



# Volume 4:

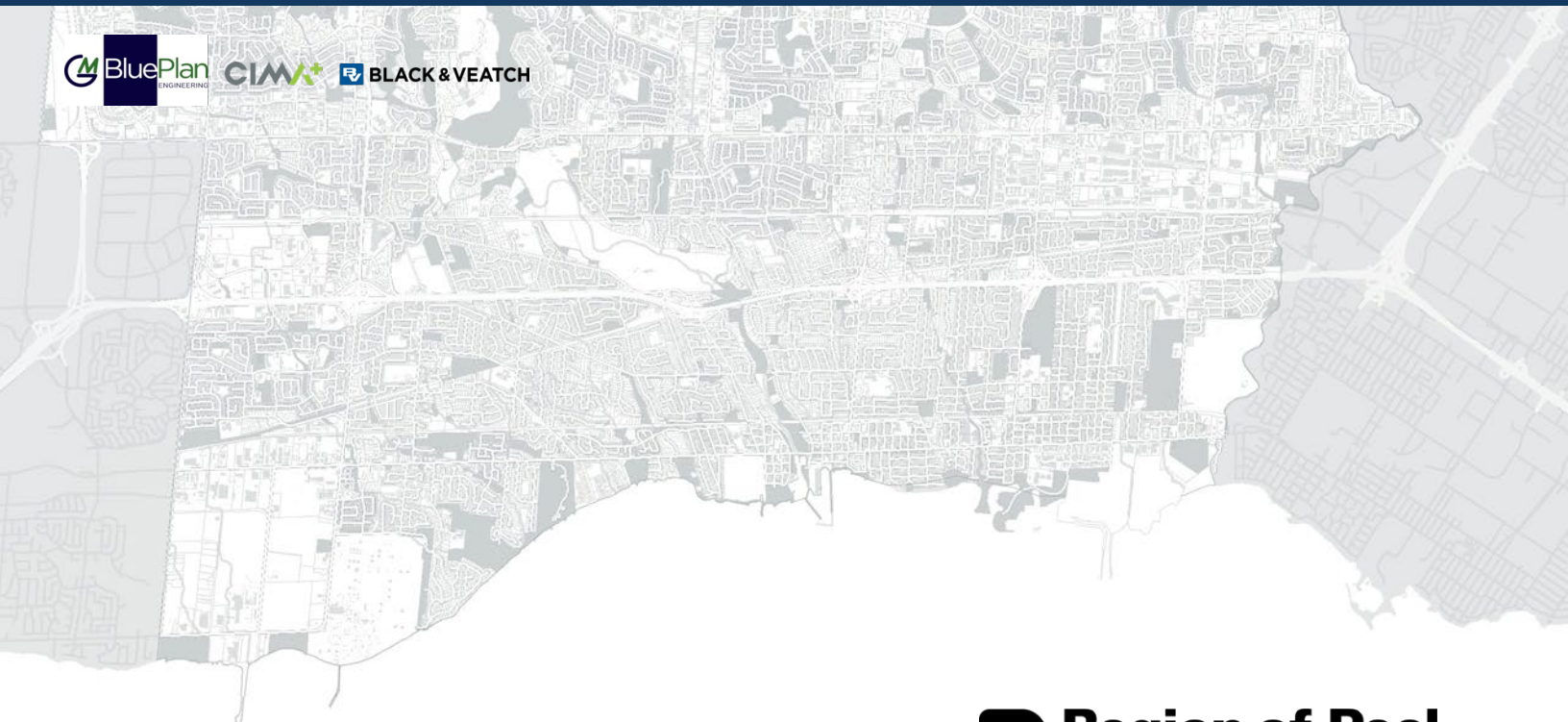
## Consultation and Engagement



## Appendix P:

# Consultation and Engagement Plan





# G.E. Booth Water Resource Recovery Facility Schedule C Class Environmental Assessment

## Consultation and Engagement Plan

June 2020

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## VERSION UPDATES

The following is a record of changes/updates that have occurred on this document.

Version	Changes / Updates	Author	Date
1	Draft Document	Jasmine Biasi	May 15, 2020
2	Draft Document Review	Laurie Boyce	May 20, 2020
3	Draft Document Review and QA/QC	Chris Hamel	May 25, 2020
4	Draft Document Review and QA/QC	Jim Faight	May 28, 2020
5	Final Document	Jasmine Biasi	June 10, 2020
6	Final Document Review and QA/QC	Laurie Boyce	June 15, 2020



## 1.0 Project Overview

The Region of Peel retained GM BluePlan Engineering Limited (GM BluePlan) to undertake two Schedule 'C' Class Environmental Assessments and Conceptual Designs one each for the G.E. Booth and Clarkson Wastewater Resource Recovery Facilities (WRRFs), formerly referred to as Wastewater Treatment Plants (WWTPs). These Class EAs will investigate alternative solutions for wastewater treatment and biosolids management to service Region of Peel growth and confirm the overall servicing strategy such as flow diversion between plants. These Class EAs will identify alternative system-wide strategies and will also determine roadmaps for on-site expansion of each WRRF, as well as a new outfall at the G.E. Booth WRRF. While the underlying need is additional capacity for growth across the Region, these Class EAs will integrate strategies that influence infrastructure and policy beyond simply the WRRFs, including factors such as energy efficiency, climate resiliency, lifecycle planning and operational flexibility.

The Class EAs are being undertaken in accordance with the Municipal Class Environmental Assessment (MEA) process developed by the Municipal Engineers Association (October 2000, as amended in 2007, 2011 and 2015), which is approved under the Ontario Environmental Assessment Act. The Class EA process is transparent and clearly demonstrates the decision-making process of why infrastructure is needed, how the natural, social and cultural environments will be protected, how the necessary strategies and expansions will be implemented, and the costs of the recommendations. The scope of the work involves completing all phases of the Class EA process:

- **Phase 1:** Definition of the problem/opportunity statement
- **Phase 2:** Identification and assessment of alternative solutions for Peel wide treatment of wastewater
- **Phase 3:** Identification and assessment of design alternatives for the preferred solutions including treatment technologies and design concepts
- **Phase 4:** Completion of Environmental Study Reports (ESRs)
- **Phase 5:** Completion of the first stage towards implementation - Enhanced Conceptual Designs for the G.E. Booth and Clarkson WRRFs

Public and stakeholder participation are critical and mandated as part of Class EAs. Given the complexity and potentially sensitive nature of the Peel Wastewater Treatment Solutions' Class EAs, it is imperative that the communication and consultation plan be extensive enough to reach out to all stakeholders to provide information, listen to, and work to address issues and concerns. It must be a meaningful two-way process. The Communications and Consultation Plan goes beyond the legislative requirements specified in the MEA process. This Plan is aligned with the Region of Peel public engagement and communications policies and protocols. It leverages knowledge and lessons learned on past initiatives in reaching and engaging the Region of Peel audiences, to better understand and anticipate potential sensitivities or issues related to the Class EAs. It has been developed by the GM BluePlan Team, including LURA Consulting.

Peel Region's Marketing and Communications division will be a critical resource during the implementation of the Plan and GM BluePlan will consult with them for audiences, approach, material and timing throughout the life of the Class EAs.

It is recognized that the challenges and opportunities and audiences will differ for each Class EA given that the G.E. Booth WRRF is located in a residential area with a new development – Lakeview Village – being planned adjacent to the west boundary of the WRRF, and the Clarkson WRRF is located in a primarily industrial area, with some public parks within the surrounding area. This plan outlines the overall approach to communications and consultation for both Class EAs. It presents the tactics for communication based on the challenges and opportunities, goals and objectives, and audiences to be consulted with for both Class EAs, as detailed in the following sections.

## 2.0 Key Considerations and Opportunities

In developing this Communication and Consultation Plan the following factors were considered.

- Keeping Ward 1 and 2 councillors and senior management up-to-date
- Undertaking and maintaining the appropriate level of communication with the public and stakeholders
- Effectively engaging Indigenous Communities
- Maintaining Peel brand and public reputation
- Reducing risks of Section 16 Orders

Considering the above factors, this Communications and Consultation program offers the following key opportunities:

- Educating and changing the dialogue around wastewater treatment, such that it is seen as a positive community asset
- Building public and stakeholder (including Indigenous Communities) understanding and buy-in to support the EA process and the preferred solutions and design concepts
- Addressing community expectations regarding level of service, odour, air/noise and aesthetics
- Addressing Ward 1 and 2 Councillors' priorities and Region Vision
- Raising awareness of Region services
- Building the foundation for future steps in the project including implementation of the preferred expansion designs

## 3.0 Communications and Engagement Plan Goals and Objectives

### 3.1 Purpose and Consultation Principles

The purpose of this Consultation and Engagement Plan is to outline a framework for providing and receiving input from stakeholders and other parties interested in the study.

This Plan serves as the guide for the communication and public consultation efforts through the Class EAs. It includes a catalogue of internal and external communications which will form a record for the final Environmental Study Reports (ESRs) documentation.

As with any EA process, these Class EAs are as much about public relations as they are about technical solutions. The success of the Class EAs rests in the ability to anticipate, solicit, process and effectively respond to public and agency input.

The Plan has been developed using an issues mitigation lens, recognizing the complexity and potentially sensitive nature of the Class EAs. Throughout the process, the team will look for opportunities to educate and inform audiences to build public buy in to support the project early and reduce issues later in the process.

The Communications and Consultation Plan is driven by five key principles:

- Respect: for all parties engaged in the process;
- Clear, consistent communication: to provide broad understanding, and that all communicators on behalf of the Class EAs are using consistent messages;
- Demonstrated organizational and community values: all communications reflect the values of Peel Region as an organization and as a community;
- Transparency: communicate the EA process openly; and
- Flexibility: The Plan is a living document allowing adaptability when opportunities arise throughout the EA process.

A broad range of methods for the public to provide input will be offered throughout the EA process including comment forms at public consultation events and online or virtual consultation opportunities including by email, web page or virtual meetings and be geared to the particular requirements of the stakeholder. Documentation will be accessible and easily understood.

### 3.2 Consultation and Engagement Goals

Effective consultation with government agencies, conservation authorities, indigenous communities, utilities, community groups and other stakeholders will be vital to the success of this study. Thus, a primary goal of this plan is to provide the framework for providing meaningful consultation and encourage two-way communications. The overarching communications strategy includes several goals that go beyond simply meeting legislative requirements.

The following table outlines objectives of the Communications and Consultation Plan and how each objective will be measured for success.



**Table 1. Measures of Success for Communication and Consultation.**

Objectives	Measurement of Success
<ul style="list-style-type: none"> <li>Meet and exceed legislative requirements for Schedule C Class Environmental Assessment (EA) communications and consultation</li> </ul>	<ul style="list-style-type: none"> <li>Approval/acceptance of the plan by the MECP</li> <li>Public and stakeholder buy-in into preferred solutions</li> </ul>
<ul style="list-style-type: none"> <li>Build awareness and understanding of EA study and purpose</li> </ul>	<ul style="list-style-type: none"> <li>Media coverage messaging, social media feedback, website information</li> </ul>
<ul style="list-style-type: none"> <li>Promote active public participation in Public Information Centres (PICs), community events and online feedback mechanisms</li> </ul> <p><i>(Note: The PIC may be a physical public event, a live streamed public event or a virtual PIC depending on the circumstances with respect to COVID-19)</i></p>	<ul style="list-style-type: none"> <li>PIC attendance numbers, online feedback submission numbers</li> </ul>
<ul style="list-style-type: none"> <li>Meaningful and timely consultation and engagement with local Indigenous Communities</li> </ul>	<ul style="list-style-type: none"> <li>Feedback and support from Indigenous Community key contacts, participation by indigenous representatives</li> </ul>
<ul style="list-style-type: none"> <li>Increase understanding of Peel Region’s wastewater management practices and needs</li> </ul>	<ul style="list-style-type: none"> <li>Comments received through the Class EAs</li> </ul>

### 3.2.1 Phase 1: Problem/Opportunity

Defining the problem and opportunity statement is the foundation for the Class EA process and will serve as a reference for the planning and evaluation under the studies. For this project, while separate studies will be completed, there is benefit in developing the problem and opportunity statement together to incorporate broader holistic servicing issues. The Region of Peel team is developing a Problem/Opportunity Statement that will be used for both Class EAs.

Public and stakeholder input early in the process is essential to advise the government agencies, the public, and other stakeholders of the Class EAs, and to encourage them to be involved throughout the process. Phase 1 communications strategies include:

- Establishment of Mailing Lists (see appendices)
- Notice of Commencement
- Establishment of an overall Project website page with background Information on both Class EAs

The objective is to issue the above by the end of early 2021.

### 3.2.2 Phase 2: Identification and Assessment of Alternative Solutions

The evaluation process to determine the preferred treatment strategies will involve developing a desktop inventory of all features within the study area and identifying an evaluating a preliminary long-list of alternatives.

Major communications methods during Phase 2 include:

- Municipal/Stakeholder Meetings
- Notices of PICs
- PIC #1: One joint G.E. Booth and Clarkson WRRFs Class EA PIC to receive input of the background information, problem/opportunity statement, long-list of alternatives and evaluation criteria
- PIC #2: PICs for each plant will be held at the end of Phase 2 to solicit public comments and suggestions and confirm the preliminary preferred solution.
- Updates to the project website.

The goal is to complete Phase 2 by early to mid to late 2021.

### **3.2.3 Phase 3: Identification and Assessment of Alternative Design Concepts**

Alternative design concepts will focus on various wastewater treatment technologies and implementation requirements. A PIC for each plant will be held to understand the technical details of the preferred solution, the short-listed design concepts and ultimately the preferred design concept.

Major communications methods during Phase 3 include:

- Municipal/Stakeholder Meetings.
- Two Notices of PICs.
- PIC #3: Two separate PICs, one each for the G.E. Booth WRRF EA and the Clarkson WRRF EA to present the preferred design concept prior to proceeding to conceptual design. The PICs will highlight the technical alternative solutions of each plant separately, the criteria and methodology used to evaluate the alternative solutions, and the preferred design concept.
- Updates to the project website.

The goal is to complete Phase 3 for the Clarkson WRRF Class EA by fall 2022 and the G.E. Booth WRRF Class EA by early 2023.

### **3.2.4 Phase 4: Environmental Study Reports**

Two Environmental Study Reports (ESRs) will be prepared. The draft ESRs will be issued in sections to support Region review. The final ESRs will be structured to document the full study in an easily understood manner to provide clear communication with the public and stakeholders.

The ESRs will document the planning processes for both Class EAs and will be available for a minimum 30-day review period. During this period, the public will be encouraged to read the reports and provide comments to the Regional Project Manager. Both Reports will be available on the Region of Peel Project Webpage and at various agreed upon public places in hard copy form.

The overarching consultation goal during Phase 4 is to resolve any outstanding concerns from the public or stakeholders at the end of the review period to allow the projects to proceed to implementation.

Communications methods during Phase 4 that will encourage the public to participate in the 30-day review period include:

- Issuing notices to the public once the reports have been finalized and are available. The notice will outline where the reports can be reviewed, including a link to the online copy through the project webpage as well as hard copies at local agreed upon public places. These public places will be located around the Region and listed in the notice.
- A news bulletin may also be distributed to residents, industries and recreational uses located around the plant study areas to provide a summary of the project outcomes and encourage the community to participate in the review period.

### 3.2.5 Enhanced Conceptual Designs (ECDRs)

This step will combine the planning and study with design. Full drawing sets and complete ECDRs will be prepared. Clarity on Region standards and applicable criteria will be established at the outset. Sufficient detail will be provided in the drawings and reports to allow for seamless transition into detailed design.

Stakeholder consultation will continue to be priority throughout the phases of implementation of the conceptual design. Consistent communication will allow the Region to understand and use the outcomes of these studies moving forward and all interested stakeholders will be educated and informed about the implementation timing. GM BluePlan will work with the Region to determine potential future methods of communication that may be used during the conceptual design stage of this project.

## 4.0 Key Messages

The approach to communications and consultation will focus on a customized “made-for- wastewater-in-Peel” solution. One of the key principles driving this Plan is clear, consistent communication. Throughout the Peel Wastewater Treatment Solutions Class EAs, it is critical that the project team, regional and local councillors and other involved stakeholders use similar language when talking about the Class EAs and strategies. Therefore, establishing and sharing clear anchor messaging at the outset of the project will provide a foundation to build from throughout the Class EAs. This messaging should highlight the importance of expanding the G.E. Booth and Clarkson WRRFs by undertaking a complex and challenging project that involves consideration of the overall wastewater system. It should also demonstrate the Region’s commitment to an open and transparent process where residents and stakeholders will have opportunities to learn more and have a voice in the process.

The goal of the overall project is to develop innovative and flexible treatment solutions for South Peel wastewater. The Class EAs are needed in order to:

- Service the approved growth as identified in the 2020 Water and Wastewater Master Plan.
- Address changing future conditions including new regulations and climate change.
- Provide greater flexibility and reliability in wastewater and biosolids management.
- Continue to meet community expectations regarding level of service, odour control, air quality, water quality and aesthetics.



## **5.0 Audiences and Stakeholder Sensitivities**

### **5.1 Region of Peel Staff**

#### **5.1.1 Project Management Team**

Region staff and GM BluePlan will hold progress meetings throughout the project's timeline. The GM BluePlan team will present study findings and solicit technical input during each meeting, as well as prepare and distribute agendas and minutes. There will be visioning, risk and value engineering workshops held at key milestone dates during the project to ensure project goals and objectives are established and met, and quality solutions developed.

#### **5.1.2 Other Divisions and Operations**

Representatives of relevant departments will be invited to participate in Region of Peel technical and project meetings. This includes meeting with the following Region of Peel Departments:

- Wastewater Operations (OCWA)
- Quality & Compliance (Water/Wastewater)
- Infrastructure, Planning & Engineering
- Transportation, Planning & Sustainability
- Transportation Engineering
- Property
- Communications

#### **5.1.3 Senior Management**

Representatives of relevant Region of Peel departments will be invited to participate in the study, facilitate technical input, support decision making and provide an opportunity for regular progress updates. Internal quarterly newsletters produced as formal documents to provide clarity on the overall project status and decisions will be reviewed with Senior Management during project status meetings.

#### **5.1.4 Ward 1 and Ward 2 Councillors**

Project progress will be provided to Regional Councillors, including direct communication and/or engagement with the Area Councillors in Ward 1 and Ward 2 at key milestones throughout the study. Periodic project update bulletins and pre-PIC opportunities to meet and discuss the study prior to public engagement will also be provided.

### **5.2 External Agencies**

As the study progresses and especially when specific impacts have been identified, it will be necessary and advantageous to meet directly with affected and concerned agencies and stakeholders.

## 5.2.1 City of Mississauga

Both WRRFs are located within Mississauga. Consequently, the City will have a unique interest in the overall treatment strategies and plans for the sites, including impacts on surrounding land uses and users, and site planning and approvals. The City's Lakeview Village Master Plan sets a framework for the development of Lakeview Village on the Lakeview Generating Station lands adjacent to G.E. Booth WRRF. The team will plan to incorporate G.E. Booth WRRF as part of the City's overall waterfront plan by ensuring effective two-way communication with the City of Mississauga, and specifically the future Inspiration Lakeview neighbours.

### 5.2.1.1 Lakeview Village Development

The Lakeview Village development adjacent to the G.E. Booth WRRF will be established as a mixed-use community with a variety of residential building types, parkland, cultural and employment uses, with buildings featuring environmentally sustainable designs. The community will feature shopping, dining, entertainment, and recreational spaces for the significant population and employment growth planned for the area. Effective consultation and communication with the developers and future residents and/or users of the future community will be key to developing solutions and design concepts that meet the needs of the existing community and the planned Lakeview Village community for this area

## 5.2.2 Conservation Authorities

The local conservation authorities within the study area includes the Credit Valley Conservation (CVC) and the Toronto and Region Conservation Authority (TRCA). Early consultation with TRCA and CVC to review available data, receive input on additional studies, and introduce concepts is important to establish alternatives and impacts. The CVC is completing the Jim Tovey Lakeview Conservation Area, and the Class EA for G.E. Booth must be consistent and complement the CVC's shoreline naturalization plans. Prior to finalizing preferred design concepts during Phase 3 of the Class EAs, another meeting may be necessary to ensure that impacts to natural habitats and species are mitigated and regulations are met.

### 5.2.3 5.2.2.1 Ministry of the Environment, Conservation and Parks (MECP)

The MECP will play an important role on this project. Approaching MECP as a partner, working together to establish key criteria and approval requirements, will bring value to the Class EAs and enhance the opportunity to establish Region of Peel specific recommendations supported by MECP. The MECP will be notified of the Class EAs early, by filing Notices of Commencement. They will continue to be informed through the Class EAs as required.

It is particularly important to meet with the MECP early in the process to receive information and direction on the assimilative capacity study and effluent criteria. Some potential goals and objectives of these meetings will be to:

1. Document available flow, water quality and bathymetry information available together with the proposed background inputs for assimilative capacity modelling.
2. Present the short-list of potential discharge locations and rationale for each.
3. Discuss proposed modelling approach and software.
4. Ultimately present the recommended effluent criteria based on the modelling and analysis.

In our experience, this initial pre-consultation meeting is essential to integrate MECP feedback into the Assimilative Capacity approach and work plan. This mitigates both re- work and potential schedule delays if MECP requests additional monitoring information that may be seasonal.

In addition, the MECP will be interested in the EA process, the preferred design concepts and measures to mitigate impacts and reduce risks. The MECP will be provided with Draft ESRs for comments. The ESRs will be finalized based on comments, prior to being filed for the 30-day review.

#### 5.2.4 Other Provincial and Federal Agencies and Ministries

In addition, to the MECP other Provincial and Federal Ministries will receive notifications related to this study throughout the process. Some of the Ministries include:

- Ontario
- Ministry of Indigenous Relations and Reconciliation
- Ontario Ministry of Transportation
- Ontario Ministry of Natural Resources and Forestry
- Ontario Ministry of Agriculture, Food and Rural Affairs
- Ontario Ministry of Tourism, Culture and Sport
- Ontario Ministry of Children, Community and Social Services
- Ontario Ministry of Health and Long-term Care
- Ontario Ministry of Economic Development, Job Creation and Trade
- Indigenous and Northern Affairs Canada
- Environment Canada
- Fisheries and Oceans Canada
- Infrastructure Ontario

#### 5.2.5 Utilities

The following local, provincial and federal utility companies will be contacted throughout the Class EAs processes at a minimum:

- Alectra Utilities
- Bell Canada
- Enbridge Gas Distribution Inc.
- Enbridge Pipelines Inc.
- Hydro One Networks
- Hydro One Telecom
- Ontario Power Generation
- Rogers Cable
- TransCanada Pipelines
- Trans-Northern Pipeline Inc.
- Union Gas Ltd.

In addition, railway and local transit companies have been included in the master stakeholder contact list and will be advised of the Class EAs.



### 5.3 Public and Special Interest Groups

The public, which includes system users such as businesses, industries, residents and some York and Toronto citizens, as well as local industries, businesses, residents, and recreational uses in the surrounding plant areas (e.g. uses of Lakeside Park, Waterfront Trail, Marie Curtis Park and Beach, and Lake Ontario nearshore) will be consulted with throughout the Class EAs. With respect to the G.E. Booth WRRF Class EA, it will be particularly important to include the special interest groups, agencies and other stakeholders interested or potentially impacted by the construction of a new outfall in Lake Ontario. Public and special interest groups that will be included on the master stakeholder contact list include:

- Resident Associations
- Lakeview Ratepayers Association
- Mississauga Cycling Advisory
- Building Industry and Land Development Association
- Mississauga Board of Trade
- Lake Ontario Waterkeepers
- Swim Drink Fish
- Ontario Building Officials Association
- Sierra Club of Ontario (Peel Region)
- Dufferin-Peel Catholic School Board
- Peel District School Board

As the Class EAs progress, other special interest groups will have the opportunity to be added to the contact list for any future communications.

### 5.4 Indigenous Communities

Indigenous communities have unique understanding of the natural environment given their relationship with traditional lands, practices and way of life. As such they provide valuable information to help identify solutions and measures to mitigate impacts to natural and cultural resources. Sometimes, Indigenous communities will be consulted based on interests; other times, a project might impact established or asserted Indigenous rights or Métis communities. For the G.E. Booth and Clarkson WRRFs Class EAs the Mississaugas of the Credit First Nations will have interest, as the sites, shoreline and nearshore are within their traditional territories. Other communities that may have interest include, at a minimum, the Six Nations of the Grand River.

Proponents are required to follow the protocols set by the Indigenous Communities and to contact the Ministry of Indigenous Affairs directly to confirm the list of Indigenous communities to consult for these Class EAs.

The Region of Peel will take a central role as proponent in these Class EAs in ensuring that engagement with Indigenous groups is as comprehensive as required and is implemented in a responsible and respectful manner.

### 5.5 Media

Peel Region's Marketing and Communications division will be responsible for communications with the media, with GM BluePlan providing supporting information. There are several venues to communicate with the media including websites, twitter, facebook, radio, newsletters, and information sessions.

Prior to each public event, the internal team can host an additional information session if requested for interested media representatives to meet the project team and learn more about the study.

The anticipated outcome is that relevant project information can be shared across a larger platform.

## 5.6 Stakeholder Sensitivities

In order to identify the best tactic for communication to the public and stakeholders, an understanding of the stakeholder’s level of interest, concern or perceived attitude and the influence or power they may have during the process is important. Based on early understanding of the overall project, a mapping of the audiences based on their influence and level of concern has been established to help the tactics for communication. Figure 1 illustrates this audience mapping. As the Class EAs proceed, stakeholder interests, concerns and perceived attitudes will become more apparent. The Communications and Consultation program is sufficiently flexible to accommodate different audiences and levels of concern.

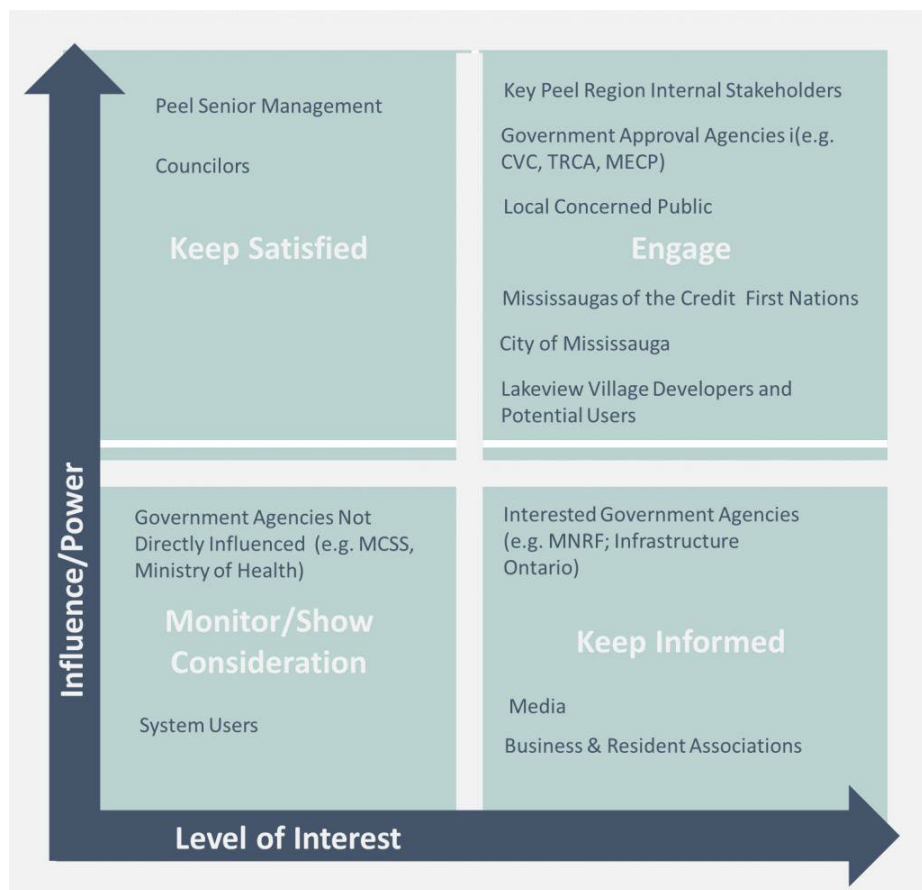


Figure 1. Audience mapping.

## 6.0 Tactics for Engagement and Communication

### 6.1 Branding

The GM BluePlan team will work with the Region to coordinate communications activities, messaging, and public engagement. Our messaging will be geared to the specific stakeholder we are communicating with. Agencies such as the MECP, CVC and TRCA will receive technical information necessary to meet their requirements, while the style and format of all communications to the general public will be in simple language and easy to understand by the average person. Where feasible GM BluePlan will work with the Region to coordinate communications with the other projects, as it is in all parties' best interest to provide a coordinated and unified public engagement program.

Both Class EAs will promote and be consistent with the strong "brand" the Region of Peel has developed. The overall project will allow for consistent messaging between all team members, identification of the long-term project vision, and promotion of the team approach to planning, all within Peel's overall brand.

### 6.2 Study Notices

Public Notices for these Class EAs will be distributed starting June 2020. The following notices are scheduled throughout this project; Notice of Commencements, Notice of PICs, and Notices of Study Completion. All draft notices will be developed by GM BluePlan and finalized by the Region's Communication Department in conjunction with the GM BluePlan project team. The notice will be published in newspapers in each of the municipalities, including the Mississauga News, the Brampton Guardian and the Caledon Enterprise.

In addition to the newspaper, website and social media (e.g. Facebook, Twitter, LinkedIn), GM BluePlan will prepare a notice in letter format and mail or email to the established list of stakeholders. The GM BluePlan project team will follow-up with select agencies in person, by mail, e-mail or phone to facilitate the collection of information relevant to the study. The GM BluePlan project team will maintain a file with all correspondence sent and received from these agencies. Internal contacts and notification will be coordinated through the Regions' Project Manager.

A summary of tasks and responsibilities for tasks associated with all Notices is provided below.

**Table 2. Summary of Tasks and Responsibilities.**

Task	Responsibility
Prepare draft Ad / Letter format Notices for review	GM BluePlan
Organize and place Notices in the papers	Region of Peel
Finalize and mail Ad / Letter format Notices	GM BluePlan
Distribute Notices to internal Region of Peel and City of Mississauga Staff (e.g. Fire & Emergency Services, Councillors)	Region of Peel
Prepare and maintain a Comment Tracking Sheet	GM BluePlan
Prepare any required written responses to questions and issues	GM BluePlan & Region of Peel

### 6.2.1 Notices of Study Commencement

Notices of Study Commencement will be issued in late June/early July 2020. One Public Notice will be prepared which includes the notices for each Class EA. GM BluePlan will prepare the content for the Notices and once finalized the Region will publish the Notices in the local newspapers in two rounds as well as the project website. GM BluePlan will organize and send a letter notice to the Study Contact List.

Contact information for the Region Project Manager will be provided in the notices to allow for interested parties to obtain additional information or request that they be added to the Study Mailing List.

In addition to newspaper notices, the GM BluePlan Team will prepare letters to accompany the notices for distribution to the government agencies on the Study Mailing List. The GM BluePlan Team will follow-up with select agencies either in person or by mail, e-mail or phone to facilitate the collection of information relevant to the study. The GM BluePlan Team will maintain a file of all correspondence sent and received. This documentation will be included in the appendices of the final Environmental Study Reports.

### 6.2.2 Notices of Public Information Centres

There are 3 Public Information Centres planned as part of each of these EAs. The GM BluePlan Team will prepare a Draft Notice for each of the Public Information Centres. Once approved, the Region will publish the Notice of PIC in two rounds of local newspapers.

The Notice will also be published on the Region's website. The notices will be issued two weeks in advance of the PICs. In addition to the newspaper notices, GM BluePlan Team will mail the notices to the established list of stakeholders and residents within the study area as with the Notice of Commencement.

### 6.2.3 Notices of Study Completion

Once the ESRs are complete, Notices of Study Completion will be prepared. The purpose of these notices will be to announce the completion of the Class EA and begin the minimum 30 day public review period for the final ESRs. Hard copies of the final report will be filed at agreed public facilities. Electronic copies of the ESR and supporting appendices will also be made available on the project website.

As with all the notices, the Notice of Study Completion will be advertised in local newspapers.

## 6.3 Newsletters, Information Handouts, Fact Sheets, Questionnaires

Several enhanced communication materials will be prepared and developed throughout the studies to enhance the public information centre meetings. Communication within the Region will be key for all departments, especially as they relate to wastewater. Internal Region newsletters highlighting planned and current South Peel Wastewater Capital projects are prepared and distributed quarterly throughout the various Regional departments including OCWA. These two studies will likely be a large focus of the internal newsletters 3 times throughout the EA process. The target audience is operations staff (OCWA)

and Senior Management. The GM BluePlan team prepare project updates and briefings as requested to include in newsletter.

Additional material such as news bulletins to encourage the public to engage in the Class EA process may be provided prior to public events to encourage attendance to highlight key details of the Class EAs, progress and other important updates.

Depending on the amount of public engagement, fact sheets, information handouts, and lists of frequently asked questions (FAQs) may be developed, which will serve as additional education pieces for the public and stakeholders who want to stay informed. Questionnaires may also be used to seek public and stakeholder input on factors important to them in the evaluation of alternatives.

## 6.4 Public Information Centres

Three Public Information Centres (PICs) are planned for the study. PICs are important events used to collect public concerns, encourage involvement, and discuss the decision-making process.

The complexity of the overall project, the interrelationships between the Class EAs for both sites, and the need to walk through key issues early in the process merits additional consultation.

The planned meetings are listed below:

- **PIC No. 1** – The first PIC will be an enhanced value PIC common between the two environmental assessments early in Phase 2 to discuss the alternatives and create support for the evaluation approach and criteria. This PIC will help support the decision making and defensibility of the study. Due to the current global situation, this PIC has the potential to be presented virtually, or face to face as per usual.
- **PIC No. 2** – At the end of Phase 2, two PICs will be held, one for each site, but with integrated timing and messaging.
- **PIC No. 3** – At the end of Phase 3, the final two PICs will be held, again one for each site, however the details will be even more focused for each site separately and the separated but integrated PICs will highlight this.

Whether the PICs are Open House at a selected venue or virtual will be decided as the Class EAs progress, depending on the protocols in place with respect to COVID-19. The PIC will be advertised in newspaper, on the Region website and on Regional social media platforms.

- In preparation for PIC, the GM BluePlan Team will:
- Prepare the Draft Notice of PIC for the Region to advertise in local newspapers;
- Prepare all coloured displays, sign-in sheets and comment forms;
- Provide final displays in PDF format to the Region in advance of the PIC for posting on the project's website;
- Provide professional staff and facilitate the PIC event;
- Prepare draft responses to written comments/concerns raised by attending public members and stakeholders for Region review;
- Issue approved response letters; and,



- Update the project contact list to include additional public members and stakeholders who wish to be directly notified of future project related events.

Under the current COVID-19 regulations, there is a potential to require future public consultation meetings using online platforms only. In the event of a virtual public meeting, the team will coordinate the most appropriate online engagement techniques and platforms for the community and will provide the public with details and accessibility.

## 6.5 Stakeholder Meetings and Workshops

The public, agency and internal stakeholder groups will require considerable effort and focus to ensure their needs and level of information are met. The project team is planning for stakeholder groups, including surrounding landowners, the general public, businesses, environmental and rate payer associations, federal, provincial and municipal agencies, utilities, and Indigenous Communities, to have a keen interest in both Class EAs and may bring common, related and/or specific issues to each study. The project team has recognized the importance of consulting with these stakeholders and has planned numerous opportunities for direct face-to-face consultation:

- Stakeholder Meetings/Workshops – 12 (6 per Class EA)
- Public Information Centres (PICs) – 4 (2 per Class EA)

## 6.6 Multi-media and Online Engagement

These Class EAs will implement multi-media and online engagement communication tactics to enhance engagement with all interested groups. The following methods of communication will be explored:

**Table 3. Methods of Online Engagement.**

Tactic	Detail	Timing	Audience	Responsible Lead
Project Webpage	To be developed to include general project updates, maps, notices, and FAQ's.	Key Project Milestones: <ul style="list-style-type: none"> <li>• Commencement,</li> <li>• Phase 2 (alternatives identification and PIC Notice);</li> <li>• Phase 2 (recommended solution and PIC Notice);</li> <li>• Phase 3 (recommended design concept and PIC Notice)</li> <li>• Phase 4 (Notices of Completion).</li> </ul>	All audience groups	Region of Peel Communications / GM BluePlan

Tactic	Detail	Timing	Audience	Responsible Lead
Twitter	<p>Create a unique project hashtag.</p> <p>Will be tweeted out through the Peel Public Works Twitter account (@peelpublicworks).</p> <p>Regular tweets with updates about the project including traffic impacts and photos (if available).</p>	Key Project Milestones (as above)	Twitter followers	Region of Peel Communications / GM BluePlan
Virtual Online PICs	Virtual PIC platforms or live stream public events to increase the number of users and attendees	Public Information Centres / Public Events	Interested public and stakeholders	GM BluePlan
Facebook/ Instagram	To notify users of key project events	Used for notification of study commencements, public information centres/ events, and notices of completion	Facebook and Instagram Followers	Region of Peel Communications / GM BluePlan

The timing of the use of these media platforms will be specific throughout the Class EAs. There will be 8 project website updates; generally occurring at key Phases in the Class EAs: Commencement, Phase 2 (alternatives identification and PIC Notice); Phase 2 (recommended solution and PIC Notice); Phase 3 (recommended design concept and PIC Notice) and Phase 4 (Notices of Completion). Twitter updates and information handouts will be organized around these project milestones. For the content published on these platforms, GM BluePlan will provide content and information to the Regions Communications team, the Region will review and provide comments, and GM BluePlan will update the final content appropriately prior to the Region posting.

Virtual or livestream platforms may be used during Public events in order to engage audiences that are unable to attend physically or during COVID-related restrictions.

Other social media platforms, including Facebook and Instagram will be used to notify users of key project events, at the discretion of the Region.

## **7.0 Stakeholder Documentation**

### **7.1 Study Mailing Lists**

All relevant agencies, stakeholders and interested parties will be included in the contact lists for the Class EAs. A list of relevant review agencies, stakeholders and potentially affected parties has been prepared based on the regional study areas, Class EA requirements, and information provided by the Region of Peel. The list includes provincial ministries and agencies, municipal departments and agencies, utilities, emergency services, indigenous communities, and other special interest groups that will likely be similar for both Class EAs.

Throughout the Class EAs, the list will be revised, as appropriate, to reflect those agencies or parties who wish no further involvement in the study as well as those new agencies/parties who wish to be added to the mailing list. In this manner, the study contact mailing list will constantly be updated to make all possible efforts to include all interested agencies/parties throughout the EAs.

All communication with external parties will be tracked, with exception of private information (including name and address of public members) to become part of the ESRs.

In addition, all comments received, along with a response tracking table, will be prepared at the project on-set and will be kept up to date throughout the study process.

Although the interested agencies and regional stakeholders will be similar for both EAs, it is recognized that local stakeholders will be different for each.

### **7.2 Issues Management and Tracking**

All contact information will be contained in a database such that all comments received can be directly linked and stored easily and efficiently. The Class EAs, particularly the G.E. Booth WRRF Class EA, are expected to generate many comments, so maintaining an organized structure will be essential. Comment and responses logs will be prepared for each Class EA and updated as required. All comments will initially be directed to the Region of Peel Project Manager via the website and newspaper notices. A separate project email will be set up in order to monitor all project inquiries, noting that the Region of Peel will not disclose the private information contained in any inquiry.

### **7.3 Class EAs Documentation**


The final ESRs will summarize all public and agency consultation documentation, with the exception of private information, notifications, meetings, workshops, PICs, comments and responses will be included. The ESRs will be made available for public review as part of the filing at the conclusion of the studies.

Once the ESRs are finalized, Notices of Study Completion will be prepared. The purpose of these notices is to announce the studies' completion and begin the minimum 30-day public review periods. Hard copies of the final ESRs will be filed at agreed public facilities. Electronic copies and supporting appendices will also be made available on the project website.

As with all the notices, the Notices of Study Completion will be advertised in the local newspaper.

## 7.4 AODA Compliance

All public documents will be produced to be compliant with the Accessibility for Ontarians with Disabilities Act (A.O.D.A.) where possible. Upon request, alternate formats of reports will be made available.



# Appendix Q:

## Stakeholder List

Title	First Name	Last Name	Company/Organization	Department	Job Title	Business Street	Business City	Province	Postal Code	Business Phone	Business Fax	Email
Indigenous Communities												
Mr.	Hohahe Leroy	Hill	Haudenosaunee Confederacy Chiefs Council		Chiefs Council Secretary	P.O. Box 714	Ohsweken	ON	N0A 1M0			hdi2@bellnet.ca
			Haudenosaunee Confederacy Chiefs Council									info@hdi.land
Mr.	Aaron	Detlor			Lawyer representing HDI							aarondetlor@gmail.com
Mr.	Maxime	Picard	Huron-Wendat Nation		Project Coordinator, Ontario	255 Place Chef Michel Laveau	Wendake	QC	G0A 4V0	418-843-3767		maxime.picard@cnhw.qc.ca
Ms.	Tina	Durand	Huron-Wendat Nation		Chiefs Council Secretary	255 Place Chef Michel Laveau	Wendake	QC	G0A 4V0	418-843-3767 x. 2102		tina.durand@cnhw.qc.ca
Councillor	Cathie	Jamieson	Mississaugas of the Credit First Nation		Environment Sustainability Councillor	2789 Mississauga Road, RR#6	Hagersville	ON	N0A 1H0	905-768-1133		cathiej@mncfn.ca
Mr.	Mark	Laforme	Mississaugas of the Credit First Nation		Director	2789 Mississauga Road, RR#6	Hagersville	ON	N0A 1H0	905-768-4260		Mark.laforme@mncfn.ca
Chief	Mark B.	Hill	Six Nations of the Grand River		Chief	1695 Chiefswood Road., P.O. Box 5000	Ohsweken	ON	N0A 1M0	519-732-2905		markhill@sixnations.ca
Federal Agencies												
Sir/Madam			Indigenous and Northern Affairs Canada	Environmental Assessment Coordination	Environmental Unit	655 Bay St	Toronto	ON	M5G 2K4			eacoordination_on@aandc-aadnc.gc.ca
Mr.	Robert	Dobos	Environment Canada		Manager, Environmental Assessment Section	867 Lakeshore Road, P.O. Box 5050	Burlington	ON	L7R 4A6	905-336-4953		rob.dobos@canada.ca
Sir/Madam			Environment Canada	Canadian Wildlife Service - Ontario Region		4905 Dufferin Street	Toronto	ON	M3H 5T4	1-800-668-6767		enviroinfo@ec.gc.ca
Sir/Madam			Fisheries and Oceans Canada	Fisheries Protection Program		867 Lakeshore Road	Burlington	ON	L7S 1A1	1-855-852-8320		fisheriesprotection@dfo-mpo.gc.ca
Mr.	Sven	Spengemann	Parliament of Canada	House of Commons	Member of Parliament	House of Commons	Ottawa	ON	K1A 0A6	905-278-4111		sven.spengemann@parl.gc.ca
Provincial Agencies												
Ms.	Lisa	Myslicki	Infrastructure Ontario	Environmental Management	Environmental Advisor	1 Dundas Street West, Suite 2000	Toronto	ON	M5G 2L5	416-212-3768		lisa.myslicki@infrastructureontario.ca
Mr.	Amar	Singh	Infrastructure Ontario			1 Dundas St. W., Suite 2000	Toronto	ON	M5G 2L5			amar.singh@infrastructureontario.ca
Sir/Madam			Infrastructure Ontario		Notice Review							noticereview@infrastructureontario.ca
Ms.	Jackie	Van De Valk	Ministry of Agriculture, Food and Rural Affairs	Land Use Policy & Stewardship, Food Safety and Environmental Policy Branch	Rural Planner	6484 Wellington Road 7, Unit 10	Elora	ON	N0B 1S0	519-846-3415		jackie.vandevalk@ontario.ca
Ms.	Rachael	Manson-Smith	Ministry of Indigenous Relations and Reconciliation	Ministry Partnerships Unit	Manager (Acting)	160 Bloor Street East, 9th Floor	Toronto	ON	M7A 2E6	416-325-7032		
Mr.	Michael	Falconi	Ministry of Economic Development, Job Creation and Trade	Cabinet Office Liaison Unit	Manager	56 Wellesley Street W, 11th floor	Toronto	ON	M5S 2S3	647-325-9535		michael.falconi@ontario.ca
Mr.	Michael	Helfinger	Ministry of Economic Development, Job Creation and Trade	Cabinet Office Liaison and Policy Support Unit	Senior Policy Advisor	56 Wellesley Street W, 11th floor	Toronto	ON	M5S 2S3	416-434-4799		michael.helfinger@ontario.ca
Sir/Madam			Ministry of Indigenous Relations and Reconciliation	EA- First Nations		160 Bloor Street East, 9th Floor	Toronto	ON	M7A 2E6			maa.ea.review@ontario.ca
Mr.	Steven	Strong	Ministry of Natural Resources and Forestry	Aurora District Office	District Planner	50 Bloomington Road	Aurora	ON	L4G 0L8	905-709-7366	905-713-7360	steven.strong@ontario.ca
Mr.	Darryl	Lyons	Ministry of Municipal Affairs and Housing	Community Planning and Development (West)	Manager	777 Bay Street, 13th Floor	Toronto	ON	M5G 2E5	416-585-6048	416-585-6882	darryl.lyons@ontario.ca
Sir/Madam			Ministry of the Attorney General	Strategic Policy and Planning	Director	90 Sheppard Avenue	Toronto	ON	M2N 0A4			
Mr.	Trevor	Bell	Ministry of the Environment, Conservation and Parks	Central Region, Technical Support	Environmental Resource Planner & EA Coordinator	5775 Yonge Street, 9th Floor, Place Nouveau	Toronto	ON	M2M 4J1	416-326-3577		trevor.bell@ontario.ca
Ms.	Kathleen	O'Neill	Ministry of the Environment, Conservation and Parks	Environmental Assessment and Approvals Branch	Director	135 St. Clair Avenue West, 1st Floor	Toronto	ON	M4V 1P5	416-326-3477		
Ms.	Aurora	Mcallister	Ministry of the Environment, Conservation and Parks		Management Biologist	50 Bloomington Road	Aurora	ON	L4G 0L8	905-713-7732		aurora.mcallister@ontario.ca
Sir/Madam												SAROntario@ontario.ca
Mr.	Daniel	Delaquis	Ministry of the Environment, Conservation and Parks	Sir, Pesticides & Environmental Planning	Supervisor	5775 Yonge Street, 9th Floor, Place Nouveau	Toronto	ON	M2M 4J1			
Ms.	Karla	Barboza	Ministry of Tourism, Culture and Sport	Heritage Planning Unit, Program and Services Branch	Team Lead (A), Heritage	401 Bay Street, Suite 1700	Toronto	ON	M7A 0A7	416-314-7120		Karla.barboza@ontario.ca
Mr.	Dan	Minkin	Ministry of Tourism, Culture and Sport	Heritage Planning Unit, Program and Services Branch	Heritage Planner	401 Bay Street, Suite 1700	Toronto	ON	M7A 0A7	406-314-7147		dan.minkin@ontario.ca
Ms.	Susan	Golets	Ministry of Tourism, Culture and Sport	Sport, Recreation and Community Programs Division Policy Branch	Director (A)	777 Bay Street, 18th Floor	Toronto	ON	M7A 1S5	416-314-7696		susan.golets@ontario.ca
Ms.	Darja	Keith	Ministry of Tourism, Culture and Sport	Sport, Recreation and Community Programs Division Policy Unit	Manager	777 Bay Street, 18th Floor	Toronto	ON	M7A 1S5	416-212-9311		darja.keith@ontario.ca



Title	First Name	Last Name	Company/Organization	Department	Job Title	Business Street	Business City	Province	Postal Code	Business Phone	Business Fax	Email
Ms.	Carol	Oitment	Ministry of Tourism, Culture and Sport	Sport, Recreation and Community Programs Division Policy Unit	Policy Advisor	777 Bay Street, 18th Floor	Toronto	ON	M7A 1S5	416-314-7205		carol.oitment@ontario.ca
Mr.	Tom	Hewitt	Ministry of Transportation	Corridor Management Section	Head	159 Sir William Hearst Ave, 7th Floor, Building D	Toronto	ON	M3M 0B7	416-235-3744		tom.hewitt@ontario.ca
Ms.	Dawn	Irish	Ministry of Transportation	Environmental Policy	Manager	301 St. Paul St, Garden City Tower, 2nd Floor	St. Catharines	ON	L2R 7R4	905-704-3179		dawn.irish@ontario.ca
Mr.	Frank	Martins	Ministry of Transportation	Strategic Highways Management Office	Contracts Management Engineer	159 Sir William Hearst Ave, 7th Floor, Building D	Toronto	ON	M3M 0B7	416-235-4077		frank.martins@ontario.ca
Mr.	Moin	Khan	Ministry of Transportation	Program Delivery	Area Manager	159 Sir William Hearst Ave, 7th Floor, Building D	Toronto	ON	M3M 0B7			moin.khan@ontario.ca
Mr.	Shawn	Aurini	Ministry of Transportation	Corridor Management Section	Corridor Management Engineer	159 Sir William Hearst Ave, 7th Floor, Building D	Toronto	ON	M3M 0B7	416-235-4504		shawn.aurini@ontario.ca
Mr.	Christian	Singh	Ministry of Transportation	Corridor Management Section	Senior Project Manager	159 Sir William Hearst Ave, 7th Floor, Building D	Toronto	ON	M3M 0B7	416-235-4276		christian.singh@ontario.ca
Mr.	David	Ayotte	Niagara Escarpment Commission		Director	232 Guelph Street, 3rd Floor	Georgetown	ON	L7G 4B1	905-877-4810		david.ayotte@ontario.ca
Conservation Authority												
Mr.	Jakub	Kilis	Credit Valley Conservation	Environmental Assessment - Project Contact	Manager (Acting), Infrastructure and Regulation	1255 Old Derry Road	Mississauga	ON	L5N 6R4	905-670-1615 x287		Jakub.Kilis@cvc.ca
Mr.	Quentin	Hanchard	Credit Valley Conservation		CAO	1255 Old Derry Road	Mississauga	ON	L5N 6R4			quentin.hanchard@cvc.ca
Ms.	Christine	Zimmer	Credit Valley Conservation	Water and Climate Change Sciences	Senior Manager, Water and Climate Change Science	1255 Old Derry Road	Mississauga	ON	L5N 6R4	905-670-1615 x229		christine.zimmer@cvc.ca
Ms.	Kerry	Mulchansingh	Credit Valley Conservation	Source Protection Area	Program Manager, Hydrogeology	1255 Old Derry Road	Mississauga	ON	L5N 6R4	905-670-1615 x383		kerry.mulchansingh@cvc.ca
Mr.	Gary	Murphy	Credit Valley Conservation	Director	Director	1255 Old Derry Road	Mississauga	ON	L5N 6R4	905-670-1615		
Ms.	Janet	Ivey	Credit Valley Conservation			1256 Old Derry Road	Mississauga	ON	L5N 6R4			janet.ivey@cvc.ca
Mr.	Craig	Jacques	Credit Valley Conservation	Watershed Plans and Source Water Protection	Specialist	1257 Old Derry Road	Mississauga	ON	L5N 6R4	905-670-1615 ext 551		craig.jacques@cvc.ca
Ms.	Annette	Lister	Toronto and Region Conservation Authority		Planner, Infrastructure Planning and Permits	101 Exchange Avenue	Vaughan	ON	L4K 5R6	416-661-6600 x. 6443		annette.lister@trca.ca
Ms.	Shirin	Varzgani	Toronto and Region Conservation Authority		Senior Planner, Infrastructure Planning and Permits	101 Exchange Avenue	Vaughan	ON	L4K 5R6	437-880-2429		shirin.varzgani@trca.ca
Ms.	Victoria	Kramkowski	Toronto and Region Conservation Authority	Peel/York Watersheds	Government and Community Relations Specialist	101 Exchange Avenue	Vaughan	ON	L4K 5R6	416-661-6600 x 5707		victoria.kramkowski@trca.ca
Ms.	Caroline	Mugo	Toronto and Region Conservation Authority			101 Exchange Avenue	Vaughan	ON	L4K 5R6	416-661-6600 ext. 5689		cmugo@trca.on.ca
Mr.	Ben	Krul	Toronto and Region Conservation Authority	Peel and Durham Region, Environmental Assessment Planning	Planner II	5 Shoreham Drive	Toronto	ON	M3N 1S4	416-661-6600 ext. 5769		bkrul@trca.on.ca
Ms.	Jessica	Hopcraft	Toronto and Region Conservation Authority							416-661-6600 ext.6485		jessica.hopcraft@trca.ca
Ms.	Sharon	Lingertat	Toronto and Region Conservation Authority	EA Planning	Senior Planner	101 Exchange Avenue	Vaughan	ON	L4K 5R6			
Ms.	Beth	Williston	Toronto and Region Conservation Authority	Environmental Assessment Planning	Senior Manager	5 Shoreham Drive	Downsview	ON	M3N 1S4	416-661-6600 x5217		bwilliston@trca.on.ca
Mr.	John	MacKenzie	Toronto and Region Conservation Authority	C.A.O.'s Office	Chief Executive Officer	5 Shoreham Drive	Toronto	ON	M3N 1S4	416-667-6290		john.mackenzie@trca.ca
Mr.	Don	Ford	Toronto and Region Conservation Authority	Source Protection Area	Senior Manager - Hydrogeology	101 Exchange Avenue	Vaughan	ON	L4K 5R6	647-287-1550		don.ford@trca.ca
Council Representatives												
Mayor	Patrick	Brown	City of Brampton		Mayor	2 Wellington Street West	Brampton	ON	L6Y 4R2	905-874-2600		patrick.brown@brampton.ca
Councillor	Paul	Vicente	City of Brampton		Regional Councillor Wards 1 & 5	2 Wellington Street West	Brampton	ON	L6Y 4R2	905-874-2601		paul.vicente@brampton.ca
Councillor	Rowena	Santos	City of Brampton		Regional Councillor Wards 1 & 5	2 Wellington Street West	Brampton	ON	L6Y 4R2	905-874-2605		rowena.santos@brampton.ca

Title	First Name	Last Name	Company/Organization	Department	Job Title	Business Street	Business City	Province	Postal Code	Business Phone	Business Fax	Email
Councillor	Michael	Palleschi	City of Brampton		Regional Councillor Wards 2 & 6	2 Wellington Street West	Brampton	ON	L6Y 4R2	905-874-2661		michael.palleschi@brampton.ca
Councillor	Navjit	Kaur Brar	City of Brampton		Regional Councillor Wards 2 & 6	2 Wellington Street West	Brampton	ON	L6Y 4R2	905-874-2606		navjitkaur.brar@brampton.ca
Councillor	Martin	Medeiros	City of Brampton		Regional Councillor Wards 3 & 4	2 Wellington Street West	Brampton	ON	L6Y 4R2	905-874-2634		martin.medeiros@brampton.ca
Councillor	Dennis	Keenan	City of Brampton		Regional Councillor Wards 3 & 4	2 Wellington Street West	Brampton	ON	L6Y 4R2	905-874-2603		dennis.keenan@brampton.ca
Councillor	Pat	Fortini	City of Brampton		Regional Councillor Wards 7 & 8	2 Wellington Street West	Brampton	ON	L6Y 4R2	905-874-2611		pat.fortini@brampton.ca
Councillor	Rod	Power	City of Brampton		City Councillor Wards 7 & 8	2 Wellington Street West	Brampton	ON	L6Y 4R2	905-874-2671		rod.power@brampton.ca
Councillor	Gurpartap	Singh Toor	City of Brampton		Regional Councillor Wards 9 & 10	2 Wellington Street West	Brampton	ON	L6Y 4R2	905-874-2609		gurpartap.toor@brampton.ca
Councillor	Harkirat	Singh	City of Brampton		City Councillor Wards 9 & 10	2 Wellington Street West	Brampton	ON	L6Y 4R2	905-874-2610		harkirat.singh@brampton.ca
Mayor	Bonnie	Crombie	City of Mississauga		Mayor	300 City Centre Drive	Mississauga	ON	L5B 3C1	905-896-5500	905-896-5463	bonnie.crombie@mississauga.ca
Ms.	Crystal	Greer	City of Mississauga	Office of the City Clerk	City Clerk	300 City Centre Drive, 3rd Floor	Mississauga	ON	L5B 3C1			crystal.greer@mississauga.ca
Councillor	Stephen	Dasko	City of Mississauga		Councillor Ward 1	300 City Centre Drive	Mississauga	ON	L5B 2G6	905-896-5100	905-896-5463	stephen.dasko@mississauga.ca
Councillor	Alvin	Tedjo	City of Mississauga		Councillor Ward 2	300 City Centre Drive	Mississauga	ON	L5B 3C1	905-896-5200	905-896-5463	alvin.tedjo@mississauga.ca
Councillor	Chris	Fonseca	City of Mississauga		Councillor Ward 3	300 City Centre Drive	Mississauga	ON	L5B 3C1	905-896-5300	905-896-5463	chris.fonseca@mississauga.ca
Councillor	John	Kovac	City of Mississauga		Councillor Ward 4	300 City Centre Drive	Mississauga	ON	L5B 3C1	905-896-5400	905-896-5463	john.kovac@mississauga.ca
Councillor	Carolyn	Parrish	City of Mississauga		Councillor Ward 5	300 City Centre Drive	Mississauga	ON	L5B 3C1	905-896-5500	905-896-5463	carolyn.parrish@mississauga.ca
Councillor	Joe	Horneck	City of Mississauga		Councillor Ward 6	300 City Centre Drive	Mississauga	ON	L5B 3C1	905-896-5600	905-896-5463	joe.horneck@mississauga.ca
Councillor	Dipika	Damerla	City of Mississauga		Councillor Ward 7	300 City Centre Drive	Mississauga	ON	L5B 3C1	905-896-5700	905-896-5463	dipika.damerla@mississauga.ca
Councillor	Matt	Mahoney	City of Mississauga		Councillor Ward 8	300 City Centre Drive	Mississauga	ON	L5B 3C1	905-896-5800	905-896-5463	matt.mahoney@mississauga.ca
Councillor	Martin	Reid	City of Mississauga		Councillor Ward 9	300 City Centre Drive	Mississauga	ON	L5B 3C1	905-896-5900	905-896-5863	martin.reid@mississauga.ca
Councillor	Sue	McFadden	City of Mississauga		Councillor Ward 10	300 City Centre Drive	Mississauga	ON	L5B 3C1	905-896-5010	905-896-5863	sue.mcfadden@mississauga.ca
Councillor	Brad	Butt	City of Mississauga		Councillor Ward 11	300 City Centre Drive	Mississauga	ON	L5B 3C1	905-896-5011	905-896-5863	brad.butt@mississauga.ca
Mayor	Allan	Thompson	Town of Caledon		Mayor	6311 Old Church Road	Caledon	ON	L7C 1J6	416-319-6543	905-584-4325	allan.thompson@caledon.ca
Councillor	Lynn	Kiernan	Town of Caledon		Area Councillor Ward 1	6311 Old Church Road	Caledon	ON	L7C 1J6	416-578-9156	905-584-4325	lynn.kiernan@caledon.ca
Councillor	Ian	Sinclair	Town of Caledon		Regional Councillor Ward 1	6311 Old Church Road	Caledon	ON	L7C 1J6	905-584-2272	905-584-4325	ian.sinclair@caledon.ca
Councillor	Christina	Early	Town of Caledon		Area Councillor Ward 2	6311 Old Church Road	Caledon	ON	L7C 1J6	416-576-9366	905-584-4325	christina.early@caledon.ca
Councillor	Johanna	Downey	Town of Caledon		Regional Councillor Ward 2	6311 Old Church Road	Caledon	ON	L7C 1J6	416-434-4102	905-584-4325	johanna.downey@caledon.ca
Councillor	Nick	deBoer	Town of Caledon		Area Councillor Wards 3 and 4	6311 Old Church Road	Caledon	ON	L7C 1J6	905-880-1370	905-880-1168	nick.deboer@caledon.ca
Councillor	Jennifer	Innis	Town of Caledon		Regional Councillor Wards 3 and 4	6311 Old Church Road	Caledon	ON	L7C 1J6	416-697-8280	905-584-4325	jennifer.innis@caledon.ca
Councillor	Annette	Groves	Town of Caledon		Regional Councillor Ward 5	6311 Old Church Road	Caledon	ON	L7C 1J6	416-434-3256	905-584-4325	annette.groves@caledon.ca
Councillor	Tony	Rosa	Town of Caledon		Area Councillor Ward 5	6311 Old Church Road	Caledon	ON	L7C 1J6	416-523-1348	305-584-4325	tony.rosa@caledon.ca
City Representative												
Mr.	Michael	Heralall	City of Brampton				Brampton	ON	L6Y 4R2			Michael.Heralall@brampton.ca
Mr.	David	Barrick	City of Brampton		Chief Administrative Officer	2 Wellington Street West	Brampton	ON	L6Y 4R2			david.barrick@brampton.ca
Mr.	Paul	Morrison	City of Brampton									Paul.Morrison@brampton.ca
Ms.	Nerissa	Iacobelli	City of Brampton	Office of the Chief Corporate Services Officer	Coordinator	2 Wellington Street West	Brampton	ON	L6Y 4R2			nerissa.iacobelli@brampton.ca
Mr.	Alex	Milojevic	City of Brampton	Brampton Transit	General Manger	185 Clark Boulevard	Brampton	ON	L6T 4G6			alex.milojevic@brampton.ca
Sir/Madam			City of Brampton		Growth Management	3 Wellington Street West	Brampton	ON	L6Y 4R3			GMP@Brampton.ca

Title	First Name	Last Name	Company/Organization	Department	Job Title	Business Street	Business City	Province	Postal Code	Business Phone	Business Fax	Email
Mr.	Robert	Bjerke	City of Brampton	Planning Design & Development	Director, Planning Policy & Growth Management	2 Wellington Street West	Brampton	ON	L6Y 4R2			bob.bjerke@brampton.ca
Mr.	Henrik	Zbogar	City of Brampton	Transportation Planning	Senior Manager	2 Wellington Street West	Brampton	ON	L6Y 4R2			Henrik.Zbogar@brampton.ca
Ms.	Aiysha	Syed	City of Mississauga	Transportation and Works Department, Infrastructure Planning & Engineering Division	Project Lead	300 City Centre Drive	Mississauga	ON	L5B 3C1	905-615-3200 ext.4782		
Mr.	Scott	Perry	City of Mississauga			300 City Centre Drive	Mississauga	ON	L5B 3C1	905-615-3200 ext.5161		
Ms.	Leslie	Green	City of Mississauga	Transportation & Works Department	Manager of Transportation Projects	300 City Centre Drive	Mississauga	ON	L5B 3C1	905-615-3200 x4197		leslie.green@mississauga.ca
Ms.	Emma	Calvert	City of Mississauga	Transportation & Infrastructure Planning Division	Manager of Development Engineering	300 City Centre Drive	Mississauga	ON	L5B 3C1			emma.calvert@mississauga.ca
Ms.	Felicia	Wong	City of Mississauga	Planning & Building, Development South Section	Administrative Assistant	300 City Centre Drive	Mississauga	ON	L5B 3C1	905-615-3200 x. 5533		felicia.wong@mississauga.ca
Mr.	Geoff	Wright	City of Mississauga	Transportation & Works	Commissioner	300 City Centre Drive	Mississauga	ON	L5B 3C1	905-615-3200 x5544		Martin.Powell@mississauga.ca
Mr.	Joe	Muller	City of Mississauga	Heritage Planning	Supervisor	300 City Centre Drive	Mississauga	ON	L5B 3C1	905-615-3200 x5366		joe.muller@mississauga.ca
Ms.	Sharon	Chapman	City of Mississauga	Parks Planning		300 City Centre Drive	Mississauga	ON	L5B 3C1	905-615-3200 x5370		sharon.chapman@mississauga.ca
	Sangita	Manandhar	City of Mississauga	Parks Planning		300 City Centre Drive	Mississauga	ON	L5B 3C1	905-615-3200 x 3997		sangita.manandhar@mississauga.ca
Ms	Evelyn	Krolicka	City of Mississauga			300 City Centre Drive	Mississauga	ON	L5B 3C1	905-615-3200 x 5921		evelyn.krolicka@mississauga.ca
Ms.	Margi	Sheth	Town of Caledon			6311 Old Church Road	Caledon	ON	L7C 1J6			Margi.Sheth@caledon.ca
Mr.	Vidit	Aneja	Town of Caledon			6311 Old Church Road	Caledon	ON	L7C 1J6			Vidit.Aneja@caledon.ca"
Ms.	Carey	Herd	Town of Caledon		Chief Administration Officer	6311 Old Church Road	Caledon	ON	L7C 1J6			carey.herd@caledon.ca
Mr.	Fuwing	Wong	Town of Caledon	Finance and Infrastructure Services	General Manager	6311 Old Church Road	Caledon	ON	L7C 1J6	905-584-2272 x4280		fuwing.wong@caledon.ca
Mr.	Ryan	Grodecki	Town of Caledon	Engineering Services	Manager of Engineering	6311 Old Church Road	Caledon	ON	L7C 1J6			ryan.grodecki@caledon.ca
Ms.	Cassie	Schembri	Town of Caledon									Cassie.Schembri@caledon.ca
Rail/Transit												
Mr.	Michael	Vallins	Canadian National Railway	Public Works, Design and Construction	Manager	1 Administration Road	Concord	ON	L4K 1B9	905-669-3264		michael.vallins@cn.ca
												Proximity@cn.ca
Mr.	Francois	Beauclair	CP Rail	Facilities, East	Director	2250 43rd Avenue	Lachine	QC	H8T 2J9	514-395-5429		
Mr.	Alan	Mielke	CP Rail		Division Engineer	"P.O. Box 4100						
2025 McCowan Road"	Agincourt	ON	M1S 4A8									
Mr.	Joe	Van Humbeck	CP Rail	Environmental Assessments	Manager	7550 Ogden Dale Rd SE	Calgary	AB	T2C 4X9	403 319 6530		joe_vanhumbeck@cpr.ca
Sir/Madam			GO Transit		Manager Of Marketing & Planning	10 Bay Street	Toronto	ON	M5J 2W3	416-202-4895		jason.ryan@metrolinx.com
Mr.	Jason	Ryan	Go Transit and Metrolinx	Environmental Programs & Assessments	Director	10 Bay Street	Toronto	ON	M5J 2W3			
EMS Service												
Ms.	Nancy	Macdonald-Duncan	City of Mississauga	Fire and Emergency Services	Acting Fire Chief	7535 Ninth Line	Mississauga	ON	L5N 7C3	905-615-3570		nancy.macdonald-duncan@mississauga.ca
Mr.	Nish	Duraiappah	Peel Region Police		Chief	7750 Hurontario Street	Brampton	ON	L6V 3W6			
Mr.	Peter	Dundas	Region of Peel	Peel Regional Paramedic Services	Chief and Director	1600 Bovair Dr. E., 2nd Floor	Brampton	ON	L6R 3S8			peter.dundas@peelregion.ca
Mr.	Darryl	Bailey	Town of Caledon	Caledon Fire and Emergency Services	Fire Chief	6311 Old Church Road	Caledon	ON	L7C 1J6	905-584-2272		fire@caledon.ca
Mr.	Bill	Boyes	City of Brampton	Brampton Fire and Emergency Services	Fire Chief	8 Rutherford Road South	Brampton	ON	L6W 3J1	905-874-2722		bill.boyes@brampton.ca
Utilities												
Mr.	John	La Chapelle	Bell Canada		Planner/Manager	100 Borough Drive, 5th Floor - Blue	Scarborough	ON	M1P 4E2			rowcentre@bell.ca
Mr.	Jim	Leworthy	Bell Canada		Manager, Municipal Access	444 Millard Avenue	Newmarket	ON	L3Y 6J7			james.leworthy@bell.ca









Title	First Name	Last Name	Company/Organization	Department	Job Title	Business Street	Business City	Province	Postal Code	Business Phone	Business Fax	Email
			Meadow Wood – Rattray Ratepayers Association (MWRA)									
			Park Royal Community Association (PRCA)									
			Rockwood Homeowners Association (RHA)									
			Southfields Village Residents Group									
			South-Peel Naturalists Club									
			Terra Cotta Residents Group									
			Town of Port Credit Association									
			Valley Residents Association									
			Valleywood Resident Association									
			Village Of Inglewood Association									
			Tecumseh Ratepayers Association									
			Terra Cotta Community Centre									
			Whiteoaks Lorne Park Community Association									
	Brian	Sutherland	Argo Developments	0	Vice President, Development	4900 Palladium Way, Suite 105	Burlington	ON	L7M 0W7	905-336-5545	0	brian@argoland.com
Request for Notification												
			Resident									
Mr.	Kevin	Waher	Hatch Infrastructure		Senior Project Manager	2265 Upper Middle Road East, Fifth Floor	Oakville	ON	L6H 0G5	905-486-0738		kevin.waher@hatch.com
Mr.	Jordan	Strauss	On Behalf of Canada Lands Company	Land Development	Project Engineer, WSP	100 Commerce Valley Drive West	Thornhill	ON	L3T 0A1	289-982-4329		jordan.strauss@wsp.com



## Appendix R:

## Notice of Commencement



## Peel Wastewater Treatment Solutions NOTICES OF STUDY COMMENCEMENT

G.E. Booth Wastewater Treatment Plant Schedule C Class Environmental Assessment  
Clarkson Wastewater Treatment Plant Schedule C Class Environmental Assessment

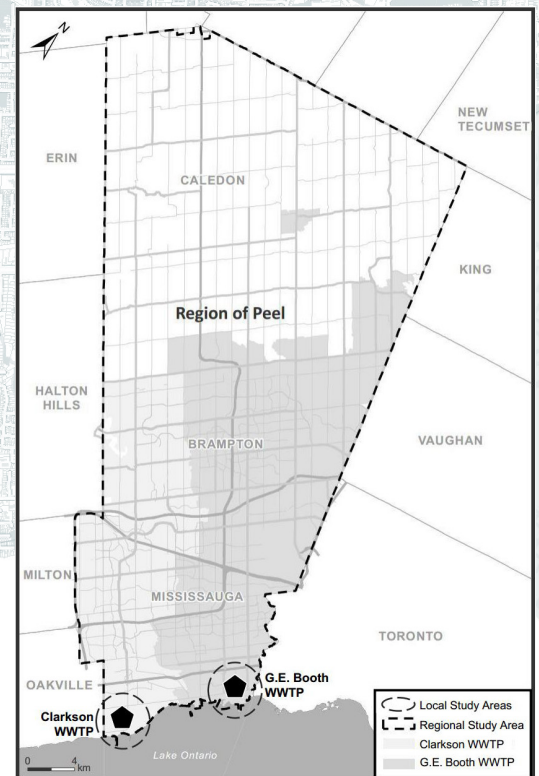
### Background

The Region of Peel has initiated two Schedule C Class Environmental Assessments (EAs) for the G.E. Booth Wastewater Treatment Plant (WWTP) and the Clarkson WWTP to identify the preferred solutions for wastewater treatment and biosolids management in the Region. These two (2) Class EA studies are integrated, as the preferred solutions will impact both facilities. The Class EA process will evaluate alternatives to address capacity for future growth across the Region, to establish servicing, treatment and biosolids policy, and incorporate factors such as energy efficiency, climate resiliency, lifecycle planning and operational flexibility.

### The Process

The Class EA process for both the G.E. Booth and Clarkson WWTPs includes:

- Public and agency stakeholder consultation.
- Opportunities and constraints review.
- Investigation of alternative long-term servicing and biosolids management strategies, treatment technologies and design concepts.
- Evaluation of the impacts of alternatives.
- Selection and development of preferred alternatives, including the overall wastewater and biosolids management strategy, and design concepts for each WWTP.



### Your Input is Important

The Class EAs will take approximately eighteen (18) months to two (2) years to complete. Public Information Events as well as online engagement will be part of the studies to help the public stay informed and provide an opportunity to give the project team feedback for both Class EAs. The first Public Consultation Event is planned for Fall 2020 and will be a joint event to present information on both the G.E. Booth and Clarkson WWTP Class EAs. Once each Class EA is completed, the results will be published in two separate Environmental Study Reports that will be available for public review.

### Contact the Team

To be added to the mailing list or to receive further information about these Class EA studies, please contact:

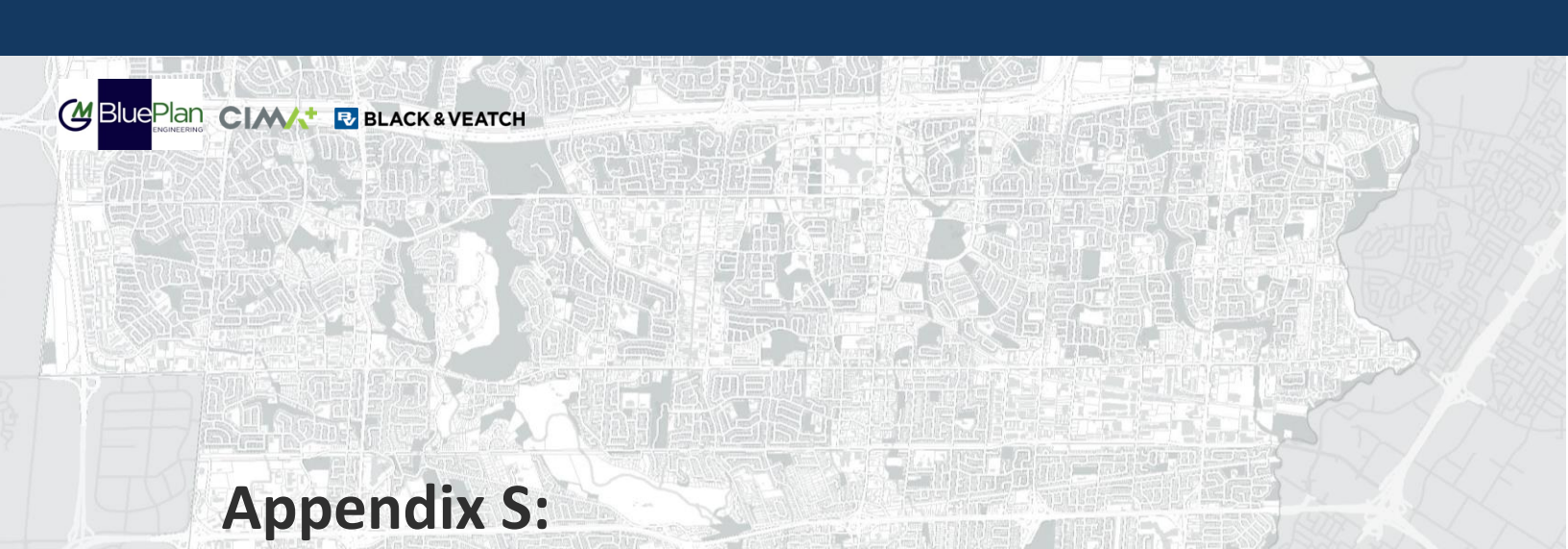
#### Cindy Kambeitz

Project Manager, Region of Peel  
905-791-7800 ext. 5040  
GEBoothEA@peelregion.ca  
ClarksonEA@peelregion.ca

### Accessibility

The Region of Peel is committed to meet the requirements outlined in the *Accessibility for Ontarians with Disabilities Act, 2005* (AODA). Please contact the project manager if you require an alternative format of this document and/or if you need support and accommodations to provide feedback for this study.

For more information on these Class EA studies visit the Region's website at: [www.peelregion.ca/GEBooth](http://www.peelregion.ca/GEBooth) and [www.peelregion.ca/Clarkson](http://www.peelregion.ca/Clarkson)



# Appendix S: Public Information Centres

**PIC #1**



## Peel Wastewater Treatment Solutions NOTICE OF VIRTUAL PUBLIC INFORMATION EVENT NO. 1

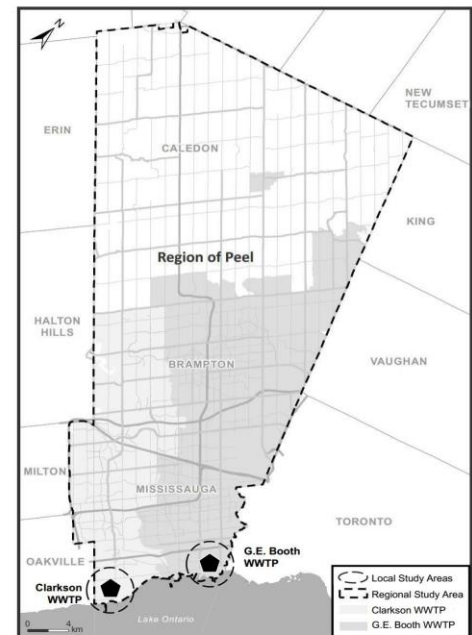
### G.E. Booth Wastewater Treatment Plant Schedule C Class Environmental Assessment Clarkson Wastewater Treatment Plant Schedule C Class Environmental Assessment

#### The Study:

The Region is completing two Schedule C Class Environmental Assessments (EAs) for the G.E. Booth Wastewater Treatment Plant (WWTP) and the Clarkson WWTP to identify preferred solutions for wastewater treatment and biosolids management to meet approved residential and employment growth plans. The Class EA studies will investigate and evaluate alternatives to address capacity for future growth across the Region and incorporate important factors such as energy efficiency and climate resiliency.

#### The Process:

These EA Studies are Schedule 'C' projects in accordance with the "Municipal Class Environmental Assessment" (MEA, October 2000, as amended in 2007, 2011 and 2015), which is an approved process under the Ontario Environmental Assessment Act. The Class EA process includes public and agency consultation, an evaluation of alternatives, an assessment of potential environmental effects of the proposed work and identification of reasonable measures to mitigate any potential adverse impacts.



#### Virtual Public Information Centre

A virtual Public Information Centre (PIC) will be held to provide an overview of the Class EAs, including the EA process, background information, and some alternative solutions being considered. All content and instructions on how to submit questions and feedback will be posted on the project webpages:

[www.peelregion.ca/GEBooth](http://www.peelregion.ca/GEBooth)

[www.peelregion.ca/Clarkson](http://www.peelregion.ca/Clarkson)

PIC display panels and a video walkthrough of their content will be posted on **Oct. 14, 2020 at 5 p.m.** This will be followed by a two-week question submission period closing **Oct. 28, 2020**. A formal response from the project team to all questions and comments will be posted on **Nov. 25, 2020**.

If you would like more information about the studies, we encourage you to use the following resources:

- Information presented at PIC's will be available on the Region's project website indefinitely, [www.peelregion.ca/GEBooth](http://www.peelregion.ca/GEBooth) and [www.peelregion.ca/Clarkson](http://www.peelregion.ca/Clarkson)
- The Region will be hosting two additional public information sessions in 2021 at key study milestones, where representatives will be able to answer future questions and discuss next steps.

**Contact:**

If you wish to submit comments or would like to be added to the project mailing list for future project notifications, please contact

**Cindy Kambeitz, Project Manager**

905-791-7800, ext. 5040

[GEBooth@peelregion.ca](mailto:GEBooth@peelregion.ca)

[Clarkson@peelregion.ca](mailto:Clarkson@peelregion.ca)

The Region of Peel is committed to ensure that all Regional services, programs and facilities are inclusive and accessible for persons with disabilities. Please contact the Project Manager if you need any disability accommodations to provide comments or feedback for this study.

**This notice was first issued on October 1<sup>st</sup>, 2020**



**Welcome!**

# **Peel Wastewater Treatment Solutions**

**G.E. Booth Wastewater Treatment Plant Schedule C  
Class Environmental Assessment  
and  
Clarkson Wastewater Treatment Plant Schedule C Class  
Environmental Assessment**

**Virtual Public Information Event No. 1  
On Display from Wednesday, October 14, 2020**

# Why a Virtual Public Information Event?

Our world is experiencing unprecedented disruption due to a global pandemic caused by COVID-19. During this difficult period, the Region of Peel Public Works, as an essential service provider, has continued to operate and maintain our existing infrastructure and plan for future growth.

The Region of Peel's approach to public and stakeholder consultation and engagement is to remain flexible and adjust our programs to adapt to changing needs. As such, this public information event is *virtual*. It has been designed to provide detailed information on the studies and to allow all interested parties an opportunity to participate. All comments and questions received will be formally responded to through the project webpages, email and mail where required.

**The Region of Peel is undertaking two Class Environmental Assessments (EAs) for each of their two wastewater treatment facilities:**

- **G.E. Booth Wastewater Treatment Plant**
- **Clarkson Wastewater Treatment Plant**

**The Class EAs are being undertaken to identify solutions for meeting future wastewater treatment needs.**



**Provide background information on the studies to stakeholders and the public**



**Introduce the Project Team**



**Provide opportunity for interested parties to review and provide comments to the Project Team**



**Formally respond to questions and comments on project webpages on November 25, 2020**

Meet the **Technical** needs *and* the **Communication** needs of the project



**Cindy Kambeitz**  
*Region of Peel*



**John Glass**  
*Region of Peel*



**Laurie Boyce**  
*GM BluePlan*



**Chris Hamel**  
*GM BluePlan*



**Troy Briggs**  
*CIMA+*



**Zhifei Hu**  
*Black & Veatch*



The Region's Growth Management Process and 2020 Water and Wastewater Master Plan identified that there will be significant growth across the Region of Peel.

With this approved growth to year 2041 and vision for growth beyond 2041, additional treatment capacity is required to meet the needs of Peel's citizens and to continue to protect the environment.

The Region of Peel is

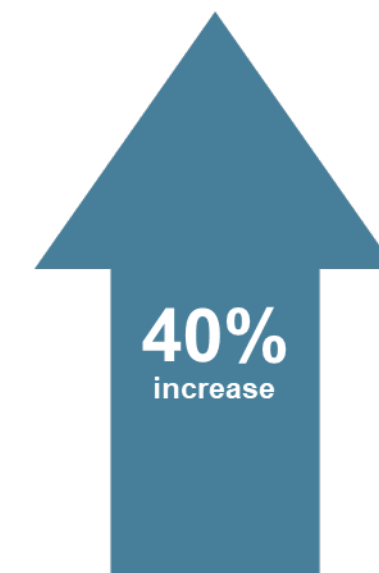
## GROWING!

2016  
**2.12**  
Million

1,428,000 people  
695,000 jobs

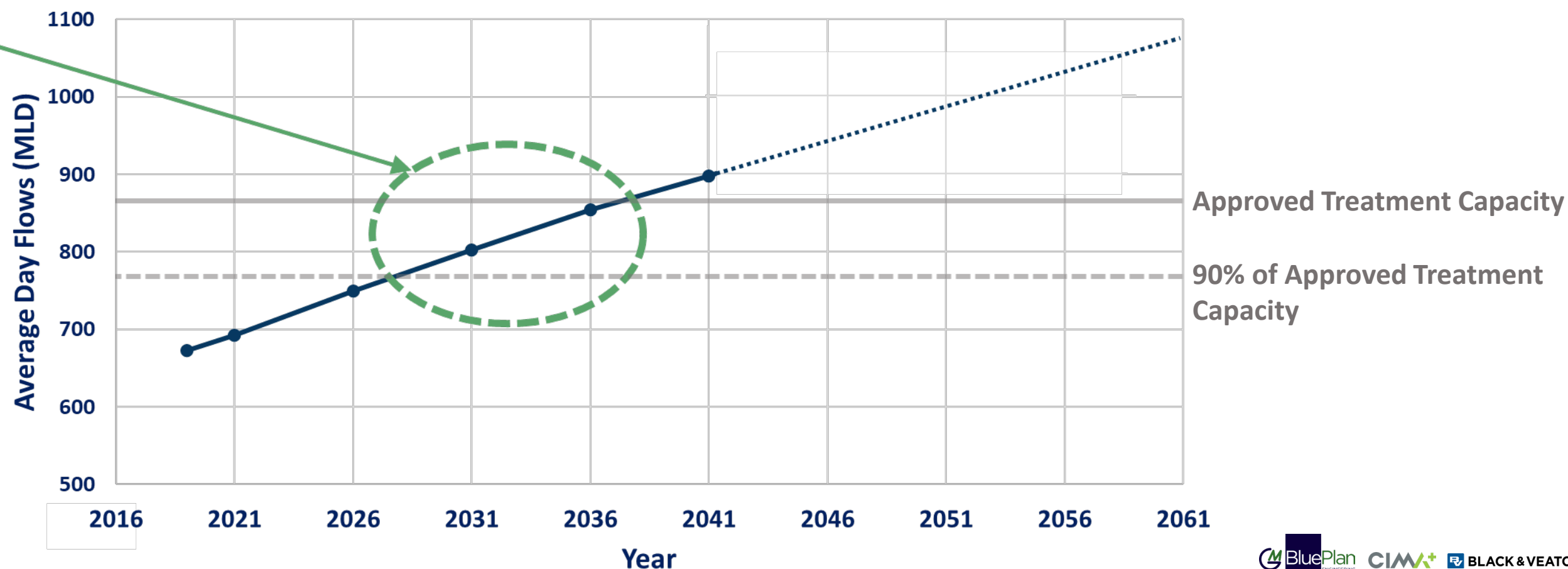
2041  
**2.94**  
Million

1,970,000 people  
970,000 jobs



+ 542,000 people  
+ 275,000 jobs

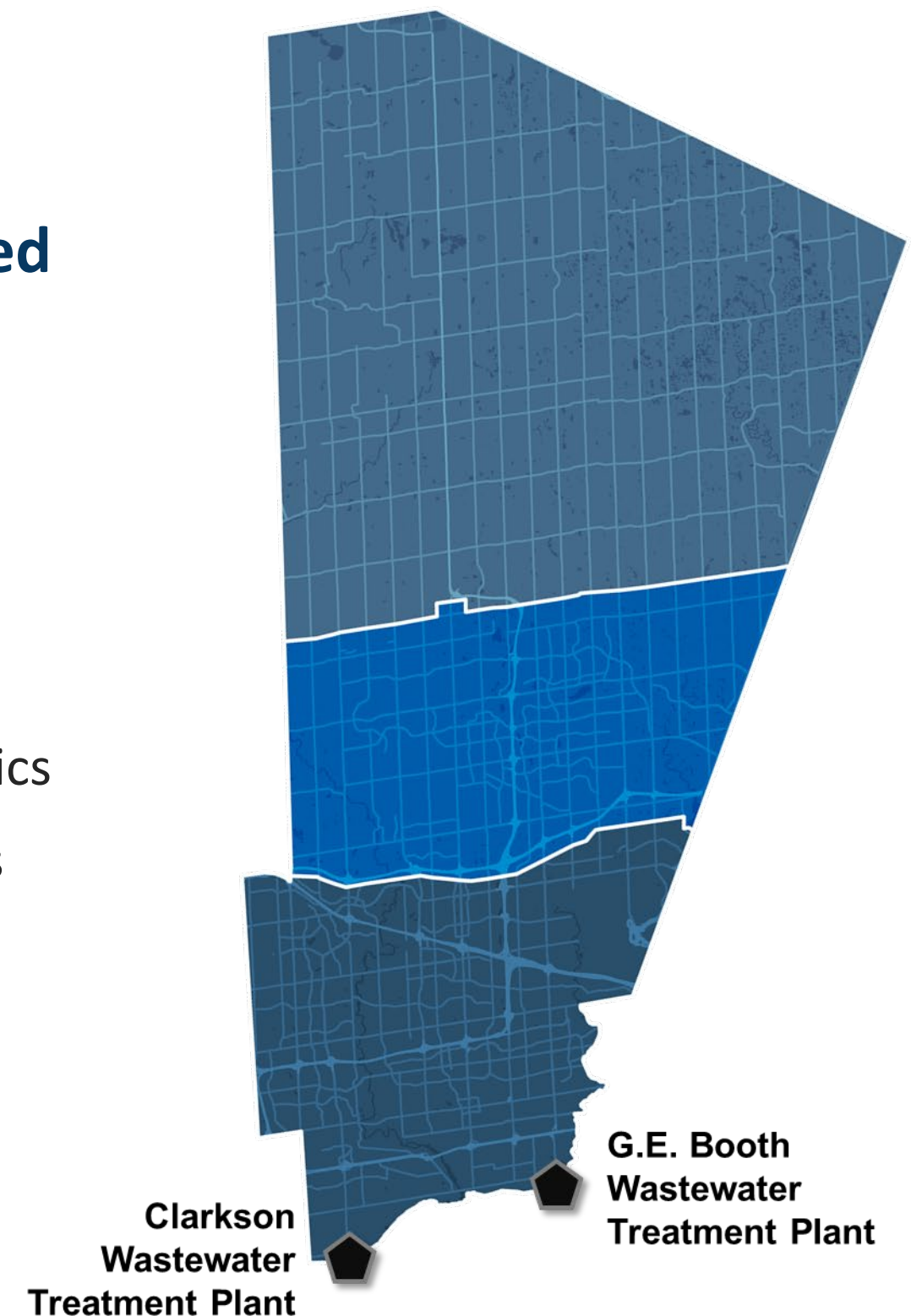
### Total Peel Wastewater Flow Projections



Additional Treatment Capacity Required

## The Clarkson and G.E. Booth Wastewater Treatment Plant Class EAs will present the opportunity to develop a preferred wastewater treatment solution that will:

- Meet future needs associated with population growth, new regulations, climate resiliency, energy efficiency, wet weather flows and water usage
- Address community expectations regarding level of service, odour, air/noise, water quality, protection of the environment and aesthetics
- Provide greater flexibility and reliability in wastewater and biosolids management.



# The Municipal Class Environmental Assessment Process

PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5
Problem or Opportunity	Alternative Solutions	Alternative Design Concepts for Preferred Solution	Environmental Study Report (ESR)	Implementation
Identify Problem and Opportunity	Identify Alternative Solutions to Problem and Opportunity	Identify Alternative Design Concepts (technologies, construction methods, site layouts)	Complete Environmental Study Report (ESR)	Complete Contract Drawings and Tender Documents
Notice of Commencement (July 16, 2020)	Public Information Event No. 1. RE: Problem / Opportunity Statement and Alternative Solutions	Detail Inventory Natural, Social, Economic Environment	Environmental Study Report (ESR) Placed on Public Record	Proceed to Construction and Operation
	Inventory Natural, Social, Economic Environment	Identify Impact of Alternative Designs on Environment, and Mitigating Measures	Notice of Completion to Review Agencies and Public	Monitor for Environmental Provisions and Commitments
	Identify Impact of Alternative Solutions on the Environment, and Mitigating Measures	Evaluate Alternative Designs: Identify Recommended Design Concepts	Opportunity to Request Minister Within 30 Days of Notification to Request and Order*	
	Evaluate Alternative Solutions: Identify Recommended Solutions	Public Information Event No. 3. RE: Preliminary Preferred Design Concept		
	Public Information Event No. 2. RE: Preliminary Preferred Solution	Select and Finalize Preferred Design Concept		
	Select Preferred Solution			

We are here!



## Provincial Process

The projects are following the **Municipal Class Environmental Assessment** process, which is a decision-making process that all Ontario municipalities must follow for building new infrastructure.

For more information on Municipal Class EA Process, please visit the following website:  
<https://municipalclassea.ca/manual/>



## Phase 1: Problem and Opportunity Statement

- How much additional wastewater flow and solids will be generated from approved population and employment growth?

## Phase 2: Alternative Solutions

- What is the overall concept for treating wastewater in Peel?
- Should we expand one or both the existing wastewater treatment plants?
- How much should the wastewater treatment plant(s) be expanded by?
- Do we need additional outfall capacity? How much and where?
- How much biosolids capacity is need, and where should we treat our biosolids?

## Phase 3: Alternative Technologies and Site Layouts (Design Concepts)

- What technologies should we use to treatment our wastewater (liquid and solids components)?
- Where should our treated biosolids go and be used?
- How will we provide additional outfall capacity?
- How should the wastewater plant sites be laid out and look?
- How do we mitigate environmental and social impacts?





## Three Key Components of the Class EA Studies

1. Wastewater Treatment
2. Biosolids Management
3. Outfall Capacity Needs





# Wastewater Treatment



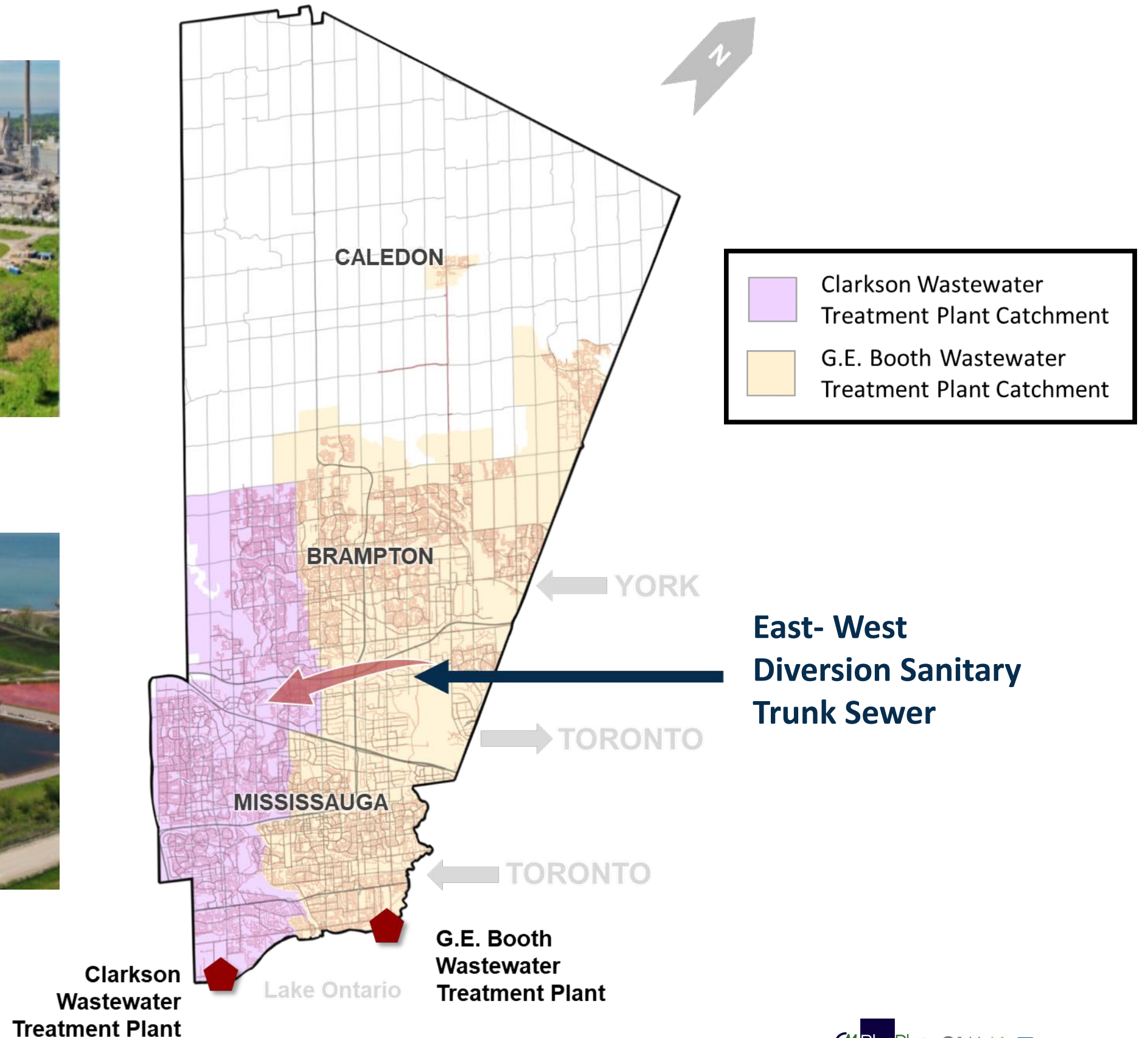
# Peel's Wastewater Treatment System



**Clarkson Wastewater Treatment Plant**



**G.E. Booth Wastewater Treatment Plant**





# Existing Wastewater Treatment Processes

## Existing Liquid Treatment

Wastewater from Residential, Commercial, Institutional, and Industrial Users drains through sewers to the Clarkson and G.E. Booth Wastewater Treatment Plants



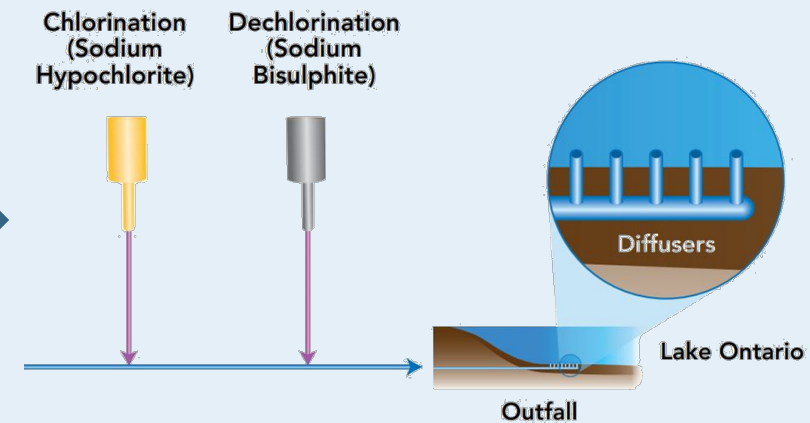
Screens and Grit Removal



Primary Treatment



Secondary Treatment



Disinfection

Outfall



Screens and Grits Materials trucked to landfill



Solids from primary and secondary treatment processes are collected and treated to produce sludge. The treated sludge is referred to as biosolids.

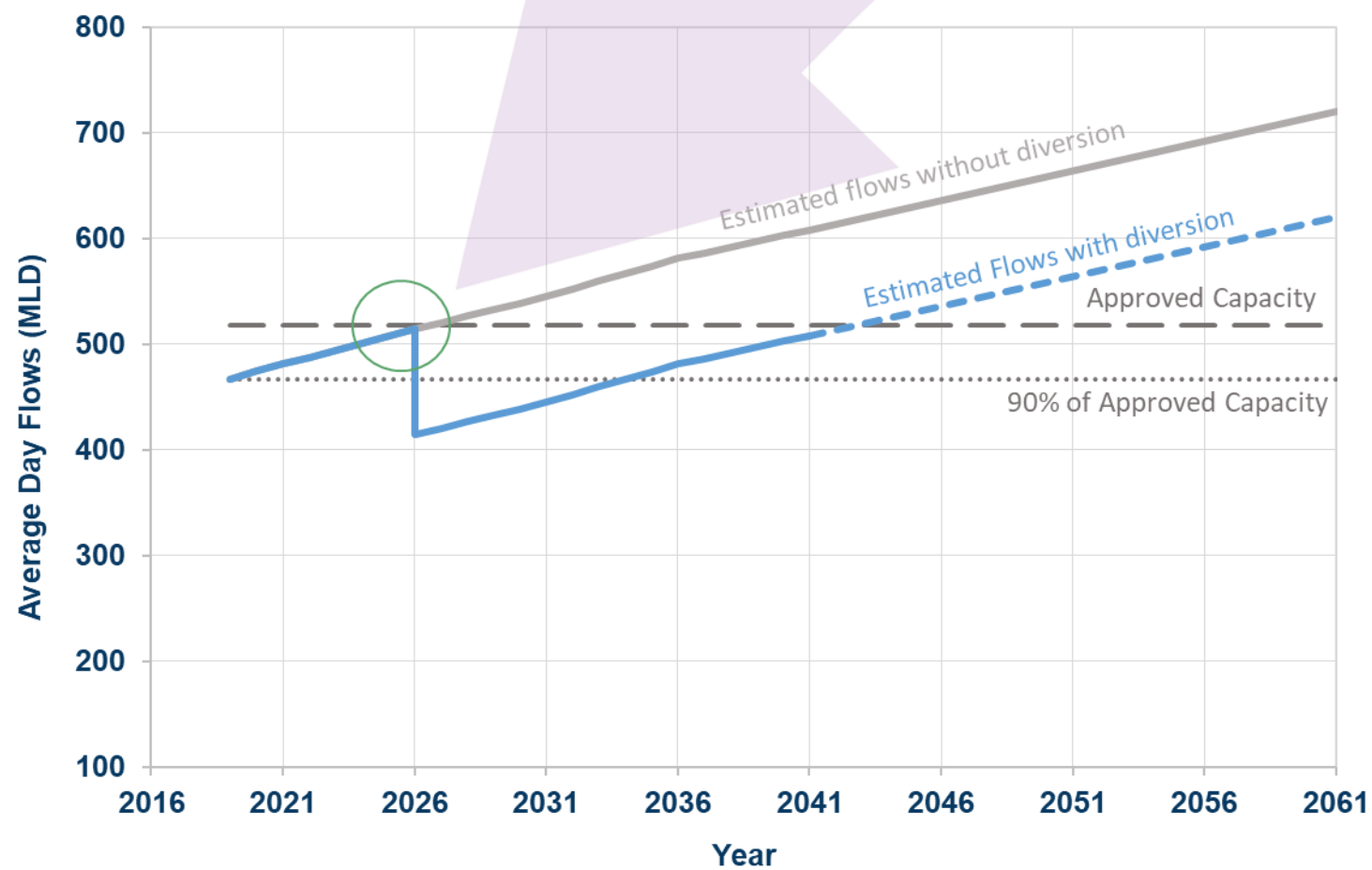


For more information on the wastewater treatment processes in the Region of Peel, please visit the following website:

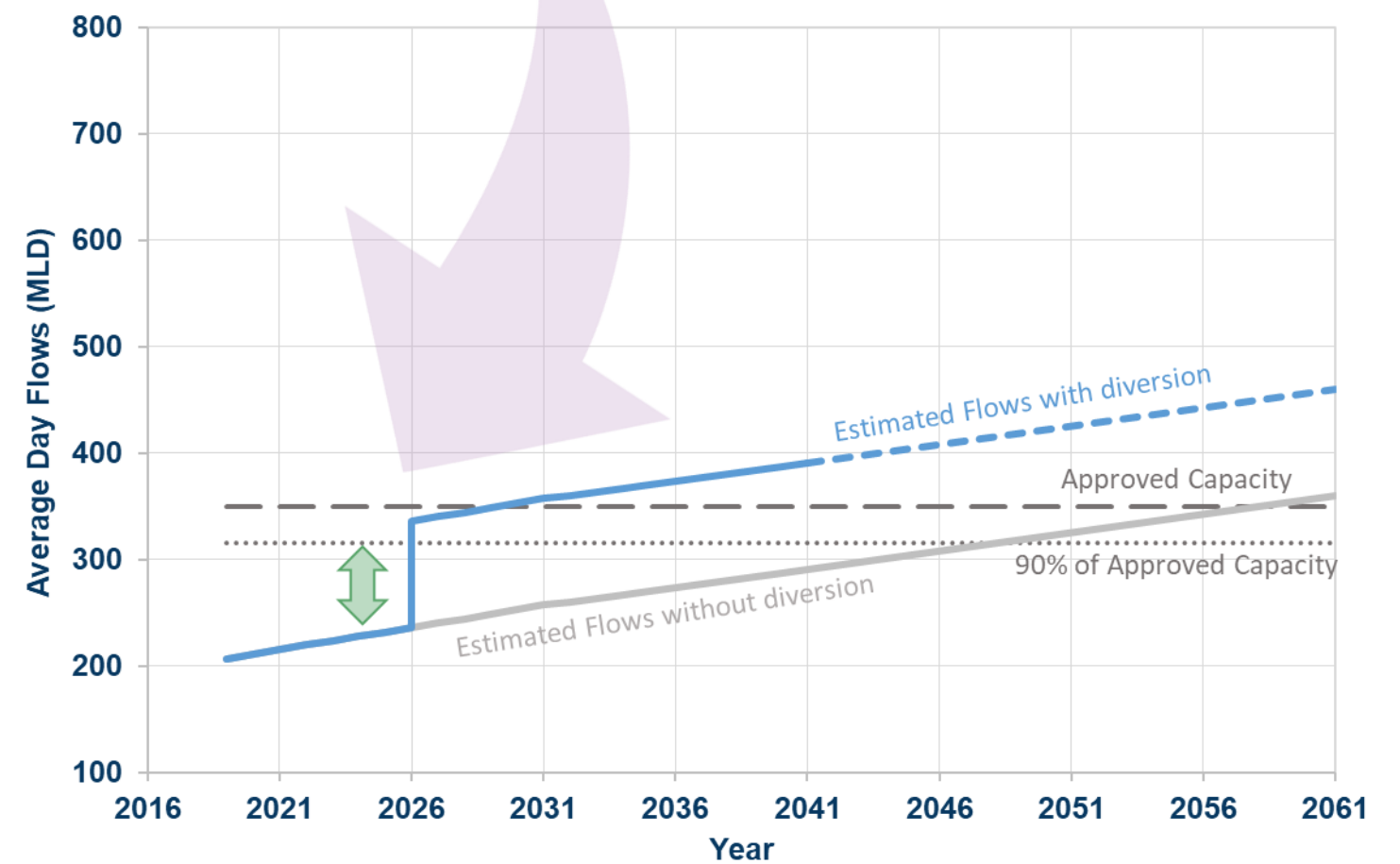
<https://www.peelregion.ca/wastewater/>

The G.E. Booth Wastewater Treatment Plant is approaching its capacity limits, while the Clarkson Wastewater Treatment Plant has approximately 80 to 100 Million Litres per day (MLD) existing surplus capacity

**G. E. Booth Wastewater Treatment Plant Flow Projections**



**Clarkson Wastewater Treatment Plant Flow Projections**



These EAs will identify the capacity expansion requirements at both Wastewater Treatment Plants to best utilize the existing surplus capacity at Clarkson and manage flow diversion over time.



