Certificate of Approval for the Duffins Creek WPCP allows for a maximum phosphorus concentration of 1.0 mg/L. Therefore, under the Lake Ontario Discharge solution a larger amount of Phosphorous would be discharged to a water course or water body. The current Lake Ontario water quality and water environment will allow this higher amount to be added safely.</li>   <li data-bbox="818 1325 1419 1591">▪ The Lake Simcoe Water Reclamation Centre alternative would include a project specific phosphorus off-setting program through a minimum 2:1 reduction of other sources of phosphorus (e.g., a credit of 1 kg for every 2 kg of phosphorus that is removed). This will result in a minimum net reduction of 95 kg/year of total phosphorus to the Lake Simcoe watershed.</li> </ul>

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**Comments Received**

**How The Comments Will be Considered**

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| <ul style="list-style-type: none"> <li>▪ Conservation authorities typically are concerned about increased quantity of water, specifically flooding and erosion. Is that a concern here?</li> <br/> <li>▪ Consider the impact of sustained change of flow on stream geomorphology, specifically during wet weather incidents and impact on flood plains.</li> <br/> <li>▪ Discharge of water will increase the temperature in watercourse and may prevent ice from forming in the winter.</li> <br/> <li>▪ Have you considered other chemical and nutrient contaminants?</li> <br/> <li>▪ The public may raise concerns about the cumulative phosphorus impacts of development around the lake.</li> </ul> | <ul style="list-style-type: none"> <li>▪ The Water Reclamation Centre concept has been assessed at this stage assuming a discharge to the East Holland River. This assessment has indicated that should the discharge occur, it will increase the sustained flows in the East Holland River. If the Lake Simcoe Water Reclamation Centre alternative is advanced to the next stage of the EA, an impact analysis of the increased sustained flow on channel morphology and high water levels will be completed to meet the Lake Simcoe Region Conservation Authority requirements.</li> <br/> <li>▪ See response above.</li> <br/> <li>▪ York Region will consider additional consultations with Holland Landing and Georgina Snowmobile Clubs as appropriate.</li> <br/> <li>▪ Phosphorus has been identified as a contaminant of concern in Lake Simcoe. However, York Region will also evaluate typical constituents for sewage treatment facilities in the next phase of study.</li> <br/> <li>▪ While not within the scope of the UYSS EA, the Lake Simcoe Protection Plan includes policies to promote environmentally sustainable land uses and development practices. For example, all developments must provide stormwater management in accordance with Policy 4.8-DP, which states the following: "...requires that all major development has a stormwater management plan to address water quality and quantity associated with stormwater from new developments."</li> </ul> |
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**Comments Received**

**How The Comments Will be Considered**

- If there is more total phosphorus in discharged effluent than in the water supply, there will be a net increase in phosphorus loading to Lake Simcoe.
  
- Have to be very clear about how this can be allowed under the Lake Simcoe Protection Plan

- The phosphorus loading cap for the Holland Landing WPCP (lagoons) Certificate of Approval will be 124 kg/yr effective in 2015 under the Lake Simcoe Phosphorus Reduction Strategy. The Ministry of the Environment has agreed to consider allowing York Region to discharge above the cap with a project specific phosphorus mitigation/off-setting program. A total phosphorus loading of 219 kg/year is required to accommodate the flow (40 MLD) from growth forecasted to occur by 2031. Therefore, a phosphorus load increase of 95 kg/year above the cap of 124 kg/year would be required for the Water Reclamation Centre by 2031.
- The project specific phosphorus off-setting program would address this increase through a minimum 2:1 reduction of other sources of phosphorus (e.g., a credit of 1 kg for every 2 kg of phosphorus that is removed). For the Water Reclamation Centre, the Region will obtain a credit of 95 kg for 190 kg that will be removed within the watershed. Therefore, this will result in a minimum net reduction of 95 kg/year of total phosphorus to the Lake Simcoe watershed.
- Comment noted

**Water Reuse**

- Quality of contaminants in runoff used for irrigation, particularly as they are associated with sod farms
  
- Water reuse guidelines are not yet in place by the Ministry

- The irrigation water developed by the Lake Simcoe Discharge Water Reclamation Centre will be of a suitable quality for the irrigation purpose intended. There are many North American based water quality regulations and guidelines that have established water quality standards and operating practices to use certain levels of reclaimed water for irrigation. With respect to applying reclaimed water to sod farms, specific practices and water quality requirements to ensure safe and beneficial irrigation of the sod farms will be developed in detail during the next EA stage if this alternative is selected.
- The Ministry of the Environment has committed to developing project-specific water reuse guidelines.