# Long-list of Wastewater Treatment Concepts

## DO NOTHING

Maintain existing programs and infrastructure; no additional works

## LIMIT GROWTH

Limiting growth as to not trigger the need for new infrastructure

## NEW FACILITIES

Construct one or more new wastewater treatment facilities

**These alternative concepts do not meet project objectives and are not part of the Region of Peel's overall Wastewater Treatment Strategy.**

## FLOW REDUCTION

Reduce flows entering the wastewater collection system through:

- a. Reduce and control stormwater inflow and groundwater infiltration (I/I) into the sewers
- b. Water efficiency program

## UPGRADE AND EXPAND WASTEWATER COLLECTION SYSTEM

Upgrade/New Sewers to meet capacity demands and diversions to optimize available capacities

## WET WEATHER MANAGEMENT

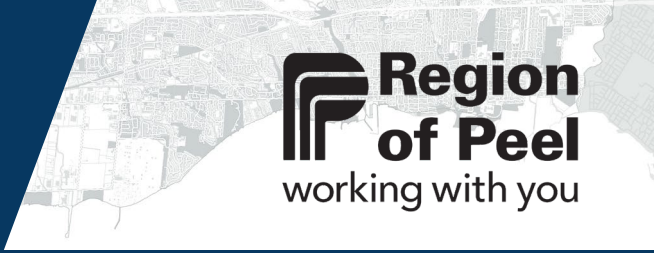
Manage wet weather flows within the existing wastewater collection system as well as at the treatment plants

## EXPAND ONE OR BOTH OF THE EXISTING WASTEWATER TREATMENT PLANTS

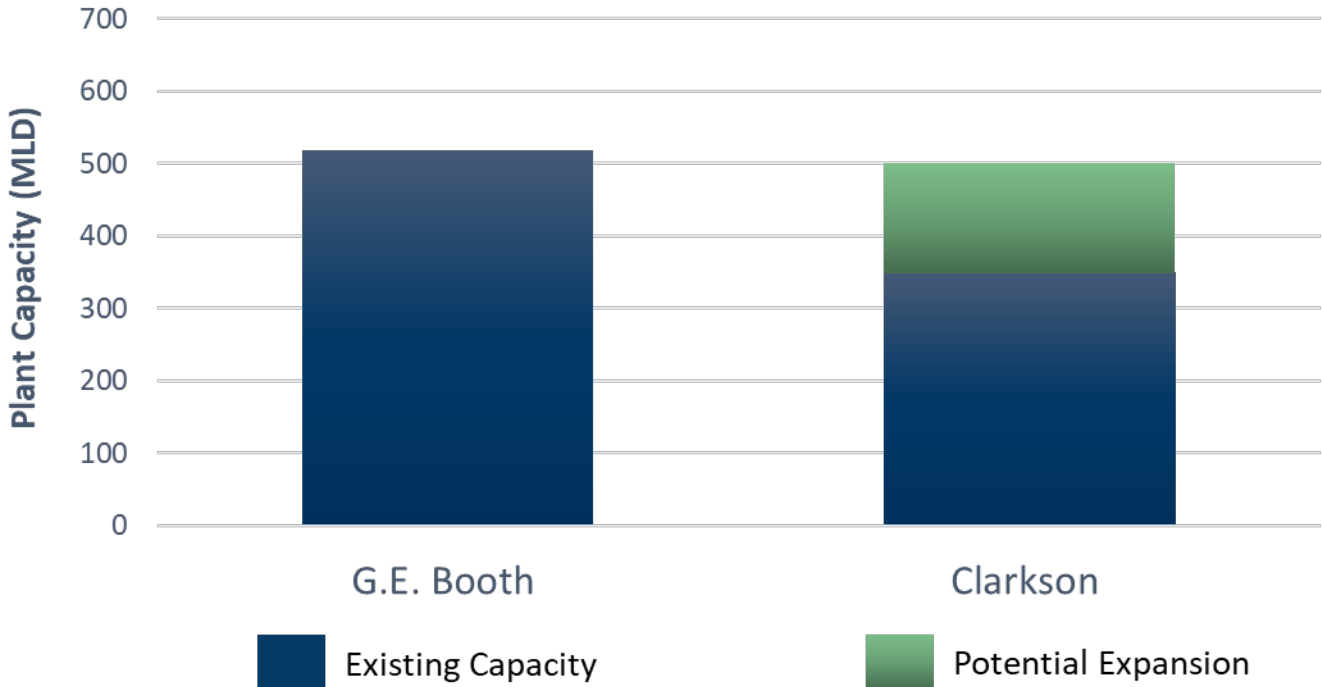
- a. G.E. Booth Wastewater Treatment Plant
- b. Clarkson Wastewater Treatment Plant

**These alternative concepts support project objectives and are part of the Region of Peel's overall Wastewater Treatment Strategy.**

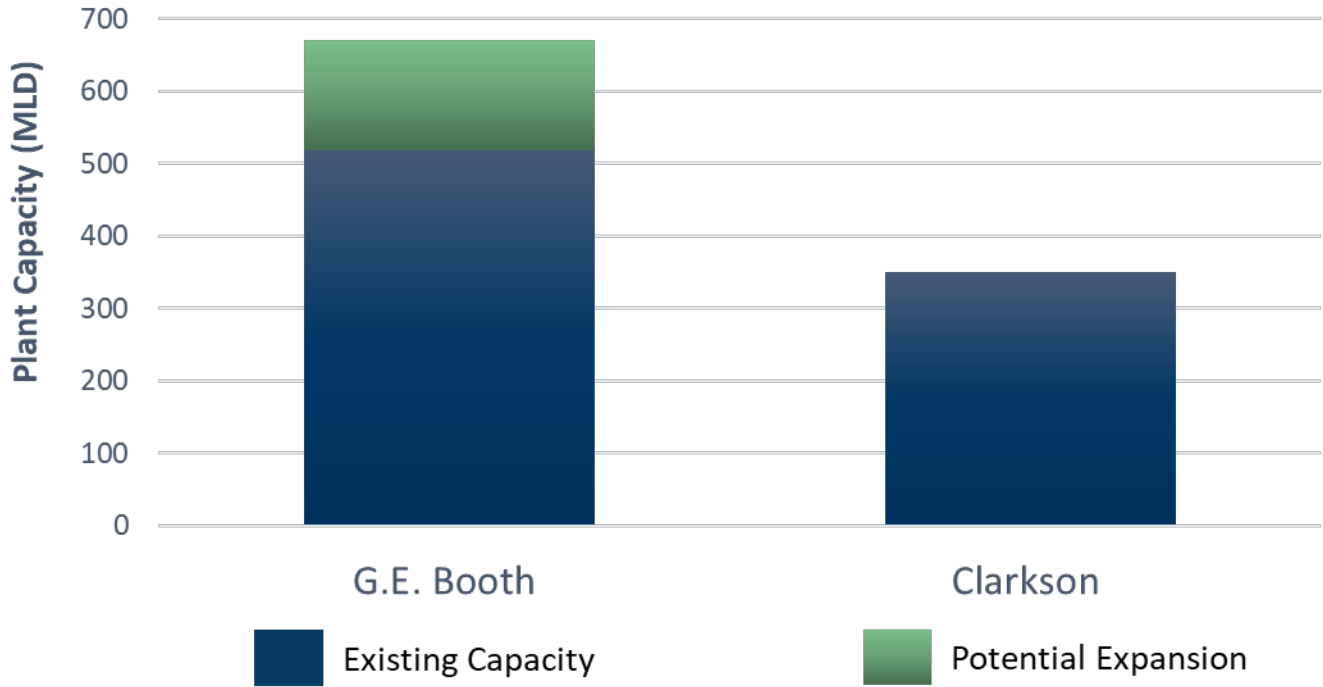
# Regional Wastewater Expansion Strategies



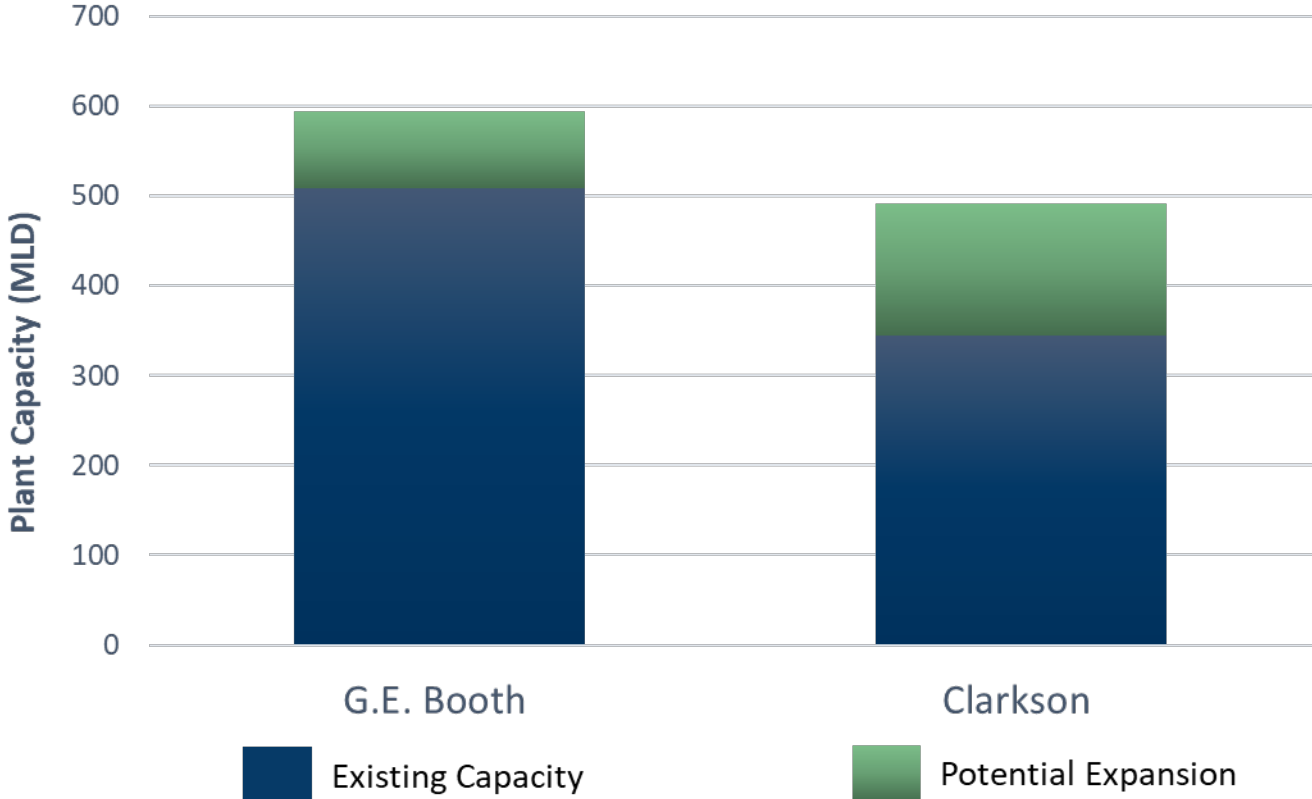
**STRATEGY 1: EXPANSION OF CLARKSON WASTEWATER TREATMENT PLANT ONLY**



**STRATEGY 2: EXPANSION OF G.E. BOOTH WASTEWATER TREATMENT PLANT ONLY**



**STRATEGY 3: EXPANSION OF BOTH PLANTS**





# Biosolids Management





# Existing Biosolids Treatment Processes

## Existing Liquid Treatment

Primary and Secondary Treated Solids



## Existing Biosolids Treatment



**Thickening & Dewatering**  
(G.E. Booth Wastewater Treatment Plant)



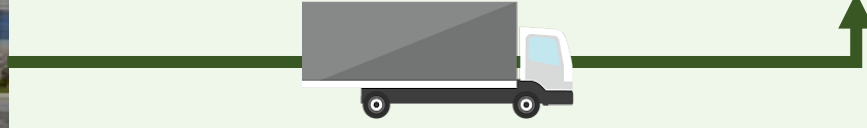
**Anaerobic Digestion and Dewatering**  
(Clarkson Wastewater Treatment Plant)



**Incineration**



**Ash Storage**

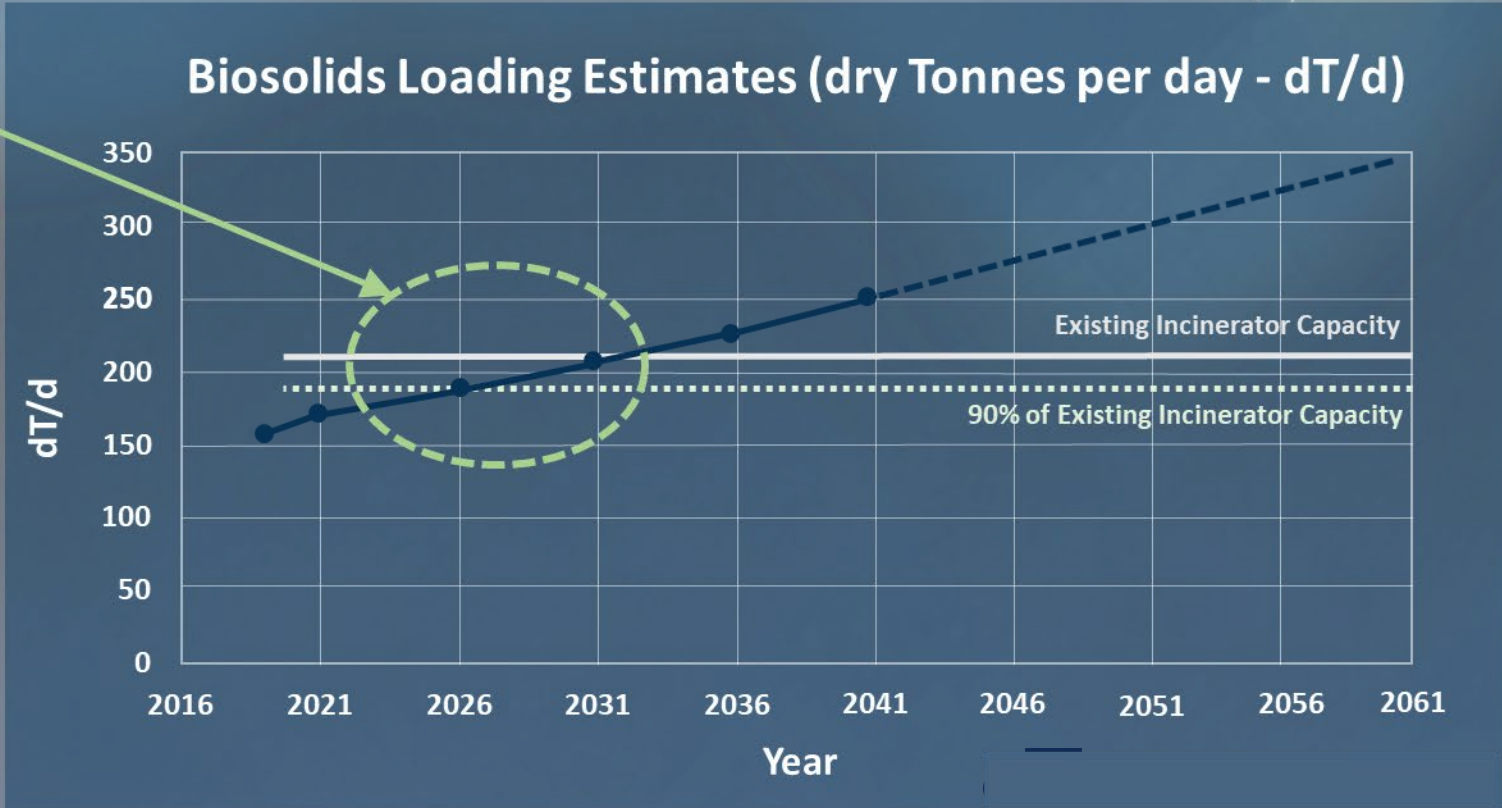
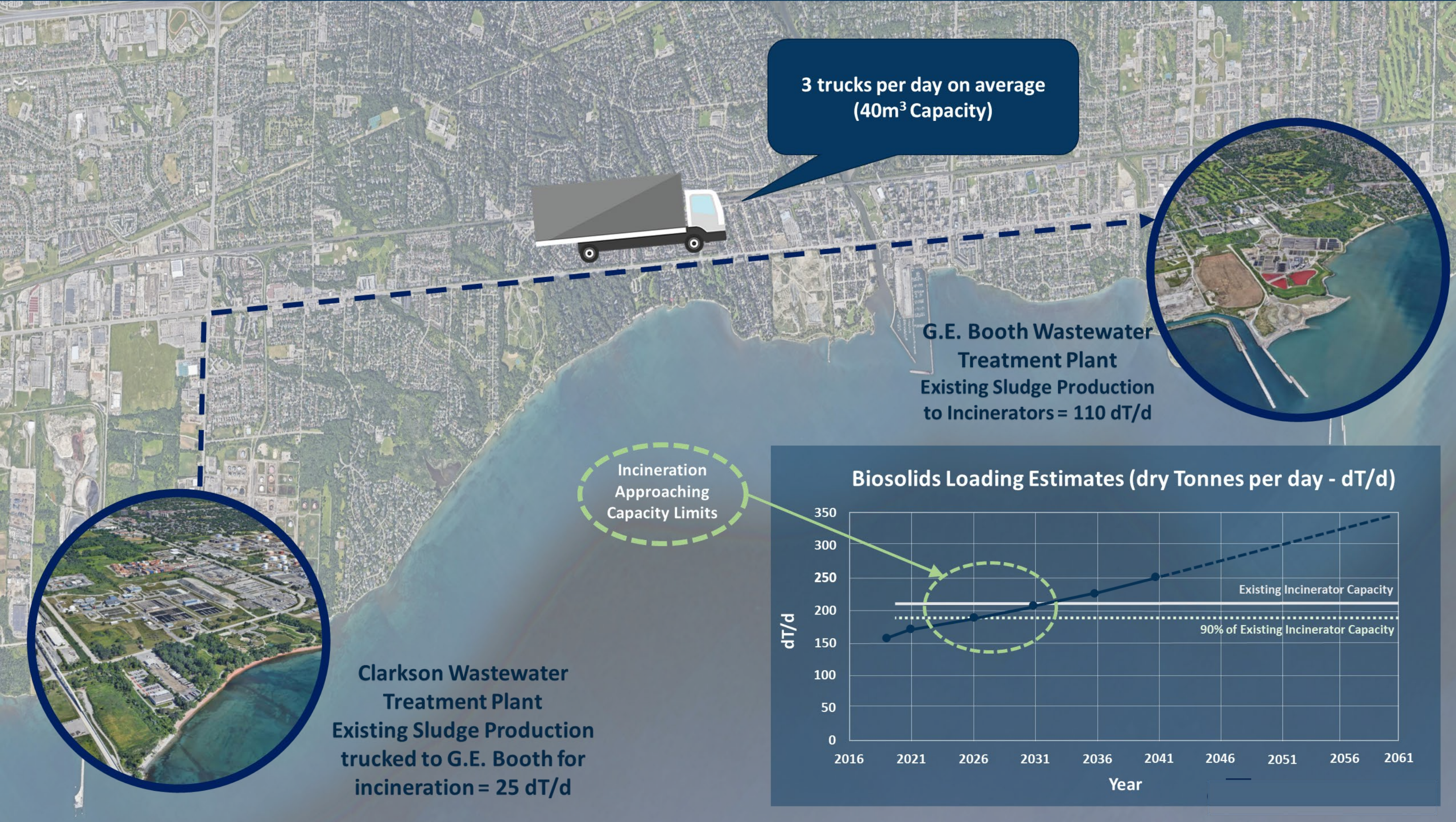


For more information on the biosolids treatment processes at both plants,  
please visit the following website:

<https://www.peelregion.ca/wastewater/>



# Existing Biosolids Management





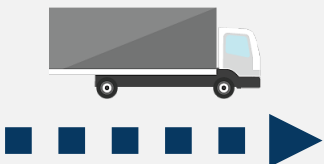
## Strategy 1

Continue to incinerate all existing and future biosolids at G.E. Booth Wastewater Treatment Plant.

Increase in Truck Traffic to approximately 5-6 trucks per day by 2041



Clarkson



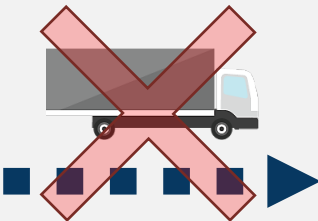
G.E. Booth

## Strategy 2

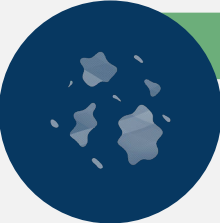
Treat the existing and future biosolids generated at each plant at their respective Wastewater Treatment Plants.



Clarkson



G.E. Booth



### Sludge Treatment Options

#### Clarkson

- Continue with existing sludge treatment method
- Select a different sludge treatment method

#### G.E. Booth

- Continue with incineration
- Select a different sludge treatment method



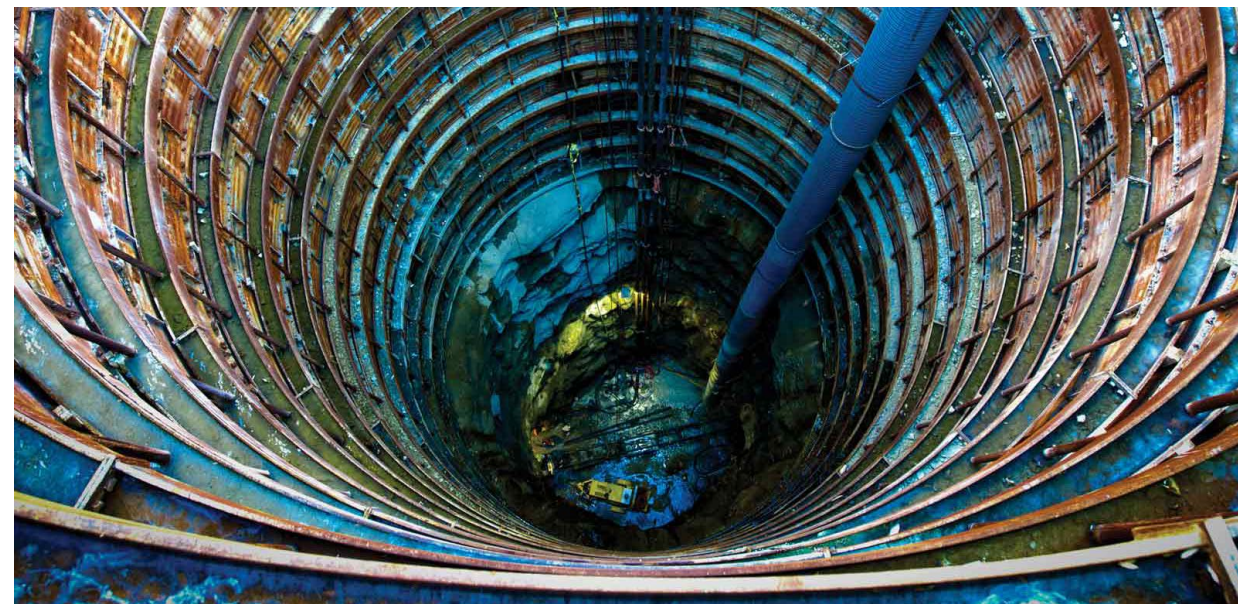
### Biosolids End-Use Options

- Landfill
- Beneficial Land Application (e.g. agricultural, parks, golf courses)
- Residual ash product reuse

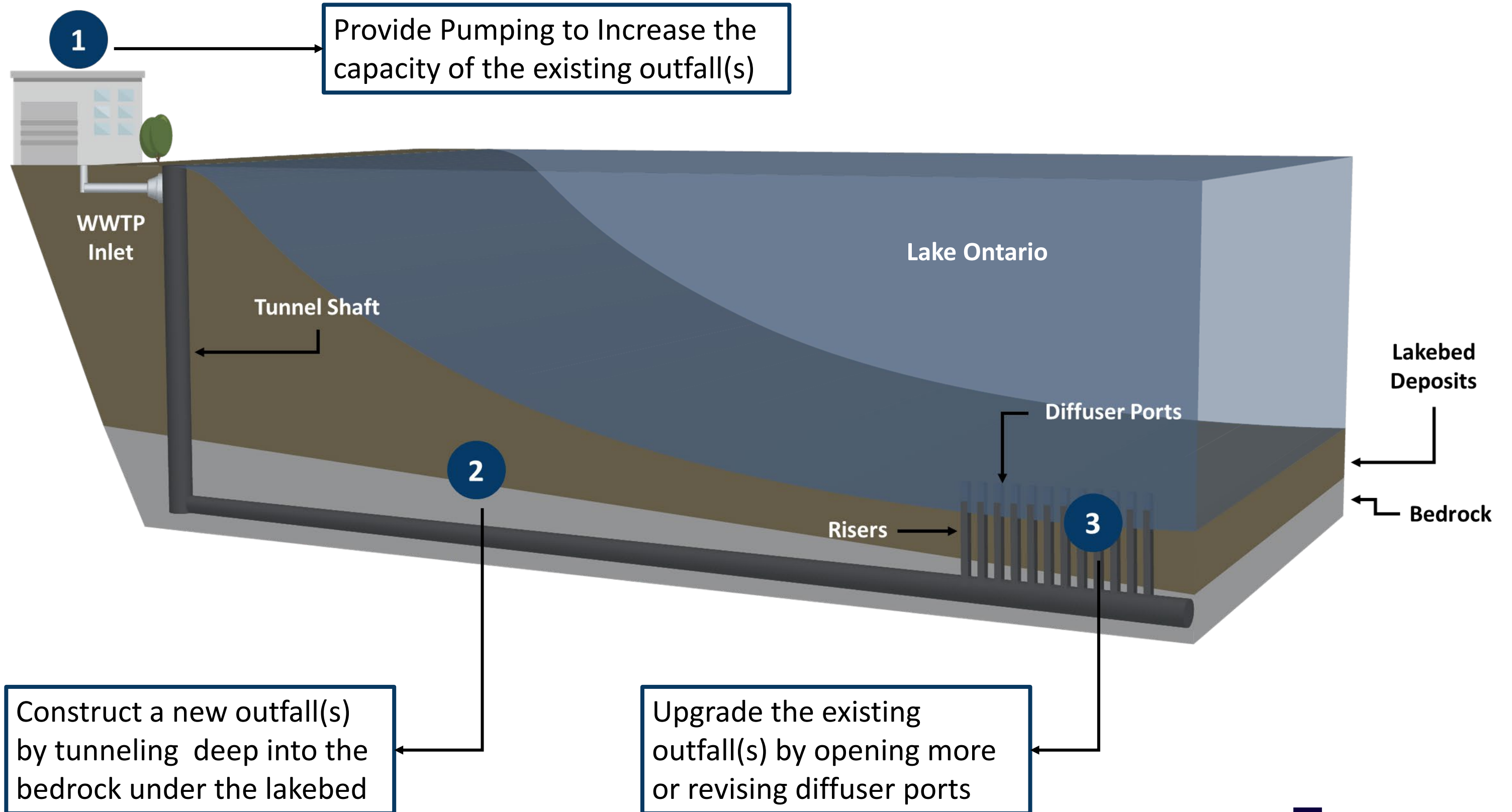




# Outfall Capacity Needs



# Outfall Capacity Alternatives





## Environmental

- Terrestrial species & habitats
- Aquatic species & habitats
- Environmental Sensitive Areas and Species at Risk
- Air Quality, including Greenhouse Gas Emissions
- Lake and surface water quality
- Groundwater quality/quantity



## Social and Cultural

- Existing and Future Land Use Compatibility
- Long-term community impacts – odour; noise; truck traffic, aesthetics/visual
- Short-term construction impacts
- Archaeological / cultural heritage features
- Indigenous Community Interests
- Property Acquisition/Easement Requirements

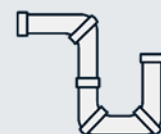


## Evaluating the Alternatives

These criteria will be updated based on public and stakeholder input and used to evaluate alternatives.

## Technical

- Effectiveness at meeting future needs
- Ability to manage wet weather flows
- Ease of Operation and Implementation
- Long-term flexibility and Treatment redundancy
- Geotechnical and Hydrogeological Impacts
- Permits and Approvals Requirements
- Energy Use and Recovery
- Climate change adaptability



## Financial

- Capital and Operating Costs
- Lifecycle Cost
- Cash Flow/Phasing





## *We want to hear from you*

Consultation is an important part of the Class EA process – our project team aims to actively engage all interested stakeholders, neighbours, government agencies and indigenous communities.



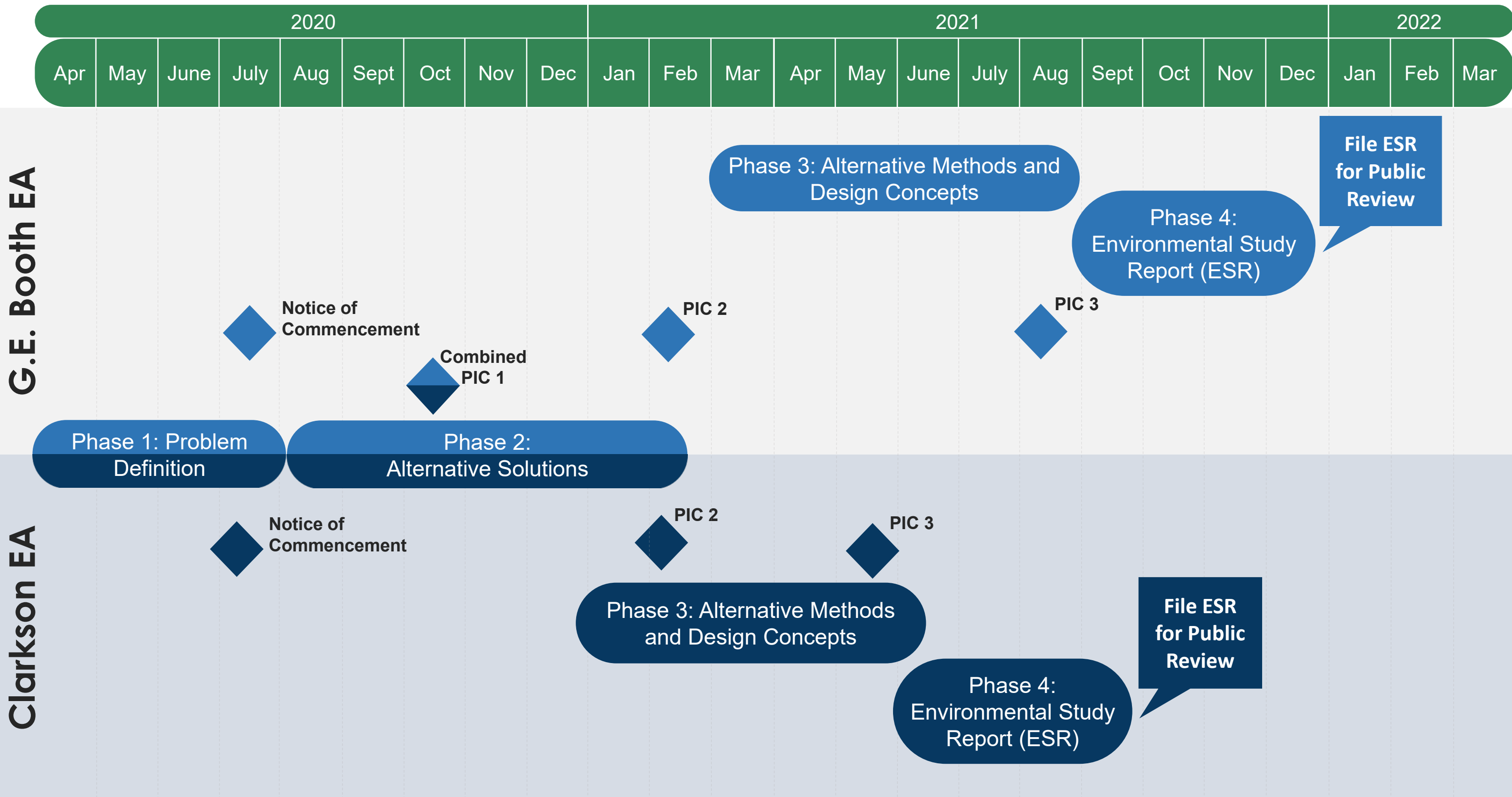
**Clarkson Wastewater Treatment Plant**



**G.E. Booth Wastewater Treatment Plant**



# Proposed Schedule for Completion



# Thank you for Participating, Stay Engaged!

As we develop and assess different solutions, we want your input.

We have a comment and questions form for your use.

Comments, questions and feedback will be formally responded to by November 25, 2020 on the G.E. Booth and Clarkson WWTP EA Webpages

**Cindy Kambeitz**

Project Manager, Region of Peel  
10 Peel Centre Drive, 4<sup>th</sup> Floor Suite A  
Brampton, ON L6T 4B9  
905-791-7800 ext. 5040

**Laurie Boyce, M.A.**

Consultant Project Manager  
GM BluePlan Engineering Limited  
3300 Highway No. 7, Suite 402  
Vaughan, ON L4K 4M3

We want to hear from you! Please let us know your thoughts by:

- ✓ Filling out a comment form
- ✓ Messaging the Project Team

**Questions and Comments about G.E. Booth:**

GEBoothEA@peelregion.ca

**Questions and Comments about Clarkson:**

ClarksonEA@peelregion.ca

## Accessibility

The Region of Peel is committed to meet the requirements outlined in the Accessibility for Ontarians with Disabilities Act, 2005 (AODA). Please contact the project manager if you require an alternative format of this document and/ or if you need support and accommodations to provide feedback for this study.

Please note that information related to this study will be collected in accordance with the *Freedom of Information and Protection of Privacy Act*. All comments received will become part of the public record and may be included in the study documentation prepared for public review.



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## **Peel Wastewater Treatment Solutions**

### **G.E. Booth Wastewater Treatment Plant Schedule C Class EA**

### **Clarkson Wastewater Treatment Plant Schedule C Class EA**

The Virtual Public Information Centre No. 1, which included a presentation video, was posted to the project webpages on October 14<sup>th</sup>, 2020, along with a questionnaire for interested individuals to provide comments on both studies. The presentation described background information on the G.E. Booth Wastewater Treatment Plant (WWTP) and Clarkson WWTP and surrounding areas, why additional wastewater treatment capacity in Peel is required, and potential solutions for providing this additional capacity. The PIC presentation and questionnaire can be viewed on either of the two project webpages at:

[www.peelregion.ca/Clarkson](http://www.peelregion.ca/Clarkson)  
[www.peelregion.ca/GEBooth](http://www.peelregion.ca/GEBooth)

During the 2-week engagement period, we received approximately 300 visits, and over 60 presentation views. Most of the visits were to the G.E. Booth WWTP website. Frequently asked questions received are presented below, along with the Region of Peel's Project Team responses.

**1. Is it feasible to construct a new wastewater treatment plant (or plants) to meet our future wastewater treatment capacity requirement?**

The Peel wastewater collection and treatment system has been planned and developed in a strategic manner over several decades to meet the needs of its citizens, while protecting the environment and human health. The Peel wastewater system consists of 2,644 kms of sewers, 36 wastewater pumping stations, and two wastewater treatment facilities – the Clarkson WWTP and the G.E. Booth WWTP. Each of the WWTP sites were selected and designed with a future vision in mind.

Constructing a new wastewater treatment plant (or plants), presumably in a new location in Mississauga or Brampton, is inconsistent with Peel's long-term vision and presents several challenges. A new treatment plant would require a new site, associated sewer and pumping station infrastructure to convey flows to the new site, and a new outfall to discharge treated effluent to a receiving body of water (e.g. Lake Ontario or one of Peel's Rivers or Creeks). Extensive planning and approvals would be necessary. The capital and operating costs associated with a new plant (or plants) would be very significant.

Expanding the existing wastewater treatment plants maximizes the use of the existing facilities and infrastructure resulting in lower costs and less impacts to the environment and Peel citizens, while providing flexibility to meet long-term servicing needs of the community. A new plant (or plants) would not take advantage of the investment made in the existing infrastructure across Peel over many years.

## **2. Will reducing flows to our sewer systems through water efficiency and inflow and infiltration (I/I) control eliminate the need for WWTP expansion?**

A review of the measured and projected reductions in flows from water conservation and I/I reduction programs have shown that they will not eliminate the need for the WWTP expansions. However, reducing flows to the wastewater collection system ultimately delay the timing for the future expansions and the required capacity of the future plants. Consequently, Water Efficiency and I/I Control Programs are part of Peel's Overall Wastewater Management Strategy:

- **Water Efficiency:** Water Efficiency is the smart use of our water resource. Peel's Water Efficiency Strategy was first developed in 2004 with the goal of reducing peak day water demands, meeting legislative requirements, managing system water loss, and helping citizens manage their water demands more effectively. Water demands and wastewater generation rates in Peel have been reduced as a result, and as such Peel continues efforts through its 2013-2025 Water Efficiency Strategy Update. While we are seeing a reduction in the liquid part of the wastewater, the solids loadings are not affected by water efficiency initiatives.
- **Inflow and Infiltration (I/I) Control:** Rainwater and groundwater that enter wastewater sewers from sources including cracks, opening, and joints is referred to as Inflow and Infiltration (I/I), and is a major contributor to surcharging of sanitary sewers and peak flows to the WWTPs especially during extreme weather events. Effects of climate change combined with vulnerabilities such as aging infrastructure result in increased susceptibility to I/I. The Region of Peel has and is undertaking many studies and programs to identify sources and controls of I/I. Vulnerable areas in the wastewater sewer system are continually being repaired, maintained and upgraded. The result is a decrease in surcharging and overflows of the collection system, and by-passing of secondary treatment processes at WWTPs.

## **3. Are our wastewater treatment plants effective against COVID-19 virus?**

Yes, wastewater treatment plants treat disease causing organisms including viruses. COVID-19 is a type of virus that is susceptible to disinfection. Standard treatment and disinfection processes at the Region's wastewater treatment plants are expected to be effective. For further facts on the Region of Peel Water and Wastewater Division steps to protect the public during Coronavirus pandemic please refer to the Customer Confidence Fact Sheet at:

<https://www.peelregion.ca/pw/water/water-trtmt/Water-WW-facts-COVID19.pdf>

## **4. What are the implications of the COVID-19 Pandemic on the Class Environmental Assessments (EAs)?**

During this difficult period, the Region of Peel Public Works, as an essential service provider, has continued to design, construct, operate and maintain our existing infrastructure and plan for

future growth. These Class EAs are required to plan for additional growth in Peel and will move forward to completion as scheduled.

Consultation and engagement with the public and stakeholders are essential and necessary components of these Class EAs. Recognizing that COVID-19 does have an impact on the Region's ability to interact with the public, Peel's approach is to remain flexible and adjust our programs to adapt to changing needs.

To adhere to the COVID-19 protocols of social distancing and limiting large gatherings and events, Peel is relying more on the use of online engagement, virtual meetings and social media use. Virtual events have been found to have greater participation in some cases than attending meetings in person. This seems to be the case with the Virtual PIC #1 held as part of this study.

#### **5. How will odour from the wastewater treatment plants be controlled?**

The Region of Peel recognizes that odour management remains critical to the long-term operations of its wastewater treatment plants. Odour control systems are currently in place at both the Clarkson and G.E. Booth WWTPs. As part of these Class EAs, the existing systems as well as different technologies for odour control will be identified and assessed to meet future needs. Local communities will be consulted with, and the technologies that best meet regulatory and community needs will be implemented.

Potential odours from the G.E. Booth WWTP has been acknowledged to be of concern given planned residential and recreational development in the area. On this basis, the Region of Peel is proactively developing an odour management strategy to meet any new odour control limits, which involves modelling the existing and potential future odours and developing options to control these odours. Management options may include containing odour at source by covering tanks and treatment processes, implementing technologies to remove contaminants before they are emitted to the environment, and enhancing operational and maintenance practices. As part of the G.E. Booth WWTP Class EA, the air quality modelling will be updated and the most effective methods of managing odour identified in consultation with the City of Mississauga, the local developers and community, and the Ontario approval agency, the Ministry of Environment, Conservation and Parks (MECP).

#### **6. Will new technologies for treating wastewater be considered in these Class EAs?**

Yes, during Phase 3 of the Class EA, alternative technologies for treating our wastewater and biosolids will be identified and assessed. Preferred technologies will be selected based on their ability to protect the environment and human health.

#### **7. How will the water quality of Lake Ontario be protected?**

As part of the wastewater treatment process, the clean water that has undergone treatment is discharged into Lake Ontario – this is referred to as treated effluent. Detailed assessments of

the impacts from the treated effluent on water quality of Lake Ontario will be completed. These assessments will characterize the current conditions of Lake Ontario and develop effluent criteria that considers the potential impact to drinking water intakes, as well as the impact to environmentally sensitive sites along the shoreline area including beaches. Solutions will be selected that allow Peel to continue to meet the quality requirements set by the MECP to protect water quality, the aquatic habitats and public health.

**8. Will the incinerators at the G.E. Booth WWTP be expanded? Will alternatives to incinerating our biosolids be considered?**

With the approved population and employee growth in Peel, the future amount of biosolids generated will exceed the current capacity of the incinerators before 2041. Capacity expansion of the incineration system at the G.E. Booth WWTP is not a preferred alternative for the G.E. Booth WWTP. Alternative methods of treating and utilizing additional biosolids at the Clarkson WWTP and the G.E. Booth WWTP will be identified and assessed in detail in Phase 3 of the Class EA. Biosolids treatment methods may include digestion, dewatering, thermal-drying, alkaline stabilization or composting, while end-use options for biosolids may include beneficial land application such as farming, parks or golf courses, landfill or ash reuse options.

**9. What are the potential impacts on surrounding residential communities, specifically around G.E. Booth? What will the Region do to control impacts?**

Both the Clarkson WWTP and G.E. Booth WWTP are existing facilities that have been in place for many decades. As the surrounding communities continue to expand, the Region of Peel is very aware of the need to partner with the communities and developers to achieve common goals and minimize impacts, particularly for the G.E. Booth WWTP with planned development neighbouring the site. As part of these Class EAs, the Region will generate architectural drawings to communicate the future vision for the plants; specifically focusing on sight lines from the surrounding residential and recreational areas.

The most effective technologies will be implemented to control the impact of odour, air emissions and noise on the communities surrounding the plant. Input from the local public will be sought to help develop preferred alternatives that meet the needs of the community.

**10. How will these projects benefit the environment?**

Wastewater treatment is critical to protecting the health of our water, environment and communities. Since the 19<sup>th</sup> century, when Cities began to understand the need to remove pollutants from wastewater before returning it to our lakes and rivers, the practice of wastewater collection and treatment has made substantial engineering and regulatory improvements. Canada is among the countries which rank the highest in terms of wastewater treatment, particularly the Province of Ontario.

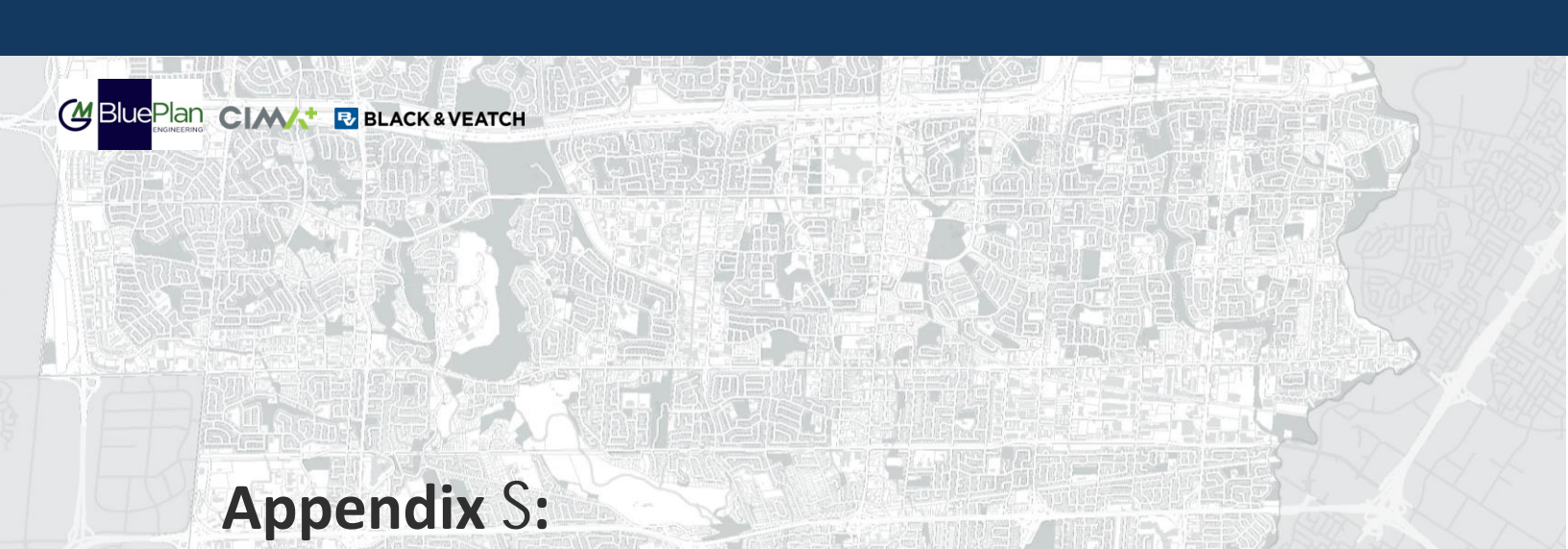
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These projects will benefit the environment by protecting and enhancing the quality of our water, air and terrestrial resources. Further they will:

- Support growth and investment in Peel and help our local economy,
- Provide more flexibility in how we manage our wastewater,
- Be sustainable in meeting the needs of the Peel community now and in the future, and
- Address community expectations regarding level of service, odour, air/noise, and aesthetics.

Through effective wastewater treatment, we can make sure the water returning to Lake Ontario is as clean as possible while protecting our air quality and natural ecosystems.





# Appendix S: Public Information Centres

**PIC #2**

## PEEL WASTEWATER TREATMENT SOLUTIONS NOTICE OF VIRTUAL PUBLIC INFORMATION EVENT NO. 2

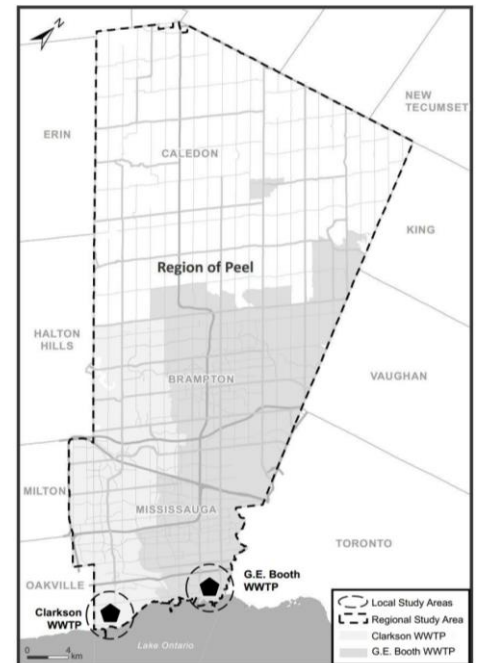
### G.E. Booth Wastewater Treatment Plant Schedule C Class Environmental Assessment Clarkson Wastewater Treatment Plant Schedule C Class Environmental Assessment

#### The Study:

The Region of Peel is proceeding with two Schedule C Class Environmental Assessments (EAs) for the G.E. Booth and Clarkson Wastewater Treatment Plants (WWTP) to identify and develop preferred solutions for wastewater treatment and biosolids management to meet approved regional growth.

#### The Process:

These EA Studies are Schedule 'C' projects in accordance with the "Municipal Class Environmental Assessment" (MEA, October 2000, as amended in 2007, 2011 and 2015), which is an approved process under the Ontario Environmental Assessment Act. The Class EA process includes review of background information and identification of the problem/opportunity statement (Phase 1), an evaluation of alternative solutions (Phase 2), an evaluation of alternative technologies and site layouts for the preferred solutions (Phase 3), and documentation of the process and its results (Phase 4), as well as public and stakeholder consultation. The Region of Peel is currently in Phase 2 of the process and seeking public and stakeholder input on the assessment of alternative solutions and the preliminary recommended solutions.



#### Virtual Public Information Event No. 2

A second virtual Public Information Event will be held to provide a summary the Phase 2 alternative solutions and the evaluation process used to determine the preliminary recommended solutions. All content and instructions on how to submit questions and feedback will be posted on the project webpages: [www.peelregion.ca/GEBooth](http://www.peelregion.ca/GEBooth) and [www.peelregion.ca/Clarkson](http://www.peelregion.ca/Clarkson). Your feedback will help the team further develop the recommended solutions for the G.E. Booth and Clarkson WWTPs.

Display panels, information and a short video walkthrough of the main findings from Phase 2 will be posted on the project webpages on **March 31, 2021**. This will be followed by a two-week question submission period closing **April 14, 2021**. A formal response from the project team to all questions, comments and feedback will be posted on **April 28, 2021**.

#### Contact:

If you wish to submit comments or would like to be added to the project mailing list for future project notifications, please contact the project manager listed below. The Region of Peel is committed to ensure that all Regional services, programs and facilities are inclusive and accessible for persons with disabilities. Please contact the Project Manager if you need any disability accommodations to provide comments or feedback for this study.

#### Cindy Kambeitz, Project Manager

905-791-7800, ext. 5040

[GEBooth@peelregion.ca](mailto:GEBooth@peelregion.ca)

[Clarkson@peelregion.ca](mailto:Clarkson@peelregion.ca)

This notice was first issued on March 17, 2021.



# G.E. Booth WWTP and Clarkson WWTP Class EAs

Two Schedule C Class Environmental Assessments -  
Virtual Public Information Event No. 2

**March 31, 2021**

## Project Background

Region of Peel



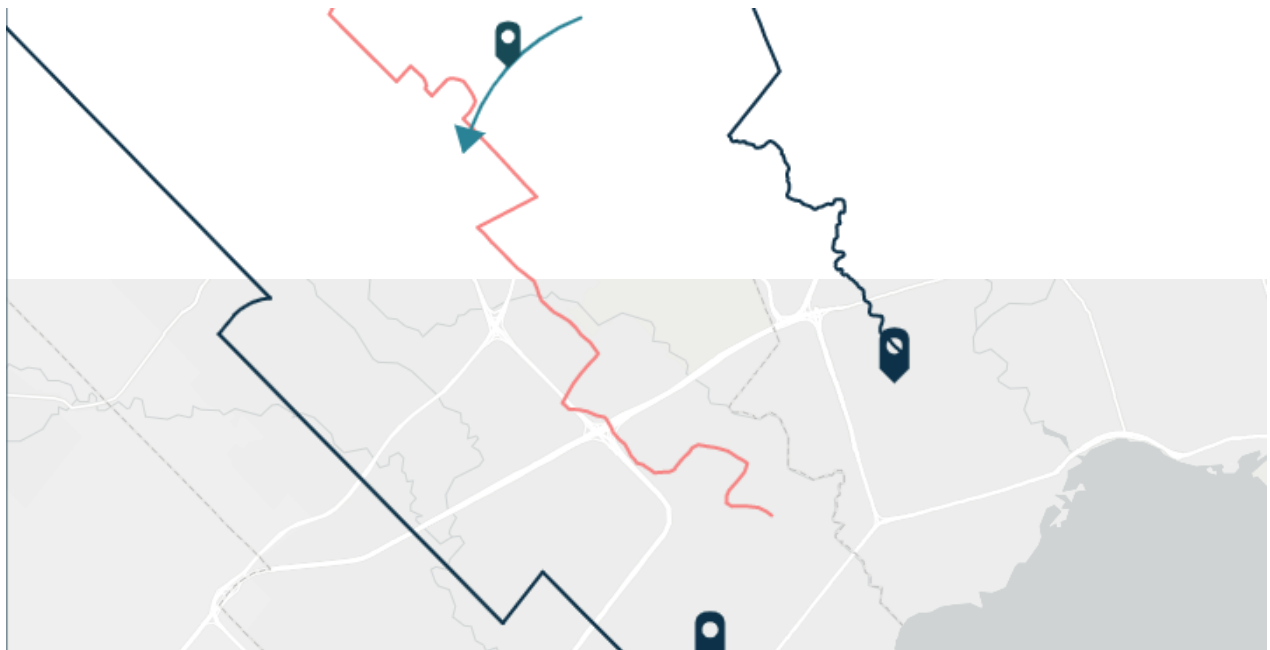


**Wastewater from residential, commercial, institutional, and industrial users in the Region of Peel is collected through a network of sewers and pumping stations and treated at either the G.E. Booth Wastewater Treatment Plant (WWTP) or the Clarkson WWTP.**

The Region of Peel is



**As population grows in Peel, there is insufficient capacity to meet future wastewater treatment needs at the WWTPs.**

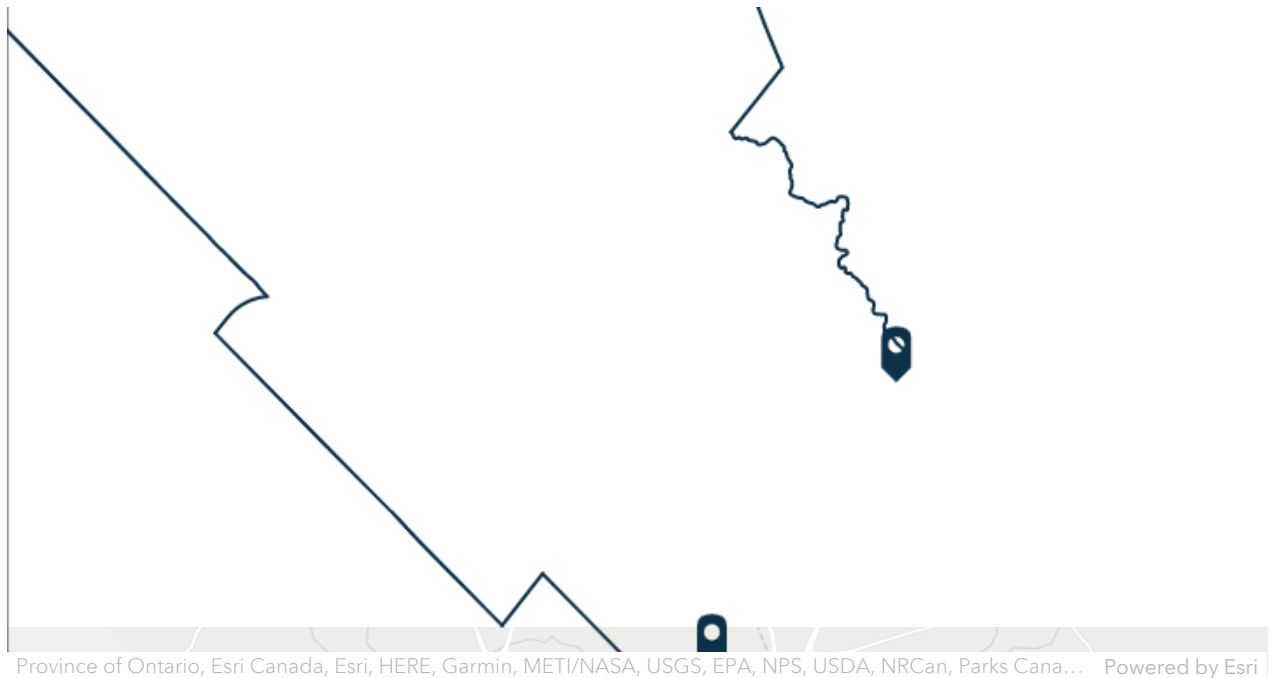




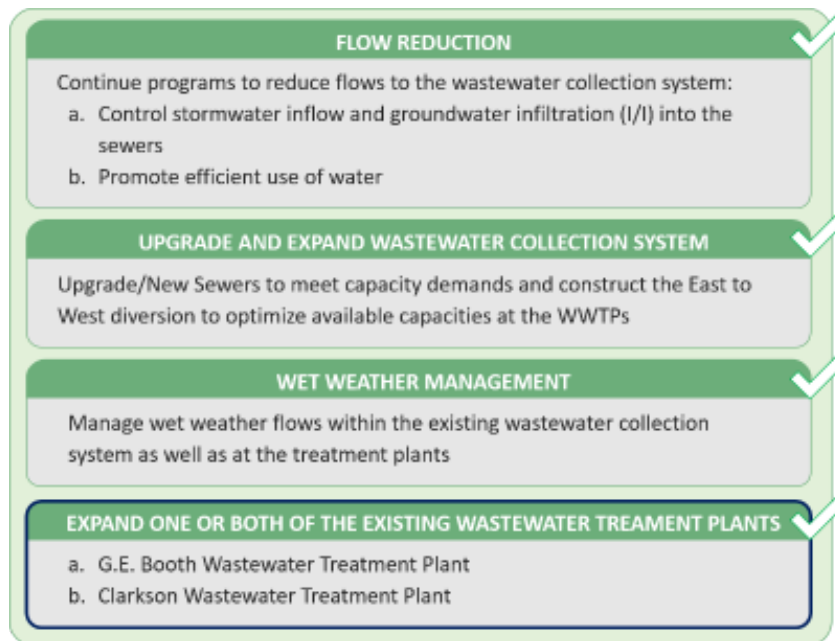
## Study Problem / Opportunity Statement

The Region is undertaking two Schedule C Class Environmental Assessments (EAs) to develop preferred solutions at the G.E Booth WWTP and the Clarkson WWTP that will:

- Meet future needs associated with population growth, new regulations, climate resiliency, energy efficiency, and wet weather flow management
- Address community expectations regarding level of service, odour, air/noise, water quality, protection of the environment and aesthetics
- Provide greater flexibility and reliability in wastewater and biosolids management



## Peel's Overall Wastewater Treatment Strategy



## Evaluation Process



### *Evaluation of Alternative Solutions*

**Alternative Solutions were assessed based on detailed evaluation criteria established in consultation with the public and stakeholders**

- **Wastewater** - How much additional wastewater treatment capacity should be provided at each plant?
- **Biosolids** - How much biosolids capacity is needed, and where should we treat our biosolids?
- **Outfall** - Do we need additional outfall capacity? If so, how should it be provided?

### ***Development of Alternative Solutions***

**Alternative Solutions were developed to provide additional wastewater, biosolids and outfall capacity at the wastewater treatment plants**

### **Overall Recommended Solution**



### **Wastewater**

- Expand the G.E. Booth WWTP from 500 to 550 Mega Litres per day (MLD)
- Expand the Clarkson WWTP from 350 to 500 MLD





### **Biosolids**

- Stop trucking sludge from Clarkson WWTP to the G.E. Booth WWTP for incineration
- Provide additional sludge treatment capacity at both the WWTPs
- Beneficially reuse the biosolids end products



### **Outfall**

- Construct a new outfall at the G.E. Booth WWTP



**This alternative is recommended as the preferred solution because it:**

- Provides the greatest flexibility and reliability in wastewater and biosolids management
- Reduces the risks of nearshore water quality impacts, and associated impacts on aquatic and recreational users
- Minimizes risks to natural areas on and surrounding the WWTPs
- Offers opportunities for improving odour control, noise management, visual aesthetics and climate change adaptivity
- Offers opportunities to improve energy recovery and reuse
- Allows for beneficial land use of biosolids, as well as new markets for incinerator ash
- Allows Peel to consider a phasing approach to construction at both the WWTPs

**G.E. Booth Plant Solution**



## G.E. Booth Wastewater Treatment Plant Existing Wastewater Treatment

- The existing treatment processes include screening, grit removal, primary clarification, aeration, secondary clarification and chlorine disinfection and de-chlorination prior to discharge to Lake Ontario through the plant outfall
- The existing plant capacity is approximately 500 MLD
- The plant is currently approaching this capacity limit, with current flows to the plant being about 450 MLD



## G.E. Booth Wastewater Treatment Plant Recommended Wastewater Treatment Solution

- Divert flows from the G.E. Booth WWTP catchment to the



Clarkson WWTP through the East-to-West Diversion Trunk Sewer to alleviate existing capacity challenges

- Expand the G.E. Booth WWTP from 500 MLD to 550 MLD by providing additional wastewater capacity within the site boundaries



## **G.E. Booth Wastewater Treatment Plant Existing Biosolids Treatment**

- Sludge refers to the solids separated during the treatment of wastewater. The final product produced is referred to as biosolids
- This sludge is collected, dewatered and thickened before being incinerated in the thermal oxidation building
- Dewatered sludge from the Clarkson WWTP is also trucked to the G.E. Booth WWTP for incineration
- The final product produced from incineration is ash residue which is stored in on-site ash lagoons



## G.E. Booth Wastewater Treatment Plant Recommended Biosolids Treatment Solution

- Stop receiving dewatered sludge from the Clarkson WWTP to free up incinerator capacity and diversify biosolids management options
- Provide capacity to treat additional biosolids
- Eliminate the ash lagoons
- Beneficially market residual ash from incineration process



## G.E. Booth Wastewater Treatment Plant Existing Outfall

- The existing outfall is 3.65 meters in diameter and extends

approximately 1.4 km into Lake Ontario

- The outfall pipe is located within the bedrock, deep under the WWTP site and the lakebed
- Treated effluent is discharged from the outfall through diffuser ports into the lake
- The outfall has a peak flow capacity of about 1200 MLD
- It has insufficient size and capacity to meet future demands and regulations



Existing Outfall with respect to the nearby Water Treatment Plant Intakes



## G.E. Booth Wastewater Treatment Plant Recommended Outfall Solution

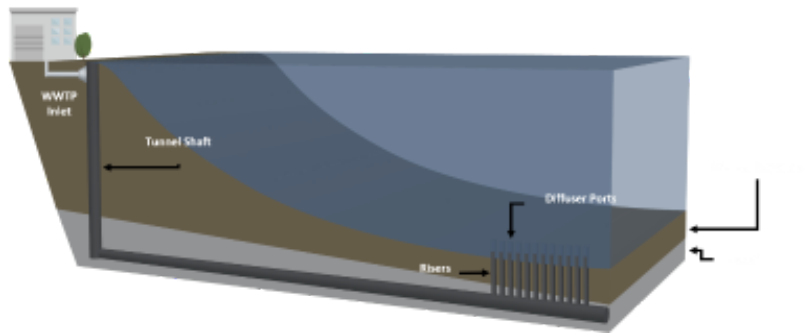
- Construction of a new larger outfall that extends deeper into Lake Ontario
- Peak flow capacity of the new outfall will be approximately 1650 MLD
- The new outfall will be located so that it protects the nearshore environment and the surrounding water treatment



intakes



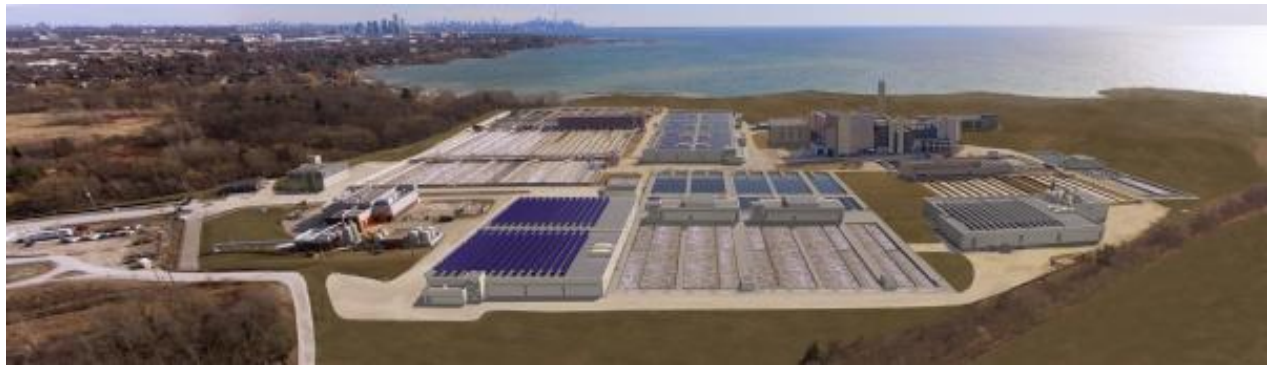
New Outfall Location with respect to the nearby Water Treatment Plant Intakes



The new outfall will be constructed using deep tunneling techniques to minimize impacts to the shoreline and lake



**G.E. Booth Wastewater Treatment Plant Today**



## Example of a Future Concept - G.E. Booth Wastewater Treatment Plant 2041

## Clarkson Plant Solution



## Clarkson Wastewater Treatment Plant Existing Wastewater Treatment

- The existing treatment processes include screening, grit removal, primary clarification, aeration, secondary clarification and chlorine disinfection and de-chlorination prior to discharge to Lake Ontario through the plant outfall

- The existing plant capacity is 350 MLD
- The plant currently receives about 220 MLD flow, and therefore has excess capacity
- The outfall has sufficient capacity to meet future requirements
  - No expansion to outfall capacity is required.



## Clarkson Wastewater Treatment Plant Recommended Wastewater Treatment Solution

- Divert flows from the G.E. Booth WWTP catchment to Clarkson WWTP through the East-to-West Diversion Trunk Sewer to take advantage of the excess capacity at the Clarkson WWTP on the short-term
- Expand the Clarkson WWTP from 350 MLD to 500 MLD by providing additional wastewater treatment capacity within the site boundaries
- Expansion facilities to be located on the eastern part of the site





## Clarkson Wastewater Treatment Plant Existing Biosolids Treatment

- The sludge in the wastewater is collected for digestion and dewatering
- The digested and dewatered sludge is trucked to the G.E. Booth WWTP for incineration along with the G.E. Booth WWTP sludge



## Clarkson Wastewater Treatment Plant Recommended Biosolids Treatment Solution

- Stop trucking dewatered sludge from the Clarkson WWTP to the G.E. Booth WWTP for incineration

- Provide additional treatment capacity at the Clarkson WWTP to effectively treat the sludge and produce high-quality biosolids end-products
- Beneficial reuse of biosolids including land applications such as agricultural lands or silviculture (tree farming), and as soil amendments with fertilizers



## Clarkson Wastewater Treatment Plant Today



## Example of a Future Concept - Clarkson Wastewater Treatment Plant 2041

## Next Steps

**Phase 3 will address the following:**

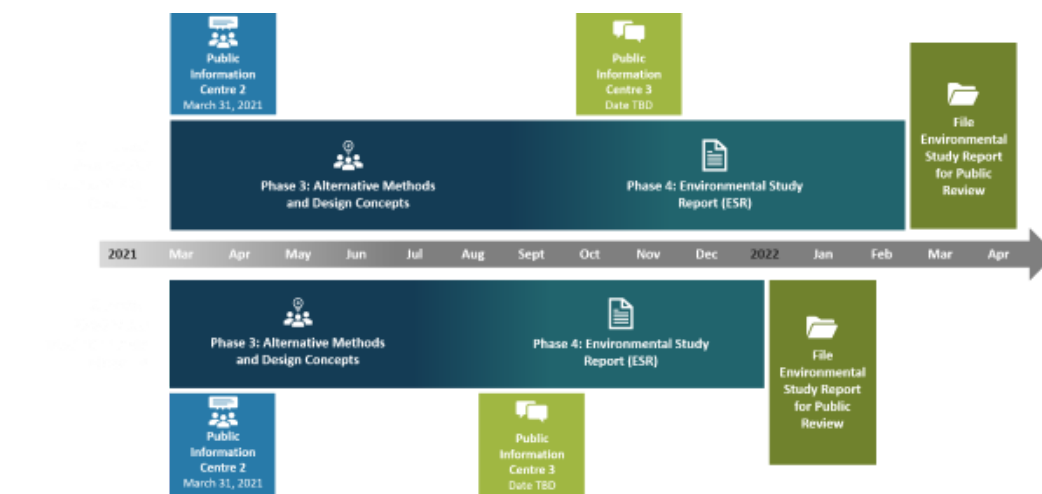
- What are the best ways or methods to optimize and enhance wastewater and sludge treatment?
- What are the best beneficial end uses for our biosolids?
- How large should the new outfall pipe be and where should it be located?
- What energy efficient technologies can we implement, and how can we reuse and recover energy from our WWTP processes?
- How do we best capture and treat odour, control noise, and adapt to future changes in climate?
- What landscaping techniques, site layouts and designs should we implement so that the WWTPs are compatible with surrounding land uses?

### Phase 3 - Alternative Conceptual Design Considerations

Phase 3 will involve a detailed look at how the WWTP expansions will be designed and constructed to address community expectations and protect the environment.

Phase 3 will be completed independently for each WWTP to allow for a greater level of detailed assessment and stakeholder and public review.

### G.E. Booth and Clarkson EA Schedules



## Contact Us



The project team will review and consider your input received during and following this PIC, confirm and refine the preliminary preferred solution, and move forward with the Phase 3 evaluation and selection of the preferred design concepts for the G.E. Booth and Clarkson Wastewater Treatment Plants Independently.

We encourage you to stay involved by providing comments using the email addresses listed below. We want to know if you are interested in active involvement or prefer to participate through project information updates. Please contact us if you have any questions or comments. The comment period for this PIC will close on April 14, 2021, with responses to all questions, comments and feedback published on April 28, 2021.

### **Project Manager - Cindy Kambeitz**

10 Peel Centre Drive, Brampton, On, L6T 4B9 | 905-791-7800  
ext. 5040

Questions and Comments about G.E. Booth:

#### **G.E. Booth WWTP Class EA Website**

Questions and Comments about Clarkson:

#### **Clarkson WWTP Class EA Website**

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### Clarkson Wastewater Treatment

- Existing approved capacity is 350 MLD
- Digested and dewatered sludge is trucked to the G.E. Booth WWTP for incineration
- Outfall diameter is 3m, length is 2.2 km into Lake Ontario, capacity is 1500 MLD



### G.E. Booth Wastewater Treatment

- Existing capacity is approximately 500 MLD
- Sludge generated from both WWTPs are incinerated and stored in ash lagoons on-site
- Outfall diameter is 3.65m, length is 1.4 km into Lake Ontario, capacity is 1200 MLD





**Clarkson Wastewater Treatment**

- Expand from 350 MLD to 500 MLD
- Treat sludge on site and beneficially reuse biosolids end-products
- No outfall modifications or expansions required



**G.E. Booth Wastewater Treatment**

- Upgrade to its rated capacity of 518 MLD
- Treat sludge on site and beneficially reuse biosolids end-products
- Construct effluent pumping station to increase outfall capacity to 1500 MLD





**Clarkson Wastewater Treatment**

- Expand from 350 MLD to 450 MLD
- Treat sludge on site and beneficially reuse biosolids end-products
- No outfall modifications or expansions required



**G.E. Booth Wastewater Treatment**

- Expand from 500 MLD to 550 MLD
- Treat sludge on site and beneficially reuse biosolids end-products
- Construct a new outfall of larger diameter and deeper into Lake Ontario with a capacity of 1650 MLD





**Clarkson Wastewater Treatment**

- Expand from 350 MLD to 450 MLD
- Treat sludge on site and beneficially reuse biosolids end-products
- No outfall modifications or expansions required



**G.E. Booth Wastewater Treatment**

- Expand from 500 MLD to 550 MLD
- Treat sludge on site and beneficially reuse biosolids end-products
- Construct effluent pumping station to increase outfall capacity and divert 150 MLD of peak flows





**Clarkson Wastewater Treatment**

- Expand from 350 MLD to 500 MLD
- Treat sludge on site and beneficially reuse biosolids end-products
- No outfall modifications or expansions required



**G.E. Booth Wastewater Treatment**

- Expand from 500 MLD to 550 MLD
- Treat sludge on site and beneficially reuse biosolids end-products
- Construct a new outfall of larger diameter and deeper into Lake Ontario with a capacity of 1650 MLD





**Clarkson Wastewater Treatment**

- Expand from 350 MLD to 400 MLD
- Treat sludge on site and beneficially reuse biosolids end-products
- No outfall modifications or expansions required



**G.E. Booth Wastewater Treatment**

- Expand from 500 MLD to 600 MLD
- Treat sludge on site and beneficially reuse biosolids end-products
- Construct a new outfall of larger diameter and deeper into Lake Ontario with a capacity of 1800 MLD





### Clarkson Wastewater Treatment

- Expand from 350 MLD to 400 MLD
- Treat sludge on site and beneficially reuse biosolids end-products
- No outfall modifications or expansions required



### G.E. Booth Wastewater Treatment

- Expand from 500 MLD to 600 MLD
- Treat sludge on site and beneficially reuse biosolids end-products
- Construct effluent pumping station to increase outfall capacity and divert 300 MLD of peak flows





**Clarkson Wastewater Treatment**

- Expand from 350 MLD to 500 MLD
- Treat sludge on site and beneficially reuse biosolids end-products
- No outfall modifications or expansions required

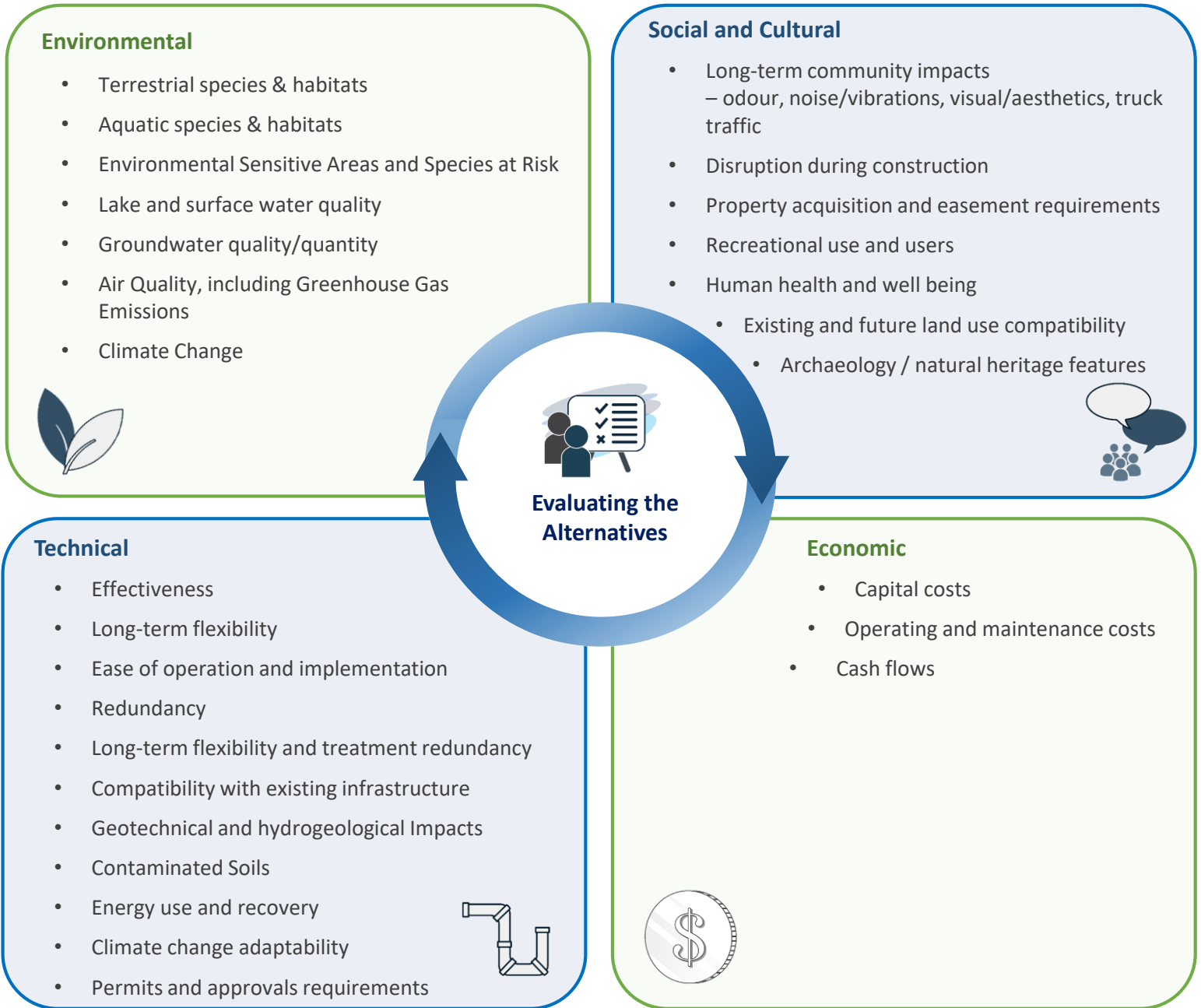


**G.E. Booth Wastewater Treatment**

- Expand from 500 MLD to 600 MLD
- Treat sludge on site and beneficially reuse biosolids end-products
- Construct a new outfall of larger diameter and deeper into Lake Ontario with a capacity of 1800 MLD



The short-listed alternative solutions were evaluated on four criteria categories: Environmental Impacts, Social & Cultural Impacts, Technical Considerations and Financial Considerations. Each criteria category is comprised of a number of specific evaluation criteria, and a rating system was used to evaluate each alternative solution based on the criteria.



The Rating System used to evaluate the alternatives is as follows:

Impact Description	Evaluation Colour
Positive to very minimal impact	
Minimal Impact	
Moderate Impact	
Moderate to Severe Impact	
Severe Impact	

Criteria	Evaluation Matrix						
	Alt. 1	Alt 2A	Alt 2B	Alt 3	Alt 4A	Alt 4B	Alt 5
<b>Terrestrial System</b> <ul style="list-style-type: none"> <li>The G.E. Booth Wastewater Treatment Plant (WWTP) has significant woodlot habitats in the northwest and southwest portions of the site, as well as a stormwater wetland. Natural features adjacent to the G.E. Booth WWTP site include Applewood Creek, Serson Creek, the Significant Marie Curtis Park Woodlot Complex, and natural habitats being constructed as part of the Jim Tovey Lakeview Conservation Area (JTLCA). Consequently, alternatives with larger expansion of the G.E. Booth WWTP have more potential to impact terrestrial systems.</li> <li>The Clarkson WWTP has limited significant natural features on and surrounding the site; impacts on terrestrial systems will be minor.</li> </ul>							
<b>Aquatic System</b> <ul style="list-style-type: none"> <li>Alternatives with the largest capacity expansions at the G.E. Booth WWTP have greater potential to impact the aquatic habitats and species in Applewood Creek, the on-site stormwater wetland, and the wetlands in JTLCA.</li> <li>Alternatives with no new outfall at the G.E. Booth WWTP may have more potential to impact aquatic systems, because the existing outfall extends only about 1.4 km offshore, and as flows through the outfall increase the size and area of the effluent plume will increase. The plume may impinge on the nearshore, impacting water quality and associated aquatic habitats.</li> <li>The Clarkson WWTP is outside the Lakeside Creek and Lake Ontario floodplain, and its outfall has sufficient capacity under all alternatives and extends over 2 kms into Lake Ontario. There is little risk to aquatic systems on site or in the nearshore of Lake Ontario.</li> </ul>							
<b>Lake Ontario Water Quality</b> <ul style="list-style-type: none"> <li>Alternatives with no new outfall at the G.E. Booth WWTP may have more potential to impact nearshore water quality, as the effluent plume may impinge on the nearshore as flows increase.</li> <li>The Clarkson WWTP outfall has capacity under all alternatives and extends over 2 kms into Lake Ontario. There is little risk of nearshore water quality or water treatment plant intakes being impacted.</li> </ul>							
<b>Groundwater Water Quality and Quantity</b> <ul style="list-style-type: none"> <li>All alternatives are not expected to impact groundwater quality or quantity. Measures to mitigate impacts on groundwater quality and quantity during construction will be implemented.</li> </ul>							
<b>Air Quality</b> <ul style="list-style-type: none"> <li>Alternative solutions will be designed to include emission control and treatment such that emissions meet all air quality standards.</li> <li>However, with the mid-to-high rise residential buildings being planned as part of the Lakeview Development, there may be challenges meeting the incinerator point-of-impingement requirements for the alternatives with higher treatment capacities at the G.E. Booth WWTP.</li> </ul>							
<b>Climate Change</b> <ul style="list-style-type: none"> <li>All alternatives will include energy recovery and reuse technologies to help reduce greenhouse gas (GHG) emissions.</li> <li>Alternatives with the largest expansions will have less opportunities to reduce GHG emission from WWTP processes.</li> <li>In addition, alternatives that include an effluent pumping station will have less opportunities for energy recovery/reuse given their need for large standby power equipment.</li> </ul>							
<b>Environmental Rating</b>	2nd	1st	4th	1st	2nd	5th	3rd

Criteria	Evaluation Matrix						
	Alt. 1	Alt 2A	Alt 2B	Alt 3	Alt 4A	Alt 4B	Alt 5
<b>Odour</b>	<ul style="list-style-type: none"> <li>• Odour from the operation of the G.E. Booth WWTP is a current concern. Odour concerns at the Clarkson WWTP are less, given its location in an industrial area.</li> <li>• Odour control measures will be implemented to manage odours from operations for all alternatives, resulting in a decrease in the risks of off-site odours. However, it is expected that alternatives with the largest capacity expansions at G.E. Booth WWTP will have the greatest potential for odour concerns.</li> </ul>						
<b>Noise/ Vibrations</b>	<ul style="list-style-type: none"> <li>• Noise from operations at the G.E. Booth WWTP is a current concern. Noise concerns at the Clarkson WWTP are less, given its location in an industrial area.</li> <li>• Noise attenuation measures will be implemented to manage noise from WWTP operation for all alternatives, resulting in a decrease in the risks of off-site noise. However, it is expected that alternatives with larger capacity expansions at the G.E. Booth WWTP will have the greatest potential for noise concerns.</li> <li>• Vibrations are not expected to be a concern of the WWTP operations.</li> </ul>						
<b>Visual Aesthetics</b>	<ul style="list-style-type: none"> <li>• The visual aesthetics of the G.E. Booth WWTP will be a concern of the local community, including the new Lakeview Community development adjacent to the plant site.</li> <li>• The larger the expansion of the G.E. Booth WWTP, the more visual aesthetics will be a concern.</li> <li>• With the Clarkson WWTP located in an industrial area, visual aesthetics of the facility are not expected to be as much of a concern.</li> </ul>						
<b>Truck Traffic</b>	<ul style="list-style-type: none"> <li>• Truck traffic during operation will be required at each site to transport treated biosolids to off-site utilization areas, as well as for operational and maintenance purposes</li> <li>• Truck traffic in and out of Clarkson WWTP avoids residential areas; while truck traffic to from the G.E. Booth WWTP has potential to impact businesses on Lakeshore and the proposed Lakeview Community Development.</li> <li>• The larger the G.E. Booth WWTP expansion, the more potential for increased truck traffic.</li> </ul>						
<b>Disruption During Construction</b>	<ul style="list-style-type: none"> <li>• The longer the construction period (i.e. larger the expansion) the longer the short-term construction related impacts to surrounding areas, landowners and users (e.g. truck traffic, noise and dust).</li> <li>• The local communities near the G.E. Booth WWTP will be disturbed during construction. Construction impacts at the Clarkson WWTP are expected to be less, given its location in an industrial area.</li> <li>• The construction of a new outfall at the G.E. Booth WWTP will also have short-term impacts on the newly constructed JTLCA</li> <li>• Alternatives with the highest capacity expansion and a new outfall will have the most disruption during construction.</li> </ul>						
<b>Property Acquisition and Easement Requirements</b>	<ul style="list-style-type: none"> <li>• There are no property acquisition requirements for any of the alternatives.</li> <li>• All expansions can be accommodated on the existing sites.</li> <li>• Easements will be required in Lake Ontario for alternatives that include a new outfall.</li> </ul>						



Criteria	Evaluation Matrix						
	Alt. 1	Alt 2A	Alt 2B	Alt 3	Alt 4A	Alt 4B	Alt 5
<b>Recreational Use and Users</b>	<ul style="list-style-type: none"> <li>• Alternatives with no new outfall at the G.E. Booth WWTP may have more potential to impact water quality, and associated shoreline and nearshore recreational activities, because the existing outfall at the G.E. Booth WWTP extends only about 1.4 km offshore, and as flows through the outfall increase the size and area of the effluent plume will increase. The plume may impinge on the nearshore, impacting shoreline and water users.</li> <li>• The Clarkson WWTP outfall has capacity under all alternatives and extends over 2 kms into Lake Ontario. There is little risk of nearshore water quality of water treatment plant intakes being impacted.</li> </ul>						
<b>Human Health and Well Being</b>	<ul style="list-style-type: none"> <li>• All alternatives will be designed to ensure air emission and effluent quality requirements are met to protect human health and the environment.</li> <li>• Alternatives with no new outfall at the G.E. Booth WWTP may have some challenges at meeting Lake Ontario Provincial Water Quality Objectives (PWQO) in the nearshore and not interfering with Water Treatment Plant (WTP) intake protection zones (IPZs) as flows increase.</li> </ul>						
<b>Existing and Future Adjacent Land Use Compatibility</b>	<ul style="list-style-type: none"> <li>• The Clarkson WWTP is in an industrial area and is consistent with the existing and planned uses.</li> <li>• The G.E. Booth WWTP is located within an urban community, with the new Lakeview Village Development planned adjacent to the WWTP, and therefore is currently not compatible with existing and future land uses.</li> <li>• All alternatives allow Peel the opportunity to develop the G.E. Booth WWTP site so that it is more consistent with future land uses through implementation of enhanced odour and noise controls, and visual facility and site improvements</li> <li>• Alternatives with a new outfall also allow Peel to protect nearshore water quality to ensure compatibility with the JTLCA</li> </ul>						
<b>Archaeology/ Natural Heritage &amp; Aboriginal Interest</b>	<ul style="list-style-type: none"> <li>• The G.E Booth WWTP site has been previously disturbed and only a small portion of the northwest area of the site has been identified as having archaeological potential; This area will be avoided during construction of all alternatives.</li> <li>• The Clarkson site has potential for archaeological resources in the areas of the site designated for facility expansions; The alternatives will the largest expansions at the Clarkson WWTP may have slightly more potential to impact archaeological resources on-site. (Stage 2 Archaeological Assessments are planned to ensure potential impacts are identified, and if so mitigated)</li> </ul>						
<b>Social-Cultural Rating</b>	1st	2nd	3rd	2nd	4th	4th	5th

Criteria	Evaluation Matrix						
	Alt. 1	Alt 2A	Alt 2B	Alt 3	Alt 4A	Alt 4B	Alt 5
<b>Effectiveness</b> <ul style="list-style-type: none"> <li>The alternatives with a new outfall are the most effective at meeting stated project objectives - wastewater, biosolids and wet weather flow management (to 2041).</li> <li>There is a risk of the existing outfall not meeting nearshore water quality objectives as flows to the G.E. Booth WWTP increase.</li> <li>There is risk associated with relying on the East-to-West diversion to divert peak flows during wet weather events, given its location in the service area. Wet weather events occurring south of the diversion will not be able to be diverted and could be substantial.</li> </ul>							
<b>Long-term Flexibility</b> <ul style="list-style-type: none"> <li>Alternatives with the highest capacity expansions at the G.E. Booth WWTP may limit the ability to implement new technologies in the future, as an expansion of this size will extend into the lagoon area taking up much of the available site capacity.</li> <li>Maintaining the G.E. Booth WWTP at its rated capacity of 518 MLD may limit the ability to expand the WWTP in the future once the community has fully developed, reducing Peel's treatment options and flexibility</li> <li>Alternatives with peak flow diversion limit treatment flexibility at the Clarkson WWTP by utilizing the additional excess capacity in the Clarkson WWTP outfall.</li> </ul>							
<b>Ease of Operation</b> <ul style="list-style-type: none"> <li>Alternatives with peak flow diversion may present challenges in operating the east-to-west flow diversion chambers intermittently during wet weather events.</li> <li>In addition, the alternatives with an effluent pumping station have more operation complexity than those with a new outfall.</li> </ul>							
<b>Redundancy</b> <ul style="list-style-type: none"> <li>All alternatives will be designed to provide treatment redundancy during emergency and maintenance conditions</li> <li>However, there may be challenges to provide treatment redundancy during wet weather events at both the G.E. Booth WWTP and the Clarkson WWTP that rely on diversion of peak flows during wet weather flow events.</li> </ul>							
<b>Compatibility with Existing Infrastructure System</b> <ul style="list-style-type: none"> <li>Alternatives with lower plant capacity expansions at the Clarkson WWTP do not take full advantage of the east-west flow diversion strategy</li> <li>Likewise, maintaining the G.E. Booth WWTP at its current rated capacity does not take full advantage of the east-west flow diversion strategy</li> </ul>							
<b>Geotechnical and Hydrogeology</b> <ul style="list-style-type: none"> <li>The on-site geotechnical and hydrogeological conditions at both the G.E. Booth WWTP and the Clarkson WWTP will not present significant challenges during construction, as site conditions and mitigation measures at both sites are well understood.</li> <li>Alternatives with a new outfall at the G.E. Booth WWTP will present more geotechnical challenges. Additional off-shore geotechnical investigations will be required to confirm construction techniques and mitigation measures before construction of a new outfall.</li> </ul>							
<b>Contaminated Soils</b> <ul style="list-style-type: none"> <li>All alternatives will have potential to impact Areas of Potential Environment Concern (APECs) on both the G.E. Booth WWTP and Clarkson WWTP sites. Additional investigations and analysis may be required, and appropriate mitigation and remediation methods implemented.</li> <li>The larger the expansion, the more potential to impact on-site APECs at both WWTP sites.</li> </ul>							

Criteria	Evaluation Matrix						
	Alt. 1	Alt 2A	Alt 2B	Alt 3	Alt 4A	Alt 4B	Alt 5
<b>Energy use and Recovery</b>	<ul style="list-style-type: none"> <li>Expansion of both WWTPs will allow for opportunities to further promote energy use and recovery. In particular, opportunities exist to increase energy recovery associated with biosolids generation and treatment at Clarkson WWTP.</li> <li>Alternatives with pumping will be somewhat less energy efficient</li> </ul>						
<b>Climate Change Adaptability</b>	<ul style="list-style-type: none"> <li>All alternatives will be designed to be adaptable to climate change, by minimizing the risk of wet weather flows impacts on treatment processes</li> <li>Alternatives with no new outfall at the G.E. Booth WWTP may not be as adaptable to rising lake levels as a consequence of climate change.</li> </ul>						
<b>Permits and Approvals</b>	<ul style="list-style-type: none"> <li>Alternatives with peak flow diversion may take longer to approve, as there may be challenges in meeting MECP receiving water quality requirements using the existing outfall at the G.E. Booth WWTP</li> <li>Alternatives with the greater capacity increases at G.E. Booth WWTP may also face approval challenges given the proximity of the new Lakeview Community development</li> <li>Receiving approvals for expansion of the Clarkson WWTP are not expected to be as challenging as obtaining approvals for expansion of the G.E. Booth WWTP.</li> </ul>						
<b>Technical Rating</b>	6th	2nd	5th	1st	4th	7th	3rd



Criteria	Evaluation Matrix						
	Alt. 1	Alt 2A	Alt 2B	Alt 3	Alt 4A	Alt 4B	Alt 5
<b>Capital Cost</b>	<ul style="list-style-type: none"> <li>All alternatives involve a significant capital investment, ranging from \$850 to \$1200 M; Alternatives without a new outfall are at the lower end of the range; while those with a new outfall are at the higher end of the range.</li> <li>Alternative 5, which has an outfall and the largest WWTP expansion has the highest capital costs.</li> </ul>						
<b>Operating and Maintenance (O&amp;M) Costs</b>	<ul style="list-style-type: none"> <li>All alternatives will have comparable O&amp;M costs, with the exception of alternatives with an effluent pumping station.</li> <li>Operating costs of a pumping station are higher than those alternatives that include a new outfall at the G.E. Booth WWTP.</li> </ul>						
<b>Cash Flow</b>	<ul style="list-style-type: none"> <li>All Alternatives have similar construction scheduling periods, with the exception of Alternative 4, which has both plants being constructed during similar time periods. Peel would have large capital expenditures during a shorter time period.</li> <li>Alternatives which include an effluent pumping station at the G.E. Booth WWTP and diversion of peak flows, help Peel reduce capital expenditures during the planning period for this study (to 2041). However, an outfall at the G.E. Booth WWTP will still eventually be required to meet future peak flow requirements.</li> </ul>						
<b>Economic Rating</b>	2nd	1st	2nd	1st	3rd	3rd	2nd

Criteria	Evaluation Matrix						
	Alt. 1	Alt 2A	Alt 2B	Alt 3	Alt 4A	Alt 4B	Alt 5
Total Score	56%	65%	52%	66%	54%	43%	55%
Alternative Ranking	3rd	2nd	6th	1st	5th	7th	4th

### Alternative 3 was selected as the recommended alternative because it:

- ✓ Provides the greatest flexibility and reliability in wastewater and biosolids management.
- ✓ Reduces the risks of nearshore water quality impacts, and associated impacts on aquatic and recreational users
- ✓ Minimizes risks to natural areas on and surrounding the WWTPs
- ✓ Offers opportunities for improving odour control, noise management, visual aesthetics and climate change adaptivity
- ✓ Offers opportunities improve energy recovery and reuse.
- ✓ Allows for beneficial land use of biosolids, as well as new markets for incinerator ash.
- ✓ Allows Peel to consider a phasing approach to construction at both the WWTPs

The Virtual Public Information Centre No. 2, which included a presentation video, a detailed webpage and background information handouts, was posted to the project webpages on March 31, 2021, along with a question period for interested individuals to provide comments on both studies via project emails. The presentation provided a summary of the Phase 2 alternative solutions identified and the evaluation process used to determine the preliminary recommended solutions for the G.E. Booth Wastewater Treatment Plant (WWTP) and Clarkson WWTP. The PIC materials can be viewed on either of the two project webpages at:

[www.peelregion.ca/Clarkson](http://www.peelregion.ca/Clarkson)

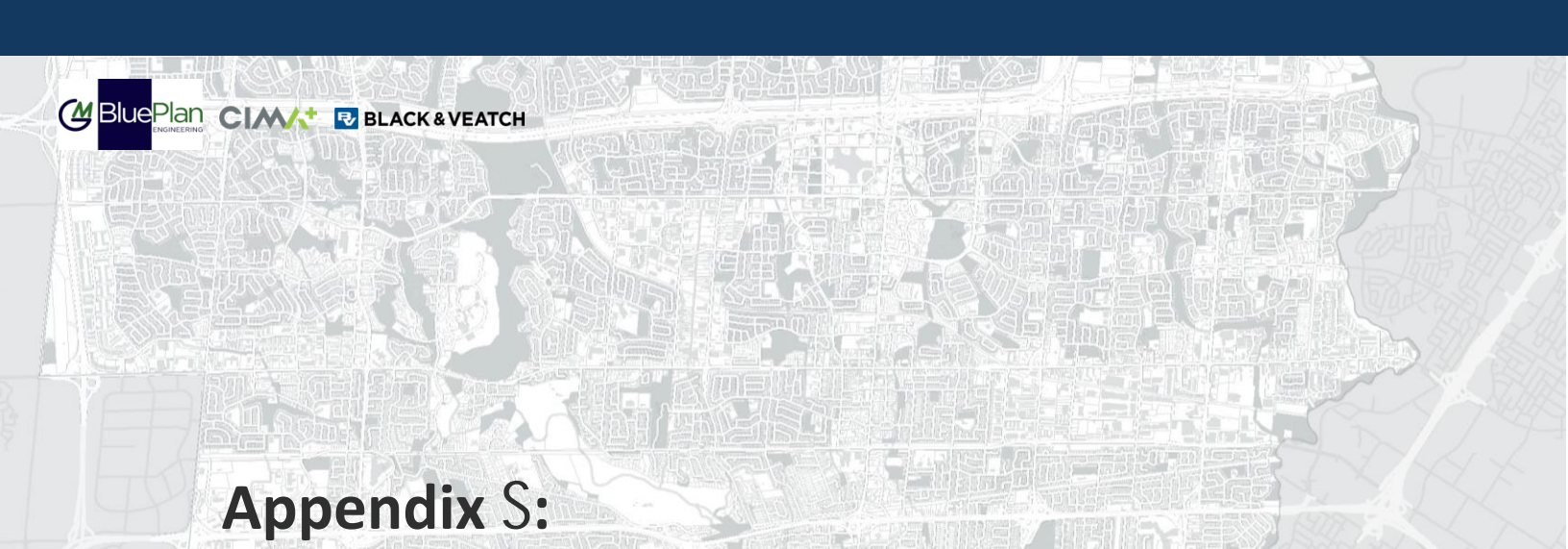
[www.peelregion.ca/GEBooth](http://www.peelregion.ca/GEBooth)

During the 2-week engagement period, we received approximately 143 visits to the project webpages. Most of the visits were to the G.E. Booth WWTP website. Comments and feedback were received from key stakeholders during the PIC comment period, including the need to consider, manage and/or protect the following:

- Lake Ontario water quality, water users, near-by water treatment plant intakes and nearshore environments
- On-site and surrounding natural habitats
- Archaeological resources (if identified)
- Energy efficient technologies and energy recovery
- Odour, noise and air emissions during both construction and operation
- Visually aesthetic landscaping and designs
- Impacts associated with climate change

The above factors are being considered in the development and evaluation of alternative treatment technologies and design concepts at each of the WWTPs as part of Phase 3 of the Class Environmental Assessment (EA) process.





# Appendix S: Public Information Centres

PIC #4

## PEEL WASTEWATER TREATMENT SOLUTIONS NOTICE OF VIRTUAL PUBLIC INFORMATION EVENT NO. 4

### G.E. Booth Water Resource Recovery Facility Schedule C Class Environmental Assessment

#### The Study:

The Region of Peel is proceeding with two Schedule C Class Environmental Assessments (EAs) for the G.E. Booth and Clarkson Water Resource Recovery Facilities (WRRF) to identify and develop preferred solutions for wastewater treatment and biosolids management to meet approved regional growth.

#### The Process:

These EA Studies are Schedule 'C' projects in accordance with the "Municipal Class Environmental Assessment" (MEA, October 2000, as amended in 2007, 2011, and 2015), which is an approved process under the Ontario Environmental Assessment Act. The Class EA process includes a review of background information and identification of the problem/opportunity statement (Phase 1), an evaluation of alternative solutions (Phase 2), an evaluation of alternative technologies and site layouts for the preferred solutions (Phase 3), and documentation of the process and its results (Phase 4), as well as public and stakeholder consultation. The Region of Peel is currently in Phase 3 of the process and seeking public and stakeholder input on the evaluation of alternative technologies and the preliminary preferred design concepts.

#### Virtual Public Information Event No. 4

Phases 1 and 2 of the Schedule C Class EA process were undertaken concurrently as an integrated solution for the expansions of the G.E. Booth and Clarkson WRRFs. While the studies remain integrated, Phase 3 of the Class EA process has been completed with a detailed focus on each WRRF separately. A fourth virtual Public Information Event will be held to provide a summary of the Phase 3 alternative technologies and evaluation process used to determine the preliminary preferred design concepts for the G.E. Booth WRRF. **This Public Information Event will focus on the detailed information for the G.E. Booth WRRF expansion only.** A previous event outlining the design concepts considered for the Clarkson WRRF was held on May 11, 2022.

All content and instructions on how to submit questions and feedback will be posted on the project webpage: [www.peelregion.ca/GEBooth](http://www.peelregion.ca/GEBooth). Your feedback will help the team further develop the recommended solutions for the G.E. Booth WRRF.

Display panels, information, and a video presentation of the main findings from Phase 3 will be available on the project webpage on **March 15, 2023**. This will be followed by a two-week question submission period closing **March 30, 2023**. A formal response from the project team to all questions, comments, and feedback will be posted on **April 13, 2023**.

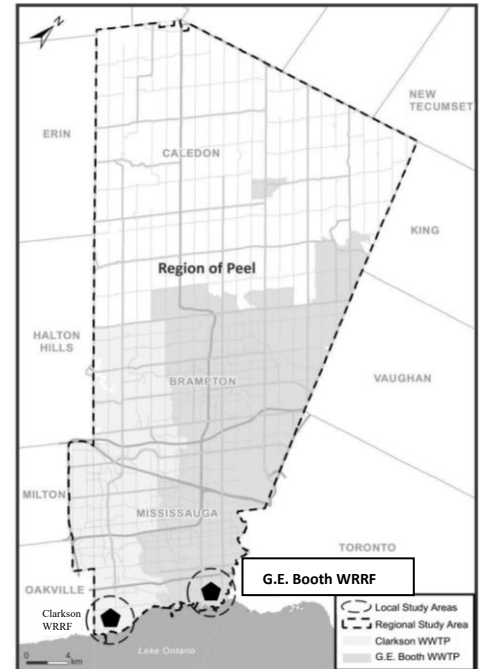
#### Contact:

If you wish to submit comments or would like to be added to the project mailing list for future project notifications, please contact the project manager listed below. The Region of Peel is committed to ensure that all Regional services, programs, and facilities are inclusive and accessible for persons with disabilities. Please contact the Project Manager if you need any disability accommodations to provide comments or feedback for this study.

#### Cindy Kambeitz, Project Manager

905-791-7800, ext. 5040

[GEBoothEA@peelregion.ca](mailto:GEBoothEA@peelregion.ca)



This notice was first issued on February 15<sup>th</sup>, 2023.

Welcome to Virtual Public Information Centre No. 4

*This document is provided as an alternative format that is originally hosted using ESRI StoryMaps. It is provided for those who may not have the compatible browser to view the original virtual public information materials online.*

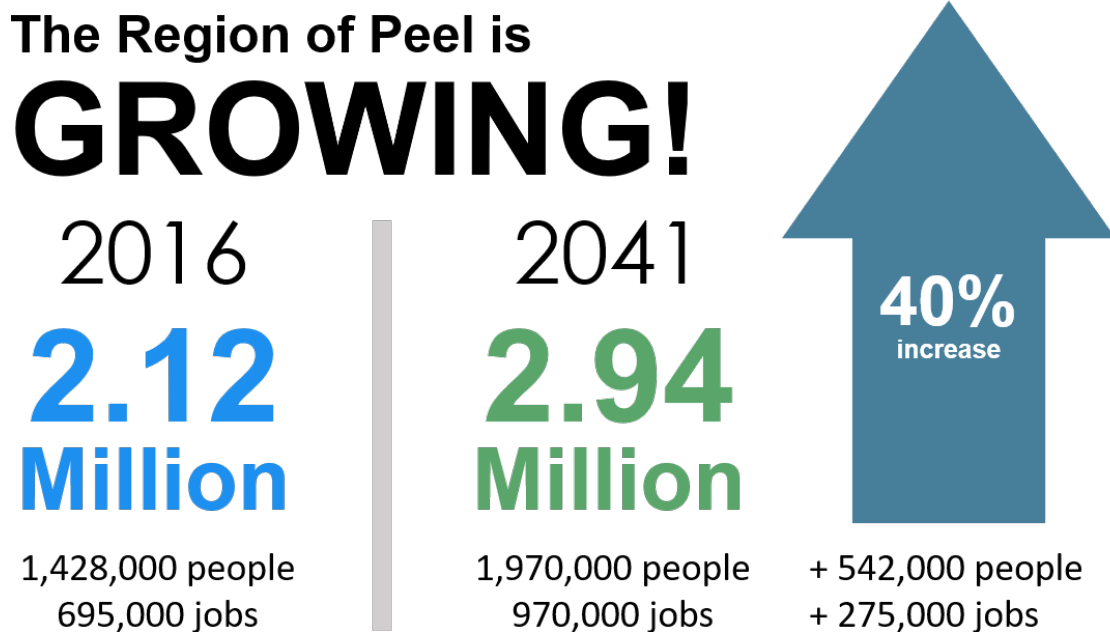
## Land Acknowledgement

The Region of Peel is situated on the Treaty Lands and Territory of the Mississaugas of the Credit First Nation as well as the traditional territory of the Anishinabeg, Huron-Wendat and Haudenosaunee peoples.

## Project Background

Wastewater from residential, commercial, institutional, and industrial users in the Region of Peel is collected through a network of sewers and pumping stations and treated at either the G.E. Booth Water Resource Recovery Facility (WRRF) or the Clarkson WRRF.

As population grows in Peel, there is insufficient capacity to meet future wastewater treatment needs at the WRRFs.



The East-West Diversion is a deep gravity trunk sewer of 2400 mm diameter currently being constructed along Derry Road. It is expected to be completed and operational by 2027. It allows Peel to divert flows from the G.E. Booth WRRF catchment area where there are capacity limitations, to the Clarkson WRRF catchment area which currently has surplus capacity.



## **Problem and Opportunity Statement**

The Region is undertaking two Schedule C Class EAs to develop preferred solutions at the G.E Booth WWTP and the Clarkson WWTP that will:

- Meet future needs associated with population growth, new regulations, climate resiliency, energy efficiency, and wet weather flow management.
- Address community expectations regarding the level of service, odour, air/noise, water quality, protection of the environment, and aesthetics.
- Provide greater flexibility and reliability in wastewater and biosolids management.

This Public Information Centre focuses on the Schedule C Class EA for the G.E. Booth WRRF.

## **Goals and Objectives of the Class C Environmental Assessment**

### **Long-Term Sustainability**

- Region-wide wastewater and biosolids management with operational flexibility
- Multiple biosolids product marketing opportunities
- Resource recovery through beneficial use

### **Resiliency**

- Manage wet weather flows
- Adapt to changing conditions
- Built-in redundancy treatment processes

### **Energy Efficiency and Reduce Greenhouse Gas (GHG) Emissions**

- Support Peel's GHG Reduction Goals
- Energy Reduction and Reuse Opportunities

### **Environmental Protection**

- Mitigate risks to natural environments
- Meet air and effluent quality requirements

### **Community Acceptability**

- Manage odour and noise
- Limit truck traffic
- Visually appealing designs and landscaping

### **Ease of Operations**

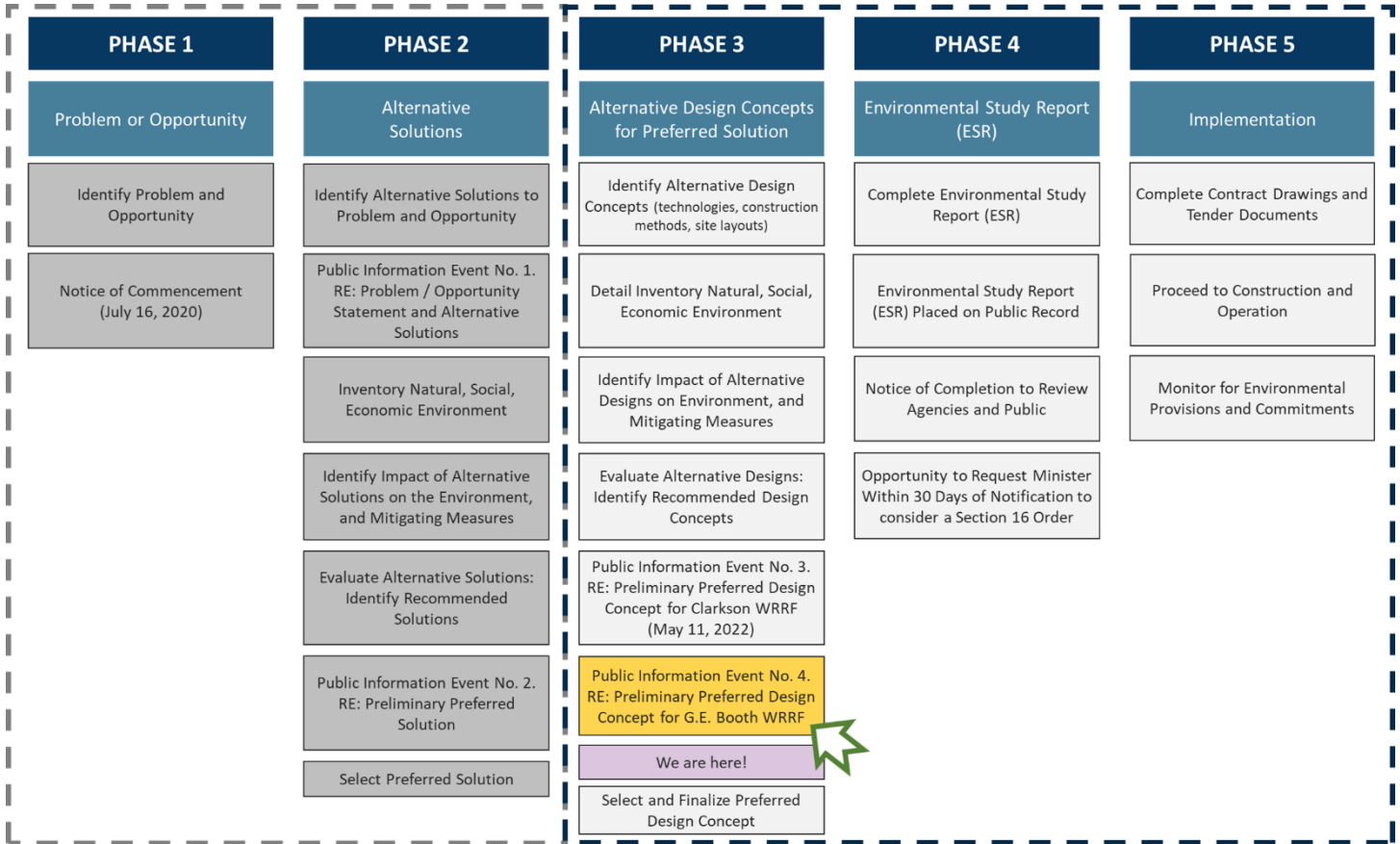
- Operator acceptability
- Proven processes

### **Fiscally Responsible**

- Balance life-cycle costs, while protecting the environment and communities

## Class Environmental Process

Design of the G.E. Booth WRRF follows the Municipal Class Environmental Assessment (EA) process. Phase 1 and Phase 2 were completed concurrently for Clarkson WRRF and G.E. Booth WRRF. Phase 3, Phase 4, and Phase 5 will be completed separately for each WRRF.

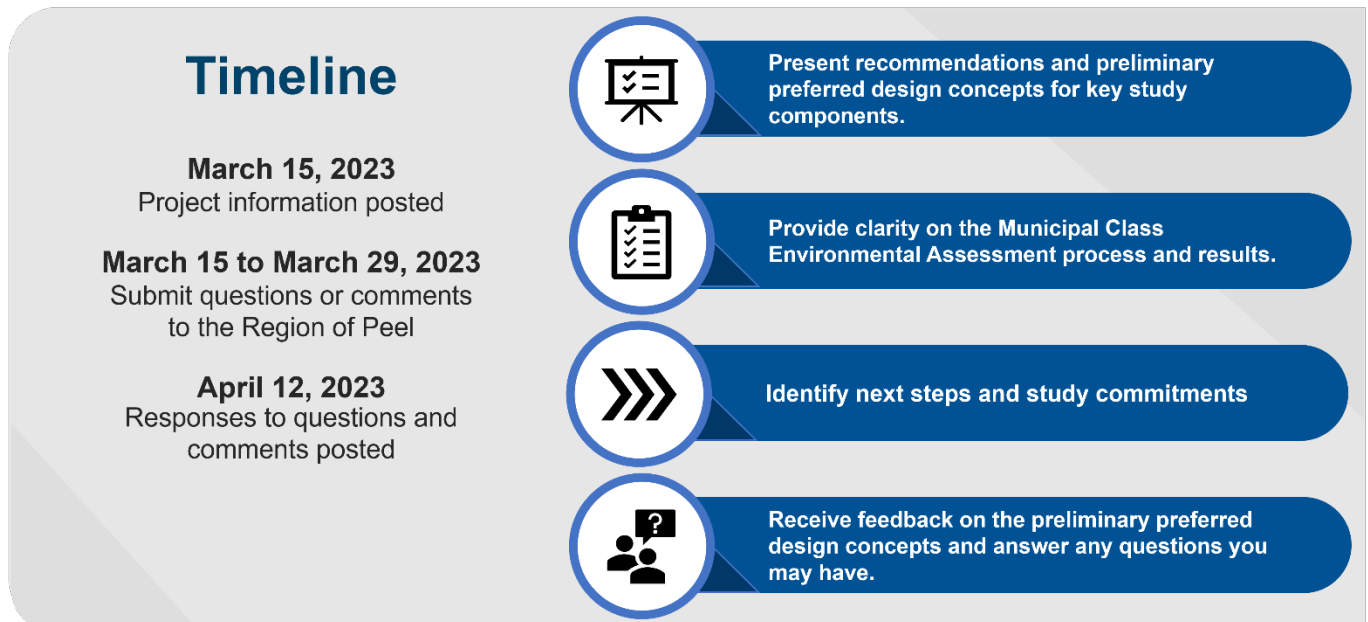


**MEA Mandated Requirements:** <https://municipalclassea.ca/manual/page10.htm>

### Phase 3 Key Questions

- What technologies should we use to treat our wastewater (liquid and solids components)?
- Where should our treated biosolids go and be used?
- Do we require additional outfall capacity? How will it be provided?
- How should the wastewater plant site be laid out and look?
- How do we mitigate environmental and social impacts?

## Public Information Centre No.4 Objectives



1. Present recommendations and preliminary preferred design concepts for the key study components;
2. Provide clarity on the Municipal Class Environmental Assessment process and results;
3. Identify next steps and study commitments;
4. Receive feedback on the preliminary preferred design concepts.

**Note:** This is the fourth and final PIC for the G.E. Booth WRRF and Clarkson WRRF studies. PIC #1 (October 2020) and PIC #2 (April 2021) were conducted for Phases 1 and 2, respectively, for both plants. PIC #3 (May 2022) was conducted to outline the Phase 3 recommendations for the Clarkson WRRF.



## Phase 2

### Wastewater Treatment

- Plant treats flows using conventional activated sludge (CAS) process with an average rated flow capacity of 518 Megalitres per day (MLD).
- Processes include screening, grit removal, primary clarification, aeration, secondary clarification, and chlorine disinfection and de-chlorination prior to discharge to Lake Ontario through the plant's outfall.
- Ongoing upgrades include the replacement of Plant 1, upgrades to Plant 3 primary clarifiers, and incinerator refurbishment.

### Outfall

- Existing outfall is 3.65 metres in diameter and 1,435 metres in length and conveys effluent from Plants 1, 2, and 3 into Lake Ontario.

### Biosolids Management

- Primary and waste activated sludge (WAS) is dewatered and incinerated in four fluidized bed incinerators.
- Digested sludge from the Clarkson WRRF is currently trucked to the G.E. Booth WRRF for incineration.
- Ash slurry from the incinerators is pumped to ash lagoons for settling and storage.



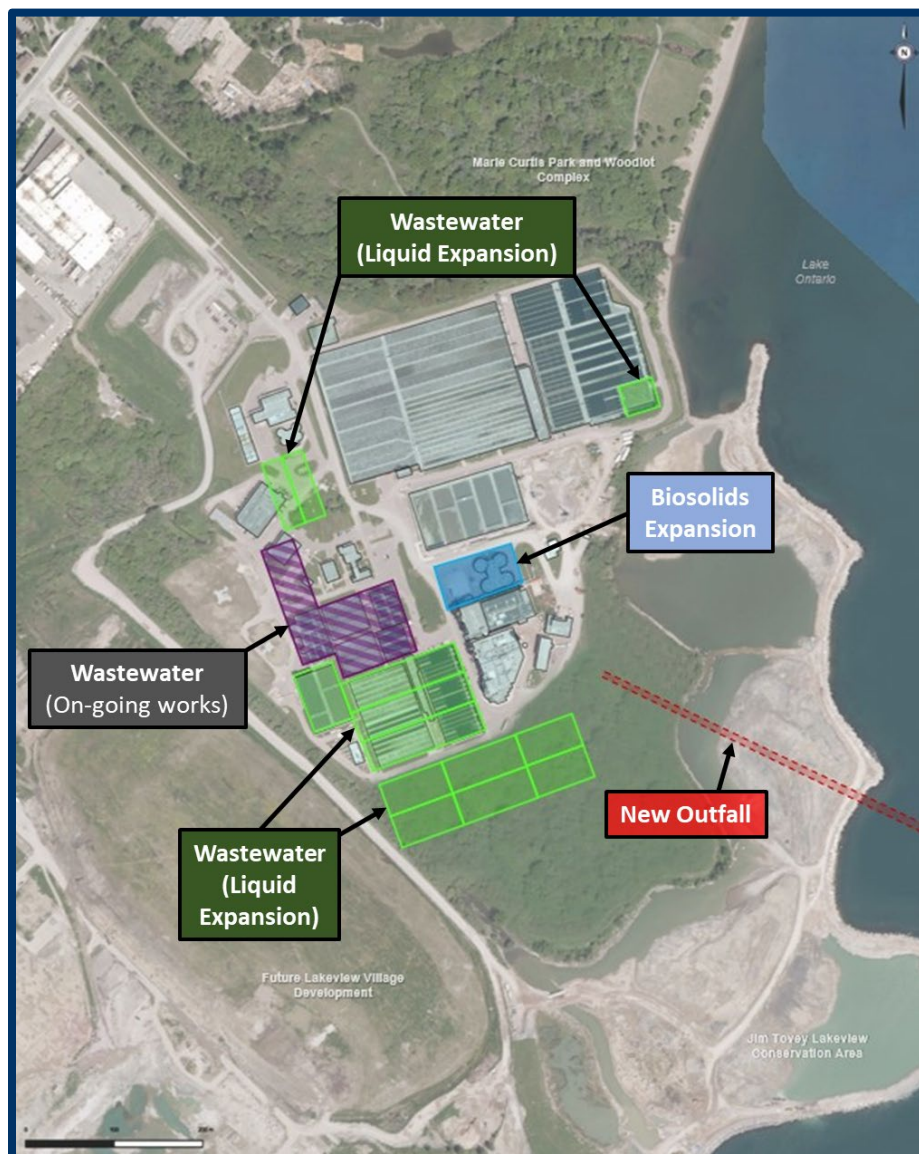
## Phase 2 Recommended Solutions

### Recommended Strategy to Treat Wastewater

- Divert flows through the East-West Diversion Trunk Sewer
- **Expand the G.E. Booth WRRF from 518 MLD to 550 MLD**
- **New Outfall at the G.E. Booth WRRF**
- Expand the Clarkson WRRF from 350 MLD to 500 MLD

### Recommended Strategy to Manage Biosolids

- No longer truck digested sludge from Clarkson WRRF to the G.E. Booth WRRF for incineration.
- Provide biosolids treatment at the Clarkson WRRF and market product for beneficial land use.
- **Assess alternatives for treatment and management of solids at the G.E. Booth WRRF, taking into consideration the incinerators' remaining service life and the investment Peel has made in the technology.**



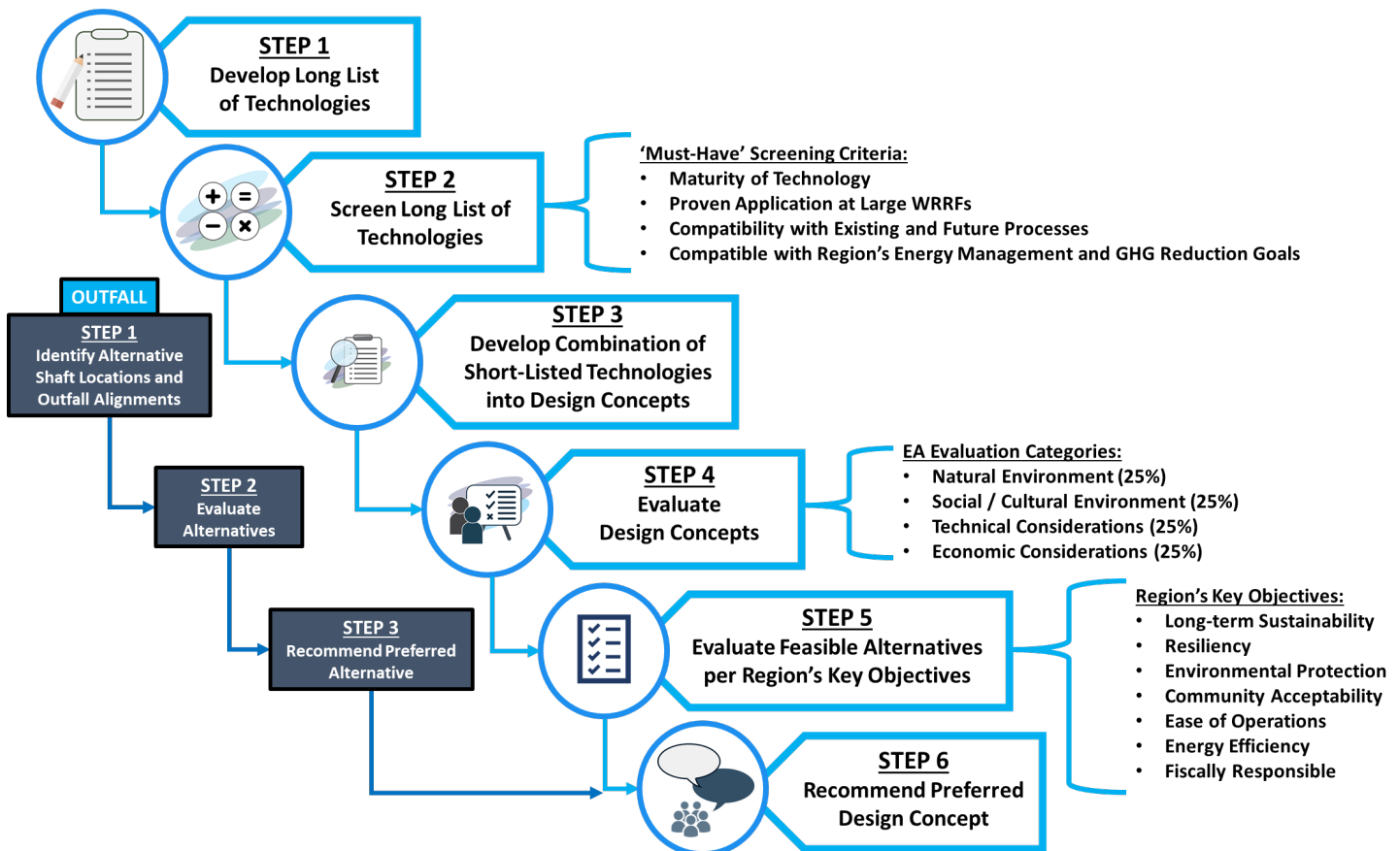
## Phase 3 Evaluation Approach

A six-step evaluation approach was taken to find the appropriate solution. This methodology was applied to select both wastewater treatment and disinfection technologies, and biosolid management solutions.

- Step 1: Develop Long List of Technologies
- Step 2: Screen Long List of Technologies
- Step 3: Develop Combination of Short Listed Technologies into Design Concepts
- Step 4: Evaluate Design Concepts
- Step 5: Evaluate Feasible Alternatives per Region's Key Objectives
- Step 6: Recommend Preferred Design Concept

The outfall follows a three-step methodology:

- Step 1. Identify Alternative Shaft locations and Outfall Alignments
- Step 2. Evaluate Alternatives.
- Step 3. Recommend Preferred Alternative





## **Wastewater Treatment and Disinfection Solutions**

### **Long List of Wastewater Treatment Technologies (Step 1)**

Eleven (11) wastewater treatment technologies were considered:

1. Conventional Activated Sludge (CAS)
2. CAS with Chemically Enhanced Primary Treatment (CEPT)
3. CAS with Wet Weather Flow (WWF) Treatment
4. Ballasted Activated Sludge (BAS)
5. Biological Nutrient Removal (BNR)
6. Membrane Bioreactor
7. Membrane Aerated Biofilm Reactor
8. Integrated Fixed-Film Activated Sludge / Moving Bed Bioreactor
9. Sequencing Batch Reactor
10. Aerobic Granular Sludge
11. Biological Aerated Filter

### **Long List of Wastewater Disinfection Technologies (Step 1)**

Four (4) technologies were considered for wastewater disinfection:

1. Chlorination/ dechlorination
2. Ultraviolet (UV) Disinfection
3. Ozonation
4. Peracetic Acid

### **Screening of Long Lists for both wastewater treatment and disinfection (Step 2)**

The long list options for wastewater and biosolids management technologies were screened based on "Must Have" Criteria:

- Maturity of Technology
- Proven Application at Large WWTP
- Compatibility with Existing and Future Processes
- Compatible with Region's Energy Management and Greenhouse Gas (GHG) Reduction Goals

Table 1 Long list of alternative technologies for wastewater treatment (Step 2)

No.	Technology Alternative	Maturity of Technology	Proven Application at Large WRRFs	Compatibility with Existing and Future Processes	Compatible with Region's Energy Management and GHG Reduction Goals	Short-Listed for Evaluation
1	Conventional Activated Sludge (CAS)	Positive/No Impact	Positive/No Impact	Positive/No Impact	Moderate Impact	Yes
2	CAS with Chemically Enhanced Primary Treatment (CEPT)	Positive/No Impact	Positive/No Impact	Positive/No Impact	Positive/No Impact	Yes
3	CAS with Wet Weather Flow (WWF) Treatment	Positive/No Impact	Moderate Impact	Positive/No Impact	Moderate Impact	Yes
4	Ballasted Activated Sludge (BAS)	Moderate Impact	High Impact	Positive/No Impact	Moderate Impact	No
5	Biological Nutrient Removal (BNR)	Moderate Impact	Moderate Impact	High Impact	Positive/No Impact	No
6	Membrane Bioreactor	Positive/No Impact	Moderate Impact	Positive/No Impact	High Impact	No
7	Membrane Aerated Biofilm Reactor	Moderate Impact	High Impact	Positive/No Impact	Positive/No Impact	No
8	Integrated Fixed-Film Activated Sludge / Moving Bed Bioreactor	Moderate Impact	High Impact	High Impact	High Impact	No
9	Sequencing Batch Reactor	Positive/No Impact	Moderate Impact	High Impact	High Impact	No
10	Aerobic Granular Sludge	Moderate Impact	Moderate Impact	High Impact	Moderate Impact	No
11	Biological Aerated Filter	Positive/No Impact	Positive/No Impact	High Impact	High Impact	No

Table 2 Long list of alternative technologies for wastewater disinfection (Step 2)

No.	Technology Alternative	Maturity of Technology	Proven Application at Large WRRFs	Compatibility with Existing and Future Processes	Compatible with Region's Energy Management and GHG Reduction Goals	Short-Listed for Evaluation
1	Chlorination/ dechlorination	Positive/No Impact	Positive/No Impact	Positive/No Impact	Moderate Impact	Yes
2	UV Disinfection	Positive/No Impact	Positive/No Impact	Moderate Impact	Moderate Impact	Yes
3	Ozonation	Positive/No Impact	Moderate Impact	Moderate Impact	High Impact	No
4	Peracetic Acid	Moderate Impact	Moderate Impact	High Impact	Moderate Impact	No

### Short List of Wastewater Treatment Technologies (Step 3)

Three (3) long list options of the 11 potential technologies satisfied the "Must-Have" criteria:

1. **Conventional Activated Sludge (CAS):** This alternative involves expanding the G.E. Booth WRRF with new CAS process trains which are consistent with the existing facility and will follow the same operating philosophy. There are opportunities to retrofit CAS tankage in the future to accommodate other newer technologies to optimize aeration and energy efficiency.
2. **CAS with Chemically Enhanced Primary Treatment (CEPT):** This alternative involves expanding the G.E. Booth WRRF with new CAS process trains optimized with CEPT. The addition of metal salts and polymer upstream of the primary clarifiers will aid with solids settling, reducing the organic and solids load to the secondary treatment process. This will reduce the size of the aeration tanks and will reduce the energy consumption required for aeration.
3. **CAS with Wet Weather Flow (WWF) Treatment:** This alternative involves implementing WWF management to reduce peak flows to the G.E. Booth WRRF. This could involve either a parallel, high-rate treatment facility at the plant or implementing Real Time Control (RTC) in the collection system. The G.E. Booth WRRF would be expanded with new CAS process trains. This will allow for the construction of smaller CAS tanks.

### Short List of Wastewater Disinfection Technologies (Step 3)

Two (2) long list options of the 4 potential technologies satisfied the "Must-Have" criteria:

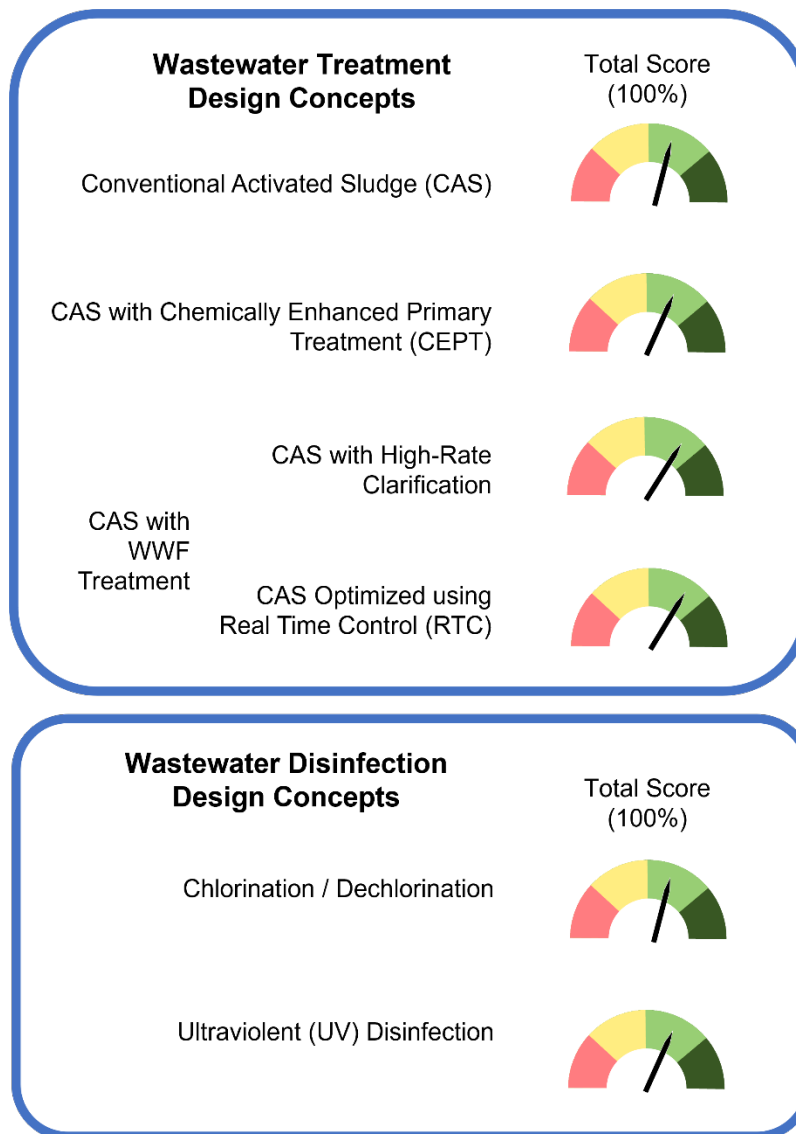
1. **Chlorination / Dechlorination:** This technology involves expanding the disinfection facilities at the G.E. Booth WRRF using chlorination and dechlorination. This might involve construction of a new chlorine contact tank or integration with the proposed new outfall.
2. **Ultraviolet (UV) Disinfection:** This technology involves construction of a new UV disinfection facility including in-channel UV disinfection systems and power equipment.



## Wastewater Treatment and Disinfection Detailed Evaluation of the Design Concepts

The short list of alternative technologies for wastewater treatment and disinfection were developed into design concepts and further assessed using:

- Natural Environment (25%)
- Social-Cultural Environment (25%)
- Technological Considerations (25%)
- Economic Considerations (25%)



Minimal difference in the overall scoring of the design concepts, therefore a second evaluation was conducted based on the Key Objectives of the Region.

## Wastewater Treatment and Disinfection Evaluation of Feasible Design Concepts

The Region's Key Objectives used to assess the short list of design concepts are:

- Long-Term Sustainability,
- Resiliency,
- Environmental Protection,
- Community Acceptability,
- Ease of Operations,
- Energy Efficiency, and
- Fiscally Responsible.

**Conventional Activated Sludge (CAS) optimized using Real Time Controls (RTC) and UV disinfection** best aligned with the Region's Key Objectives.

Table 5. Evaluation of the feasible alternatives for wastewater treatment (Step 5)

Key Objectives	Conventional Activated Sludge (CAS)	CAS with Chemically Enhanced Treatment (CEPT)	CAS with High Rate Clarification	CAS Optimized using Real Time Control (RTC)
Long Term Sustainability	Satisfies	Satisfies	Satisfies	Satisfies
Resiliency	Does Not Satisfy	Does Not Satisfy	Satisfies	Satisfies
Environmental Protection	Does Not Satisfy	Does Not Satisfy	Satisfies	Satisfies
Community Acceptability	Does Not Satisfy	Does Not Satisfy	Satisfies	Satisfies
Ease of Operations	Does Not Satisfy	Does Not Satisfy	Satisfies	Satisfies
Energy Efficiency	Does Not Satisfy	Satisfies	Does Not Satisfy	Does Not Satisfy
Fiscally Responsible	Does Not Satisfy	Does Not Satisfy	Does Not Satisfy	Satisfies

Table 6. Evaluation of the feasible alternatives for wastewater disinfection (Step 5).

Key Objectives	Chlorination / Dechlorination	Ultraviolet (UV) Disinfection
Long Term Sustainability	Does Not Satisfy	Satisfies
Resiliency	Satisfies	Satisfies
Environmental Protection	Does Not Satisfy	Satisfies
Community Acceptability	Does Not Satisfy	Satisfies
Ease of Operations	Satisfies	Satisfies
Energy Efficiency	Satisfies	Does Not Satisfy
Fiscally Responsible	Satisfies	Satisfies

## Outfall Existing Conditions

An outfall conveys treated effluent from a WRRF and discharges it into a body of water. Components of the outfall system are:

### On-shore shaft

- The outfall shaft is located on the east side of the plant.
- Effluent conduits convey flow from Plants 1, 2, and 3 to the effluent channels of the outfall shaft.

### Off-shore tunneled pipe

- The existing outfall pipe is 3.65 metres in diameter and 1,435-metres in length.

### Risers and diffusers

- There are 35 diffusers in the last 212 metres of the outfall pipe.

A new outfall is required at the G.E. Booth WRRF for the following reasons:

- The rated peak flow capacity of outfall is 1,523 MLD, however it can only convey 1,200 MLD before flooding the secondary clarifier weirs.
- The existing outfall and diffuser system does not extend far enough into Lake Ontario to generate the dilutions required to meet Provincial Water Quality Objectives (PWQOs).
- There is insufficient peak flow capacity to meet future needs to the year 2041 and beyond.





## Evaluation of Outfall Shaft Locations

Evaluation of potential locations was based on:

- Site spatial requirements
- Proximity to existing connections (effluent conduits)
- Ease of connection to District Energy Centre (DEC).
  - The DEC will use treated effluent to heat and cool future buildings in the Lakeview Development Area
- Avoiding the Jim Tovey Lakeview Conservation Area (JTLCA)

**Alternative 1** was determined to be the preferred shaft location based on:

- Optimized construction sequencing with DEC
- Opportunities for capital cost savings and lowest overall cost
- Shortest construction duration



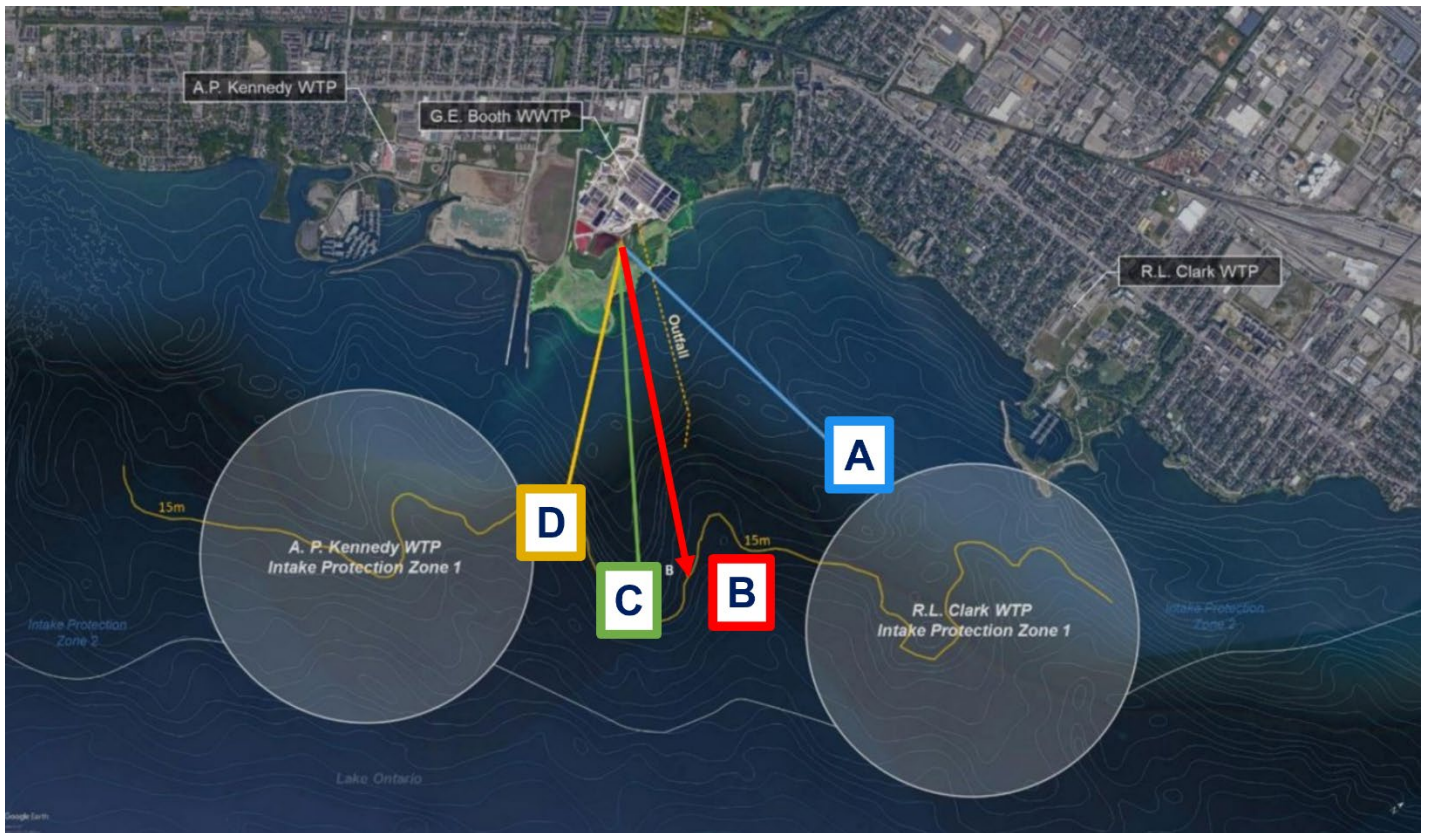
## Evaluation of Pipe Alignment Alternatives

Evaluation was based on:

- Lake bathymetry (topography)
- Minimizing impacts to the natural environment, Intake Protection Zones (IPZs), and shoreline users
- Diffuser effectiveness (currents)
- Capital cost and schedule

The evaluation as well includes the following considerations:

- Natural environment (25%)
- Social-Cultural (25%)
- Technical Considerations (25%)
- Economic Considerations (25%)



**Alignment B** was selected as the preferred alignment based on:

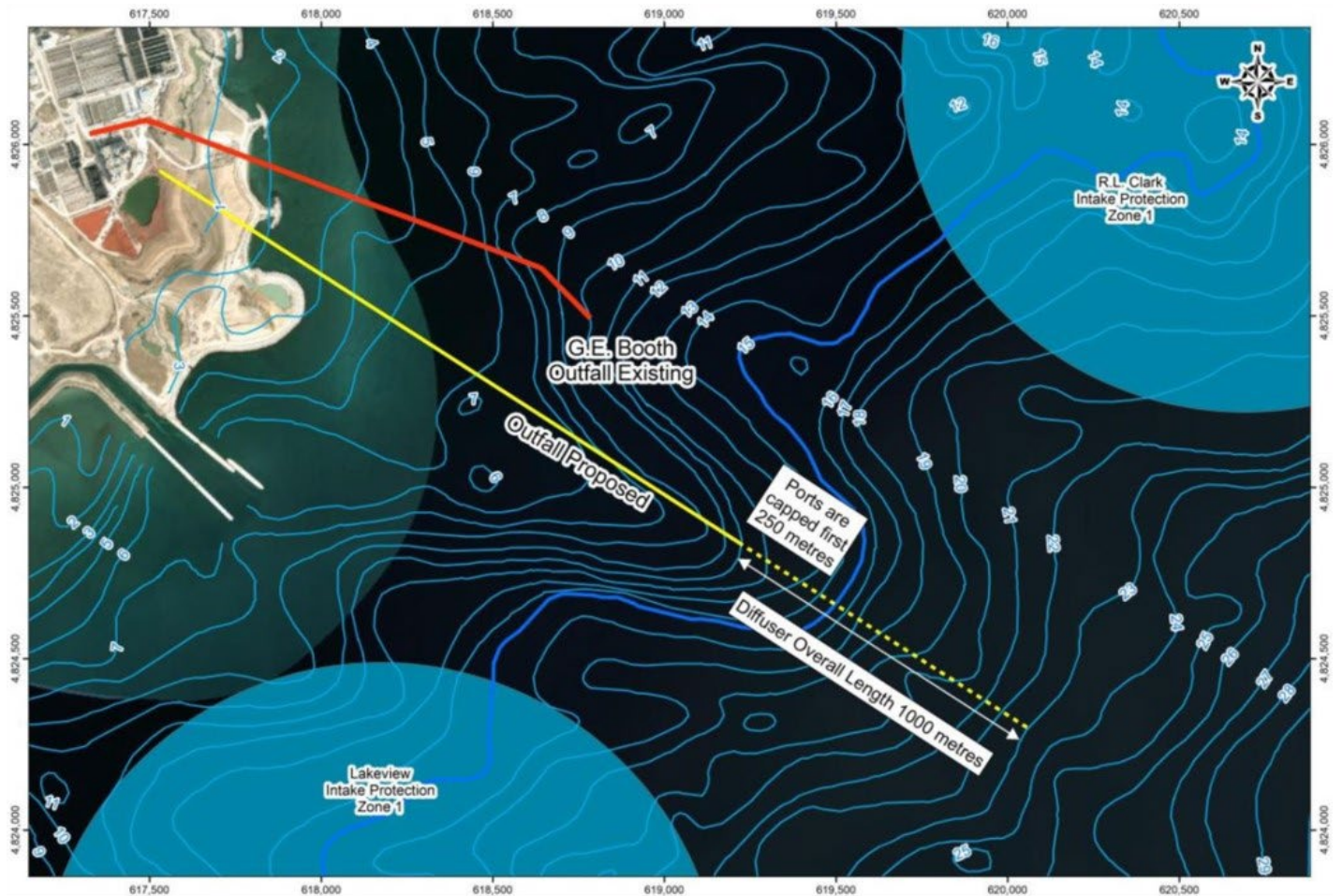
- Central location between IPZs for A.P. Kennedy Water Treatment Plant (WTP) and R.L. Clark WTP
- Favorable current direction and bathymetry (greater water depth achieved closer to shore, thereby improving effluent mixing)



## Outfall Preferred Design Concept

The Preferred Design Concept for the Outfall includes the following:

- Outfall shaft to be located on east side of property
  - Optimal location for connection to Plants 1, 2, and 3
- Outfall pipe alignment to be generally parallel to existing outfall
  - 2,000 metre length supply pipe (without diffusers), 1,000 metre length diffuser pipe, 3,000 metres total length
  - Includes 67 staged 500mm diameter diffusers at 15 metre intervals
- Peak flow capacity of 2,850 MLD
  - Sufficient capacity to service ultimate growth in G.E. Booth WRRF catchment area and potential flow increases from climate change
- Existing 1,435 metre length outfall to be maintained for redundancy purposes

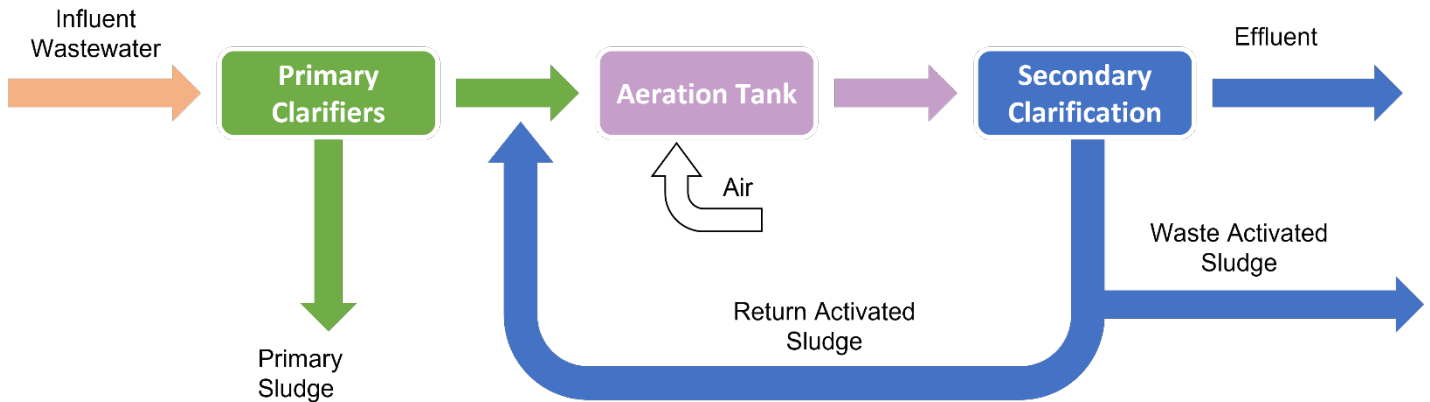




## Wastewater Treatment, Disinfection and Outfall: Preferred Design Concepts:

### Expansion of CAS, optimized with RTC

- CAS expansion areas identified on concept plan
- Real Time Control (RTC) implemented in collection system, thereby eliminating need for expanded headworks.



### New Ultraviolet (UV) Disinfection system

- UV Disinfection has significantly lower operating costs than chlorination/dechlorination, lower risk to Lake Ontario water quality, and higher community acceptability
- Aligns with the Region's goals of reducing Operation and Maintenance (O&M) costs and chemical use

### New Outfall

- New 3,000 metre length outfall will be constructed parallel to the existing 1,435 metre outfall into Lake Ontario
- New outfall's capacity of 2,850 MLD will be a substantial increase to the existing outfall capacity of 1,523 MLD.

# Biosolids Management

## Long List Alternatives and Screening

(Step 1) The long list of alternative technology solutions developed for biosolids management are:

- 1. Anaerobic Digestion:**
  - a. Conventional Mesophilic Anaerobic Digestion;
  - b. Temperature-Phased Anaerobic Digestion (TPAD)
  - c. Acid/Gas Phased Anaerobic Digestion
- 2. Hydrolysis Pretreatment and Anaerobic Digestion:**
  - a. Thermal Hydrolysis Pre-treatment (THP)
  - b. Thermo / Alkaline Hydrolysis Pre-treatment
- 3. Aerobic Digestion:**
  - a. Conventional Aerobic Digestion
  - b. Autothermal Thermophilic Aerobic Digestion (ATAD)
- 4. Drying:**
  - a. Direct Thermal Dryer (Drum Dryer, Belt Dryer)
  - b. Indirect Thermal Dryer (Paddle Dryer, Disc Dryer)
  - c. Solar Dryer
- 5. Chemical Stabilization:**
  - a. Alkaline Stabilization
  - b. Alkaline Stabilization with Supplemental Heat or Acid;
  - c. Alkaline Stabilization with Supplemental Heat and High-Speed Mixing
- 6. Composting**
  - a. Open Technologies Aerated Static Pile and Windrow Composting
- 7. Thermal Conversion:**
  - a. Incineration
  - b. Gasification
  - c. Pyrolysis
  - d. Wet Oxidation
  - e. Hydrothermal Liquification

The long list of alternative solutions for G.E. Booth WRRF are reviewed against the following "must-have" screening criteria:

- Maturity of Technology
- Proven Application at Large WRRFs
- Compatibility with Existing and Future Processes
- Compatible with Region's Energy Management and GHG Reduction Goals

Table 7. Evaluation of the long-list alternative solutions for biosolid management (Step 2).

No.	Technology Alternative	Maturity of Technology	Proven Application at Large WRRFs	Compatibility with Existing and Future Processes	Compatible with Region's Energy Management and GHG Reduction Goals	Short-Listed for Evaluation
1a	<b>Conventional Mesophilic Anaerobic Digestion</b>	Mature Technology	Yes	Yes	Yes	Yes
1b	<b>Temperature-Phased Anaerobic Digestion (TPAD)</b>	Uncommon	Yes	Complex operation	Yes	No
1c	<b>Acid/Gas Phased Anaerobic Digestion</b>	Limited number of installations	Yes	Complex operation	Yes	No
2a	<b>Thermal Hydrolysis Pre-treatment (THP)</b>	Maturing technology becoming popular	Yes	Yes	Yes	Yes
2b	<b>Thermo / Alkaline Hydrolysis Pre-treatment</b>	Limited number of installations	Limited	Yes	Yes	No
3a	<b>Conventional Aerobic Digestion</b>	Mature Technology	No	No	No	No
3b	<b>Autothermal Thermophilic Aerobic Digestion (ATAD)</b>	Maturing Technology Second Generation	No	No	No	No
4a	<b>Direct Thermal Dryer (Drum Dryer, Belt Dryer)</b>	Mature Technology	Yes	Yes	Yes	Yes
4b	<b>Indirect Thermal Dryer (Paddle Dryer, Disc Dryer)</b>	Mature Technology	Limited	Yes	No	No
4c	<b>Solar Dryer</b>	Newer, successful technology becoming popular	Limited	Yes	No	No



No.	Technology Alternative	Maturity of Technology	Proven Application at Large WRRFs	Compatibility with Existing and Future Processes	Compatible with Region's Energy Management and GHG Reduction Goals	Short-Listed for Evaluation
5a	<b>Alkaline Stabilization</b>	Mature Technology	Yes	No; insufficient space on-site	No	No
5b	<b>Alkaline Stabilization with Supplemental Heat or Acid</b>	Mature Technology	Yes	Yes; off-site only	Yes	Yes
5c	<b>Alkaline Stabilization with Supplemental Heat and High-Speed Mixing</b>	Maturing Technology	Yes	Yes; off-site only	Yes	Yes
6a	<b>Composting (Open Technologies Aerated Static Pile and Windrow Composting)</b>	Mature Technology	Yes	No	No	No
7a	<b>Incineration</b>	Mature Technology	Yes	Yes	Yes	Yes
7b	<b>Gasification</b>	No	No	Yes	No	No
7c	<b>Pyrolysis</b>	No	No	Yes	No	No
7d	<b>Wet Oxidation</b>	No	No	Yes	No	No
7e	<b>Hydrothermal Liquification</b>	No	No	Yes	No	No

The short list of technologies for further assessment that have satisfied the screening criteria are as follows:

- **Alternative 1:** Conventional Mesophilic Anaerobic Digestion
- **Alternative 2:** Thermal Hydrolysis Pre-treatment (THP)
- **Alternative 3:** Direct Thermal Dryer (Drum Dryer, Belt Dryer)
- **Alternative 4:** Alkaline Stabilization with Supplemental Heat or Acid
- **Alternative 5:** Alkaline Stabilization with Supplemental Heat and High-Speed Mixing
- **Alternative 6:** Incineration

## Description of Alternative Biosolids Management Design Concepts

Table 8. Description of the alternative design concepts from the short-list (Step 3).

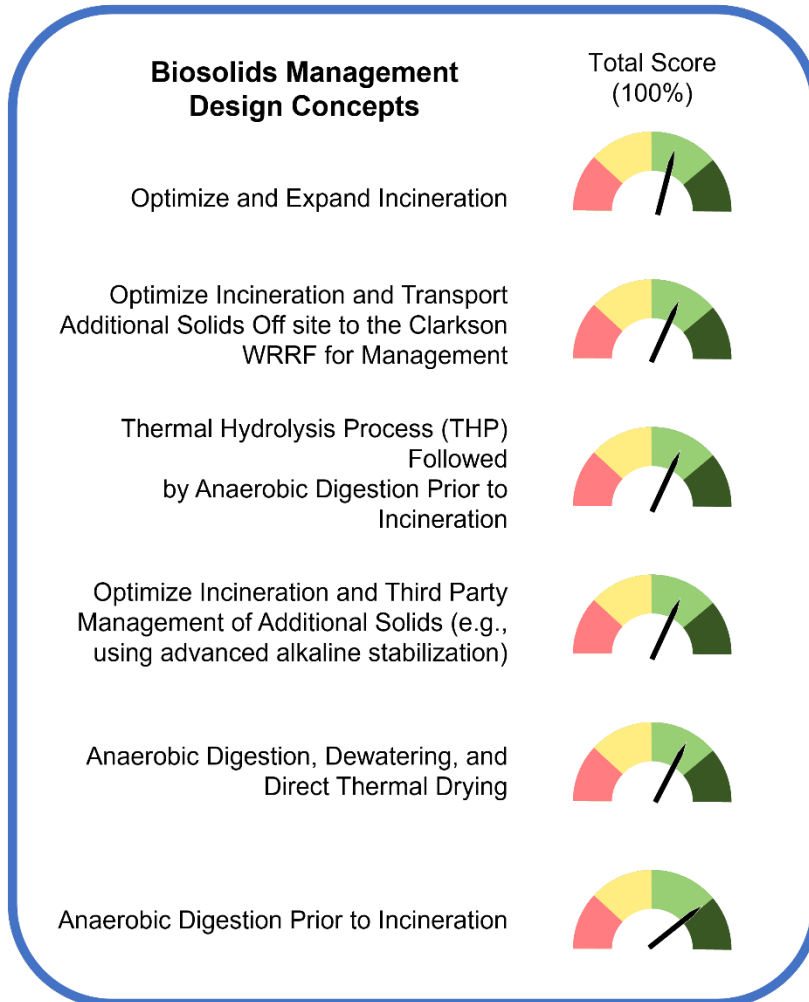
Alternatives <sup>1</sup>	Description
<b>Alternative 1:</b> Optimize and Expand Incineration	<ul style="list-style-type: none"> <li>• Increase the firm capacity of incineration from 210 dry ton per day to 280 dry ton per day by installing two new incinerators units.</li> <li>• Replace the existing four incinerators at the end of their service life.</li> </ul>
<b>Alternative 2:</b> Optimize Incineration and Transport Additional Solids Off-site to the Clarkson WRRF for Management	<ul style="list-style-type: none"> <li>• Optimize the existing incinerators to increase their operational capacity.</li> <li>• Any excessive solids incineration capacity would be transported off-site as liquid sludge to the Clarkson WRRF for further treatment and disposal.</li> <li>• Replace the existing four incinerators at the end of their service life.</li> </ul>
<b>Alternative 3:</b> Thermal Hydrolysis Process (THP) followed by Anaerobic Digestion prior to Incineration	<ul style="list-style-type: none"> <li>• Construct a new THP and anaerobic digestion facility.</li> <li>• Divert a portion of solids for thermal hydrolysis followed by anaerobic digestion. The biogas generated during anaerobic digestion will be collected and used for the THP operation, along with power generation by a combined heat and power (CHP) facility.</li> <li>• Replace the existing four incinerators at the end of their service life.</li> </ul>
<b>Alternative 4:</b> Optimize Incineration and Third-Party Management of Additional Solids (e.g., using advanced alkaline stabilization)	<ul style="list-style-type: none"> <li>• Optimize the existing incinerators to increase their operational capacity.</li> <li>• Third-party biosolids management firms will be contracted to transport and manage the solids exceeding the incineration system's capacity. The third-party firms may apply additional treatment such as advanced alkaline stabilization.</li> <li>• Replace the existing four incinerators at the end of their service life.</li> </ul>
<b>Alternative 5:</b> Anaerobic Digestion, Dewatering, and Direct Thermal Drying	<ul style="list-style-type: none"> <li>• Optimize and operate the existing incinerators to the end of their service life.</li> <li>• Prior to 2041, decommission the existing incinerators and replace them with eight new digesters to stabilize the solids and a direct thermal drying facility. The biogas generated during digestion would be collected and used for dryer operation and power generation by a CHP facility.</li> </ul>
<b>Alternative 6:</b> Anaerobic Digestion Prior to Incineration	<ul style="list-style-type: none"> <li>• Construct four anaerobic digesters to stabilize the solids and support the existing incinerator units to approximately 2041. The biogas generated during digestion would be collected and used for beneficial uses (power generator or other).</li> <li>• Prior to 2041, re-assess biosolids management options and select an option that best meets the goals of Peel and the surrounding community (e.g., thermal drying, continued incineration, third-party management).</li> </ul>

Note 1: All alternatives include decommissioning of the Ash Lagoons and Storage Pond and construction of an Ash Dewatering Facility.

## Design Concept Evaluation

These design concepts are assessed using the following environmental assessment evaluation categories:

- Natural Environment (25%)
- Social / Cultural Environment (25%)
- Technical Considerations (25%)
- Economic Considerations (25%)





## Evaluation of Feasible Design Concepts

All design concepts are then evaluated using the Region's Key Objectives

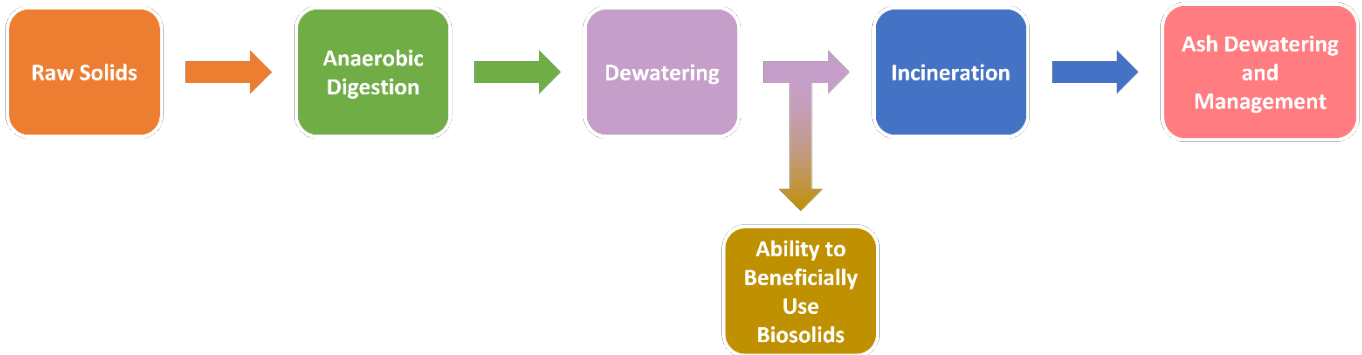
- Long-term Sustainability
- Resiliency
- Environmental Protection
- Community Acceptability
- Ease of Operations
- Energy Efficiency
- Fiscally Responsible

Table 7. Results of the evaluation against Region's Key Objectives (Step 5).

Key Objectives	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6
Long Term Sustainability	Does not Satisfy	Does not Satisfy	Does not Satisfy	Does not Satisfy	Satisfies	Satisfies
Resiliency	Does not Satisfy	Does not Satisfy	Satisfies	Does not Satisfy	Satisfies	Satisfies
Environmental Protection	Satisfies	Does not Satisfy	Satisfies	Does not Satisfy	Satisfies	Satisfies
Community Acceptability	Does not Satisfy	Does not Satisfy	Does not Satisfy	Does not Satisfy	Satisfies	Satisfies
Ease of Operations	Satisfies	Satisfies	Does not Satisfy	Satisfies	Does not Satisfy	Satisfies
Energy Efficiency	Does not Satisfy	Does not Satisfy	Satisfies	Does not Satisfy	Does not Satisfy	Satisfies
Fiscally Responsible	Does not Satisfy	Does not Satisfy	Does not Satisfy	Does not Satisfy	Does not Satisfy	Satisfies

Anaerobic Digestion Prior to Incineration best aligned with the Region's Key Objectives.

## Preferred Design Concept



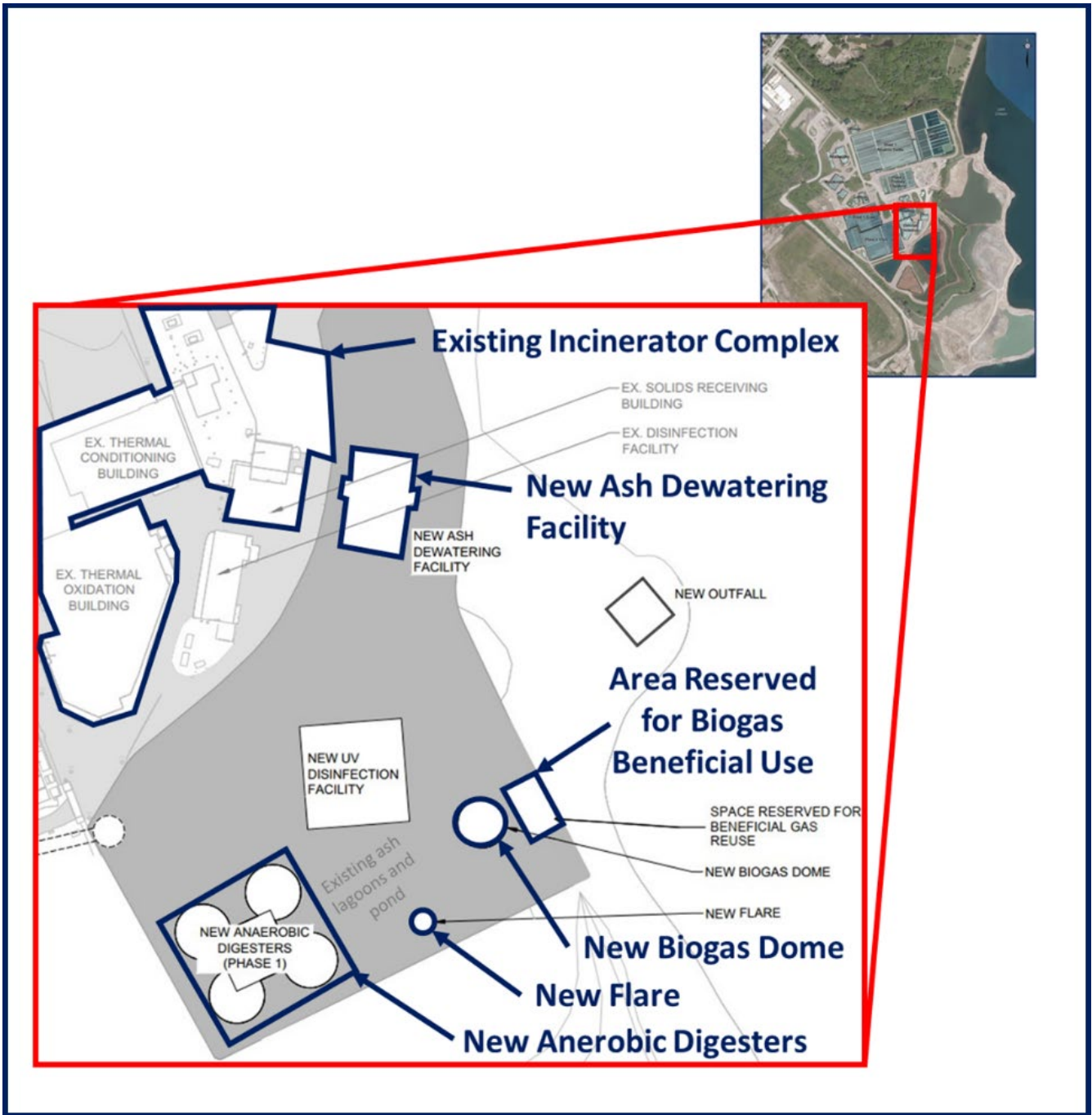
Due to continuous development of treatment technologies, biosolids management regulation changes, and the remaining service life of the existing thermal oxidation (incinerator) facility, it is recommended to:

- Continue with incineration to the end of the existing incinerators' service life
- Provide anaerobic digestion to reduce biosolids incineration requirements
- Re-assess biosolids management options in the future to select technology that best meets the needs of Peel and the surrounding community

This strategy best aligns with the Region's goals of increased energy recovery, improved resiliency, and increased construction flexibility.

### Conceptual Site Layout

- Existing ash lagoons and pond to be decommissioned; and space restored.
- Ash dewatering facility will be constructed to replace function.
- Four (4) new anaerobic digesters, new biogas dome, and new flare to be constructed in re-claimed pond area.
- Area allocated for beneficial use of biogas.





**G.E. Booth Water Resource Recovery (Today)**



**G.E. Booth Water Resource Recovery Design Concept**







## Impact and Mitigation

### Overview of Adjacent Land Use

The G.E. Booth WRRF is located adjacent to several existing and future sensitive uses:

- Lakeview Village development,
- Jim Tovey Lakeview Conservation Area (JTLCA),
- Serson Creek rehabilitation,
- Marie Curtis Park,
- On-site environmental areas, and
- Existing adjacent industrial and residential properties.

The G.E. Booth WRRF EA provides recommendations that will mitigate impacts to existing features and future land uses.

### Natural Environment

A review of background information was conducted to confirm the preliminary Ecological Land Classification (ELC) mapping within and adjacent to the G.E. Booth WRRF. Field investigations were completed to confirm the Candidate Natural Heritage Features.

The following provincially significant natural heritage features were identified on and abutting the site:

- Fish habitat,
- Significant woodland,
- Candidate Significant Wildlife Habitat (SWH), and
- Candidate habitat for endangered and threatened species.

The Preferred Design Concept was developed to avoid natural heritage features to the extent possible. However, there may be some isolated tree removals and encroachment on portions of the Candidate Significant Wildlife Habitat on the northwest side of the site.

The Region is working with the Conservation Authorities to develop appropriate measures to mitigate impacts to natural heritage features, which will include:

- Construction timing windows,
- Stormwater management plans, and
- Restoration.





## Potential Impacts and Mitigation Methods

### Noise

- Noise controls will be implemented through the conceptual design of the plant expansion to mitigate any noise impacts exceeding applicable guidelines.

### Odour

The Region has been proactively working with the City of Mississauga to develop an enhanced odour management strategy at the G.E. Booth WRRF. The odour management strategy includes:

- Replacing old Plant 1 and enclosing the new Plant 1 primary clarifiers with flat covers, a building, and an odour control facility.
- Covering the existing Plant 2 and Plant 3 primary clarifiers with flat covers, a building, and odour control facilities.
- Increasing the stack height of the odour control facility at the existing headworks facility.
- Adding a polishing stage of odour control to the existing headworks odour control facility.
- Continued odour modelling and community outreach.

Through implementation of these control measures, odours from the existing G.E. Booth WRRF will be reduced

### Visual

- Decommissioning the lagoons
- Constructing naturalized barriers between the plant and surrounding areas, including the Lakeview development area, the Jim Tovey Lakeview Conservation Area, and Marie Curtis Park.

### Archaeology

- Stage 1 Archaeological and Marine Archaeological Assessment identifies that the site is disturbed with little remaining potential for archaeological resources.
- If additional areas are disturbed, a Stage 2 Archaeological Assessment will be completed during conceptual design.

### Traffic

- Due to the biosolids from the Clarkson WRRF not being trucked to G.E. Booth WRRF, there is an overall reduction in truck traffic for the site.

## Summary of Net Effects

The Preferred Expansion Project will:

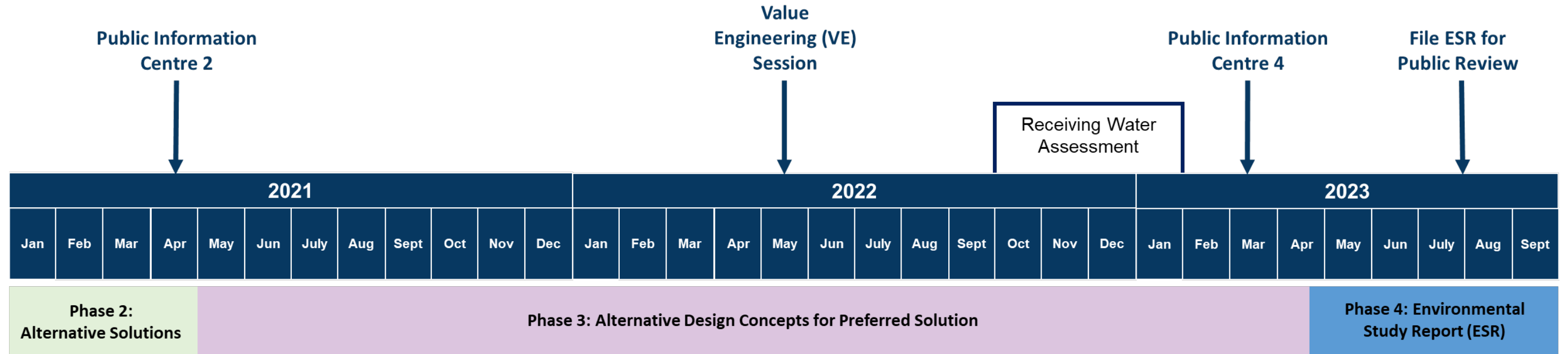
- The Region has been proactively working with the City of Mississauga to develop an enhanced odour management strategy at the G.E. Booth WRRF. The odour management strategy includes:
- Replacing old Plant 1 and enclosing the new Plant 1 primary clarifiers with flat covers, a building, and an odour control facility.
- Covering the existing Plant 2 and Plant 3 primary clarifiers with flat covers, a building, and odour control facilities.
- Increasing the stack height of the odour control facility at the existing headworks facility.
- Adding a polishing stage of odour control to the existing headworks odour control facility.
- Continued odour modelling and community outreach.
- Through implementation of these control measures, odours from the existing G.E. Booth WRRF will be reduced

The expansion project will also be designed to support the District Energy Centre (DEC) planned on the Lakeview Development site. The DEC is a thermal energy centre which pumps treated effluent from the G.E. Booth WRRF through heat exchangers to provide heating and cooling to buildings in the Lakeview Development.

Further details on the preferred expansion project at the G.E. Booth WRRF, including refining measures to mitigate impacts will be developed through the detailed design stage.



## Timeline



### Phase 2 Tasks (Completed)

- Prepare natural, hydrogeological, social, cultural, archaeological and economic inventory
- Identify potential impacts and how to address them
- Supporting technical analysis and studies
- Identify key factors and considerations
- Determine detailed criteria for overall strategy
- Identify alternative solutions
- Public Information Centre No. 2

### Phase 3 Tasks (Ongoing)

- Validate preferred solution
- Identify design concept alternatives
- Prepare detailed inventory
- Identify impacts and how to address them
- Select preliminary preferred conceptual design and technologies
- Public Information Centre No. 4 (March 15, 2023)
- Two-week Question Submission Period (March 16 to 30, 2023)
- Response to Questions (**April 13, 2023**)

### Phase 3 Studies (Ongoing)

- Air, Odour, and Noise Modelling

### Phase 4 Tasks (Future)

- Confirm preferred design concepts and technologies
- Finalize Environmental Study Report
- Notice of study completion
- Finalize conceptual design
- File study report
- Public review period

## Next Steps

- **March 2023**
  - PIC No. 4 (present conceptual design elements for the expansion of the G.E. Booth WRRF)
- **April/May 2023**
  - Validate design concepts and finalize all study reporting for public review
- **June 2023:**
  - Issue Notice of Completion and initiate 30-day public review for the Environmental Study Report
- **Winter 2023:** Post EA - Design and Construction (WRRF)

## We Want to hear from you!

- Visit our website:
- **Provide PIC No. 4 feedback** on the website from March 16<sup>th</sup> to 30<sup>th</sup>, 2023.
- **Sign-up to receive study notifications** on the website, including notice of study completion when the final report is available for public review.

For any Class EA questions, please contact the Project Manager:

Visit the Project  
Website

**Cindy Kambeitz**, PMP, PMI-RMP

10 Peel Centre Drive, Brampton, ON, L6T 4B9 | 905-791-7800 ext. 5040

[GEBoothEA@peelregion.ca](mailto:GEBoothEA@peelregion.ca)

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### Privacy and Accessibility

The Region of Peel is committed to ensuring that persons of all abilities are able to access our programs and services without encountering barriers. Tell us how we are doing on accessibility at the Region of Peel by [providing your feedback on accessible customer service here](#).

Please note that information related to this study will be collected in accordance with the *Freedom of Information and Protection of Privacy Act*. All comments related will become part of the public record and may be included in the study documentation prepared for public review.

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## Appendix T:

# Public and Agency Correspondence and Meetings

T1: City of Mississauga



## Benjamin Peachman - GM BluePlan

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**From:** Benjamin Peachman - GM BluePlan  
**Sent:** Tuesday, June 13, 2023 3:50 PM  
**To:** Evelyn Krolicka  
**Cc:** Laurie Boyce - GM BluePlan; Kambeitz, Cindy  
**Subject:** RE: G.E. Booth WRRF EA - Review of ESR Findings & Conceptual Design (GMBP#719051)

Hi Evelyn,

Just following up on my email below. As noted, we've completed a draft of the ESR which I've provided in the link below, along with the Executive Summary. Feel free to review & provide any comments that the City might have for inclusion in the final ESR and/or can we arrange for a review meeting if preferred.

File Name : [https://sendafile.gmblueplan.ca/public\\_uploads/2023-06-13\\_194644\\_BenjaminPeachman.zip](https://sendafile.gmblueplan.ca/public_uploads/2023-06-13_194644_BenjaminPeachman.zip)

Thanks,

**Benjamin Peachman, P. Eng.**  
Infrastructure Planning

**GM BluePlan Engineering Limited**  
Royal Centre | 3300 Highway No. 7, Suite 402 | Vaughan ON L4K 4M3  
t: 416.703.0667 ext. 7216 | c: 437.328.5016  
[benjamin.peachman@gmblueplan.ca](mailto:benjamin.peachman@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



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**From:** Benjamin Peachman - GM BluePlan  
**Sent:** Tuesday, May 30, 2023 2:56 PM  
**To:** Evelyn Krolicka <Evelyn.Krolicka@mississauga.ca>  
**Cc:** Laurie Boyce - GM BluePlan <Laurie.Boyce@gmblueplan.ca>; Kambeitz, Cindy <cindy.kambeitz@peelregion.ca>  
**Subject:** G.E. Booth WRRF EA - Review of ESR Findings & Conceptual Design (GMBP#719051)

Hi Evelyn,

Hope you are keeping well. As an update on the G.E. Booth WRRF EA, we're nearing completion of the conceptual design of the plant expansion and are finalizing the EA's Environmental Study Report (ESR) in the next 2-3 weeks. We'll be circulating MECP a draft of the ESR to review over the summer and will be filing it in Fall 2023. We were hoping to set up a meeting with City staff to provide an overview of the conceptual design & the findings presented in the ESR, including the natural heritage components of the project, in late June or early July. Let me know if your staff would be interested and general availability around that time period.

Thanks,

**Benjamin Peachman, P. Eng.**  
Infrastructure Planning

**GM BluePlan Engineering Limited**  
Royal Centre | 3300 Highway No. 7, Suite 402 | Vaughan ON L4K 4M3  
t: 416.703.0667 ext. 7216 | c: 437.328.5016  
[benjamin.peachman@gmblueplan.ca](mailto:benjamin.peachman@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)

## Benjamin Peachman - GM BluePlan

---

**From:** Benjamin Peachman - GM BluePlan  
**Sent:** Tuesday, February 28, 2023 11:44 AM  
**To:** Evelyn Krolicka  
**Cc:** Laurie Boyce - GM BluePlan; Kambeitz, Cindy  
**Subject:** RE: Follow up to Phone Call - Region of Peel -Class EAs for the G.E. Booth WWTP and Clarkson WWTPs

Hello Evelyn,

With our team approaching the filing date for the Clarkson WRRF EA, we are now shifting focus to the G.E. Booth WRRF EA. As you are on our notice circulation list, I am assuming you are aware that we are nearing completion of Phase 3 of the EA for the GEB plant and are conducting a PIC for the plant expansion on March 15<sup>th</sup>. We have invited several City staff members to the PIC but would like to inquire as to any information the City might like to see before the PIC. If you do not require any information, we look forward to sharing the information presented at the PIC with the City afterwards. Feel free to reach out with any info requests or questions.

Thanks,

**Benjamin Peachman, P. Eng.**  
Infrastructure Planning

### GM BluePlan Engineering Limited

Royal Centre | 3300 Highway No. 7, Suite 402 | Vaughan ON L4K 4M3  
t: 416.703.0667 ext. 7216 | c: 437.328.5016  
[benjamin.peachman@gmblueplan.ca](mailto:benjamin.peachman@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



---

**From:** Evelyn Krolicka <Evelyn.Krolicka@mississauga.ca>  
**Sent:** Friday, December 16, 2022 3:56 PM  
**To:** Benjamin Peachman - GM BluePlan <Benjamin.Peachman@gmblueplan.ca>  
**Cc:** Laurie Boyce - GM BluePlan <Laurie.Boyce@gmblueplan.ca>; Kambeitz, Cindy <cindy.kambeitz@peelregion.ca>  
**Subject:** RE: Follow up to Phone Call - Region of Peel -Class EAs for the G.E. Booth WWTP and Clarkson WWTPs

Ben,

Follow up to my email earlier this week; I received no comments from any city departments regarding this EA. I will follow up with you on Monday if I get anything otherwise.

Have a great weekend!

Thanks,

**Evelyn Krolicka**  
905-615-3200 ext. 5921  
[evelyn.krolicka@mississauga.ca](mailto:evelyn.krolicka@mississauga.ca)

---

**From:** Evelyn Krolicka

**Sent:** Wednesday, December 14, 2022 4:56 PM

**To:** 'Benjamin Peachman - GM BluePlan' <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>

**Cc:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>

**Subject:** RE: Follow up to Phone Call - Region of Peel -Class EAs for the G.E. Booth WWTP and Clarkson WWTPs

Benjamin,

I have circulated the summary to city staff and provided a deadline of comments for Dec 16<sup>th</sup>. I have currently not received any comments however will ensure I provide any to you before the 19<sup>th</sup>.

Thanks,

**Evelyn Krolicka**

905-615-3200 ext. 5921

[evelyn.krolicka@mississauga.ca](mailto:evelyn.krolicka@mississauga.ca)

---

**From:** Benjamin Peachman - GM BluePlan <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>

**Sent:** Wednesday, December 14, 2022 9:17 AM

**To:** Evelyn Krolicka <[Evelyn.Krolicka@mississauga.ca](mailto:Evelyn.Krolicka@mississauga.ca)>

**Cc:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>

**Subject:** RE: Follow up to Phone Call - Region of Peel -Class EAs for the G.E. Booth WWTP and Clarkson WWTPs

Hi Evelyn,

Just checking in on the status of the City's review of the draft Executive Summary for the Clarkson EA. Have you received any comments from City staff and if so, will they be available by Dec 19<sup>th</sup>?

Thanks,

**Benjamin Peachman, P. Eng.**

Infrastructure Planning

**GM BluePlan Engineering Limited**

Royal Centre | 3300 Highway No. 7, Suite 402 | Vaughan ON L4K 4M3

t: 416.703.0667 ext. 7216 | c: 437.328.5016

[benjamin.peachman@gmblueplan.ca](mailto:benjamin.peachman@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



---

**From:** Benjamin Peachman - GM BluePlan

**Sent:** Thursday, November 17, 2022 12:47 PM

**To:** Evelyn Krolicka <[Evelyn.Krolicka@mississauga.ca](mailto:Evelyn.Krolicka@mississauga.ca)>

**Cc:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>

**Subject:** RE: Follow up to Phone Call - Region of Peel -Class EAs for the G.E. Booth WWTP and Clarkson WWTPs

Hi Evelyn,

Please find attached the draft Executive Summary of the Clarkson WRRF expansion EA's Environmental Study Report (ESR), which provides a comprehensive overview of the EA's findings and the conceptual design of the plant expansion in Figure E-6. If you require any other sections of the ESR or any specific appendices, let me know. We welcome any



comments from City staff but request that they be provided by December 19<sup>th</sup> at the latest so we can make any necessary updates and submit to the MECP as expeditiously as possible in January. We are also open to scheduling a meeting to discuss the EA's findings if that would be helpful.

Thanks,

**Benjamin Peachman, P. Eng.**

Infrastructure Planning

**GM BluePlan Engineering Limited**

Royal Centre | 3300 Highway No. 7, Suite 402 | Vaughan ON L4K 4M3

t: 416.703.0667 ext. 7216 | c: 437.328.5016

[benjamin.peachman@gmblueplan.ca](mailto:benjamin.peachman@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



## Samantha Morrisey - GM BluePlan

---

**From:** Evelyn Krolicka <Evelyn.Krolicka@mississauga.ca>

**Sent:** Wednesday, October 19, 2022 4:11 PM

**To:** Benjamin Peachman - GM BluePlan <Benjamin.Peachman@gmblueplan.ca>

**Cc:** Laurie Boyce - GM BluePlan <Laurie.Boyce@gmblueplan.ca>; Kambeitz, Cindy <cindy.kambeitz@peelregion.ca>

**Subject:** RE: Follow up to Phone Call - Region of Peel -Class EAs for the G.E. Booth WWTP and Clarkson WWTPs

Ben,

Thank you for the email.

If you wish, you could share the conceptual design with us and additional information regarding the ESR to be circulated with city staff for review and comment.

Thanks,

**Evelyn Krolicka**

905-615-3200 ext. 5921

[evelyn.krolicka@mississauga.ca](mailto:evelyn.krolicka@mississauga.ca)

---

**From:** Benjamin Peachman - GM BluePlan <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>

**Sent:** Wednesday, October 19, 2022 2:36 PM

**To:** Evelyn Krolicka <[Evelyn.Krolicka@mississauga.ca](mailto:Evelyn.Krolicka@mississauga.ca)>

**Cc:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>

**Subject:** RE: Follow up to Phone Call - Region of Peel -Class EAs for the G.E. Booth WWTP and Clarkson WWTPs

Hi Evelyn,

Hope you are keeping well. As an update since our last meeting on the Phase 3 recommendations for the Clarkson WWTP expansion, we've completed the conceptual design of the plant expansion and are finalizing the EA's Environmental Study Report (ESR) in the next 2-3 weeks. We've reviewed the ESR findings with the MECP and will be filing by the end of 2022. If the City has any questions regarding the ESR or conceptual design please feel free to reach out to myself or Laurie. We can also make ourselves available for a meeting to discuss if necessary.

Thanks,

**Benjamin Peachman, P. Eng.**

Infrastructure Planning

**GM BluePlan Engineering Limited**

Royal Centre | 3300 Highway No. 7, Suite 402 | Vaughan ON L4K 4M3

t: 416.703.0667 ext. 7216 | c: 437.328.5016

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## Peel Wastewater Treatment Solutions

G.E. Booth Wastewater Treatment Plant (WWTP) Schedule C Class EA

Clarkson Wastewater Treatment Plant (WWTP) Schedule C Class EA

### City of Mississauga Early Consultation Meeting Summary Notes

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**Meeting Date/Time:** November 24, 2020, 10:00 am to 11:00 am

**Location:** Skype Meeting

**Summary Prepared by:** Jasmine Biasi (GM BluePlan); reviewed by Laurie Boyce (GM BluePlan)

**Date of Summary:** November 24, 2020

#### Attendance

**Chair:** Cindy Kambeitz, Region of Peel

**Attendees: City of Mississauga**

Evelyn Krolicka  
Varghese George  
Sheryl Badin  
Jacqueline Elias  
John Dunlop  
Romas Juknevičius  
Bill Moffat  
Nigel Robinson

**Consultant Team**

Laurie Boyce, GM BluePlan  
Jasmine Biasi, GM BluePlan

Agenda Item	Agenda Topic	Discussion
		<ul style="list-style-type: none"> <li>Purpose: The overall purpose this meeting was to consult with and receive early input from key stakeholder, the City of Mississauga on the details the virtual Public Information Centre (PIC) held on October 14. The meeting presentation included an overview of the G.E. Booth and Clarkson WWTP Class EAs - the EA process, background information, and alternative solutions being considered. Details of discussions are presented below, and presentation materials are attached.</li> <li>Actions: GMBP will continue to consult with City of Mississauga at key points during the EA process, and incorporate their input into the assessment and development of preferred alternatives</li> </ul>
1.	Attendee Introductions	
2.	Purpose of Meeting	Presentation Attached.



		Early Consultation opportunity to introduce the City of Mississauga to receive input on the information presented at PIC #1. Meeting to help establish the Project Opportunity Statement for the Class EAs.
3.	Presentation Discussion	<p>City staff supported the overall purpose and objectives of the Class EA. They noted that the following were of particular interest to them in developing recommended solutions and mitigation measures:</p> <ul style="list-style-type: none"> <li>• Protecting Parklands and natural features in and around the sites</li> <li>• Controlling odour and noise; particularly at G.E. Booth WWTP given the new Inspiration Lakeview Community Development</li> <li>• Stormwater management and being consistent with ongoing studies by the City (e.g.,</li> </ul>
4.	Next Steps	To continue to engage with City staff, particularly during the development of expansion design concepts, and measures to mitigate impacts.

---

Notice of any errors or omissions in this document should be communicated by attendees to summary taker within two (2) days of issue of these summary notes.



# Peel Wastewater Treatment Solutions

G.E. Booth WWTP Schedule C Class EA  
Clarkson WWTP Schedule C Class EA

Meeting: City of Mississauga  
Tuesday, November 24, 2020





- **Introductions**
- **Background and Need for the Class EAs**
- **Questions to Address Through the Class EAs**
- **Phase 1: Opportunity Statement**
- **Phase 2: Alternative Solutions**
- **Public and Agency Consultation**
- **Schedule and Next Steps**



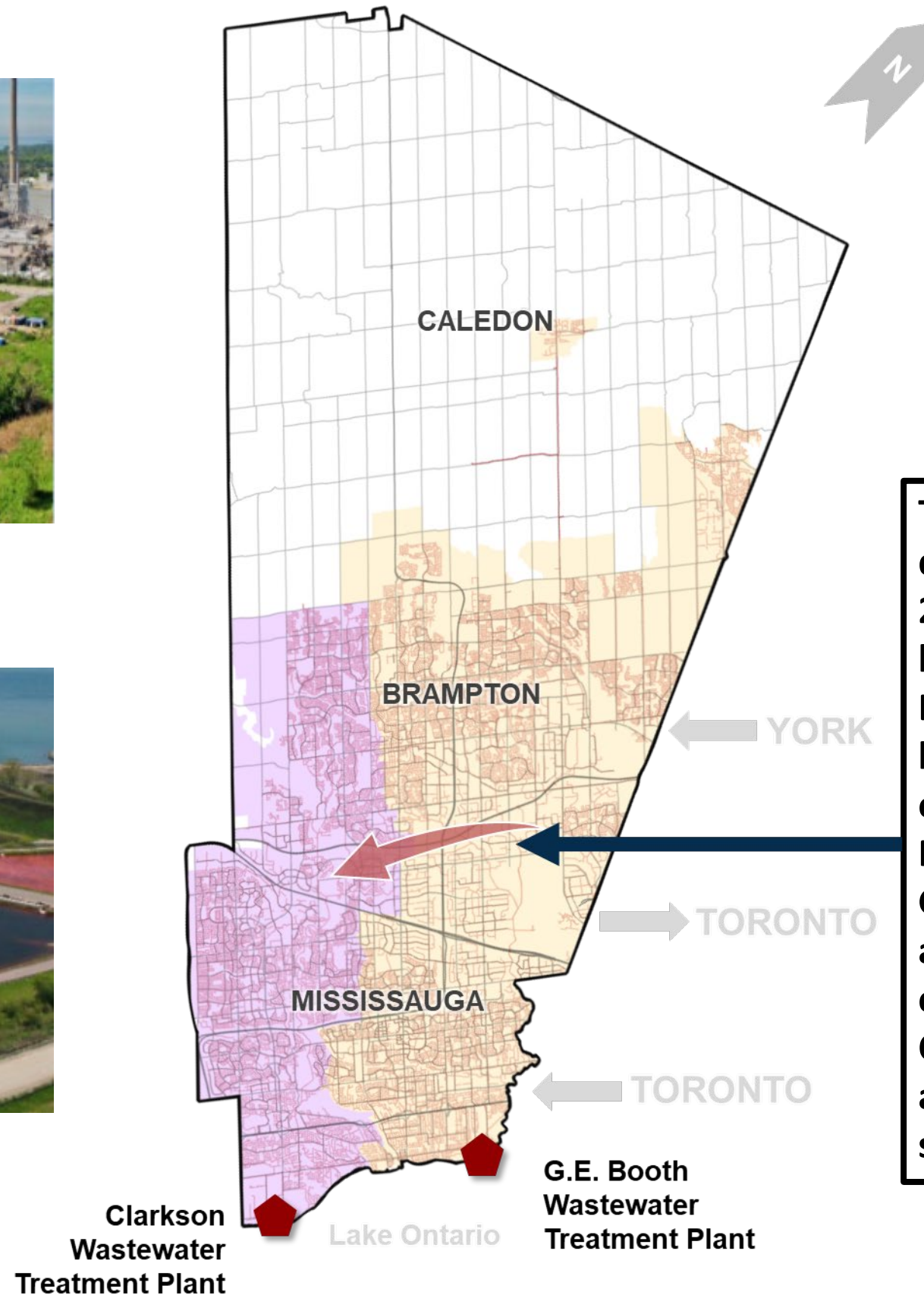
# Peel's Wastewater Treatment System



**Clarkson Wastewater Treatment Plant**



**G.E. Booth Wastewater Treatment Plant**



The East- West Diversion is a deep gravity trunk sewer of 2400 mm diameter currently being constructed along Derry Road. It is expected to be completed and operational by 2026. It allows Peel to divert flows from the G.E. Booth WWTP catchment area where there are capacity limitations, to the Clarkson WWTP catchment area which currently has surplus capacity.



# Location and Surrounding Land Uses



**Clarkson Wastewater Treatment Plant**



**G.E. Booth Wastewater Treatment Plant**



# Existing Wastewater Treatment Processes

## Existing Liquid Treatment

Wastewater from Residential, Commercial, Institutional, and Industrial Users drains through sewers to the Clarkson and G.E. Booth Wastewater Treatment Plants



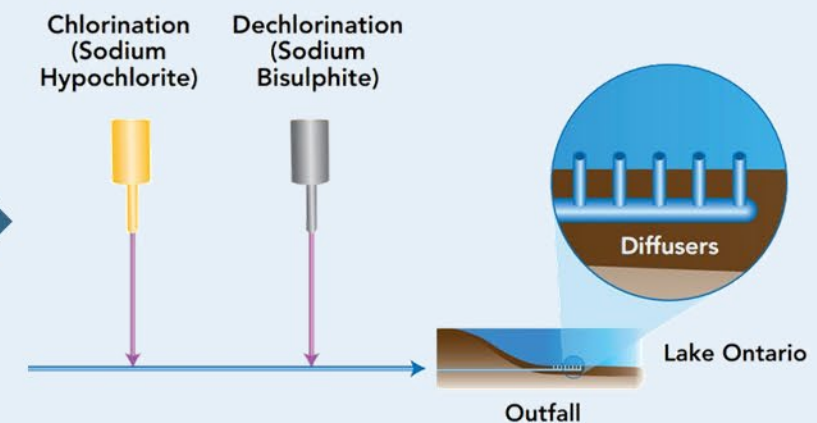
Screens and Grit Removal



Primary Treatment



Secondary Treatment



Disinfection

Outfall



Screens and Grits Materials trucked to landfill



Solids from primary and secondary treatment processes are collected and treated to produce sludge. The treated sludge is referred to as biosolids.



For more information on the wastewater treatment processes in the Region of Peel, please visit the following website:

<https://www.peelregion.ca/wastewater/>



# Existing Biosolids Treatment Processes

## Existing Liquid Treatment

Primary and Secondary Treated Solids



## Existing Biosolids Treatment



Thickening & Dewatering  
(G.E. Booth Wastewater Treatment Plant)



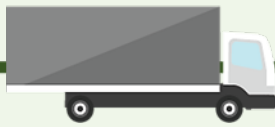
Incineration



Ash Storage



Anaerobic Digestion and Dewatering  
(Clarkson Wastewater Treatment Plant)



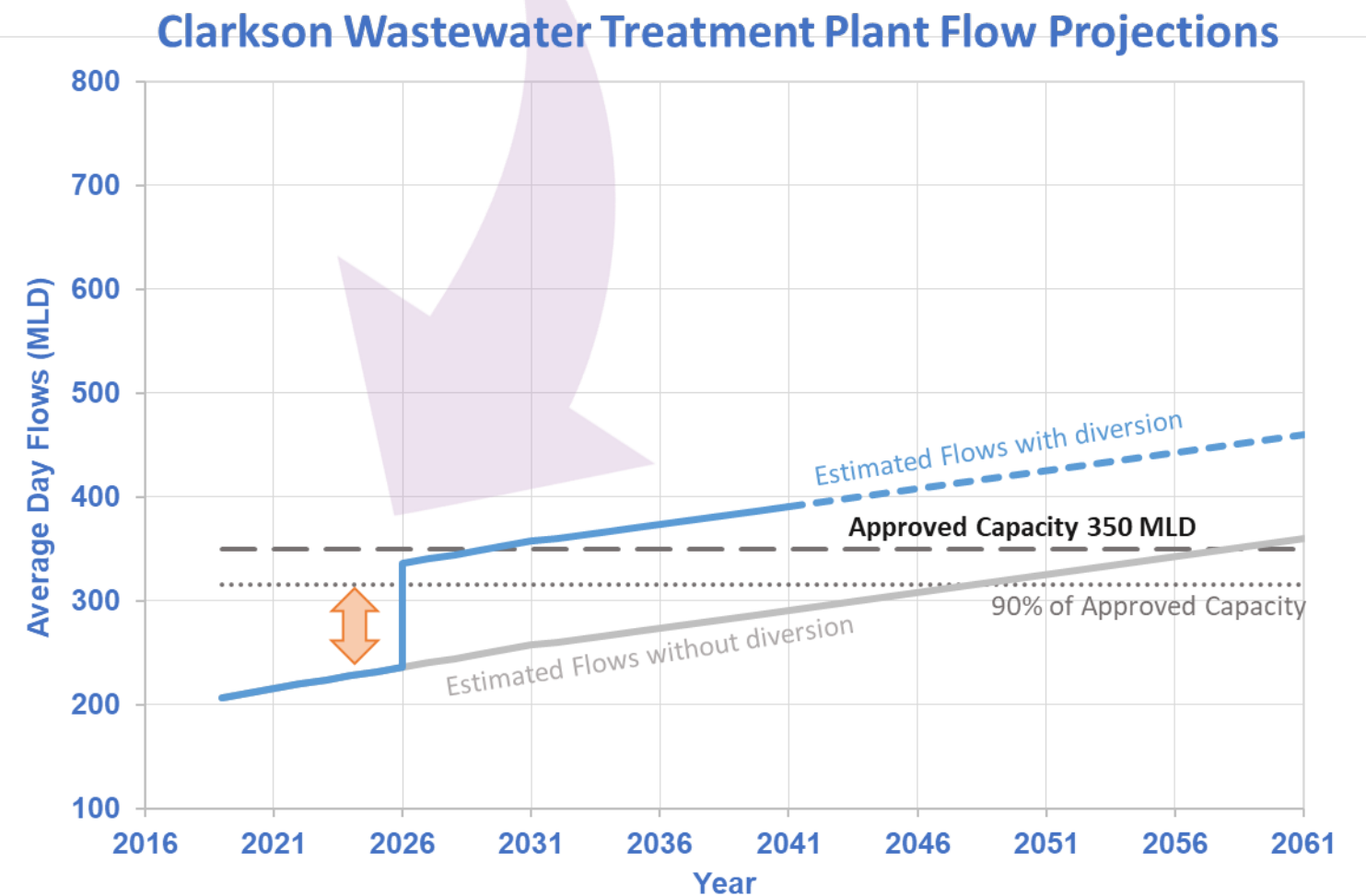
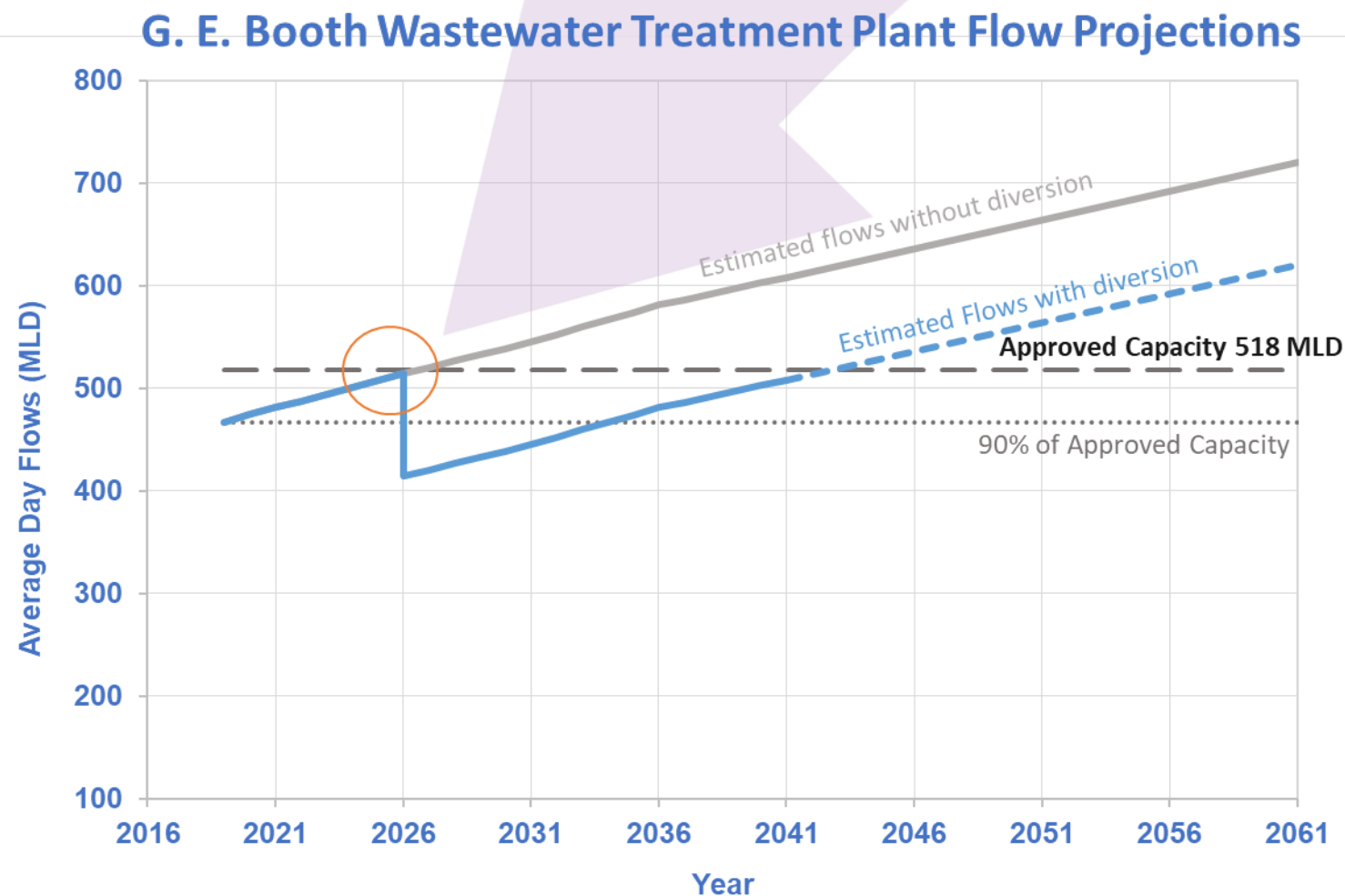
Approximately 3 trucks per day at 40m<sup>3</sup> capacity

For more information on the biosolids treatment processes at both plants, please visit the following website:

<https://www.peelregion.ca/wastewater/>

# Wastewater Treatment Capacities

The G.E. Booth Wastewater Treatment Plant is approaching its capacity limits, while the Clarkson Wastewater Treatment Plant has approximately 80 Million Litres per day (MLD) existing surplus capacity



These EAs will identify the capacity expansion requirements at both Wastewater Treatment Plants to best utilize the existing surplus capacity at Clarkson and manage flow diversion over time.

# Need for the Class EAs

The Region's Growth Management Process and 2020 Water and Wastewater Master Plan identified that there will be significant growth across the Region of Peel.

With this approved growth to year 2041 and vision for growth beyond 2041, additional treatment capacity is required to meet the needs of Peel's citizens and to continue to protect the environment.

The Region of Peel is

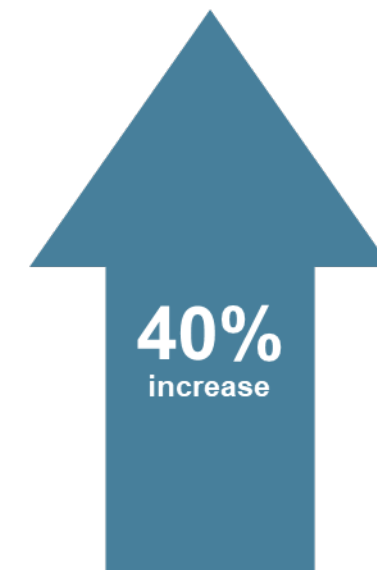
## GROWING!

2016  
**2.12**  
Million

1,428,000 people  
695,000 jobs

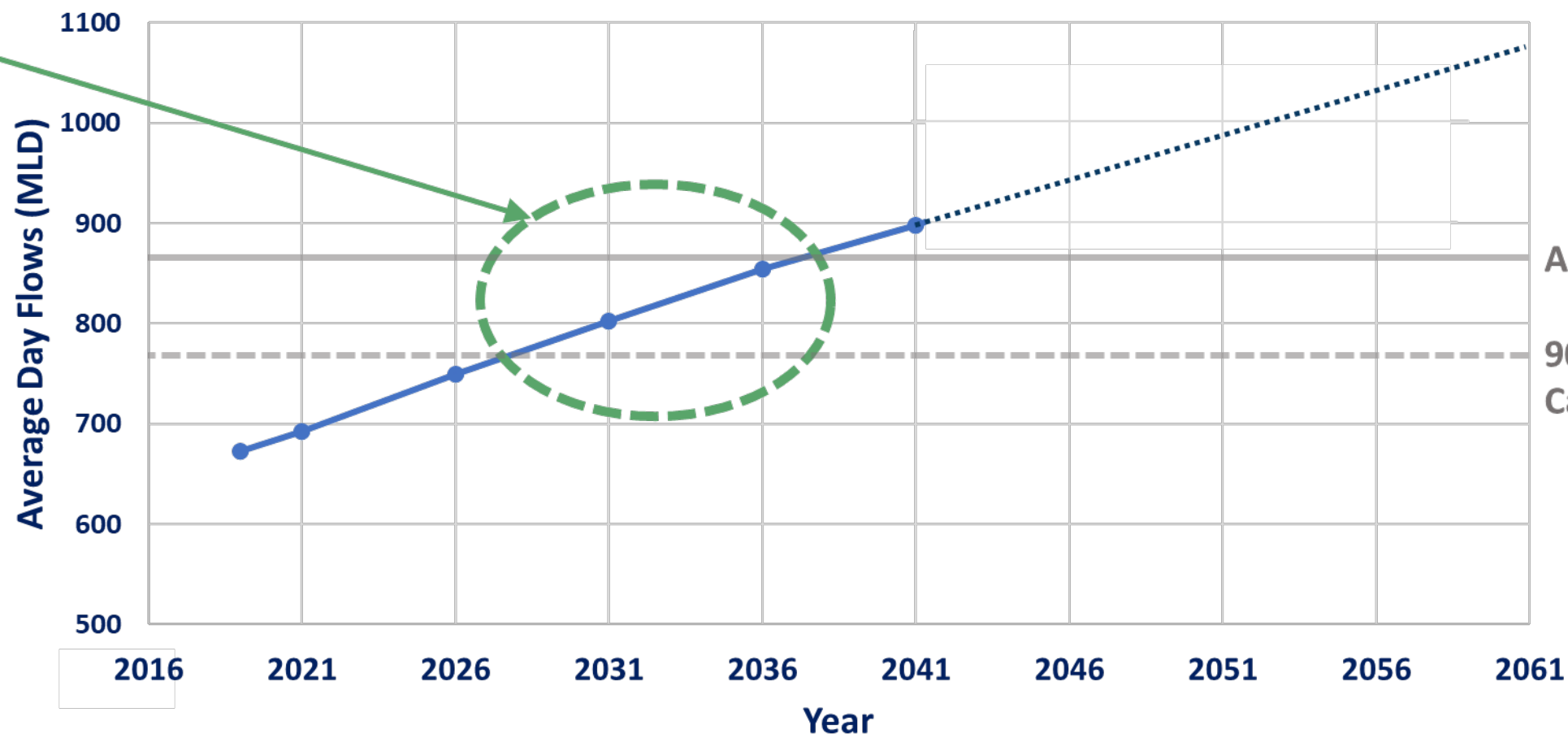
2041  
**2.94**  
Million

1,970,000 people  
970,000 jobs



+ 542,000 people  
+ 275,000 jobs

### Total Peel Wastewater Flow Projections



Additional Treatment Capacity Required

Approved Treatment Capacity

90% of Approved Treatment Capacity



## Phase 1: Problem and Opportunity Statement

- How much additional wastewater flow and solids will be generated from approved population and employment growth?
- What Opportunities should be realized?

## Phase 2: Alternative Solutions

- What is the overall concept for treating wastewater in Peel?
- Should we expand one or both the existing wastewater treatment plants?
- How much should the wastewater treatment plant(s) be expanded by?
- Do we need additional outfall capacity? How much and where?
- How much biosolids capacity is need, and where should we treat our biosolids?

## Phase 3: Alternative Technologies and Site Layouts (Design Concepts)

- What technologies should we use to treatment our wastewater (liquid and solids components)?
- Where should our treated biosolids go and be used?
- How will we provide additional outfall capacity?
- How should the wastewater plant sites be laid out and look?
- How do we mitigate environmental and social impacts?

## The Clarkson WWTP and G.E. Booth WWTP Class EAs will develop a preferred wastewater treatment solution that will:

- Meet future needs associated with population growth, new regulations, climate resiliency, energy efficiency, and management of wet weather flows
- Address community expectations regarding level of service, odour, air/noise, water quality, protection of the environment and aesthetics
- Provide greater flexibility and reliability in wastewater and biosolids management.