Comments Received	How The Comments Will be Considered
<ul style="list-style-type: none"> <li>▪ What is the ratio of water that would be discharged to Lake Simcoe vs. water that would be reused?</li> <li>▪ Holland Marsh food growers use irrigation water directly from East Holland River, so any discharge to East Holland River would be taken up by food growers.</li> <li>▪ Are there odour issues with tertiary effluent?</li> <li>▪ The examples shown are from the southern United States. Do you have examples from our climate?</li> <li>▪ If 'snowfluent' becomes a possibility for winter irrigation, there are potential issues associated with applying nutrients on frozen ground.</li> </ul>	<ul style="list-style-type: none"> <li>▪ The Water Reclamation Centre would be designed so that 100% of the wastewater (approximately 40 MLD) could be discharged to the receiving watercourse. However, the higher the volume of reclaimed water used, the lower the phosphorus loading to watercourses.</li> <li>▪ If discharged to the East Holland River, the Water Reclamation Centre effluent is expected to improve conditions in the East Holland River. The Water Reclamation Centre discharge concentration of total phosphorus is in the range of 0.01 to 0.02 mg/L, which is less than current total phosphorus concentrations in the East Holland River (0.1 to 0.2 mg/L) and the Provincial Water Quality Objective of 0.03 mg/L.</li> <li>▪ There is no odour associated with tertiary effluent. Further, tertiary treatment in general does not generate poor air quality (i.e., a clean technology).</li> <li>▪ There is a 40 MLD reverse osmosis facility in Edmonton. Reverse osmosis technology is within a building and not dependant on climate.</li> <li>▪ Comment noted.</li> </ul>
<p><b>Phosphorus Credits</b></p> <ul style="list-style-type: none"> <li>▪ Would UYSS take all the phosphorus credit opportunities around Lake Simcoe?</li> <li>▪ Phosphorus credits bypass phosphorus caps</li> <li>▪ What is the trading ratio for phosphorus credits?</li> </ul>	<ul style="list-style-type: none"> <li>▪ This project is only considering phosphorus credits available within the study area.</li> <li>▪ The Ministry of the Environment has committed to allowing York Region to utilize phosphorus off-sets at a ratio between 2:1 to 4:1 for this project only. Therefore, there would be a net benefit to the Lake Simcoe watershed in terms of phosphorus removal. It is also noted that project specific phosphorus off-sets are being utilized in Uxbridge and Nobleton.</li> <li>▪ The proposed ratio is 2:1 to 4:1, and is being considered for this project only. It is also noted that project specific phosphorus off-sets are being utilized in Uxbridge and Nobleton.</li> </ul>

Comments Received	How The Comments Will be Considered
<b>Growth</b>	
<ul style="list-style-type: none"> <li>▪ Ability of YDSS extension to service approximately 5,400 units should continue to move forward.</li> <li>▪ Ability to service growth beyond 2031</li> <li>▪ By introducing more advanced treatment technology to allow for discharge to Lake Simcoe, does this project allow for increased growth around Lake Simcoe if other communities implement this technology in the future (perceived as both positive and negative)?</li> <li>▪ Would the recommended alternative jeopardize phosphorus caps for treatment facilities in other communities around Lake Simcoe?</li> <li>▪ How would servicing new growth in Whitchurch-Stouffville and Markham be affected?</li> </ul>	<ul style="list-style-type: none"> <li>▪ The UYSS project has no impact on the YDSS extension for those units and had always anticipated that the YDSS extension would be built.</li> <li>▪ To accommodate potential growth beyond 2031, assuming that the ultimate growth aspirations are approved through the various applicable planning processes and satisfaction of the applicable environmental assessment processes, there are several options including increased treatment capacity, increased use of reclaimed water, advancements in technology and a regulated water quality trading program that may be considered to meet demand.</li> <li>▪ While not within the scope of this project, development in the communities around Lake Simcoe is governed by the Growth Plan for the Greater Golden Horseshoe, local and regional official plans, and the Lake Simcoe Protection Plan.</li> <li>▪ The existing phosphorus caps on other treatment facilities will not be affected by the UYSS EA.</li> <li>▪ Growth in Whitchurch-Stouffville and Markham would not be impacted by the UYSS EA.</li> </ul>
<b>Water Reclamation Centre Site</b>	
<ul style="list-style-type: none"> <li>▪ Should not be located at Holland Landing lagoons</li> <li>▪ How is the site being selected?</li> <li>▪ How large of an area do you need for the site?</li> </ul>	<ul style="list-style-type: none"> <li>▪ As part of the Alternative Methods stage of the project, York Region will undertake a site search and evaluation.</li> <li>▪ As part of the Alternative Methods stage of the project, York Region will undertake a site search and evaluation.</li> <li>▪ The Water Reclamation Centre site will require a site approximately 30 ha (15 ha for the facility with a 15 ha buffer).</li> </ul>
<b>Communication and Consultation</b>	
<ul style="list-style-type: none"> <li>▪ The Region should work with the Town of East Gwillimbury Chief Administrative Officer to ensure information is conveyed to the local community</li> </ul>	<ul style="list-style-type: none"> <li>▪ York Region is collaborating with the Town of East Gwillimbury Communications Director to ensure information is conveyed to the local community.</li> </ul>