## Major Steps

1. Review Long-List of Alternative Treatment Solutions
2. Develop (Combined) Short-List Alternatives
3. Develop the Evaluation Methodology and Criteria
4. Inventory Existing Conditions
5. Evaluate the (Combined) Alternative Solutions
6. Select Recommended Solution



# Long-list of Wastewater Treatment Solutions

## DO NOTHING

Maintain existing programs and infrastructure; no additional works

## LIMIT GROWTH

Limiting growth as to not trigger the need for new infrastructure

## NEW FACILITIES

Construct one or more new wastewater treatment facilities

**These alternatives do not meet project objectives and are not part of the Region of Peel's overall Wastewater Treatment Strategy.**

## FLOW REDUCTION

Reduce flows entering the wastewater collection system through:

- Reduce and control stormwater inflow and groundwater infiltration (I/I) into the sewers
- Water efficiency program

## UPGRADE AND EXPAND WASTEWATER COLLECTION SYSTEM

Upgrade/New Sewers to meet capacity demands and diversions optimize available capacities

## WET WEATHER MANAGEMENT

Manage wet weather flows within the existing wastewater collection system as well as at the treatment plants

## EXPAND ONE OR BOTH OF THE EXISTING WASTEWATER TREATMENT PLANTS

- G.E. Booth Wastewater Treatment Plant
- Clarkson Wastewater Treatment Plant

**These alternatives support project objectives and are part of the Region of Peel's overall Wastewater Treatment Strategy.**





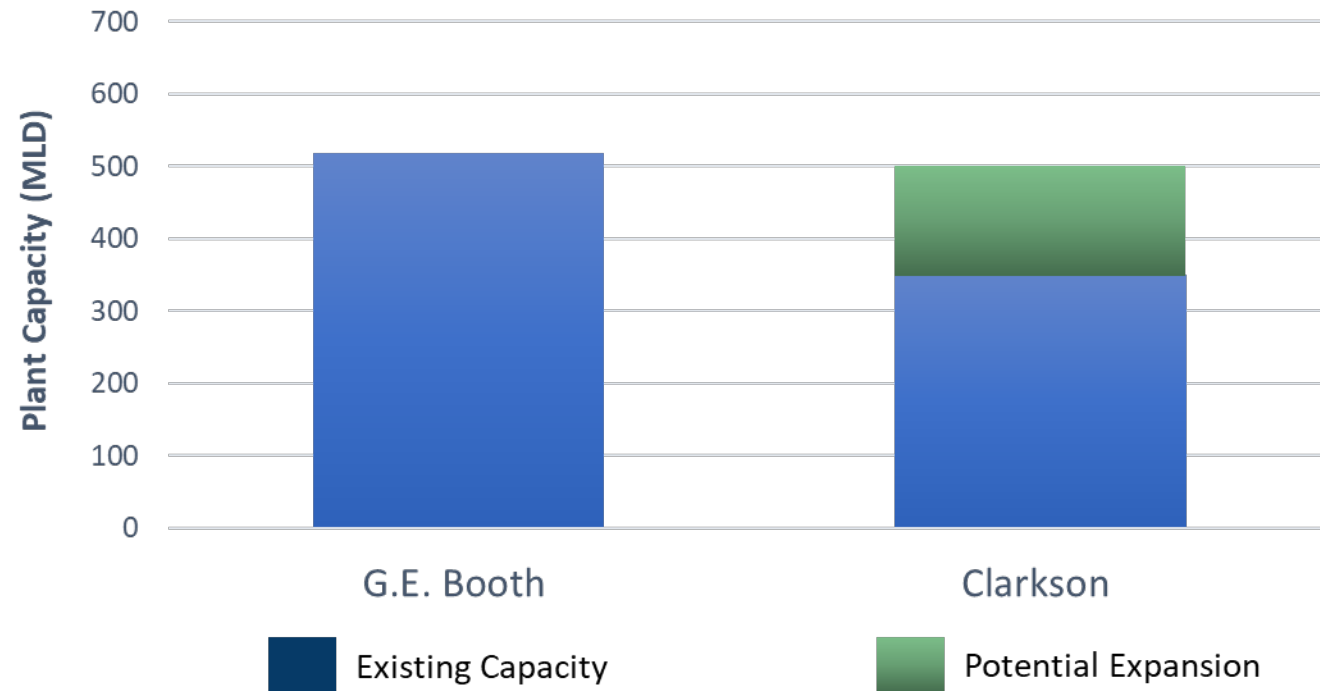
## Developing Alternative Solutions

1. Wastewater Treatment
2. Biosolids Management
3. Outfall Capacity Needs

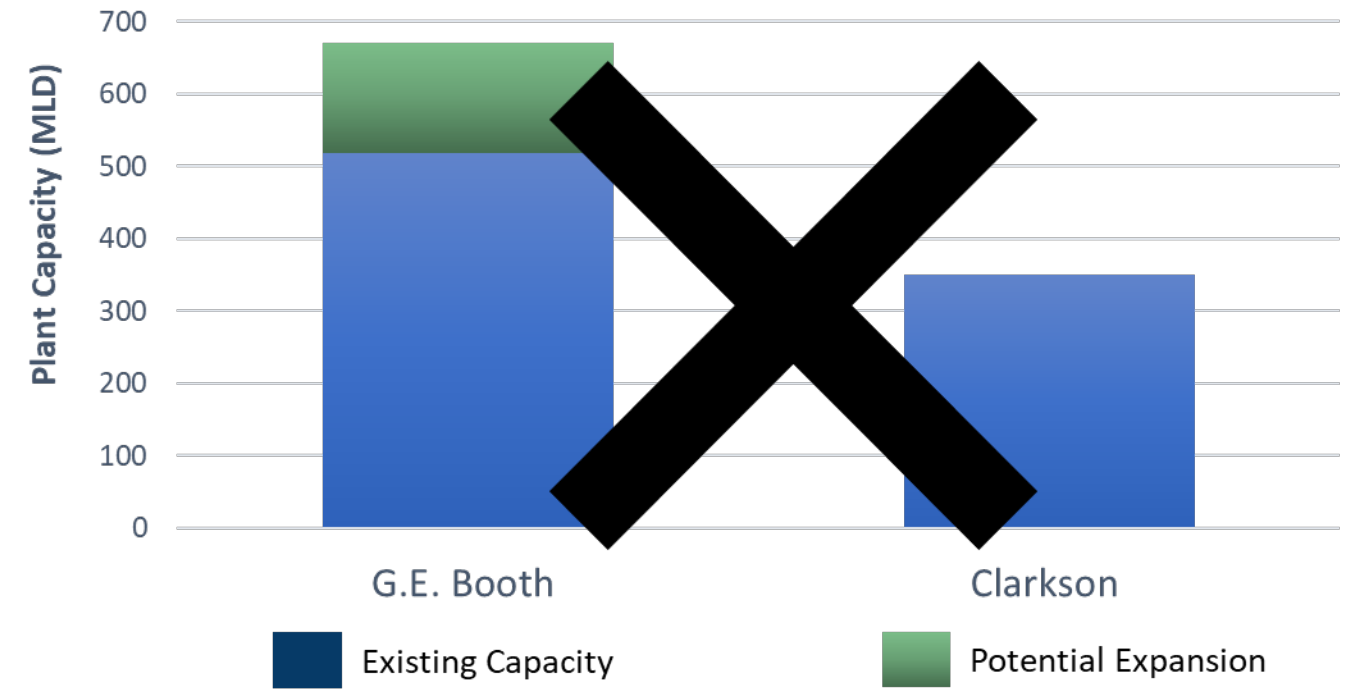


# Wastewater Expansion Strategies

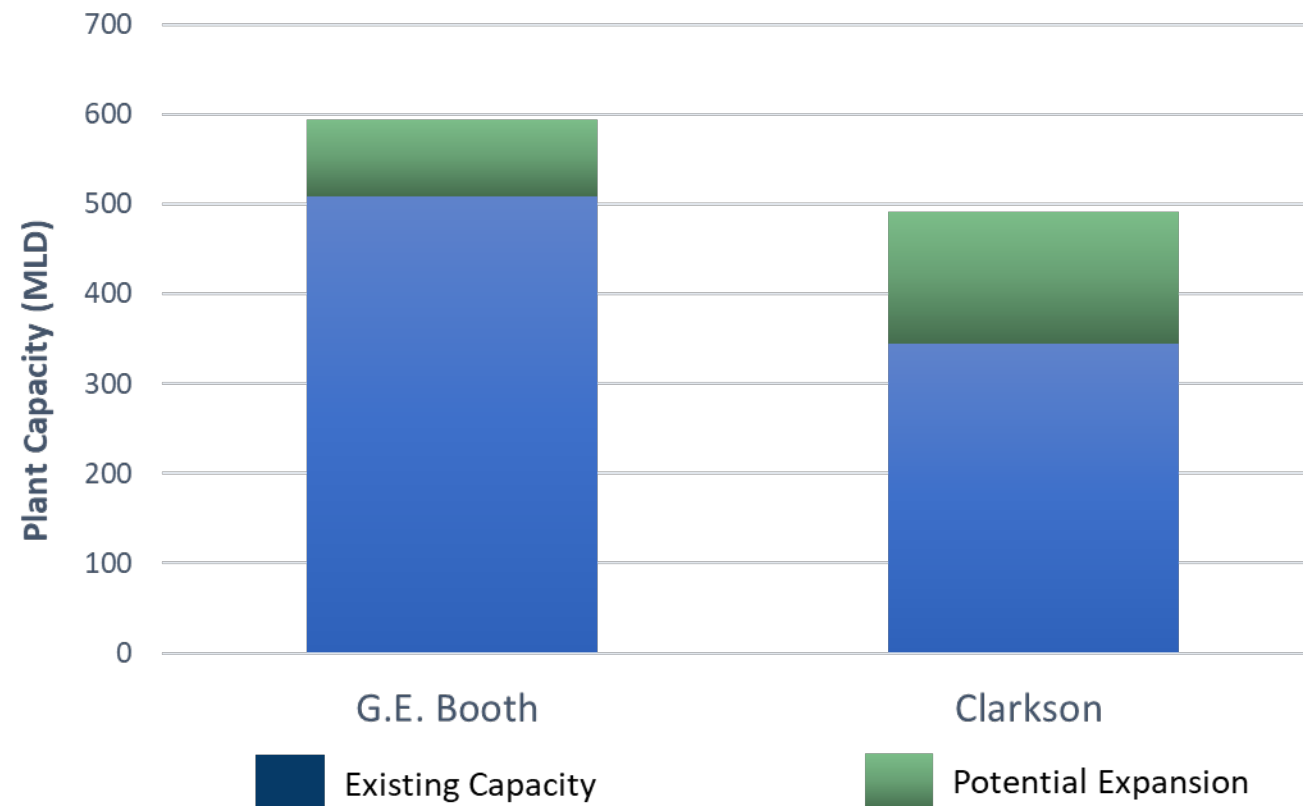
### STRATEGY 1: EXPANSION OF CLARKSON WASTEWATER TREATMENT PLANT ONLY



### STRATEGY 2: EXPANSION OF G.E. BOOTH WASTEWATER TREATMENT PLANT ONLY



### STRATEGY 3: EXPANSION OF BOTH PLANTS





## Strategy 1

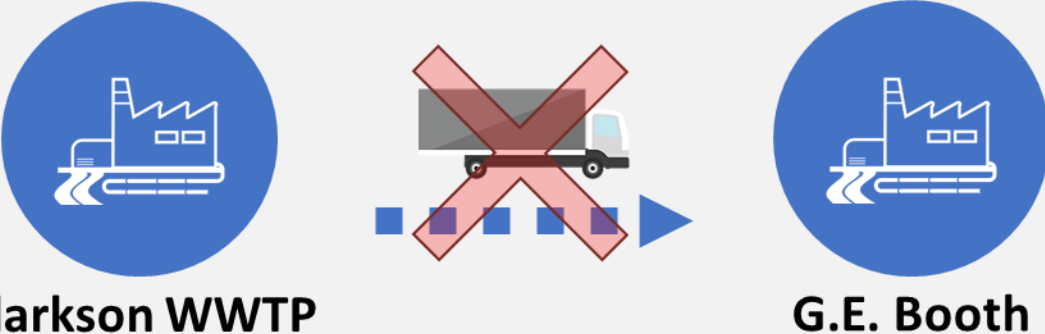
Continue to incinerate all existing and future biosolids at G.E. Booth Wastewater Treatment Plant

Increase in Traffic to approximately 5-6 trucks per day by 2041



## Strategy 2

Treat the existing and future biosolids generated at each plant at their respective Wastewater Treatment Plants.



### Sludge Treatment Options

#### Clarkson WWTP

- Continue with existing sludge treatment method
- Select a different sludge treatment method

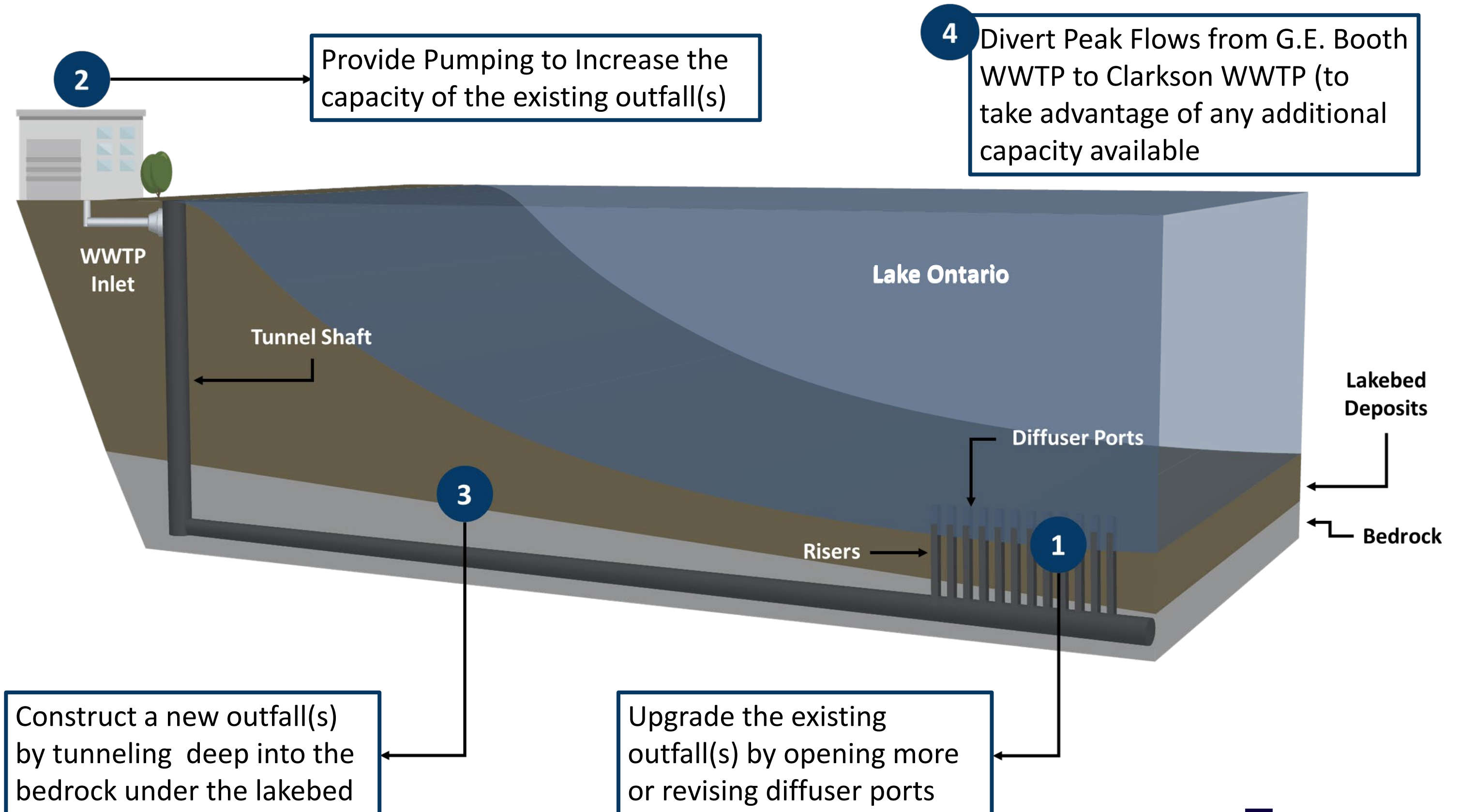
#### G.E. Booth WWTP

- Continue with incineration
- Select a different sludge treatment method

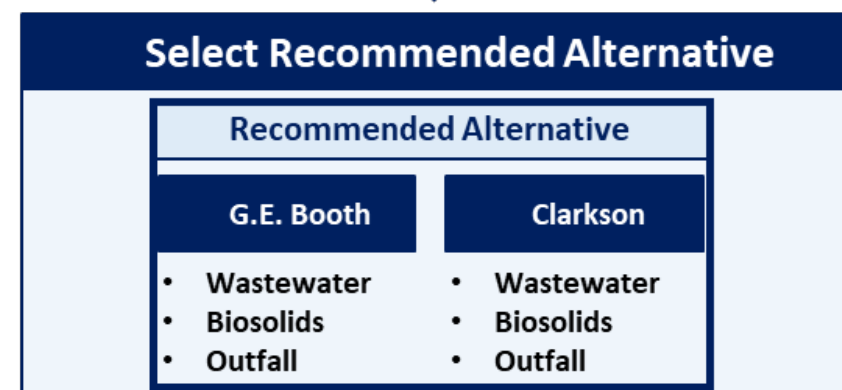
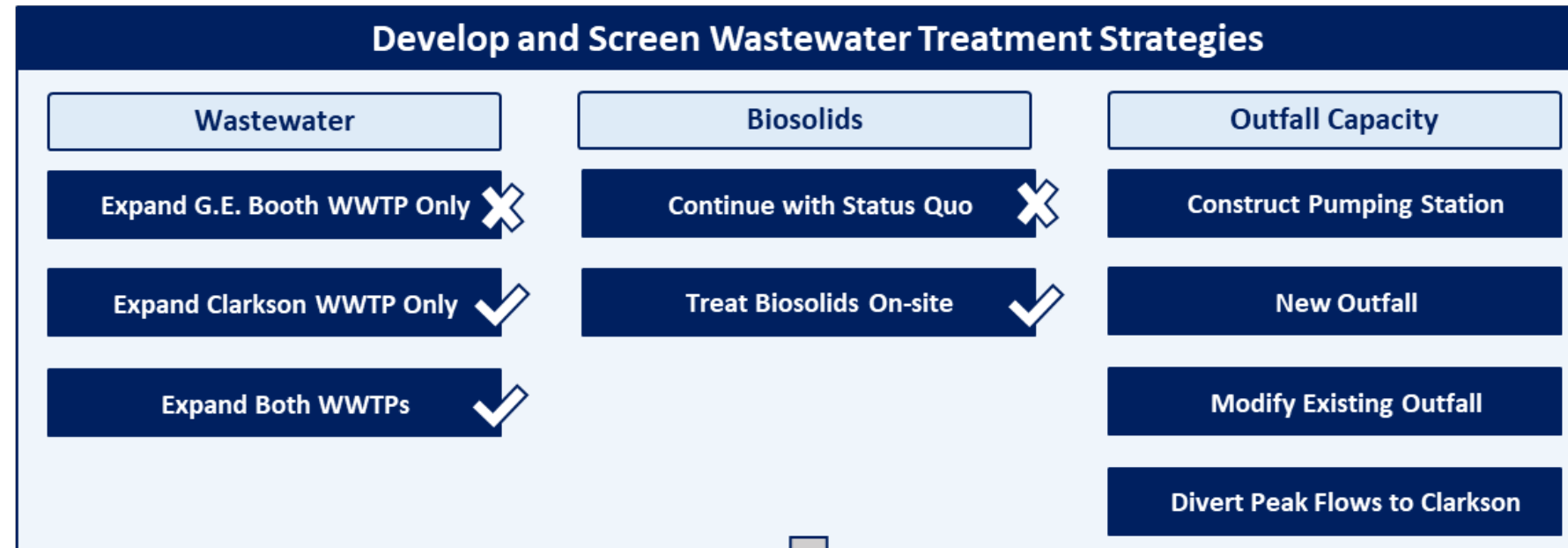
### Biosolids End-Use Options

- Landfill
- Beneficial Land Application (e.g. agricultural, parks, golf courses)
- Residual ash product reuse

# Outfall Capacity Alternatives



# Short-List of Alternative Solutions

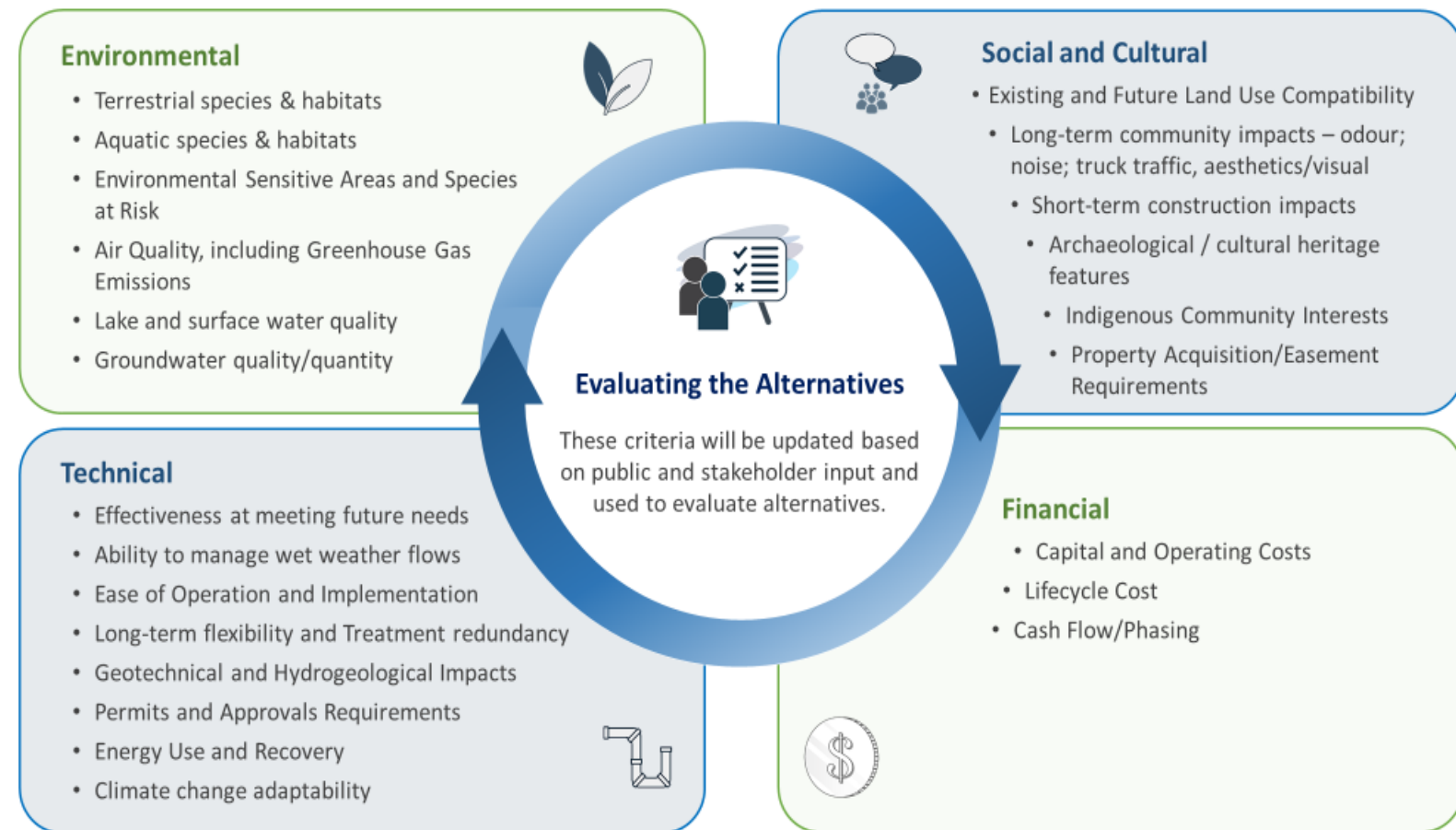


G.E. Booth Phase 3 – Alternative Design Concepts

Clarkson Phase 3 – Alternative Design Concepts



- **Develop Evaluation Criteria**
- **Identify Impacts Scale**
  - 1 to 10 (with 10 being the most favourable)
- **Undertake Sensitivity Analysis with Different Criteria Category Weights**
  - e.g. social/cultural and natural environment criteria category rated higher than Technical and Costs
- **Present to the Public**
  - simplified version of assessment (e.g. symbols)



- **Purpose – To describe the service area and characterize the existing natural, social/cultural and technical conditions at and surrounding the WWTPs to support the assessment of alternative solutions:**
- **Supporting Studies and Key findings**

Supporting Studies	G.E. Booth WWTP Key Findings	Clarkson WWTP Key Findings
Natural Heritage Characterization Reports	Significant natural features and species (woodlots, wetland, wildlife habitat, JTLCA); CVC expressed concerns	Significant natural features and species (woodlots, wetland, wildlife habitat); CVC expressed concerns
Stage 1 Archaeological Assessment (AA)s	Extensively disturbed; Minor Stage 2 AA (northeast corner – non development area); Review by MCFN (then to MHSTCI)	Extensively disturbed; Minor Stage 2 AA (corners of the site); Review by MCFN (then to MHSTCI)
Archaeological Marine Assessment	No marine archaeological resources identified Review by MCFN (then to MHSTCI)	N/A
Phase 1 ESA (Environmentally Sensitive Areas)	Some Areas of Potential Environmental Concern (APEC); Need for Phase 2 ESA will be established in Phase 3 and undertaking during design.	Some Areas of Potential Environmental Concern (APEC); will be taken into consideration at design stage. Need for more boreholes will be established in Phase 3 and undertaken before design
Geological and Hydrogeological Desktop Review	Approx. 50 borehole logs (onshore)- well understood for construction purposes; some boreholes from construction of existing outfall; need for more boreholes will be established in Phase 3 and undertaken during design	Boreholes MTO/MofE near by; MECP Well Records; need for more boreholes will be established in Phase 3 and undertaken during design



# Phase 1: Notice of Commencement

- **Joint Notice of Commencement issued July 16, 2020 via:**
  - Mail – 80 contacts
  - Email – 157 emailed
  - Mail and Email - 30 contacts (Indigenous communities, agencies and conservation authorities received copies via mail and email)
  - Announced on project webpage
  - Posted in Local Mississauga Newspaper

## Public Notice

**Region  
of Peel**  
working with you

### Peel Wastewater Treatment Solutions

#### NOTICES OF STUDY COMMENCEMENT

G.E. Booth Wastewater Treatment Plant Schedule C Class Environmental Assessment  
Clarkson Wastewater Treatment Plant Schedule C Class Environmental Assessment

**Background**  
The Region of Peel has initiated two Schedule C Class Environmental Assessments (EAs) for the G.E. Booth Wastewater Treatment Plant (WWTP) and the Clarkson WWTP to identify the preferred solutions for wastewater treatment and biosolids management in the Region. These two (2) Class EA studies are integrated, as the preferred solutions will impact both facilities. The Class EA process will evaluate alternatives to address capacity for future growth across the Region, to establish servicing, treatment and biosolids policy, and incorporate factors such as energy efficiency, climate resiliency, lifecycle planning and operational flexibility.

**The Process**  
The Class EA process for both the G.E. Booth and Clarkson WWTPs includes:

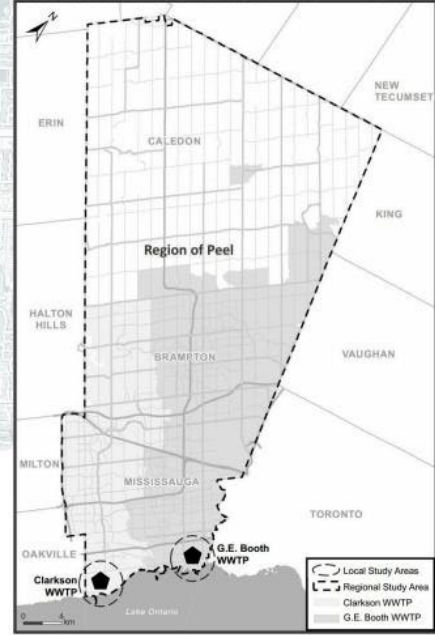
- Public and agency stakeholder consultation.
- Opportunities and constraints review.
- Investigation of alternative long-term servicing and biosolids management strategies, treatment technologies and design concepts.
- Evaluation of the impacts of alternatives.
- Selection and development of preferred alternatives, including the overall wastewater and biosolids management strategy, and design concepts for each WWTP.

**Your Input is Important**  
The Class EAs will take approximately eighteen (18) months to two (2) years to complete. Public Information Events as well as online engagement will be part of the studies to help the public stay informed and provide an opportunity to give the project team feedback for both Class EAs. The first Public Consultation Event is planned for Fall 2020 and will be a joint event to present information on both the G.E. Booth and Clarkson WWTP Class EAs. Once each Class EA is completed, the results will be published in two separate Environmental Study Reports that will be available for public review.

**Contact the Team**  
To be added to the mailing list or to receive further information about these Class EA studies, please contact:

**Cindy Kambeitz**  
Project Manager, Region of Peel  
905-791-7800 ext. 5040  
GEBoothEA@peelregion.ca  
ClarksonEA@peelregion.ca

**Accessibility**  
The Region of Peel is committed to meet the requirements outlined in the *Accessibility for Ontarians with Disabilities Act, 2005 (AODA)*. Please contact the project manager if you require an alternative format of this document and/or if you need support and accommodations to provide feedback for this study.



For more information on these Class EA studies visit the Region's website at: [www.peelregion.ca/GEBooth](http://www.peelregion.ca/GEBooth) and [www.peelregion.ca/Clarkson](http://www.peelregion.ca/Clarkson)

This notice was first issued on July 16, 2020



# Phase 1: Virtual PIC

- **Joint Notice of Virtual PIC issued October 1, 2020**
  - Mail – 88 contacts
  - Email – 167 emailed
  - Mail and Email - 37 contacts (Indigenous communities, agencies and conservation authorities received copies via mail and email)
  - Announced on project webpage
  - Posted in Local Mississauga Newspaper
- **PIC display panels and a video walkthrough of their content was posted on Oct. 14, 2020**
- **A two-week question submission period followed, closing on Oct 28, 2020**
  - Approximately 300 visits to project webpages during 2-week period
  - Approximately 60 PIC presentation viewers
  - 4 responses to comment form
- **A formal response from the project team to all questions and comments will be posted on Nov. 25, 2020.**

## Public Notice

### Peel Wastewater Treatment Solutions

#### NOTICE OF VIRTUAL PUBLIC INFORMATION EVENT NO. 1

G.E. Booth Wastewater Treatment Plant Schedule C Class Environmental Assessment  
Clarkson Wastewater Treatment Plant Schedule C Class Environmental Assessment

#### The Study:

The Region is completing two Schedule C Class Environmental Assessments (EAs) for the G.E. Booth Wastewater Treatment Plant (WWTP) and the Clarkson WWTP to identify preferred solutions for wastewater treatment and biosolids management to meet approved residential and employment growth plans. The Class EA studies will investigate and evaluate alternatives to address capacity for future growth across the Region and incorporate important factors such as energy efficiency and climate resiliency.



#### The Process:

These EA Studies are Schedule 'C' projects in accordance with the "Municipal Class Environmental Assessment" (MEA, October 2000, as amended in 2007, 2011 and 2015), which is an approved process under the Ontario Environmental Assessment Act. The Class EA process includes public and agency consultation, an evaluation of alternatives, an assessment of potential environmental effects of the proposed work and identification of reasonable measures to mitigate any potential adverse impacts.

#### Virtual Public Information Centre

A virtual Public Information Centre (PIC) will be held to provide an overview of the Class EAs, including the EA process, background information, and some alternative solutions being considered. All content and instructions on how to submit questions and feedback will be posted on the project webpages:

[www.peelregion.ca/GEBooth](http://www.peelregion.ca/GEBooth)

[www.peelregion.ca/Clarkson](http://www.peelregion.ca/Clarkson)

PIC display panels and a video walkthrough of their content will be posted on **Oct. 14, 2020 at 5 p.m.** This will be followed by a two-week question submission period closing **Oct. 28, 2020**. A formal response from the project team to all questions and comments will be posted on **Nov. 25, 2020**.

If you would like more information about the studies, we encourage you to use the following resources:

- Information presented at PIC's will be available on the Region's project website indefinitely, [www.peelregion.ca/GEBooth](http://www.peelregion.ca/GEBooth) and [www.peelregion.ca/Clarkson](http://www.peelregion.ca/Clarkson)

- The Region will be hosting two additional public information sessions in 2021 at key study milestones, where representatives will be able to answer future questions and discuss next steps.

#### Contact:

If you wish to submit comments or would like to be added to the project mailing list for future project notifications, please contact:

**Cindy Kambeitz, Project Manager**

905-791-7800, ext. 5040

[GEBooth@peelregion.ca](mailto:GEBooth@peelregion.ca)

[Clarkson@peelregion.ca](mailto:Clarkson@peelregion.ca)

The Region of Peel is committed to ensure that all Regional services, programs and facilities are inclusive and accessible for persons with disabilities. Please contact the Project Manager if you need any disability accommodations to provide comments or feedback for this study.

**This notice was first issued on October 1, 2020.**

With the exception of personal information, all comments will become part of the public record of the study. The study is being conducted according to the requirements of the Municipal Class Environmental Assessment, which is a planning process approved under Ontario's Environmental Assessment Act.

# Phase 1: Virtual PIC Frequently Asked Questions (FAQ)

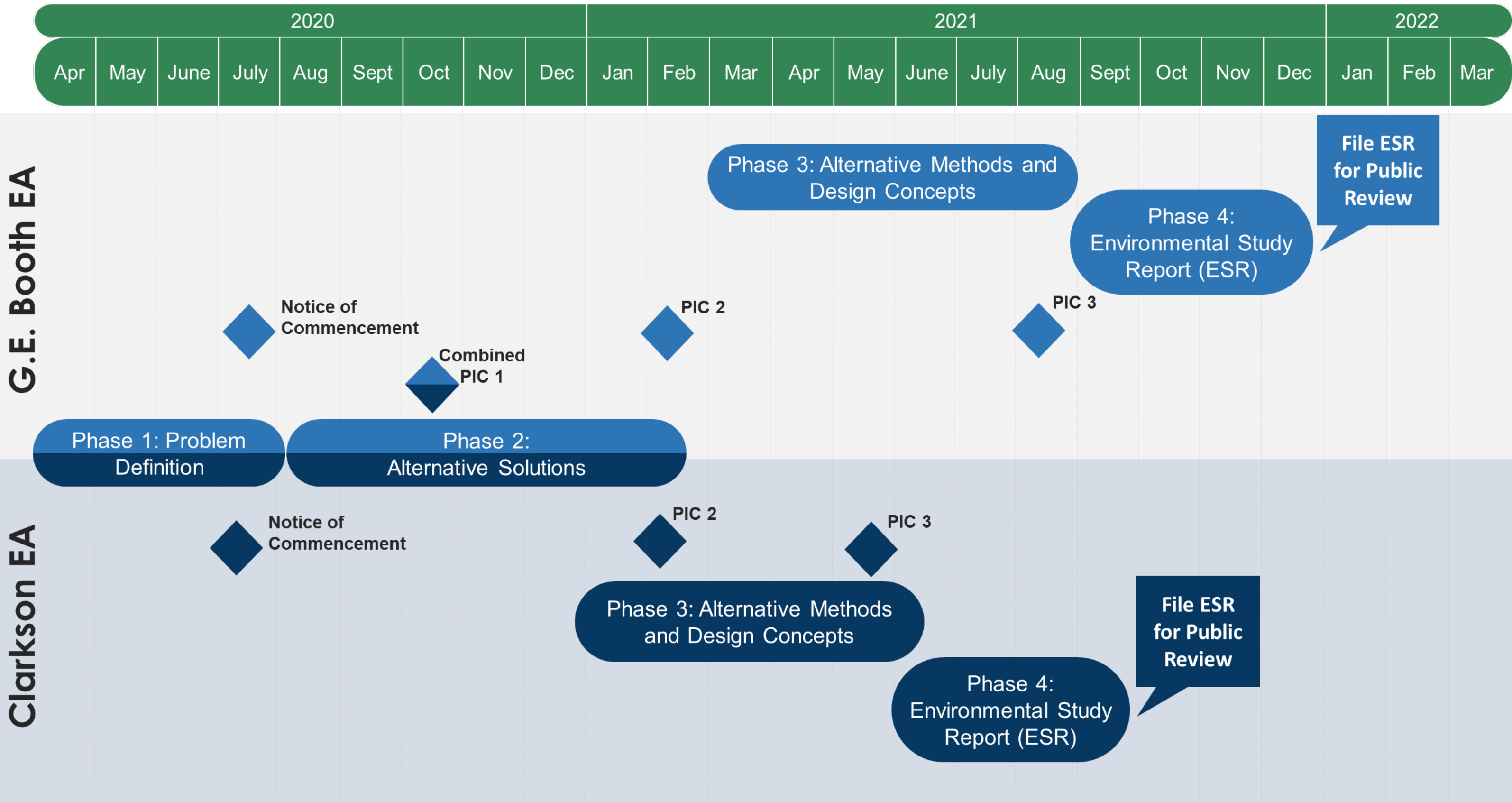
1. Is it feasible to construct a new wastewater treatment plant (or plants) to meet our future wastewater treatment capacity requirement?
2. Will reducing flows to our sewer systems through water efficiency and inflow and infiltration (I/I) control eliminate the need for WWTP expansion?
3. Are our wastewater treatment plants effective against COVID-19 virus?
4. What are the implications of the COVID-19 Pandemic on the Class Environmental Assessments (EAs)?
5. How will odour from the wastewater treatment plants be controlled?
6. Will new technologies for treating wastewater be considered in these Class EAs?
7. How will the water quality of Lake Ontario be protected?
8. Will the incinerators at the G.E. Booth WWTP be expanded? Will alternatives to incinerating our biosolids be considered?
9. What are the potential impacts on surrounding residential communities, specifically around G.E. Booth? What will the Region do to control impacts?
10. How will these projects benefit the environment?

## Send Notice of Commencement to all required agencies, but the key agencies involved are:

- MECP
- CVC
- Mississaugas of the Credit First Nations
- City of Mississauga



# Proposed Schedule for Completion



## Schedule C Class Environmental Assessments and Conceptual Designs of the South Peel Wastewater Treatment Plants

### City of Mississauga Meeting: Phase 3 Recommendations for Clarkson WWTP

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**Meeting Date/Time:** April 13<sup>th</sup>, 2022 1:00 pm to 3:00 pm

**Location:** Teams Meeting

**Notes Prepared by:** Benjamin Peachman (GM BluePlan); reviewed by Laurie Boyce (GM BluePlan)

**Date of Meeting Notes:** April 13<sup>th</sup>, 2022

#### Attendance

**Chair:** Cindy Kambeitz, Region of Peel

#### **Attendees: City of Mississauga**

Evelyn Krolicka  
Varghese George  
Sheryl Badin  
Jacqueline Elias  
John Dunlop  
Romas Juknevicus  
Bill Moffat  
Nigel Robinson  
Brandon Williams  
Scott Sorensen  
Jevito Marchese  
Jim Greenfield  
Michael Hynes

#### **Consultant Team**

Laurie Boyce, GM BluePlan  
Benjamin Peachman, GM BluePlan

#### **Meeting Notes:**

- 1) GMBP presented the attached presentation regarding the Environmental Assessment (EA) Phase 3 recommendations for the expansion of the Clarkson Wastewater Treatment Plant (WWTP).
- 2) Should the City require further information, please contact a member of the Consultant Team or the Meeting Chair.

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Notice of any errors or omissions in this document should be communicated by attendees to the note taker within two (2) weeks of issuance of these notes.



# Peel Wastewater Treatment Solutions Clarkson WWTP Schedule C Class EA

Summary of Phase 3 Class  
EA Results – Recommended  
Conceptual Design,  
Impacts, Mitigation,  
Restoration Measures

City of Mississauga  
Meeting – April 13, 2022







# Introduction



**Purpose** – To provide an overview of the Schedule C Class EA findings for the Clarkson WWTP and receive City input on potential environmental net effects, mitigation, monitoring, and restoration measures.

## Agenda

- Background, Purpose and Objectives of the Class EAs
- Recap EA Phase 2 Class EA Process and Findings (Alternative Solutions on a Regional Basis)
- Phase 3 Clarkson WWTP Process and Findings (Alternative Design Concepts)
  - EA process and recommended design concept
  - Net Effects and Mitigation, Monitoring, and Restoration Measures - Discussion
- Next Steps



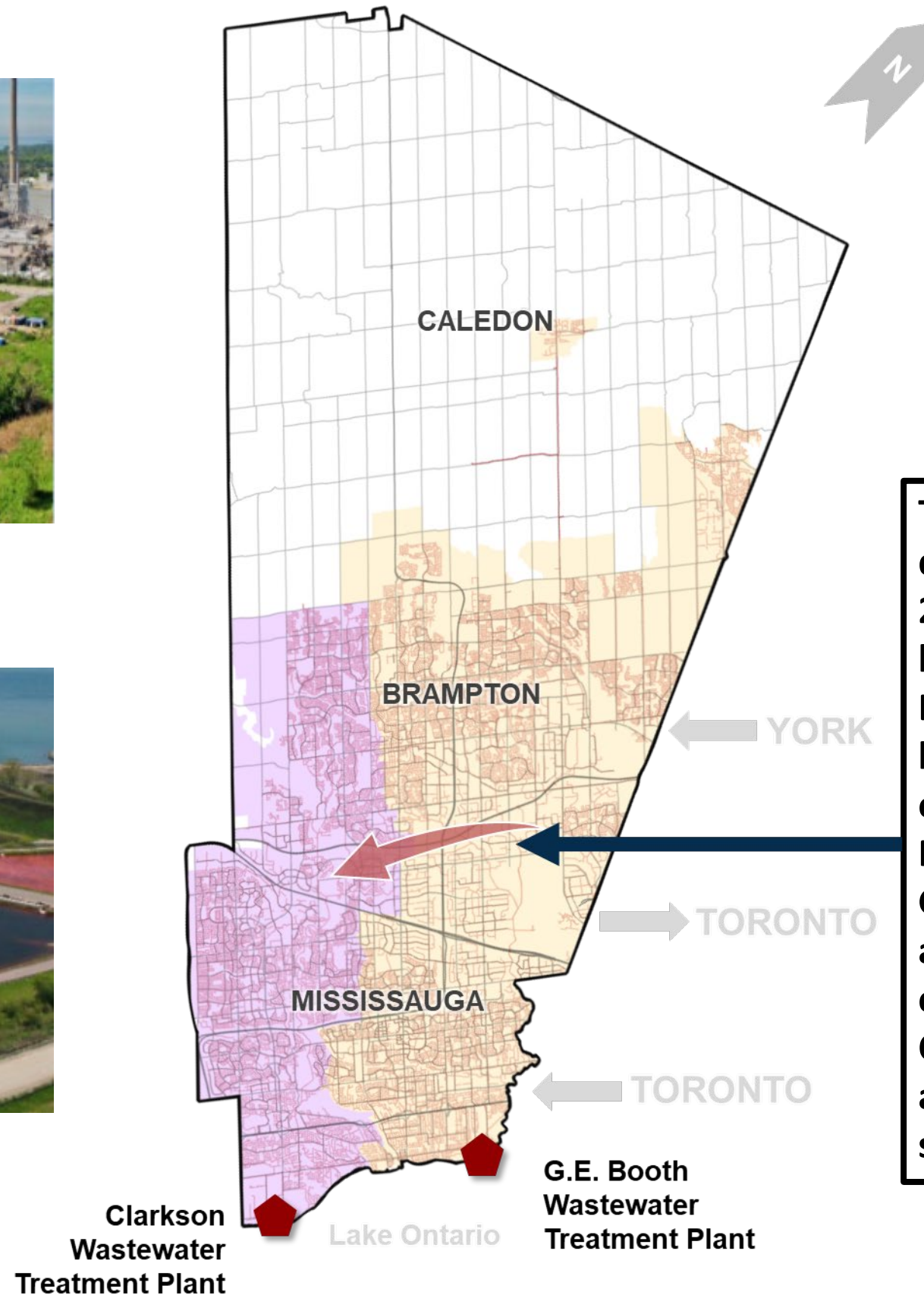
# Peel's Wastewater Treatment System



**Clarkson Wastewater Treatment Plant**



**G.E. Booth Wastewater Treatment Plant**



The East- West Diversion is a deep gravity trunk sewer of 2400 mm diameter currently being constructed along Derry Road. It is expected to be completed and operational by 2026. It allows Peel to divert flows from the G.E. Booth WWTP catchment area where there are capacity limitations, to the Clarkson WWTP catchment area which currently has surplus capacity.



# Need for the Class EAs

The Region's Growth Management Process and 2020 Water and Wastewater Master Plan identified that there will be significant growth across the Region of Peel.

With this approved growth to year 2041 and vision for growth beyond 2041, additional treatment capacity is required to meet the needs of Peel's citizens and to continue to protect the environment.

The Region of Peel is **GROWING!**

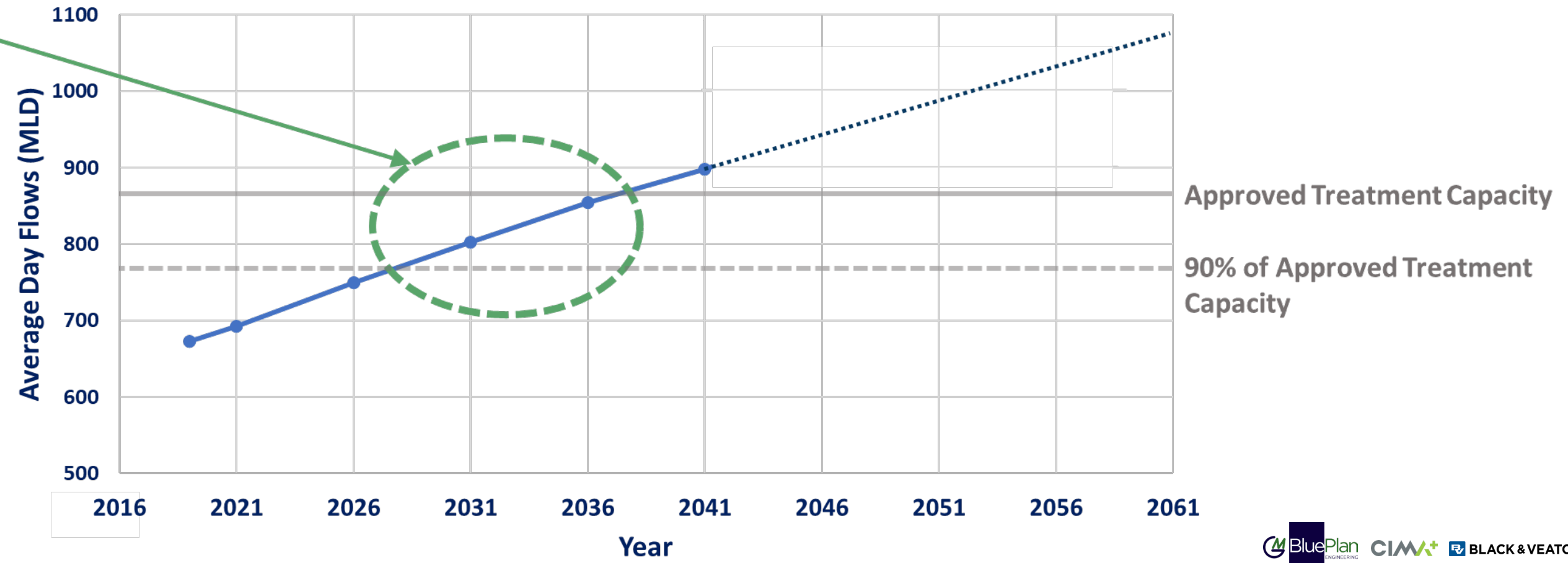
Year	Population	Jobs
2016	1,428,000 people	695,000 jobs
2041	1,970,000 people	970,000 jobs

**40% increase**

+ 542,000 people  
+ 275,000 jobs

### Total Peel Wastewater Flow Projections

Additional Treatment Capacity Required



## Phase 1: Problem and Opportunity Statement

- How much additional wastewater flow and solids will be generated from the approved population and employment growth?
- What Opportunities should be realized?

## Phase 2: Alternative Solutions

- What is the overall concept for treating wastewater in Peel?
- Should we expand one or both of the existing wastewater treatment plants?
- How much should the wastewater treatment plant(s) be expanded by?
- Do we need additional outfall capacity? How much and where?
- How much biosolids capacity is need, and where should we treat our biosolids?

**PIC #1 - October 2020**



**PIC #2 - April 2021**



← **Phases 1 and 2 Completed for G.E. Booth and Clarkson Class EAs** →

## The Clarkson WWTP and G.E. Booth WWTP Class EAs will develop a preferred wastewater treatment solution that will:

- Meet future needs associated with population growth, new regulations, climate resiliency, energy efficiency, and management of wet weather flows
- Address community expectations regarding level of service, odour, air/noise, water quality, protection of the environment and aesthetics
- Provide greater flexibility and reliability in wastewater and biosolids management.



# Goals & Objectives of the Class EAs

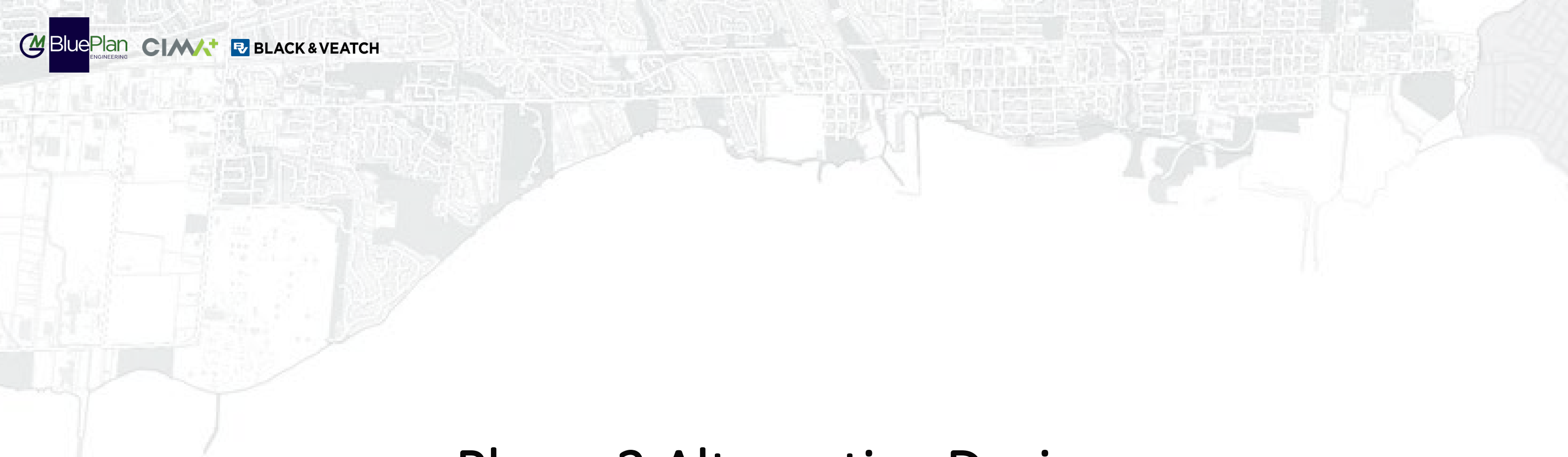
	<p><b>Biosolids Management</b></p>	<ul style="list-style-type: none"> <li>• Region Wide Biosolids Management with Operational Flexibility</li> <li>• Diversified Outlets with Reliable Biosolids Treatment and End Uses at Each Facility</li> <li>• Advanced Technologies with Energy and Resource Recovery</li> <li>• Community Compatible and Acceptable</li> </ul>
	<p><b>Energy Efficiency</b></p>	<ul style="list-style-type: none"> <li>• Reduce GHG emissions</li> <li>• Energy Reduction and Reuse</li> </ul>
	<p><b>Wet Weather Management</b></p>	<ul style="list-style-type: none"> <li>• Real Time Control</li> <li>• Diverting Flow</li> </ul>
	<p><b>Receiving Water Quality</b></p>	<ul style="list-style-type: none"> <li>• Assimilative Capacity studies</li> <li>• Define Effluent Quality Limits</li> <li>• Protecting IPZs and shoreline users/uses</li> </ul>
	<p><b>Odour and Air Quality</b></p>	<ul style="list-style-type: none"> <li>• Multi-barrier approaches</li> </ul>
	<p><b>Visual Aesthetics</b></p>	<ul style="list-style-type: none"> <li>• Landscaping</li> <li>• Best use of sites</li> <li>• Eliminate ash lagoons</li> </ul>
	<p><b>Compatibility with Ongoing Initiatives</b></p>	<ul style="list-style-type: none"> <li>• Real Time Control</li> <li>• Existing Plant Upgrades</li> <li>• Energy Efficiency Initiatives</li> </ul>
	<p><b>Treatment Redundancy</b></p>	<ul style="list-style-type: none"> <li>• Firm Capacity with one train out of service</li> </ul>

## Recommend Strategy to Meet Future Wastewater Treatment Needs

- Divert flows through the East-West Diversion Trunk Sewer
- Manage Peak Wet Weather Flows (in G.E. Booth system)
- **Expand the Clarkson WWTP from 350 MLD to 500 MLD**
- Expand the G.E. Booth WWTP from 518 MLD to 550 MLD
- New Outfall at the G.E. Booth WWTP

## Recommended Strategy to Management Biosolids

- No longer truck digested sludge from Clarkson WWTP to the G.E. Booth WWTP for incineration.
- **Provide biosolids treatment at the Clarkson WWTP and market product for beneficial land use.**
- The strategy also includes additional treatment of biosolids at G.E. Booth WWTP to continue to use the incineration at the G.E. Booth WWTP up to the end of their useful life (given the incinerators' effective performance and remaining service life, and the investment Peel has made in the technology)



# Phase 2 Alternative Design Concepts Clarkson WWTP





## Phase 3: Alternative Technologies and Design Concepts

- What technologies should we use to treatment our wastewater (liquid and solids components)?
- Where should our treated biosolids go and be used?
- How should the wastewater plant sites be laid out and look?
- How do we mitigate environmental and social impacts?

## Phase 4: Environmental Study Reports (ESRs)

## Conceptual Designs

Clarkson WWTP



VE Study/Workshop  
–January 2022



PIC #3 –May 11,  
2022



ESR and  
Conceptual Design  
(Summer 2022)



# Clarkson WWTP

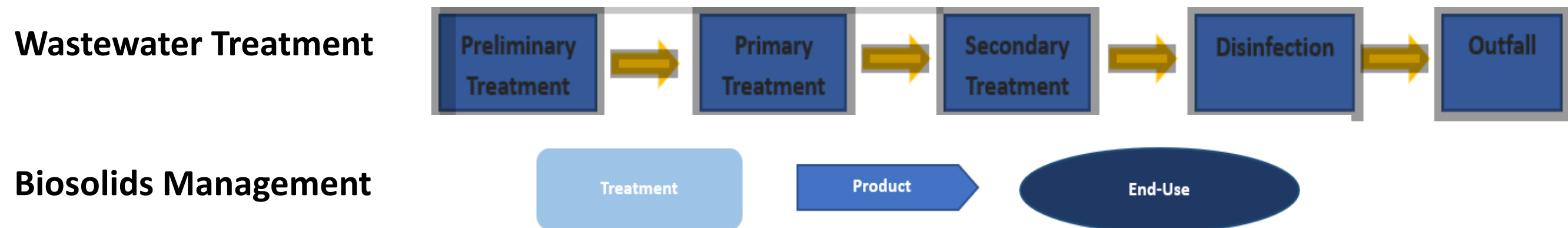




## 1. Screening of Wastewater Technologies and Biosolids Markets & Technologies

- Maturity of Technology
- Proven Application at Large WWTP
- Compatibility with existing processes and end use markets
- Compatible with Region's Energy Management and GHG Reduction Goals
- Able to be Implemented within Required schedule (year 2029)

## 2. Developed Alternative Design Concepts based on the short-listed technologies

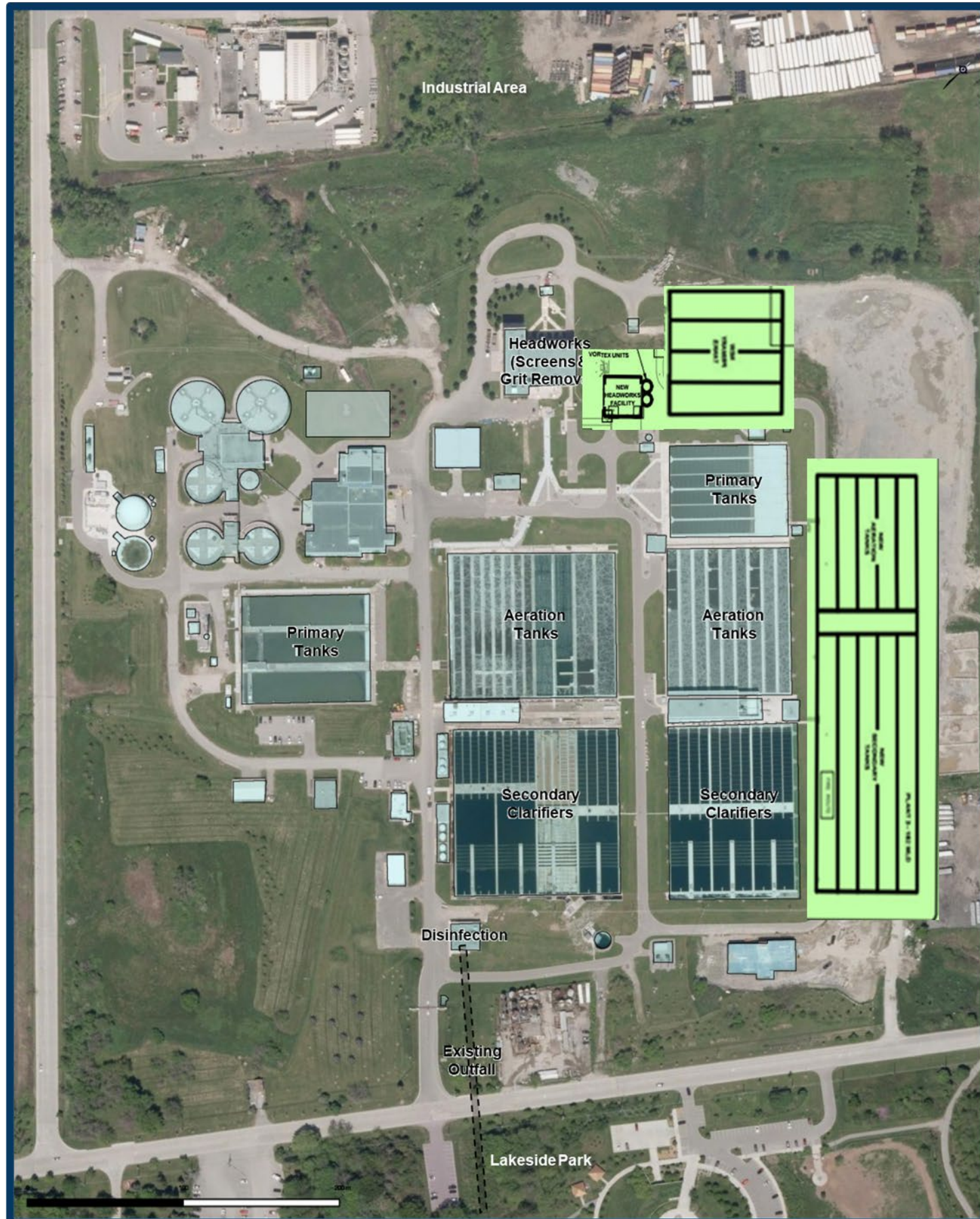


## 3. Detailed Evaluation (Impact Ratings and Total Scores)

- Natural Environment
- Social/Cultural
- Technical Considerations
- Economic Factors



# Clarkson WWTP – Preferred Design Concept (Wastewater Treatment)



## Wastewater Treatment

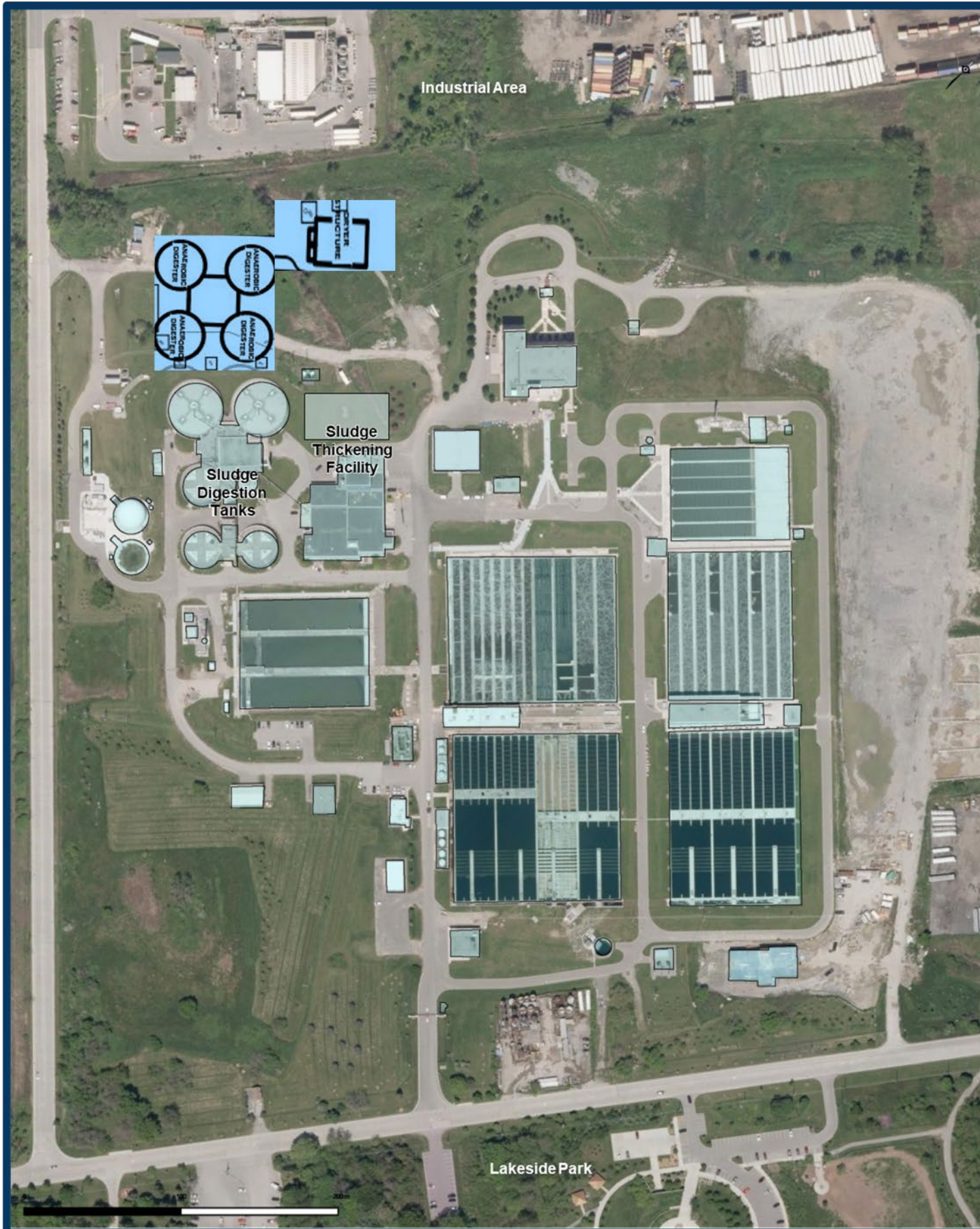
- Conventional Activated Sludge (CAS)
- CAS with Enhanced Primary Treatment (CEPT)
- **Enhanced Biological Nutrient Removal (BNR)**
  - ✓ Aligns best with the Region's goals for energy efficiency and GHG emission mitigation
  - ✓ Less chemical use
  - ✓ Lower O&M

## Disinfection Alternatives

- UV Disinfection
- **Chlorination and Dechlorination**
  - ✓ No expansion needed, integrated into the existing outfall system



# Clarkson WWTP – Preferred Design Concept (Biosolids Management)



## Biosolids Treatment

- Digestion + Dewatering
- Thermal Hydrolysis Process (THP), Digestion, Dewatering
- **Digestion, Dewatering, Thermal Drying**
  - ✓ Aligns best with the Region's goals to diversify biosolids markets and ensure long term sustainability
  - ✓ Allows Region to defer capital costs associated with Thermal Drying facility

## Biosolids Product Markets

- Digestion, Dewatering, Thermal Drying allows the Region to beneficially utilize biosolid products:
  - ✓ Digested + dewatered biosolids product to agricultural lands
  - ✓ Digested, Dewatered, Thermally Dried Product marketed as fertilizer
  - ✓ Above products can be further treated (alkaline stabilization) for use as fertilizer



## • Targeted Fieldwork (2020)

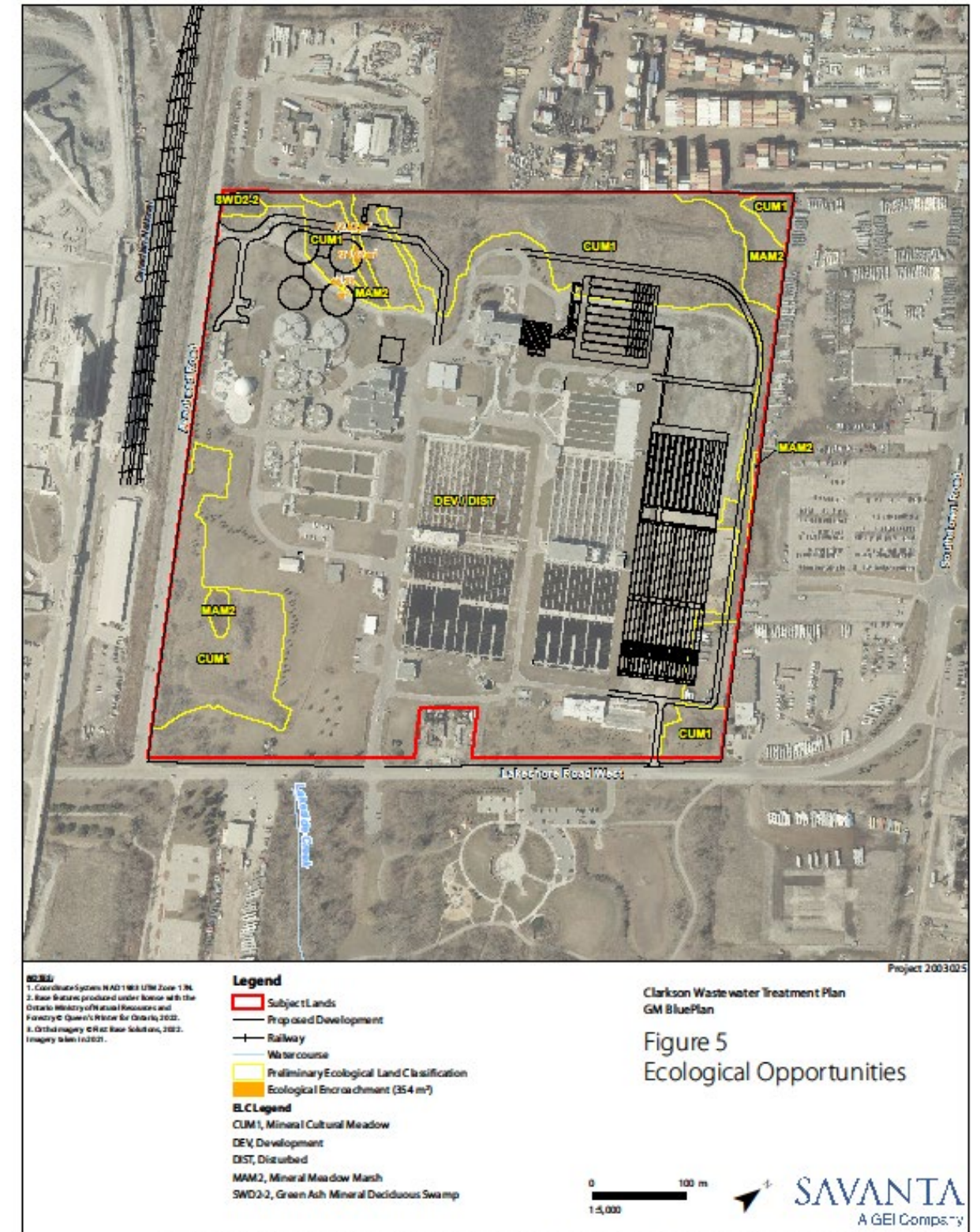
- Summer and Fall Botanical and Ecological Land Classification
- Two rounds of Breeding Bird Surveys

## • Key Findings

- Three SAR (Peregrine Falcon, Bank Swallow and Barn Swallow) recorded but determined no suitable habitat on site and/or no breeding evidence recorded
- One candidate SAR (Little Brown Myotis within SWD)
- Two wetland community types (MAM2, SWD)
- Candidate SWH (Bat Maternity Roosting within SWD)

## • Net Effects

- Removal of one wetland community (MAM2; 354 m<sup>2</sup>)
- Replication of wetland at 1:1 ratio (on site)





- **Retained Natural Features (SWD, MAM)**

- Site plan generally follows existing development footprint (e.g., maintaining site entrance) to reduce disturbance
- Planting vegetative buffers surrounding retained features
- Installation and maintenance of erosion and sediment controls surrounding retained features
- Creation of spill prevention and action plan

- **Natural Features Proposed for Removal and Replication (MAM)**

- Phasing plan to create compensation wetland ahead of removal of existing wetland
- Wildlife salvage prior to removal of wetland
- Creation of biodiverse wetland community at 1:1 replication ratio (354 m<sup>2</sup>) in south-west corner

- **Isolated Tree Removals**

- Removals of trees outside of active wildlife windows
  - Migratory Bird Window – early April to end of August
  - Bat Maternity Roosting Window – April 1 to September 30

- **CVC General Agreement**

- Continue to work with them during conceptual design

- **Air/Odour/Noise Modelling**

- Establish levels and mitigation measures
- Multi-barrier approach to odour control
- Noise and air emissions to meet MECP requirements based on modelling

- **Stage 2 Archaeological Assessment**

- Northwest corner
- Indigenous involvement

- **Receiving Water Assessment (Assimilative Capacity Study)**

- Total Phosphorus Concentrations in the effluent to be reduced.
- No impacts to sensitive shoreline users or Intake Protection Zones (IPZ)

- **Site Restoration**

- Stormwater Management Plans (CVC)
- Landscaping (with expansion facilities not adjacent to Lakeshore)



# Clarkson WWTP: Current Site Layout



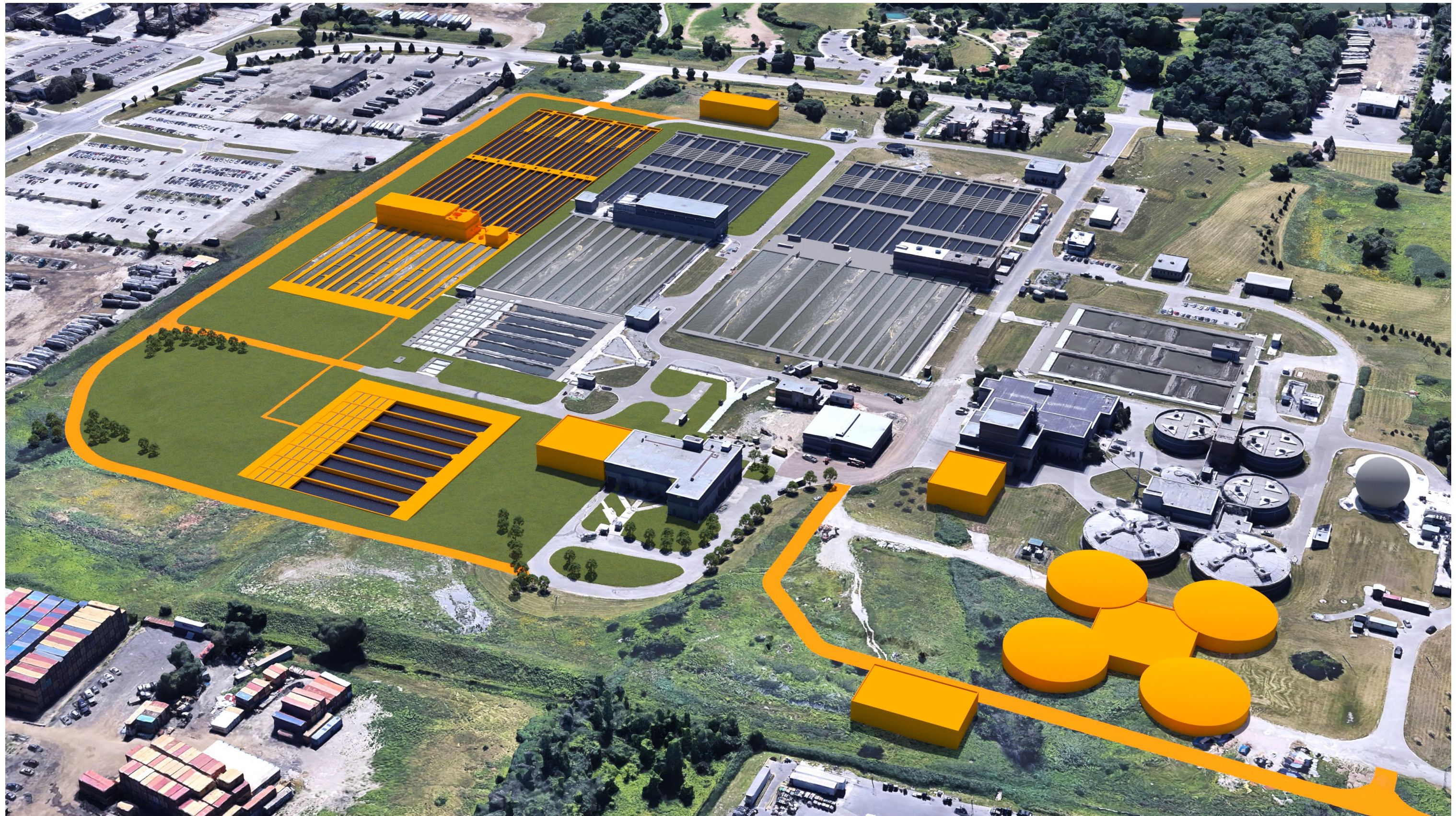


# Future Site Layout: 2041



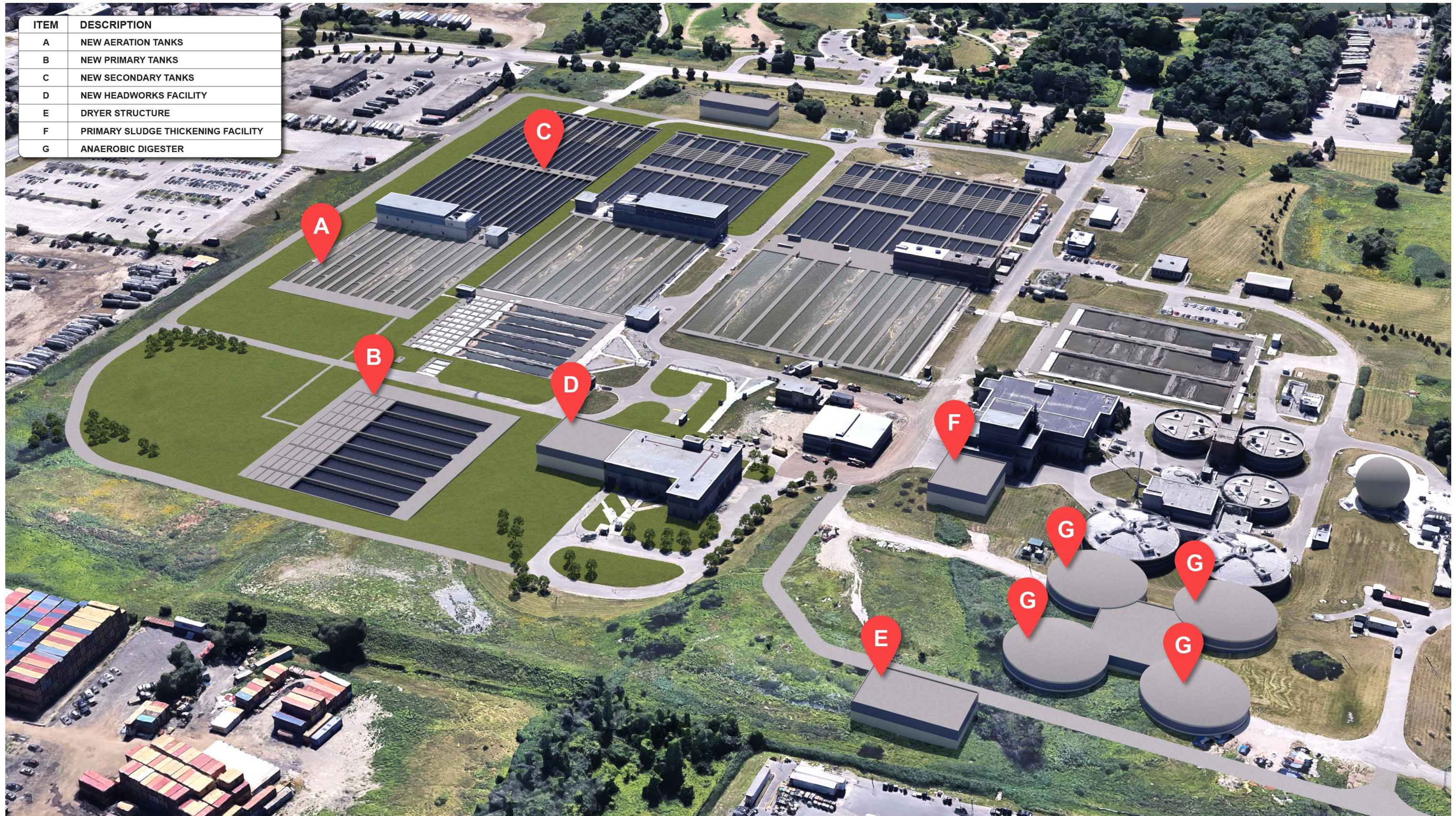


# Clarkson WWTP: Overall Design Concept





# Clarkson WWTP: Overall Design Concept





## Clarkson WWTP

- Virtual PIC (May 11<sup>th</sup>, 2022)
- Ongoing additional studies: (1) Odour & noise modelling, (2) Archaeological Assessment - Stage 2
- ESR/Conceptual Design (Summer 2022)

## Booth WWTP

- VE Workshops (May 16 – 19<sup>th</sup>, 2022)
- PIC (September 2022)
- ESR and Conceptual Design (Q4 2022)



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**From:** Benjamin Peachman - GM BluePlan  
**Sent:** Wednesday, April 13, 2022 2:58 PM  
**To:** Evelyn Krolicka <[Evelyn.Krolicka@mississauga.ca](mailto:Evelyn.Krolicka@mississauga.ca)>  
**Cc:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; [cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)  
**Subject:** RE: Follow up to Phone Call - Region of Peel -Class EAs for the G.E. Booth WWTP and Clarkson WWTPs

Hi Evelyn,

Following up on our meeting this afternoon, please see attached for the meeting minutes & presentation on the Phase 3 recommendations for the Clarkson WWTP. Feel free to circulate the presentation amongst the applicable City staff; we welcome any comments City staff may have on this phase of the EA.

Thanks,

**Benjamin Peachman, P. Eng.**  
Infrastructure Planning

**GM BluePlan Engineering Limited**  
Royal Centre | 3300 Highway No. 7, Suite 402 | Vaughan ON L4K 4M3  
t: 416.703.0667 ext. 7216 | c: 437.328.5016  
[benjamin.peachman@gmblueplan.ca](mailto:benjamin.peachman@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



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**From:** Evelyn Krolicka <[Evelyn.Krolicka@mississauga.ca](mailto:Evelyn.Krolicka@mississauga.ca)>  
**Sent:** Tuesday, March 15, 2022 10:38 AM  
**To:** Benjamin Peachman - GM BluePlan <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>  
**Cc:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; [cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)  
**Subject:** RE: Follow up to Phone Call - Region of Peel -Class EAs for the G.E. Booth WWTP and Clarkson WWTPs

Benjamin,

Sounds good. We will be in touch!

**Evelyn Krolicka**  
905-615-3200 ext. 5921  
[evelyn.krolicka@mississauga.ca](mailto:evelyn.krolicka@mississauga.ca)

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**From:** Benjamin Peachman - GM BluePlan <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>  
**Sent:** Tuesday, March 15, 2022 10:28 AM  
**To:** Evelyn Krolicka <[Evelyn.Krolicka@mississauga.ca](mailto:Evelyn.Krolicka@mississauga.ca)>  
**Cc:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; [cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)  
**Subject:** RE: Follow up to Phone Call - Region of Peel -Class EAs for the G.E. Booth WWTP and Clarkson WWTPs

Hi Evelyn,

Thanks for confirming, it looks like the 13<sup>th</sup> works best for everyone so I'll circulate an invite now and you can forward as needed to the other depts at the City.

We do not have any content to circulate at the moment but will provide once available.

**Benjamin Peachman, P. Eng.**  
Infrastructure Planning

**GM BluePlan Engineering Limited**  
Royal Centre | 3300 Highway No. 7, Suite 402 | Vaughan ON L4K 4M3  
t: 416.703.0667 ext. 7216 | c: 437.328.5016  
[benjamin.peachman@gmblueplan.ca](mailto:benjamin.peachman@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



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**From:** Evelyn Krolicka <[Evelyn.Krolicka@mississauga.ca](mailto:Evelyn.Krolicka@mississauga.ca)>  
**Sent:** Tuesday, March 15, 2022 10:12 AM  
**To:** Benjamin Peachman - GM BluePlan <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>  
**Cc:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; [cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)  
**Subject:** RE: Follow up to Phone Call - Region of Peel -Class EAs for the G.E. Booth WWTP and Clarkson WWTPs

Benjamin,

I took a look at everyone's calendars and the 11<sup>th</sup> and 13<sup>th</sup> work well for a majority of the team.

You can set up an invite and I can forward it to the different departments accordingly. Also, do you have any content to circulate (Notice of PIC, drawings etc)

Thanks,

**Evelyn Krolicka**  
905-615-3200 ext. 5921  
[evelyn.krolicka@mississauga.ca](mailto:evelyn.krolicka@mississauga.ca)

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**From:** Benjamin Peachman - GM BluePlan <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>  
**Sent:** Monday, March 14, 2022 5:14 PM  
**To:** Evelyn Krolicka <[Evelyn.Krolicka@mississauga.ca](mailto:Evelyn.Krolicka@mississauga.ca)>  
**Cc:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; [cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)  
**Subject:** RE: Follow up to Phone Call - Region of Peel -Class EAs for the G.E. Booth WWTP and Clarkson WWTPs

Hi Evelyn,

Just following up on below – Laurie suggested the following dates/times, do any of these work for you?

- Monday, April 11<sup>th</sup> 1-3pm
- Wednesday, April 13<sup>th</sup> 1-3pm
- Thursday, April 14<sup>th</sup> 1-3pm

Thanks,

**Benjamin Peachman, P. Eng.**  
Infrastructure Planning



**GM BluePlan Engineering Limited**

Royal Centre | 3300 Highway No. 7, Suite 402 | Vaughan ON L4K 4M3  
t: 416.703.0667 ext. 7216 | c: 437.328.5016  
[benjamin.peachman@gmblueplan.ca](mailto:benjamin.peachman@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



---

**From:** Benjamin Peachman - GM BluePlan

**Sent:** Thursday, March 10, 2022 3:57 PM

**To:** Evelyn Krolicka <[Evelyn.Krolicka@mississauga.ca](mailto:Evelyn.Krolicka@mississauga.ca)>

**Cc:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; [cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)

**Subject:** RE: Follow up to Phone Call - Region of Peel -Class EAs for the G.E. Booth WWTP and Clarkson WWTPs

Hi Evelyn,

Apologies, there was a typo in my earlier email; we're actually hoping to hold the 1.5 hour meeting with the City between March 28<sup>th</sup> – April 8<sup>th</sup>. Can you let me know which dates would work well for your team within those 2 weeks?

**Benjamin Peachman, P. Eng.**

Infrastructure Planning

**GM BluePlan Engineering Limited**

Royal Centre | 3300 Highway No. 7, Suite 402 | Vaughan ON L4K 4M3  
t: 416.703.0667 ext. 7216 | c: 437.328.5016  
[benjamin.peachman@gmblueplan.ca](mailto:benjamin.peachman@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



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**From:** Evelyn Krolicka <[Evelyn.Krolicka@mississauga.ca](mailto:Evelyn.Krolicka@mississauga.ca)>

**Sent:** Thursday, March 10, 2022 10:16 AM

**To:** Benjamin Peachman - GM BluePlan <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>

**Cc:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; [cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)

**Subject:** RE: Follow up to Phone Call - Region of Peel -Class EAs for the G.E. Booth WWTP and Clarkson WWTPs

Ben,

Thank you for the email. As these weeks are quite a bit away, there is lots of availability. The days that are particularly more open are April 25<sup>th</sup>, May 2<sup>nd</sup>, 3<sup>rd</sup>, and 5<sup>th</sup>. We usually try not to have meeting during 11-12 in case people step away for the lunch hour. Let me know what time works for your team.

Thanks,

**Evelyn Krolicka**

905-615-3200 ext. 5921  
[evelyn.krolicka@mississauga.ca](mailto:evelyn.krolicka@mississauga.ca)

---

**From:** Benjamin Peachman - GM BluePlan <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>

**Sent:** Wednesday, March 9, 2022 3:52 PM

**To:** Evelyn Krolicka <[Evelyn.Krolicka@mississauga.ca](mailto:Evelyn.Krolicka@mississauga.ca)>

**Cc:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; [cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)

**Subject:** RE: Follow up to Phone Call - Region of Peel -Class EAs for the G.E. Booth WWTP and Clarkson WWTPs

Hi Evelyn,

As you may recall, GM BluePlan Engineering Limited is completing Schedule C Class EAs for the Clarkson and G.E. Booth Wastewater Treatment Plants (WWTP) for Peel Region. I am working with Laurie Boyce to support these projects.

We are currently nearing completion of Phase 3 for the Clarkson WWTP, and are hoping to set up a meeting with you to review the recommended design concept, prior to the upcoming PIC No.3 for Clarkson which we're targeting for May 11<sup>th</sup>.

As a quick recap, during Phase 3 we have considered methods of optimizing and enhancing wastewater and sludge treatment, beneficial end uses for the biosolids, energy efficient technologies, odour, air emission and noise control measures, landscaping techniques, site layouts and facility designs, as well as measures to mitigate impacts during construction and operation. The purpose of the meeting will be to discuss the recommended alternatives for expansion of the Clarkson WWTP and receive input from the City on the solution and potential measures to mitigate impacts.

We are available sometime during the week of April 29<sup>th</sup> or week of May 4<sup>th</sup> (1.5 hour meeting). Are there days/times that work for you during that time that you could recommend and I will coordinate. Laurie also mentioned that the City had requested a tour of the Clarkson WWTP; if that is still the case, can you let me know how many City employees would like to join and I'll coordinate it with the Region.

Thanks,

**Benjamin Peachman, P. Eng.**

Infrastructure Planning

**GM BluePlan Engineering Limited**

Royal Centre | 3300 Highway No. 7, Suite 402 | Vaughan ON L4K 4M3

t: 416.703.0667 ext. 7216 | c: 437.328.5016

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## Jasmine Biasi - GM BluePlan

---

**From:** Evelyn Krolicka <Evelyn.Krolicka@mississauga.ca>  
**Sent:** Wednesday, April 14, 2021 3:30 PM  
**To:** Laurie Boyce - GM BluePlan  
**Cc:** Jasmine Biasi - GM BluePlan  
**Subject:** RE: Follow up to Phone Call - Region of Peel -Class EAs for the G.E. Booth WWTP and Clarkson WWTPs

Laurie,

I gave the staff some extra time to go over the materials, as the information will be posted on the website even after the public consultation period is closed (today). I figured with the additional information you provided along with the PIC materials they will have more than enough information on the project and where it stands. I will let you know if I hear anything but so far its all good from our end!

### Evelyn Krolicka

905-615-3200 ext. 5921  
evelyn.krolicka@mississauga.ca

---

**From:** Laurie Boyce - GM BluePlan <Laurie.Boyce@gmblueplan.ca>  
**Sent:** Wednesday, April 14, 2021 2:59 PM  
**To:** Evelyn Krolicka <Evelyn.Krolicka@mississauga.ca>  
**Cc:** Jasmine Biasi - GM BluePlan <Jasmine.Biasi@gmblueplan.ca>  
**Subject:** RE: Follow up to Phone Call - Region of Peel -Class EAs for the G.E. Booth WWTP and Clarkson WWTPs

Evelyn – hope all is well. Does your team have comments on the above noted EAs or would you like a meeting to go over Phase 2 results at this time. Laurie

### Laurie Boyce, B.Sc., M.A.

Strategic Planning and Project Advisor

### GM BluePlan Engineering Limited

1266 South Service Rd, Unit C3-1 | Stoney Creek, ON | L8E 5R9  
t: 905.643.6688 ext. 6334 | c: 416.471.0528

[laurie.boyce@gmblueplan.ca](mailto:laurie.boyce@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)





## Jasmine Biasi - GM BluePlan

---

**From:** Evelyn Krolicka <Evelyn.Krolicka@mississauga.ca>  
**Sent:** Tuesday, March 23, 2021 2:16 PM  
**To:** Laurie Boyce - GM BluePlan  
**Cc:** Jasmine Biasi - GM BluePlan; Kambeitz, Cindy  
**Subject:** RE: Follow up to Phone Call - Region of Peel -Class EAs for the G.E. Booth WWTP and Clarkson WWTPs

Laurie,

This is great. I think it will provide enough insight into the project to allow city staff to make any necessary comments.

Thanks!

### **Evelyn Krolicka**

905-615-3200 ext. 5921  
evelyn.krolicka@mississauga.ca

---

**From:** Laurie Boyce - GM BluePlan <Laurie.Boyce@gmblueplan.ca>  
**Sent:** Tuesday, March 23, 2021 10:26 AM  
**To:** Evelyn Krolicka <Evelyn.Krolicka@mississauga.ca>  
**Cc:** Jasmine Biasi - GM BluePlan <Jasmine.Biasi@gmblueplan.ca>; Kambeitz, Cindy <cindy.kambeitz@peelregion.ca>  
**Subject:** RE: Follow up to Phone Call - Region of Peel -Class EAs for the G.E. Booth WWTP and Clarkson WWTPs  
**Importance:** High

Evelyn:

Let me know if this works for your write up to staff, or if you have any further questions. Figures of the recommended solutions at each plant are also attached.

The Region of Peel is continuing work on two Schedule C Class Environmental Assessments (EAs) to provide additional treatment capacity at the G.E. Booth Wastewater Treatment Plant (WWTP) and the Clarkson WWTP to meet its growing population. The Class EAs are currently at the end of Phase 2 of the Municipal Engineers Associations (MEA) Class EA process. As such alternative solutions have been developed and assessed and recommended solutions for providing additional treatment capacity have been identified for each WWTP.

Alternative solutions considered in Phase 2 included various options for diverting flows between the G.E. Booth and Clarkson WWTP catchment areas and associated wastewater, sludge, and outfall capacity requirements at each WWTP. These alternatives were assessed in detail using evaluation criteria (developed in consultation with the public and stakeholders), which reflect natural environment, social/cultural environment, technical and economic factors. Based on the detailed evaluation process, an overall recommended solution has been selected, with the following components:

#### **Wastewater:**

- Provide additional wastewater treatment capacity at both WWTPs by:
  - Expanding the G.E. Booth WWTP from 500 approximately MLD (Million litres per day) to 550 MLD
  - Expanding the Clarkson WWTP from 350 MLD to 500 MLD

#### **Sludge Management**

- Stop trucking sludge from the Clarkson WWTP to the G.E. Booth WWTP for incineration
- Provide additional sludge treatment capacity at the both WWTP to effectively treat the sludge and produce high-quality biosolids end-products
- Beneficially reuse of the biosolids end products generated from the Clarkson WWTP (e.g. agricultural land use applications)
- Eliminate the ash lagoons at the G.E. Booth WWTP and beneficially market the ash product for cement or other uses

#### Outfall

- Construct a new larger outfall deeper into Lake Ontario at the G.E. Booth WWTP
- (The existing outfall at the Clarkson WWTP will meet future wastewater treatment needs and effluent requirements; a new or expanded outfall therefore is not required at the Clarkson WWTP)

The attached figures illustrate the proposed expansions at the G.E. Booth and Clarkson WWTPs. All expansion works will be within the existing site boundaries of each WWTP and will be constructed and operated to ensure surrounding natural areas and existing and future land uses are protected.

A second virtual Public Information Centre providing more details on Phase 2 will be posted on the project webpages on **March 31, 2021**: [www.peelregion.ca/GEBooth](http://www.peelregion.ca/GEBooth) and [www.peelregion.ca/Clarkson](http://www.peelregion.ca/Clarkson). This will be followed by a two-week question submission period closing **April 14, 2021**. The PIC includes a short video walkthrough (approximately 5 minutes) of the main Phase 2 findings, with more detailed information provided on the project webpages. Please review and provide comments to the Region ([GEBooth@peelregion.ca](mailto:GEBooth@peelregion.ca) or [Clarkson@peelregion.ca](mailto:Clarkson@peelregion.ca)) or directly to myself, so I can coordinate our responses to Peel.

Peel will consider all input received during and after PIC2 and confirm or revise the recommended solution based on the input before moving forward with Phase 3 of the Class EA: development and assessment of alternative design concepts for each WWTP. Phase 3 will be completed independently for each of the G.E. Booth WWTP and Clarkson WWTP studies. During Phase 3, Peel will consider methods of optimizing and enhancing wastewater and sludge treatment, beneficial end uses for the biosolids, the size and location for the new outfall, energy efficient technologies, odour, air emission and noise control measures, landscaping techniques, site layouts and facility designs, as well as measures to mitigate impacts during construction and operation.

Thank you and again please get back to me with any comments.

Laurie

**Laurie Boyce, B.Sc., M.A.**

Strategic Planning and Project Advisor

**GM BluePlan Engineering Limited**

1266 South Service Rd, Unit C3-1 | Stoney Creek, ON | L8E 5R9

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[laurie.boyce@gmblueplan.ca](mailto:laurie.boyce@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



---

**From:** Evelyn Krolicka <[Evelyn.Krolicka@mississauga.ca](mailto:Evelyn.Krolicka@mississauga.ca)>

**Sent:** Thursday, March 18, 2021 1:11 PM

**To:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>

**Cc:** Jasmine Biasi - GM BluePlan <[Jasmine.Biasi@gmblueplan.ca](mailto:Jasmine.Biasi@gmblueplan.ca)>; Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>

**Subject:** RE: Follow up to Phone Call - Region of Peel -Class EAs for the G.E. Booth WWTP and Clarkson WWTPs

Laurie,

That would be great. I have notified park planning that you would be reaching out and provided them with your contact information in case they had any questions.

Looking forward to speaking more as this project progresses.

Thanks,

**Evelyn Krolicka**

905-615-3200 ext. 5921

[evelyn.krolicka@mississauga.ca](mailto:evelyn.krolicka@mississauga.ca)

---

**From:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>

**Sent:** Thursday, March 18, 2021 9:34 AM

**To:** Evelyn Krolicka <[Evelyn.Krolicka@mississauga.ca](mailto:Evelyn.Krolicka@mississauga.ca)>

**Cc:** Jasmine Biasi - GM BluePlan <[Jasmine.Biasi@gmblueplan.ca](mailto:Jasmine.Biasi@gmblueplan.ca)>; Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>

**Subject:** RE: Follow up to Phone Call - Region of Peel -Class EAs for the G.E. Booth WWTP and Clarkson WWTPs

**Importance:** High

Evelyn:

Actions by me as discussed:

- Prepare a quick overview of the Phase 2 results for you to distribute to your staff with the PIC2 notice, and forward to you early next week.
- Contact you in mid-April after PIC2 (posted on March 31, 2021) to discuss the City's comments and potential meetings.
- Contact your Parks Planning staff directly after the PIC2 to identify their concerns, and need for a potential site tour.

Thanks.

Laurie

Jasmine – will you make sure Evelyn and the following Parks planning staff are on our mailing list. Thanks.

**Laurie Boyce, B.Sc., M.A.**

Strategic Planning and Project Advisor

**GM BluePlan Engineering Limited**

1266 South Service Rd, Unit C3-1 | Stoney Creek, ON | L8E 5R9

t: 905.643.6688 ext. 6334 | c: 416.471.0528

[laurie.boyce@gmblueplan.ca](mailto:laurie.boyce@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)





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**From:** Evelyn Krolicka <[Evelyn.Krolicka@mississauga.ca](mailto:Evelyn.Krolicka@mississauga.ca)>  
**Sent:** Wednesday, March 17, 2021 3:39 PM  
**To:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>  
**Subject:** Follow up to Phone Call

Laurie,

Thank you for the phone call. The contacts from Parks planning are as follows:

Sangita Manandhar- [Sangita.Manandhar@mississauga.ca](mailto:Sangita.Manandhar@mississauga.ca) 905-615-3200 ext. 3997  
Sharon Chapman- [sharon.chapman@mississauga.ca](mailto:sharon.chapman@mississauga.ca) 905-615-3200 ext. 5370

Hope this helps.

Regards,



**Evelyn Krolicka**  
**Storm Drainage Technologist**  
T 905-615-3200 ext. 5921  
[evelyn.krolicka@mississauga.ca](mailto:evelyn.krolicka@mississauga.ca)

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Infrastructure Planning and Engineering Services Division

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## Jasmine Biasi - GM BluePlan

---

**From:** Evelyn Krolicka <Evelyn.Krolicka@mississauga.ca>  
**Sent:** Tuesday, November 10, 2020 12:49 PM  
**To:** Laurie Boyce - GM BluePlan; Kambeitz, Cindy; Jasmine Biasi - GM BluePlan; Chris Hamel - GM BluePlan  
**Subject:** RE: Early Consultation Opportunity - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Laurie,

Can we schedule a meeting for the morning of the 24<sup>th</sup>? I think starting at 9:30 would be best. If you can set up a request from your end I can forward it off to everyone.

Thanks,



**Evelyn Krolicka**  
Storm Drainage Technologist  
T 905-615-3200 ext. 5921  
[evelyn.krolicka@mississauga.ca](mailto:evelyn.krolicka@mississauga.ca)

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Infrastructure Planning and Engineering Services Division

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**From:** Laurie Boyce - GM BluePlan [mailto:Laurie.Boyce@gmblueplan.ca]  
**Sent:** Monday, November 9, 2020 8:14 AM  
**To:** Evelyn Krolicka <Evelyn.Krolicka@mississauga.ca>; Kambeitz, Cindy <cindy.kambeitz@peelregion.ca>; Jasmine Biasi - GM BluePlan <Jasmine.Biasi@gmblueplan.ca>; Chris Hamel - GM BluePlan <chris.hamel@gmblueplan.ca>  
**Subject:** RE: Early Consultation Opportunity - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Please let us know which of the following dates work best for your team, and we will set the meeting up using Microsoft Teams. The meeting purpose is to provide your team with background information and receive your input on the above noted Class EA studies. Meeting would be scheduled for 1.5 hours.

- Thurs. Nov. 19 – afternoon
- Tuesday Nov. 24 – morning
- Thursday, Nov. 26 – afternoon (2 pm or later)
- Mon., Nov. 30 – afternoon.

Laurie

**Laurie Boyce, B.Sc., M.A.**  
Strategic Planning and Project Advisor

**GM BluePlan Engineering Limited**



---

**From:** Evelyn Krolicka <[Evelyn.Krolicka@mississauga.ca](mailto:Evelyn.Krolicka@mississauga.ca)>

**Sent:** Tuesday, October 27, 2020 12:00 PM

**To:** Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>; Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; Jasmine Biasi - GM BluePlan <[Jasmine.Biasi@gmblueplan.ca](mailto:Jasmine.Biasi@gmblueplan.ca)>

**Subject:** RE: Early Consultation Opportunity - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Cindy,

Great thank you for confirming. When I circulated the PIC material two weeks ago, I referred them to the two project links which have the email addresses provided so hopefully any questions will have already been submitted through there.

We will be in touch.

Regards,



**Evelyn Krolicka**  
Storm Drainage Technologist  
T 905-615-3200 ext. 5921  
[evelyn.krolicka@mississauga.ca](mailto:evelyn.krolicka@mississauga.ca)

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**From:** Kambeitz, Cindy [<mailto:cindy.kambeitz@peelregion.ca>]

**Sent:** Tuesday, October 27, 2020 10:48 AM

**To:** Evelyn Krolicka; Laurie Boyce - GM BluePlan; Jasmine Biasi - GM BluePlan

**Subject:** RE: Early Consultation Opportunity - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Hi Evelyn,

Laurie & I will definitely follow up with you on feedback received. The PIC closes tomorrow but your staff are welcome to submit comments/questions at any time during the EA process to the following email addresses:

[GEBoothEA@peelregion.ca](mailto:GEBoothEA@peelregion.ca)  
[ClarksonEA@peelregion.ca](mailto:ClarksonEA@peelregion.ca)

Regards,

Cindy Kambeitz



Project Manager, Wastewater Capital Treatment  
Region of Peel  
(416)518-1377  
[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)

---

**From:** Evelyn Krolicka <[Evelyn.Krolicka@mississauga.ca](mailto:Evelyn.Krolicka@mississauga.ca)>  
**Sent:** October 26, 2020 4:27 PM  
**To:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; Jasmine Biasi - GM BluePlan <[Jasmine.Biasi@gmblueplan.ca](mailto:Jasmine.Biasi@gmblueplan.ca)>  
**Cc:** Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>  
**Subject:** RE: Early Consultation Opportunity - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

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Laurie,

Thought I would update you regarding what I did for the circulation of the materials. I referred everyone to the website you shared to look at the documents regarding the project. Any they had any questions or comments to submit them on the link. If I recall correctly the deadline for questions was Oct 28<sup>th</sup>. Can you follow up with me when you go through all the questions to discuss potential meeting options?

Thanks,



**Evelyn Krolicka**  
Storm Drainage Technologist  
T 905-615-3200 ext. 5921  
[evelyn.krolicka@mississauga.ca](mailto:evelyn.krolicka@mississauga.ca)

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Infrastructure Planning and Engineering Services Division

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**From:** Evelyn Krolicka  
**Sent:** Tuesday, October 13, 2020 3:57 PM  
**To:** 'Laurie Boyce - GM BluePlan'; Jasmine Biasi - GM BluePlan  
**Cc:** Kambeitz, Cindy  
**Subject:** RE: Early Consultation Opportunity - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Laurie,

Thanks for getting back to me.

That clarifies everything. I wanted to make sure I understood all the details before circulation so that way I can provide the information to city staff.

Regards,



**Evelyn Krolicka**  
**Storm Drainage Technologist**  
T 905-615-3200 ext. 5921  
[evelyn.krolicka@mississauga.ca](mailto:evelyn.krolicka@mississauga.ca)

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**From:** Laurie Boyce - GM BluePlan [<mailto:Laurie.Boyce@gmblueplan.ca>]  
**Sent:** Tuesday, October 13, 2020 3:36 PM  
**To:** Evelyn Krolicka; Jasmine Biasi - GM BluePlan  
**Cc:** Kambeitz, Cindy  
**Subject:** RE: Early Consultation Opportunity - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Evelyn:

The two EAs are proceeding in parallel until the end of Phase 2 of the Class EA process, as both the Clarkson and G.E. Booth Wastewater Treatment Plants (WWTPs) are interconnected via an East-West Diversion trunk sewer currently being constructed. The diversion sewer allows flows from the G.E. Booth WWTP catchment area to be diverted to the Clarkson WWTP catchment area to take advantage of the excess capacity at the Clarkson WWTP and alleviate capacity constraints at the Booth WWTP. Phase 2 of the Class EAs will determine the amount of flows to be diverted, and therefore the capacity expansion requirements at each of the plants. In addition, the current practice of biosolids management is to incinerate all biosolids generated at both plants at the G.E. Booth WWTP. (Treated digested and dewatered sludge is trucked from the Clarkson WWTP to the Booth WWTP for incineration). Phase 2 will identify and assess alternatives to this current biosolids management approach, and identify the preferred solution for managing biosolids at each plant.

Given these interconnections between the two plant, the Phase 2 assessments are being undertaken concurrently and documents will be circulated together. Phase 2 of both EAs is expected to be completed early in 2021. Phase 3 the Class EAs will proceed separately and involve assessment of alternative technologies/design concepts and selection of preferred expansion alternatives at each WWTP,.

Please let me know if this addresses your questions.

Laurie

**Laurie Boyce, B.Sc., M.A.**  
Strategic Planning and Project Advisor

**GM BluePlan Engineering Limited**  
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[laurie.boyce@gmblueplan.ca](mailto:laurie.boyce@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



---

**From:** Evelyn Krolicka <[Evelyn.Krolicka@mississauga.ca](mailto:Evelyn.Krolicka@mississauga.ca)>  
**Sent:** Tuesday, October 13, 2020 1:20 PM  
**To:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; Jasmine Biasi - GM BluePlan <[Jasmine.Biasi@gmblueplan.ca](mailto:Jasmine.Biasi@gmblueplan.ca)>  
**Cc:** Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>  
**Subject:** RE: Early Consultation Opportunity - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Laurie,

I am going to be circulating the documents regarding the PIC shortly. I was wondering if you could provide clarification regarding the two EA's. Are the two EA's being done together/ in parallel as they are similar? Are future documents also going to be circulated together?

Thanks,



**Evelyn Krolicka**  
Storm Drainage Technologist  
T 905-615-3200 ext. 5921  
[evelyn.krolicka@mississauga.ca](mailto:evelyn.krolicka@mississauga.ca)

[City of Mississauga](#) | Transportation & Works Department  
Infrastructure Planning and Engineering Services Division

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---

**From:** Laurie Boyce - GM BluePlan [<mailto:Laurie.Boyce@gmblueplan.ca>]  
**Sent:** Monday, September 21, 2020 2:45 PM  
**To:** Jasmine Biasi - GM BluePlan; Evelyn Krolicka  
**Cc:** Kambeitz, Cindy  
**Subject:** RE: Early Consultation Opportunity - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Evelyn: Pleasure speaking with you. As discussed, we will notify you of the date of the virtual PIC and ensure that you receive the background information in the form of the PIC panels for review. We will then coordinate a meeting with you following your review (allow -2 weeks for review) to discuss the background/alternative solutions being considered and receive your input. Likely first meeting to be held later in October. Thanks.

Laurie

**Laurie Boyce, B.Sc., M.A.**  
Strategic Planning and Project Advisor

**GM BluePlan Engineering Limited**





---

**From:** Jasmine Biasi - GM BluePlan <[Jasmine.Biasi@gmblueplan.ca](mailto:Jasmine.Biasi@gmblueplan.ca)>

**Sent:** Friday, September 18, 2020 3:03 PM

**To:** [evelyn.krolicka@mississauga.ca](mailto:evelyn.krolicka@mississauga.ca)

**Cc:** Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>; Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>

**Subject:** Early Consultation Opportunity - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Good afternoon Evelyn,

I'm emailing on behalf of the Region of Peel Wastewater Treatment Plant Expansion Environmental Assessment Projects. We would like to invite the City of Mississauga to participate in an early consultation opportunity in September to introduce the project and project objectives. This will align with the first Public Consultation Event planned for mid-October.

We believe this timing will provide an opportunity for you to address how the City would like to be involved in the project and receive answers to any questions and comments you may have at this stage.

If you are interested in participating, please provide available dates and times and the project team will arrange.

If you have any questions about the studies, or if you suggest contacting an alternative member at the City of Mississauga, please contact the Region Project Manager, Cindy Kambeitz (contact details below).

Cindy Kambeitz  
Project Manager  
Region of Peel  
905-751-7800 ext. 5400  
[clarkson@peelregion.ca](mailto:clarkson@peelregion.ca)  
[gebooth@peelregion.ca](mailto:gebooth@peelregion.ca)

Thank you,

**Jasmine Biasi, B.Eng., E.I.T**  
Infrastructure Planning

**GM BluePlan Engineering Limited**  
Royal Centre | 3300 Highway No. 7, Suite 402 | Vaughan ON L4K 4M3  
t: 416.703.0667 ext. 7225 | c: 416.209.1892  
[jasmine.biasi@gmblueplan.ca](mailto:jasmine.biasi@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



## Jasmine Biasi - GM BluePlan

---

**From:** Kambeitz, Cindy <cindy.kambeitz@peelregion.ca>  
**Sent:** Tuesday, July 21, 2020 12:09 PM  
**To:** Jasmine Biasi - GM BluePlan  
**Cc:** Laurie Boyce - GM BluePlan  
**Subject:** FW: Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

For your files. I did not get a reply.

---

**From:** Kambeitz, Cindy  
**Sent:** July 16, 2020 3:43 PM  
**To:** Stephen Dasko <Stephen.Dasko@mississauga.ca>  
**Subject:** RE: Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Hi Stephen,

Most certainly. My apologies, I did not consider contacting key stakeholders such as yourself before the newspaper post. I anticipate a lot of public interest particularly in Ward 1! Our next public posting will likely be in September once we finalize plans for our first virtual Public Information Centre. I'll be sure to send you the announcement prior to posting and would be happy to chat over a phone call about content and format if you wish.

Please contact me anytime with comments or concerns (your own or Ward 1 residents).

Cindy Kambeitz  
Project Manager, Wastewater Capital Treatment  
Region of Peel  
(416)518-1377  
[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)

---

**From:** Stephen Dasko <[Stephen.Dasko@mississauga.ca](mailto:Stephen.Dasko@mississauga.ca)>  
**Sent:** July 16, 2020 3:26 PM  
**To:** Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>  
**Subject:** RE: Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

**CAUTION: EXTERNAL MAIL. DO NOT CLICK ON LINKS OR OPEN ATTACHMENTS YOU DO NOT TRUST.**

Hi Cindy,

I saw this in today's Mississauga News. Is it possible to see these types of announcements Before it is in the Mississauga News etc as the community is quite engaged and we often receive calls/emails regarding projects such as this.?

Thanks,  
Stephen

**Stephen Dasko**

Councillor, Ward 1  
T 905-896-5100 | M 647-289-2922  
[stephen.dasko@mississauga.ca](mailto:stephen.dasko@mississauga.ca)  
[www.stephendasko.ca](http://www.stephendasko.ca)

**Join my monthly E-Newsletter at [Stephendasko.ca](http://Stephendasko.ca)**

If you wish to be added, based on Federal anti-spam laws, we must receive your consent. By agreeing to have your email added, you will receive my monthly e-newsletter of event, latest updates, and special announcements.

*"Our Community is Our Home"*  
Ward 1



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**From:** Jasmine Biasi - GM BluePlan [<mailto:Jasmine.Biasi@gmblueplan.ca>]  
**Sent:** Thursday, July 16, 2020 1:25 PM  
**Cc:** Laurie Boyce - GM BluePlan; Kambeitz, Cindy  
**Subject:** Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

To whom it may concern,

Attached is a Notice of Commencement for Peel Wastewater Treatment Solutions (G.E. Booth Wastewater Treatment Plant and Clarkson Wastewater Treatment Plant Schedule 'C' Class Environmental Assessments).

If you have any questions about the study, please contact the Region Project Manager, Cindy Kambeitz (contact information provided in the attached Notice).

Best Regards,

**Jasmine Biasi, B.Eng., E.I.T**  
Infrastructure Planning

**GM BluePlan Engineering Limited**  
Royal Centre | 3300 Highway No. 7, Suite 402 | Vaughan ON L4K 4M3  
t: 416.703.0667 ext. 7225 | c: 416.209.1892  
[jasmine.biasi@gmblueplan.ca](mailto:jasmine.biasi@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)





## Appendix T:

# Public and Agency Correspondence and Meetings

T2: Credit Valley Conservation Authority (CVC)

## Benjamin Peachman - GM BluePlan

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**From:** Benjamin Peachman - GM BluePlan  
**Sent:** Monday, November 13, 2023 4:44 PM  
**To:** Ahmad, Iftekhar  
**Cc:** Laurie Boyce; Kambeitz, Cindy; Olivia Robinson  
**Subject:** RE: [External] RE: CVC Comments (ESR, Sep 2023) - EA 20/009 - G.E. Booth WRRF EA - Review of ESR Findings & Conceptual Design

Thanks Iftekhar,

We'll make note of that within the ESR.

**Benjamin Peachman, P. Eng.**  
Infrastructure Planning

**GM BluePlan Engineering Limited**  
Royal Centre | 3300 Highway No. 7, Suite 402 | Vaughan ON L4K 4M3  
t: 416.703.0667 ext. 7216 | c: 437.328.5016  
[benjamin.peachman@gmblueplan.ca](mailto:benjamin.peachman@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



---

**From:** Ahmad, Iftekhar <Iftekhar.Ahmad@cvc.ca>  
**Sent:** Monday, November 13, 2023 12:52 PM  
**To:** Benjamin Peachman - GM BluePlan <Benjamin.Peachman@gmblueplan.ca>  
**Cc:** Laurie Boyce <LaurieBoyce@L3ESP.ca>; Kambeitz, Cindy <cindy.kambeitz@peelregion.ca>; Olivia Robinson <orobinson@geiconsultants.com>  
**Subject:** RE: [External] RE: CVC Comments (ESR, Sep 2023) - EA 20/009 - G.E. Booth WRRF EA - Review of ESR Findings & Conceptual Design

Hi Benjamin,

Thank you for providing the responses to our comments. The responses are fine. However, regarding your response to our comment 4, we would recommend that you contact CVC for the data request to also obtain our fish collection records for the area as part of your assessment.

Thanks, hope you had a nice weekend.

Best regards,  
Iftekhar

I'm working remotely. The best way to reach me is by email or Microsoft Teams.

**Iftekhar Ahmad** | he/him/his  
Planner, Environmental Assessment | Credit Valley Conservation  
905-670-1615 ext 296 | M: 647-449-5962  
[iftekhar.ahmad@cvc.ca](mailto:iftekhar.ahmad@cvc.ca) | [cvc.ca](http://cvc.ca)

## Benjamin Peachman - GM BluePlan

---

**From:** Benjamin Peachman - GM BluePlan  
**Sent:** Monday, November 13, 2023 11:10 AM  
**To:** Ahmad, Iftekhar  
**Cc:** Laurie Boyce; Kambeitz, Cindy; Olivia Robinson  
**Subject:** RE: CVC Comments (ESR, Sep 2023) - EA 20/009 - G.E. Booth WRRF EA - Review of ESR Findings & Conceptual Design

Hi Iftekhar,

Thank you for CVC's review of the Draft Environmental Study Report for the G.E. Booth Water Resource Recovery Facility (WRRF) expansion project (September 2023). Your comments will be documented in the final ESR and addressed during the detailed design stage, as described below. Please see our **responses** to your comments below and feel free to reach out with any further comments or clarifications.

Thank you.

**Benjamin Peachman, P. Eng.**  
Infrastructure Planning

### GM BluePlan Engineering Limited

Royal Centre | 3300 Highway No. 7, Suite 402 | Vaughan ON L4K 4M3  
t: 416.703.0667 ext. 7216 | c: 437.328.5016  
[benjamin.peachman@gmblueplan.ca](mailto:benjamin.peachman@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



---

**From:** Ahmad, Iftekhar <Iftekhar.Ahmad@cvc.ca>  
**Sent:** Wednesday, November 01, 2023 3:34 PM  
**To:** Benjamin Peachman - GM BluePlan <Benjamin.Peachman@gmblueplan.ca>  
**Cc:** Laurie Boyce <LaurieBoyce@L3ESP.ca>; Kambeitz, Cindy <cindy.kambeitz@peelregion.ca>; Olivia Robinson <orobinson@geiconsultants.com>  
**Subject:** CVC Comments (ESR, Sep 2023) - EA 20/009 - G.E. Booth WRRF EA - Review of ESR Findings & Conceptual Design

Hi Benjamin,

CVC staff have now had the opportunity to review the documents in your email below and provide this information for your consideration.

### CVC Comments

1. The erosion hazard will be delineated for the as-built condition of the Serson Creek reconstruction and appropriate setback from the erosion hazard limit to the new facilities on the plant will be provided at the detailed design stage. **Acknowledged. The Region will continue to work with CVC during the design stage to ensure appropriate setbacks are established.**



2. Please note that the shoreline hardening (if proposed) will generally not be supported by CVC. So, please consider softer approach at the detailed design stage. **Acknowledged. The Region will continue to work with CVC during the design stage to ensure appropriate shoreline protection, if required.**
3. Further review will be required during the detailed design submission including but not limited to the restoration plans and any proposed infrastructure that might impact the regulated features (e.g., wetlands, watercourses, shorelines). The restoration plans should align with CVC's Plant Selection Guideline (attached) and Healthy Soils Guideline (attached). CVC's Buffer Enhancement Guideline (attached) may also be of use in the development of the restoration plans. Given the location of the study area, opportunities to enhance the lands for the migratory birds is recommended. **Acknowledged. During detailed design when facility locations, configurations and sizing are better determined, restoration plans will be prepared in consultation with the CVC. CVC's restoration guidelines will be incorporated into the restoration plans.**
4. The study area includes portions of the Lake Ontario which don't appear to be covered in the aquatics sections of the ESR or designated as direct fish habitat. As such, impacts to the aquatic habitat in the Lake Ontario doesn't appear to be addressed. Given that works are proposed directly within the Lake Ontario, the applicant is strongly encouraged that consultation with DFO occur to ensure compliance with the federal regulations, and to ensure that other nearby DFO permitted projects are not affected by the proposed development. **An aquatic habitat impact assessment for the new outfall was not undertaken at the Class EA stage but will be completed during detailed design. The assessment will include:**
  - General habitat mapping using underwater UAV's.
  - Detailed habitat mapping, benthic, and mussel sampling to be undertaken to confirm aquatic habitats and species along the tunnel alignment, particular in the diffuser area.
  - Targeted fish community sampling to be completed in the Fall and Spring, depending on the type of substrates encountered.
  - A bathymetry study to confirm lake topography and potential aquatic habitats.**The Region will consult with all relevant agencies during detailed design to receive input into mitigation measures and receive necessary permits and approvals. Key approval agencies will include DFO, MNR, CVC, MECP and Transport Canada. Commitments are included in Section 3 of the Phase 3 Impact Assessment Report (GEI 2023) indicating that an impact assessment will be completed once the proposed outfall characterization work is completed.**

If you have any questions, please contact me.

Thanks,

Best regards,  
Iftexhar

I'm working remotely. The best way to reach me is by email or Microsoft Teams.

**Iftexhar Ahmad** | he/him/his  
Planner, Environmental Assessment | Credit Valley Conservation  
905-670-1615 ext 296 | M: 647-449-5962  
[iftexhar.ahmad@cvc.ca](mailto:iftexhar.ahmad@cvc.ca) | [cvc.ca](http://cvc.ca)



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---

**From:** Benjamin Peachman - GM BluePlan <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>  
**Sent:** Thursday, October 5, 2023 11:22 AM  
**To:** Ahmad, Iftekhar <[Iftekhar.Ahmad@cvc.ca](mailto:Iftekhar.Ahmad@cvc.ca)>  
**Cc:** Laurie Boyce <[LaurieBoyce@L3ESP.ca](mailto:LaurieBoyce@L3ESP.ca)>; Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>; Robinson, Olivia <[orobinson@geiconsultants.com](mailto:orobinson@geiconsultants.com)>; Kilis, Jakub <[Jakub.Kilis@cvc.ca](mailto:Jakub.Kilis@cvc.ca)>  
**Subject:** [External] RE: CVC response on meeting minutes - EA 20/009 - G.E. Booth WRRF EA - Review of ESR Findings & Conceptual Design

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Hi Iftekhar,

As noted **below**, please find the following links for the relevant sections of the G.E. Booth WRRF Schedule C Class EA, completed in draft for your review and comment. Let me know if you require any other appendices.

Volume 0 (Executive Summary): [https://sendafile.gmblueplan.ca/public\\_uploads/2023-10-05\\_145937UTC\\_GEB\\_WRRF\\_EA\\_Vol.0\\_Executive\\_Summary.pdf](https://sendafile.gmblueplan.ca/public_uploads/2023-10-05_145937UTC_GEB_WRRF_EA_Vol.0_Executive_Summary.pdf)

Volume 1 (Environmental Study Report): [https://sendafile.gmblueplan.ca/public\\_uploads/2023-10-05\\_150152UTC\\_GEB\\_WRRF\\_EA\\_Vol.1\\_Environmental\\_Study\\_Report.pdf](https://sendafile.gmblueplan.ca/public_uploads/2023-10-05_150152UTC_GEB_WRRF_EA_Vol.1_Environmental_Study_Report.pdf)

Volume 2, Appendix A (Natural Heritage Reports): [https://sendafile.gmblueplan.ca/public\\_uploads/2023-10-05\\_151938UTC\\_GEB\\_WRRF\\_EA\\_Vol.2\\_Appendix\\_A.pdf](https://sendafile.gmblueplan.ca/public_uploads/2023-10-05_151938UTC_GEB_WRRF_EA_Vol.2_Appendix_A.pdf)

Volume 2, Appendix B (Receiving Water Impact Assessment): [https://sendafile.gmblueplan.ca/public\\_uploads/2023-10-05\\_150854UTC\\_GEB\\_WRRF\\_EA\\_Vol.2\\_Appendix\\_B.pdf](https://sendafile.gmblueplan.ca/public_uploads/2023-10-05_150854UTC_GEB_WRRF_EA_Vol.2_Appendix_B.pdf)

Feel free to forward these links onto other CVC reviewers for download; the links will remain active for 21 days. We're hoping for comments to be provided by Nov 6<sup>th</sup> but we recognize reviewing bottlenecks can arise. Once comments are received, we'll make any necessary updates and submit for public review shortly thereafter.

Thank you and feel free to reach out with any questions,

**Benjamin Peachman, P. Eng.**  
Infrastructure Planning

**GM BluePlan Engineering Limited**  
Royal Centre | 3300 Highway No. 7, Suite 402 | Vaughan ON L4K 4M3  
t: 416.703.0667 ext. 7216 | c: 437.328.5016  
[benjamin.peachman@gmblueplan.ca](mailto:benjamin.peachman@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



---

**From:** Benjamin Peachman - GM BluePlan  
**Sent:** Tuesday, September 26, 2023 10:52 AM  
**To:** Ahmad, Iftekhar <[Iftekhar.Ahmad@cvc.ca](mailto:Iftekhar.Ahmad@cvc.ca)>  
**Cc:** Laurie Boyce <[LaurieBoyce@L3ESP.ca](mailto:LaurieBoyce@L3ESP.ca)>; Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>; Robinson, Olivia <[orobinson@geiconsultants.com](mailto:orobinson@geiconsultants.com)>; Kilis, Jakub <[Jakub.Kilis@cvc.ca](mailto:Jakub.Kilis@cvc.ca)>

**Subject:** RE: CVC response on meeting minutes - EA 20/009 - G.E. Booth WRRF EA - Review of ESR Findings & Conceptual Design

Hi Iftekhar,

Thank you for providing CVC's comments & the additional information below. I've updated the ESR to reflect your comments and added the provided BMPs for artificial shorebird habitat to the appendices as supporting information for the detailed design stage. We appreciate all the input CVC has provided throughout the G.E. Booth WRRF EA. **As an FYI, we'll be submitting the draft ESR to the MECP for their review within the next week and we'll circulate to your team as well. We're hoping to receive any comments within 4 weeks. After which, we'll make any final updates and then submit the ESR for public review.** Feel free to reach out with any questions.

Regards,

**Benjamin Peachman, P. Eng.**  
Infrastructure Planning

**GM BluePlan Engineering Limited**

Royal Centre | 3300 Highway No. 7, Suite 402 | Vaughan ON L4K 4M3  
t: 416.703.0667 ext. 7216 | c: 437.328.5016  
[benjamin.peachman@gmblueplan.ca](mailto:benjamin.peachman@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



---

**From:** Ahmad, Iftekhar <[Iftekhar.Ahmad@cvc.ca](mailto:Iftekhar.Ahmad@cvc.ca)>

**Sent:** Thursday, September 21, 2023 12:36 PM

**To:** Benjamin Peachman - GM BluePlan <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>

**Cc:** Laurie Boyce <[LaurieBoyce@L3ESP.ca](mailto:LaurieBoyce@L3ESP.ca)>; Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>; Robinson, Olivia <[orobinson@geiconsultants.com](mailto:orobinson@geiconsultants.com)>; Kilis, Jakub <[Jakub.Kilis@cvc.ca](mailto:Jakub.Kilis@cvc.ca)>

**Subject:** CVC response on meeting minutes - EA 20/009 - G.E. Booth WRRF EA - Review of ESR Findings & Conceptual Design

Hi Benjamin,

Apologies for the delay in getting back to you.

We have reviewed the minutes of the meeting held on June 29, 2023, and have only one comment which is regarding your response under the meeting note 2; it is recommended that you consult with us at the detailed design stage for any updated information on the regulatory flood elevation(s) for the plant site and the floodproofing requirements for the new buildings within the floodplain associated with Serson Creek.

In addition, we would also like to share the below information (including attachment) as best management practices (BMPs) about the artificial shorebird habitat and wastewater facilities that you may consider for the concepts and case studies for the proposed project. This is just for your information and will not be a permitting requirement.

- a. The attached file is a brochure on a feature called a wader scrape – these essentially create seasonal small ponds with exposed mudflats. They likely would not be considered wetlands depending on the design (i.e., not a regulated feature).
- b. <https://www.westperth.com/en/be-active/wetlands.aspx> this is a link to information on the West Perth Wetlands which is a wastewater treatment plant with designated bird habitat cells.



- c. <https://paulroeddingphotography.com/2017/08/07/shorebirds-west-perth-wetlands/> blog article on West Perth. We realize G.E. Booth is not directly accessible to the public but with Jim Tovey Lakeview Conservation Area (JTLCA) directly adjacent it will be in the public eye, perhaps a stewardship initiative would be good public relations.
- d. <http://www.ofo.ca/site/page/view/articles.southboundshorebirds> this is the OFO website page for shorebirds for more specific information on Ontario shorebird species.

If you have any questions, please contact me.

Thanks,

Best regards,  
Iftexhar

I'm working remotely. The best way to reach me is by email or Microsoft Teams.

**Iftexhar Ahmad** | he/him/his

Planner, Environmental Assessment | Credit Valley Conservation

905-670-1615 ext 296 | M: 647-449-5962

[iftexhar.ahmad@cvc.ca](mailto:iftexhar.ahmad@cvc.ca) | [cvc.ca](http://cvc.ca)



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**From:** Benjamin Peachman - GM BluePlan <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>

**Sent:** Tuesday, August 22, 2023 10:11 AM

**To:** Ahmad, Iftexhar <[Iftexhar.Ahmad@cvc.ca](mailto:Iftexhar.Ahmad@cvc.ca)>

**Cc:** [LaurieBoyce@L3ESP.ca](mailto:LaurieBoyce@L3ESP.ca); Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>; Robinson, Olivia <[orobinson@geiconsultants.com](mailto:orobinson@geiconsultants.com)>

**Subject:** RE: [External] G.E. Booth WRRF EA - Review of ESR Findings & Conceptual Design

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Hi Iftexhar,

Apologies for the delay. Please see attached for the meeting minutes, along with the presentation that we went through during the meeting. Let me know if you have any comments or clarifications on the minutes.

Thanks,

**Benjamin Peachman, P. Eng.**  
Infrastructure Planning

**GM BluePlan Engineering Limited**

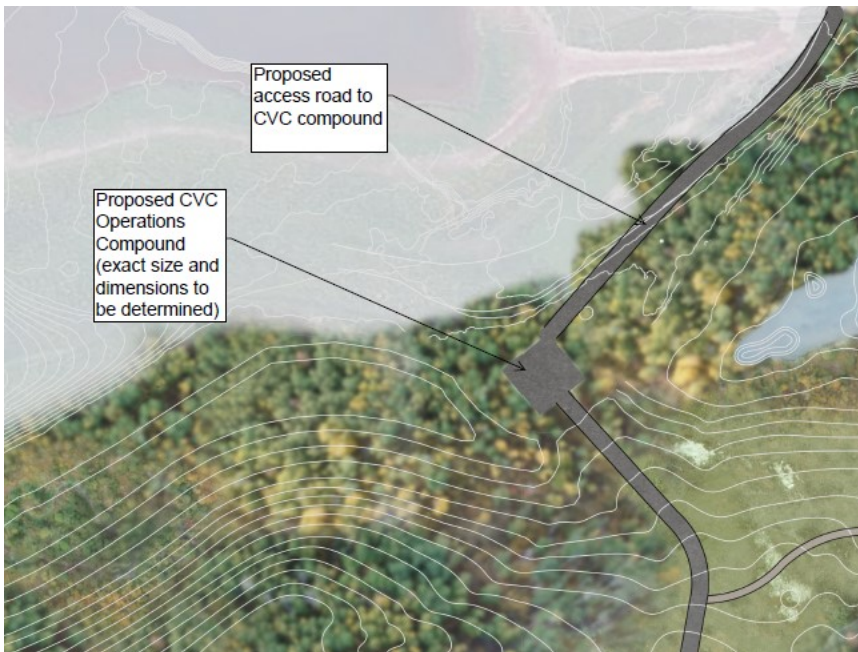
## Benjamin Peachman - GM BluePlan

**From:** Ahmad, Iftexhar <Iftexhar.Ahmad@cvc.ca>  
**Sent:** Monday, September 18, 2023 2:56 PM  
**To:** Benjamin Peachman - GM BluePlan  
**Cc:** Laurie Boyce  
**Subject:** RE: [External] RE: CVC Comments (Lands Group) - EA 20/009 - G.E. Booth WRRF EA - Review of ESR Findings & Conceptual Design (GMBP#719051)  
**Attachments:** JTCVC Plan\_V4.jpg

Hi Benjamin,

Apologies for any delay in getting back to you.

Please find attached the updated rendered site plan for the JTLCA. Details for the proposed CVC's Operations Compound are called out below. The final size and layout of the maintenance compound is TBD pending ongoing discussions with Region of Peel.



If you have any questions, please contact me.

Thanks,

Best regards,  
Iftexhar

I'm working remotely. The best way to reach me is by email or Microsoft Teams.

**Iftexhar Ahmad** | he/him/his  
Planner, Environmental Assessment | Credit Valley Conservation  
905-670-1615 ext 296 | M: 647-449-5962  
iftexhar.ahmad@cvc.ca | cvc.ca



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**From:** Benjamin Peachman - GM BluePlan <Benjamin.Peachman@gmblueplan.ca>

**Sent:** Wednesday, August 30, 2023 9:16 AM

**To:** Ahmad, Iftekhhar <Iftekhhar.Ahmad@cvc.ca>

**Cc:** LaurieBoyce@L3ESP.ca

**Subject:** [External] RE: CVC Comments (Lands Group) - EA 20/009 - G.E. Booth WRRF EA - Review of ESR Findings & Conceptual Design (GMBP#719051)

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Hi Iftekhhar,

Thank you for your comments; we'll incorporate these into the ESR. Could we get any plans available showing the CVC's JTLCA access and staging areas per your comment below. Currently, we have the figure shown below but if there is anything more current, that'd be appreciated.





**Benjamin Peachman, P. Eng.**  
Infrastructure Planning

**GM BluePlan Engineering Limited**  
Royal Centre | 3300 Highway No. 7, Suite 402 | Vaughan ON L4K 4M3  
t: 416.703.0667 ext. 7216 | c: 437.328.5016  
[benjamin.peachman@gmblueplan.ca](mailto:benjamin.peachman@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



**From:** Ahmad, Iftekhar <[Iftekhar.Ahmad@cvc.ca](mailto:Iftekhar.Ahmad@cvc.ca)>  
**Sent:** Wednesday, August 16, 2023 4:09 PM  
**To:** Benjamin Peachman - GM BluePlan <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>  
**Cc:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>; Robinson, Olivia <[orobinson@geiconsultants.com](mailto:orobinson@geiconsultants.com)>; Lohnes, Shelley <[slohnes@geiconsultants.com](mailto:slohnes@geiconsultants.com)>  
**Subject:** CVC Comments (Lands Group) - EA 20/009 - G.E. Booth WRRF EA - Review of ESR Findings & Conceptual Design (GMBP#719051)

Hi Benjamin,

Apologies for any delay in getting back to you with our response.

CVC staff in our Lands Group have now had the opportunity to review the draft ESR (June 2023) and provide these comments for your consideration as it relates to Jim Tovey Lakeview Conservation Area (JTLCA).

### **CVC Comments**

1. We note that the proposed new outfall location minimizes distances located under the JTLCA landform.
2. The shaft location for the preferred outfall is in close proximity to the CVC access and staging areas through G.E. Booth WRRF and may impact CVC access and operations during construction. This is CVC's only long-term access to JTLCA and works to construct the new outfall, including staging options (page 153 of the report) cannot interfere with or inhibit ingress, egress, and emergency vehicle access to JTLCA and the operational area of CVC. Please make note of CVC's JTLCA access and staging areas in the ESR – more detailed plans from CVC are available for the drawing integration.
3. Prior to the detailed design and construction, please coordinate with CVC on the development of the optimized site plan for the new outfall to minimize impacts to the JTLCA access and staging areas, as well as the natural environment.
4. Please make note in the ESR that under the existing Lakeview Waterfront Connection Phase II Tri-Party Agreement, Peel and CVC are to identify mutually agreeable final property boundaries between CVC's JTLCA lands and G.E. Booth WRRF. Peel Region will be transferring those surplus lands to CVC to consolidate the JTLCA landform ownership, and the new security fence will be established upon the updated boundary by 2025. The preferred alternative of the EA will help to establish the property needs for G.E. Booth WRRF and identify additional lands that could be available for temporary or permanent purposes that support conservation area opportunities.
5. CVC is interested in the long-term land use opportunities for the unused area of G.E. Booth WRRF in the retired ash lagoon and berm areas – this land may support additional conservation and recreation objectives of JTLCA (e.g., additional parkland, restoration, parking, operational access, washrooms, interpretation of WRRF, etc.).
6. Clarification is required in the report on the permanent access through G.E. Booth for CVC's park operations and to the proposed maintenance compound.

Section 6.2.3.1 – reference is made to JTLCA and G.E. Booth WRRF sharing "first 300m of the access road from Lakeshore Road East."

Section 6.2.6 – "The JTLCA and G.E. Booth WRRF share the first 300 m of the access road from Lakeshore Road East; after this point, the G.E. Booth WRRF access road continues south to the plant, while the JTLCA access road moves west and then south along the west side of Serson Creek."

Please note that this is only the interim condition while JTLCA is under construction. The JTLCA access road along the west side of Serson Creek is per lease agreement with Lakeview Community Partners and will expire in 2025. Long term access for CVC to JTLCA will be along shared access road and through G.E. Booth WRRF. CVC acknowledges that the access route may change pending G.E. Booth construction activities and operational requirements (see comment 2 above); however, an access route must be maintained for CVC at all times. Please add reference to this in section "6.1.10 – JTLCA" as well.

7. Section 6.2.8 (Noise Conditions) – please note wildlife impacts of noise pollution as well as to Lakeview Development. CVC acknowledges that noise pollution is expected to be minimal.
8. Please provide discussion of potential light pollution impacts on JTLCA and wildlife in the report.

Regarding your question on any development setback requirement for new buildings and structures on G.E. Booth WRRF from JTLCA, please note that we have no set requirement for setbacks to CVC lands (due to our ownership). However, we only request that new facilities be located away from JTLCA as much as possible within your site limitations to minimize impacts on the natural area from noise, light, bird collisions, etc.

If you have any questions, please contact me.

Thanks,

Best regards,  
Iftekhar

I'm working remotely. The best way to reach me is by email or Microsoft Teams.

**Iftekhar Ahmad** | he/him/his  
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**From:** Benjamin Peachman - GM BluePlan <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>  
**Sent:** Thursday, July 20, 2023 3:57 PM  
**To:** Ahmad, Iftekhar <[Iftekhar.Ahmad@cvc.ca](mailto:Iftekhar.Ahmad@cvc.ca)>  
**Cc:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>; Robinson, Olivia <[orobinson@geiconsultants.com](mailto:orobinson@geiconsultants.com)>; Lohnes, Shelley <[slohnesh@geiconsultants.com](mailto:slohnesh@geiconsultants.com)>  
**Subject:** RE: [External] RE: Meeting dates/times - EA 20/009 - G.E. Booth WRRF EA - Review of ESR Findings & Conceptual Design (GMBP#719051)

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Hi Iftekhar,

Thanks for the update on the timing of your staff's review availability. With respect to the requested reports, see attached & **responses** in your email below.

In terms of the timing for receipt of comments related to the development setbacks, we'd prefer to receive your comments by Aug 4<sup>th</sup> but can work with your team's availability. Let me know if that time frame works or if you need additional time.

Thanks,



**Benjamin Peachman, P. Eng.**  
Infrastructure Planning

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[benjamin.peachman@gmblueplan.ca](mailto:benjamin.peachman@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



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**From:** Ahmad, Iftkhar <[Iftkhar.Ahmad@cvc.ca](mailto:Iftkhar.Ahmad@cvc.ca)>

**Sent:** Wednesday, July 19, 2023 9:56 AM

**To:** Benjamin Peachman - GM BluePlan <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>

**Cc:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>;  
Robinson, Olivia <[orobinson@geiconsultants.com](mailto:orobinson@geiconsultants.com)>; Lohnes, Shelley <[slohnes@geiconsultants.com](mailto:slohnes@geiconsultants.com)>

**Subject:** FW: [External] RE: Meeting dates/times - EA 20/009 - G.E. Booth WRRF EA - Review of ESR Findings & Conceptual Design (GMBP#719051)

Hi Benjamin,

Further to our below email, could you please also send us the following appendices of the draft ESR for our review and record purposes?

**Appendix A** – Natural Heritage Characterization Report. We have the report dated January 2023. If there is no update to this report, then there is no need to send it again. **The Natural Heritage Characterization Report & Impact Assessment are being updated now based on the comments provided in our meeting. They'll be available early to mid-August and we'll circulate ASAP.**

**Appendix F** – Hydrogeological and Geotechnical Background Information. **Appendix F is attached & includes the borehole maps from previous investigations on site. Section 6.3.2. in the ESR (draft) provides a summary of the hydrogeological & geotechnical conditions on site.**

**Appendix G** – Phase 1 Environmental Site Assessment (ESA) Report. **Attached.**

Thanks,

Best regards,  
Iftkhar

I'm working remotely. The best way to reach me is by email or Microsoft Teams.

**Iftkhar Ahmad** | he/him/his  
Planner, Environmental Assessment | Credit Valley Conservation  
905-670-1615 ext 296 | M: 647-449-5962  
[iftkhar.ahmad@cvc.ca](mailto:iftkhar.ahmad@cvc.ca) | [cvc.ca](http://cvc.ca)



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**From:** Ahmad, Iftekhar  
**Sent:** Tuesday, July 18, 2023 11:01 AM  
**To:** Benjamin Peachman - GM BluePlan <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>  
**Cc:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>; Robinson, Olivia <[orobinson@geiconsultants.com](mailto:orobinson@geiconsultants.com)>; Lohnes, Shelley <[slohnesh@geiconsultants.com](mailto:slohnesh@geiconsultants.com)>  
**Subject:** RE: [External] RE: Meeting dates/times - EA 20/009 - G.E. Booth WRRF EA - Review of ESR Findings & Conceptual Design (GMBP#719051)

Hi Benjamin,

After our last meeting on June 29, 2023, I had circulated the draft ESR to our Lands Department for review and comments including development setback requirements from the Jim Tovey Lakeview Conservation Area. Since our Lands staff have been busy including some on vacation, they have not yet been able to review the full draft and would need more time to complete review and provide comments. Could you please give me an idea until what time at the latest our Lands staff can provide their comments?

Thanks,

Best regards,  
Iftekhar

I'm working remotely. The best way to reach me is by email or Microsoft Teams.

**Iftekhar Ahmad** | he/him/his  
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**From:** Benjamin Peachman - GM BluePlan <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>  
**Sent:** Tuesday, June 13, 2023 9:10 AM  
**To:** Ahmad, Iftekhar <[Iftekhar.Ahmad@cvc.ca](mailto:Iftekhar.Ahmad@cvc.ca)>  
**Cc:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>; Robinson, Olivia <[orobinson@geiconsultants.com](mailto:orobinson@geiconsultants.com)>; Lohnes, Shelley <[slohnesh@geiconsultants.com](mailto:slohnesh@geiconsultants.com)>  
**Subject:** [External] RE: Meeting dates/times - G.E. Booth WRRF EA - Review of ESR Findings & Conceptual Design (GMBP#719051)

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Hi Iftekhar,

In advance of our meeting on June 29<sup>th</sup>, please see the link below for the draft ESR. As noted, we'll provide an overview of the ESR findings in the meeting but feel free to reach out with any questions prior to the meeting.

File Name : [https://sendfile.gmblueplan.ca/public\\_uploads/2023-06-13\\_130212\\_719051-Booth\\_WRRF-ESR - Draft\\_2023-06-08\\_v3.pdf](https://sendfile.gmblueplan.ca/public_uploads/2023-06-13_130212_719051-Booth_WRRF-ESR-Draft_2023-06-08_v3.pdf)

Thanks,

**Benjamin Peachman, P. Eng.**

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---

**From:** Ahmad, Iftexhar <[Iftexhar.Ahmad@cvc.ca](mailto:Iftexhar.Ahmad@cvc.ca)>

**Sent:** Tuesday, June 06, 2023 10:22 AM

**To:** Benjamin Peachman - GM BluePlan <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>

**Cc:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>;  
Robinson, Olivia <[orobinson@geiconsultants.com](mailto:orobinson@geiconsultants.com)>

**Subject:** Meeting dates/times - G.E. Booth WRRF EA - Review of ESR Findings & Conceptual Design (GMBP#719051)

Hi Benjamin,

We provide the following dates and times for the meeting for your consideration:

June 22<sup>nd</sup>, 9:30-11

Jun 26<sup>th</sup>, 9-10:30, 12:30-2

Jun 29<sup>th</sup>, 9:30-12, 1-3

Please include the following CVC staff members in the meeting invite:

Jakub Kilis, [Jakub.Kilis@cvc.ca](mailto:Jakub.Kilis@cvc.ca)

Matteo De Stefano, [matteo.destefano@cvc.ca](mailto:matteo.destefano@cvc.ca)

Sarah Labrie, [Sarah.Labrie@cvc.ca](mailto:Sarah.Labrie@cvc.ca)

Iftexhar Ahmad, [iftexhar.ahmad@cvc.ca](mailto:iftexhar.ahmad@cvc.ca)

If you could send us the draft ESR few days before the meeting, that would be helpful.

Thanks,

Best regards,

Iftexhar

I'm working remotely. The best way to reach me is by email or Microsoft Teams.

**Iftexhar Ahmad** | he/him/his

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**From:** Benjamin Peachman - GM BluePlan <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>

**Sent:** Tuesday, May 30, 2023 3:09 PM

**To:** Ahmad, Iftekhar <[Iftekhar.Ahmad@cvc.ca](mailto:Iftekhar.Ahmad@cvc.ca)>; Kilis, Jakub <[Jakub.Kilis@cvc.ca](mailto:Jakub.Kilis@cvc.ca)>

**Cc:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>; Robinson, Olivia <[orobinson@geiconsultants.com](mailto:orobinson@geiconsultants.com)>

**Subject:** [External] G.E. Booth WRRF EA - Review of ESR Findings & Conceptual Design (GMBP#719051)

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Hi Iftekhar, Jakub,

Hope you are both keeping well. As an update on the G.E. Booth WRRF EA, we're nearing completion of the conceptual design of the plant expansion and are finalizing the EA's draft Environmental Study Report (ESR) in the next 2-3 weeks. We'll be circulating MECP the draft ESR to review over the summer and will be finalizing/filing it in Fall 2023. We were hoping to set up a meeting with CVC staff to provide an overview of the conceptual design & the findings presented in the ESR, including the natural heritage components of the project, in late June or early July. If you're able to circulate some dates/times that'd work for your team, I'll coordinate a Teams meeting.

Thanks,

**Benjamin Peachman, P. Eng.**

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## Schedule C Class Environmental Assessments and Conceptual Designs of the South Peel Wastewater Treatment Plants

### G.E. Booth Water Resource Recovery Facility (WRRF) Environmental Study Report (ESR) Review Meeting

---

**Meeting Date/Time:** June 29<sup>th</sup>, 2023; 1:00 pm to 2:30 pm

**Location:** Microsoft Teams

**Notes Prepared by:** Benjamin Peachman (GMBP)

**Date of Meeting Notes:** June 29<sup>th</sup>, 2023

#### Attendance

**Chair:** Andrea Pitura (AP), Peel Region

#### **Attendees: Peel Region**

Michael Menalo (MM)

Kimberley Thomas (KT)

Jason David (JD)

#### **Consultant Team**

Benjamin Peachman (BP), GMBP

Laura Williamson (LW), GEI

#### **Credit Valley Conservation (CVC)**

Iftekhar Ahmad (IA)

Sarah Labrie (SL)

#### **Meeting Notes:**

- 1) The consultant team presented the attached presentation which provided an overview of the Environmental Study Report (ESR) recommendations for the expansion of the G.E. Booth Water Resource Recovery Facility (WRRF). It also provided an overview of various components of the conceptual design for the G.E. Booth WRRF expansion.
- 2) IA inquired as to whether the proposed expansion remains outside of the erosion and flooding hazards associated with adjacent water bodies and watercourses.
  - a. BP replied that he did not have that information at this time but would review internally and provide confirmation to the CVC.
  - b. MM noted that the CVC does not include the current berm between Serson Creek and the G.E. Booth WRRF in their floodplain mapping and therefore the flood zone for Serson Creek is fairly extensive. The construction of Plant 2 ran into this issue and had to flood-proof Plant 2 with flood doors. Matt Woodbeck at CIMA+ has the background associated with these flood-proofing measures.

**Post-Meeting Note & Action Item:** *GMBP reached out to Matt Woodbeck at CIMA+ and he provided the latest floodplain mapping that was circulated from the CVC to CIMA+ in February 2023. He provided background on the flood-proofing measures used for their ongoing projects at the G.E.*

*Booth facility which included ensuring a minimum of 0.3 metres of freeboard for finished floor elevations from the Serson flood elevations or providing flood-proof doors where this was not feasible. GMBP will update the ESR to include the floodplain mapping and identify that during detailed design, the plant upgrades will need to consider these flood mitigation measures where applicable.*

- 3) LW inquired as to the status of the Serson Creek rehabilitation, specifically if the creek has been daylighted or is still piped.
  - a. MM noted that Serson Creek has been daylighted for over a year and there are no piped sections remaining. However, MN could not confirm if there are any potentially barriers to fish movement remaining.

**Post-Meeting Note & Action Item:** *While it cannot be confirmed at this time whether there are any potential barriers to fish movement within Serson Creek, for the sake of conservatism, it is the recommendation of the project team that the ESR assume fish habitat within Serson Creek at this stage.*

- 4) SL noted that there is a wetland that was missed in the ELC exercise. It is located in the area marked as FOD (Deciduous Forest) in the northwest corner of the property. It is located inside of the Deciduous Forest, and was identified as a SWD (Deciduous Swamp) community, and is relatively localized therefore it would be easy to miss but it should be added to the ELC mapping and associated reporting.
  - a. LW requested if the ELC mapping showing this wetland could be provided to GEI ASAP so it can be updated prior to their draft report issuance in July.
  - b. SL made note to confirm that the hydrology of the SWD will not be indirectly impacted by the proposed work.

**Post-Meeting Note & Action Item:** *GEI completed a site visit on July 17<sup>th</sup>, 2023 to review the SWD (Deciduous Swamp) community located within the FOD (Deciduous Forest) community in the northwest portion of the site. The ESR, and supporting NHS reports, will be updated to reflect this field visit and its findings. The ESR will also identify the need for a hydrologic review of the existing wetland during detailed design to ensure that the proposed expansion does not negatively impact the feature.*

- 5) SL noted that given the proximity of the plant expansion to the working area for CVC's Jim Tovey Lakeview Conservation Area (JTLCA), CVC will need to ensure that the Region aren't impacting their project and associated line of credit with DFO for the shoreline work they are completing. Any work the Region proposes along the shoreline will need to be reviewed by DFO.

**Action Item:** *ESR to be updated to further re-iterate that any impacts to the JTLCA should be avoided and if required, they need to be reviewed with CVC beforehand. Any shoreline impacts will require DFO approval.*

- 6) SL noted that Lake Trout records, using the fisheries data from the CVC, should be reviewed when completing the draft Natural Heritage System (NHS) report(s) prior to completing the proposed aquatic investigations.

**Action Item:** *CVC to provide fisheries data to the project team for review. Once available, this information will be incorporated into future report submissions.*



- 7) SL noted that commentary on the decommissioning of the ash lagoons and the relevant mitigation efforts should be provided in the ESR, specifically with respect to protecting natural heritage features, such as species relocation plans (if required). She noted that procedures for relocating fauna located in stormwater management (SWM) ponds may be of use in reviewing the decommissioning procedures for the ash lagoons.

**Action Item:** *ESR to be updated to include the following verbiage to address this comment:*

*'In support of the proposed removal of the ash lagoons, a wildlife rescue will be required prior to the decommissioning. Two permits, Wildlife Scientific Collector's Authorization and a License to Collect Fish for Scientific Purposes will be required from the Ministry of Natural Resources and Forestry (MNRF). These permits will need to be obtained prior to the removal and relocation efforts. An overview of the general protocol that will be used is in the text below, but a more detailed plan and methodology will be completed in conjunction with the permitting requirements necessary.*

*Wildlife Rescue Protocol*

*Scientific Collector Permits will be obtained to collect fish and wildlife with the Ministry of Natural Resources and Forestry (MNRF) ahead of alteration within the ash lagoons. During the dewatering stage, an ecologist will be on site to determine whether any wildlife rescues are required. While not encountered during ecological inventories, the following wildlife will be screened for: turtles, amphibians, and fish. Should fish be encountered, they will be collected using a backpack electrofisher, dip netting, or within baited minnow traps. Any fish collected will be placed into a large plastic bucket with an aerator to help reduce stress and overcrowding. Every 30 minutes or after large quantities of fish are collected, fish will be ethically euthanized. Fish within these ash lagoons are assumed to be unhealthy and this is the likely recommendation from MNRF. Seining and dip nets will be used to retrieve any potentially present amphibians and/or reptiles by experienced field staff. If turtles are observed, baited hoop nets may also be deployed. Rubbermaid bins containing wildlife will be filled shallowly with water and will not be left in direct sunlight for long periods of time. Any fish or wildlife collected will be identified to species and the number of each species caught recorded. Any mortality during collection will also be noted. Amphibians and reptiles would be relocated to adjacent habitats (likely within Jim Tovey Lakeview Conservation Area or Applewood Creek; however, this would need to be determined with MNRF).*

SL noted that if habitat mitigation and restoration is required (specifically related to Overall Benefit Permitting), the landscaped area between the JTLCA and the biosolids management area would be an ideal location for an artificial shorebird habitat.

- 8) AP inquired if there was a minimum setback from the proposed expansion buildings to the JTLCA.
- a. IA indicated that he would discuss internally and provide a response. SL noted to be cognizant of any external environmental features adjacent to the property limits that would have their own setbacks that extend into the property.

**Action Item:** *CVC to review internally and confirm setbacks applicable to the developable footprint.*

- 9) BP thanked all attendees for their feedback and concluded the meeting.



# Peel Wastewater Treatment Solutions G.E. Booth WRRF Schedule C Class EA

Conceptual Design & Summary of  
ESR Findings

—  
CVC Meeting - June 29<sup>th</sup>, 2023



## Purpose :

- Provide an update on the conceptual design and ESR findings.
- Receive CVC input on the potential environmental net effects and mitigation measures involved with the G.E. Booth WRRF expansion.

## Agenda

1. Background, Purpose and Objectives of the Class EAs
2. Phase 1: Problem / Opportunity Statement
3. Phase 2: Recommended Regional Solution
4. Phase 3: Preferred Design Concepts
5. Conceptual Design
6. ESR Findings (Natural Environment Impacts & Mitigation)
7. Next Steps



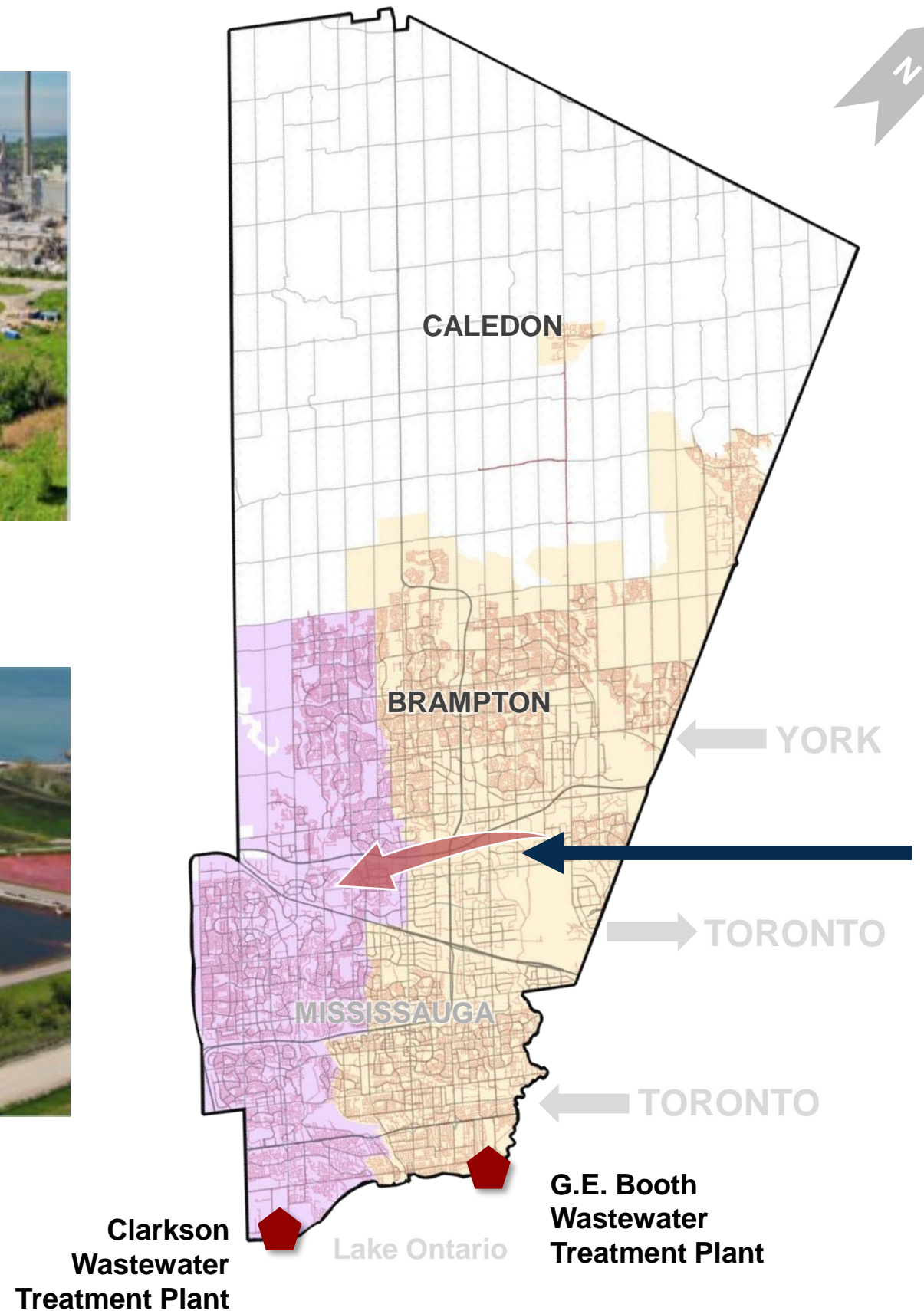
# Peel's Wastewater Treatment System



**Clarkson Wastewater Treatment Plant  
(350 MLD)**



**G.E. Booth Wastewater Treatment Plant  
(518 MLD)**



The East-West Diversion is a deep gravity trunk sewer of 2400 mm diameter currently being constructed along Derry Road. It is expected to be completed and operational by 2026. It allows Peel to divert flows from the G.E. Booth WWTP catchment area where there are capacity limitations, to the Clarkson WWTP catchment area which currently has surplus capacity.



**Purpose of EA:** Identify a preferred regional solution for meeting wastewater treatment capacity requirements and managing biosolids in the Peel lake-based system, and to develop a preferred design concept for expanding the G.E. Booth WRRF.

The Region of Peel is

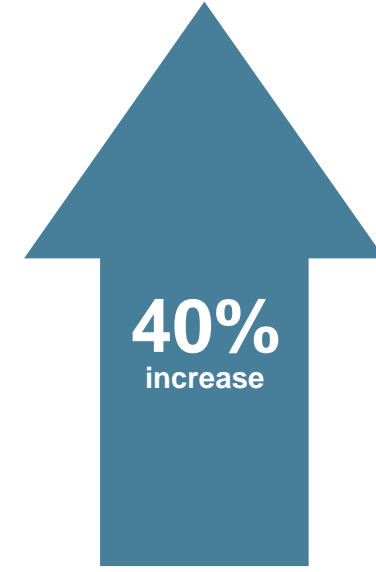
## GROWING!

2016  
**2.12 Million**

1,428,000 people  
695,000 jobs

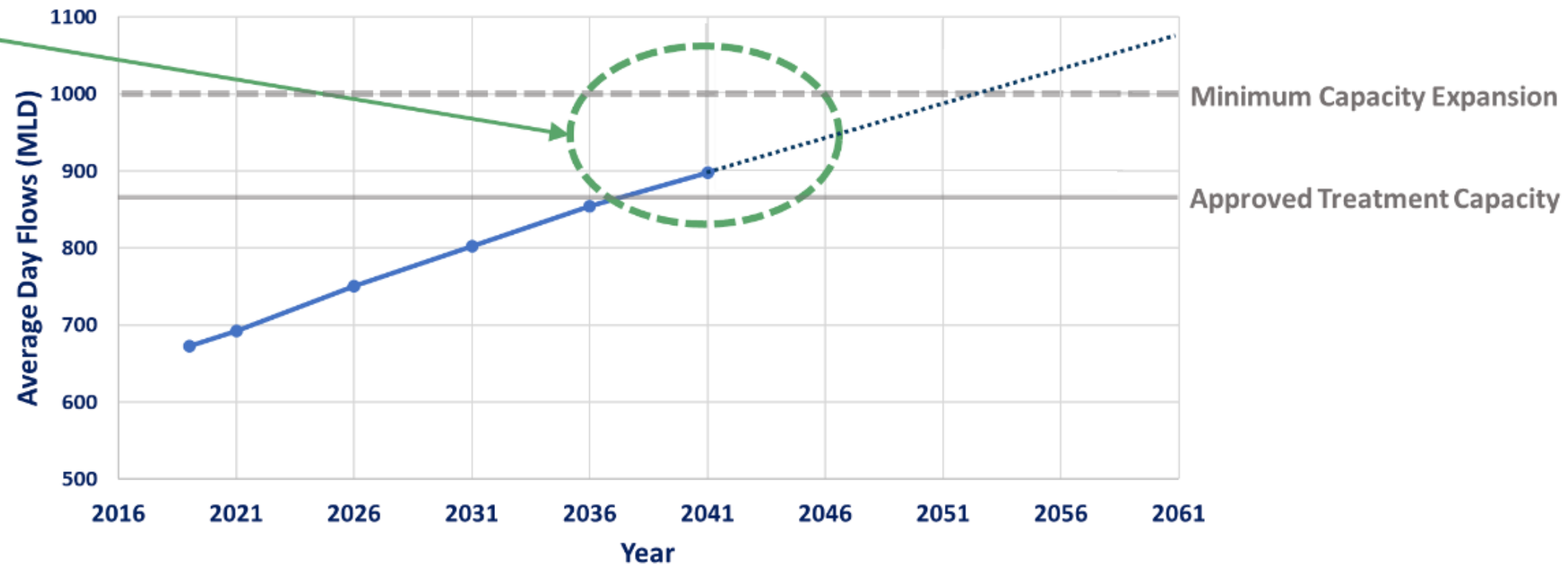
2041  
**2.94 Million**

1,970,000 people  
970,000 jobs



+ 542,000 people  
+ 275,000 jobs

**Total Peel Wastewater Flow Projections**



Additional Treatment Capacity Required

## The Region is undertaking two Schedule C Class EAs to develop preferred solutions at the G.E Booth WRRF and the Clarkson WRRF that will:

- Meet future needs associated with population growth, new regulations, climate resiliency, energy efficiency, and wet weather flow management.
- Address community expectations regarding level of service, odour, air/noise, water quality, protection of the environment and aesthetics.
- Provide greater flexibility and reliability in wastewater and biosolids management.

*The G.E. Booth WRRF Class EA will also develop a preferred design concept to address the outfall capacity for the G.E. Booth WRRF.*

### Goals & Objectives of the Class EAs

	<b>Biosolids Management</b>	<ul style="list-style-type: none"> <li>• Region Wide Biosolids Management with Operational Flexibility</li> <li>• Diversified Outlets with Reliable Biosolids Treatment and End Uses at Each Facility</li> <li>• Advanced Technologies with Energy and Resource Recovery</li> <li>• Community Compatible and Acceptable</li> </ul>
	<b>Energy Efficiency</b>	<ul style="list-style-type: none"> <li>• Reduce GHG emissions</li> <li>• Energy Reduction and Reuse</li> </ul>
	<b>Wet Weather Management</b>	<ul style="list-style-type: none"> <li>• Real Time Control</li> <li>• Diverting Flow</li> </ul>
	<b>Receiving Water Quality</b>	<ul style="list-style-type: none"> <li>• Assimilative Capacity studies</li> <li>• Define Effluent Quality Limits</li> <li>• Protecting IPZs and shoreline users/uses</li> </ul>
	<b>Odour and Air Quality</b>	<ul style="list-style-type: none"> <li>• Multi-barrier approaches</li> </ul>
	<b>Visual Aesthetics</b>	<ul style="list-style-type: none"> <li>• Landscaping</li> <li>• Best use of sites</li> <li>• Eliminate ash lagoons</li> </ul>
	<b>Compatibility with Ongoing Initiatives</b>	<ul style="list-style-type: none"> <li>• Real Time Control</li> <li>• Existing Plant Upgrades</li> <li>• Energy Efficiency Initiatives - DEC</li> </ul>
	<b>Treatment Redundancy</b>	<ul style="list-style-type: none"> <li>• Firm Capacity with one train out of service</li> </ul>

Note: Phase 1 was undertaken jointly with the Clarkson WRRF EA.



## Phase 2 involved identifying and evaluating Alternative Solutions to meet the Region-wide needs.

### Process

- 1) Baseline inventories of study area were conducted to identify natural, social, and cultural constraints.
- 2) A long-list of wastewater treatment, biosolids management, and outfall capacity strategies were developed.
- 3) Long-list was evaluated against Opportunity Statement and overall feasibility to determine short-list of alternative solutions.
- 4) Short-list evaluated using the multi-criteria approach (natural environment, socio-cultural, technical, and economic considerations).
- 5) An overall preferred Regional treatment solution was selected.

Note: Phase 2 was undertaken jointly with the Clarkson WRRF EA.

## Wastewater Treatment & Outfall

- Plant treats flows using conventional activated sludge (CAS) process with an average rated flow capacity of 518 Megalitres per day (MLD).
- Processes include screening, grit removal, primary clarification, aeration, secondary clarification, and chlorine disinfection and de-chlorination prior to discharge to Lake Ontario through the plant's outfall.
- Existing outfall is 3.65 metres in diameter and 1,435 metres in length and conveys effluent from Plants 1, 2, & 3 into Lake Ontario.
- Ongoing upgrades include the replacement of Plant 1, upgrades to Plant 3 primary clarifiers, and incinerator refurbishment.

## Biosolids Management

- Primary and waste activated sludge (WAS) is dewatered and incinerated in four fluidized bed incinerators.
- Digested sludge from the Clarkson WRRF is currently trucked to the G.E. Booth WRRF for incineration.
- Ash slurry from the incinerators is pumped to ash lagoons for settling and storage.





# Phase 2: Existing Conditions (Outfall)

An outfall conveys treated effluent from a WRRF and discharges it into a body of water. Components of the outfall system are:

## On-shore shaft

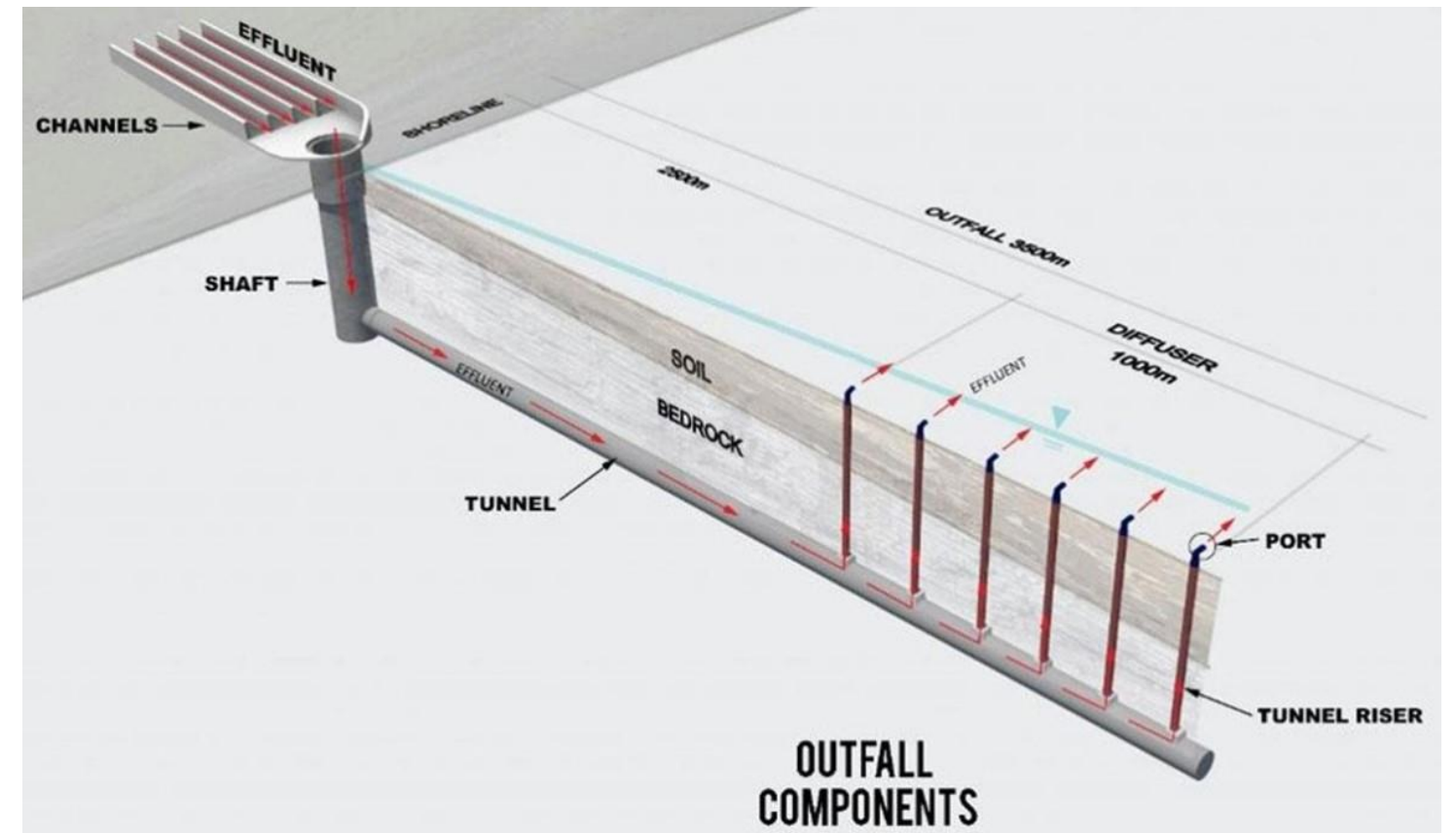
- The outfall shaft is located on the east side of the plant.
- Effluent conduits convey flow from Plants 1, 2, & 3 to the effluent channels of the outfall shaft.

## Off-shore tunneled pipe

- The existing outfall pipe is 3.65 metres in diameter and 1,435-metres in length.

## Risers and diffusers

- There are 35 diffusers in the last 212 metres of the outfall pipe.



A new outfall is required at the G.E. Booth WRRF for the following reasons:

- The rated peak flow peak capacity of outfall is 1,523 MLD, however it can only convey 1,200 MLD before flooding the secondary clarifier weirs.
- The existing outfall and diffuser system does not extend far enough into Lake Ontario to generate the dilutions required to meet Provincial Water Quality Objectives (PWQOs).
- There is insufficient peak flow capacity to meet future needs to the year 2041 and beyond.



## Recommended Strategy to Treat Wastewater

- Divert flows through the East-West Diversion Trunk Sewer
- **Expand the G.E. Booth WRRF from 518 MLD to 550 MLD**
- **New Outfall at the G.E. Booth WRRF**
- Expand the Clarkson WRRF from 350 MLD to 500 MLD

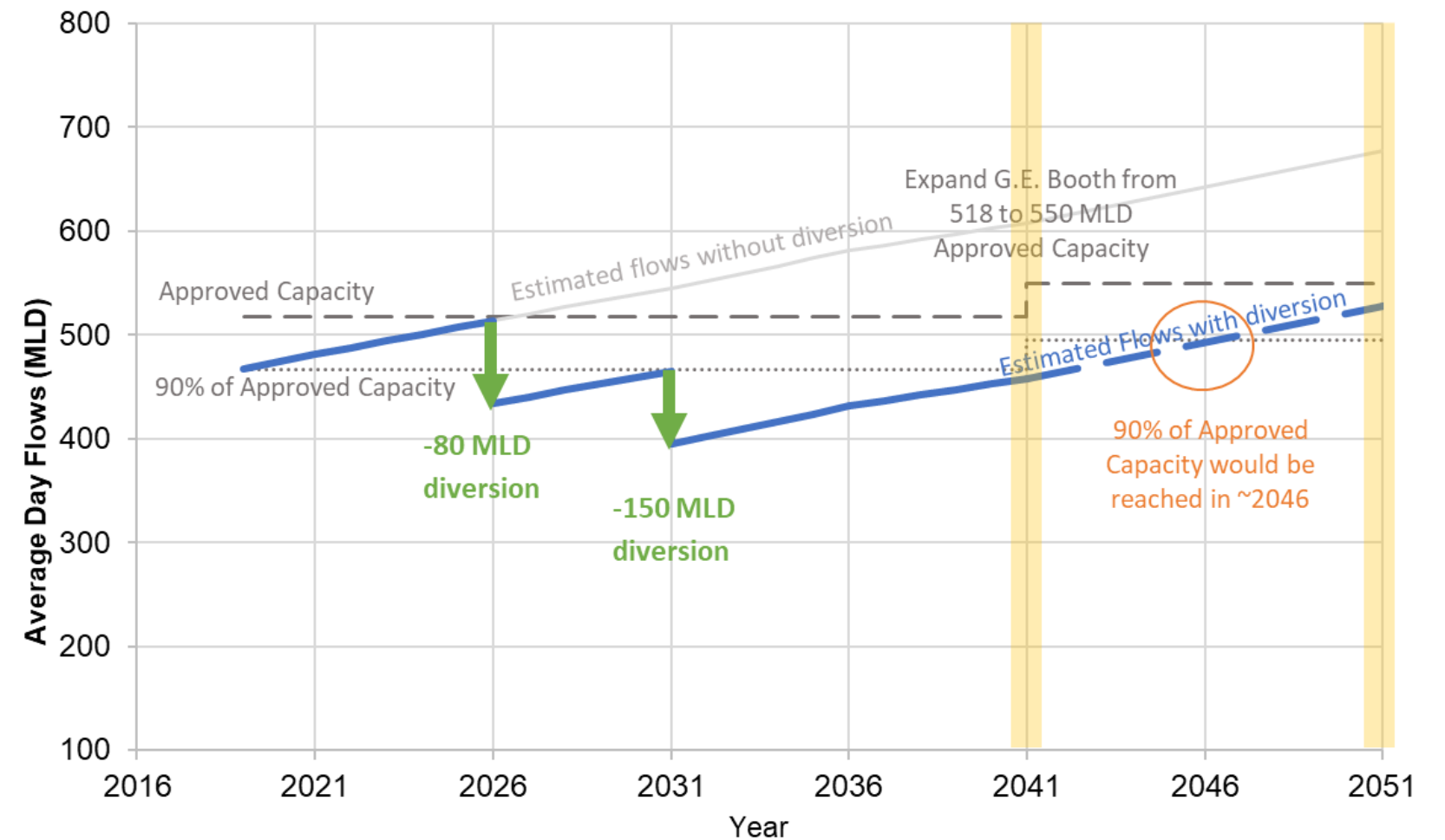
## Recommended Strategy to Manage Biosolids

- Provide biosolids treatment at the Clarkson WRRF and market product for beneficial land use. This will result in phasing out the trucking of sludge from the Clarkson WRRF to the G.E. Booth WRRF.
- **Assess alternatives for treatment and management of solids at the G.E. Booth WRRF, taking into consideration the incinerators' remaining service life and the investment Peel has made in the technology.**



# Benefits of the Regional Solution

- Long term sustainable approach that optimizes the use of existing and planned infrastructure
- Capacity increases allow Peel to meet future population growth demands beyond 2041; allowing time to plan and implement next phase of expansion
- Diversification in biosolids management options
- Allows for a staged approach to expansion of both plants
  - Clarkson expansion by 2029
  - G.E. Booth expansion by 2036 (with outfall constructed earlier)



**Diversion and Expansion Approach for the G.E. Booth WRRF**

**Reduces risks associated with future changes in population growth, environmental conditions, and regulatory requirements**

## Phase 3 involved identifying and evaluating alternative technologies & design concepts for wastewater treatment, biosolids management, and the outfall.

### Process

- 1) Site-specific investigations (natural environment, archaeological, RWIA, GHG emission analysis) were conducted to support the analysis.
- 2) Long-list of wastewater disinfection technologies were developed, screened, and evaluated to determine the preferred alternative. As confirmation, alternatives were reviewed against the Region's key objectives.
- 3) Short-list of wastewater design concepts were developed with preliminary treatment, primary treatment, and disinfection common to all design concepts.
- 4) Short-list of biosolids management (BM) design concepts was also developed based on alternative technologies & input from the VE team.
- 5) Wastewater and BM design concepts evaluated using the multi-criteria approach (natural environment, socio-cultural, technical, and economic considerations) and reviewed against Region's key objectives.
- 6) Development of the outfall design concept included evaluations for the preferred outfall shaft location and pipe alignment.
- 7) An overall preferred design concept for the G.E. Booth WRRF was developed.

Note: Phase 3 was undertaken solely for the G.E. Booth WRRF EA.



## The following disinfection technologies were considered for the G.E. Booth WRRF:

- 1) Ozonation (Screened Out)
- 2) Peracetic acid (Screened Out)
- 3) Chlorination / Dechlorination (similar score as UV; less aligned with Region's objectives)
- 4) **Ultraviolet (UV) Disinfection (similar score as Chlorination / Dechlorination; better aligned with Region's Key Objectives)**
  - ✓ Chlorination / Dechlorination has a higher risk of disinfection by-product formation, therefore UV better aligns with the Region's Environmental Protection objective.
  - ✓ UV reduces the need for disinfection chemical deliveries to plant thereby reducing traffic. It may also be perceived by the public as more environmentally friendly. Consequently, it better aligns with the Region's Community Acceptability objective.
  - ✓ While having a higher capital cost, in the long term, UV is the more fiscally responsible alternative.

## The following wastewater treatment design concepts were developed & evaluated:

- 1) Expansion using Conventional Activated Sludge (CAS)
- 2) CAS Process Optimized with Chemically Enhanced Primary Treatment (CEPT)
- 3A) CAS Process Optimized with High-Rate Treatment Facility
- 3B) CAS Process Optimized with Real Time Control (RTC) in Collection System**
  - ✓ RTC provides a most robust solution as it leverages storage in the collection system to reduce peak flows at the plant.
  - ✓ Design Concepts 3A & 3B best protect the environment as they negate the need for a new process train in the ash lagoon area thereby avoiding potential impacts to natural features on-site as well as the nearby JTLCA.
  - ✓ Design Concepts 3A & 3B expected to be more acceptable to the community based on reduced tankage, thereby lowering the potential for impacts to the Lakeview Village development.
  - ✓ 3A & 3B are slightly easier to operate as peak flows would be controlled.
  - ✓ 3B has the lowest capital and lifecycle costs, thereby achieving the Region's 'Fiscally Responsible' objective.

**The existing sludge management facilities have sufficient capacity to 2041; however, a long-term vision for sludge management is required.**

The following biosolids management design concepts for 550 MLD were developed & evaluated:

- 1) Expand Incineration
- 2) Transport Additional Solids Off-Site to Clarkson WRRF for Management
- 3) Thermal Hydrolysis Process (THP) followed by Digestion prior to Incineration
- 4) Third-Party Management of Biosolids
- 5) Digestion, Dewatering, and Direct Thermal Drying
- 6) Digestion Prior to Incineration**
  - ✓ Allows Peel to continuously make use of existing investments, while allowing flexibility to adapt to changing technologies, market conditions, and regulations.
  - ✓ Improved resiliency as alternatives with digestion offer more flexibility in end use markets.
  - ✓ Offers flexibility in the future to consider alternative technologies that meet the needs of the community.
  - ✓ Achieves the 'Ease of Operations' objective as incineration is an existing process at the G.E. Booth plant and digestion is already being implemented in Peel at the Clarkson plant.
  - ✓ Most fiscally responsible as it takes advantage of existing infrastructure investments, while maintaining future flexibility. It also delays the need for large capital expenditures until approximately 2041.



## Evaluation conducted to determine the preferred Outfall Shaft Location

### Evaluation was based on:

- Spatial requirements (footprint, staging/laydown areas)
- Proximity to existing connections (effluent conduits)
- Ease of connection to future DEC
- Avoiding the JTLCA

### **Alternative 1** was chosen based on:

- ✓ Central location between existing effluent conduits & future DEC
- ✓ Optimized construction sequencing with DEC
- ✓ Opportunities for capital cost savings and lowest overall cost
- ✓ Shortest construction duration





## Evaluation conducted to determine the preferred Outfall Pipe Alignment

### Evaluation was based on:

- Lake bathymetry (topography)
- Minimizing impacts to the natural environment, Intake Protection Zones (IPZs), and shoreline users
- Diffuser effectiveness (currents)
- Capital cost and schedule



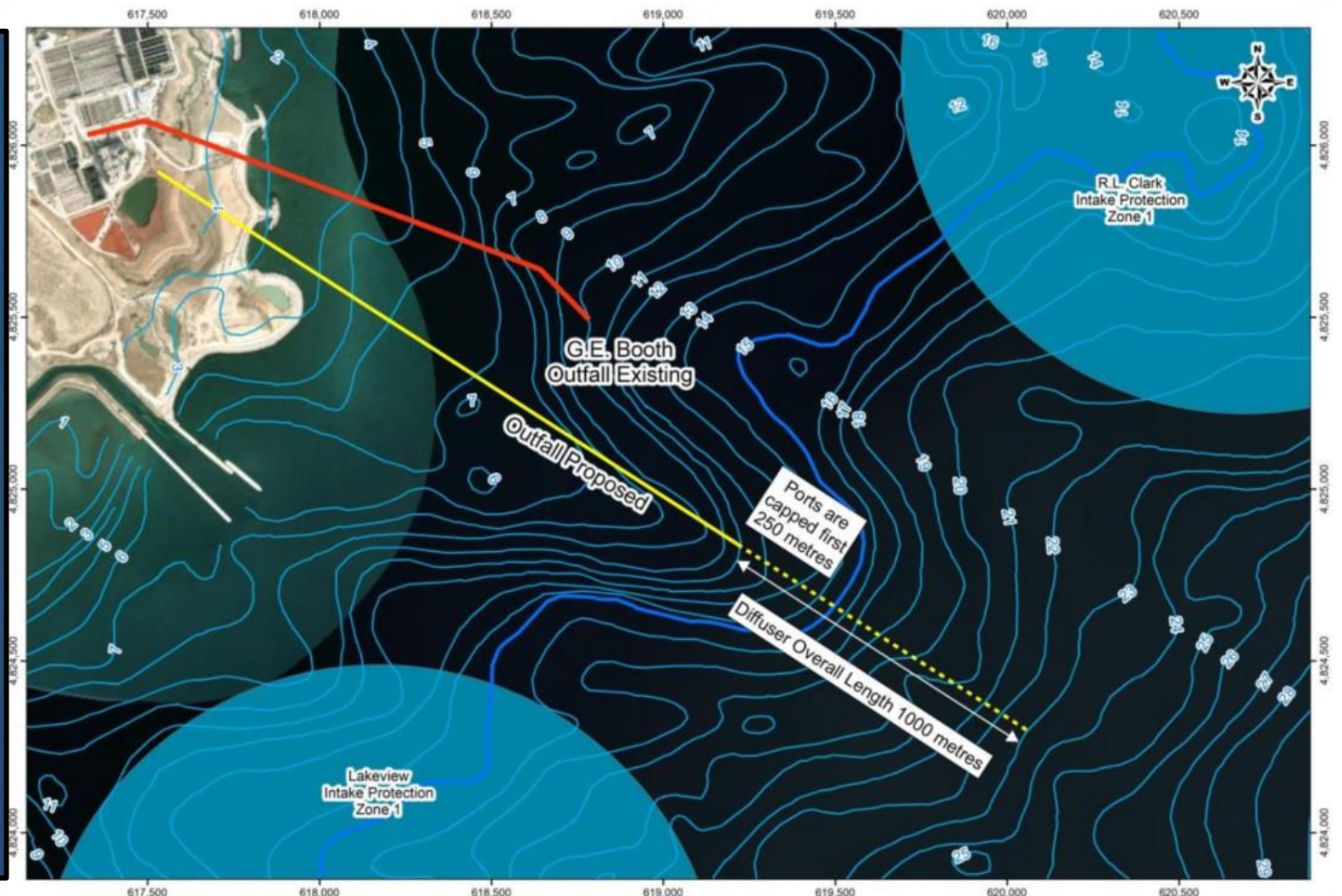
### **Alternative B** was chosen based on:

- ✓ Central location between IPZs for A.P. Kennedy Water Treatment Plant (WTP) and R.L. Clark WTP.
- ✓ Favourable current direction and bathymetry (greater water depth achieved closer to shore, thereby improving effluent mixing).



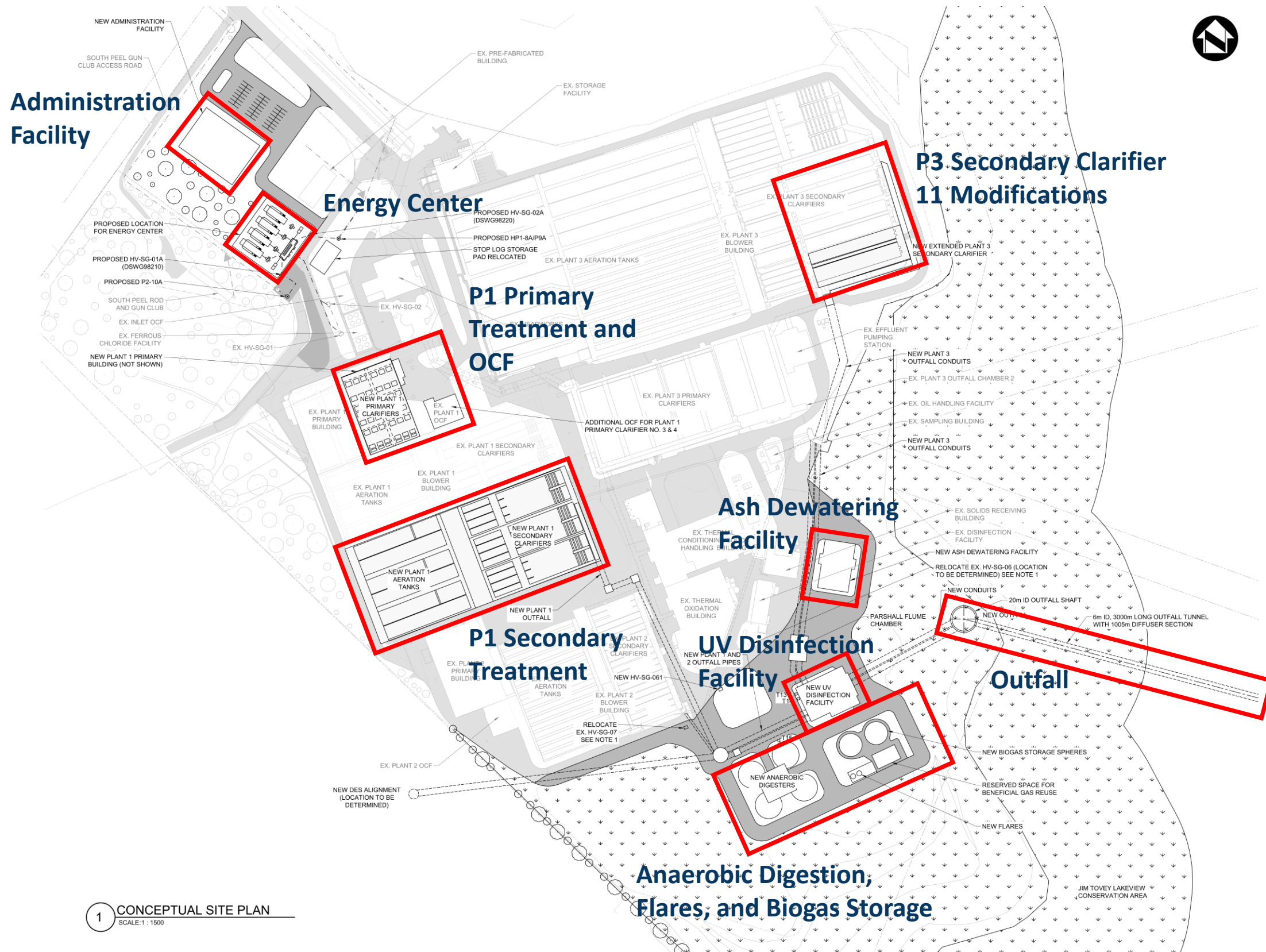
# Preferred Design Concept - Outfall

- 20-metre diameter outfall shaft with a 6-metre diameter outfall pipe.
- Shaft on east side of property; optimal location for connection to Plant 1, 2 & 3.
- Pipe alignment generally parallel to existing outfall.
  - 2,000 metre length supply pipe (without diffusers), 1,000 metre diffuser pipe (68 diffusers spaced 15 metres apart), 3,000 metres total length.
- Initially, the first 250 metres of diffuser ports will be capped providing a peak flow capacity of 2,100 MLD. Capped ports can be opened as required to provide additional capacity in the future.
- Existing 1,435 metre length outfall to be retained for redundancy purposes.





# Conceptual Design – Key Components



1 CONCEPTUAL SITE PLAN  
SCALE: 1 : 1500



# Preferred Design Concept – Existing



Approximate  
property boundary

Future Jim Tovey Lakeview  
Conservation Area (JTLCA)

Future Lakeview  
Development



# Preferred Design Concept - Future



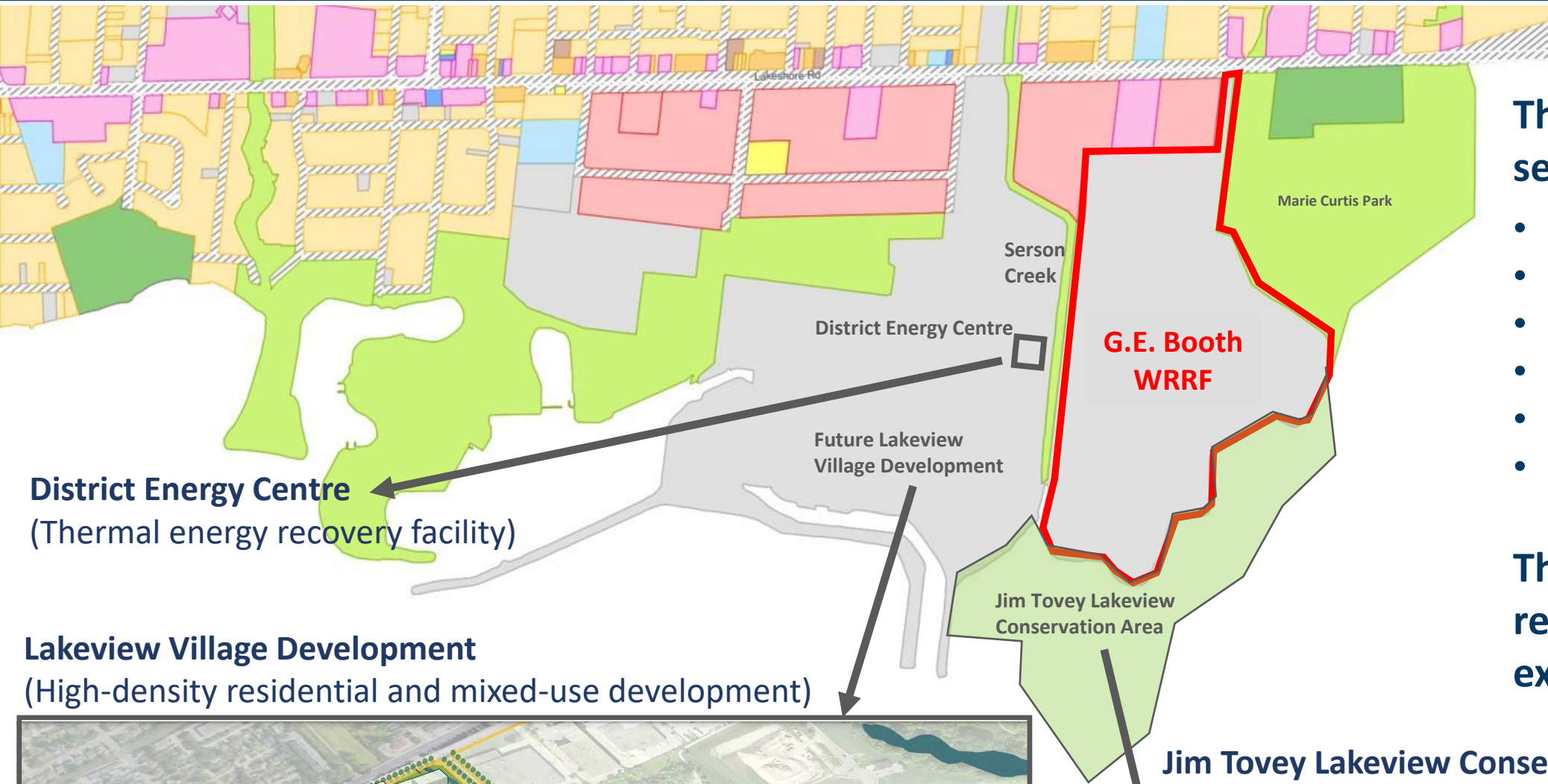
Approximate  
property boundary

Future Jim Tovey Lakeview  
Conservation Area (JTLCA)

Future Lakeview  
Development



# Impacts and Mitigation: Overview of Adjacent Land Uses



The G.E. Booth WRRF is located adjacent to several existing and future sensitive uses:

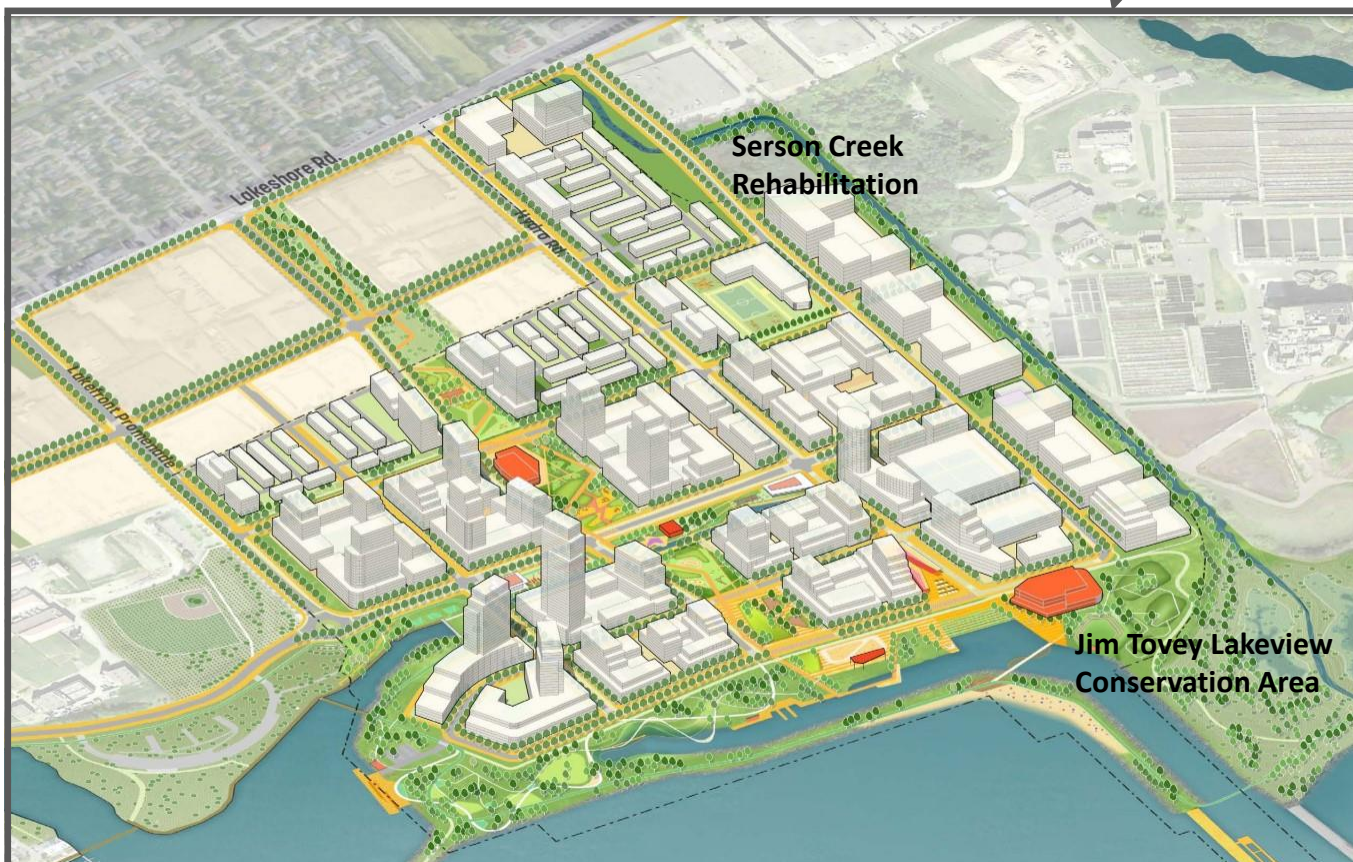
- Lakeview Village development
- Jim Tovey Lakeview Conservation Area (JTLCA)
- Serson Creek rehabilitation
- Marie Curtis Park
- On-site environmental areas
- Existing adjacent industrial and residential properties

The G.E. Booth WRRF EA provides recommendations that will mitigate impacts to existing features and future land uses.

**District Energy Centre**  
(Thermal energy recovery facility)

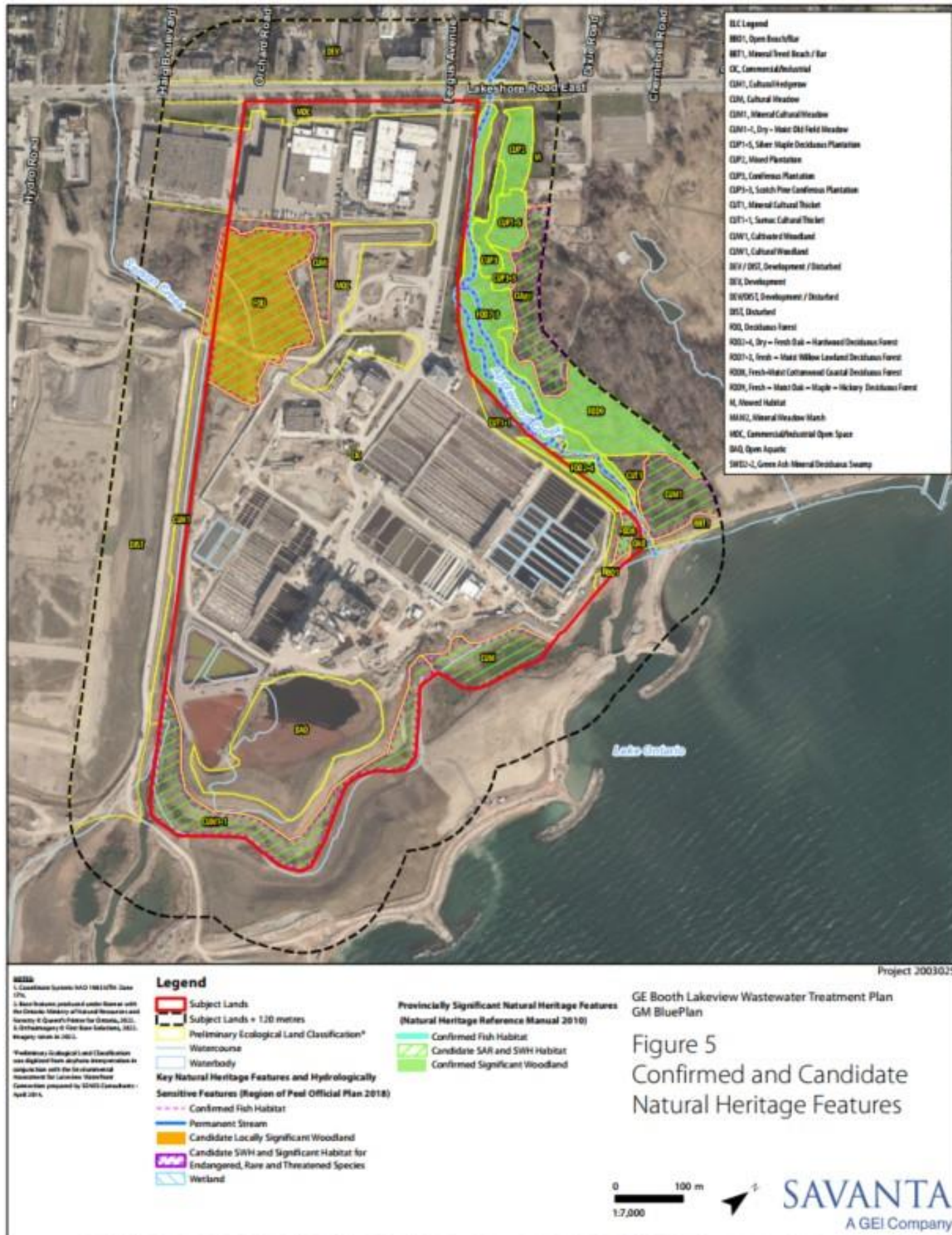
**Lakeview Village Development**  
(High-density residential and mixed-use development)

**Jim Tovey Lakeview Conservation Area**  
(26-ha of reconstructed meadow, forest & wetland)





# Impacts and Mitigation: Natural Environment (On-shore)



A review of background information was conducted to confirm the preliminary Ecological Land Classification (ELC) mapping within and adjacent to the G.E. Booth WRRF. Field investigations were completed to confirm the Candidate Natural Heritage Features.

The following provincially significant natural heritage features were identified on and abutting the site:

- Fish habitat
- Significant woodland
- Candidate Significant Wildlife Habitat (SWH), and;
- Candidate habitat for endangered and threatened species

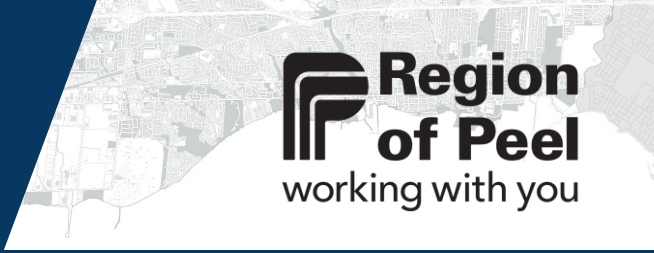
The **Preferred Design Concept** was developed to avoid natural heritage features to the extent possible. However, there may be some isolated tree removals and encroachment on portions of the Candidate Significant Wildlife Habitat.

The Region is working with the Conservation Authority and the Municipalities to develop appropriate measures to mitigate impacts to natural heritage features and natural hazards, which will include:

- Installation of erosion and sediment controls; preparation of accidental spill protocols
- Working within construction timing windows and outside of sensitive species windows
- Restoration and enhancement opportunities



# Impacts and Mitigation: Natural Environment (Off-shore)



Measures to mitigate impacts to be developed during detailed design based on further marine investigations, but may include:

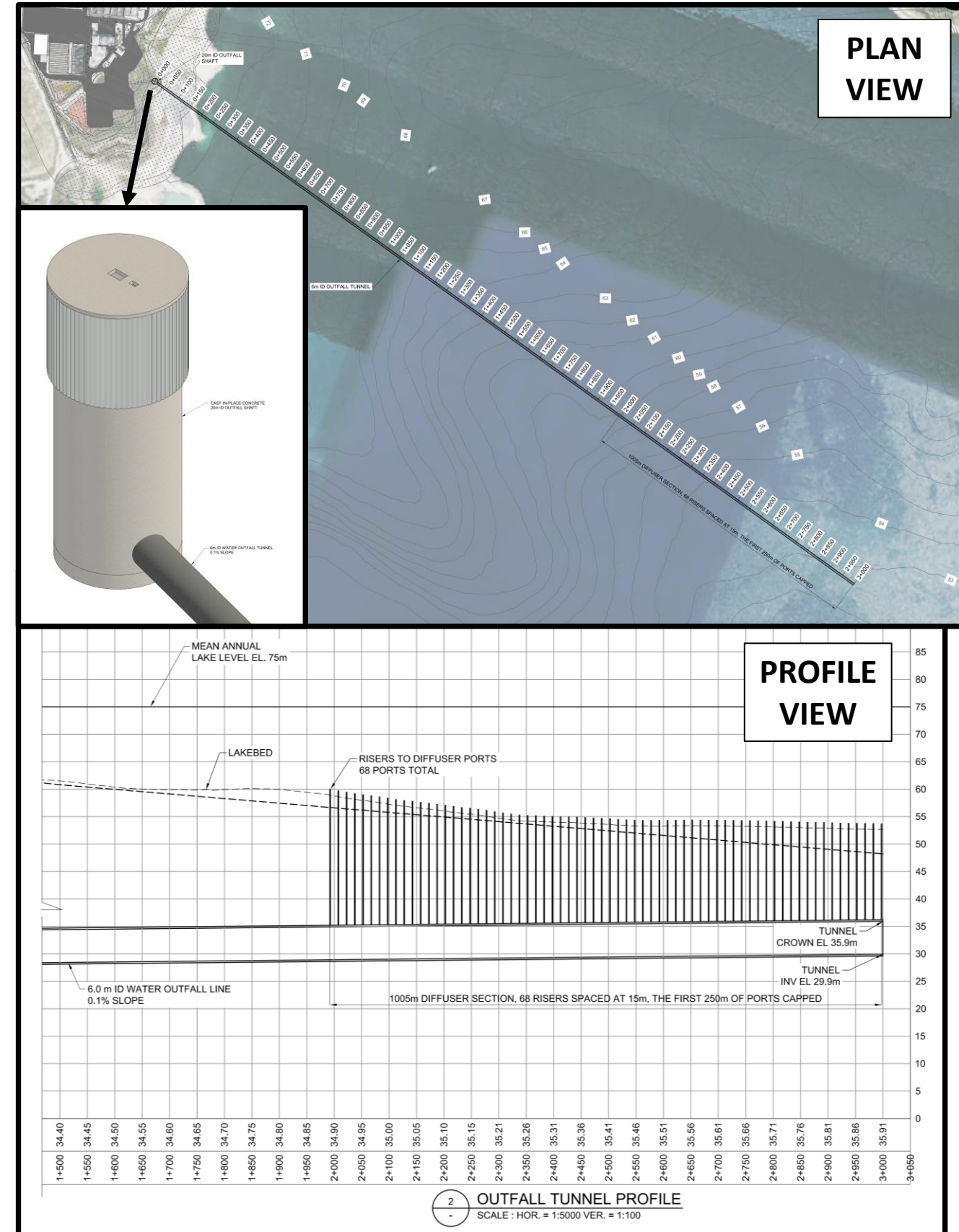
- Protection of shoreline; through shoreline stabilization if required
- Barriers to fish movement entering into infrastructure
- Noise generation to scare fish away from construction area
- Habitat restoration

During design it is recommended that the following investigations are completed:

- General Habitat Mapping using underwater UAVs; we can identify fish species from imagery as well.
- Detailed Habitat Mapping + Benthic Sampling + Mussel Sampling
  - This would likely depend on the depths of the outfall in the last 1 km where the diffusers are proposed.
- Targeted Fish Community Sampling
  - To be completed in the fall and spring depending on the types of substrates we found.

Bathymetry study also recommended to confirm lake topography and potential aquatic habitats.

Although there no significant aquatic habitats that have been identified in the study area, DFO's No Net Loss Policy must be met. Outfall construction will be done through tunneling to minimize impacts to aquatic fish species or habitat, and to the natural features in the JTLCA. Engagement with DFO will occur.





Potential Impact	Mitigation
<b>Noise</b>	Noise controls will be implemented through the conceptual design of the plant expansion to mitigate any noise impacts exceeding applicable guidelines.
<b>Odour</b>	<p>The Region has been proactively working with the City of Mississauga to develop an enhanced odour management strategy at the G.E. Booth WRRF. The odour management strategy includes:</p> <ul style="list-style-type: none"> <li>• Replacing old Plant 1 and enclosing the new Plant 1 primary clarifiers with flat covers, a building, and an odour control facility.</li> <li>• Covering the existing Plant 2 &amp; Plant 3 primary clarifiers with flat covers, a building, and odour control facilities.</li> <li>• Increasing the stack height of the odour control facility at the existing headworks facility.</li> <li>• Adding a polishing stage of odour control to the existing headworks odour control facility.</li> <li>• Continued odour modelling and community outreach.</li> </ul> <p>Through implementation of these control measures, odours from the existing G.E. Booth WRRF will be reduced.</p>
<b>Visual</b>	<ul style="list-style-type: none"> <li>• Decommissioning the lagoons.</li> <li>• Constructing naturalized barriers between the plant and surrounding areas, including the Lakeview development area, the Jim Tovey Lakeview Conservation Area, and Marie Curtis Park.</li> </ul>
<b>Archaeology</b>	<ul style="list-style-type: none"> <li>• Stage 1 Archaeological &amp; Marine Archaeological Assessment identifies that the site is disturbed with little remaining potential for archaeological resources.</li> <li>• If additional areas are disturbed, a Stage 2 Archaeological Assessment will be completed during conceptual design.</li> </ul>
<b>Traffic</b>	Due to the biosolids from the Clarkson WRRF not being trucked to G.E. Booth WRRF, there is an overall reduction in truck traffic for the site.

## The Preferred Expansion Project will:

- Mitigate impacts to natural heritage features
- Protect Lake Ontario water quality and shoreline users
- Enhance the site aesthetics through the removal of ash lagoons, site restoration, and maximizing buffer areas
- Reduce odours from existing conditions
- Optimize the use of existing plant infrastructure while providing flexibility to meet future conditions
- Provide opportunities for energy recovery and GHG emissions reductions at the G.E. Booth WRRF

## The expansion project will also be designed to support the District Energy Centre (DEC) planned on the Lakeview Development site

- The DEC is a thermal energy centre which pumps treated effluent from the G.E. Booth WRRF through heat exchangers to provide heating and cooling to homes in the Lakeview Development.

*Further details on the preferred expansion project at the G.E. Booth WRRF, including refinements to measures to mitigate impacts will be developed through the detailed design stage.*





# Implementation Plan - Schedule

## Expansion will be implemented through 7 separate projects:

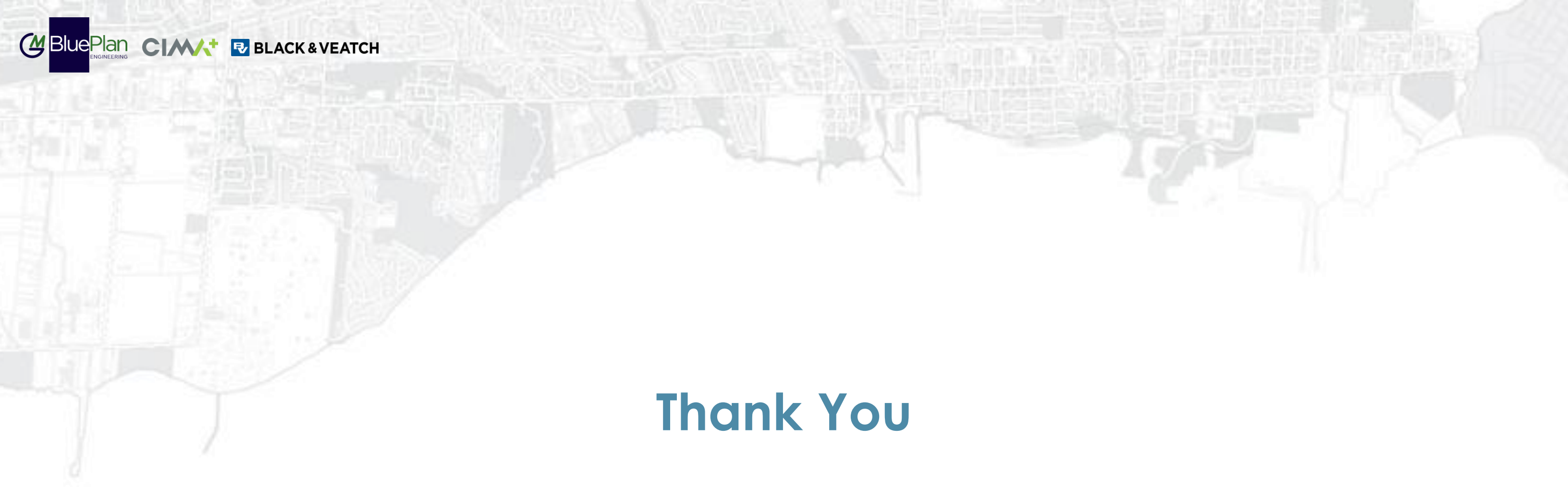
- **Early Engineering Assignment:** GEB Facility Plan
- **Engineering Assignment 1:** Ash Dewatering, DES, and Old Plant 1 Demolition
- **Engineering Assignment 2:** Energy Center
- **Engineering Assignment 3:** Administration Facility
- **Engineering Assignment 4:** New Digesters and Beneficial Gas Reuse
- **Engineering Assignment 5:** New Outfall and UV Disinfection Facility
- **Engineering Assignment 6:** Plant 1 and Plant 3 Expansion
- **Engineering Assignment 7:** Future Solids Management Solution

<u>Ongoing Works</u>	
Several other projects were considered as part of developing the implementation schedule	
Ongoing Projects	Scheduled Dates
New Plant 1 – Contract 3	Q2 2022 to Q1 2026
Plant 3 Odour Upgrades Project	Q1 2024 to Q4 2028
District Energy System (DES)	Onsite connection by 2027
Plants 2 & 3 Blower Upgrade Project	Q1 2024 to Q4 2026
Incineration Rehabilitation Projects	Ongoing - 2026

80 MLD Diversion ↓      RTC Online ↓      +70 MLD Diversion (Total 150 MLD) ↓

2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
	Engineering Assignment 1		Contract 1-1 – Ash Dewatering & DES													
			Eng. Assign. 1	Contract 1-2 – Old Plant 1 Demolition												
		Engineering Assignment 2		Contract 2-1: Energy Center												
			Engineering Assignment 3		Contract 3-1: Administration Facility											
		Engineering Assignment 4			Contract 4-1: New Digesters and Beneficial Gas Reuse											
						Engineering Assignment 5			Contract 5-1: New Outfall and UV Disinfection							
										Engineering Assignment 6			Contract 6-1: Plant 1 and Plant 3 Expansion			
								Re-evaluate Solids	Engineering Assignment 7				Contract 7-1: Future Solids Management Solution			

- 1) Draft ESR will be updated based on input received at this meeting.
- 2) Supporting studies on Air/Odour and Noise are being finalized by end of June.
- 3) Breeding bird surveys will be complete by end of June; report finalized by mid July.
- 4) Draft ESR to be sent to MECP (with key appendices; Natural Heritage, RWIA, Air/Odour, and Noise) for review by end of July.
- 5) Draft ESR to be sent to CVC, TRCA, & the City of Mississauga (with key appendices; Natural Heritage, etc.) for concurrent review period with MECP.
- 6) Final ESR to be filed for public review in Fall 2023.