<b>Comments Received</b>	<b>How The Comments Will be Considered</b>
<ul style="list-style-type: none"> <li>▪ Should circulate technical reports to the Lake Simcoe Region Conservation Authority in advance to prevent delays in any approvals process</li> <li>▪ Critical to communicate that sewage has to be treated, and that the “Lake Simcoe Innovative Alternative” will be building a sewage treatment plant</li> <li>▪ Be clear that the “Innovative Alternative” is “Lake Simcoe Innovative Alternative”</li> <li>▪ Show the context of water and wastewater systems, as some members of the public may not understand this context.</li> </ul>	<ul style="list-style-type: none"> <li>▪ York Region will circulate technical reports to the Lake Simcoe Region Conservation Authority moving forward.</li> <li>▪ The Ministry of the Environment is the approval authority for the UYSS EA.</li> <li>▪ Where appropriate, presentation materials have been revised to clearly illustrate that the Water Reclamation Centre is an advanced wastewater treatment facility.</li> <li>▪ Where appropriate, the name “Innovative Wastewater Treatment Technologies” was renamed as the “Lake Simcoe Water Reclamation Centre Alternative”.</li> <li>▪ Where applicable, additional information on water and wastewater systems has been provided.</li> </ul>
<p><b>Other</b></p>	
<ul style="list-style-type: none"> <li>▪ What are the implications from an intra-basin transfer perspective?</li> </ul>	<ul style="list-style-type: none"> <li>▪ Servicing to 2031 in the service area includes Lake Ontario derived drinking water supply of 105 MLD in addition to the existing 40 MLD of Lake Simcoe derived groundwater supply. The Region’s application for this intra-basin transfer has been approved. This approval includes the grandfathering of the transfer of groundwater from the Lake Simcoe watershed after use to Lake Ontario.</li> <li>▪ With implementation of the Lake Simcoe Water Reclamation Centre Alternative, 40 MLD of the wastewater generated in the service area would be treated at the Water Reclamation Centre and discharged within the Lake Simcoe watershed while the remaining 105 MLD would be directed to the YDSS, treated and discharged to Lake Ontario. As such, this alternative maintains a water balance since the volume of water taken from a watershed is returned back to that watershed.</li> </ul>

Comments Received	How The Comments Will be Considered
<ul style="list-style-type: none"> <li>▪ What would the water supply be? Would additional water supply be required?</li>   <li>▪ Has there been thought to addressing innovation in YDSS, in not such as vulnerable a watershed?</li> </ul>	<ul style="list-style-type: none"> <li>▪ Servicing to 2031 in the UYSS service area will blend an additional Lake Ontario derived drinking water supply (approved by the Province as an intra-basin transfer from Lake Ontario to Lake Simcoe of up to 105 million litres/day (MLD)) with the existing Lake Simcoe basin groundwater supply through Regional municipal wells (sustainable yield approximately 40 MLD).</li>   <li>▪ Innovation as it applies to the Discharge to Lake Ontario was considered. To address innovation consisting of a wastewater purification system and water recycling facilities within York Region, construction of satellite treatment facilities along the conveyance route would be required. However, the proposed conveyance system from the service area across the Oak Ridges Moraine to the existing YDSS would still be required.</li> </ul>

## 4.0 Summary of Responses to Questions Asked During Meetings

As part of meetings, the project team asked three open ended questions of the participants to ensure feedback was obtained. Each question, along with the responses provided, is summarized below:

### What is the most important function the water reclamation centre has to achieve?

- Health of Lake Simcoe.
- Wastewater treatment to new level.
- Water balance.
- Source protection.
- Education.
- The environment will be better off than it is now.

### What needs further clarification/education about the technology?

- Link to supply side – potable water (i.e., reduce demand).
- How reuse grows over the long term.
- Lagoons (past) vs. reverse osmosis (now/future).
- Graphic of raw sewage, filters, removal of contaminants at each barrier, where contaminants go after removal, output.
- Context and background of water and wastewater systems.
- Show comparison between the quality of water being discharged from the Holland Landing Lagoons now vs. what would be discharged.

### What one thought do you need the project team to take away?



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- Compare Water Reclamation Centre discharge water to rivers other than East Holland River.
- The overall water budget between the Lake Simcoe and Lake Ontario watersheds and intra-basin transfer are key issues.
- Phosphorus reduction and source water protection are significant issues.
- Communications should stress that with the Water Reclamation Centre, there would be a net reduction in phosphorus to the environment.
- York Region should communicate their openness and willingness to communication and collaboration with the community within the context of their commitment to being a water leader.