**Thank You**

**Questions?**



## Benjamin Peachman - GM BluePlan

---

**From:** Benjamin Peachman - GM BluePlan  
**Sent:** Tuesday, August 22, 2023 10:11 AM  
**To:** 'Ahmad, Iftekhar'  
**Cc:** LaurieBoyce@L3ESP.ca; Kambeitz, Cindy; Robinson, Olivia  
**Subject:** RE: [External] G.E. Booth WRRF EA - Review of ESR Findings & Conceptual Design  
**Attachments:** 2023.06.29 - GEB ESR Review Meeting Minutes.pdf

Hi Iftekhar,

Apologies for the delay. Please see attached for the meeting minutes, along with the presentation that we went through during the meeting. Let me know if you have any comments or clarifications on the minutes.

Thanks,

**Benjamin Peachman, P. Eng.**  
Infrastructure Planning

### GM BluePlan Engineering Limited

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t: 416.703.0667 ext. 7216 | c: 437.328.5016  
[benjamin.peachman@gmblueplan.ca](mailto:benjamin.peachman@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



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**From:** Ahmad, Iftekhar <Iftekhar.Ahmad@cvc.ca>  
**Sent:** Wednesday, July 19, 2023 10:02 AM  
**To:** Benjamin Peachman - GM BluePlan <Benjamin.Peachman@gmblueplan.ca>; Chris Hamel - GM BluePlan <chris.hamel@gmblueplan.ca>  
**Cc:** Laurie Boyce - GM BluePlan <Laurie.Boyce@gmblueplan.ca>; Kambeitz, Cindy <cindy.kambeitz@peelregion.ca>  
**Subject:** RE: [External] G.E. Booth WRRF EA - Review of ESR Findings & Conceptual Design

Hi Benjamin,

It looks like we have not yet received the minutes of the below meeting. Please send them at your convenience.

Thanks,

Best regards,  
Iftekhar

I'm working remotely. The best way to reach me is by email or Microsoft Teams.

**Iftekhar Ahmad** | he/him/his  
Planner, Environmental Assessment | Credit Valley Conservation  
905-670-1615 ext 296 | M: 647-449-5962  
[iftekhar.ahmad@cvc.ca](mailto:iftekhar.ahmad@cvc.ca) | [cvc.ca](http://cvc.ca)



[View our privacy statement](#)

-----Original Appointment-----

**From:** Benjamin Peachman - GM BluePlan <Benjamin.Peachman@gmbblueplan.ca>

**Sent:** Wednesday, June 21, 2023 4:26 PM

**To:** Chris Hamel - GM BluePlan; Ahmad, Iftekhar; Kilis, Jakub; De Stefano, Matteo; Labrie, Sarah; Williamson, Laura

**Cc:** Laurie Boyce - GM BluePlan; Robinson, Olivia; Kambeitz, Cindy; Pitura, Andrea; Thomas, Kimberley; LaPlante, Corinne; David, Jason; Menalo, Michael; Lohnes, Shelley

**Subject:** [External] G.E. Booth WRRF EA - Review of ESR Findings & Conceptual Design

**When:** Thursday, June 29, 2023 1:00 PM-2:30 PM (UTC-05:00) Eastern Time (US & Canada).

**Where:** Microsoft Teams Meeting

**[CAUTION]** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the

This meeting is to review the Environmental Study Report (ESR) findings for the expansion of the G.E. Booth Water Resource Recovery Facility (WRRF) in south Mississauga. GMBP will circulate the draft ESR prior to the meeting and present the findings.

## Microsoft Teams meeting

**Join on your computer, mobile app or room device**

[Click here to join the meeting](#)

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Passcode: pbkfGF

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+1 647-749-5899,,918881142# Canada, Toronto

Phone Conference ID: 918 881 142#

[Find a local number](#) | [Reset PIN](#)

## Benjamin Peachman - GM BluePlan

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**From:** Benjamin Peachman - GM BluePlan  
**Sent:** Tuesday, August 01, 2023 3:03 PM  
**To:** Ahmad, Iftekhar  
**Cc:** LaurieBoyce@L3ESP.ca; Kambeitz, Cindy  
**Subject:** RE: [External] RE: CVC Comments (draft ESR) - EA 20/010 - Clarkson WWTP (GMBP# 719051)

Hi Iftekhar,

The final ESR for Clarkson is available on the Region website: [Clarkson Wastewater Treatment Plant Environmental Assessment - Region of Peel \(peelregion.ca\)](#)

It has gone through the 30-day public review period and no comments were received. We appreciate CVC's review and input into this study.

Thanks,

**Benjamin Peachman, P. Eng.**  
Infrastructure Planning

**GM BluePlan Engineering Limited**

Royal Centre | 3300 Highway No. 7, Suite 402 | Vaughan ON L4K 4M3  
t: 416.703.0667 ext. 7216 | c: 437.328.5016  
[benjamin.peachman@gmblueplan.ca](mailto:benjamin.peachman@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)





## Benjamin Peachman - GM BluePlan

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**From:** Benjamin Peachman - GM BluePlan  
**Sent:** Thursday, July 20, 2023 3:57 PM  
**To:** Ahmad, Iftekhar  
**Cc:** Laurie Boyce - GM BluePlan; Kambeitz, Cindy; Robinson, Olivia; Lohnes, Shelley  
**Subject:** RE: [External] RE: Meeting dates/times - EA 20/009 - G.E. Booth WRRF EA - Review of ESR Findings & Conceptual Design (GMBP#719051)  
**Attachments:** 719051 - GE Booth WWTP Phase One ESA\_AODA.pdf; Appendix F\_Hydrog & Geotech.pdf

Hi Iftekhar,

Thanks for the update on the timing of your staff's review availability. With respect to the requested reports, see attached & **responses** in your email below.

In terms of the timing for receipt of comments related to the development setbacks, we'd prefer to receive your comments by Aug 4<sup>th</sup> but can work with your team's availability. Let me know if that time frame works or if you need additional time.

Thanks,

**Benjamin Peachman, P. Eng.**  
Infrastructure Planning

**GM BluePlan Engineering Limited**  
Royal Centre | 3300 Highway No. 7, Suite 402 | Vaughan ON L4K 4M3  
t: 416.703.0667 ext. 7216 | c: 437.328.5016  
[benjamin.peachman@gmblueplan.ca](mailto:benjamin.peachman@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



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**From:** Ahmad, Iftekhar <Iftekhar.Ahmad@cvc.ca>  
**Sent:** Wednesday, July 19, 2023 9:56 AM  
**To:** Benjamin Peachman - GM BluePlan <Benjamin.Peachman@gmblueplan.ca>  
**Cc:** Laurie Boyce - GM BluePlan <Laurie.Boyce@gmblueplan.ca>; Kambeitz, Cindy <cindy.kambeitz@peelregion.ca>; Robinson, Olivia <orobinson@geiconsultants.com>; Lohnes, Shelley <slohnesh@geiconsultants.com>  
**Subject:** FW: [External] RE: Meeting dates/times - EA 20/009 - G.E. Booth WRRF EA - Review of ESR Findings & Conceptual Design (GMBP#719051)

Hi Benjamin,

Further to our below email, could you please also send us the following appendices of the draft ESR for our review and record purposes?

**Appendix A** – Natural Heritage Characterization Report. We have the report dated January 2023. If there is no update to this report, then there is no need to send it again. **The Natural Heritage Characterization Report & Impact Assessment are being updated now based on the comments provided in our meeting. They'll be available early to mid-August and we'll circulate ASAP.**

**Appendix F** – Hydrogeological and Geotechnical Background Information. **Appendix F is attached & includes the borehole maps from previous investigations on site. Section 6.3.2. in the ESR (draft) provides a summary of the hydrogeological & geotechnical conditions on site.**

**Appendix G** – Phase 1 Environmental Site Assessment (ESA) Report. **Attached.**

Thanks,

Best regards,  
Iftexhar

I'm working remotely. The best way to reach me is by email or Microsoft Teams.

**Iftexhar Ahmad** | he/him/his  
Planner, Environmental Assessment | Credit Valley Conservation  
905-670-1615 ext 296 | M: 647-449-5962  
[iftexhar.ahmad@cvc.ca](mailto:iftexhar.ahmad@cvc.ca) | [cvc.ca](http://cvc.ca)



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**From:** Ahmad, Iftexhar  
**Sent:** Tuesday, July 18, 2023 11:01 AM  
**To:** Benjamin Peachman - GM BluePlan <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>  
**Cc:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>; Robinson, Olivia <[orobinson@geiconsultants.com](mailto:orobinson@geiconsultants.com)>; Lohnes, Shelley <[slohnnes@geiconsultants.com](mailto:slohnnes@geiconsultants.com)>  
**Subject:** RE: [External] RE: Meeting dates/times - EA 20/009 - G.E. Booth WRRF EA - Review of ESR Findings & Conceptual Design (GMBP#719051)

Hi Benjamin,

After our last meeting on June 29, 2023, I had circulated the draft ESR to our Lands Department for review and comments including development setback requirements from the Jim Tovey Lakeview Conservation Area. Since our Lands staff have been busy including some on vacation, they have not yet been able to review the full draft and would need more time to complete review and provide comments. Could you please give me an idea until what time at the latest our Lands staff can provide their comments?

Thanks,

Best regards,  
Iftexhar

I'm working remotely. The best way to reach me is by email or Microsoft Teams.

**Iftexhar Ahmad** | he/him/his  
Planner, Environmental Assessment | Credit Valley Conservation  
905-670-1615 ext 296 | M: 647-449-5962

## Benjamin Peachman - GM BluePlan

---

**From:** Benjamin Peachman - GM BluePlan  
**Sent:** Tuesday, June 13, 2023 9:10 AM  
**To:** Ahmad, Iftekhar  
**Cc:** Laurie Boyce - GM BluePlan; Kambeitz, Cindy; Robinson, Olivia; Lohnes, Shelley  
**Subject:** RE: Meeting dates/times - G.E. Booth WRRF EA - Review of ESR Findings & Conceptual Design (GMBP#719051)

Hi Iftekhar,

In advance of our meeting on June 29<sup>th</sup>, please see the link below for the draft ESR. As noted, we'll provide an overview of the ESR findings in the meeting but feel free to reach out with any questions prior to the meeting.

File Name : [https://sendafile.gmblueplan.ca/public\\_uploads/2023-06-13\\_130212\\_719051-Booth\\_WRRF-ESR-Draft\\_2023-06-08\\_v3.pdf](https://sendafile.gmblueplan.ca/public_uploads/2023-06-13_130212_719051-Booth_WRRF-ESR-Draft_2023-06-08_v3.pdf)

Thanks,

**Benjamin Peachman, P. Eng.**  
Infrastructure Planning

**GM BluePlan Engineering Limited**  
Royal Centre | 3300 Highway No. 7, Suite 402 | Vaughan ON L4K 4M3  
t: 416.703.0667 ext. 7216 | c: 437.328.5016  
[benjamin.peachman@gmblueplan.ca](mailto:benjamin.peachman@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



---

**From:** Ahmad, Iftekhar <Iftekhar.Ahmad@cvc.ca>  
**Sent:** Tuesday, June 06, 2023 10:22 AM  
**To:** Benjamin Peachman - GM BluePlan <Benjamin.Peachman@gmblueplan.ca>  
**Cc:** Laurie Boyce - GM BluePlan <Laurie.Boyce@gmblueplan.ca>; Kambeitz, Cindy <cindy.kambeitz@peelregion.ca>; Robinson, Olivia <orobinson@geiconsultants.com>  
**Subject:** Meeting dates/times - G.E. Booth WRRF EA - Review of ESR Findings & Conceptual Design (GMBP#719051)

Hi Benjamin,

We provide the following dates and times for the meeting for your consideration:

June 22<sup>nd</sup>, 9:30-11  
Jun 26<sup>th</sup>, 9-10:30, 12:30-2  
Jun 29<sup>th</sup>, 9:30-12, 1-3

Please include the following CVC staff members in the meeting invite:

Jakub Kilis, [Jakub.Kilis@cvc.ca](mailto:Jakub.Kilis@cvc.ca)  
Matteo De Stefano, [matteo.destefano@cvc.ca](mailto:matteo.destefano@cvc.ca)  
Sarah Labrie, [Sarah.Labrie@cvc.ca](mailto:Sarah.Labrie@cvc.ca)  
Iftekhar Ahmad, [iftekhar.ahmad@cvc.ca](mailto:iftekhar.ahmad@cvc.ca)

If you could send us the draft ESR few days before the meeting, that would be helpful.



Thanks,

Best regards,  
Iftekhar

I'm working remotely. The best way to reach me is by email or Microsoft Teams.

**Iftekhar Ahmad** | he/him/his  
Planner, Environmental Assessment | Credit Valley Conservation  
905-670-1615 ext 296 | M: 647-449-5962  
[iftekhar.ahmad@cvc.ca](mailto:iftekhar.ahmad@cvc.ca) | [cvc.ca](http://cvc.ca)



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---

**From:** Benjamin Peachman - GM BluePlan <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>  
**Sent:** Tuesday, May 30, 2023 3:09 PM  
**To:** Ahmad, Iftekhar <[Iftekhar.Ahmad@cvc.ca](mailto:Iftekhar.Ahmad@cvc.ca)>; Kilis, Jakub <[Jakub.Kilis@cvc.ca](mailto:Jakub.Kilis@cvc.ca)>  
**Cc:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>; Robinson, Olivia <[orobinson@geiconsultants.com](mailto:orobinson@geiconsultants.com)>  
**Subject:** [External] G.E. Booth WRRF EA - Review of ESR Findings & Conceptual Design (GMBP#719051)

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Hi Iftekhar, Jakub,

Hope you are both keeping well. As an update on the G.E. Booth WRRF EA, we're nearing completion of the conceptual design of the plant expansion and are finalizing the EA's draft Environmental Study Report (ESR) in the next 2-3 weeks. We'll be circulating MECP the draft ESR to review over the summer and will be finalizing/filing it in Fall 2023. We were hoping to set up a meeting with CVC staff to provide an overview of the conceptual design & the findings presented in the ESR, including the natural heritage components of the project, in late June or early July. If you're able to circulate some dates/times that'd work for your team, I'll coordinate a Teams meeting.

Thanks,

**Benjamin Peachman, P. Eng.**  
Infrastructure Planning

**GM BluePlan Engineering Limited**  
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t: 416.703.0667 ext. 7216 | c: 437.328.5016  
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## Schedule C Class Environmental Assessments and Conceptual Designs of the South Peel Wastewater Treatment Plants

### Credit Valley Conservation (CVC) Meeting: Phase 3 Recommendations for the G.E. Booth Water Resource Recovery Facility (WRRF)

---

**Meeting Date/Time:** February 2<sup>nd</sup>, 2023 1:30 pm to 3:00 pm

**Location:** Teams Meeting

**Notes Prepared by:** Benjamin Peachman (GM BluePlan); reviewed by Laurie Boyce (GM BluePlan)

**Date of Meeting Notes:** February 6<sup>th</sup>, 2023

#### Attendance

**Chair:** Cindy Kambeitz, Region of Peel

**Attendees:** **Credit Valley Conservation (CVC)**

Jakub Kilis, CVC

Lori Cook, CVC

Iftekhar Ahmad, CVC

Matteo De Stefano, CVC

**Consultant Team**

Benjamin Peachman, GM BluePlan

Olivia Robinson, GEI/Savanta

Shelley Lohnes, GEI/Savanta

#### **Meeting Notes:**

- 1) GMBP presented the attached presentation regarding the Phase 3 recommendations for the G.E. Booth WRRF expansion. A summary of the preliminary recommendations from the G.E. Booth NHS Characterization Report were also provided.
- 2) CVC inquired as to the approximate depth of the existing outfall and the newly proposed outfall. GMBP responded that this information would be confirmed post-meeting and provided to CVC. From a post-meeting review, it was confirmed that the depth of the existing outfall is approximately 10 metres below Lake Ontario's average water surface. The newly proposed outfall will have a depth of 12.5 to 15.0 metres below Lake Ontario's average water surface along the length of the diffuser pipe.
- 3) GEI/Savanta provided an overview of the natural environmental net effects & proposed mitigation measures associated with the plant expansion.
- 4) CVC noted that they were generally satisfied with the recommendations put forward in the natural environment background studies and recommendations completed in support of the plant expansion.
- 5) CVC noted that they would like to be circulated a draft of the ESR for their review. GMBP committed to providing relevant sections of the ESR to the CVC for their review ahead of project filing.

---

Notice of any errors or omissions in this document should be communicated by attendees to the note taker within two (2) weeks of issuance of these notes.



# Peel Wastewater Treatment Solutions G.E. Booth WRRF Schedule C Class EA

Summary of Phase 3 Results  
focusing on Natural Features  
Impacts, Mitigation, & Restoration  
Measures

CVC Meeting – February 2<sup>nd</sup>, 2023







# Introduction



**Purpose** – To provide an overview of the Schedule C Class EA findings for the G.E. Booth WRRF and receive CVC input on potential environmental net effects, mitigation, monitoring, and restoration measures.

## Agenda

- Background, Purpose and Objectives of the Class EAs
- Recap EA Process and Findings
  - Phases 1 & 2 (completed)
  - Overview of Phases 3 & 4 (ongoing)
- Phase 3 Evaluation & Preferred Design Concepts
- Natural Environment– G.E. Booth WRRF
  - Existing Conditions and Net Effects
- Mitigation, Monitoring, and Restoration Measures - Discussion
- Next Steps



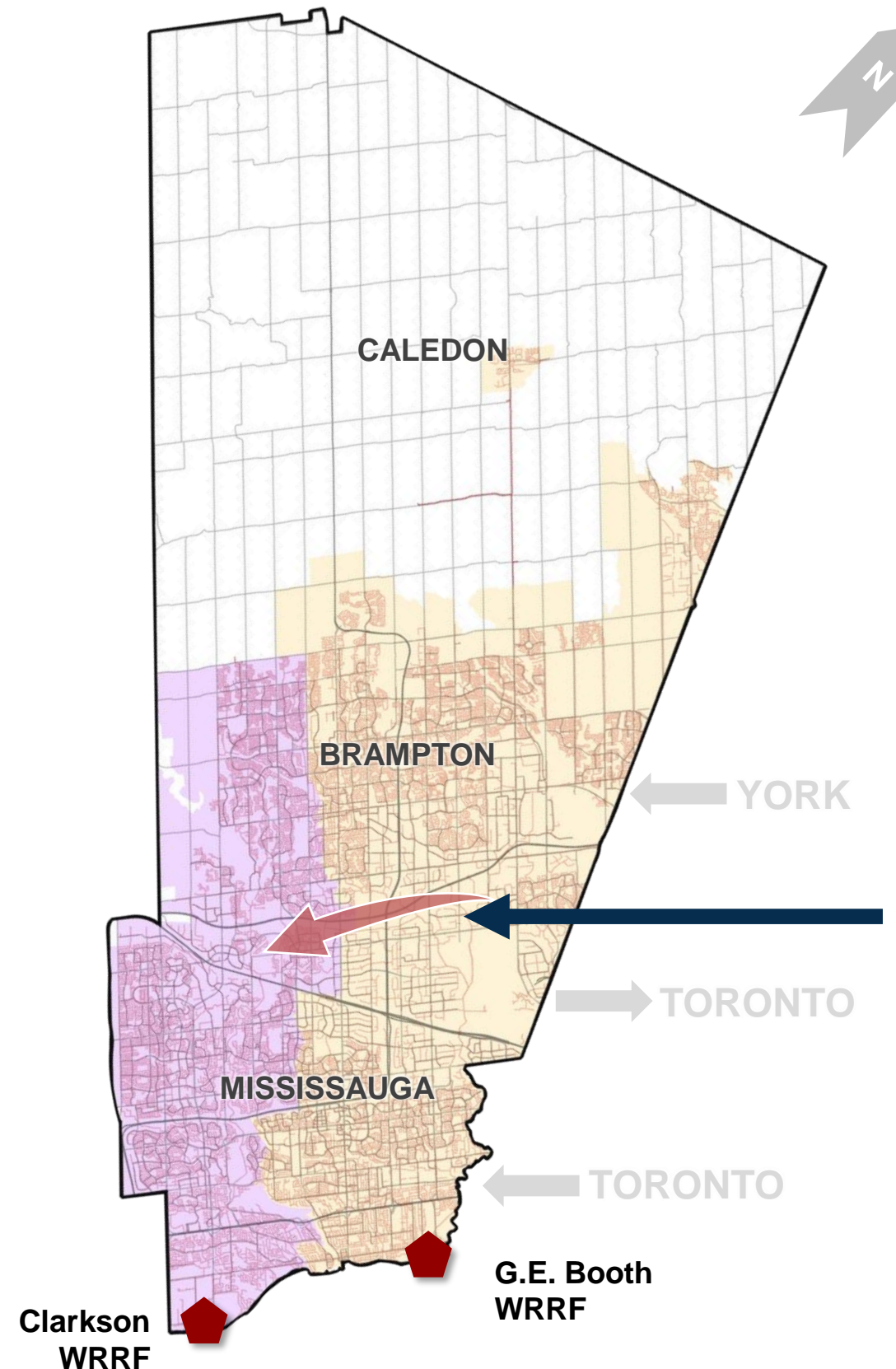
# Peel's Wastewater Treatment System



**G.E. Booth Water Resource Recovery Facility (WRRF)**  
**(518 MLD)**



**Clarkson Water Resource Recovery Facility (WRRF)**  
**(350 MLD)**



The East-West Diversion is a deep gravity trunk sewer of 2400 mm diameter currently being constructed along Derry Road. It is expected to be completed and operational by 2027. It allows Peel to divert flows from the G.E. Booth WRRF catchment area where there are capacity limitations, to the Clarkson WRRF catchment area which currently has surplus capacity.



# Need for the Class EAs

The Region's Growth Management Process and 2020 Water and Wastewater Master Plan identified that there will be significant growth across the Region of Peel.

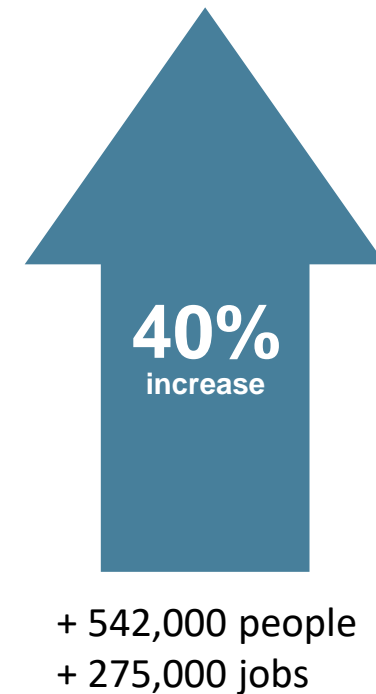
With this approved growth to year 2041 and vision for growth beyond 2041, additional treatment capacity is required to meet the needs of Peel's citizens and to continue to protect the environment.

The Region of Peel is

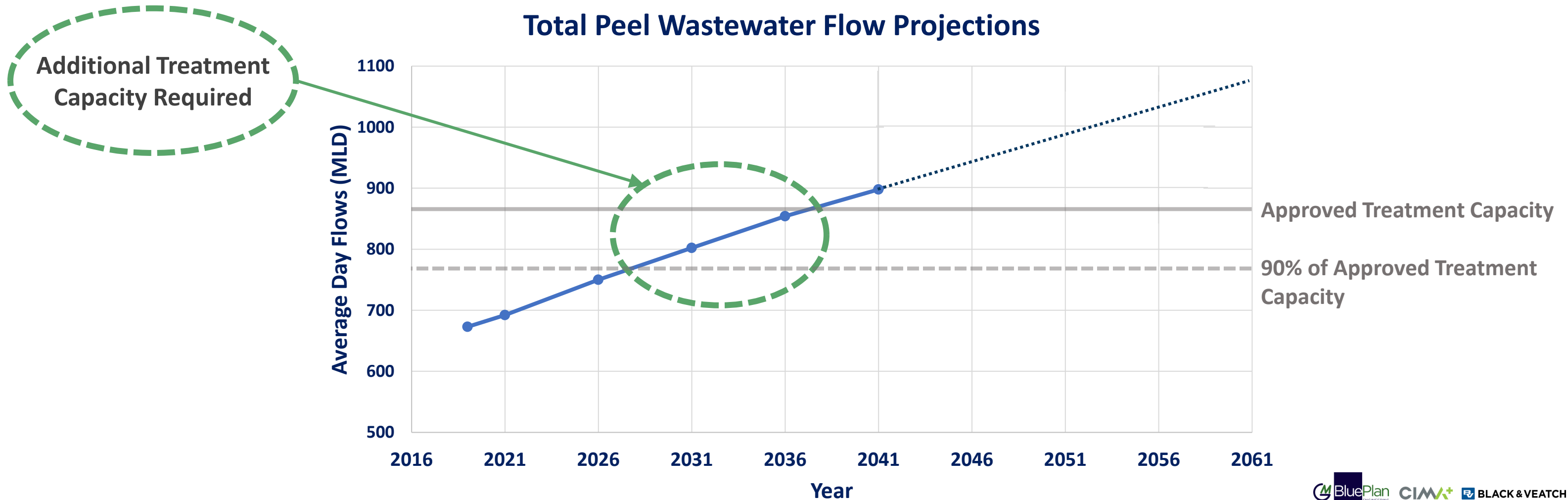
## GROWING!

2016  
**2.12 Million**  
1,428,000 people  
695,000 jobs

2041  
**2.94 Million**  
1,970,000 people  
970,000 jobs



### Total Peel Wastewater Flow Projections



## Phase 1: Problem and Opportunity Statement

- How much additional wastewater flow and solids will be generated from the approved population and employment growth?
- What opportunities should be realized?

## Phase 2: Alternative Solutions

- What is the overall concept for treating wastewater in Peel?
- Should we expand one or both of the existing wastewater treatment plants?
- How much should the wastewater treatment plant(s) be expanded by?
- Do we need additional outfall capacity? How much and where?
- How much biosolids capacity is needed, and where should we treat our biosolids?



**PIC #1 - October 2020**

**PIC #2 - April 2021**






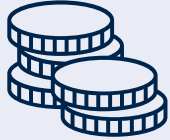
Phases 1 and 2 complete for G.E. Booth and Clarkson Class EAs

## The G.E. Booth and Clarkson WRRF Class EAs will develop a preferred wastewater treatment solution that will:

- Meet future needs associated with population growth, new regulations, climate resiliency, energy efficiency, and the management of wet weather flows.
- Address community expectations regarding level of service, odour, air/noise, water quality, protection of the environment, and aesthetics.
- Provide greater flexibility and reliability in wastewater and biosolids management.



# Goals & Objectives of the Class EAs

	<p><b>Long-term Sustainability</b></p>	<ul style="list-style-type: none"> <li>• Region-wide wastewater and biosolids management with operational flexibility</li> <li>• Multiple biosolids product marketing opportunities</li> <li>• Resource recovery through beneficial use</li> </ul>
	<p><b>Resiliency</b></p>	<ul style="list-style-type: none"> <li>• Manage wet weather flows</li> <li>• Adapt to changing conditions</li> <li>• Built-in redundancy in treatment processes</li> </ul>
	<p><b>Energy Efficiency and Reduce Greenhouse Gas (GHG) Emissions</b></p>	<ul style="list-style-type: none"> <li>• Support Peel's GHG Reduction Goals</li> <li>• Energy Reduction and Reuse Opportunities</li> </ul>
	<p><b>Environmental Protection</b></p>	<ul style="list-style-type: none"> <li>• Mitigate risks to natural environments</li> <li>• Meet air and effluent quality requirements</li> </ul>
	<p><b>Community Acceptability</b></p>	<ul style="list-style-type: none"> <li>• Manage odour and noise</li> <li>• Limit truck traffic</li> <li>• Visually appealing designs and landscaping</li> </ul>
	<p><b>Ease of Operations</b></p>	<ul style="list-style-type: none"> <li>• Operator acceptability</li> <li>• Proven processes</li> </ul>
	<p><b>Fiscally Responsible</b></p>	<ul style="list-style-type: none"> <li>• Balance life-cycle costs, while protecting the environment and communities</li> </ul>

## Recommended Strategy to Meet Future Wastewater Treatment Needs

- Divert flows through the East-West Diversion Trunk Sewer
- **Expand the G.E. Booth WRRF from 518 MLD to 550 MLD**
- **New Outfall at the G.E. Booth WRRF**
- **Manage Peak Wet Weather Flows in G.E. Booth system**
- Expand the Clarkson WRRF from 350 MLD to 500 MLD

## Recommended Strategy to Management Biosolids

- No longer truck digested sludge from Clarkson WRRF to the G.E. Booth WRRF for incineration.
- **Continued use of incineration at the G.E. Booth WRRF given the incinerators' remaining service life and the investment Peel has made in the technology.**
- Provide biosolids treatment at the Clarkson WWTP and market product for beneficial land use.

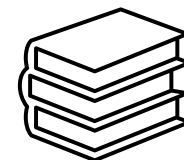
## Phase 3: Alternative Technologies and Design Concepts

- What technologies should we use to treat our wastewater (liquid and solids components)?
- Where should our treated biosolids go and be used?
- How will we provide additional outfall capacity?
- How should the wastewater plant sites be laid out and look?
- How do we mitigate environmental and social impacts?

## Phase 4: Environmental Study Report (ESR)

## Phase 5: Conceptual Design

### Clarkson WRRF



VE Study/Workshop:  
Jan 24-27, 2022

PIC #3:  
May 11, 2022

ESR and Conceptual Design:  
To be submitted March 2023

### G.E. Booth WRRF



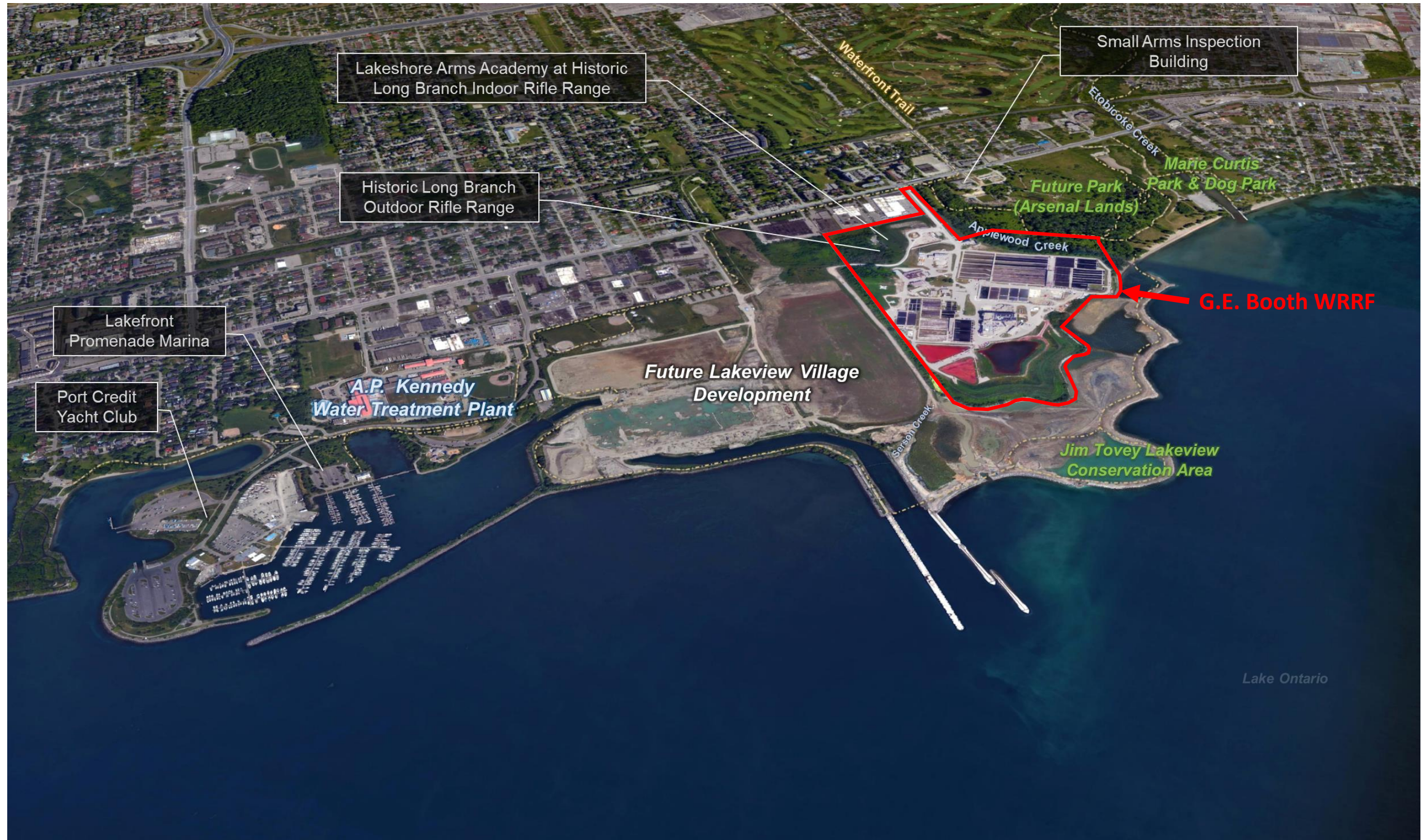
VE Study/Workshop:  
May 16-19, 2022

PIC #4:  
March 15, 2023

ESR and  
Conceptual Design:  
June 2023

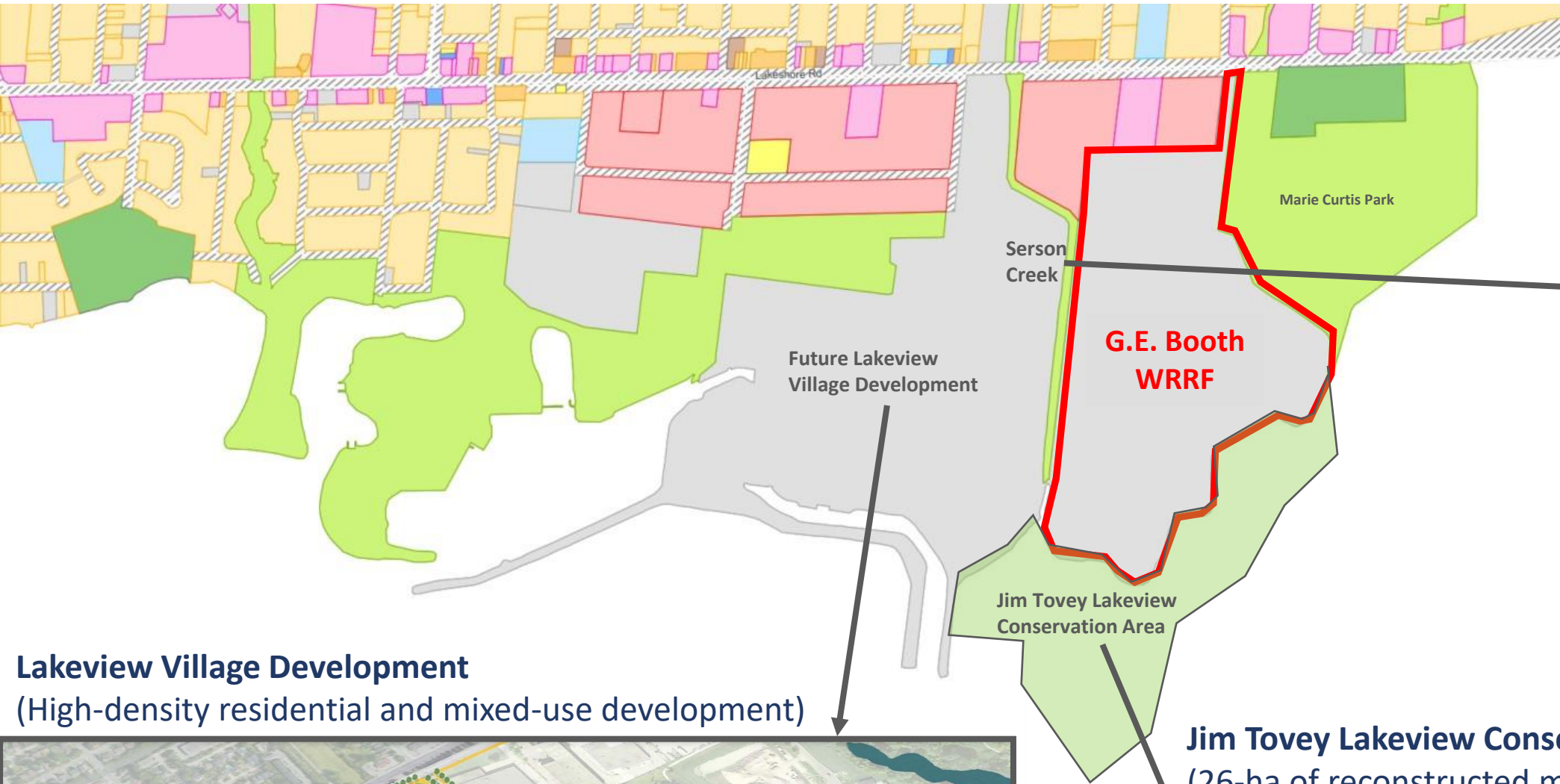


# G.E. Booth WRRF





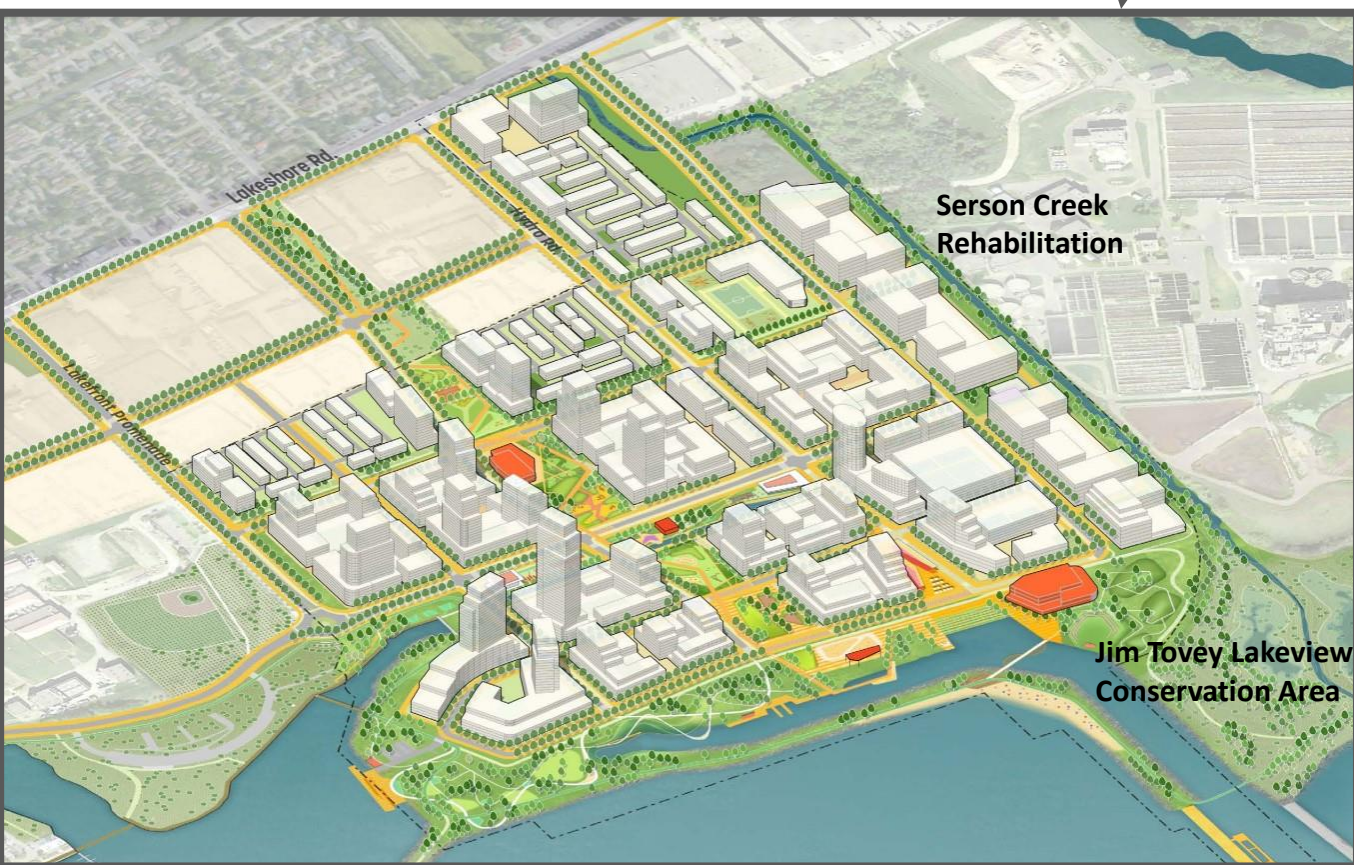
# G.E. Booth WRRF – Adjacent Ongoing Projects



**Serson Creek Rehabilitation**  
(Daylighting of historical degraded/buried creek)



**Lakeview Village Development**  
(High-density residential and mixed-use development)



**Jim Tovey Lakeview Conservation Area**  
(26-ha of reconstructed meadow, forest, wetland, & a cobble beach)

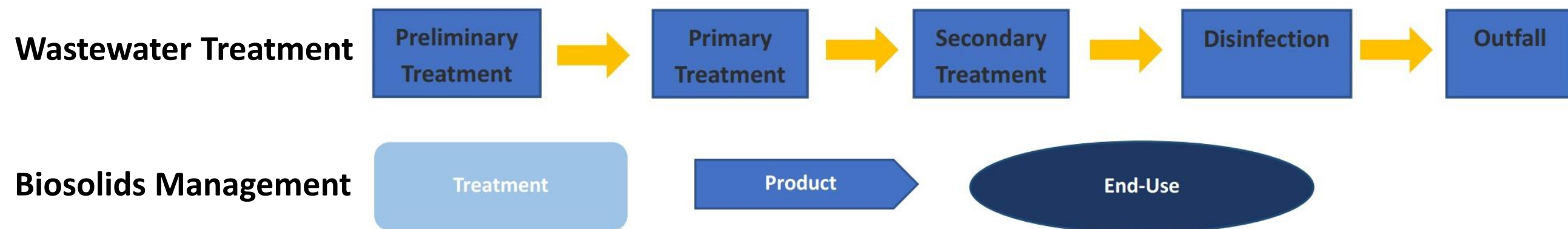




## 1. Screening of Wastewater Technologies and Biosolids Markets & Technologies

- Maturity of Technology
- Proven Application at Large WRRFs
- Compatibility with Existing and Future Processes
- Compatible with Region's Energy Management and GHG Reduction Goals
- Able to be Implemented within Required Schedule (2029)

## 2. Develop Alternative Design Concepts based on the short-listed technologies



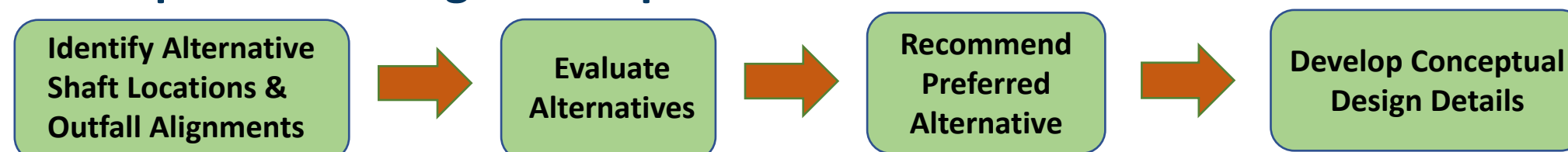
## 3. Detailed Evaluation (Impact Ratings and Total Scores)

- Natural Environment
- Social/Cultural
- Technical Considerations
- Economic Factors

## 4. Evaluation Based on Region's Key Objectives

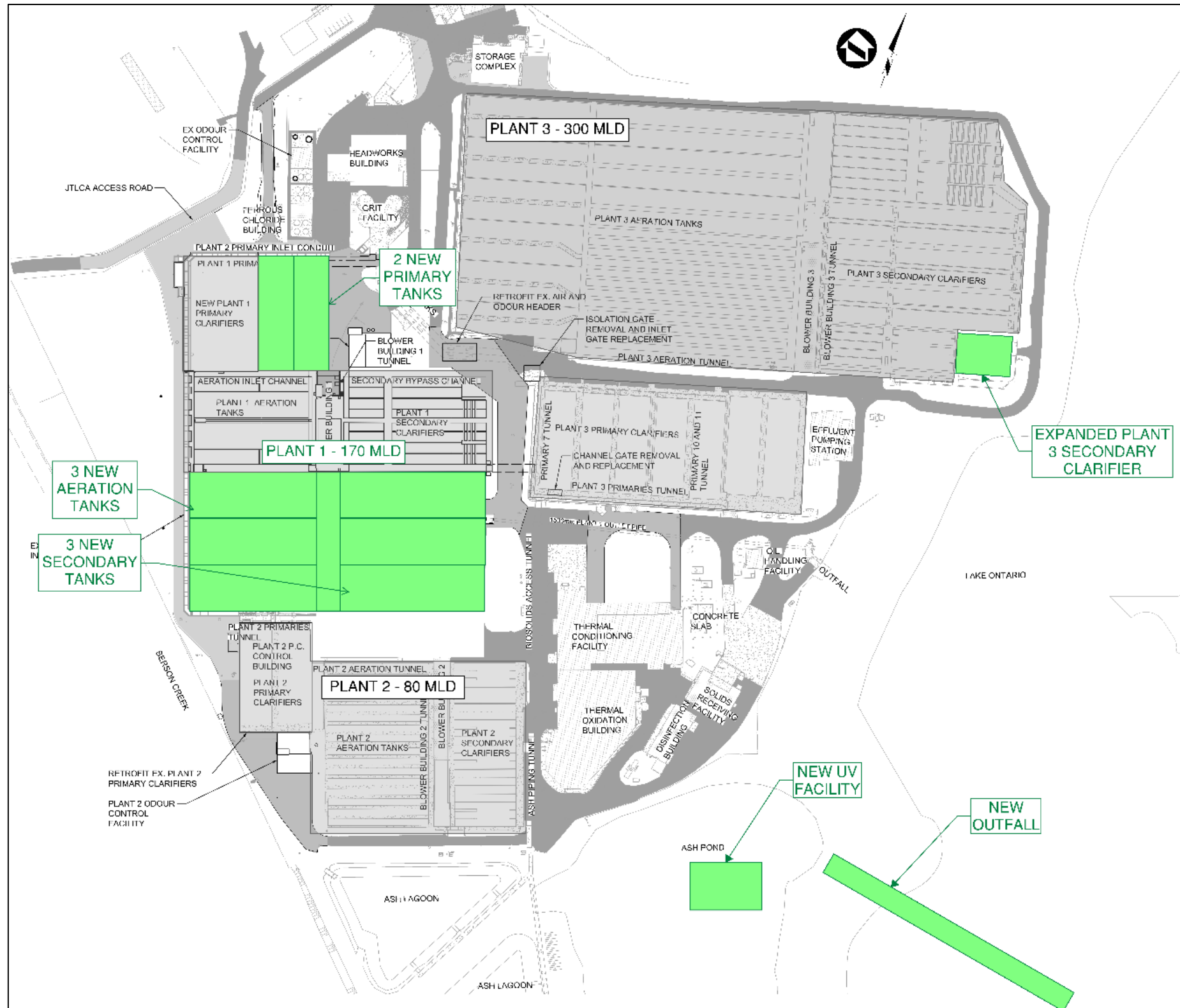
- Long-term Sustainability
- Community Acceptability
- Resiliency
- Ease of Operations
- Environmental Protection
- Fiscally Responsible
- Energy Efficiency

## 5. Develop Outfall Design Concept





# G.E. Booth WRRF – Preferred Design Concept (Wastewater Treatment)



## Wastewater Treatment

- Conventional Activated Sludge (CAS)
- CAS with Chemically Enhanced Primary Treatment (CEPT)
- CAS with Wet Weather Flow (WWF) Management
  - Option A: CAS Optimized with High-Rate Clarification
  - **Option B: CAS Optimized using Real Time Control (RTC)**
    - ✓ Eliminates a new train in the lagoon area & expansion of the headworks
    - ✓ Reduces the size of the new disinfection facility

## Disinfection

- Chlorination and Dechlorination
- **UV Disinfection**
  - ✓ Aligns with the Region's goals of reducing O&M costs and chemical use



# G.E. Booth WRRF – Preferred Design Concept (Outfall)

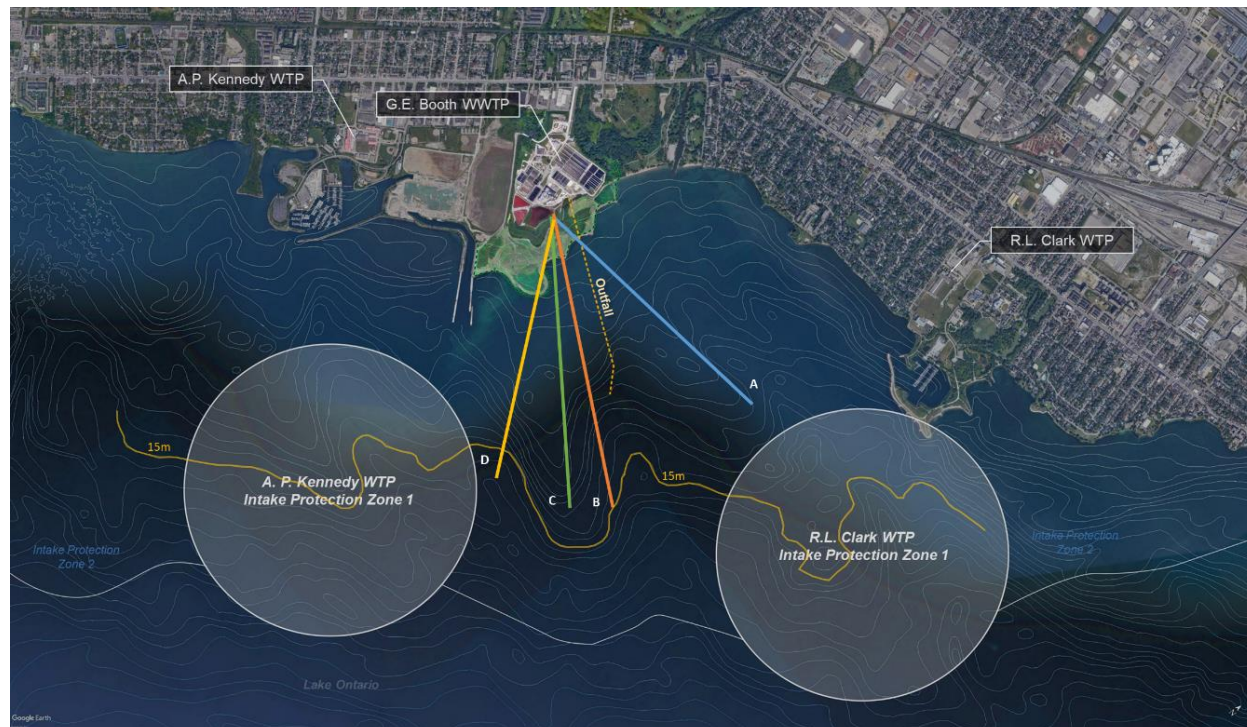
## Outfall Shaft Location

- **#1 - East of existing disinfection building**
  - ✓ Optimized construction sequencing with DEC
  - ✓ Lowest cost, shortest construction duration
  - ✓ Opportunities for capital cost savings
- #2 - Southeast of existing ash storage pond
- #3 - Adjacent to existing outfall shaft



## Outfall Alignment

- Alignment A (North)
- **Alignment B (Central, parallel to existing outfall)**
  - ✓ Central location between IPZs for A.P. Kennedy WTP & R.L. Clark WTP
  - ✓ Favourable for current direction and bathymetry
- Alignment C (Central, south of Alternative B)
- Alignment D (South)



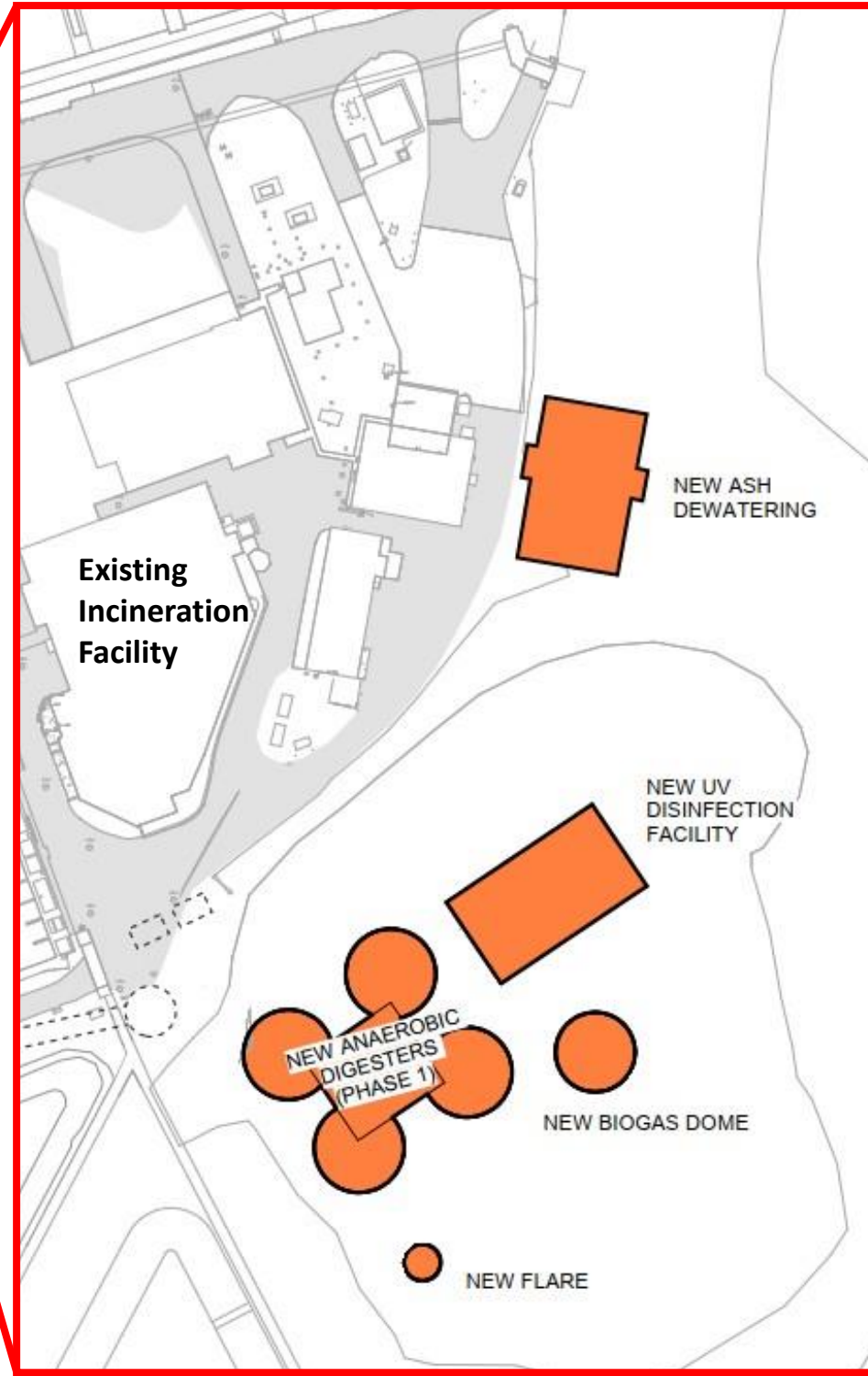
## Recommended Outfall Design Concept

- Design flow of 550 MLD, peak capacity of 2,850 MLD (will handle ultimate G.E. Booth WRRF catchment area & potential increases caused by climate change)
- Extends 3,000 m into Lake Ontario (existing outfall extends 1,435 m into the lake)
- Existing outfall to be maintained for redundancy purposes





# G.E. Booth WRRF – Preferred Design Concept (Biosolids Management)



## Biosolids Management

- Expand Incineration
- Optimize Incineration (using PST or THP) + expand incineration or implement other treatment in future
- Implement THP + Digestion to increase capacity of incineration system
- Optimize Incineration + use 3<sup>rd</sup> party vendors to treat excess solids
- **Digestion, Dewatering, Thermal Drying**  
Due to continuous development of treatment technologies, biosolids management regulation changes, and the remaining service life of the existing incinerator facility, it is recommended:
  - ✓ Continue with incineration beyond 2031
  - ✓ Provide anaerobic digestion to reduce biosolids incineration requirements
  - ✓ Re-assess biosolids management options noted above in the future
  - ✓ Aligns best with Region's goals of increased energy recovery, improved resiliency, and increased construction flexibility



## • Secondary Source Review

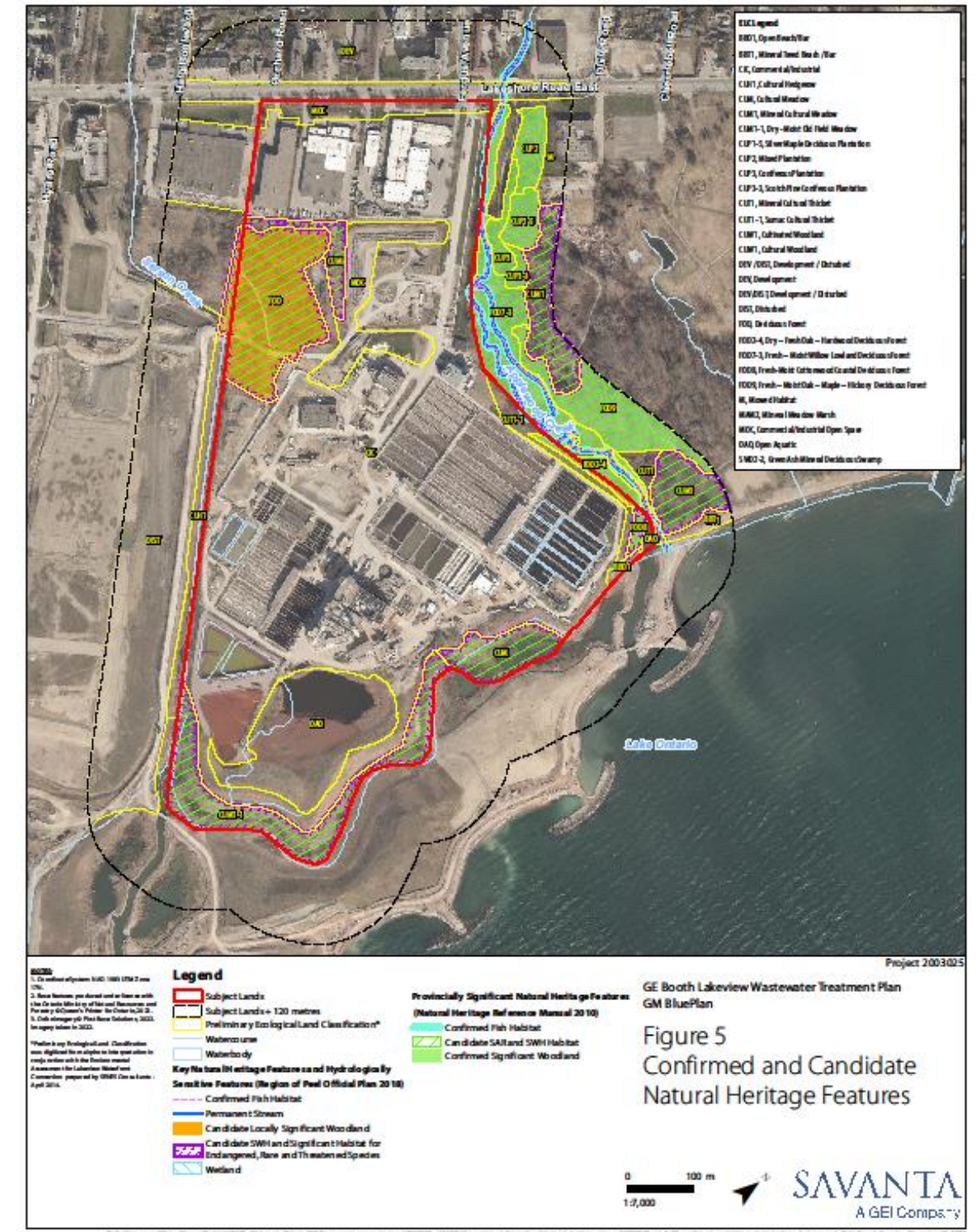
- Environmental Assessment for Lakeview Waterfront Connection (SENES Consultants 2014)
- Other sources: Land Information Ontario, Natural Heritage Information Centre, Online Atlas Data (Birds, Insects, Herps, Aquatic SAR)

## • Targeted Fieldwork (2022 and 2023)

- Wetland Characterization
- Monarch Habitat Assessment
- Breeding Bird Surveys (to be completed in 2023)

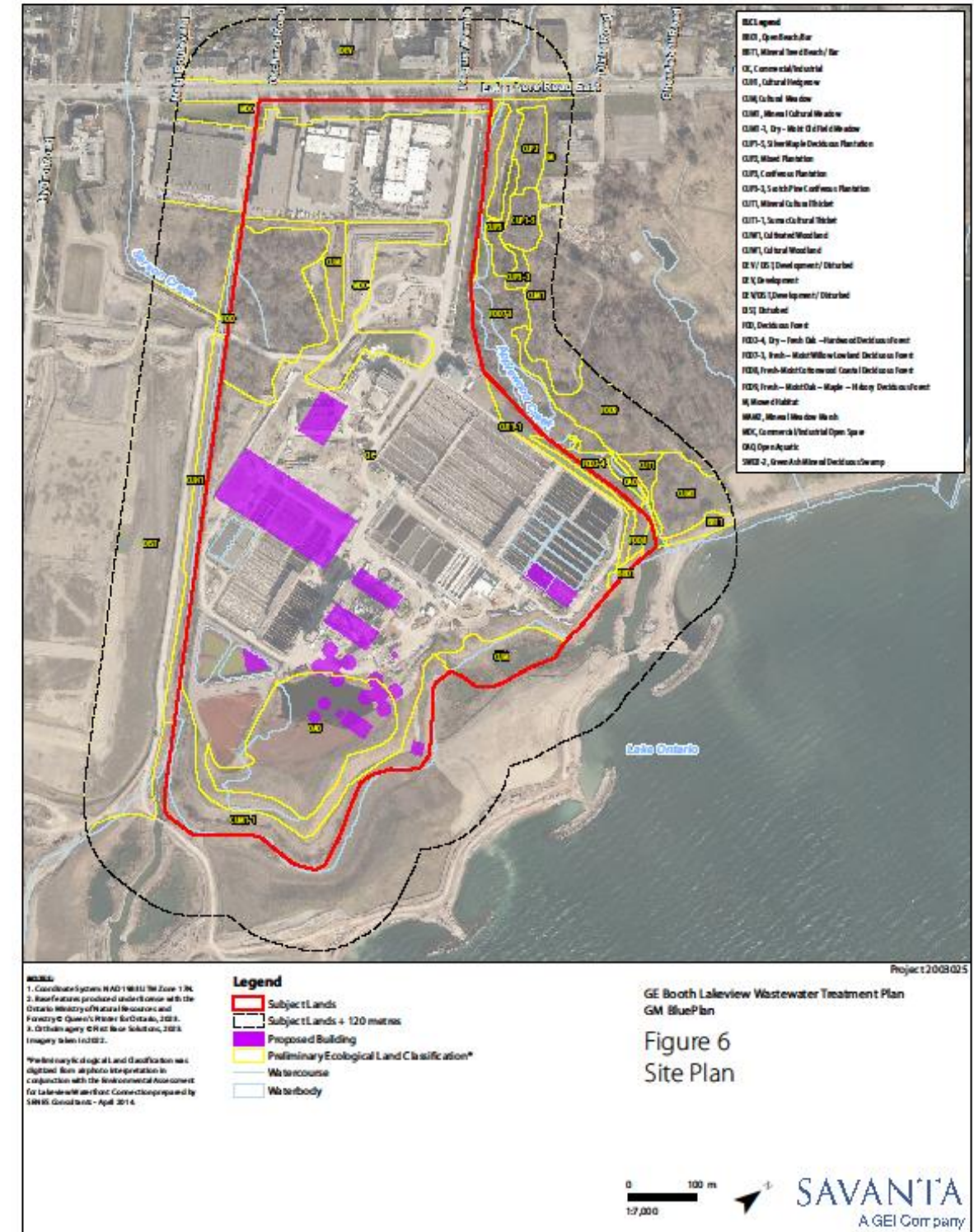
## • Key Findings

- Fish Habitat (Applewood Creek)
- Significant Woodlands
- Candidate Significant Wildlife Habitat
- Candidate habitat for Endangered and Threatened Species





- The majority of features are proposed to be retained, except portions of the CUM1-1 (Candidate Marsh Bird Breeding Habitat and Habitat for Special Concern Species (Common Nighthawk))
- Isolated Tree Removals
  - Removals of trees outside of active wildlife windows
    - Migratory Bird Window – early April to end of August and Bat Maternity Roosting Window – April 1 to September 30



## G.E. Booth WRRF

- PIC No.4 (March 15<sup>th</sup>, 2023)
- ESR and Conceptual Design (Q1 2023)
- Draft ESR to MECP, CVC, City for review (April 15<sup>th</sup>, 2023)
- Filing of ESR (June 2023)

## Clarkson WRRF

- ESR & Conceptual Design to be submitted in February 2021 for 30-day review period
- Tendering of works in 2023



**From:** Benjamin Peachman - GM BluePlan <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>  
**Sent:** Wednesday, December 21, 2022 9:11 AM  
**To:** Ahmad, Iftekhar <[Iftekhar.Ahmad@cvc.ca](mailto:Iftekhar.Ahmad@cvc.ca)>  
**Cc:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>  
**Subject:** [External] RE: CVC Comments (draft ESR) - EA 20/010 - Clarkson WWTP (GMBP#719051)

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Hi Iftekhar,

Thank you for providing these detailed comments on the draft Clarkson ESR. Please find our **responses** below which will be incorporated into the final ESR which will be filed with the ministry in mid-January.

Happy holidays,

**Benjamin Peachman, P. Eng.**  
Infrastructure Planning

**GM BluePlan Engineering Limited**  
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**From:** Ahmad, Iftekhar <[Iftekhar.Ahmad@cvc.ca](mailto:Iftekhar.Ahmad@cvc.ca)>  
**Sent:** Monday, December 19, 2022 12:56 PM  
**To:** Benjamin Peachman - GM BluePlan <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>  
**Cc:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>  
**Subject:** CVC Comments (draft ESR) - EA 20/010 - Clarkson WWTP (GMBP#719051)

Hi Benjamin,

CVC staff have now had the opportunity to review the draft ESR (November 2022) including appendices and provide these comments for your consideration.

**CVC Comments**

1. It is our understanding that the draft ESR for the G.E. Booth WRRF will be submitted separately sometime in the future. Please confirm. **That is correct. We are anticipating the draft ESR for the G.E. Booth WRRF to be completed by mid-April 2023. We will circulate it in draft for review by CVC staff, similar to the circulation conducted for the Clarkson WRRF.**
2. Page 57 of the ESR – it is noted that “the Region of Peel does not define significant woodlands within their OP.” Please note that the Region’s OP does define significant woodlands, however, they are characterized within the heading of Core Areas (Core Woodlands) and Natural Areas and Corridors (NAC Woodlands). Please see Section 2.3, Table 1 for the woodland criteria and thresholds. **Comment acknowledged. The noted wording within the ESR has been revised to acknowledge the Region’s Core Woodlands & NAC Woodlands designations within their Official Plan.**
3. Page 74 of the ESR (G.E. Booth) - please note that the forested areas occur not only in the NE end of the property, but within the NW as well. **Comment acknowledged; the ESR has been updated to reflect the identification of the forested area in the NW portion of the property.**
4. Please provide a detailed drainage plan as part of the SWM report at the detailed design stage. This should indicate how water will be reporting to various drainage features for both the existing and proposed conditions. **Section 10.1.2 (Stormwater Management Plan) has been updated to identify that the SWM report is to include detailed drainage plans that identify the contributing catchment areas to the various drainage features in the pre-development and post-development conditions.**
5. It is noted in the ESR that LIDs and treatment train approach will be considered in the proposed SWM strategy. Please provide any information on what LID features are being or have been considered the most feasible at this stage. **The applicability of various low impact development (LID) techniques will be confirmed for the property by site-specific investigations conducted at the detailed design stage therefore specific LID techniques have not been identified at this stage.**
6. It is indicated that the preferred alternative proposes alterations to a portion of the headwater drainage feature. This triggers the SWM requirement of completing the feature-based water balance, as outlined in CVC’s SWM Guideline. The overall objective of the feature-based water balance is to maintain the quantity (volume, timing, and spatial distribution) of the surface water and groundwater contributions from the pre-development to post-development condition. This should be added to the SWM strategy outlined in Table 11-2 of the ESR. **The requirement that a feature-based water balance be completed for the headwater drainage feature (HDF) at the detailed design stage has been added to Table 11-2 of the ESR.**
7. If any dewatering activities are required during construction, these are to be detailed in the dewatering plan submitted with the erosion and sediment control plan at the detailed design stage. **The requirement for the submission of a dewatering plan (if dewatering is required) to CVC, along with the erosion and sediment control (ESC) plan, has been added to Table 11-2 of the ESR.**

If you have any questions, please let me know.

Thanks, Happy Holidays.

Best regards,  
Iftekhar

I’m working remotely. The best way to reach me is by email or Microsoft Teams.

**Iftekhar Ahmad** | [he/him/his](mailto:he/him/his)  
Planner, Environmental Assessment | Credit Valley Conservation  
905-670-1615 ext 296 | M: 647-449-5962  
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## Benjamin Peachman - GM BluePlan

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**From:** Benjamin Peachman - GM BluePlan  
**Sent:** Wednesday, December 14, 2022 9:20 AM  
**To:** Kilis, Jakub; Ahmad, Iftekhar  
**Cc:** Laurie Boyce - GM BluePlan; Kambeitz, Cindy  
**Subject:** RE: CVC response (reports & swm) - EA 20/010 - EA Phase 3 recommendations for the Clarkson WWTP (GMBP#719051)

Hi Jakub, Iftekhar,

Just checking in on the status of CVC's review of the draft ESR for the Clarkson EA. Have you received any comments from CVC staff and if so, will they be available by Dec 19<sup>th</sup>?

Thanks,

**Benjamin Peachman, P. Eng.**  
Infrastructure Planning

### GM BluePlan Engineering Limited

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t: 416.703.0667 ext. 7216 | c: 437.328.5016  
[benjamin.peachman@gmblueplan.ca](mailto:benjamin.peachman@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



---

**From:** Benjamin Peachman - GM BluePlan  
**Sent:** Thursday, November 17, 2022 12:36 PM  
**To:** Kilis, Jakub <Jakub.Kilis@cvc.ca>; Ahmad, Iftekhar <Iftekhar.Ahmad@cvc.ca>  
**Cc:** Laurie Boyce - GM BluePlan <Laurie.Boyce@gmblueplan.ca>; Kambeitz, Cindy <cindy.kambeitz@peelregion.ca>  
**Subject:** RE: CVC response (reports & swm) - EA 20/010 - EA Phase 3 recommendations for the Clarkson WWTP (GMBP#719051)

Hi Jakub, Iftekhar,

As noted below, please find the following links for the relevant sections of the Clarkson WRRF Schedule C Class EA, completed in draft for your review and comment. Let me know if you require any other appendices.

Executive Summary (Volume 0): [https://sendafile.gmblueplan.ca/public\\_uploads/2022-11-17\\_171021\\_Clarkson\\_WRRF\\_EA\\_Volume\\_0\\_-\\_Executive\\_Summary.pdf](https://sendafile.gmblueplan.ca/public_uploads/2022-11-17_171021_Clarkson_WRRF_EA_Volume_0_-_Executive_Summary.pdf)

Environmental Study Report (Volume 1): [https://sendafile.gmblueplan.ca/public\\_uploads/2022-11-17\\_171350\\_Clarkson\\_WRRF\\_EA\\_Volume\\_1\\_-\\_Environmental\\_Study\\_Report.pdf](https://sendafile.gmblueplan.ca/public_uploads/2022-11-17_171350_Clarkson_WRRF_EA_Volume_1_-_Environmental_Study_Report.pdf)

Natural Heritage Characterization Report (Volume 2, Appendix A1):  
[https://sendafile.gmblueplan.ca/public\\_uploads/2022-11-17\\_172843\\_Clarkson\\_WRRF\\_EA\\_Appendix\\_A1\\_-\\_Characterization\\_Report.pdf](https://sendafile.gmblueplan.ca/public_uploads/2022-11-17_172843_Clarkson_WRRF_EA_Appendix_A1_-_Characterization_Report.pdf)

Natural Heritage Impact Assessment Report (Volume 2, Appendix A2):  
[https://sendafile.gmblueplan.ca/public\\_uploads/2022-11-17\\_173003\\_Clarkson\\_WRRF\\_EA\\_Appendix\\_A2\\_-\\_Impact\\_Assessment.pdf](https://sendafile.gmblueplan.ca/public_uploads/2022-11-17_173003_Clarkson_WRRF_EA_Appendix_A2_-_Impact_Assessment.pdf)



Receiving Water Impact Assessment (Volume 2, Appendix B): [https://sendafile.gmblueplan.ca/public\\_uploads/2022-11-17\\_171453\\_Clarkson\\_WRRF\\_EA\\_Appendix\\_B\\_-\\_RWIA.pdf](https://sendafile.gmblueplan.ca/public_uploads/2022-11-17_171453_Clarkson_WRRF_EA_Appendix_B_-_RWIA.pdf)

Feel free to forward these links onto other CVC reviewers for download; the links will remain active for 21 days. Pertaining to the inclusion of the SWM criteria noted in the email chain below, you'll see the ESR includes this information in Table 11-2.

We request that comments be provided by December 19<sup>th</sup> at the latest so we can make any necessary updates and submit as expeditiously as possible in January.

Thank you and feel free to reach out with any questions,

**Benjamin Peachman, P. Eng.**  
Infrastructure Planning

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## Benjamin Peachman - GM BluePlan

---

**From:** Benjamin Peachman - GM BluePlan  
**Sent:** Wednesday, November 16, 2022 9:23 AM  
**To:** Ahmad, Iftekhar  
**Cc:** Kambeitz, Cindy; Laurie Boyce - GM BluePlan; Kilis, Jakub; Robinson, Olivia; Lohnes, Shelley  
**Subject:** RE: CVC response (reports & swm) - EA 20/010 - EA Phase 3 recommendations for the Clarkson WWTP (GMBP#719051)

Hi Iftekhar,

Thank you for the detailed info below; we've updated the ESR to include this information within the mitigation measures sections of the report which you'll receive in draft within the next day or two.

**Benjamin Peachman, P. Eng.**  
Infrastructure Planning

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[benjamin.peachman@gmblueplan.ca](mailto:benjamin.peachman@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



---

**From:** Ahmad, Iftekhar <Iftekhar.Ahmad@cvc.ca>  
**Sent:** Tuesday, November 15, 2022 3:32 PM  
**To:** Benjamin Peachman - GM BluePlan <Benjamin.Peachman@gmblueplan.ca>  
**Cc:** Kambeitz, Cindy <cindy.kambeitz@peelregion.ca>; Laurie Boyce - GM BluePlan <Laurie.Boyce@gmblueplan.ca>; Kilis, Jakub <Jakub.Kilis@cvc.ca>; Robinson, Olivia <orobinson@geiconsultants.com>; Lohnes, Shelley <slohnesh@geiconsultants.com>  
**Subject:** CVC response (reports & swm) - EA 20/010 - EA Phase 3 recommendations for the Clarkson WWTP (GMBP#719051)

Hi Benjamin,

CVC staff have reviewed the Natural Heritage Characterization Report and Impact Assessment Report prepared by GEI dated October 2022 and have no comments at this stage.

Please find below comments on SWM from our engineering staff.

Due to the increases in impervious area associated with the proposed WWTP expansion, the SWM strategy is to follow guidelines presented in CVC's SWM Criteria ([https://cvc.ca/wp-content/uploads/2012/01/CVC-SWM-Guide\\_f\\_20220720-1.pdf](https://cvc.ca/wp-content/uploads/2012/01/CVC-SWM-Guide_f_20220720-1.pdf)) and Peel's SWM Criteria (<https://www.peelregion.ca/public-works/design-standards/pdf/sewer-design-update.pdf>).

Here is the information from CVC's SWM Criteria.

### Quantity Control:

Provide 100-year post to 2-year pre-development flood control from the proposed site into the receiving Lakeside Creek.

#	Subwatershed Name	Flood Control Criteria	References & Notes
	Clearview Creek	100 Year Post to 2 Year Pre-development Control	Southdown District Stormwater Servicing and Environmental Management Plan (pending completion in 2021)
	Avonhead Creek	100 Year Post to 2 Year Pre-development Control	
	Lakeside Creek	100 Year Post to 2 Year Pre-development Control	Hydrologic Modeling and Flood Hazard Mapping Updated (CVC, 2020)

**Quality Control:**

All watercourses and waterbodies (both Lakeside Creek and Lake Ontario) regulated by CVC require enhanced level of protection (80% TSS removal). This level of quality control is to be achieved for the proposed site.

**Erosion Control:**

The minimum erosion control recommended is the retention of the first 5 mm of any given rainfall event unless otherwise justified.

Additionally, the consideration of incorporating LIDs and a treatment train approach should be included in the SWM strategy, where feasible.

Best regards,  
Iftekhar

I'm working remotely. The best way to reach me is by email or Microsoft Teams.

**Iftekhar Ahmad** | he/him/his  
Planner, Environmental Assessment | Credit Valley Conservation  
905-670-1615 ext 296 | M: 647-449-5962  
[iftekhar.ahmad@cvc.ca](mailto:iftekhar.ahmad@cvc.ca) | [cvc.ca](http://cvc.ca)



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**From:** Benjamin Peachman - GM BluePlan <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>  
**Sent:** Wednesday, October 26, 2022 9:51 AM  
**To:** Ahmad, Iftekhar <[Iftekhar.Ahmad@cvc.ca](mailto:Iftekhar.Ahmad@cvc.ca)>  
**Cc:** Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>; Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; Kilis, Jakub <[Jakub.Kilis@cvc.ca](mailto:Jakub.Kilis@cvc.ca)>; Cook, Lori <[lori.cook@cvc.ca](mailto:lori.cook@cvc.ca)>; De Stefano, Matteo <[matteo.destefano@cvc.ca](mailto:matteo.destefano@cvc.ca)>; Robinson, Olivia <[orobinson@geiconsultants.com](mailto:orobinson@geiconsultants.com)>; Lohnes, Shelley <[slohnes@geiconsultants.com](mailto:slohnes@geiconsultants.com)>



**Subject:** [External] RE: Meeting dates/times - EA 20/010 - EA Phase 3 recommendations for the Clarkson WWTP (GMBP#719051)

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Hi Iftekhar,

As noted below, please see attached for the Impact Assessment Report for the Clarkson WRRF expansion EA. We look forward to our discussion on November 10<sup>th</sup>.

Thanks,

**Benjamin Peachman, P. Eng.**  
Infrastructure Planning

**GM BluePlan Engineering Limited**  
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**From:** Benjamin Peachman - GM BluePlan  
**Sent:** Thursday, October 20, 2022 10:15 AM  
**To:** Ahmad, Iftekhar <[Iftekhar.Ahmad@cvc.ca](mailto:Iftekhar.Ahmad@cvc.ca)>  
**Cc:** Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>; Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; [orobinson@geiconsultants.com](mailto:orobinson@geiconsultants.com); Lohnes, Shelley <[slohnes@geiconsultants.com](mailto:slohnes@geiconsultants.com)>  
**Subject:** RE: Meeting dates/times - EA 20/010 - EA Phase 3 recommendations for the Clarkson WWTP (GMBP#719051)

Hi Iftekhar,

Thanks; I'll circulate a Teams meeting invite to the group noted below for Thursday, November 10<sup>th</sup> from 10-12.

The Impact report will be circulated on Monday and we'll also provide a draft of the ESR once available.

**Benjamin Peachman, P. Eng.**  
Infrastructure Planning

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[benjamin.peachman@gmblueplan.ca](mailto:benjamin.peachman@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



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**From:** Ahmad, Iftekhar <[Iftekhar.Ahmad@cvc.ca](mailto:Iftekhar.Ahmad@cvc.ca)>  
**Sent:** Wednesday, October 19, 2022 11:33 AM

**To:** Benjamin Peachman - GM BluePlan <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>  
**Cc:** Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>; Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; [orobinson@geiconsultants.com](mailto:orobinson@geiconsultants.com); Lohnes, Shelley <[slohnes@geiconsultants.com](mailto:slohnes@geiconsultants.com)>  
**Subject:** Meeting dates/times - EA 20/010 - EA Phase 3 recommendations for the Clarkson WWTP (GMBP#719051)

Hi Benjamin,

Thank you for providing the updated report. We will review this report and another impact report (to be received early next week) and get back to you with the response as soon as possible.

Please find below our availability for the meeting.

Friday, November 4<sup>th</sup>, 10-12  
Thursday, November 10<sup>th</sup>, 10-12

Please include the following CVC staff members in the meeting invite:

Jakub Kilis [Jakub.Kilis@cvc.ca](mailto:Jakub.Kilis@cvc.ca)  
Lori Cook [lori.cook@cvc.ca](mailto:lori.cook@cvc.ca)  
Matteo De Stefano [matteo.destefano@cvc.ca](mailto:matteo.destefano@cvc.ca)  
Iftekhhar Ahmad [Iftekhhar.Ahmad@cvc.ca](mailto:Iftekhhar.Ahmad@cvc.ca)

Please also send us the completed ESR for our review prior to the meeting.

Thanks,

Best regards,  
Iftekhhar

I'm working remotely. The best way to reach me is by email or Microsoft Teams.

**Iftekhhar Ahmad** | he/him/his  
Planner, Environmental Assessment | Credit Valley Conservation  
905-670-1615 ext 296 | M: 647-449-5962  
[iftekhhar.ahmad@cvc.ca](mailto:iftekhhar.ahmad@cvc.ca) | [cvc.ca](http://cvc.ca)



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**From:** Benjamin Peachman - GM BluePlan <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>  
**Sent:** Friday, October 14, 2022 1:35 PM  
**To:** Ahmad, Iftekhhar <[Iftekhhar.Ahmad@cvc.ca](mailto:Iftekhhar.Ahmad@cvc.ca)>  
**Cc:** Kilis, Jakub <[Jakub.Kilis@cvc.ca](mailto:Jakub.Kilis@cvc.ca)>; Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>; Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; [orobinson@geiconsultants.com](mailto:orobinson@geiconsultants.com); Lohnes, Shelley <[slohnes@geiconsultants.com](mailto:slohnes@geiconsultants.com)>  
**Subject:** [External] RE: CVC comments (natural heritage report) - EA 20/010 - EA Phase 3 recommendations for the Clarkson WWTP (GMBP#719051)

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Hi Iftekhar,

Thank you for providing the comments below on GEI's November 2020 report. Please follow the link below for the updated report (dated October 2022) which addresses these comments. Please note that there is one comment that was not addressed within this report since it is related to assessing the impacts to locally/regionally rare species. This is addressed in a separate Impact Report which will be circulated early next week.

File Name : [https://sendafile.gmblueplan.ca/public\\_uploads/2022-10-14\\_172646\\_Clarkson\\_CharacterizationReport.pdf](https://sendafile.gmblueplan.ca/public_uploads/2022-10-14_172646_Clarkson_CharacterizationReport.pdf)

We're nearing completion of the ESR and are looking to schedule a meeting with the CVC in November (earlier in the month is preferred) to present the findings of the ESR prior to filing. If you're able to circulate some dates/times that'd work for your team, I'll coordinate a Teams meeting.

Thanks,

**Benjamin Peachman, P. Eng.**  
Infrastructure Planning

**GM BluePlan Engineering Limited**  
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t: 416.703.0667 ext. 7216 | c: 437.328.5016  
[benjamin.peachman@gmblueplan.ca](mailto:benjamin.peachman@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



---

**From:** Ahmad, Iftekhar <[Iftekhar.Ahmad@cvc.ca](mailto:Iftekhar.Ahmad@cvc.ca)>  
**Sent:** Thursday, May 05, 2022 11:53 AM  
**To:** Benjamin Peachman - GM BluePlan <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>  
**Cc:** Kilis, Jakub <[Jakub.Kilis@cvc.ca](mailto:Jakub.Kilis@cvc.ca)>; [cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca); Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; [orobinson@geiconsultants.com](mailto:orobinson@geiconsultants.com); Lohnes, Shelley <[slohnes@geiconsultants.com](mailto:slohnes@geiconsultants.com)>  
**Subject:** CVC comments (natural heritage report) - EA 20/010 - EA Phase 3 recommendations for the Clarkson WWTP (GMBP#719051)

Hi Benjamin,

CVC staff have reviewed the Natural Heritage Characterization Report of the Clarkson Wastewater Treatment Plant prepared by SAVANTA/GEI dated November 2020 and provide these ecology comments for your consideration.

### **CVC Ecology Comments**

1. As is typical, please expand the report to include adjacent lands to 120m beyond the WWTP property (e.g. this is to include ELC and Candidate SWH layers and assessment as documented from the treatment plant property and as gleaned from air photos).
2. Please include the size of all ELC units on Table 2.



3. Please speak to the City of Mississauga's Significant Natural Areas (NAS) which are located within and beyond the property boundaries. Although identified on figures, the form and function of the NAS units is missing from the body of the report.
4. Please also identify the Headwater Drainage Feature (HDF) that flows onto the site from the north (from within the NAS) which is eventually piped through the Plant and discharges (presumably) at Lakeside Creek.
5. Please provide an assessment of the Migratory Bird Stopover Habitat as assessed using the comparative area of the onsite and offsite connected habitat (CVC staff have measured >16Ha woodland area when broadening the assessment to include the adjacent Peel Core Greenlands and onsite NAS). When presenting this analysis in the report, please also make reference to the Peel-Caledon Significant Woodland and Significant Wildlife Habitat Study Report (Peel, 2009).
6. Please speak to whether it is anticipated that the identified regionally rare plant species will be removed/impacted by the proposed expansion - is there an opportunity to relocate species?
7. In terms of the potential wildlife corridors, the report indicates that the roads "likely act as a barrier to movement". While they do pose some hindrances, it is well known that mammals and herptiles do cross roads. That said, numerous deer prints and north/south running deer paths were noted on the property immediately to the north of the Plant and within the north and north western limits of the Plant property. Given the highly trodden (more than a foot wide) path running parallel to the HDF feature (both of which are located along the center of the otherwise vegetated NAS), it can be concluded that this area gets a lot of wildlife foot traffic likely due to the Plant's location between the waterfront area, NAS and Peel Core Greenlands. Of note, numerous racoon prints were also observed along the well-trodden path. Subsequently, it is recommended that the Region seek opportunities to maintain a north/south running greenspace component to their development such that part of the property can continue to act as a wildlife conduit between the lakefront and northern habitats particularly given the lack of any north/south connecting systems in the vicinity. Maintaining and/or enhancing a degree of wildlife permeability (best efforts) for the site will allow for better landscape level connectivity and geneflow and better prospects for the maintenance of the broader NHS in the long run.

If you have any questions, please contact me.

Thanks,

Best regards,  
Iftekhhar

I'm working remotely. The best way to reach me is by email or Microsoft Teams.

**Iftekhhar Ahmad** | he/him/his  
Planner, Environmental Assessment | Credit Valley Conservation  
905-670-1615 ext 296  
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**From:** Benjamin Peachman - GM BluePlan <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>

**Sent:** Thursday, April 7, 2022 1:37 PM

**To:** Kilis, Jakub <[Jakub.Kilis@cvc.ca](mailto:Jakub.Kilis@cvc.ca)>

**Cc:** [cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca); Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; Robinson, Olivia <[orobinson@geiconsultants.com](mailto:orobinson@geiconsultants.com)>; Lohnes, Shelley <[slohnesh@geiconsultants.com](mailto:slohnesh@geiconsultants.com)>; De Stefano, Matteo <[matteo.destefano@cvc.ca](mailto:matteo.destefano@cvc.ca)>; Cook, Lori <[lori.cook@cvc.ca](mailto:lori.cook@cvc.ca)>; Ahmad, Iftekhhar <[Iftekhhar.Ahmad@cvc.ca](mailto:Iftekhhar.Ahmad@cvc.ca)>

**Subject:** [External] CVC Meeting Notes - EA Phase 3 recommendations for the Clarkson WWTP (GMBP#719051)

Some people who received this message don't often get email from [benjamin.peachman@gmblueplan.ca](mailto:benjamin.peachman@gmblueplan.ca). [Learn why this is important](#)

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Good afternoon Jakub,

As a record of the meeting held between CVC and Peel Region (including the Region's consultant team; GM BluePlan and GEI/Savanta) regarding the EA Phase 3 recommendations for the Clarkson WWTP, please see attached for a summary of the collected meeting notes. Feel free to let me know if there are any errors or omissions within the document.

In addition, as per CVC's request, please follow the link below for the site's Natural Heritage Characterization Report by GEI/Savanta.

<https://savanta.egnyte.com/dl/oSeufv21ih> (Password: KMm4ct6B)

Thanks,

**Benjamin Peachman, P. Eng.**

Infrastructure Planning

**GM BluePlan Engineering Limited**

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## Schedule C Class Environmental Assessments and Conceptual Designs of the South Peel Wastewater Treatment Plants

### Credit Valley Conservation (CVC) Meeting: Conceptual Design & Summary of ESR Findings for Clarkson WWTP

---

**Meeting Date/Time:** November 10<sup>th</sup>, 2022 10:00 am to 12:00 pm

**Location:** Teams Meeting

**Notes Prepared by:** Benjamin Peachman (GM BluePlan); reviewed by Laurie Boyce (GM BluePlan)

**Date of Meeting Notes:** November 10<sup>th</sup>, 2022

#### Attendance

**Chair:** Cindy Kambeitz, Region of Peel

**Attendees:** **Credit Valley Conservation (CVC)**

Jakub Kilis, CVC

Lori Cook, CVC

Iftekhar Ahmad, CVC

Matteo De Stefano, CVC

**Consultant Team**

Laurie Boyce, GM BluePlan

Benjamin Peachman, GM BluePlan

Olivia Robinson, GEI/Savanta

Shelley Lohnes, GEI/Savanta

#### **Meeting Notes:**

- 1) GMBP presented the attached presentation regarding the conceptual design of the Clarkson WRRF expansion and provided a summary of the Environmental Study Report's (ESR) findings.
- 2) GEI/Savanta provided an overview of the natural environmental net effects & proposed mitigation measures associated with the plant expansion.
- 3) CVC noted that they were generally satisfied with the recommendations put forward in the natural environment background studies and recommendations completed in support of the plant expansion.
- 4) CVC noted that they would like to be circulated a draft of the ESR for their review. GMBP committed to providing relevant sections of the ESR to the CVC for their review ahead of project filing.
- 5) CVC noted that the ESR should include a commitment by Peel Region to meet CVC's stormwater management (SWM) guidelines as they pertain to the plant expansion.
- 6) CVC noted they would circulate the specific SWM guidelines applicable to the plant expansion after the meeting.

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Notice of any errors or omissions in this document should be communicated by attendees to the note taker within two (2) weeks of issuance of these notes.



# Peel Wastewater Treatment Solutions Clarkson WRRF Schedule C Class EA

Conceptual Design &  
Summary of ESR findings

CVC Meeting – November 10,  
2022 (10am-12pm)



## Purpose :

- Provide an update on the conceptual design and ESR findings.
- Receive CVC input on the potential environmental net effects and mitigation measures involved with the Clarkson WRRF expansion.

## Agenda

1. Background, Purpose and Objectives of the Class EAs
2. Phase 1: Problem / Opportunity Statement
3. Phase 2: Recommended Regional Solution
4. Phase 3: Preferred Design Concepts
5. Conceptual Design
6. ESR Findings (Natural Environment Impacts & Mitigation)
7. Next Steps



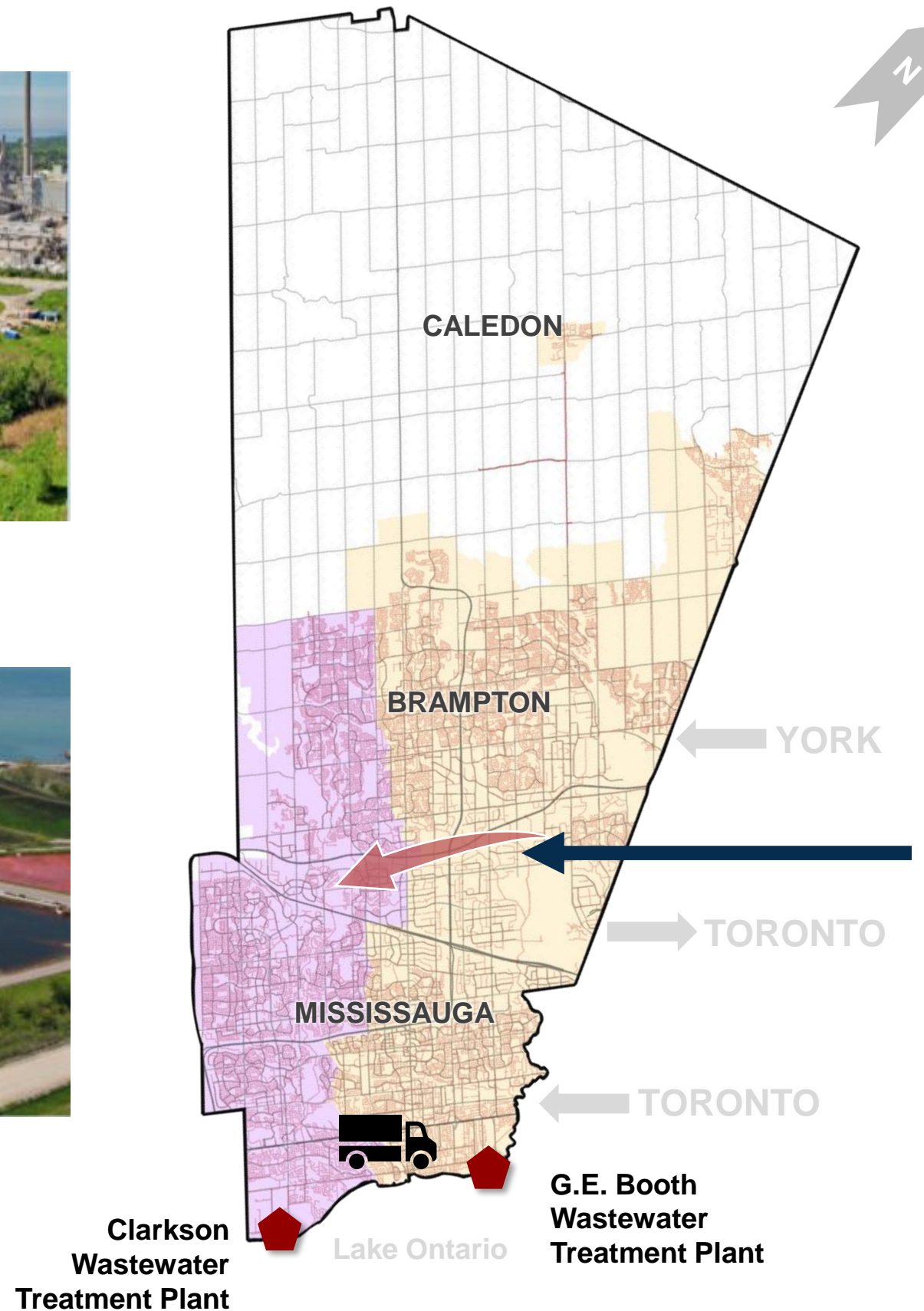
# Peel's Wastewater Treatment System



**Clarkson Wastewater Treatment Plant  
(350 MLD)**



**G.E. Booth Wastewater Treatment Plant  
(518 MLD)**



The East-West Diversion is a deep gravity trunk sewer of 2400 mm diameter currently being constructed along Derry Road. It is expected to be completed and operational by 2026. It allows Peel to divert flows from the G.E. Booth WWTP catchment area where there are capacity limitations, to the Clarkson WWTP catchment area which currently has surplus capacity.



# Need for the Class EAs

The Region's Growth Management Process and 2020 Water and Wastewater Master Plan identified that there will be significant growth across the Region of Peel.

With this approved growth to year 2041 and vision for growth beyond 2041, additional treatment capacity is required to meet the needs of Peel's citizens and to continue to protect the environment.

The Region of Peel is

## GROWING!

2016

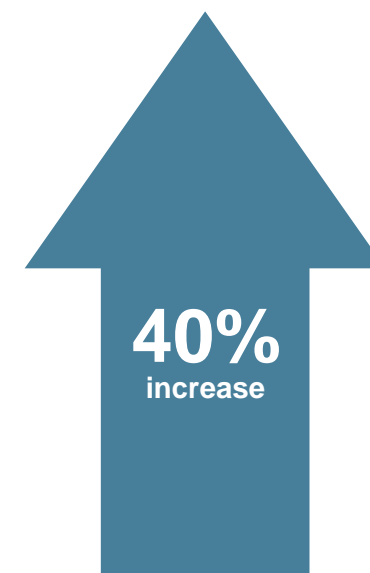
**2.12 Million**

1,428,000 people  
695,000 jobs

2041

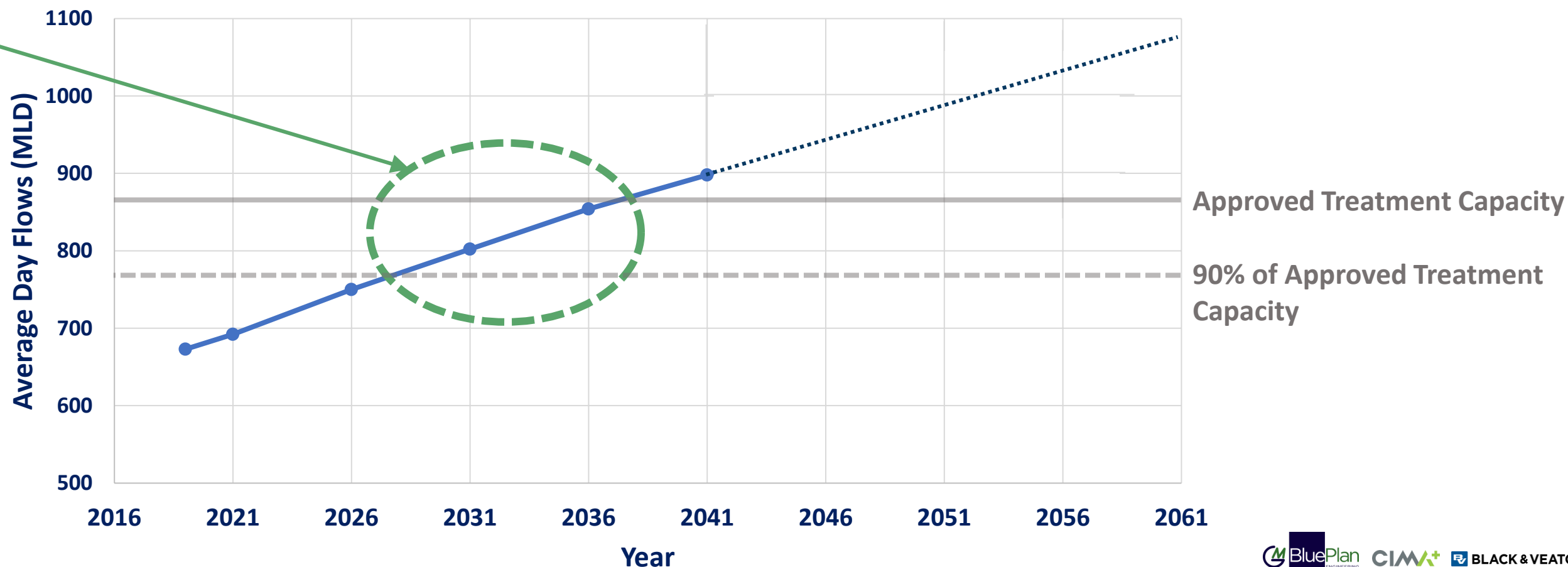
**2.94 Million**

1,970,000 people  
970,000 jobs



+ 542,000 people  
+ 275,000 jobs

### Total Peel Wastewater Flow Projections



Additional Treatment Capacity Required








Approved Treatment Capacity

90% of Approved Treatment Capacity

## The Region is undertaking two Schedule C Class EAs to develop preferred solutions at the G.E Booth WRRF and the Clarkson WRRF that will:

- Meet future needs associated with population growth, new regulations, climate resiliency, energy efficiency, and wet weather flow management.
- Address community expectations regarding level of service, odour, air/noise, water quality, protection of the environment and aesthetics.
- Provide greater flexibility and reliability in wastewater and biosolids management.

### Goals & Objectives of the Class EAs

	<b>Biosolids Management</b>	<ul style="list-style-type: none"> <li>• Region Wide Biosolids Management with Operational Flexibility</li> <li>• Diversified Outlets with Reliable Biosolids Treatment and End Uses at Each Facility</li> <li>• Advanced Technologies with Energy and Resource Recovery</li> <li>• Community Compatible and Acceptable</li> </ul>
	<b>Energy Efficiency</b>	<ul style="list-style-type: none"> <li>• Reduce GHG emissions</li> <li>• Energy Reduction and Reuse</li> </ul>
	<b>Wet Weather Management</b>	<ul style="list-style-type: none"> <li>• Real Time Control</li> <li>• Diverting Flow</li> </ul>
	<b>Receiving Water Quality</b>	<ul style="list-style-type: none"> <li>• Assimilative Capacity studies</li> <li>• Define Effluent Quality Limits</li> <li>• Protecting IPZs and shoreline users/uses</li> </ul>
	<b>Odour and Air Quality</b>	<ul style="list-style-type: none"> <li>• Multi-barrier approaches</li> </ul>
	<b>Visual Aesthetics</b>	<ul style="list-style-type: none"> <li>• Landscaping</li> <li>• Best use of sites</li> <li>• Eliminate ash lagoons</li> </ul>
	<b>Compatibility with Ongoing Initiatives</b>	<ul style="list-style-type: none"> <li>• Real Time Control</li> <li>• Existing Plant Upgrades</li> <li>• Energy Efficiency Initiatives - DEC</li> </ul>
	<b>Treatment Redundancy</b>	<ul style="list-style-type: none"> <li>• Firm Capacity with one train out of service</li> </ul>

## Recommend Strategy to Meet Future Wastewater Treatment Needs

- Divert flows through the East-West Diversion Trunk Sewer
- Manage Peak Wet Weather Flows (in G.E. Booth system)
- **Expand the Clarkson WWTP from 350 MLD to 500 MLD**
- Expand the G.E. Booth WWTP from 518 MLD to 550 MLD
- New Outfall at the G.E. Booth WWTP

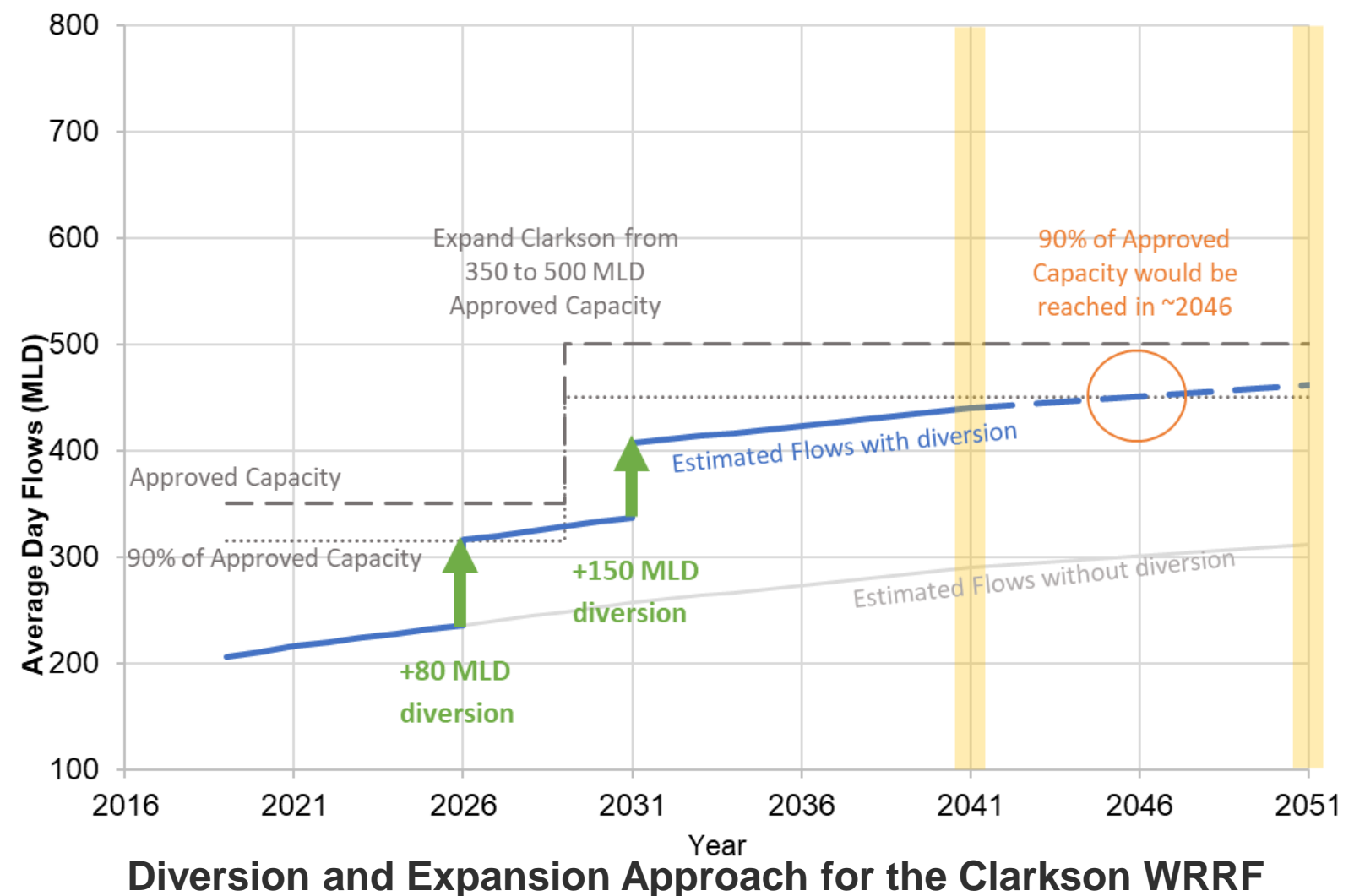
## Recommended Strategy to Management Biosolids

- No longer truck digested sludge from Clarkson WWTP to the G.E. Booth WWTP for incineration.
- **Provide biosolids treatment at the Clarkson WWTP and market product for beneficial land use.**
- The strategy also includes the continued use of incineration at the G.E. Booth WWTP given the incinerators' effective performance and remaining service life, and the investment Peel has made in the technology.



# Benefits of the Regional Solution

- Long term sustainable approach that optimizes the use of existing and planned infrastructure
- Capacity increases allow Peel to meet future population growth demands beyond 2041; allowing time to plan and implement next phase of expansion
- Diversification in biosolids management options
- Allows for a staged approach to expansion of both plants
  - Clarkson expansion by 2029
  - G.E. Booth expansion by 2036 (with outfall constructed earlier)



**Reduces risks associated with future changes in population growth, environmental conditions, and regulatory requirements**

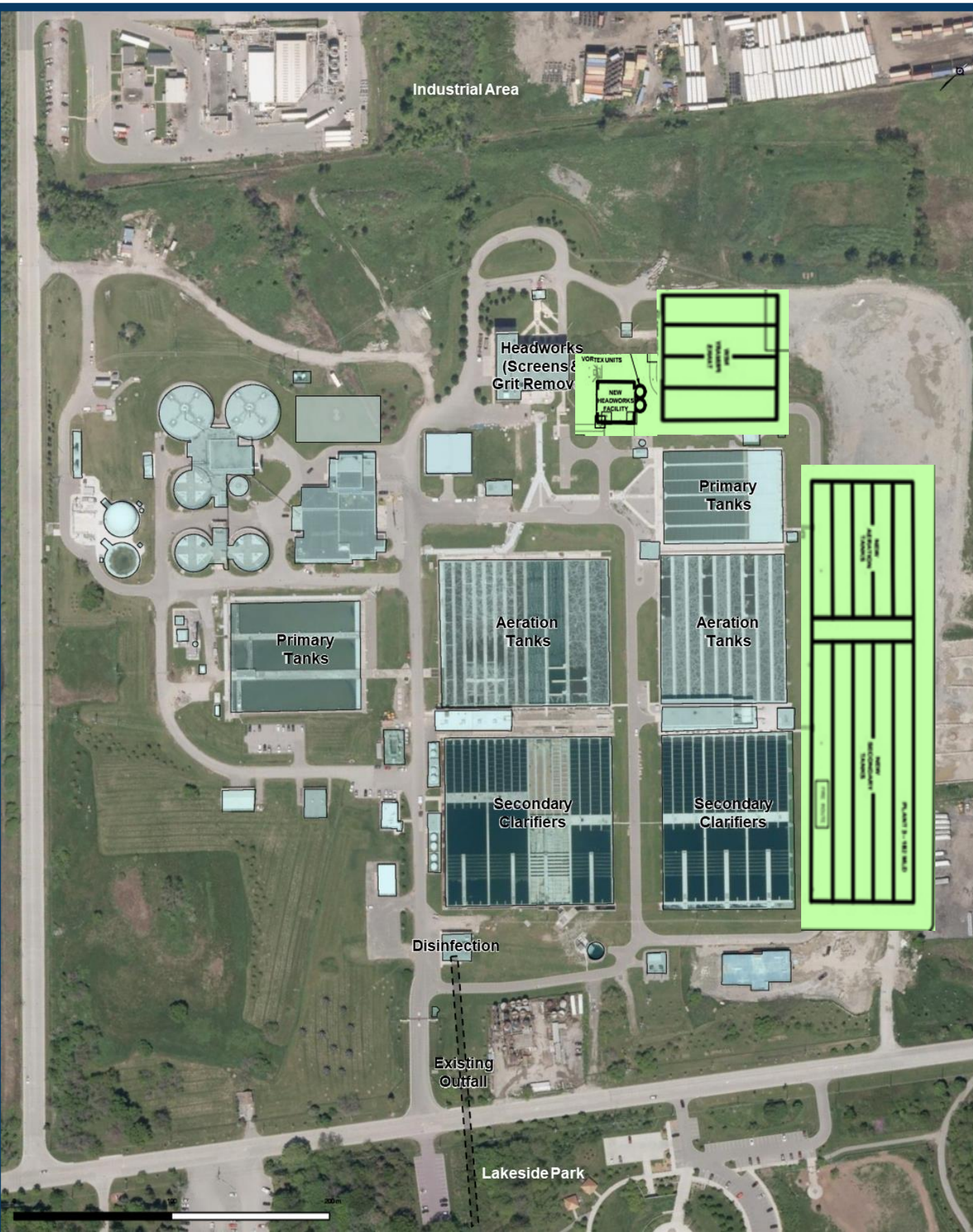
# Phase 3: Preferred Design Concept (Wastewater Treatment)

## Wastewater Treatment

- **Enhanced Biological Nutrient Removal (BNR)**
  - ✓ Aligns best with the Region's goals for energy efficiency and GHG emission mitigation
  - ✓ Less chemical use
  - ✓ Lower O&M

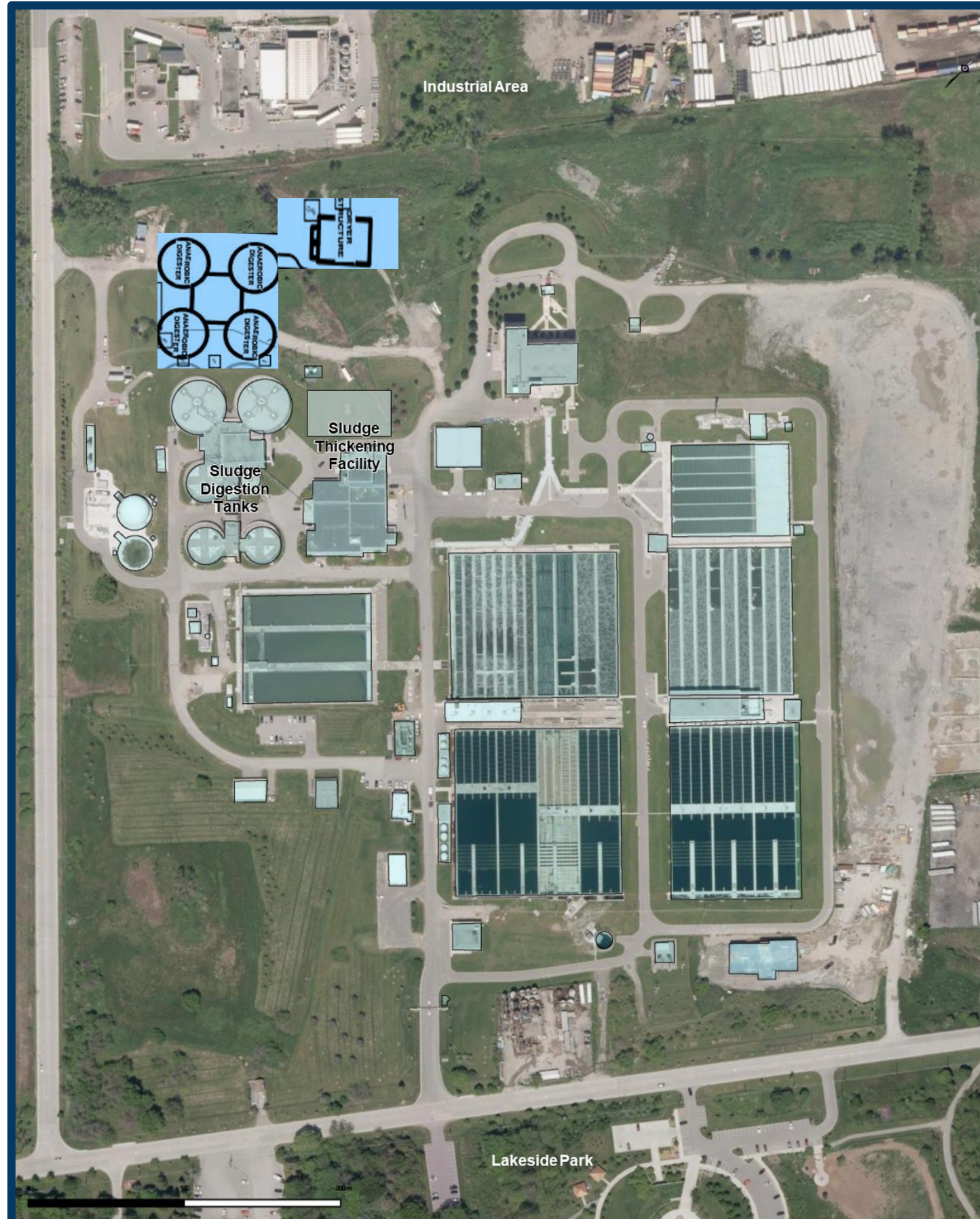
## Disinfection

- **Chlorination and Dechlorination**
  - ✓ No expansion needed, integrated into the existing outfall system





# Phase 3: Preferred Design Concept (Biosolids Management)



## Biosolids Treatment

- **Digestion, Dewatering, Thermal Drying**
  - ✓ Aligns best with the Region's goals to diversify biosolids markets and ensure long term sustainability
  - ✓ Allows Region to defer capital costs associated with Thermal Drying facility
  - ✓ Allows for beneficial market use (fertilizer, etc.)







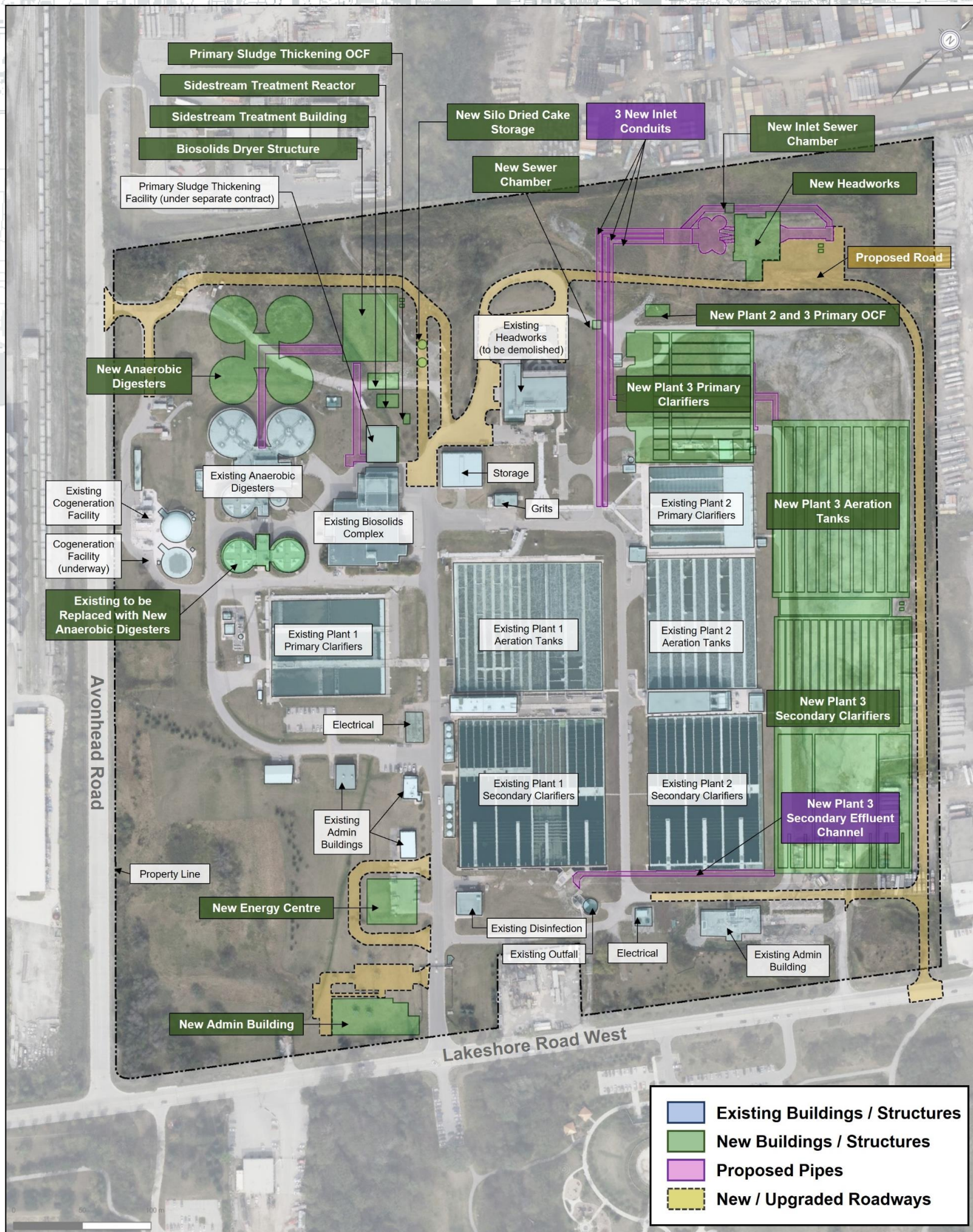
## Conceptual Design: Site Layout

### Key expansion facilities on site:

- Headworks building
- New wastewater train (inlet conduits, primary clarifiers, aeration tanks, blower building, secondary clarifiers, and effluent channels)
- Sidestream treatment facility
- Digester control building & additional digesters.
- Direct thermal drying facility
- Energy Centre

### Biosolids Beneficial Use:

- Digested/dewatered cake can be applied to agricultural lands or further treated through alkaline stabilization by a third-party biosolids treatment/management firm and marketed as a fertilizer.
- The dried product can be marketed as a fertilizer as well.





# ESR Findings: Natural Environment Impacts & Mitigation

The Environmental Study Report (ESR) will summarize the findings of Phases 1-3 and include the supporting background studies.

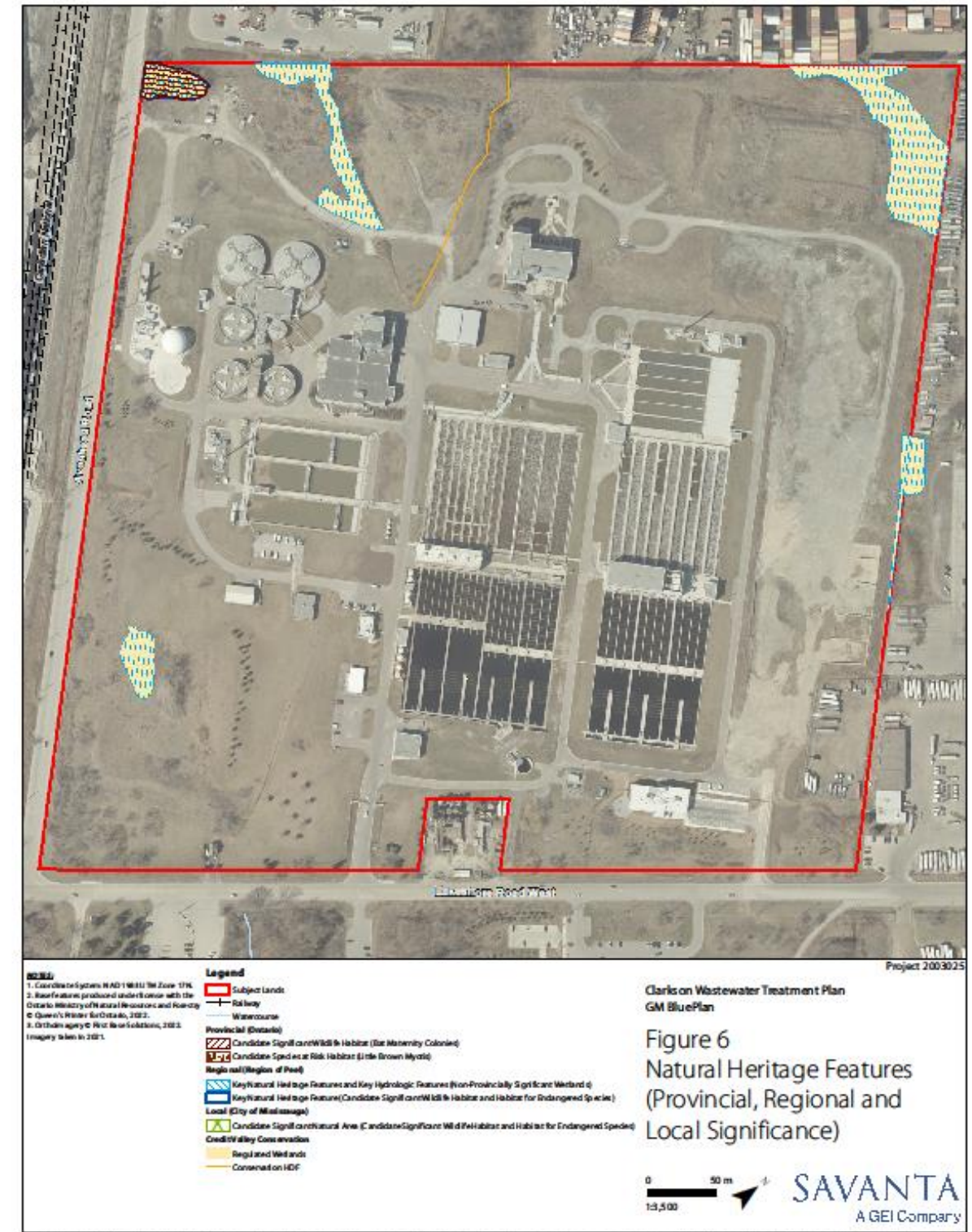
## Natural Environmental Net Effects & Mitigation

### Targeted Fieldwork (2020/2022)

- Summer and Fall Botanical and Ecological Land Classification (2020)
- Two rounds of Breeding Bird Surveys (2020)
- One Aquatic Site Reconnaissance (2022)

### Key Findings

- Three SAR (Peregrine Falcon, Bank Swallow and Barn Swallow) recorded but determined no suitable habitat on site and/or no breeding evidence recorded
- One candidate SAR (Little Brown Myotis within SWD)
- Two wetland community types (MAM2, SWD)
- Candidate SWH (Bat Maternity Roosting within SWD)
- Indirect fish habitat





## Retained Natural Features (SWD, MAM)

- Site plan generally follows existing development footprint (e.g., maintaining site entrance) to reduce disturbance
- Planting vegetative buffers surrounding retained features
- Installation and maintenance of erosion and sediment controls surrounding retained features
- Creation of spill prevention and action plan

## Altered HDF

- Downstream piping
- Maintain contributions to receiving habitats (i.e., flow conveyance and contributions of allochthonous materials)
- Removal to occur when dry to avoid mobilization of sediments

## Natural Features Proposed for Removal and Replication (MAM)

- Removal and replication (at 1:1 ratio) of one wetland community (MAM2; 0.15 ha)
- Phasing plan to create compensation wetland ahead of removal of existing wetland
- Wildlife salvage prior to removal of wetland
- Creation of biodiverse wetland community at 1:1 replication ratio in south-west corner, with focus on pollinator habitat

## Isolated Tree Removals

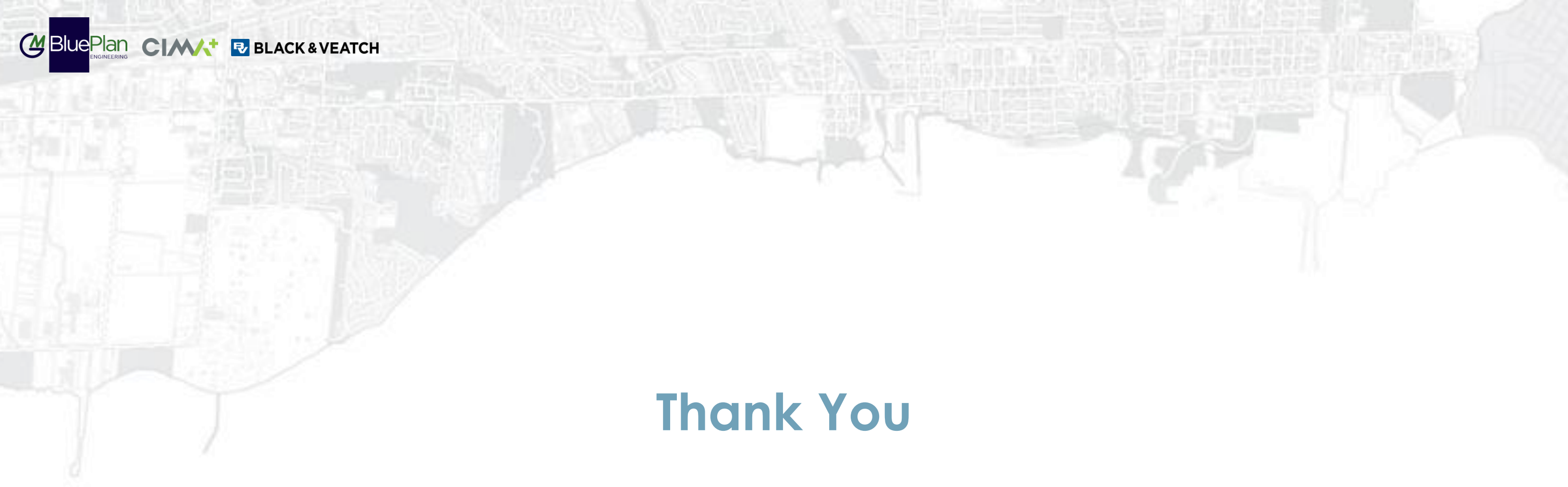
- Removals of trees outside of active wildlife windows
  - Migratory Bird Window – early April to end of August and Bat Maternity Roosting Window – April 1 to September 30

## Clarkson WRRF

- Submitting ESR (Draft) to MECP for review by mid-November
- Filing ESR (Final) with MECP in January 2023

## G.E. Booth WRRF

- Monarch habitat screening completed in September 2022
- OAO community survey completed in September 2022
- Breeding bird surveys in May/June 2023
- PIC No.3 for G.E. Booth EA will be completed in Q1 2023
- ESR for G.E. Booth to be completed in Q2 2023



**Thank You**

**Questions?**



## Samantha Morrissey - GM BluePlan

---

**From:** Ahmad, Iftexhar <Iftexhar.Ahmad@cvc.ca>  
**Sent:** Thursday, May 05, 2022 11:53 AM  
**To:** Benjamin Peachman - GM BluePlan  
**Cc:** Kilis, Jakub; cindy.kambeitz@peelregion.ca; Laurie Boyce - GM BluePlan; orobinson@geiconsultants.com; Lohnes, Shelley  
**Subject:** CVC comments (natural heritage report) - EA 20/010 - EA Phase 3 recommendations for the Clarkson WWTP (GMBP#719051)

Hi Benjamin,

CVC staff have reviewed the Natural Heritage Characterization Report of the Clarkson Wastewater Treatment Plant prepared by SAVANTA/GEI dated November 2020 and provide these ecology comments for your consideration.

### CVC Ecology Comments

1. As is typical, please expand the report to include adjacent lands to 120m beyond the WWTP property (e.g. this is to include ELC and Candidate SWH layers and assessment as documented from the treatment plant property and as gleaned from air photos).
2. Please include the size of all ELC units on Table 2.
3. Please speak to the City of Mississauga's Significant Natural Areas (NAS) which are located within and beyond the property boundaries. Although identified on figures, the form and function of the NAS units is missing from the body of the report.
4. Please also identify the Headwater Drainage Feature (HDF) that flows onto the site from the north (from within the NAS) which is eventually piped through the Plant and discharges (presumably) at Lakeside Creek.
5. Please provide an assessment of the Migratory Bird Stopover Habitat as assessed using the comparative area of the onsite and offsite connected habitat (CVC staff have measured >16Ha woodland area when broadening the assessment to include the adjacent Peel Core Greenlands and onsite NAS). When presenting this analysis in the report, please also make reference to the Peel-Caledon Significant Woodland and Significant Wildlife Habitat Study Report (Peel, 2009).
6. Please speak to whether it is anticipated that the identified regionally rare plant species will be removed/impacted by the proposed expansion - is there an opportunity to relocate species?
7. In terms of the potential wildlife corridors, the report indicates that the roads "likely act as a barrier to movement". While they do pose some hindrances, it is well known that mammals and herptiles do cross roads. That said, numerous deer prints and north/south running deer paths were noted on the property immediately to the north of the Plant and within the north and north western limits of the Plant property. Given the highly trodden (more than a foot wide) path running parallel to the HDF feature (both of which are located along the center of the otherwise vegetated NAS), it can be concluded that this area gets a lot of wildlife foot traffic likely due to the Plant's location between the waterfront area, NAS and Peel Core Greenlands. Of note, numerous racoon prints were also observed along the well-trodden path. Subsequently, it is recommended that the Region seek opportunities to maintain a north/south running greenspace component to their development such that part of the property can continue to act as a wildlife conduit between the lakefront and northern habitats particularly given the lack of any north/south connecting systems in the vicinity. Maintaining and/or enhancing a degree of wildlife permeability (best efforts) for the site will allow for better landscape

level connectivity and gene flow and better prospects for the maintenance of the broader NHS in the long run.

If you have any questions, please contact me.

Thanks,

Best regards,  
Iftexhar

I'm working remotely. The best way to reach me is by email or Microsoft Teams.

**Iftexhar Ahmad** | he/him/his  
Planner, Environmental Assessment | Credit Valley Conservation  
905-670-1615 ext 296  
[iftexhar.ahmad@cvc.ca](mailto:iftexhar.ahmad@cvc.ca) | [cvc.ca](http://cvc.ca)



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**From:** Benjamin Peachman - GM BluePlan <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>

**Sent:** Thursday, April 7, 2022 1:37 PM

**To:** Kilis, Jakub <[Jakub.Kilis@cvc.ca](mailto:Jakub.Kilis@cvc.ca)>

**Cc:** [cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca); Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; Robinson, Olivia <[orobinson@geiconsultants.com](mailto:orobinson@geiconsultants.com)>; Lohnes, Shelley <[slohnnes@geiconsultants.com](mailto:slohnnes@geiconsultants.com)>; De Stefano, Matteo <[matteo.destefano@cvc.ca](mailto:matteo.destefano@cvc.ca)>; Cook, Lori <[lori.cook@cvc.ca](mailto:lori.cook@cvc.ca)>; Ahmad, Iftexhar <[Iftexhar.Ahmad@cvc.ca](mailto:Iftexhar.Ahmad@cvc.ca)>

**Subject:** [External] CVC Meeting Notes - EA Phase 3 recommendations for the Clarkson WWTP (GMBP#719051)

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Good afternoon Jakub,

As a record of the meeting held between CVC and Peel Region (including the Region's consultant team; GM BluePlan and GEI/Savanta) regarding the EA Phase 3 recommendations for the Clarkson WWTP, please see attached for a summary of the collected meeting notes. Feel free to let me know if there are any errors or omissions within the document.

In addition, as per CVC's request, please follow the link below for the site's Natural Heritage Characterization Report by GEI/Savanta.

<https://savanta.egnyte.com/dl/oSeufv21ih> (Password: KMm4ct6B)

Thanks,

**Benjamin Peachman, P. Eng.**  
Infrastructure Planning

**GM BluePlan Engineering Limited**

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t: 416.703.0667 ext. 7216 | c: 437.328.5016

[benjamin.peachman@gmblueplan.ca](mailto:benjamin.peachman@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



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## Schedule C Class Environmental Assessments and Conceptual Designs of the South Peel Wastewater Treatment Plants

### Credit Valley Conservation (CVC) Meeting: Phase 3 Recommendations for Clarkson WWTP

---

**Meeting Date/Time:** April 4<sup>th</sup>, 2022 1:00 pm to 3:00 pm  
**Location:** Teams Meeting

**Notes Prepared by:** Benjamin Peachman (GM BluePlan); reviewed by Laurie Boyce (GM BluePlan)

**Date of Meeting Notes:** April 7<sup>th</sup>, 2022

#### Attendance

**Chair:** Cindy Kambeitz, Region of Peel

**Attendees:** **Credit Valley Conservation (CVC)**

Jakub Kilis, CVC  
Lori Cook, CVC  
Iftekhar Ahmad, CVC  
Matteo De Stefano, CVC

**Consultant Team**

Laurie Boyce, GM BluePlan  
Benjamin Peachman, GM BluePlan  
Olivia Robinson, GEI/Savanta  
Shelley Lohnes, GEI/Savanta

#### **Meeting Notes:**

- 1) CVC requests that the EA team consider shifting the location of the proposed digesters further west to avoid the existing MAM2 community as much as possible. GMBP/Peel indicated that they have completed a detailed assessment of design concepts, and the digesters cannot be located further west; however, part of the Region's overall strategy is to provide compensation for the impacted natural areas on site. As a result, wetland compensation (on site) is recommended to compensate for these removals at a 1:1 replication ratio.
- 2) CVC noted that the area is sensitive to habitat removal based on the minimal available habitat areas and the amount of fauna in the area based on the proximity to Lake Ontario. CVC noted appreciation that the Region is considering compensation for impacted natural features within the site. Savanta/GEI clarified that several site designs were considered, including one where removals of the deciduous swamp (SWD) in the north-west corner and other wetland habitats were proposed. The updated site plan generally respects existing natural heritage features; wetland removals have been minimized to the extent possible.
- 3) CVC requests that the EA team review the site from a wildlife habitat perspective and comment on where the most appropriate location would be for habitat and/or wetland compensation. CVC noted that re-constructed wetlands could be beneficially located

adjacent to existing wooded areas and/or perhaps additional tree plantings could be incorporated into the design of the wetland compensation area. Savanta/GEI will explore different opportunities on the Subject Lands given the existing development footprint and potential areas for expansion in future years.

- 4) CVC requests that the EA team investigate the possibility for a wildlife corridor from north to south through the subject lands, with the goal being to provide a 'permeable landscape'. Savanta/GEI will explore different opportunities on the Subject Lands given the existing development footprint and potential areas for expansion in future years. It should be noted that wildlife movement through the existing site is likely limited given the existing site usage, as well as permanent fencing around the perimeter of the site.
- 5) CVC requests that the natural heritage report speak to the long-term approach of maintaining NHS areas on site. The Region noted that while they cannot confirm future plans that may impact the site layout related to NHS features, currently the southwest portion of the site where the historical plant lagoon system (decommissioned) was once located is not anticipated to be developed within the 2041 planning horizon. It was noted by Savanta/GEI that as the southwest portion of the property contains an existing MAM2 community, which is not anticipated to be impacted in the near-term, it has the potential for long-term habitat protection and connectivity with Lakeside Creek. Due to the existing MAM2 community, it also potentially provides a suitable location for re-constructed wetlands, as compensation for the MAM2 community that requires removal further north in the site to facilitate construction of the new digesters.

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# Peel Wastewater Treatment Solutions Clarkson WWTP Schedule C Class EA

Summary of Phase 3 Results  
focusing on Natural Features  
Impacts, Mitigation, Restoration  
Measures

CVC Meeting – April 4, 2022







# Introduction



**Purpose** – To provide an overview of the Schedule C Class EA findings for the Clarkson WWTP and receive CVC input on potential environmental net effects, mitigation, monitoring, and restoration measures.

## Agenda

- Background, Purpose and Objectives of the Class EAs
- Recap EA Process and Findings
  - Conceptual Design for Expansion
- Existing Conditions – Clarkson WWTP
  - Surrounding Land Uses
  - Natural Environment Conditions and Net Effects
- Mitigation, Monitoring, and Restoration Measures - Discussion
- Next Steps



# Peel's Wastewater Treatment System



**Clarkson Wastewater Treatment Plant  
(350 MLD)**



**G.E. Booth Wastewater Treatment Plant  
(518 MLD)**



The East-West Diversion is a deep gravity trunk sewer of 2400 mm diameter currently being constructed along Derry Road. It is expected to be completed and operational by 2026. It allows Peel to divert flows from the G.E. Booth WWTP catchment area where there are capacity limitations, to the Clarkson WWTP catchment area which currently has surplus capacity.



# Need for the Class EAs

The Region's Growth Management Process and 2020 Water and Wastewater Master Plan identified that there will be significant growth across the Region of Peel.

With this approved growth to year 2041 and vision for growth beyond 2041, additional treatment capacity is required to meet the needs of Peel's citizens and to continue to protect the environment.

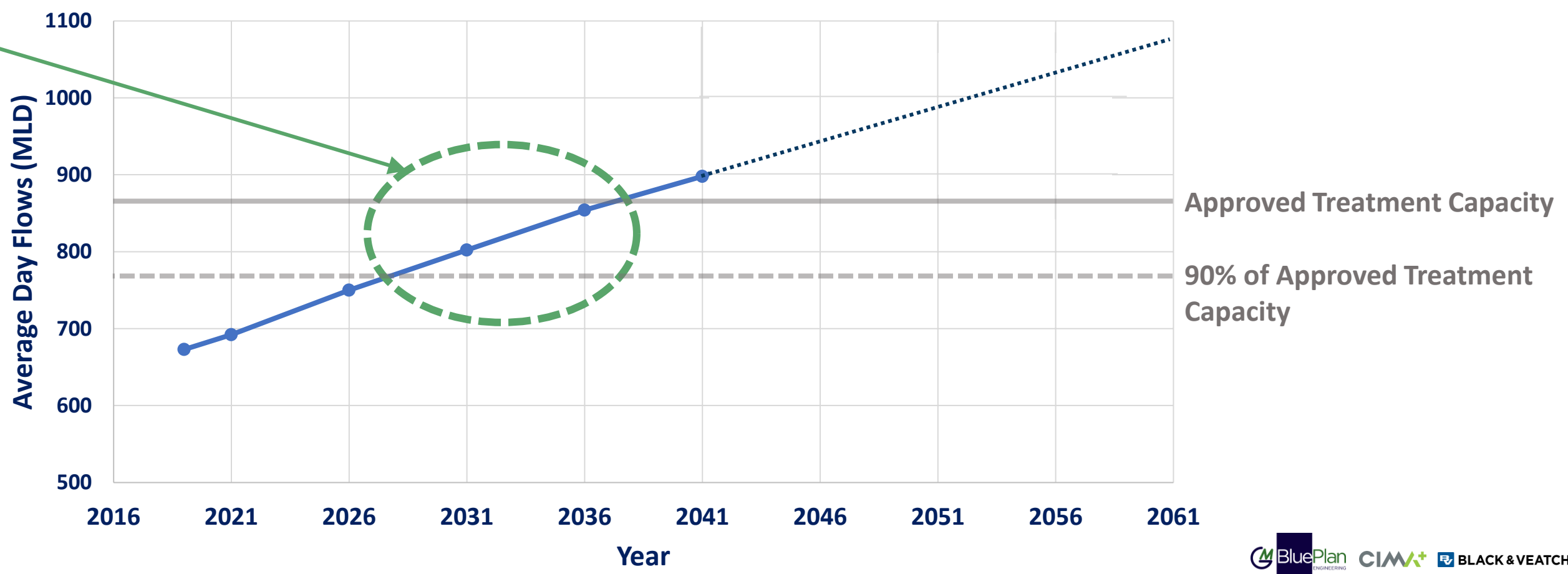
The Region of Peel is **GROWING!**

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**40% increase**  
+ 542,000 people  
+ 275,000 jobs

**Total Peel Wastewater Flow Projections**



Additional Treatment Capacity Required

## Phase 1: Problem and Opportunity Statement

- How much additional wastewater flow and solids will be generated from the approved population and employment growth?
- What Opportunities should be realized?

## Phase 2: Alternative Solutions

- What is the overall concept for treating wastewater in Peel?
- Should we expand one or both of the existing wastewater treatment plants?
- How much should the wastewater treatment plant(s) be expanded by?
- Do we need additional outfall capacity? How much and where?
- How much biosolids capacity is need, and where should we treat our biosolids?

PIC #1 - October 2020



PIC #2 - April 2021



← Phases 1 and 2 Completed for G.E. Booth and Clarkson Class EAs →

## **The Clarkson WWTP and G.E. Booth WWTP Class EAs will develop a preferred wastewater treatment solution that will:**

- Meet future needs associated with population growth, new regulations, climate resiliency, energy efficiency, and management of wet weather flows
- Address community expectations regarding level of service, odour, air/noise, water quality, protection of the environment and aesthetics
- Provide greater flexibility and reliability in wastewater and biosolids management.



# Goals & Objectives of the Class EAs

	<p><b>Biosolids Management</b></p> <ul style="list-style-type: none"> <li>• Region Wide Biosolids Management with Operational Flexibility</li> <li>• Diversified Outlets with Reliable Biosolids Treatment and End Uses at Each Facility</li> <li>• Advanced Technologies with Energy and Resource Recovery</li> <li>• Community Compatible and Acceptable</li> </ul>
 <p><b>Energy Efficiency</b></p>	<ul style="list-style-type: none"> <li>• Reduce GHG emissions</li> <li>• Energy Reduction and Reuse</li> </ul>
 <p><b>Wet Weather Management</b></p>	<ul style="list-style-type: none"> <li>• Real Time Control</li> <li>• Diverting Flow</li> </ul>
 <p><b>Receiving Water Quality</b></p>	<ul style="list-style-type: none"> <li>• Assimilative Capacity studies</li> <li>• Define Effluent Quality Limits</li> <li>• Protecting IPZs and shoreline users/uses</li> </ul>
 <p><b>Odour and Air Quality</b></p>	<ul style="list-style-type: none"> <li>• Multi-barrier approaches</li> </ul>
 <p><b>Visual Aesthetics</b></p>	<ul style="list-style-type: none"> <li>• Landscaping</li> <li>• Best use of sites</li> <li>• Eliminate ash lagoons</li> </ul>
 <p><b>Compatibility with Ongoing Initiatives</b></p>	<ul style="list-style-type: none"> <li>• Real Time Control</li> <li>• Existing Plant Upgrades</li> <li>• Energy Efficiency Initiatives</li> </ul>
 <p><b>Treatment Redundancy</b></p>	<ul style="list-style-type: none"> <li>• Firm Capacity with one train out of service</li> </ul>

## Recommend Strategy to Meet Future Wastewater Treatment Needs

- Divert flows through the East-West Diversion Trunk Sewer
- Manage Peak Wet Weather Flows (in G.E. Booth system)
- **Expand the Clarkson WWTP from 350 MLD to 500 MLD**
- Expand the G.E. Booth WWTP from 518 MLD to 550 MLD
- New Outfall at the G.E. Booth WWTP

## Recommended Strategy to Management Biosolids

- No longer truck digested sludge from Clarkson WWTP to the G.E. Booth WWTP for incineration.
- **Provide biosolids treatment at the Clarkson WWTP and market product for beneficial land use.**
- The strategy also includes the continued use of incineration at the G.E. Booth WWTP given the incinerators' effective performance and remaining service life, and the investment Peel has made in the technology.

## Phase 3: Alternative Technologies and Design Concepts

- What technologies should we use to treatment our wastewater (liquid and solids components)?
- Where should our treated biosolids go and be used?
- How will we provide additional outfall capacity?
- How should the wastewater plant sites be laid out and look?
- How do we mitigate environmental and social impacts?

## Phase 4: Environmental Study Reports (ESRs)

## Conceptual Designs

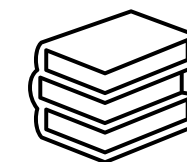
Clarkson WWTP



VE Study/Workshop  
–January 2022



PIC #3 –May 11,  
2022



ESR and  
Conceptual Design  
(Summer 2022)



# Clarkson WWTP

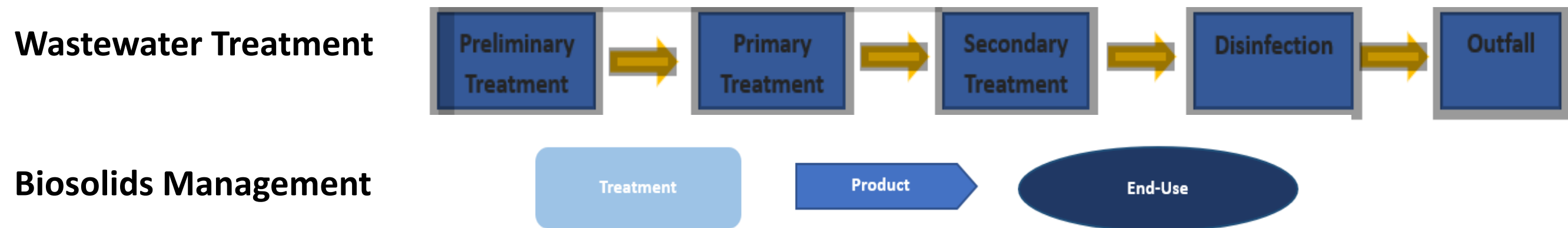




## 1. Screening of Wastewater Technologies and Biosolids Markets & Technologies

- Maturity of Technology
- Proven Application at Large WWTP
- Compatibility with existing processes and end use markets
- Compatible with Region's Energy Management and GHG Reduction Goals
- Able to be Implemented within Required schedule (year 2029)

## 2. Developed Alternative Design Concepts based on the short-listed technologies



## 3. Detailed Evaluation (Impact Ratings and Total Scores)

- Natural Environment
- Social/Cultural
- Technical Considerations
- Economic Factors



# Clarkson WWTP – Preferred Design Concept (Wastewater Treatment)

## Wastewater Treatment

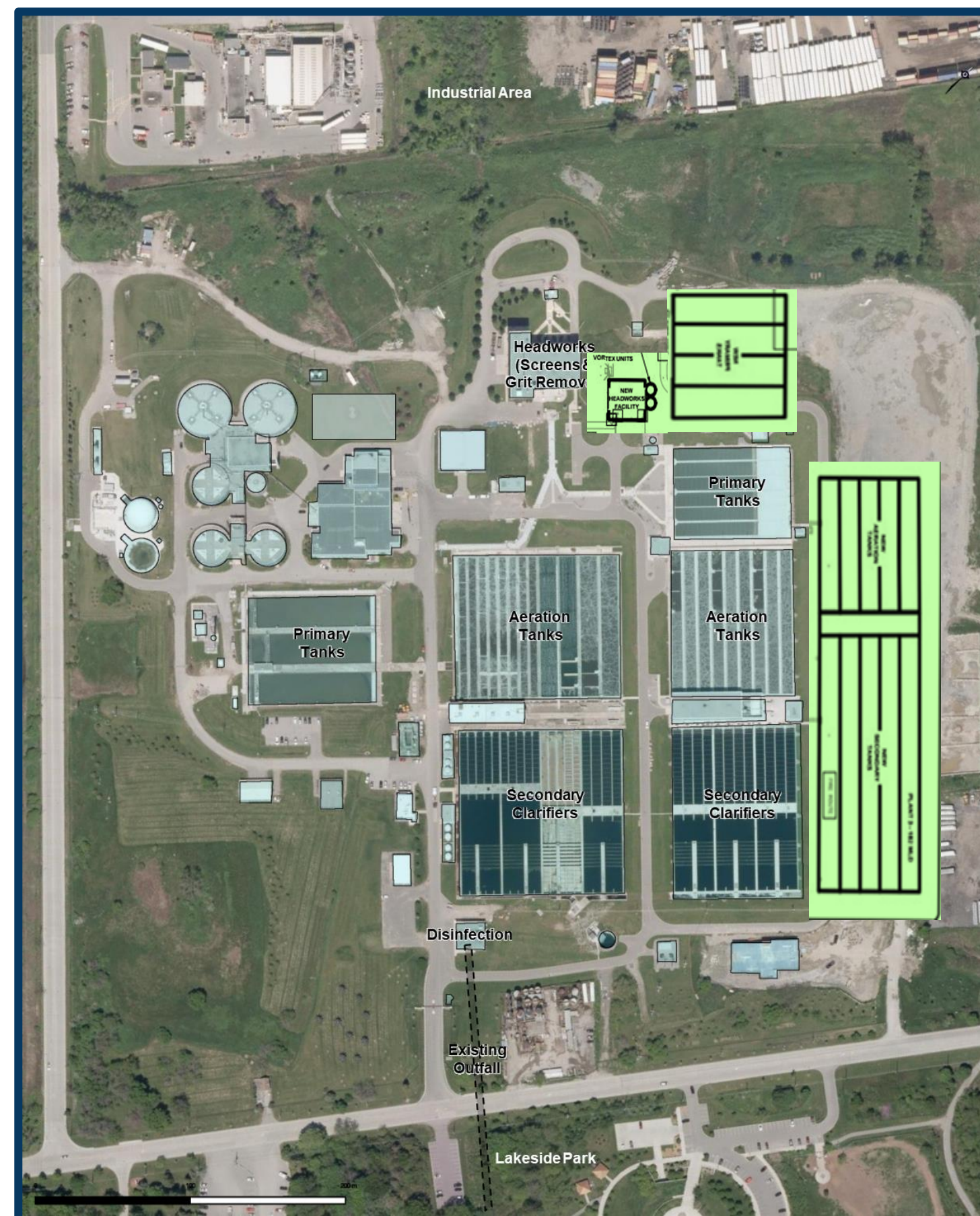
- Conventional Activated Sludge (CAS)
- CAS with Enhanced Primary Treatment (CEPT)
- **Enhanced Biological Nutrient Removal (BNR)**
  - ✓ Aligns best with the Region's goals for energy efficiency and GHG emission mitigation
  - ✓ Less chemical use
  - ✓ Lower O&M

## Disinfection Alternatives

- UV Disinfection
- **Chlorination and Dechlorination**
  - ✓ No expansion needed, integrated into the existing outfall system

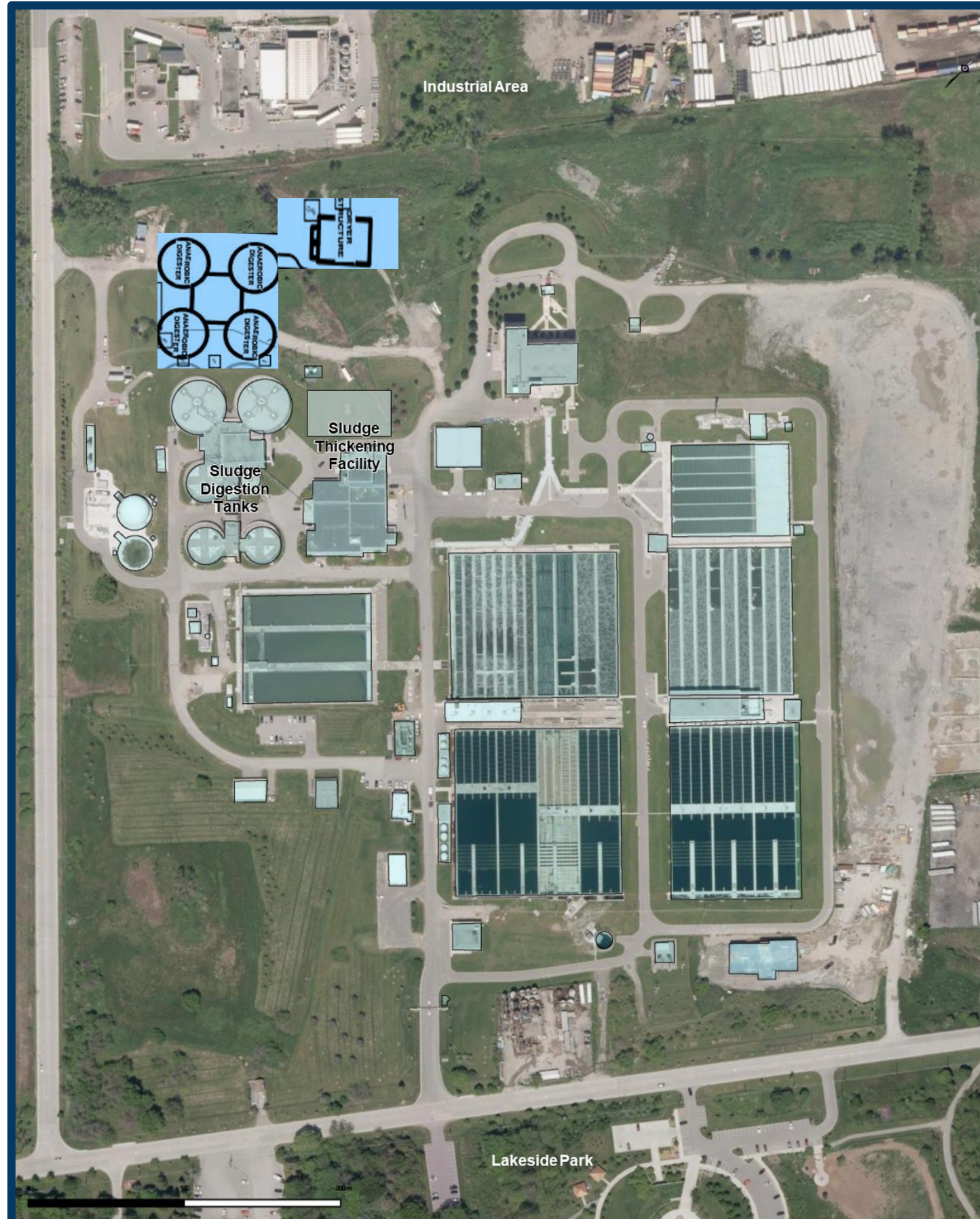
**Note:** Receiving Water Assessment (Assimilative Capacity Study)

- Total Phosphorus Concentrations in the effluent to be reduced. No impacts to sensitive shoreline users or Intake Protection Zones (IPZ).





# Clarkson WWTP – Preferred Design Concept (Biosolids Management)



## Biosolids Treatment

- Digestion + Dewatering
- Thermal Hydrolysis Process (THP), Digestion, Dewatering
- **Digestion, Dewatering, Thermal Drying**
  - ✓ Aligns best with the Region's goals to diversify biosolids markets and ensure long term sustainability
  - ✓ Allows Region to defer capital costs associated with Thermal Drying facility

## Biosolids Product Markets

- Digestion, Dewatering, Thermal Drying allows the Region to beneficially utilize biosolid products:
  - ✓ Digested + dewatered biosolids product to agricultural lands
  - ✓ Digested, Dewatered, Thermally Dried Product marketed as fertilizer
  - ✓ Above products can be further treated (alkaline stabilization) for use as fertilizer



## • Targeted Fieldwork (2020)

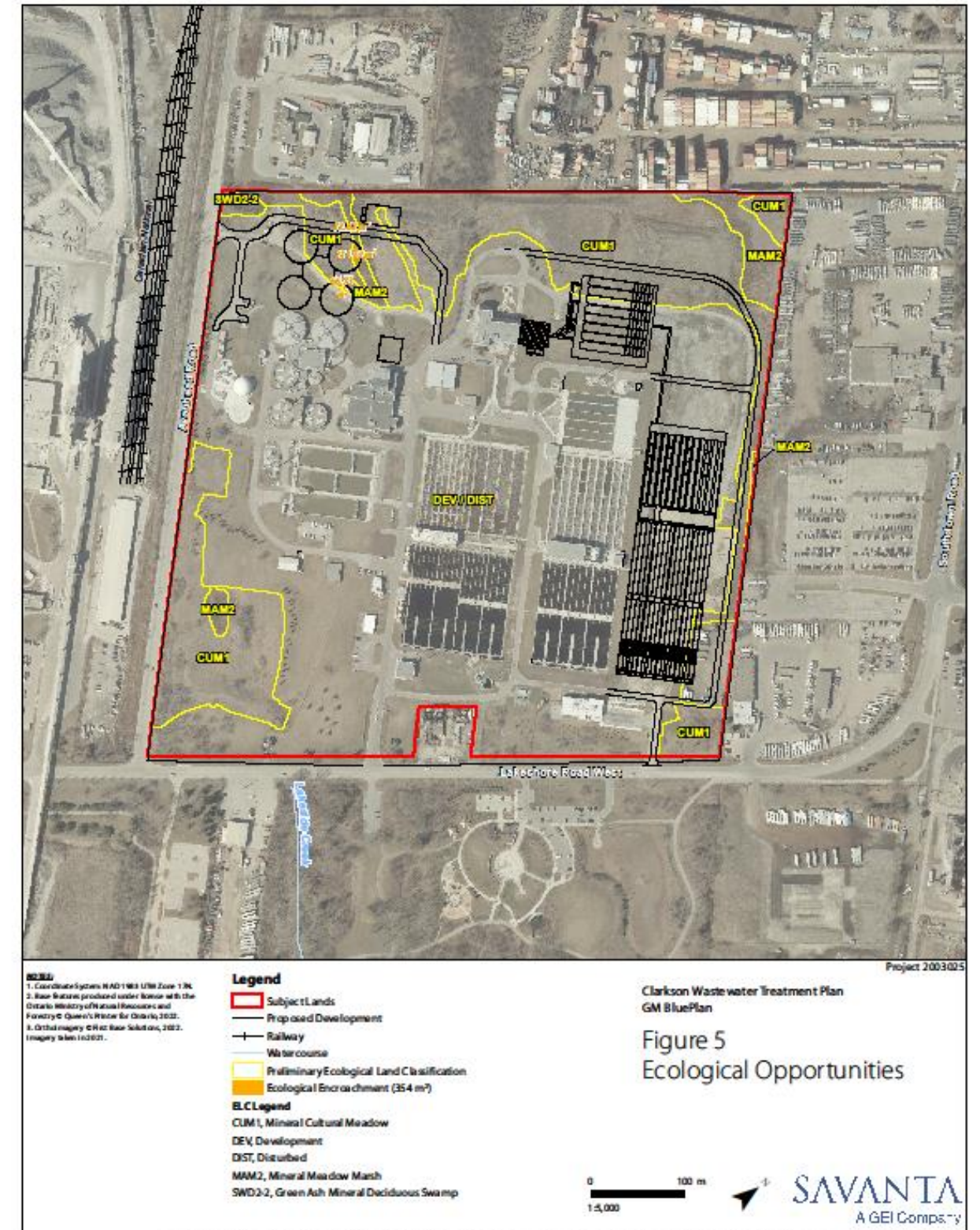
- Summer and Fall Botanical and Ecological Land Classification
- Two rounds of Breeding Bird Surveys

## • Key Findings

- Three SAR (Peregrine Falcon, Bank Swallow and Barn Swallow) recorded but determined no suitable habitat on site and/or no breeding evidence recorded
- One candidate SAR (Little Brown Myotis within SWD)
- Two wetland community types (MAM2, SWD)
- Candidate SWH (Bat Maternity Roosting within SWD)

## • Net Effects

- Removal of one wetland community (MAM2; 354 m<sup>2</sup>)
- Replication of wetland at 1:1 ratio



- **Retained Natural Features (SWD, MAM)**

- Site plan generally follows existing development footprint (e.g., maintaining site entrance) to reduce disturbance
- Planting vegetative buffers surrounding retained features
- Installation and maintenance of erosion and sediment controls surrounding retained features
- Creation of spill prevention and action plan

- **Natural Features Proposed for Removal and Replication (MAM)**

- Phasing plan to create compensation wetland ahead of removal of existing wetland
- Wildlife salvage prior to removal of wetland
- Creation of biodiverse wetland community at 1:1 replication ratio (354 m<sup>2</sup>) in south-west corner

- **Isolated Tree Removals**

- Removals of trees outside of active wildlife windows
  - Migratory Bird Window – early April to end of August
  - Bat Maternity Roosting Window – April 1 to September 30



## Clarkson WWTP

- Virtual PIC (May 11<sup>th</sup>, 2022)
- Ongoing additional studies: (1) Odour & noise modelling, (2) Archaeological Assessment - Stage 2
- ESR/Conceptual Design (Summer 2022)

## Booth WWTP

- VE Workshops (May 16 – 19<sup>th</sup>, 2022)
- PIC (September 2022)
- ESR and Conceptual Design (Q4 2022)

## Samantha Morrisey - GM BluePlan

---

**Subject:** FW: [External] RE: CVC Comments - Clarkson EA - PIC #2 (CVC File No. EA 20/010)

---

**From:** Kilis, Jakub <Jakub.Kilis@cvc.ca>

**Sent:** Thursday, March 10, 2022 4:01 PM

**To:** Benjamin Peachman - GM BluePlan <Benjamin.Peachman@gmblueplan.ca>

**Cc:** Laurie Boyce - GM BluePlan <Laurie.Boyce@gmblueplan.ca>; cindy.kambeitz@peelregion.ca

**Subject:** RE: [External] RE: CVC Comments - Clarkson EA - PIC #2 (CVC File No. EA 20/010)

Hi Benjamin,

During those weeks we're available on the following date/times:

Tuesday, March 29 – 9 to 11

Wednesday, March 30 – 1 to 3

Monday April 4 – 1 to 3

Let me know if one of these works for your team.

Jakub

---

**From:** Benjamin Peachman - GM BluePlan <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>

**Sent:** Thursday, March 10, 2022 3:53 PM

**To:** Kilis, Jakub <[Jakub.Kilis@cvc.ca](mailto:Jakub.Kilis@cvc.ca)>

**Cc:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; [cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)

**Subject:** RE: [External] RE: CVC Comments - Clarkson EA - PIC #2 (CVC File No. EA 20/010)

You don't often get email from [benjamin.peachman@gmblueplan.ca](mailto:benjamin.peachman@gmblueplan.ca). [Learn why this is important](#)

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Hi Jakub,

Apologies, yes we are aiming for a 1.5 hour time slot sometime between March 28<sup>th</sup> to April 8<sup>th</sup>.

**Benjamin Peachman, P. Eng.**

Infrastructure Planning

**GM BluePlan Engineering Limited**

Royal Centre | 3300 Highway No. 7, Suite 402 | Vaughan ON L4K 4M3

t: 416.703.0667 ext. 7216 | c: 437.328.5016

[benjamin.peachman@gmblueplan.ca](mailto:benjamin.peachman@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



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**From:** Kilis, Jakub <[Jakub.Kilis@cvc.ca](mailto:Jakub.Kilis@cvc.ca)>  
**Sent:** Thursday, March 10, 2022 3:44 PM  
**To:** Benjamin Peachman - GM BluePlan <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>  
**Cc:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; [cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)  
**Subject:** RE: [External] RE: CVC Comments - Clarkson EA - PIC #2 (CVC File No. EA 20/010)

Hi Benjamin,

April 29<sup>th</sup> is a Friday and May 4<sup>th</sup> is a Wednesday. Can you just confirm the weeks please. I think you may have been looking at week of March 28 and week of April 4<sup>th</sup>?

Thanks,  
Jakub

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**From:** Benjamin Peachman - GM BluePlan <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>  
**Sent:** Wednesday, March 9, 2022 4:39 PM  
**To:** Kilis, Jakub <[Jakub.Kilis@cvc.ca](mailto:Jakub.Kilis@cvc.ca)>  
**Cc:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; [cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)  
**Subject:** RE: [External] RE: CVC Comments - Clarkson EA - PIC #2 (CVC File No. EA 20/010)

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Hi Jakub,

As you may recall, GM BluePlan Engineering Limited is completing Schedule C Class EAs for the Clarkson and G.E. Booth Wastewater Treatment Plants (WWTP) for Peel Region. I am working with Laurie Boyce to support these projects.

We are currently nearing completion of Phase 3 for the Clarkson WWTP, and are hoping to set up a meeting with you to review the recommended design concept, prior to the upcoming PIC No.3 for Clarkson which we're targeting for May 11<sup>th</sup>.

As a quick recap, during Phase 3 we have considered methods of optimizing and enhancing wastewater and sludge treatment, beneficial end uses for the biosolids, energy efficient technologies, odour, air emission and noise control measures, landscaping techniques, site layouts and facility designs, as well as measures to mitigate impacts during construction and operation. The purpose of the meeting will be to discuss the recommended alternatives for expansion of the Clarkson WWTP and receive input from the CVC on the solution and potential measures to mitigate impacts.

We are available sometime during the week of April 29<sup>th</sup> or week of May 4<sup>th</sup> (1.5 hour meeting). Are there days/times that work for you during that time that you could recommend and I will coordinate.

Thanks,

**Benjamin Peachman, P. Eng.**  
Infrastructure Planning

**GM BluePlan Engineering Limited**  
Royal Centre | 3300 Highway No. 7, Suite 402 | Vaughan ON L4K 4M3  
t: 416.703.0667 ext. 7216 | c: 437.328.5016  
[benjamin.peachman@gmblueplan.ca](mailto:benjamin.peachman@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)





---

**From:** Kilis, Jakub <[Jakub.Kilis@cvc.ca](mailto:Jakub.Kilis@cvc.ca)>

**Sent:** Friday, May 07, 2021 9:02 AM

**To:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>

**Cc:** Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>; Jasmine Biasi - GM BluePlan <[Jasmine.Biasi@gmblueplan.ca](mailto:Jasmine.Biasi@gmblueplan.ca)>

**Subject:** RE: [External] RE: CVC Comments - Clarkson EA - PIC #2 (CVC File No. EA 20/010)

Hi Laurie,

We have had a chance to review Savanta's response, and will be deferring further discussion on this point until we have been formally circulated the EIS. The intent at this time is for your team to be mindful of this comment, assess its validity, and provide alternative solutions - which you appear to have intent to do. We will review the information when a complete submission is provided.

Please let me know if you have any questions about the above,  
Jakub

**Jakub Kilis, RPP**

Senior Manager, Infrastructure and Regulations | Credit Valley Conservation

905-670-1615 ext 287 | C: 647-212-6554 | 1-800-668-5557

[jakub.kilis@cvc.ca](mailto:jakub.kilis@cvc.ca) | [cvc.ca](http://cvc.ca)

## Jasmine Biasi - GM BluePlan

---

**From:** Laurie Boyce - GM BluePlan  
**Sent:** Thursday, May 06, 2021 8:59 AM  
**To:** Kilis, Jakub  
**Cc:** Kambeitz, Cindy; Jasmine Biasi - GM BluePlan  
**Subject:** RE: CVC Comments - Clarkson EA - PIC #2 (CVC File No. EA 20/010)  
**Attachments:** Figure 3 - CVC Response - Clarkson\_Natural Heritage Characterization Report.pdf; Table 6 - CVC response - Clarkson\_Natural Heritage Characterization Report.pdf

**Importance:** High

Thanks, Jakub for the reply. As part of Phase 2 of the Class EA, we have completed a draft natural heritage characterization of the site in order to assist in the assessment of alternatives and development of the preferred concepts. We would be happy to forward it to you for review and any comments at this stage, noting that it will be updated as the study progresses through Phase 3. Please be assured that CVC's comments will be addressed through the EA, and we look forward to discussing the project with you and your team as we get closer to developing the preferred design concept. Additional responses to your comments are provided below.

Laurie

**Laurie Boyce, B.Sc., M.A.**  
Strategic Planning and Project Advisor

**GM BluePlan Engineering Limited**  
1266 South Service Rd, Unit C3-1 | Stoney Creek, ON | L8E 5R9  
t: 905.643.6688 ext. 6334 | c: 416.471.0528  
[laurie.boyce@gmblueplan.ca](mailto:laurie.boyce@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



---

**From:** Kilis, Jakub <Jakub.Kilis@cvc.ca>  
**Sent:** Monday, April 26, 2021 12:38 PM  
**To:** Laurie Boyce - GM BluePlan <Laurie.Boyce@gmblueplan.ca>  
**Subject:** CVC Comments - Clarkson EA - PIC #2 (CVC File No. EA 20/010)

Hi Laurie,

CVC staff has had an opportunity to review the PIC #2 materials for the Clarkson WWTP EA and offer the following comments for your consideration. Please note that the previous comments we provided in August 2020 on the Notice of Commencement for this project still apply.

Engineering

1. As identified previously, an increase in impervious area due to the proposed works being completed will result in the requirement of a stormwater management (SWM) strategy that adheres to applicable CVC and Provincial criteria. The extent of the SWM strategy may vary based on the different alternative options. Please incorporate this into the evaluation as applicable and assign the weighting appropriately based on the alternative design concepts.

**Peel’s Response:** Stormwater management is being considered as a criterion in the development and assessment of alternative design concepts. The preferred design concept will include a stormwater management strategy that adheres to applicable CVC and Provincial Criteria, as well as Region of Peel’s Draft Public Works Stormwater Design Criteria and Procedural Manual (June 2019).

Ecology

2. A portion of the Clarkson WWTP expansion (which is to provide additional sludge treatment capacity – shown in blue in PIC material) is proposed to extend into Significant Wildlife Habitat (SWH) located within the north west quadrant of the site. This area of SWH is identified in pale yellow on the attached figure and represents Migratory Landbird Stopover SWH. This type of habitat is critically rare along the Lake Ontario waterfront within CVC’s jurisdiction, and as such it is recommended that project expansion be mindful of this area with avoidance as a top priority. In the event that avoidance is not possible for the success of this project, other avenues regarding mitigation and compensation should be investigated to ensure a no net loss of on-site ecosystem function.

**Peel’s Response:** As part of our Natural Heritage Characterization, we completed a SWH review and evaluated whether Migratory Landbird Stopover Area was present on the Clarkson WWTP. This review was based on detailed vegetation (ELC) community sampling results undertaken within the Subject Lands, which determined that one small deciduous swamp (SWD) community was present in the north-western corner along Avonhead Road. No other forested or swamp communities were identified within the Subject Lands (as identified within **Figure 3** of the Natural Heritage Characterization, attached). As identified within **Table 6** of the Natural Heritage Characterization (attached), the SWD vegetation community is an isolated feature that did not meet the minimum size criteria (>5 ha) to qualify. CVC’s mapping of Migratory Landbird Stopover SWH within the Subject Lands includes meadow marsh and cultural meadow vegetation communities, which are not vegetation communities that qualify under the SWH Criteria Schedule for Ecoregion 7E (OMRF 2015). Suitable habitat within the adjacent lands may be present, therefore, potential impacts to adjacent Migratory Landbird Stopover SWH as classified by CVC will be included in the impact assessment and minimized to the extent possible.



SWH 1 – pale yellow      Green: Mississauga NAS

Please let me know if you have any questions about the above,  
Jakub

**Jakub Kilis, RPP**



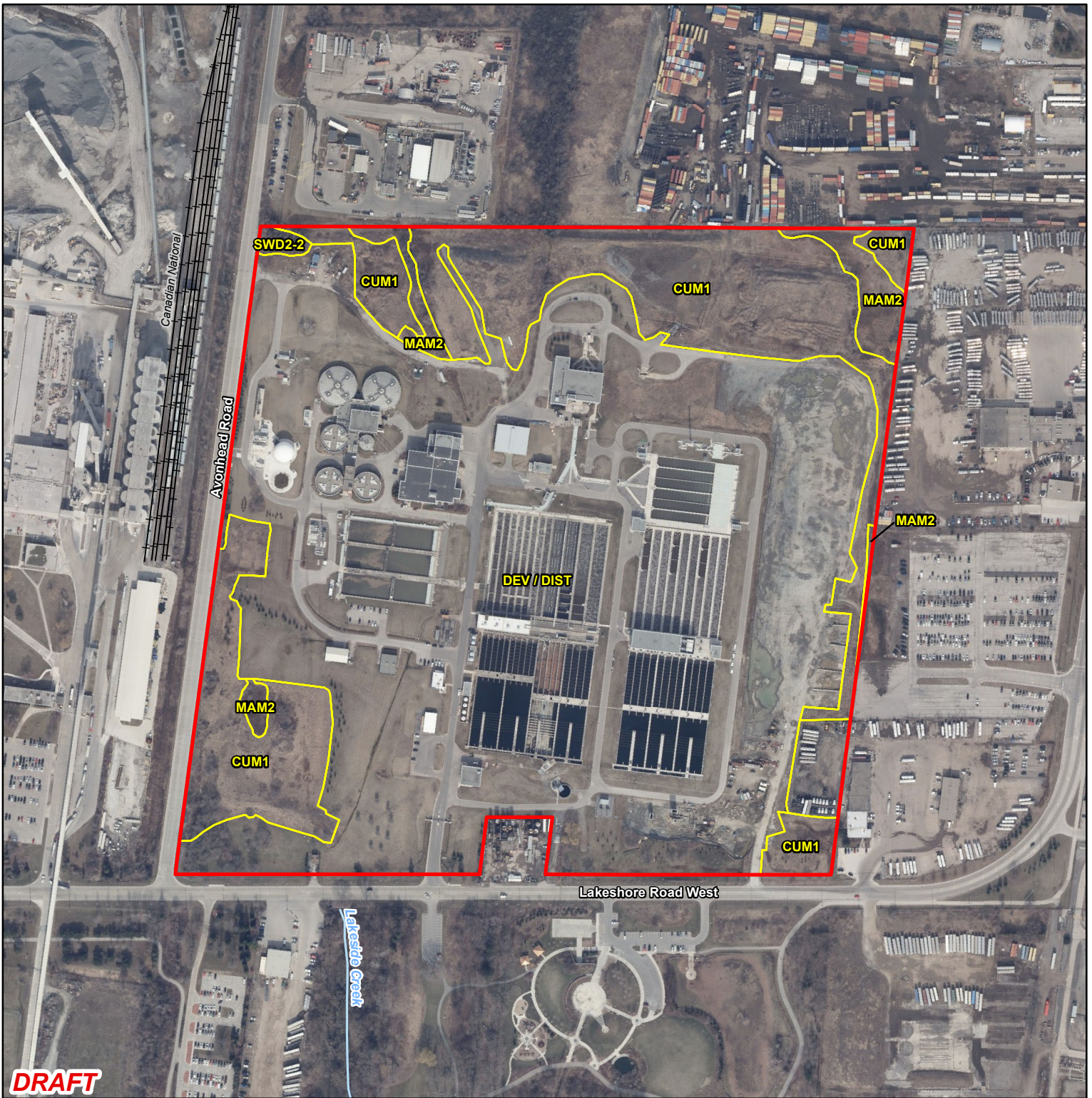
Senior Manager, Infrastructure and Regulations | Credit Valley Conservation

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**DRAFT**

Project 2003025

**NOTES:**  
 1. Coordinate System: NAD 1983 UTM Zone 17N.  
 2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2020.  
 3. Orthoimagery © First Base Solutions, 2020. Imagery taken in 2019.

**Legend**

- Subject Lands
- Preliminary Ecological Land Classification
- Watercourse

**ELC Legend**

- CUM1, Mineral Cultural Meadow
- DEV, Development
- DIST, Disturbed
- MAM2, Mineral Meadow Marsh
- SWD2-2, Green Ash Mineral Deciduous Swamp

Clarkson Wastewater Treatment Plan  
 GM BluePlan

Figure 3  
 Preliminary Ecological  
 Land Classification

**DRAFT**



**SAVANTA**  
 A GEI Company



**Table 6: Significant Wildlife Habitat Assessment (7E)**

<b>SIGNIFICANT WILDLIFE HABITAT (SWH) TYPE</b>	<b>ELC ECOSITE(S) PRESENT</b>	<b>HABITAT CRITERIA MET</b>	<b>TARGETED FIELD STUDIES REQUIRED</b>	<b>DEFINING CRITERIA MET (MINIMUM ABUNDANCES AND/OR DIVERSITY REQUIRED TO CONFIRM SWH)</b>	<b>SWH TYPE PRESENT</b>
<b>1. SEASONAL CONCENTRATION AREAS</b>					
Waterfowl Stopover and Staging Areas (terrestrial)	Yes – CUM vegetation communities are present on the Subject Lands.	No – Features are not large enough to attract or support significant numbers.  This area does not have historical waterfowl stopover use and is not an area known for sheet water use.	No	N/A	Not Present
Waterfowl Stopover and Staging Areas (aquatic)	Yes – One SWD vegetation community is present within the Subject Lands.	No – SWD vegetation community is not large enough to attract or support large congregations of waterfowl.	No	N/A	Not Present
Shorebird Migratory Stopover Areas	Yes – MAM vegetation communities are present within the Subject Lands.	No – MAM vegetation communities are disturbed from adjacent wastewater management plant. Features are not large enough to attract or support significant numbers.	No	N/A	Not Present
Raptor Wintering Areas	No – Forested communities are not present within the Subject Lands.	N/A	No	N/A	Not Present



**Table 6: Significant Wildlife Habitat Assessment (7E)**

<b>SIGNIFICANT WILDLIFE HABITAT (SWH) TYPE</b>	<b>ELC ECOSITE(S) PRESENT</b>	<b>HABITAT CRITERIA MET</b>	<b>TARGETED FIELD STUDIES REQUIRED</b>	<b>DEFINING CRITERIA MET (MINIMUM ABUNDANCES AND/OR DIVERSITY REQUIRED TO CONFIRM SWH)</b>	<b>SWH TYPE PRESENT</b>
Bat Hibernacula	No - Vegetation communities are absent from the Subject Lands.	N/A	No	N/A	Not Present
Bat Maternity Colonies	Yes - One small SWD vegetation community is present within the Subject Lands.	Candidate - The size of trees (diameter at breast height, dbh) present in this community is unknown. However, the area of the SWD community is small and unlikely to support significant numbers of bat maternity colonies.	Yes	No field surveys have been conducted at this time.	Candidate
Turtle Wintering Areas	Yes - MAM vegetation communities are present within the Subject Lands.	No - MAM vegetation communities do not support overwintering habitat as they are dry for a majority of the year.	No	N/A	Not Present
Reptile Hibernacula	Yes - ecosites are present on the Subject Lands.	No - No anthropogenic or natural features provide any subsurface access below the frost line.	No	N/A	Not Present
Colonial Bird Nesting Sites (bank/cliff)	Yes - CUM vegetation communities are present on the Subject Lands.	No - Presence of exposed or eroding banks, hills, steep slopes are not present	No	N/A	Not Present

**Table 6: Significant Wildlife Habitat Assessment (7E)**

<b>SIGNIFICANT WILDLIFE HABITAT (SWH) TYPE</b>	<b>ELC ECOSITE(S) PRESENT</b>	<b>HABITAT CRITERIA MET</b>	<b>TARGETED FIELD STUDIES REQUIRED</b>	<b>DEFINING CRITERIA MET (MINIMUM ABUNDANCES AND/OR DIVERSITY REQUIRED TO CONFIRM SWH)</b>	<b>SWH TYPE PRESENT</b>
		on the Subject Lands.			
Colonial Bird Nesting Sites (tree/shrubs)	Yes – One SWD vegetation community is present within the Subject Lands.	No – SWD vegetation community is adjacent to actively managed wastewater treatment plant and Avonhead Road. Feature is disturbed from adjacent land uses and would not be attractive for nesting opportunities.	No	N/A	Not Present
Colonial Bird Nesting Sites (ground)	No – No rocky islands or peninsulas are present on the Subject Lands.	N/A	No	N/A	Not Present
Migratory Butterfly Stopover Areas	No – Forested vegetation communities are absent from the Subject Lands.	N/A	No	N/A	Not Present
Migratory Landbird Stopover Areas	Yes – One SWD vegetation community is present within the Subject Lands.	No – SWD vegetation community does not meet the minimum size criteria (>5 ha).	No	N/A	Not Present
Deer Winter Congregation Areas	No – Mapping from the MNRF LIO database did not depict any deer wintering areas on or adjacent to the Subject Lands.	N/A	No	N/A	Not Present

**Table 6: Significant Wildlife Habitat Assessment (7E)**

<b>SIGNIFICANT WILDLIFE HABITAT (SWH) TYPE</b>	<b>ELC ECOSITE(S) PRESENT</b>	<b>HABITAT CRITERIA MET</b>	<b>TARGETED FIELD STUDIES REQUIRED</b>	<b>DEFINING CRITERIA MET (MINIMUM ABUNDANCES AND/OR DIVERSITY REQUIRED TO CONFIRM SWH)</b>	<b>SWH TYPE PRESENT</b>
<b>2. RARE VEGETATION COMMUNITIES OR SPECIALIZED HABITAT FOR WILDLIFE</b>					
2a. Rare Vegetation Communities					
Rare Vegetation Types (cliffs, talus slopes, sand barrens, alvars, old-growth forests, savannahs, and tallgrass prairies)	No - Rare vegetation communities are not found on the Subject Lands.	N/A	No	N/A	Not Present
Other Rare Vegetation Types (S1 to S3 communities)	No - All vegetation communities identified on the Subject Lands are culturally influenced.	N/A	No	N/A	Not Present
2b. Specialized Wildlife Habitat					
Waterfowl Nesting Area	Yes - One SWD vegetation community is present within the Subject Lands.	No - Subject Lands is actively managed wastewater treatment plant. All upland vegetation communities are highly disturbed from adjacent land uses.	No	N/A	Not Present
Bald Eagle and Osprey Habitats	No - While one SWD vegetation community is present, no large aquatic features are present within the Subject Lands.	N/A	No	N/A	Not Present



**Table 6: Significant Wildlife Habitat Assessment (7E)**

<b>SIGNIFICANT WILDLIFE HABITAT (SWH) TYPE</b>	<b>ELC ECOSITE(S) PRESENT</b>	<b>HABITAT CRITERIA MET</b>	<b>TARGETED FIELD STUDIES REQUIRED</b>	<b>DEFINING CRITERIA MET (MINIMUM ABUNDANCES AND/OR DIVERSITY REQUIRED TO CONFIRM SWH)</b>	<b>SWH TYPE PRESENT</b>
Woodland Raptor Nesting Habitat	Yes – One SWD vegetation community is present within the Subject Lands.	No – Minimum size criteria is not met (>30 ha with >4ha interior forest habitat).	No	N/A	Not Present
Turtle Nesting Areas	No – Vegetation communities are absent from the Subject Lands.	N/A	No	N/A	Not Present
Seeps and Springs	No – Forested ecosites are absent from the Subject Lands.	N/A	No	N/A	Not Present
Woodland Amphibian Breeding Habitats (within or < 120m from woodland)	Yes – One SWD vegetation community is present within the Subject Lands.	No – Presence of vernal pooling within the SWD community is unknown.  Due to the location within the Subject Lands adjacent to an actively managed wastewater treatment plant and Avonhead Road, it is unlikely that significance will be met.	No	N/A	Not Present
Wetland Amphibian Breeding Habitats (wetland >120m from woodland)	Yes – One SWD vegetation community is present within the Subject Lands.	No – Presence of vernal pooling within the SWD community is unknown.  Due to the location within the Subject	No	N/A	Not Present

**Table 6: Significant Wildlife Habitat Assessment (7E)**

<b>SIGNIFICANT WILDLIFE HABITAT (SWH) TYPE</b>	<b>ELC ECOSITE(S) PRESENT</b>	<b>HABITAT CRITERIA MET</b>	<b>TARGETED FIELD STUDIES REQUIRED</b>	<b>DEFINING CRITERIA MET (MINIMUM ABUNDANCES AND/OR DIVERSITY REQUIRED TO CONFIRM SWH)</b>	<b>SWH TYPE PRESENT</b>
		Lands adjacent to an actively managed wastewater treatment plant and Avonhead Road, it is unlikely that significance is met.			
Woodland Area-Sensitive Bird Breeding Habitat	Yes - One SWD vegetation community is present within the Subject Lands.	No - Minimum size criteria was not met (>30 ha). No interior habitat is present.	No	N/A	Not Present
<b>3. SPECIES OF CONSERVATION CONCERN</b>					
Marsh Bird Breeding Habitat	Yes - MAM and SWD vegetation communities are present on the Subject Lands.	No - Vegetation communities are adjacent to actively managed wastewater treatment plant and Avonhead Road. These communities are likely disturbed from adjacent land uses.	No	N/A	Not Present
Open Country Bird Breeding Habitat	Yes - CUM vegetation communities are present on the Subject Lands.	No - Minimum size criteria is not met (>30 ha).	No	N/A	Not Present
Shrub/Early Successional Bird Breeding Habitat	No - Vegetation communities are absent from the Subject Lands.	N/A	No	N/A	Not Present
Terrestrial Crayfish	Yes - MAM vegetation communities are present within the Subject Lands.	Yes - no minimum size requirement.	Yes - any observation of crayfish chimneys	No terrestrial crayfish chimneys were observed despite survey effort.	Not Present

**Table 6: Significant Wildlife Habitat Assessment (7E)**

SIGNIFICANT WILDLIFE HABITAT (SWH) TYPE	ELC ECOSITE(S) PRESENT	HABITAT CRITERIA MET	TARGETED FIELD STUDIES REQUIRED	DEFINING CRITERIA MET (MINIMUM ABUNDANCES AND/OR DIVERSITY REQUIRED TO CONFIRM SWH)	SWH TYPE PRESENT
			will be documented during ecological surveys.		
Special Concern and Rare Wildlife Species					
(i) Peregrine Falcon ( <i>Falco peregrinus</i> )	N/A	No – No tall structures are present to support perching or nesting.	No	N/A	Not Present
(ii) Common Nighthawk ( <i>Chordeiles minor</i> )	N/A	Yes – CUM vegetation communities are present.	Yes	Two rounds of breeding bird surveys were completed in 2020 (see <b>Table 1, Appendix B</b> for survey dates and conditions). No Common Nighthawk were documented (see <b>Table 4, Appendix B</b> for survey results and <b>Figure 4, Appendix A</b> for point count locations).	Not Present
(iii) Eastern Wood Pewee ( <i>Contopus virens</i> )	N/A	Yes – One SWD vegetation community is present.	Yes	Two rounds of breeding bird surveys were completed in 2020 (see <b>Table 1, Appendix B</b> for survey dates and conditions). No Eastern Wood Pewee were documented (see <b>Table 4, Appendix B</b> for survey	Not Present



**Table 6: Significant Wildlife Habitat Assessment (7E)**

SIGNIFICANT WILDLIFE HABITAT (SWH) TYPE	ELC ECOSITE(S) PRESENT	HABITAT CRITERIA MET	TARGETED FIELD STUDIES REQUIRED	DEFINING CRITERIA MET (MINIMUM ABUNDANCES AND/OR DIVERSITY REQUIRED TO CONFIRM SWH)	SWH TYPE PRESENT
				results and <b>Figure 4, Appendix A</b> for point count locations).	
(iv) Wood Thrush <i>(Hylocichla mustelina)</i>	N/A	Yes – One SWD vegetation community is present.	Yes	Two rounds of breeding bird surveys were completed in 2020 (see <b>Table 1, Appendix B</b> for survey dates and conditions). No Wood Thrush were documented (see <b>Table 4, Appendix B</b> for survey results and <b>Figure 4, Appendix A</b> for point count locations).	Not Present
(v) Purple Martin <i>(Progne subis)</i>	N/A	Yes – One SWD vegetation community is present. Open areas to support foraging are also present.  It is likely that snags are present within the community to support nesting.	Yes	Two rounds of breeding bird surveys were completed in 2020 (see <b>Table 1, Appendix B</b> for survey dates and conditions). No Purple Martin were documented (see <b>Table 4, Appendix B</b> for survey results and <b>Figure 4, Appendix A</b> for point count locations).	Not Present
(vi) Red-necked Grebe <i>(Podiceps grisegena)</i>	N/A	No – While Lake Ontario is nearby no marsh communities are present. Species is also sensitive to	No	N/A	Not Present

**Table 6: Significant Wildlife Habitat Assessment (7E)**

SIGNIFICANT WILDLIFE HABITAT (SWH) TYPE	ELC ECOSITE(S) PRESENT	HABITAT CRITERIA MET	TARGETED FIELD STUDIES REQUIRED	DEFINING CRITERIA MET (MINIMUM ABUNDANCES AND/OR DIVERSITY REQUIRED TO CONFIRM SWH)	SWH TYPE PRESENT
		human activity and disturbance.			
(vii) Eastern Musk Turtle ( <i>Sternotherus odoratus</i> )	N/A	No – MAM vegetation communities do not support overwintering habitat as they are dry for a majority of the year.	No	N/A	Not Present
(viii) Northern Map Turtle ( <i>Graptemys geographica</i> )	N/A	No – MAM vegetation communities do not support overwintering habitat as they are dry for a majority of the year.  No watercourses are present within the Subject Lands	No	N/A	Not Present
(ix) Snapping Turtle ( <i>Chelydra serpentina</i> )	N/A	No – MAM vegetation communities do not support overwintering habitat as they are dry for a majority of the year.	No	N/A	Not Present
(x) Monarch ( <i>Danaus plexippus</i> )	N/A	No – While CUM vegetation communities are present, no large abundances of Common Milkweed ( <i>Asclepias syriaca</i> )	No	N/A	Not Present

**Table 6: Significant Wildlife Habitat Assessment (7E)**

SIGNIFICANT WILDLIFE HABITAT (SWH) TYPE	ELC ECOSITE(S) PRESENT	HABITAT CRITERIA MET	TARGETED FIELD STUDIES REQUIRED	DEFINING CRITERIA MET <small>(MINIMUM ABUNDANCES AND/OR DIVERSITY REQUIRED TO CONFIRM SWH)</small>	SWH TYPE PRESENT
		were recorded. CUM vegetation communities are highly disturbed from adjacent land-use practices (active wastewater treatment plant).			
<b>4. ANIMAL MOVEMENT CORRIDORS</b>					
Amphibian Movement Corridors	N/A	No – Amphibian breeding SWH types are absent from the Subject Lands.	No	N/A	Not Present



## Jasmine Biasi - GM BluePlan

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**From:** Kilis, Jakub <Jakub.Kilis@cvc.ca>  
**Sent:** Friday, April 16, 2021 3:28 PM  
**To:** Laurie Boyce - GM BluePlan  
**Cc:** Kambeitz, Cindy; Jasmine Biasi - GM BluePlan; Troy Briggs; Dania Chehab - GM BluePlan  
**Subject:** RE: [External] RE: Clarkson and G.E. Booth WWTPs Schedule C Class EAs

Hi Laurie,

Thank you for circulating the information below. We will review the PIC materials and draft evaluation tables and provide any comments we may have.

Regards,  
Jakub

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**From:** Laurie Boyce - GM BluePlan <Laurie.Boyce@gmblueplan.ca>  
**Sent:** Wednesday, April 14, 2021 2:57 PM  
**To:** Kilis, Jakub <Jakub.Kilis@cvc.ca>  
**Cc:** Kambeitz, Cindy <cindy.kambeitz@peelregion.ca>; Jasmine Biasi - GM BluePlan <Jasmine.Biasi@gmblueplan.ca>; Troy Briggs <Troy.Briggs@cima.ca>; Dania Chehab - GM BluePlan <Dania.Chehab@gmblueplan.ca>  
**Subject:** [External] RE: Clarkson and G.E. Booth WWTPs Schedule C Class EAs

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Jakub:

Hope you are well. As you know, the Region of Peel is continuing work on two Schedule C Class Environmental Assessments (EAs) to provide additional treatment capacity at the G.E. Booth Wastewater Treatment Plant (WWTP) and the Clarkson WWTP to meet its growing population. The Class EAs are currently at the end of Phase 2 of the Municipal Engineers Associations (MEA) Class EA process. As such, alternative solutions have been developed and assessed and recommended solutions for providing additional treatment capacity have been identified for each WWTP. The second PIC that presents this information was posted on the project webpages on **March 31, 2021:** [www.peelregion.ca/GEBooth](http://www.peelregion.ca/GEBooth) and [www.peelregion.ca/Clarkson](http://www.peelregion.ca/Clarkson).

Peel will consider all input received during and after PIC 2 and confirm or revise the recommended solution based on the input before moving forward with Phase 3 of the Class EA: development and assessment of alternative design concepts for each WWTP. Phase 3 will be completed independently for each of the G.E. Booth WWTP and Clarkson WWTP studies. During Phase 3, Peel will consider methods of optimizing and enhancing wastewater and sludge treatment, beneficial end uses for the biosolids, the size and location for the new outfall, energy efficient technologies, odour, air emission and noise control measures, landscaping techniques, site layouts and facility designs, as well as measures to mitigate impacts during construction and operation. Two separate PICs are planned near the end of Phase 3 – one for the Clarkson WWTP Class EA (later in 2021); and one for Booth WWTP Class EA (early 2022).

Please let us know if you require further information at this time or would like to meet to discuss the Phase 2 results in further detail. Thanks.

Laurie

**Laurie Boyce, B.Sc., M.A.**

Strategic Planning and Project Advisor

**GM BluePlan Engineering Limited**

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**From:** Laurie Boyce - GM BluePlan

**Sent:** Wednesday, March 17, 2021 2:59 PM

**To:** Kilis, Jakub <[Jakub.Kilis@cvc.ca](mailto:Jakub.Kilis@cvc.ca)>

**Subject:** Clarkson and G.E. Booth WWTPs Schedule C Class EAs

Hi Jakub: As per my voicemail, I wanted to catch up with you regarding the above noted projects. The virtual PIC 2 (evaluation of alternative solutions and recommended solutions) will be posted on March 31, 2021 on the Region's websites (meeting notice has been forwarded in earlier email) . Please give me a call when you have a chance to discuss our next steps in working with you and your team.

Thanks.

Laurie (416-471-0528).

**Laurie Boyce, B.Sc., M.A.**

Strategic Planning and Project Advisor

**GM BluePlan Engineering Limited**

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## Jasmine Biasi - GM BluePlan

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**From:** Laurie Boyce - GM BluePlan  
**Sent:** Monday, August 24, 2020 4:14 PM  
**To:** Kilis, Jakub  
**Cc:** cindy.kambeitz@peelregion.ca; Stewart, Rebecca; Cook, Lori; Jasmine Biasi - GM BluePlan  
**Subject:** RE: CVC Comments - Notices of Commencement - GE Booth WWTP EA (EA 20/009) and Clarkson WWTP EA (EA 20/010)

Jakub: Thank you for the detailed review and for providing this information early in the EA process. The Region of Peel and our GM BluePlan team are looking forward to working with you to ensure that we incorporate your information into the EAs, and develop solutions that meet your requirements.

On behalf of the Region of Peel we would like to set up a meeting with you in September to provide information on the need for and objectives of the EAs, and to discuss the information you provided. Are there particular dates that work best for your team?

Laurie

### Laurie Boyce, B.Sc., M.A.

Strategic Planning and Project Advisor

### GM BluePlan Engineering Limited

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**From:** Kilis, Jakub <Jakub.Kilis@cvc.ca>  
**Sent:** Friday, August 21, 2020 3:03 PM  
**To:** Laurie Boyce - GM BluePlan <Laurie.Boyce@gmblueplan.ca>  
**Cc:** cindy.kambeitz@peelregion.ca; Stewart, Rebecca <Rebecca.Stewart@cvc.ca>; Cook, Lori <lori.cook@cvc.ca>  
**Subject:** CVC Comments - Notices of Commencement - GE Booth WWTP EA (EA 20/009) and Clarkson WWTP EA (EA 20/010)

Hi Laurie,

It is the understanding of CVC staff that the Region of Peel has initiated two Schedule 'C' Municipal Class Environmental Assessments (EAs) for the G.E. Booth Wastewater Treatment Plant (WWTP) and the Clarkson WWTP to identify the preferred solutions for wastewater treatment and biosolids management in the Region. We further understand that these two Class EA studies are integrated, as the preferred solutions will impact both facilities and that the Class EA process will evaluate alternatives to address capacity for future growth across the Region, to establish servicing, treatment and biosolids policy, and incorporate factors such as energy efficiency, climate resiliency, lifecycle planning and operational flexibility.



We have had an opportunity to review the Notices of Commencement and associated study areas and offer the following preliminary comments for your consideration:

#### General

1. As per the joint Notices of Commencement and the integrated nature of the EAs, CVC is providing our comments for both projects within this correspondence. The correspondence is separated by location below.

#### GE Booth WWTP (CVC File No. EA 20/009)

##### 2. Site Characteristics:

- a. REGULATED AREA - The subject property is located partially within the Regulated Area. A permit may be required from CVC for any grading or construction works within this area.
- b. WATERCOURSE - The subject property is traversed by Applewood and Serson Creeks. Any alteration to a watercourse requires a permit issued by CVC. Our concerns for new construction would include maintaining setbacks to address channel bank erosion, sediment control during construction, and to ensure no degradation to water quality.
- c. FLOODPLAIN - The subject property is located partially within the Regulatory Storm Floodplain. A permit may be required from CVC for any construction activity in this area. Our primary concern is the protection of life and property from the flood hazard. We have specific criteria and requirements for construction in the floodplain.
- d. VALLEY SLOPE - Based upon our existing mapping, the subject property is traversed by valley slopes. CVC does not support construction on a valley slopes, and typically requires setbacks from the top of slope for new construction or grading. This includes any overhangs or cantilevered structures and is to ensure that new development is protected from potential slope instability or erosion and to protect the environmental integrity of the valley system.
- e. CREDIT RIVER WATERSHED NATURAL HERITAGE SYSTEM - A portion of the subject property is located within the Credit River Watershed Natural Heritage System (CRWNHS). The CRWNHS consists of High Functioning and Supporting terrestrial and aquatic natural heritage features, buffers, and complementary natural heritage areas (Centres for Biodiversity). Based on a watershed scale, the CRWNHS is intended to support Provincial, Regional and local municipal natural heritage systems as identified in their respective Strategies or Plans. As a watershed based management agency and landowner, CVC intends to implement the CRWNHS by using it as a strategic program guidance tool; to inform further development of CVC projects and policies; to assist CVC staff in providing technical advice to landowners and stakeholders at a watershed scale; and to promote a more consistent approach to natural heritage system planning across CVC's jurisdiction. For more detailed information or questions please contact the undersigned to discuss further.
- f. WETLAND - The subject property contains wetlands. Wetlands are diverse and productive ecosystems that are hydrologically significant to a watershed. They store water during flood events and provide low flow augmentation during dry periods. The vegetation and organic soils of wetlands aid in the filtration of nutrients and sediments that enhances water quality and assists in the maintenance of cool water temperatures. Wetlands also provide habitat for diverse and uncommon species of flora and fauna. CVC does not support new development in wetlands, including buildings, structures, driveways, septic systems, ponds, etc. An Environmental Impact Study Report may be required for new development located adjacent to wetlands, depending on potential impacts.
- g. MUNICIPAL GREENLANDS - The subject property is partially within an area designated as Core Greenlands by the Region of Peel. It is the policy of the Region of Peel to protect the form and function of these natural areas. CVC provides technical support to the Region with respect to delineation of natural features and reviewing potential impacts from subsequent development within and adjacent to these lands. We suggest you discuss internally at the Region if you have questions on this matter.
- h. LAKE ONTARIO SETBACKS - The subject property is located adjacent to Lake Ontario, and is therefore subject to the Lake Ontario Shoreline flooding and erosion hazards. In this regard, our primary concerns are related to ensuring that all new development is located outside of the hazards associated with the lake, including the 100 year erosion limit, the 100 year flood limit, wave uprush and stability hazards associated with the slope.

- i. SOURCE WATER PROTECTION - The subject property may be subject to the Approved Source Protection Plan: CTC Source Protection Region. We recommend that you contact Therese Estephan, Risk Management Official for further information with respect to these policies to establish if and how the Protection Plan may apply. You may also refer to the CTC Source Water Protection website [www.ctcswp.ca](http://www.ctcswp.ca)
  - j. MISSISSAUGA NATURAL HERITAGE SYSTEM & NATURAL AREAS SURVEY - The subject property is located within the City of Mississauga's Natural Heritage System and Urban Forest. The City's Natural Heritage System is made up of Significant Natural Areas, Natural Green Spaces, Special Management Areas, Residential Woodlands and Linkages as described in the City of Mississauga's Official Plan. The subject property is also located within the City of Mississauga's Natural Areas Survey and designated as LV1 and LV2. CVC provides technical support to the City of Mississauga with respect to the identification and delineation of natural heritage features or areas as well as reviewing proposals for potential negative impacts to the natural features or areas. For more detailed information or any questions on this matter we suggest you contact, the City of Mississauga to discuss further.
3. An increase in impervious area due to any proposed works being completed will require a stormwater management (SWM) investigation that adheres to all of CVC's criteria and applicable Provincial criteria. Therefore, please apply CVC's Stormwater Management Criteria for any proposed works, as applicable. Provide consideration and opportunity for a stormwater management strategy that incorporates a treatment train approach and the use of Low Impact Development (LID) measures where feasible. Further requirements may be identified through Section 4.0 of the Region of Peel's Draft Public Works Stormwater Design Criteria and Procedural Manual (June 2019). Please review and apply as appropriate in order to design the optimal SWM strategy.
4. Please find CVC's floodplain mapping for Applewood and Serson Creeks attached. CVC recommends that all proposed permanent infrastructure be located outside of the flood and erosion hazards associated with the regulated watercourses and Lake Ontario hazards. Please note that the regulatory floodplain is the greater of the 100-year and regional flood hazard.
5. The Lake Ontario Shoreline Hazards report completed by Shoreplan Engineering Limited (September 2005), provides a determination of the erosion hazard and flood hazard associated with Lake Ontario adjacent to the WWTP location. Please refer to Appendix B within this report. CVC is currently in the process of conducting a peer review of this report. The results of this peer review will be made available to the public soon and may impacts expectations within the report.
6. Based on today's conditions, the channel that flows under the access road and then under the WWTP is considered to be a watercourse. This is the baseflow of Serson Creek. In the future condition, as part of the ongoing projects adjacent to the GE Booth WWTP, Serson Creek baseflow will be re-routed and only storm water flow will drain through this culvert and under the WWTP. The proposed timing of the Region's project(s) compared to the timing of the Serson Creek re-alignment will need to be considered as part of this study process.
7. Note that there will be ongoing discussions with the adjacent development to the west of Serson Creek (Lakeview Village) in order to determine the ultimate floodplain (associated with Serson Creek) along both the development lands and the WWTP property. Ensure consultation is being maintained in order to move forward with the Environmental Assessment of the Wastewater Treatment Plant.
8. The subject site is located in the vicinity of the Lake Ontario Shoreline and as such the site's natural areas provide important ecological functions in terms of supporting local and migratory wildlife and movement corridor functions. Sensitive terrestrial woodland habitat occupies portions of the immediate site and surrounding lands. Species at Risk have also been located onsite and on adjacent lands. That said project planning and implementation will need to be mindful of associated construction and disturbance setbacks for each specific SAR and identified terrestrial features. Further, timing, duration, location of staging areas, and points of access to the works will need to be well thought out in order to minimize impacts and footprint at the implementation stage.

9. It is understood that a collaborative approach to development has been established with the adjacent development to the west (Lakeview Village) which is also favourable and beneficial from a regional development and ecosystem function perspective. All in all, a sensitive and integrative approach for planning and implementation will be key.

10. Please see below for a list of known site sensitivities/constraints. This is a preliminary list and will be discussed further at the project commences:

#### Aquatics

- a. Fish Habitat – Lake Ontario to the south, Serson Creek to the west, and Applewood Creek to the east.
- b. Applewood Creek is comprised of small warmwater fish habitat, estuarine fish community.
- c. Serson Creek is an engineered watercourse with an unclassified fish community under its current condition. As rehabilitation of this feature is in the planning stages, please address how this endeavor fits in with any proposed WWTP expansion timeline.

#### Terrestrial

- d. Significant Natural Areas/Significant Woodlands LV1 and LV2 are located adjacent to and partially within the project area.
- e. There is a small significant ground water recharge area within the eastern most property boundary near the confluence of Applewood Creek and Lake Ontario (to the west of Applewood Creek).
- f. The entire surrounding area is comprised of a highly vulnerable aquifer.
- g. CVC property exists to the south west of the project area (north east of and along the abandoned power plant intake channel).
- h. Excepting to the immediate north, the property is entirely surrounded by SWH including all woodlands within the site boundary. The woodland could potentially support habitat for endangered bats.
- i. Two large wetlands have recently been constructed to the south of the project area by CVC/TRCA as part of LWC project and meet PSW criteria.
- j. Colonial Waterbird Nesting areas have been identified in the vicinity of the subject property.
- k. The following species of concern have been identified in the vicinity of the project site: American Eel, Butternut, Barn Swallow, Bank Swallow and Peregrine Falcon, Bobolink, Eastern Meadowlark, Little Brown Myotis, Monarch butterfly, Blanding's Turtle and Chimney Crayfish.

11. As per usual, please contact, MNRF/MECP and DFO directly regarding project specific concerns regarding potential Species at Risk or alteration to fish habitat, and any associated mitigation or permit requirements.

#### *Opportunities for coordination with Jim Tovey Lakeview Conservation Area (JTLCA) Project*

12. The Jim Tovey Lakeview Conservation Area (JTLCA) is a joint project effort between the Region of Peel, Credit Valley Conservation (CVC) and the Toronto and Region Conservation Authority (TRCA). This project is currently underway and is located adjacent to the G.E. Booth Wastewater Treatment Plant (WWTP). The JTLCA project includes the creation of a new 26 ha conservation area along the eastern Mississauga shoreline. The intended purpose of this project is to enhance and re-create natural coastal habitats, build a natural park that encourages public access, use, and exploration along the waterfront, and facilitate sustainable city building. Some of the completed works include the completion of the east and western Serson wetlands, approximately 300 m of the Serson channel extension, which includes the outlet to Lake Ontario, construction of the Applewood wetland, the installation of aquatic plants in the Serson wetlands, the construction of confinement berms, earth filling, completion of approximately 750 m of armourstone revetment, fine grading, topsoiling, seeding and terrestrial planting of several confinement cells and interim protection of rubble confinement berms for example.

Based on the close proximity of the G.E. Booth WWTP to this project, and with the commencement of the G.E. Booth WWTP Environmental Assessment, TRCA and CVC staff are interested in opportunities to coordinate efforts with the Region of Peel that would complement on-going work at



the JTLCA. Given that the EA has just commenced, it is unclear at this time what the preferred solutions will be and how those solutions will impact the plant and surrounding area, if at all. As such, if there are any opportunities to further enhance the adjacent site staff are open to those discussions and would appreciate any future support.

Notwithstanding, as this project proceeds, it is recommended that opportunities to improve the local viewscape be incorporated into the expansion project. The current park design screens the plant from conservation area visitors using a system of planted berms that also provide habitat. To augment the visual design and habitat elements of the park, please consider including the following commitments in the EA that relate to detailed design:

- Constructing a living wall around the perimeter of the plant at locations that are feasible with landscaping and plantings along the east side of Serson Creek to improve the viewscape for the future Lakeview Village residents.
- Increased plantings at the JTLCA as part of the public realm design and on the east portion of the G.E. Booth WWTP may provide additional screening and limit public access.

Additionally, opportunities to improve stormwater quality draining from the site, such as the installation of an oil-grit separator to treat discharge collected within the G.E. Booth WWTP from the existing storm sewer pipe that will outlet into the newly constructed Applewood wetland should be considered.

Staff will be happy to provide further information as it is requested and as the EA proceeds.

Clarkson WWTP (CVC File No. EA 20/010)

13. Site Characteristics:

- a. CREDIT RIVER WATERSHED NATURAL HERITAGE SYSTEM - A small portion of the subject site is located within the Credit River Watershed Natural Heritage System (CRWNHS) and the site is adjacent to other portions of the CRWNHS. The CRWNHS consists of High Functioning and Supporting terrestrial and aquatic natural heritage features, buffers, and complementary natural heritage areas (Centres for Biodiversity). Based on a watershed scale, the CRWNHS is intended to support Provincial, Regional and local municipal natural heritage systems as identified in their respective Strategies or Plans. As a watershed based management agency and landowner, CVC intends to implement the CRWNHS by using it as a strategic program guidance tool; to inform further development of CVC projects and policies; to assist CVC staff in providing technical advice to landowners and stakeholders at a watershed scale; and to promote a more consistent approach to natural heritage system planning across CVC's jurisdiction. For more detailed information or questions please contact the undersigned to discuss further.
- b. MISSISSAUGA NATURAL HERITAGE SYSTEM & NATURAL AREAS SURVEY - The subject property is located adjacent to the City of Mississauga's Natural Heritage System and Urban Forest. The City's Natural Heritage System is made up of Significant Natural Areas, Natural Green Spaces, Special Management Areas, Residential Woodlands and Linkages as described in the City of Mississauga's Official Plan. The subject property is also located adjacent to the City of Mississauga's Natural Areas Survey and designated as SD4 and SD7. CVC provides technical support to the City of Mississauga with respect to the identification and delineation of natural heritage features or areas as well as reviewing development proposals for potential negative impacts to the natural features or areas. For more detailed information or any questions on this matter we suggest you contact, the City of Mississauga to discuss further.
- c. SOURCE WATER PROTECTION - The subject property may be subject to the Approved Source Protection Plan: CTC Source Protection Region. We recommend that you contact Therese Estephan, Risk Management Official for further information with respect to these policies to establish if and how the Protection Plan may apply. You may also refer to the CTC Source Water Protection website [www.ctcswp.ca](http://www.ctcswp.ca)

14. An increase in impervious area due to any proposed works being completed will require a stormwater management (SWM) investigation that adheres to all of CVC's criteria and applicable Provincial criteria. Therefore, please apply CVC's Stormwater Management Criteria for any proposed works, as

applicable. Provide consideration and opportunity for a stormwater management strategy that incorporates a treatment train approach and the use of Low Impact Development (LID) measures where feasible. Further requirements may be identified through Section 4.0 of the Region of Peel's Draft Public Works Stormwater Design Criteria and Procedural Manual (June 2019). Please review and apply as appropriate in order to design the optimal SWM strategy.

15. Please find CVC's floodplain mapping for Lakeside Creek attached. CVC recommends that all proposed permanent infrastructure be located outside of the flood and erosion hazards associated with the regulated watercourses. Please note that the regulatory floodplain is the greater of the 100-year and regional flood hazard. Further, the City of Mississauga is currently developing the Southdown District Stormwater Servicing and Environmental Management Plan which considers a new open by-pass channel for Lakeside Creek through the Clarkson WWTP. Please ensure proper coordination between the two studies, as required.
16. The subject site is located in the vicinity of the Lake Ontario Shoreline and as such the site's natural areas provide important ecological functions in terms of supporting local and migratory wildlife and movement corridor functions. Sensitive terrestrial woodland habitat occupies portions to the northern and southern limits of the study area. Species at Risk have been located onsite and on adjacent lands. That said project planning and implementation will need to be mindful of associated construction and disturbance setbacks for each specific SAR and identified terrestrial features. Further, timing, duration, location of staging areas, and points of access to the works will need to be well thought out in order to minimize impacts and footprint at the implementation stage.
17. Please see below for a list of known site sensitivities/constraints. This is a preliminary list and will be discussed further at the project commences:
  - Aquatics
    - a. Fish Habitat – Lake Ontario to the south, Lakeside Creek.
    - b. Lakeside Creek, located just south of the plant, is comprised of an intermittent warm water creek
  - Terrestrial
    - c. Significant Natural Areas SD4 and SD7 are located adjacent to and partially within the project area.
    - d. Significant Natural Area SD7 is located along the waterfront along the southern limits of the study area and is comprised of cultural woodland, cultural meadow and deciduous forest ecosites.
    - e. A portion (fingerlike projection) of SD4 extends onto the northern limits of the site and is comprised of cultural woodland and cultural savannah ecosites.
    - f. The entire surrounding area is comprised of a highly vulnerable aquifer.
    - g. Significant Wildlife habitat occurs along the southern waterfront limits of the property as well as the northern limits of the property boundary.
    - h. The site is encompassed by Credit River Natural Heritage System along the Lake Ontario Shoreline, and the Peel Greenlands System to the west and north.
    - i. The following species of concern have been identified in the vicinity of the project site: Peregrine Falcon, Bobolink, Eastern Meadowlark, Little Brown Myotis with Peregrine Falcon observed hunting within the property boundary.
18. The following general management directions have been identified for this site: *Increase habitat diversity and improve habitat quality for migratory landbirds, investigate opportunities to improve north-south terrestrial connectivity to connect the Lake Ontario shoreline to the rail line and beyond.*
19. As per usual, please contact, MNR/MECP and DFO directly regarding project specific concerns regarding potential Species at Risk or alteration to fish habitat, and any associated mitigation or permit requirements.

Given CVC's interest staff would like to be kept informed of future meetings and proceedings throughout the EA processes. We also request to be invited to participate on any Technical Advisory Committee(s) that may be formed for these EAs. Please forward any information or reports when available to ensure that this Authority's policy and program interests are reflected in the planning and design components for this project.

Please let me know if you have any questions about our comments above,  
Jakub

**Jakub Kilis, RPP**

Manager, Infrastructure and Regulations | Credit Valley Conservation

905-670-1615 ext 287 | C: 647-212-6554 | 1-800-668-5557

[jakub.kilis@cvc.ca](mailto:jakub.kilis@cvc.ca) | [cvc.ca](http://cvc.ca)

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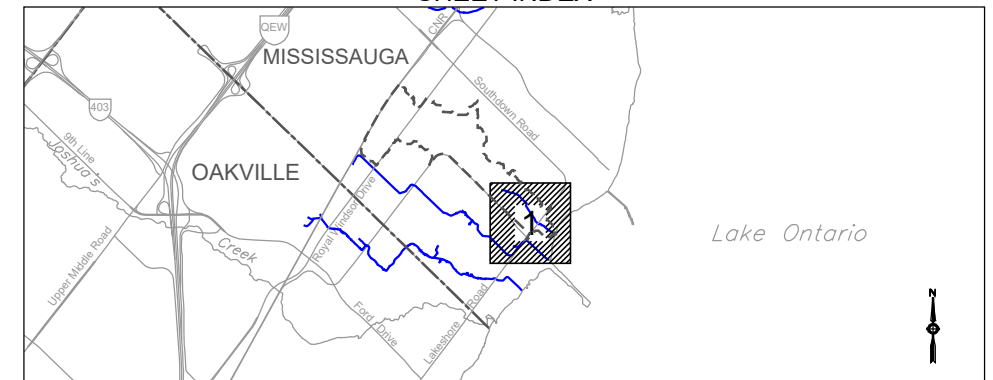
# FLOOD HAZARD MAP

## LAKESIDE CREEK WATERSHED

### LEGEND

Bridges.....	Marsh.....	Spot Height.....	+123.45
Building.....	Municipal Boundary.....	Trail.....	-----
Building Ruin.....	Overhead Walkway.....	Wall.....	-----
Building Under Construction.....	Parcel Fabric.....	Watershed Boundary.....	-----
Contour Index.....	Parking Lot.....	Waterbody Elevation.....	+97.5
Contour Intermediate.....	Pile.....	Wooded Area.....	-----
Culvert Symbol.....	Pipe.....	Regulatory Floodline.....	-----
Culvert to Scale.....	Pit.....	Regulatory Floodplain (2D Model).....	-----
Dam.....	Playground.....	1D-2D Model Limits.....	1D <-----> 2D
Ditch.....	Pole.....	Two-Zone Policy Area.....	-----
Dock, Wharf, Pier.....	Pool.....	Section.....	-----
Driveway.....	Railway.....	Overflow Section.....	-----
Falls, Rapids.....	Railway Abandoned.....	Structure ID.....	10
Fire Hydrant.....	River, Creek, Shoreline.....	Spill.....	-----
Flow Direction.....	Road.....	Regional Flood Elevation	-----
Footbridge.....	Road Shoulder.....	Section Number	15426 98.75
Guiderail.....	Road Understructure (UC).....	100 Year Flood Elevation	98.25
Headwall.....	Sidewalk.....	Note: The Regulatory flood elevation and floodline is the greater of the Regional and 100 Year storms.	
Hedge.....	Silo.....		

### SHEET INDEX



Metres 100 0 100 200 METRES

SCALE 1:4000  
CONTOUR INTERVAL 0.5 METRE

#### General Notes:

1. Contourlines on this map were generated by Airborne Imaging using the Spring of 2015 LIDAR point cloud, breaklines and hydrologic enforcement at bridges. The vertical accuracy of the original points is 0.10 metres RMSE.
2. The planimetric data was obtained from the City of Mississauga in 2017.
3. The vertical datum is mean sea level established by the CGVD 28, 1978 Southern Ontario adjustment.
4. The horizontal datum is North American Datum 1983 CSRS (Epoch 2010) UTM Zone 17.
5. To obtain City of Mississauga datum, add 0.121 metres to elevation data.



No	Amendment/Revision	By	Date



# FLOOD HAZARD MAP

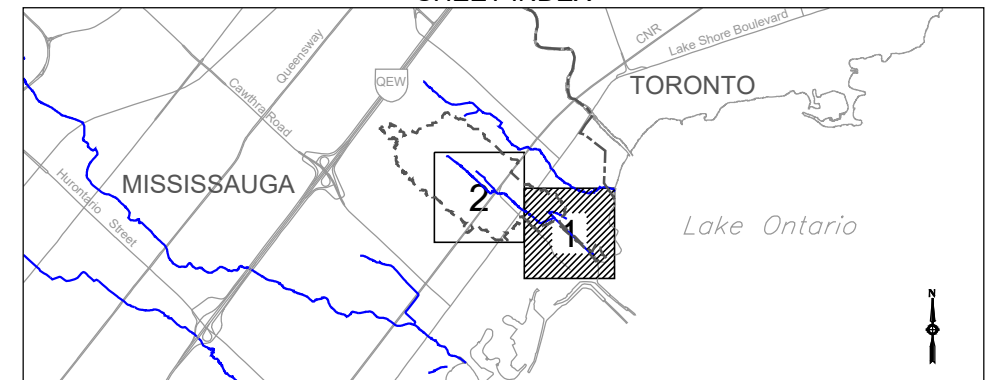
## SERSON CREEK WATERSHED

### LEGEND

Bridges.....	Marsh.....	Spot Height.....	+123.45
Building.....	Municipal Boundary.....	Tank.....	-----
Building Ruin.....	Overhead Walkway.....	Tower Base.....	-----
Building Under Construction.....	Parcel Fabric.....	Trail.....	-----
Contour Index.....	Parking Lot.....	Wall.....	-----
Contour Intermediate.....	Pile.....	Watershed Boundary.....	-----
Culvert Symbol.....	Pipe.....	Waterbody Elevation.....	+97.5
Culvert to Scale.....	Pit.....	Wooded Area.....	-----
Dam.....	Playground.....		
Ditch.....	Pole.....		
Dock,Wharf,Pier.....	Pool.....		
Driveway.....	Railway.....		
Falls,Rapids.....	Railway Abandoned.....		
Fire Hydrant.....	River,Creek,Shoreline.....		
Flow Direction.....	Road.....		
Footbridge.....	Road Shoulder.....		
Guiderail.....	Road Understruction (UC).....		
Headwall.....	Sidewalk.....		
Hedge.....	Silo.....		
		Regulatory Floodline.....	-----
		Section.....	-----
		Overflow Section.....	-----
		Structure ID.....	10
		Spill.....	-----
		Regional Flood Elevation	154.26
		Section Number	98.75
		100 Year Flood Elevation	98.25

Note: The Regulatory flood elevation and floodline is the greater of the Regional and 100 Year storms.

### SHEET INDEX



Metres 100 0 100 200 METRES

SCALE 1:4000

CONTOUR INTERVAL 0.5 METRE

### General Notes:

1. Contourlines on this map were generated by Airborne Imaging using the Spring of 2015 LIDAR point cloud, breaklines and hydrologic enforcement at bridges. The vertical accuracy of the original points is 0.10 metres RMSE.
2. The planimetric data was obtained from the City of Mississauga in 2017.
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4. The horizontal datum is North American Datum 1983 CSRS (Epoch 2010) UTM Zone 17.
5. To obtain City of Mississauga datum, add 0.121 metres to elevation data.



No	Amendment/Revision	By	Date



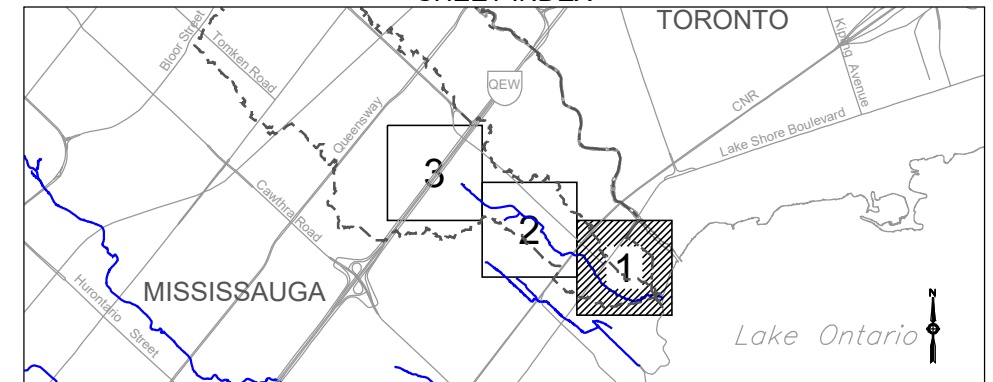
# FLOOD HAZARD MAP

## APPLEWOOD CREEK WATERSHED

### LEGEND

Bridges.....	Marsh.....	Spot Height.....	+123.45
Building.....	Municipal Boundary.....	Trail.....	-123.45
Building Ruin.....	Overhead Walkway.....	Wall.....	-
Building Under Construction.....	Parcel Fabric.....	Watershed Boundary.....	-
Contour Index.....	Parking Lot.....	Waterbody Elevation.....	+97.5
Contour Intermediate.....	Pile.....	Wooded Area.....	-
Culvert Symbol.....	Pipe.....	Regulatory Floodline.....	-
Culvert to Scale.....	Pit.....	Regulatory Floodplain (2D Model).....	-
Dam.....	Playground.....	1D-2D Model Limits.....	1D <-> 2D
Ditch.....	Pole.....	Two-Zone Policy Area.....	-
Dock, Wharf, Pier.....	Pool.....	Section.....	-
Driveway.....	Railway.....	Overflow Section.....	-
Falls, Rapids.....	Railway Abandoned.....	Structure ID.....	10
Fire Hydrant.....	River, Creek, Shoreline.....	Spill.....	-
Flow Direction.....	Road.....	Regional Flood Elevation	15426
Footbridge.....	Road Shoulder.....	Section Number	98.75
Guiderail.....	Road Understructure (UC).....	100 Year Flood Elevation	98.25
Headwall.....	Sidewalk.....	Note: The Regulatory flood elevation and floodline is the greater of the Regional and 100 Year storms.	
Hedge.....	Silo.....		

### SHEET INDEX



Metres 100 0 100 200 METRES  
SCALE 1:4000  
CONTOUR INTERVAL 0.5 METRE

#### General Notes:

1. Contourlines on this map were generated by Airborne Imaging using the Spring of 2015 LIDAR point cloud, breaklines and hydrologic enforcement at bridges. The vertical accuracy of the original points is 0.10 metres RMSE.
2. The planimetric data was obtained from the City of Mississauga in 2017.
3. The vertical datum is mean sea level established by the CGVD 28, 1978 Southern Ontario adjustment.
4. The horizontal datum is North American Datum 1983 CSRS (Epoch 2010) UTM Zone 17.
5. To obtain City of Mississauga datum, add 0.121 metres to elevation data.



No	Amendment/Revision	By	Date



## Jasmine Biasi - GM BluePlan

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**From:** Laurie Boyce - GM BluePlan  
**Sent:** Friday, July 31, 2020 1:50 PM  
**To:** Kilis, Jakub; Park, Olivia; Kambeitz, Cindy  
**Cc:** Dania Chehab - GM BluePlan; Lohnes, Shelley; Jasmine Biasi - GM BluePlan  
**Subject:** RE: [External] GE Booth Lakeview and Clarkson Wastewater Treatment Plants (SAV PN 2003025)

Hi Jakub:

I am the Project Manager for the EAs on behalf of the Region, and Cindy Kambeitz (cc) is the Region of Peel Project Manager. The EAs have recently been initiated and we are currently collecting background information to support the problem definition and identification and assessment of alternatives. Thank you for the information provided.

CVC is a key stakeholder and we look forward to receiving your input on the Notices of Commencement. We will be arranging a formal meeting with you to provide details on the purpose and approach to the EAs, in the near future. If you have any questions at this time regarding the EAs please contact myself at or Cindy Kambeitz (905-791-7800, et 5040)

Have a nice weekend.

Laurie

**Laurie Boyce, B.Sc., M.A.**  
Strategic Planning and Project Advisor

**GM BluePlan Engineering Limited**  
1266 South Service Rd, Unit C3-1 | Stoney Creek, ON | L8E 5R9  
t: 905.643.6688 ext. 6334 | c: 416.471.0528  
[laurie.boyce@gmblueplan.ca](mailto:laurie.boyce@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



---

**From:** Kilis, Jakub <Jakub.Kilis@cvc.ca>  
**Sent:** Friday, July 31, 2020 12:55 PM  
**To:** Park, Olivia <opark@savanta.ca>  
**Cc:** Dania Chehab - GM BluePlan <Dania.Chehab@gmblueplan.ca>; Laurie Boyce - GM BluePlan <Laurie.Boyce@gmblueplan.ca>; Lohnes, Shelley <slohn@savanta.ca>  
**Subject:** RE: [External] GE Booth Lakeview and Clarkson Wastewater Treatment Plants (SAV PN 2003025)

Hi Olivia,

I am the main contact for the EA at CVC. We have received the notice of commencement and will be providing feedback on that within the next couple of weeks. In terms of the data you are looking for – the data related to the JTLCA should all be available online through the links provided by Kate. For any additional ecological data we may have for the features in and around GE Booth you are welcome to submit a data request to Elizabeth Paudel ([Elizabeth.paudel@cvc.ca](mailto:Elizabeth.paudel@cvc.ca)) at our office and she will be able to

gather what information we may have. You should provide a list of information you are looking for in your request.

If you are looking for specific information about the design of Lakeshore Road at Serson Creek, you need to reach out to the City of Mississauga as they are the owner of this project. I was not directly involved in that culvert project, but if you have general comments about the project I can look through our file and try to answer those.

Regards,  
Jakub

**Jakub Kilis, RPP**

Manager, Infrastructure and Regulations | Credit Valley Conservation  
905-670-1615 ext 287 | C: 647-212-6554 | 1-800-668-5557  
[jakub.kilis@cvc.ca](mailto:jakub.kilis@cvc.ca) | [cvc.ca](http://cvc.ca)

---

**From:** Park, Olivia <[opark@savanta.ca](mailto:opark@savanta.ca)>  
**Sent:** Friday, July 31, 2020 11:46 AM  
**To:** Hayes, Kate <[Kate.Hayes@cvc.ca](mailto:Kate.Hayes@cvc.ca)>  
**Cc:** Dania Chehab - GM BluePlan <[Dania.Chehab@gmblueplan.ca](mailto:Dania.Chehab@gmblueplan.ca)>; Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; Lohnes, Shelley <[slohnes@savanta.ca](mailto:slohnes@savanta.ca)>; Kilis, Jakub <[Jakub.Kilis@cvc.ca](mailto:Jakub.Kilis@cvc.ca)>  
**Subject:** RE: [External] GE Booth Lakeview and Clarkson Wastewater Treatment Plants (SAV PN 2003025)

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Great thank you very much Kate for the help and connecting us to Jakub Kilis.

Best,

Olivia



OLIVIA PARK  
Intermediate Ecologist, CERP  
Phone: 647.988.2849

---

**From:** Hayes, Kate <[Kate.Hayes@cvc.ca](mailto:Kate.Hayes@cvc.ca)>  
**Sent:** Friday, July 31, 2020 11:27 AM  
**To:** Park, Olivia <[opark@savanta.ca](mailto:opark@savanta.ca)>  
**Cc:** Dania Chehab - GM BluePlan <[Dania.Chehab@gmblueplan.ca](mailto:Dania.Chehab@gmblueplan.ca)>; Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; Lohnes, Shelley <[slohnes@savanta.ca](mailto:slohnes@savanta.ca)>; Kilis, Jakub <[Jakub.Kilis@cvc.ca](mailto:Jakub.Kilis@cvc.ca)>  
**Subject:** [EXT] RE: [External] GE Booth Lakeview and Clarkson Wastewater Treatment Plants (SAV PN 2003025)

Good morning Olivia:

Jakub Kilis (Manager, Infrastructure and Regulations) can answer your questions directly or redirect you to the City of Mississauga for detailed responses regarding upgrades to Lakeshore Road (including Serson Creek culvert).

Serson Creek has been extended through the JTLCA feature; however, the restoration of the reach from Lakeshore to JTLCA has not yet been completed and is now being lead by [Lakeview Community Partners Ltd.](#) Jakub can provide an appropriate contact with LCPL.

Background data related to the Jim Tovey Lakeview CA are found here: <https://cvc.ca/jimtoveylakeviewca/downloads/>. Additional management guidance for this area (Reach 1 – Lakeview) is found here: <https://cvc.ca/wp-content/uploads/2018/12/Living-by-the-Lake-Action-Plan-FINAL-WEB.pdf>

All the best and have a nice (long) weekend,

Kate

---

**From:** Park, Olivia <[opark@savanta.ca](mailto:opark@savanta.ca)>

**Sent:** Friday, July 31, 2020 10:31 AM

**To:** Hayes, Kate <[Kate.Hayes@cvc.ca](mailto:Kate.Hayes@cvc.ca)>

**Cc:** Dania Chehab - GM BluePlan <[Dania.Chehab@gmblueplan.ca](mailto:Dania.Chehab@gmblueplan.ca)>; Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; Lohnes, Shelley <[slohn@savanta.ca](mailto:slohn@savanta.ca)>

**Subject:** [External] GE Booth Lakeview and Clarkson Wastewater Treatment Plants (SAV PN 2003025)

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Hello Kate,

I hope you are doing well! It has been so nice getting to connect again this month on a few projects. Savanta and GM BluePlan (cced) have been retained to complete a Municipal Class Environmental Assessment for the GE Booth Lakeview and Clarkson Wastewater Treatment Plants (WWTP), and we are looking to engage CVC to ask a few questions regarding upgrades to Lakeshore Road and understand whether any data may be available for these two facilities? I thought that you may be a good contact to connect with due to your involvement with the Jim Tovey Lakeview Conservation Area (JTLCA), which is immediately south of the GE Booth WWTP. If not, can you please let me know who we should be connecting with?

Specifically, I noticed within the 2014 Lakeview Waterfront Connection EA that CVC had completed some acoustic bat sampling around the Booth WWTP ash lagoons, and was wondering if any further ecological surveys have been completed around the WWTP facility? We would be very interested in any ecological data that you would be able to share regarding either WWTP and your monitoring results for the JTLCA. There seems to be some data gaps with respect to reptile data in particular.

Moreover, I noticed within the Lakeview Waterfront Connection EA that there was some discussions surrounding Lakeshore Road East being a migratory barrier for fish, and was wondering if CVC has any knowledge if there have been any culvert upgrades since the 2014 report? Finally, I remember when I was on site in November at the JTLCA there was mention that Serson Creek had been enhanced. I was wondering if you have any knowledge if this watercourse is still underground and just the mouth of the river was enhanced, or if the entire feature was daylighted?

GM BluePlan has sent CVC a letter of engagement previously and is looking to commence their formal engagement process in the fall. Due to timelines, our background ecological reports are due ahead of these formal engagement processes so we would like to begin the engagement process to gain information to inform our reports.

Thank you so much for your help! I hope that you have a lovely long weekend.



Kindest regards,

Olivia



OLIVIA PARK  
Intermediate Ecologist, CERP  
Phone: 647.988.2849

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## **Appendix T:**

# **Public and Agency Correspondence and Meetings**

**T3: Ontario Ministry of Environment, Conservation and Parks (MECP)**

## Benjamin Peachman - GM BluePlan

---

**From:** EA Notices to CRegion (MECP) <eanotification.cregion@ontario.ca>  
**Sent:** Tuesday, January 23, 2024 2:26 PM  
**To:** Benjamin Peachman - GM BluePlan; Liu, Chunmei (MECP); Kambeitz, Cindy; Laurie Boyce  
**Cc:** Battarino, Gavin (MECP); Panko, Dan (MECP); Martin, Paul (MECP); Antunes, Marinha (MECP); EA Notices to CRegion (MECP)  
**Subject:** [EXT] RE: Peel WRRF Class EAs - RWIA for G.E. Booth WRRF (GMBP#719051)

**EXTERNAL EMAIL**

---

Good afternoon project team, hope you're all doing well 😊

The ministry technical staff have reviewed the responses to the ministry's comments under Appendix D of the Air Quality Impact Assessment. Based on our review, the project team has clarified and addressed some of our comments. At this time, the ministry staff has no additional comments to offer.

Thank you for the opportunity commenting on this project. If you have any questions, please let us know.

Many thanks,

*Chunmei Liu* (she/her) | Regional Environmental Planner

Environmental Assessments Branch, Ontario Ministry of the Environment, Conservation and Parks | 7th Flr, 135 St Clair Ave W, Toronto, ON M4V 1P5 | [Chunmei.Liu@ontario.ca](mailto:Chunmei.Liu@ontario.ca) | 437-249-3102

---

**From:** Benjamin Peachman - GM BluePlan <Benjamin.Peachman@gmblueplan.ca>  
**Sent:** Friday, December 22, 2023 9:52 AM  
**To:** Liu, Chunmei (MECP) <Chunmei.Liu@ontario.ca>; Kambeitz, Cindy <cindy.kambeitz@peelregion.ca>; Laurie Boyce <LaurieBoyce@L3ESP.ca>  
**Cc:** Battarino, Gavin (MECP) <Gavin.Battarino@ontario.ca>; Panko, Dan (MECP) <Dan.Panko@ontario.ca>; Martin, Paul (MECP) <Paul.D.Martin@ontario.ca>; Antunes, Marinha (MECP) <Marinha.Antunes@ontario.ca>; EA Notices to CRegion (MECP) <eanotification.cregion@ontario.ca>  
**Subject:** RE: Peel WRRF Class EAs - RWIA for G.E. Booth WRRF (GMBP#719051)

**CAUTION -- EXTERNAL E-MAIL - Do not click links or open attachments unless you recognize the sender.**

Hello Chunmei,

I hope you are doing well. We appreciate the ministry providing the comments noted below on the Air Quality Assessment Report (AQA) that was completed in support of the G.E. Booth WRRF Expansion EA. The project team has reviewed the comments, updated the report to reflect these comments (attached), and provided our responses to the MECP comments in Appendix D of attached. The updated AQA report will be included in the EA appendices which we're anticipating to file for public review early in the new year, upon receipt of a few remaining agency & stakeholder comments on the draft EA.

We want to thank the ministry again for providing these comments during such a busy time and we wish all of you a happy holidays.



**Benjamin Peachman, P. Eng.**  
Infrastructure Planning

**GM BluePlan Engineering Limited**

Royal Centre | 3300 Highway No. 7, Suite 402 | Vaughan ON L4K 4M3  
t: 416.703.0667 ext. 7216 | c: 437.328.5016  
[benjamin.peachman@gmblueplan.ca](mailto:benjamin.peachman@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



---

**From:** Liu, Chunmei (MECP) <[Chunmei.Liu@ontario.ca](mailto:Chunmei.Liu@ontario.ca)>

**Sent:** Thursday, November 09, 2023 10:30 AM

**To:** Benjamin Peachman - GM BluePlan <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>; Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>; Laurie Boyce <[LaurieBoyce@L3ESP.ca](mailto:LaurieBoyce@L3ESP.ca)>

**Cc:** Battarino, Gavin (MECP) <[Gavin.Battarino@ontario.ca](mailto:Gavin.Battarino@ontario.ca)>; Panko, Dan (MECP) <[Dan.Panko@ontario.ca](mailto:Dan.Panko@ontario.ca)>; Martin, Paul (MECP) <[Paul.D.Martin@ontario.ca](mailto:Paul.D.Martin@ontario.ca)>; Antunes, Marinha (MECP) <[Marinha.Antunes@ontario.ca](mailto:Marinha.Antunes@ontario.ca)>; EA Notices to CRegion (MECP) <[eanotification.cregion@ontario.ca](mailto:eanotification.cregion@ontario.ca)>

**Subject:** RE: Peel WRRF Class EAs - RWIA for G.E. Booth WRRF (GMBP#719051)

Good morning, Benjamin, Cindy and Laurie, hope you're all doing well 😊

The ministry has reviewed the Air Quality Assessment Report (AQA Report) in Appendix C and Executive Summary, Section 5.4.8 "Odour Control" and Section 6.2.7 "Air Quality and Odour Conditions" of the Draft Environmental Study Report (ESR) for the G.E. Booth Water Resource Recovery Facility (WRRF) in Mississauga, Ontario. Please find the following comments for your consideration:

1. Please clarify why the 10-minute SO<sub>2</sub> AAQC was not assessed in the AQA Report. For future assessments, the ministry recommends assessing air quality impacts against the 10-minute SO<sub>2</sub> AAQC.
2. The ministry recommends conducting an assessment of Total Reduced Sulphur (TRS - dimethyl disulphide, dimethyl sulphide, hydrogen sulphide, and mercaptans) for the proposed undertaking. The final AQA Report should elaborate how TRS will comply with O. Reg. 409/05 Schedule 3 air standards.
3. Please note a correction is required on Table 3-1 "*Air Quality Standards and Criteria*" where it lists the 24-hour criteria for Hydrogen Sulphide (H<sub>2</sub>S) as 14 µg/m<sup>3</sup> instead it should be 7 µg/m<sup>3</sup>. Please revise Table 3-1 in the AQ Report accordingly.
4. Please clarify how the odour emission estimates were prorated. Please provide odour and H<sub>2</sub>S sample calculations for each source type.
5. Please clarify the methodology used in the dispersion modelling to evaluate the maximum H<sub>2</sub>S 10-minute point of impingement (POI) for the current and future scenarios. Table 7-6 reports the highest H<sub>2</sub>S 10-minute concentration at 12.87 µg/m<sup>3</sup> (R5/discrete receptor) which is higher than the maximum H<sub>2</sub>S POI (10.72 µg/m<sup>3</sup>) reported in Table 7-1.

The maximum POI is lower than the discrete receptor assessment, which should not be the case. The same is noted for the future undertaking on Table 7-2 where 3.25 µg/m<sup>3</sup> is reported as the

maximum H<sub>2</sub>S 10-minute POI which is lower than the H<sub>2</sub>S 10-minute concentration reported on Table 7.6 (3.91 µg/m<sup>3</sup>). Please clarify.

6. It should be noted that the H<sub>2</sub>S 10-minute concentration (7.35 µg/m<sup>3</sup>) on Table 7-3 does not match the H<sub>2</sub>S 10-minute concentration on Table 7-2 (3.25 µg/m<sup>3</sup>). Please revise Tables 7-2 and 7-3 accordingly.
7. The dispersion modelling results, and frequency of exceedance analysis (Table 7-5) predict odour concentrations higher than 1 OU occurring for 4.2% on an annual basis at existing and future sensitive receptors. This is greater than the 0.5% recommended in the ministry's Technical Bulletin (*Methodology for Modelling Assessments of Contaminants With 10-Minute Average Standards and Guidelines for Odour under O. Reg. 419/05*). It would be beneficial to develop a contingency plan for odour mitigation measures if proposed odour controls are not adequate.
8. The meteorological data shows the predominant winds in the study area are mainly from east-northeast direction placing the proposed Lakeview development downwind of G.E. Booth WRRF. The nearest sensitive receptor is approximately 250 metres from the headworks, which is an odorous process from the facility. Completing a site-wide odour emission inventory would be beneficial using odour emission rates from this facility, instead of estimates. This will provide more accurate odour concentrations at the sensitive receptors. In addition, a review of the best available odour control technology is recommended to assist the proponent with odour mitigation measures to avoid adverse impacts.
9. Table 7-5 notes that the odour results are the max. 44th highest modelled value as per the technical bulletin, however, please clarify if the meteorological anomalies were removed from the entire grid.
10. The AQA report did not discuss how the proposed undertaking will comply with Guideline A-9 – *NO<sub>x</sub> Emissions from Boilers and Heaters*. The Final AQA Report should include a brief discussion on how the proposed future preferred alternative scenario (Project B) will comply with Guideline A-9.
11. The following guidance documents should be considered when developing a preventive and odour best practices plan as noted in Sections 8 and 9 of the AQA report.

Draft Guideline to Address Odour Mixtures in Ontario (MECP, May 2021)

<https://ero.ontario.ca/notice/019-2768>

Draft Technical Bulletin Methodology for Completing an Odour Assessment for Odour Mixtures (MECP, March 2021)

<https://prod-environmental-registry.s3.amazonaws.com/2021-03/Draft%20Odour%20Assessment%20Technical%20Bulletin%202021.pdf>

Section 5.5 - [Best management practices for industrial sources of odour | ontario.ca](https://www.ontario.ca/en/gov/service/best-management-practices-for-industrial-sources-of-odour)

Thank you for the opportunity to review the draft report. Feel free to contact me with any questions or concerns you may have, and please copy [eanotification.cregion@ontario.ca](mailto:eanotification.cregion@ontario.ca) on any project-related correspondence.

Sincerely,

*Chunmei Liu* (she/her) | Regional Environmental Planner

## Benjamin Peachman - GM BluePlan

---

**From:** EA Notices to CRegion (MECP) <eanotification.cregion@ontario.ca>  
**Sent:** Friday, December 08, 2023 11:34 AM  
**To:** Benjamin Peachman - GM BluePlan; Kambeitz, Cindy; Laurie Boyce  
**Cc:** Battarino, Gavin (MECP); Panko, Dan (MECP); Martin, Paul (MECP); Antunes, Marinha (MECP); EA Notices to CRegion (MECP); Duong, Michael (MECP)  
**Subject:** RE: Peel WRRF Class EAs - RWIA for G.E. Booth WRRF (GMBP#719051)

Dear Project Team, hope you're all doing well 😊

Further to the ministry's comments submitted by November 9, 2023, the ministry staff has reviewed the acoustic assessment report entitled "G. E. Booth Water Resource Recovery Facility (WRRF)" dated September 15, 2023, prepared by Anmol Bhardwaj and Henrik Olsen of Wood Group Asset Integrity Solutions Inc for the above noted Class EA project. The ministry has no concerns identified through our review and the acoustic assessment report is acceptable for the purpose of this Class EA project.

If your project team has any concerns, please let us know.

Many thanks,

*Chunmei Liu* (she/her) | Regional Environmental Planner

Environmental Assessments Branch, Ontario Ministry of the Environment, Conservation and Parks | 7th Flr, 135 St Clair Ave W, Toronto, ON M4V 1P5 | [Chunmei.Liu@ontario.ca](mailto:Chunmei.Liu@ontario.ca) | 437-249-3102

---

**From:** Liu, Chunmei (MECP) <Chunmei.Liu@ontario.ca>  
**Sent:** Thursday, November 9, 2023 10:30 AM  
**To:** Benjamin Peachman - GM BluePlan <Benjamin.Peachman@gmblueplan.ca>; cindy.kambeitz@peelregion.ca; LaurieBoyce@L3ESP.ca  
**Cc:** Battarino, Gavin (MECP) <Gavin.Battarino@ontario.ca>; Panko, Dan (MECP) <Dan.Panko@ontario.ca>; Martin, Paul (MECP) <Paul.D.Martin@ontario.ca>; Antunes, Marinha (MECP) <Marinha.Antunes@ontario.ca>; EA Notices to CRegion (MECP) <eanotification.cregion@ontario.ca>  
**Subject:** RE: Peel WRRF Class EAs - RWIA for G.E. Booth WRRF (GMBP#719051)

Good morning, Benjamin, Cindy and Laurie, hope you're all doing well 😊

The ministry has reviewed the Air Quality Assessment Report (AQA Report) in Appendix C and Executive Summary, Section 5.4.8 "Odour Control" and Section 6.2.7 "Air Quality and Odour Conditions" of the Draft Environmental Study Report (ESR) for the G.E. Booth Water Resource Recovery Facility (WRRF) in Mississauga, Ontario. Please find the following comments for your consideration:

1. Please clarify why the 10-minute SO<sub>2</sub> AAQC was not assessed in the AQA Report. For future assessments, the ministry recommends assessing air quality impacts against the 10-minute SO<sub>2</sub> AAQC.
2. The ministry recommends conducting an assessment of Total Reduced Sulphur (TRS - dimethyl disulphide, dimethyl sulphide, hydrogen sulphide, and mercaptans) for the proposed undertaking.



The final AQA Report should elaborate how TRS will comply with O. Reg. 409/05 Schedule 3 air standards.

3. Please note a correction is required on Table 3-1 “*Air Quality Standards and Criteria*” where it lists the 24-hour criteria for Hydrogen Sulphide (H<sub>2</sub>S) as 14 µg/m<sup>3</sup> instead it should be 7 µg/m<sup>3</sup>. Please revise Table 3-1 in the AQ Report accordingly.
4. Please clarify how the odour emission estimates were prorated. Please provide odour and H<sub>2</sub>S sample calculations for each source type.
5. Please clarify the methodology used in the dispersion modelling to evaluate the maximum H<sub>2</sub>S 10-minute point of impingement (POI) for the current and future scenarios. Table 7-6 reports the highest H<sub>2</sub>S 10-minute concentration at 12.87 µg/m<sup>3</sup> (R5/discrete receptor) which is higher than the maximum H<sub>2</sub>S POI (10.72 µg/m<sup>3</sup>) reported in Table 7-1.

The maximum POI is lower than the discrete receptor assessment, which should not be the case. The same is noted for the future undertaking on Table 7-2 where 3.25 µg/m<sup>3</sup> is reported as the maximum H<sub>2</sub>S 10-minute POI which is lower than the H<sub>2</sub>S 10-minute concentration reported on Table 7.6 (3.91 µg/m<sup>3</sup>). Please clarify.

6. It should be noted that the H<sub>2</sub>S 10-minute concentration (7.35 µg/m<sup>3</sup>) on Table 7-3 does not match the H<sub>2</sub>S 10-minute concentration on Table 7-2 (3.25 µg/m<sup>3</sup>). Please revise Tables 7-2 and 7-3 accordingly.
7. The dispersion modelling results, and frequency of exceedance analysis (Table 7-5) predict odour concentrations higher than 1 OU occurring for 4.2% on an annual basis at existing and future sensitive receptors. This is greater than the 0.5% recommended in the ministry’s Technical Bulletin (*Methodology for Modelling Assessments of Contaminants With 10-Minute Average Standards and Guidelines for Odour under O. Reg. 419/05*). It would be beneficial to develop a contingency plan for odour mitigation measures if proposed odour controls are not adequate.
8. The meteorological data shows the predominant winds in the study area are mainly from east-northeast direction placing the proposed Lakeview development downwind of G.E. Booth WRRF. The nearest sensitive receptor is approximately 250 metres from the headworks, which is an odorous process from the facility. Completing a site-wide odour emission inventory would be beneficial using odour emission rates from this facility, instead of estimates. This will provide more accurate odour concentrations at the sensitive receptors. In addition, a review of the best available odour control technology is recommended to assist the proponent with odour mitigation measures to avoid adverse impacts.
9. Table 7-5 notes that the odour results are the max. 44th highest modelled value as per the technical bulletin, however, please clarify if the meteorological anomalies were removed from the entire grid.
10. The AQA report did not discuss how the proposed undertaking will comply with Guideline A-9 – *NO<sub>x</sub> Emissions from Boilers and Heaters*. The Final AQA Report should include a brief discussion on how the proposed future preferred alternative scenario (Project B) will comply with Guideline A-9.
11. The following guidance documents should be considered when developing a preventive and odour best practices plan as noted in Sections 8 and 9 of the AQA report.

Draft Guideline to Address Odour Mixtures in Ontario (MECP, May 2021)

<https://ero.ontario.ca/notice/019-2768>

Draft Technical Bulletin Methodology for Completing an Odour Assessment for Odour Mixtures (MECP, March 2021)

<https://prod-environmental-registry.s3.amazonaws.com/2021-03/Draft%20Odour%20Assessment%20Technical%20Bulletin%202021.pdf>

Section 5.5 - [Best management practices for industrial sources of odour | ontario.ca](#)

Thank you for the opportunity to review the draft report. Feel free to contact me with any questions or concerns you may have, and please copy [eanotification.cregion@ontario.ca](mailto:eanotification.cregion@ontario.ca) on any project-related correspondence.

Sincerely,

*Chunmei Liu* (she/her) | Regional Environmental Planner

Environmental Assessments Branch, Ontario Ministry of the Environment, Conservation and Parks | 7th Flr, 135 St Clair Ave W, Toronto, ON M4V 1P5 | [Chunmei.Liu@ontario.ca](mailto:Chunmei.Liu@ontario.ca) | 437-249-3102

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**From:** Benjamin Peachman - GM BluePlan

**Sent:** Thursday, October 05, 2023 11:13 AM

**To:** Bell, Trevor (MECP) <[Trevor.Bell@ontario.ca](mailto:Trevor.Bell@ontario.ca)>

**Cc:** Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>; Laurie Boyce <[LaurieBoyce@L3ESP.ca](mailto:LaurieBoyce@L3ESP.ca)>

**Subject:** RE: Peel WRRF Class EAs - RWIA for G.E. Booth WRRF (GMBP#719051)

Hi Trevor,

Please find the links below for the relevant sections of the G.E. Booth WRRF Schedule C Class EA, completed in draft for your review and comment. We recognize that your team has already reviewed the RWIA (per correspondence below), but we've included it for completeness. Let me know if you require any other appendices.

Volume 0 (Executive Summary): [https://sendafile.gmblueplan.ca/public\\_uploads/2023-10-05\\_145937UTC\\_GEB\\_WRRF\\_EA\\_Vol.0\\_Executive\\_Summary.pdf](https://sendafile.gmblueplan.ca/public_uploads/2023-10-05_145937UTC_GEB_WRRF_EA_Vol.0_Executive_Summary.pdf)

Volume 1 (Environmental Study Report): [https://sendafile.gmblueplan.ca/public\\_uploads/2023-10-05\\_150152UTC\\_GEB\\_WRRF\\_EA\\_Vol.1\\_Environmental\\_Study\\_Report.pdf](https://sendafile.gmblueplan.ca/public_uploads/2023-10-05_150152UTC_GEB_WRRF_EA_Vol.1_Environmental_Study_Report.pdf)

Volume 2, Appendix B (Receiving Water Impact Assessment): [https://sendafile.gmblueplan.ca/public\\_uploads/2023-10-05\\_150854UTC\\_GEB\\_WRRF\\_EA\\_Vol.2\\_Appendix\\_B.pdf](https://sendafile.gmblueplan.ca/public_uploads/2023-10-05_150854UTC_GEB_WRRF_EA_Vol.2_Appendix_B.pdf)

Volume 2, Appendix C (Air Quality Assessment Report): [https://sendafile.gmblueplan.ca/public\\_uploads/2023-10-05\\_150955UTC\\_GEB\\_WRRF\\_EA\\_Vol.2\\_Appendix\\_C.pdf](https://sendafile.gmblueplan.ca/public_uploads/2023-10-05_150955UTC_GEB_WRRF_EA_Vol.2_Appendix_C.pdf)

Volume 2, Appendix D (Acoustic Assessment Report): [https://sendafile.gmblueplan.ca/public\\_uploads/2023-10-05\\_151117UTC\\_GEB\\_WRRF\\_EA\\_Vol.2\\_Appendix\\_D.pdf](https://sendafile.gmblueplan.ca/public_uploads/2023-10-05_151117UTC_GEB_WRRF_EA_Vol.2_Appendix_D.pdf)

Feel free to forward these links onto other MECP reviewers for download; the links will remain active for 21 days. We're hoping for comments to be provided by Nov 6<sup>th</sup> but we recognize reviewing bottlenecks can arise. Once comments are received, we'll make any necessary updates and submit for public review shortly thereafter.

Thank you and feel free to reach out with any questions,

**Benjamin Peachman, P. Eng.**

Infrastructure Planning

**GM BluePlan Engineering Limited**

Royal Centre | 3300 Highway No. 7, Suite 402 | Vaughan ON L4K 4M3

## Benjamin Peachman - GM BluePlan

---

**From:** Bell, Trevor (MECP) <Trevor.Bell@ontario.ca>  
**Sent:** Friday, July 28, 2023 1:26 PM  
**To:** Benjamin Peachman - GM BluePlan  
**Cc:** Kambeitz, Cindy; Laurie Boyce - GM BluePlan; Troy Briggs; Fiona Duckett; Mike Fullarton; Shen, Lisai (MECP); Belayneh, Ted (MECP)  
**Subject:** RE: Peel WRRF Class EAs - RWIA for G.E. Booth WRRF (GMBP#719051)

Hi Benjamin,

Thanks for providing the updated RWIA. The ministry reviewed the RWIA and we are satisfied with the revisions. We look forward to receiving the ESR when it is completed.

Best regards,  
Trevor

---

**From:** Benjamin Peachman - GM BluePlan <Benjamin.Peachman@gmblueplan.ca>  
**Sent:** July 18, 2023 1:54 PM  
**To:** Bell, Trevor (MECP) <Trevor.Bell@ontario.ca>  
**Cc:** Kambeitz, Cindy <cindy.kambeitz@peelregion.ca>; Laurie Boyce - GM BluePlan <Laurie.Boyce@gmblueplan.ca>; Troy Briggs <troy.briggs@cima.ca>; Fiona Duckett <duckett@baird.com>; Mike Fullarton <mfullarton@baird.com>; Shen, Lisai (MECP) <Lisai.Shen@ontario.ca>; Belayneh, Ted (MECP) <Ted.Belayneh@ontario.ca>  
**Subject:** RE: Peel WRRF Class EAs - RWIA for G.E. Booth WRRF (GMBP#719051)

**CAUTION -- EXTERNAL E-MAIL - Do not click links or open attachments unless you recognize the sender.**

Hi Trevor,

As requested, we've revised the RWIA for the G.E. Booth WRRF EA to reflect the updated TAN numbers (see link below). Let us know if there are any further updates to the RWIA that the MECP would like to see.

File Name : [https://sendafile.gmblueplan.ca/public\\_uploads/2023-07-18\\_174044UTC\\_GEB\\_WRRF\\_EA\\_RWIA\\_Technical\\_Memo\\_v3.pdf](https://sendafile.gmblueplan.ca/public_uploads/2023-07-18_174044UTC_GEB_WRRF_EA_RWIA_Technical_Memo_v3.pdf)

As an update on the G.E. Booth EA, we're nearing completion of the ESR and are aiming to have it ready for review by the MECP by early to mid-August. Similar to our review process for the Clarkson EA, we'll circulate you the relevant sections and we're hoping that your comments can be provided within a 4-6 week window (understanding that this is typically a time period with increased vacations). Hopefully this works with your staff but let me know if there are any concerns.

Thanks,

**Benjamin Peachman, P. Eng.**  
Infrastructure Planning

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t: 416.703.0667 ext. 7216 | c: 437.328.5016  
[benjamin.peachman@gmblueplan.ca](mailto:benjamin.peachman@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)





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**From:** Benjamin Peachman - GM BluePlan  
**Sent:** Tuesday, May 09, 2023 9:09 AM  
**To:** Bell, Trevor (MECP) <[Trevor.Bell@ontario.ca](mailto:Trevor.Bell@ontario.ca)>  
**Cc:** Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>; Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; troy.briggs <[troy.briggs@cima.ca](mailto:troy.briggs@cima.ca)>; Fiona Duckett <[duckett@baird.com](mailto:duckett@baird.com)>; Mike Fullarton <[mfullarton@baird.com](mailto:mfullarton@baird.com)>; Shen, Lisai (MECP) <[Lisai.Shen@ontario.ca](mailto:Lisai.Shen@ontario.ca)>; Belayneh, Ted (MECP) <[Ted.Belayneh@ontario.ca](mailto:Ted.Belayneh@ontario.ca)>  
**Subject:** RE: Peel WRRF Class EAs - RWIA for G.E. Booth WRRF (GMBP#719051)

Hi Trevor,

Thank you for your comments & the ministry's review. We are revised the report to reflect the updated TAN numbers and will circulate back 'final' once available.

Regards,

**Benjamin Peachman, P. Eng.**  
Infrastructure Planning

**GM BluePlan Engineering Limited**  
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[benjamin.peachman@gmblueplan.ca](mailto:benjamin.peachman@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



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**From:** Bell, Trevor (MECP) <[Trevor.Bell@ontario.ca](mailto:Trevor.Bell@ontario.ca)>  
**Sent:** Thursday, April 20, 2023 9:44 AM  
**To:** Benjamin Peachman - GM BluePlan <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>  
**Cc:** Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>; Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; troy.briggs <[troy.briggs@cima.ca](mailto:troy.briggs@cima.ca)>; Fiona Duckett <[duckett@baird.com](mailto:duckett@baird.com)>; Mike Fullarton <[mfullarton@baird.com](mailto:mfullarton@baird.com)>; Shen, Lisai (MECP) <[Lisai.Shen@ontario.ca](mailto:Lisai.Shen@ontario.ca)>; Belayneh, Ted (MECP) <[Ted.Belayneh@ontario.ca](mailto:Ted.Belayneh@ontario.ca)>  
**Subject:** RE: Peel WRRF Class EAs - RWIA for G.E. Booth WRRF (GMBP#719051)

Good morning,

The ministry completed its review of the Receiving Water Impact Assessment (RWIA) for the G.E. Booth Water Resource Recovery Facility (WRRF) Schedule C Municipal Class EA, dated March 2023. The rated capacity of the G.E. Booth WRRF is planned to be increased from 518 MLD to 550 MLD by ~2041. The ministry acknowledges that the proposed new outfall will improve initial mixing and reduce concerns over sensitive receivers. We concur with the technical assessment presented in the RWIA (Baird, November 3, 2022) and we have no objections to the proposed objective and limits.

The only comment we have is regarding total ammonia nitrogen (TAN) numbers in the previous ECA and the current proposal (Table 9-1). Some ECAs did not differentiate total ammonia and TAN in the objective and limits. Values showing in some ECAs are total ammonia and should be converted to TAN by multiplying 0.824. For example, 16 mg/L total ammonia ->13.2 mg/L TAN, 8 mg/L total

ammonia -> 6.6 mg/L TAN. We clarified this issue during Clarkson EA/ACS review (MECP comments dated March 23, 2022) and a revised copy (Table 3-1 below) was submitted in August 2022. We think it will be beneficial for Peel region to harmonize TAN targets in the two ECAs and it will be easier for operators to understand.

**Table 9-1: Summary of Proposed Effluent Limits and Objectives for the G.E. Booth WRRF Expansion**

Parameter	Existing ECA	Proposed Future Conditions
<b>Effluent Limits</b>		
cBOD <sub>5</sub>	25 mg/L	25 mg/L
TSS	25 mg/L	25 mg/L
<b>TAN</b>	16.0 mg/L (May 1 – May 31) 8.0 mg/L (June 1 – Sept 30) 16.0 mg/L (Oct 1 - Oct 31) 34.0 mg/L (Nov 1 - Apr 30)	16.0 mg/L (May 1 – May 31) 8.0 mg/L (June 1 – Sept 30) 16.0 mg/L (Oct 1 - Oct 31) 34.0 mg/L (Nov 1 - Apr 30)
TP	0.80 mg/L	0.75 mg/L
Total Residual Chlorine (TRC)	0.02 mg/L	0.02 mg/L
E. Coli	200 organisms per 100 mL	200 organisms per 100 mL
pH	6.0 – 9.5 inclusive	6.0 – 9.5 inclusive
<b>Effluent Objectives</b>		
cBOD <sub>5</sub>	15 mg/L	15 mg/L
TSS	15 mg/L	15 mg/L
<b>TAN</b>	8.0 mg/L (May 1 – May 31) 6.0 mg/L (June 1 – Sept 30) 8.0 mg/L (Oct 1 - Oct 31) 17.0 mg/L (Nov 1 - Apr 30)	8.0 mg/L (May 1 – May 31) 6.0 mg/L (June 1 – Sept 30) 8.0 mg/L (Oct 1 - Oct 31) 17.0 mg/L (Nov 1 - Apr 30)
TP	0.70 mg/L	0.65 mg/L
TRC <sup>1</sup>	0.0 mg/L	0.0 mg/L
E. Coli	150 organisms per 100 mL	150 organisms per 100 mL
pH	6.5 – 8.5 inclusive	6.5 – 8.5 inclusive

Note 1: Total Residual Chlorine (TRC) shall be non-detectable as measured by a method with a sensitivity of at least 0.02 mg/L.

**Table 3-1: Clarkson WWTP Design Objectives and Compliance Limits  
(Amended ECA NUMBER 0729-9KBNNY, June 2014)**

Parameter	Effluent Design Objectives	Compliance Limits	
	Concentration	Concentration	Loading (kg/d) <sup>3</sup>
Carbonaceous Biological Oxygen Demand (CBOD <sub>5</sub> ) <sup>1</sup>	15 mg/L	25 mg/L	
Total Suspended Solids (TSS) <sup>2</sup>	15 mg/L	25 mg/L	
Total Phosphorous (TP)	0.8 mg/L	1.0 mg/L	350
<b>Total Ammonia Nitrogen (TAN)<sup>2</sup></b>			
May 1 to June 15	6.6 mg/L	13.2 mg/L	
June 16 to Sept 15	6.6 mg/L	10.5 mg/L	
Sept 16 to Oct 31	6.6 mg/L	13.2 mg/L	
Nov 1 to Apr 30	13.2 mg/L	24.7 mg/L	
<i>E. coli</i>		200 organisms/100mL (June 1 to September 30)	
Total Chlorine Residual	0.0 mg/L		
pH	6.5 to 9.0		

<sup>1</sup> Based on annual average concentration values

<sup>2</sup> Based on monthly average concentration values

<sup>3</sup> Based on the annual average daily loading during any calendar year

Note: The Amended ECA NUMBER 0729-9KBNNY issued June 2014 mistakenly expressed total ammonia as TAN. The table above has been corrected accordingly, and the future amended ECA for the Clarkson WWTP will also be corrected.

Thank you for the opportunity to review the RWIA. Feel free to contact me directly with any questions you may have.

## Benjamin Peachman - GM BluePlan

**From:** Bell, Trevor (MECP) <Trevor.Bell@ontario.ca>  
**Sent:** Friday, March 10, 2023 12:04 PM  
**To:** Benjamin Peachman - GM BluePlan  
**Cc:** Laurie Boyce - GM BluePlan  
**Subject:** RE: Peel WRRF Class EAs - RWIA for G.E. Booth WRRF (GMBP#719051)

Hi Benjamin,

I heard back from my colleagues in the surface water group, and they confirmed what I suggested earlier. They are not at the point yet where they are able to schedule meeting to discuss the RWIA. Once they've had a chance to conduct a thorough review, they'll have a better idea of what comments and/or questions they'll have for your team, as well as a better idea of when they will be prepared to meet for the discussion.

I'll get back in touch with you to schedule the meeting once we have a better idea of precisely when the review will be complete.

Thanks,  
Trevor

**From:** Bell, Trevor (MECP)  
**Sent:** March 10, 2023 10:55 AM  
**To:** Benjamin Peachman - GM BluePlan <Benjamin.Peachman@gmblueplan.ca>  
**Cc:** Laurie Boyce - GM BluePlan <Laurie.Boyce@gmblueplan.ca>  
**Subject:** RE: Peel WRRF Class EAs - RWIA for G.E. Booth WRRF (GMBP#719051)

Hi Benjamin,

Thanks for your email. I have tasked out the technical review of the RWIA to our surface water group, and we are aiming for early April to complete the review and provide comments. I am aware that they are swamped with requests for review and that they are short-staffed, so it is possible that it may take longer than that.

I will forward your request to meet to discuss the RWIA and to field any questions from our side to the surface water group. I'm sure they will be happy to meet, but they will need some time to review the report in order to formulate any questions/comments they may have, so possibly early April could work.

I'll follow-up with you asap.

Thanks,  
Trevor

**From:** Benjamin Peachman - GM BluePlan <Benjamin.Peachman@gmblueplan.ca>  
**Sent:** March 10, 2023 10:37 AM  
**To:** Bell, Trevor (MECP) <Trevor.Bell@ontario.ca>



**Cc:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>

**Subject:** FW: Peel WRRF Class EAs - RWIA for G.E. Booth WRRF (GMBP#719051)

**CAUTION -- EXTERNAL E-MAIL - Do not click links or open attachments unless you recognize the sender.**

Hi Trevor,

I realize we only sent the attached RWIA for the G.E. Booth WRRF expansion project ~ a week ago but we were wondering if it would be possible to set up a meeting for later this month or early April so the project team can provide a brief overview of the RWIA results and/or field any questions the MECP may have on the report. Let us know if your team has any availability and we'll find a time that works for everyone.

Thanks and have a good weekend,

**Benjamin Peachman, P. Eng.**

Infrastructure Planning

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---

**From:** Benjamin Peachman - GM BluePlan

**Sent:** Wednesday, March 01, 2023 12:12 PM

**To:** Bell, Trevor (MECP) <[Trevor.Bell@ontario.ca](mailto:Trevor.Bell@ontario.ca)>

**Cc:** Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>; Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; Troy Briggs <[troy.briggs@cima.ca](mailto:troy.briggs@cima.ca)>; Fiona Duckett <[duckett@baird.com](mailto:duckett@baird.com)>; Mike Fullarton <[mfullarton@baird.com](mailto:mfullarton@baird.com)>

**Subject:** Peel WRRF Class EAs - RWIA for G.E. Booth WRRF (GMBP#719051)

Hi Trevor,

Hope you are doing well. Please find attached the Receiving Water Impact Assessment (RWIA) package for the G.E. Booth Water Resource Recovery Facility (WRRF) for review and comment. Feel free to reach out with any questions & if you are able to let us know when we could expect comments, that would be appreciated.

We are completing our final PIC for the G.E. Booth EA on March 15<sup>th</sup> and will be looking to issue the Notice of Completion/ESR shortly thereafter. We'll circulate the draft ESR for MECP review & comment similar to our approach for the Clarkson EA.

Thanks,

**Benjamin Peachman, P. Eng.**

Infrastructure Planning

**GM BluePlan Engineering Limited**

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-----Original Appointment-----

**From:** Dania Chehab - GM BluePlan

**Sent:** Monday, October 18, 2021 10:46 AM

**To:** Dania Chehab - GM BluePlan; Bell, Trevor (MECP); Kambeitz, Cindy; Sekula, Dominika; Laurie Boyce - GM BluePlan; Jasmine Biasi - GM BluePlan; Troy Briggs; Fiona Duckett; Mike Fullarton; Hennings, Jeff

**Cc:** Simpson, Wayne (MECP); Belayneh, Ted (MECP); Shen, Lisai (MECP); Chee Sing, Elizabeth (MECP); Nowicki, Amanda (MECP); Chris Hamel - GM BluePlan; Ahmed, Aziz (MECP)

**Subject:** Peel WWTPs Class EAs - MECP Review Meeting

**When:** Monday, November 22, 2021 1:00 PM-3:00 PM (UTC-05:00) Eastern Time (US & Canada).

**Where:** Microsoft Teams Meeting

Hello everyone,

The purpose of this meeting will be to meet with the MECP to discuss the above-referenced Class EAs.

Trevor, could you please forward this invitation to the reviewers.

Thanks,  
Dania

## Microsoft Teams meeting

**Join on your computer or mobile app**

[Click here to join the meeting](#)

**Or call in (audio only)**

+1 647-749-5899,,544797559# Canada, Toronto

Phone Conference ID: 544 797 559#

[Find a local number](#) | [Reset PIN](#)

## Schedule C Class Environmental Assessments and Conceptual Designs of the South Peel Wastewater Treatment Plants

### Meeting with Ministry of Environment, Conservation and Parks – Meeting Minutes

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**Meeting Date/Time:** November 22, 2021 1:00 pm to 3:00 pm

**Location:** Teams Meeting

**Minutes Prepared by:** Jasmine Biasi (GM BluePlan); reviewed by Dania Chehab, Laurie Boyce (GM BluePlan), Troy Briggs (CIMA+)

**Date of Minutes:** November 23, 2021

#### Attendance

**Chair:** Chris Hamel (CH), GM BluePlan

<b>Attendees:</b>	<b>MECP</b>	<b>Region of Peel</b>	<b>Consultant Team</b>
	Aziz Ahmed (AA)	Cindy Kambeitz (CK), Project Manager	Troy Briggs (TBr), CIMA
	Ted Belayneh (TeB)	Jeff Hennings (JH), Project Director	Dania Chehab (DC), GM BluePlan
	Trevor Bell (TrB)	Dominika Sekula (DS), Peel Compliance	Jasmine Biasi (JB), GM BluePlan
	Elizabeth Chee Sing (EC)		Fiona Duckett (FD), Baird
	Rachael Fletcher (RF)		Mike Fullarton (MF), Baird
	Amanda Nowicki (AN)		Abigail MacKenzie (AM), Baird
	Lisai Shen (LS)		
	Wayne Simpson (WS)		

Agenda Item	Discussion Topic	Discussion Comments / Action
1.	<p>CH and TBr provided a brief overview of the project background and progress to date for each Class EA. TBr summarized the design concept elements presented in the slides:</p> <ul style="list-style-type: none"> <li>• Clarkson Expansion from 350 to 500 MLD – Conventional Expansion with CEPT within existing outfall capacity               <ul style="list-style-type: none"> <li>○ Technology provides more stable opportunity for phosphorous removal</li> </ul> </li> </ul>	



	<ul style="list-style-type: none"> <li>• GE Booth Expansion from 500 to 500 MLD – Decommissioning lagoons</li> <li>• Project is focusing on resiliency to existing and future peak flows entering the plant and climate change</li> <li>• Biosolids Management at each facility is a significant component of both EAs</li> </ul>	
2.	<p>FD presented an overview of the Receiving Water Impact Assessment (RWIA) Approach:</p> <p>Lake Ontario Ambient Conditions</p> <ul style="list-style-type: none"> <li>• All parameters looked at in under the 75<sup>th</sup> percentile (Ammonia, TAN, Phosphorous)</li> <li>• Current Speeds look at the 25<sup>th</sup> percentile (conservative to address potential low mixing conditions under a worst-case scenario)</li> </ul> <p>Effluent Conditions &amp; Compliance Objectives/Limits</p> <ul style="list-style-type: none"> <li>• Existing TP ECA limit is 1.0 mg/L; looking at opportunities for future TP limit to be 0.7 mg/L</li> </ul> <p>Target Dilutions</p> <ul style="list-style-type: none"> <li>• Clarkson WWTP Existing Conditions (Flow of 350 MLD, TP limit of 1.0 mg/L)</li> <li>• Clarkson WWTP Future Conditions (Flow of 500 MLD, TP limit of 0.7 mg/L)</li> </ul>	<p>DC: Same overall loading rate as current approved amount would be maintained while the proposed limit is modified from 1.0 to 0.7 mg/L</p> <p>FD: TP governs dilution requirements; highest required dilution is 97:1 in the summer season (mixing required to meet Provincial Water Quality Objectives (PWQO))</p> <p>FD: Lower TP limit results in TAN governing dilution requirements during the winter season, while TP governs under all other seasons</p>
3.	<p>FD and MF presented the Clarkson WWTP Preliminary CORMIX model results</p> <ul style="list-style-type: none"> <li>• Model considered existing diffuser system (no new outfall proposed)</li> </ul>	

	<ul style="list-style-type: none"> <li>• CORMIX results for existing conditions (350 MLD flow with TP limit of 1.0 mg/L)</li>   <li>• CORMIX results for expansion conditions (500 MLD flow with TP limit of 0.7 mg/L)</li>   <li>• Significance of the half pipe length in calculations/analysis</li> </ul>	<p>FD: Dilutions modeled on existing conditions (350 MLD, TP 1.0 mg/L) would not meet the PWQO targets for the half pipe length (900 m)</p> <ul style="list-style-type: none"> <li>• Target dilutions approximately met during winter season only</li> <li>• Considering 75<sup>th</sup> percentile target dilution, the plant is performing well (e.g. summer target of 53, but dilution of 65)</li> </ul> <p>FD: With a TP limit of 0.7 mg/L at 500 MLD, dilutions would not meet the PWQO targets for the half pipe length (900 m)</p> <ul style="list-style-type: none"> <li>• Target dilutions would be approximately met during spring season only</li> <li>• Considering 75<sup>th</sup> percentile dilution requirements, targets would be met at half pipe length under all seasons</li> </ul> <p>FD: Half pipe length is a value that has been used by MECP in the past</p> <ul style="list-style-type: none"> <li>• Value is not stated in MECP documentation; however, a letter from MECP during the previous Clarkson expansion identified the half pipe length as the location to look at in terms of mixing zones to achieve the PWQOs</li> <li>• TeB: Provided more context for use of the half pipe length <ul style="list-style-type: none"> <li>○ Ministry guidelines for mixing zone boundaries are numerical values - helps to define the general location of the mixing zone where PWQO needs to be met</li> <li>○ Good criteria to use as a screening for how large a mixing zone is, but is not a legal cut off that needs to be met</li> </ul> </li> <li>• MF: Mixing zone vs. near field region <ul style="list-style-type: none"> <li>○ Mixing zone is considered to be an area not yet meeting PWQO</li> <li>○ Near field region is a physical process that is well defined where the plume itself has experienced rapid dilution and the mixing that occurs close to</li> </ul> </li> </ul>
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		<p>the diffuser begins to terminate (currents begin to dominate – mixing occurs at a slower rate)</p> <ul style="list-style-type: none"> <li>○ Near field region generally terminates within 100-200m from the outfall (well within the 900m half pipe length)</li> </ul>
4.	<p>FD and MF presented the Clarkson WWTP Preliminary MIKE3 (far-field) model results</p>	<p>Comparing the modelled existing TP conditions vs. future TP Conditions; dropping TP level to 0.7 mg/L would result in better plant performance compared to existing</p> <ul style="list-style-type: none"> <li>● Key takeaway from analysis is that an increased flow (500 MLD) does not result in any worse plant performance (Area of TP Mixing Zone that is exceeding limits will decrease with increased flow from 0.87km<sup>2</sup> to 0.69km<sup>2</sup>)</li> </ul> <p>TeB: Recommended analyzing various scenarios within the MIKE3 Model; e.g. include southerly winds factor that can result in varying dilution levels and associated plume movement</p> <ul style="list-style-type: none"> <li>● MF: MIKE3 model partially considers this time-variability, presented through time series output.</li> <li>● MF: Opportunity to look at retrofitting duckbill valves on diffusers in order to increase jet and port velocity and further improve mixing</li> </ul> <p><b>ACTION: Baird to document that MIKE3 model considered impacts of southerly winds etc. on dilution and mixing.</b></p> <ul style="list-style-type: none"> <li>● <b>Baird confirmed that MIKE3 model runs cover an 8 month period that includes southerly events. Mixing during southerly events will be discussed in the report.</b></li> </ul>
5.	<p>Preliminary CORMIX results for GE Booth WWTP Expansion</p> <ul style="list-style-type: none"> <li>● New outfall proposed to address hydraulic constraints</li> <li>● Various tests completed under various pipe lengths and diffuser spacing to identify distance needed to achieve target dilutions</li> </ul>	<ul style="list-style-type: none"> <li>● TeB: Has the 2000m outfall length been optimized? Is it possible to optimize the length, for example, make the outfall longer to offer more long term flexibility?</li> </ul> <p><b>ACTION: consultant team to consider optimizing outfall length</b></p>



		<ul style="list-style-type: none"> <li>• MECP: what will be done with the existing outfall? TrB explained that existing outfall at G.E. Booth would be used as an emergency backup in the future, e.g. necessary maintenance on new outfall.</li> </ul> <p><b>ACTION: EA to comment on proposed conditions under which the backup outfall would be used.</b></p> <p>CORMIX results under 550 MLD with 51 diffuser ports (10 m spacing) would require 1000m half pipe length for dilution targets to be met</p> <ul style="list-style-type: none"> <li>• Due to proximity of the outfall to nearby WTP IPZs, sourcewater protection plans may need to be updated, including analysis of spills or other events to determine how IPZs could be impacted.</li> <li>• FD indicated that Source Protection Committee has been contacted to confirm their requirements.</li> <li>• <b>Post-meeting note and Action: Source Protection Committee requested additional modeling; Consultant Team to coordinate.</b></li> <li>• Increasing diffuser length to 750m (greater spacing) results in improved mixing (recommended)</li> </ul> <p>DS suggested bypass events be considered in the model analysis</p> <ul style="list-style-type: none"> <li>• FD: MECP only requires average flow conditions to be considered in modelling process</li> </ul>
6.	Additional Discussion/ Recommendations from MECP	<p><b>MECP suggested showing potential impacts to changes in lake levels, e.g. to show high and low water levels. Baird indicated that a conservative low water level was used for model runs (Chart Datum).</b></p> <p><b>TBr provided an overall summary:</b></p> <ul style="list-style-type: none"> <li>• TP is the limiting parameter</li> <li>• Proposed to maintain the same loading limit for TP as existing</li> </ul>

	<ul style="list-style-type: none"> <li>• Continuing with the same TP loading offers net benefit and is still achievable with conventional treatment for Clarkson WWTP</li> <li>• For G.E. Booth WWTP, objective will be to provide a longer outfall while avoiding impacts to nearby WTPs</li> </ul> <p><b>TeB provided overall comments on behalf of MECP:</b></p> <ul style="list-style-type: none"> <li>• Agreement that TP is limiting and maintaining existing TP loading was well received</li> <li>• Recommended adding more information to illustrate how keeping the same TP loading would be a net improvement</li> <li>• Recommended discussion of and comparison to existing actual TP loading</li> <li>• Recommended that the ESR comment on emerging contaminants such as pharmaceuticals as a water quality constituent of concern due to proximity to WTP intakes; TeB acknowledged that this field is not regulated and does not have standards for WW treatment yet, but should be noted in the ESRs</li> <li>• LS: what ECA limits are being proposed for TAN and TP?</li> <li>• TBr: for Clarkson WWTP, will be proposing very similar limits for TAN and lower TP concentration. For G.E. Booth WWTP, since there will be a new outfall, ECA limits will be proposed to be the same as existing.</li> </ul> <p><b>ACTION: consultant team to take above MECP comments into consideration when completing the EAs</b></p>
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A copy of the presentation material is enclosed and forms a part of these meeting minutes.

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**Next Meeting:** TBD

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Notice of any errors or omissions in this document should be communicated by attendees to minute taker within two (2) weeks of issue of these minutes.



# Peel Wastewater Treatment Solutions

G.E. Booth WWTP Schedule C Class EA  
Clarkson WWTP Schedule C Class EA

Meeting with Ministry of Environment,  
Conservation and Parks

—  
November 22, 2021





**Propose:** To receive MECP input on initial Receiving Water Assessment Results (primarily for the Clarkson WWTP) to aid in establishment of effluent quality requirements

- **Introduction**

- **Project Background and Progress To Date (GM BluePlan)**

- **Receiving Water Assessment (Baird)**

- Approach
- Preliminary CORMIX and MIKE3 Model Results – Clarkson WWTP
- Preliminary CORMIX Model Results – G.E. Booth

- **Schedule and Next Steps**

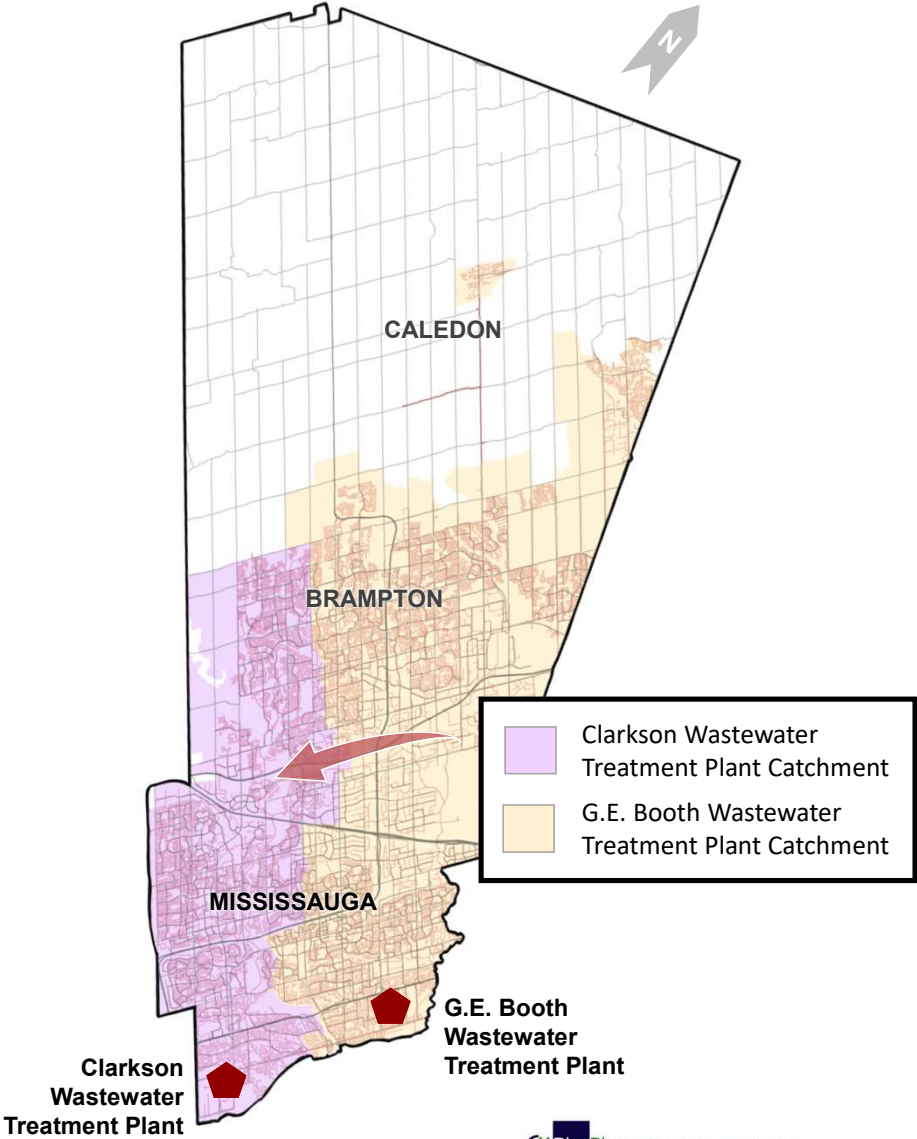
# Peel's Wastewater Treatment System



**Clarkson Wastewater Treatment Plant**



**G.E. Booth Wastewater Treatment Plant**



## The Region is undertaking two Schedule C Class EAs to develop preferred solutions at the G.E Booth WWTP and the Clarkson WWTP that will:

- Meet future needs associated with population growth, new regulations, climate resiliency, energy efficiency, and wet weather flow management
- Address community expectations regarding level of service, odour, air/noise, water quality, protection of the environment and aesthetics
- Provide greater flexibility and reliability in wastewater and biosolids management.

**Currently in Phase 3 of the Class EA process.**



# Phase 2 Recommended Solutions

## Expand Clarkson WWTP from 350 MLD to 500 MLD



## Expand G.E. Booth WWTP from 500 MLD to 550 MLD





- **Developed long-list of design concepts for wastewater treatment (liquids) and biosolids for each plant**
- **Screened the long-list of design concepts and identified short-listed design concepts**
- **Evaluated short-list and identified preliminary recommended design concept elements:**
  - Conventional Activated Sludge optimized with CEPT.
  - Enhancing biosolids treatment on-site through expanded anaerobic digestion and direct thermal drying. End product would be an enhanced product, allowing for flexible land use of biosolids
- **Currently developing the recommended design concept**
- **Value Engineering Session scheduled for January 2022**
- **PIC 3 in February/March 2022**

- Developed long-list of alternatives for wastewater treatment (liquids) and biosolids for each plant
- Screened the above and identified short-listed design concepts:

## Secondary Treatment

1. Conventional Activated Sludge.
2. Conventional Activated Sludge optimized with CEPT.
3. Conventional Activated Sludge optimized with WWF treatment.

## Disinfection

1. Chlorination/Dechlorination
2. UV Disinfection

## Biosolids

1. Continue with incineration
2. Implement technology to reduce sludge mass and volume prior to incineration, e.g. mesophilic anaerobic digestion, thermal hydrolysis
3. Contingency plan for beneficial use treated sludge beyond incineration capacity, e.g. transport to Clarkson or other off-site end use

- Currently evaluating design concepts to identify preliminary recommended
- Value Engineering Session planned for March/April 2022
- PIC 3 in June or September 2022





# Peel Region WWTP RWIA

Preliminary CORMIX & MIKE3 Model Results – Clarkson WWTP

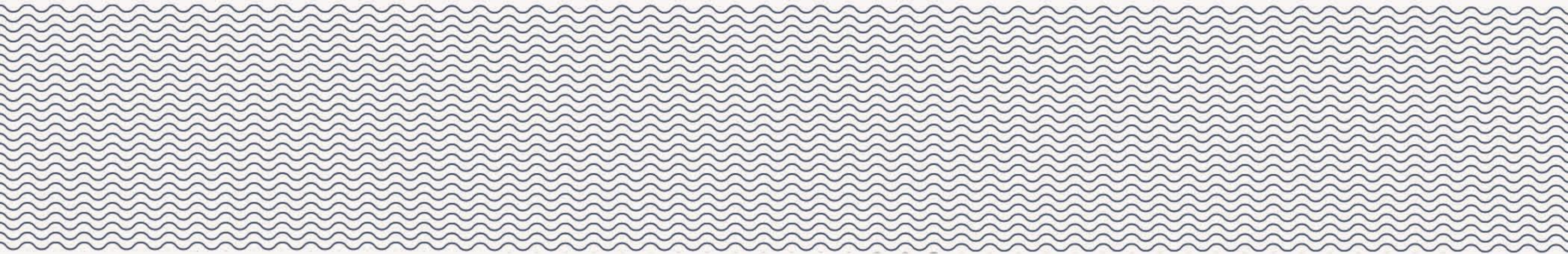
November 4, 2021



# RWIA Approach (Clarkson & Booth)

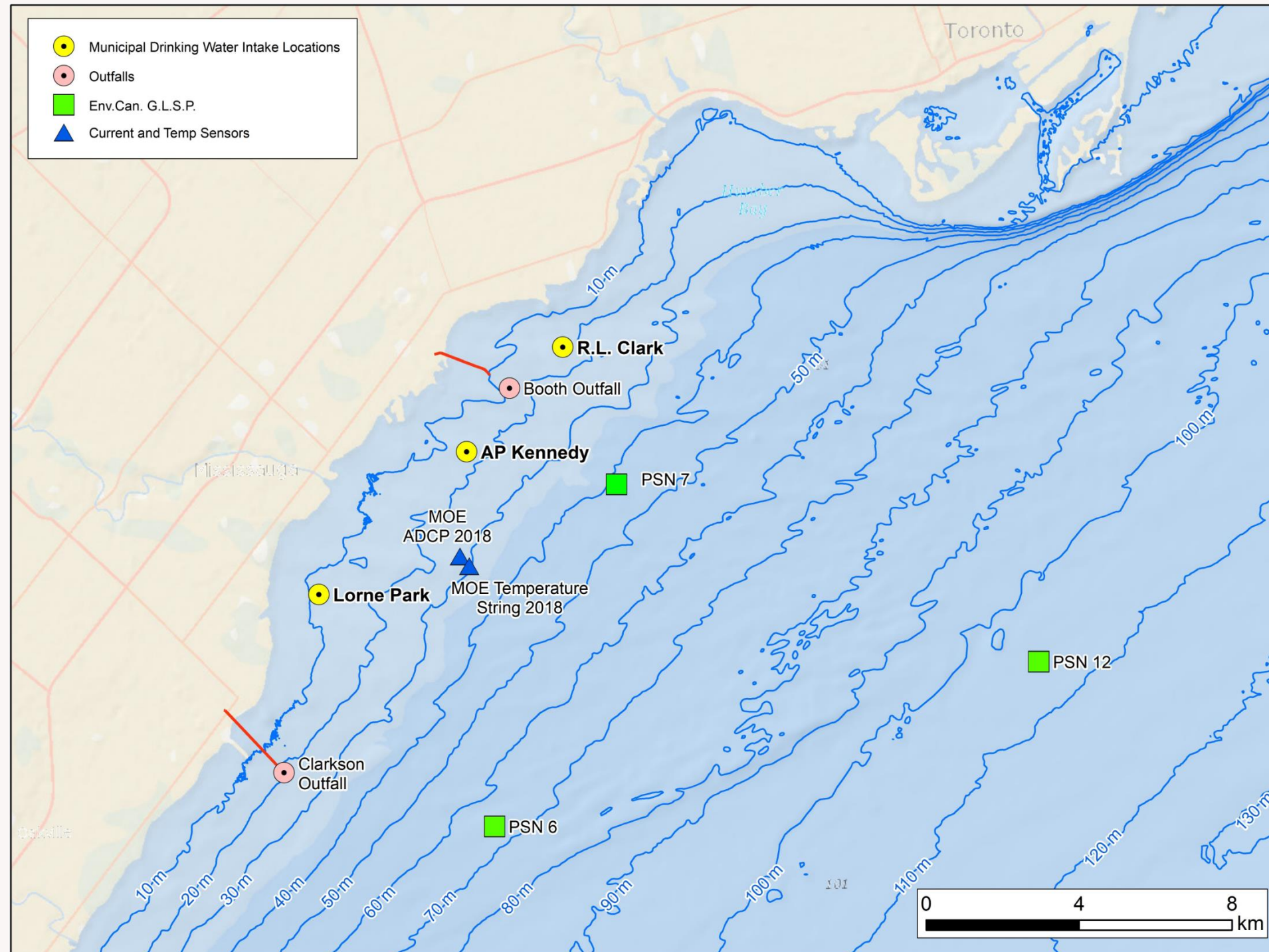
- Define ambient conditions
  - Physical characteristics (currents, temperature)
  - Water quality parameters (TP, TAN, UIA, pH, *E.coli*)
- Define effluent conditions
  - Flow rates & water temperatures
  - Water quality parameters (TP, TAN, UIA, pH, *E.coli*)
- Determine target dilution/effluent targets
  - Use water quality objectives for the lake
  - Governing constituent (highest dilution)
- Evaluate diffuser outfalls and mixing zones (modelling)
  - Near-field (CORMIX)
  - Far-field (MIKE3)

# Ambient Lake Conditions





# Ambient Conditions: Data Source Locations



# Ambient Conditions: Data Sources

Agency	Program	Station	Collection Period	Sampling Frequency	Measured Parameters
Lake Water Quality					
MOE	DWSP	Lakeview Lorne Park RL Clark	2013-2020	1 to 4 times per year	TP, pH, Ammonia
Environment Canada	GLSP	6, 7, 12	2001-2018	1-3 times per year	TP, DO, Ammonia
Municipal	WTP Raw Water Sampling	AP Kennedy Lorne Park	2015-2020	~ 2 days	E.coli
Physical Lake Characteristics					
MOE	Temp String	GTA1	2018	Hourly	Temp
MOE	ADCP	Etobicoke	2018	30 min	Currents

# Lake Ontario Ambient Conditions

Parameter	PWQO	All Data	Winter (Dec-Feb)	Spring (Mar-May)	Summer (June-Aug)	Fall (Sept-Nov)
75 <sup>th</sup> Percentile						
UIA (mg/L) <sup>4</sup>	0.02	0.0018	0.0009	0.0004	0.0052	0.0007
TAN (mg/L) <sup>1,5</sup>	0.5	0.029	0.038	0.014	0.041	0.021
TP (mg/L) <sup>1</sup>	0.02	0.008	0.006	0.007	0.010	0.010
E.coli (counts/100mL) <sup>3</sup>	100	2	2	1	1	2
pH <sup>1</sup>	-	8.2	8.2	8.3	8.5	7.9
Temperature (C) <sup>2</sup>	-	12.8	5.0	7.0	20.0	19.0
25 <sup>th</sup> Percentile						
Current Speed (m/s)	-	0.04	0.04	0.04	0.04	0.04

<sup>1</sup>GLSP/DWSP

<sup>2</sup>AP Kennedy WTP/MOE

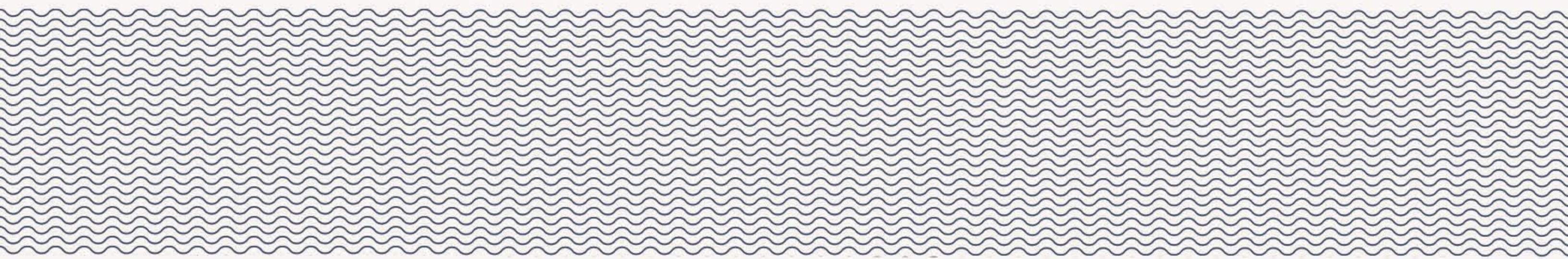
<sup>3</sup>AP Kennedy WTP

<sup>4</sup>Calculated

<sup>5</sup>GLWQA



Clarkson WWTP



# Existing Clarkson Effluent Conditions

Parameter	PWQO	Basis	Winter (Dec-Feb)	Spring (Mar-May)	Summer (June-Aug)	Fall (Sept-Nov)
UIA (mg/L) <sup>1</sup>	0.02	75 <sup>th</sup>	0.0016	0.0015	0.0024	0.0028
TAN (mg/L) <sup>2</sup>	0.5	Limits/75 <sup>th</sup>	30/1.10	25/1.00	13/0.99	20/1.00
TP (mg/L)	0.02	Limits/75 <sup>th</sup>	1/0.45	1/0.47	1/0.55	1/0.51
E.coli (counts/100mL) <sup>3</sup>	100	Geomean	6368	1628	19	1425
pH	-	75 <sup>th</sup>	6.8	6.9	6.8	6.9
Temperature (C)	-	75 <sup>th</sup>	16.6	16.3	22	21.6
Flow (Average)	350 MLD increased to 500 MLD					

<sup>1</sup>Calculated

<sup>2</sup>GLWQA

<sup>3</sup>No disinfection in winter

Based on data from 2016-2020



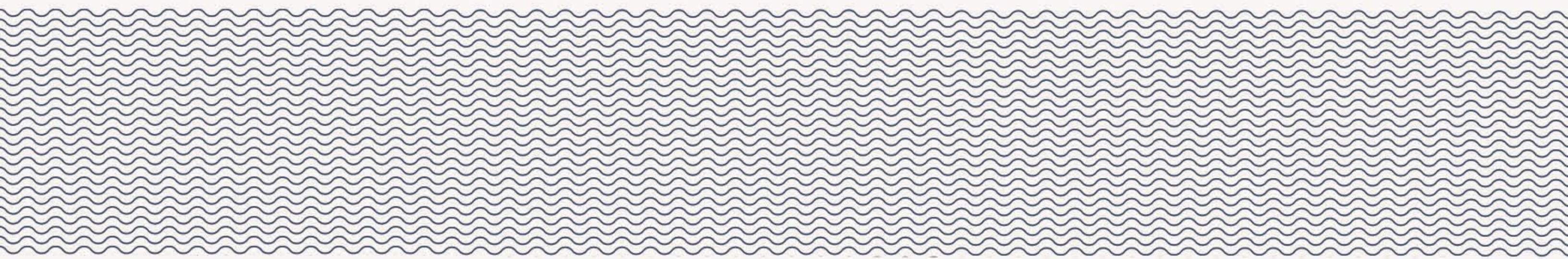
## Clarkson Wastewater Treatment Plant

Parameter	Averaging Calculator	ECA Objective (mg/L)	ECA Limit (mg/L)	Average Waste Loading (kg/d)
CBOD (mg/L)	Annual Average Effluent Concentration	15.0	25.0	N/A
TSS (mg/L)	Annual Average Effluent Concentration	15.0	25.0	N/A
TP (mg/L)	Monthly Average Effluent Concentration	0.8	1.0	350.0
TAN(mg/L)	Monthly Average Effluent Concentration	8.0 (May 1 - Oct 31) 16.0 (Nov 1 - Apr 30)	16.0 (May 1 - June 15) 12.8 (Jun 16 - Sep 15) 16.0 (Sep 16 - Oct 31) 30.0 (Nov 1 - Apr 30)	N/A

- Flow increased from 350 MLD to 500 MLD
- Maintain same loading – TP limit of 0.7 mg/L is being considered



# Target Dilutions



# Clarkson WWTP - Target Dilution (Existing Conditions)

Param	PWQO	Effluent Concentration				Ambient Concentration			
		Winter	Spring	Summer	Fall	Winter	Spring	Summer	Fall
UIA	0.02 mg/L	0.0016	0.0015	0.0024	0.0028	0.0009	0.0004	0.0052	0.0007
TAN <sup>1</sup>	0.50 mg/L	30/1.10	25/1.00	13/0.99	20/1.00	0.038	0.014	0.041	0.021
TP	0.02 mg/L	1/0.45	1/0.47	1/0.55	1/0.51	0.006	0.007	0.010	0.010
E.coli	100 CFU/100mL	6368	1628	19	1425	2	1	1	2

<sup>1</sup>GLWQA

Includes periods with no disinfection. Seasonal disinfection May to October

Param	Target Dilution			
	Winter	Spring	Summer	Fall
UIA	0	0	0	0
TAN	65/2	51/2	28/2	42/2
TP	71/32	78/36	97/53	94/48
E.coli	65	16	0	14

TP Governs

# Clarkson WWTP - Target Dilution (Proposed TP Limit 0.7 mg/L)

Param	PWQO	Effluent Concentration				Ambient Concentration			
		Winter	Spring	Summer	Fall	Winter	Spring	Summer	Fall
UIA	0.02 mg/L	0.0016	0.0015	0.0024	0.0028	0.0009	0.0004	0.0052	0.0007
TAN <sup>1</sup>	0.50 mg/L	30/1.10	25/1.00	13/0.99	20/1.00	0.038	0.014	0.041	0.021
TP	0.02 mg/L	0.70/0.45	0.70/0.47	0.70/0.55	0.70/0.51	0.006	0.007	0.010	0.010
E.coli	100 CFU/100mL	6368	1628	19	1425	2	1	1	2

<sup>1</sup>GLWQA

Includes periods with no disinfection. Seasonal disinfection May to October

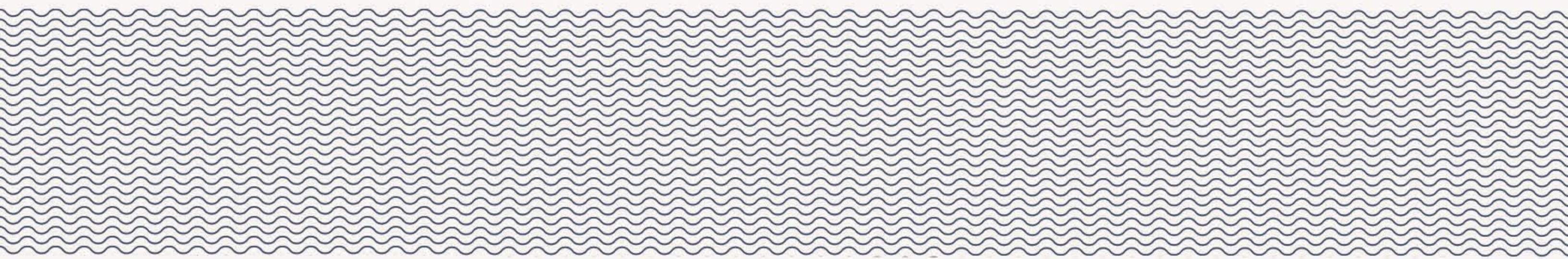
Param	Target Dilution			
	Winter	Spring	Summer	Fall
UIA	0	0	0	0
TAN	65/2	51/2	28/2	42/2
TP	50/32	54/36	67/53	66/48
E.coli	65	16	0	14

TP & TAN Governs  
Target 67:1





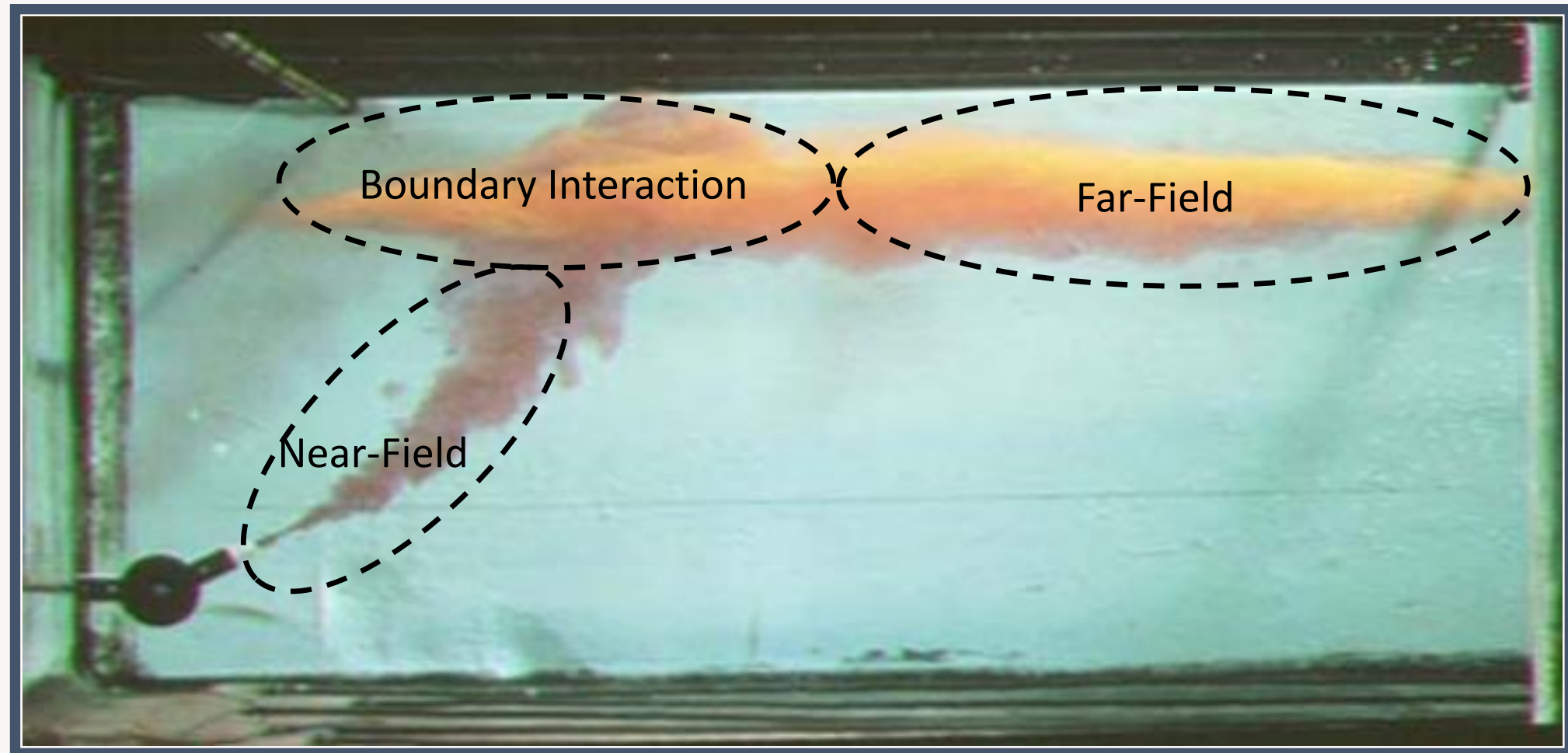
# Preliminary CORMIX Results





## CORMIX Model

- Cornell Mixing Zone Expert System
- Simple model
- Regulatory agencies
- Strength: Near-field predictions
  - Rapid dilutions



## Approach: Clarkson WWTP

- Existing diffuser system
- Average daily flows
  - 350 MLD and 500 MLD
- CORMIX to evaluate near-field mixing
  - Focused on half pipe distance (900m)
- MIKE3 to evaluate far-field impacts (preliminary)
  - Define mixing zone
  - Impacts at key locations



# Clarkson: Preliminary CORMIX Results

## Diffuser System Details

Water Depth at Diffuser	19 m
Distance of Diffuser from Shore	1600 m
Length of Diffuser	200 m
No. Ports	18
Port Diameter	0.45 m
Flow Rate (350 MLD)	4.1 m <sup>3</sup> /s
Flow Rate (500 MLD)	5.8 m <sup>3</sup> /s

- Clarkson diffuser cannot meet target dilutions (TP) at half pipe length based on effluent limits for TP (1mg/L) under 350 MLD
- Currently performing well. It does meet target dilutions based on actual effluent concentrations (75<sup>th</sup>) for 350 MLD
- Future flow condition: does not meet target dilutions based on limit of 0.7 mg/L (exception Spring)

## 350 MLD

Season	Water Temperature (C)		Ambient Velocity (m/s)	Target Dilution (Limit of 1.0 mg/L)	Target Dilution (75th)	Dilution Estimates from Diffuser				Distance (m) to meet Governing Dilution
	Effluent	Ambient				200m	400m	900m	1600m	
Winter	16.6	5.0	0.04	71	32	49	59	70	78	1000
Spring	16.3	6.6	0.04	78	36	49	59	69	78	1600
Summer	22.0	20.0	0.04	97	53	47	55	65	74	3500
Fall	21.6	19.0	0.04	94	48	48	56	66	75	3000

## 500 MLD

Season	Water Temperature (C)		Ambient Velocity (m/s)	Target Dilution (Limit of 0.7 mg/L)	Target Dilution (75th)	Dilution Estimates from Diffuser				Distance (m) to meet Governing Dilution
	Effluent	Ambient				200m	400m	900m	1600m	
Winter	16.6	5.0	0.04	65	32	34	47	56	63	1855
Spring	16.3	6.6	0.04	54	36	34	47	56	62	775
Summer	22.0	20.0	0.04	67	53	34	43	52	59	2525
Fall	21.6	19.0	0.04	66	48	34	44	53	60	2329

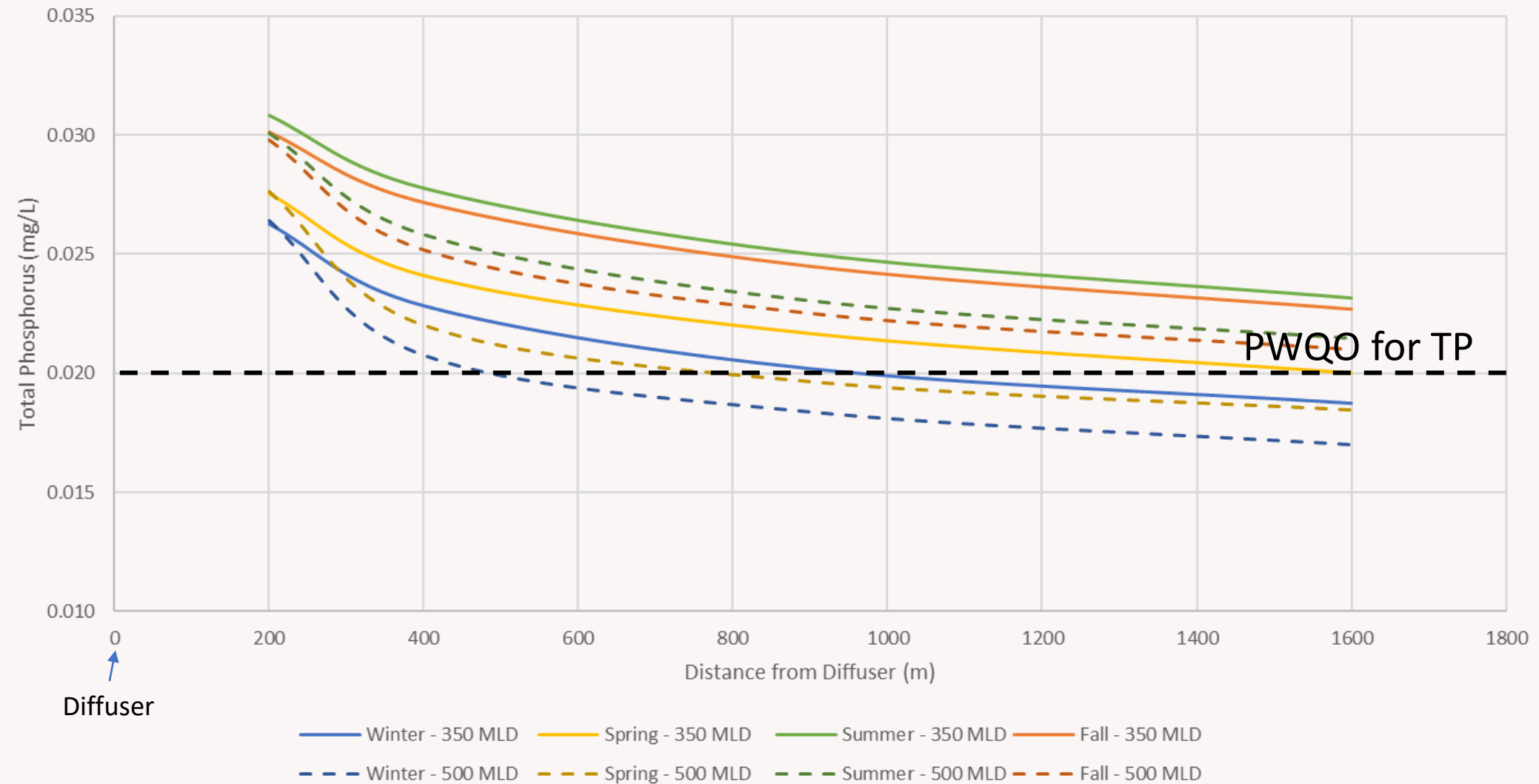
# Clarkson: Preliminary CORMIX Results (TP Limits)

350 MLD (TP Limit 1.0 mg/L)

Distance from Diffuser (m)	Dilution Concentrations (mg/L)			
	Winter	Spring	Summer	Fall
200	0.026	0.028	0.031	0.030
400	0.023	0.024	0.028	0.025
900	0.020	0.022	0.025	0.023
1600	0.019	0.020	0.023	0.021

500 MLD (Proposed TP Limit 0.7 mg/L)

Distance from Diffuser (m)	Dilution Concentrations (mg/L)			
	Winter	Spring	Summer	Fall
200	0.026	0.028	0.030	0.030
400	0.021	0.022	0.026	0.025
900	0.018	0.020	0.023	0.023
1600	0.017	0.018	0.021	0.021



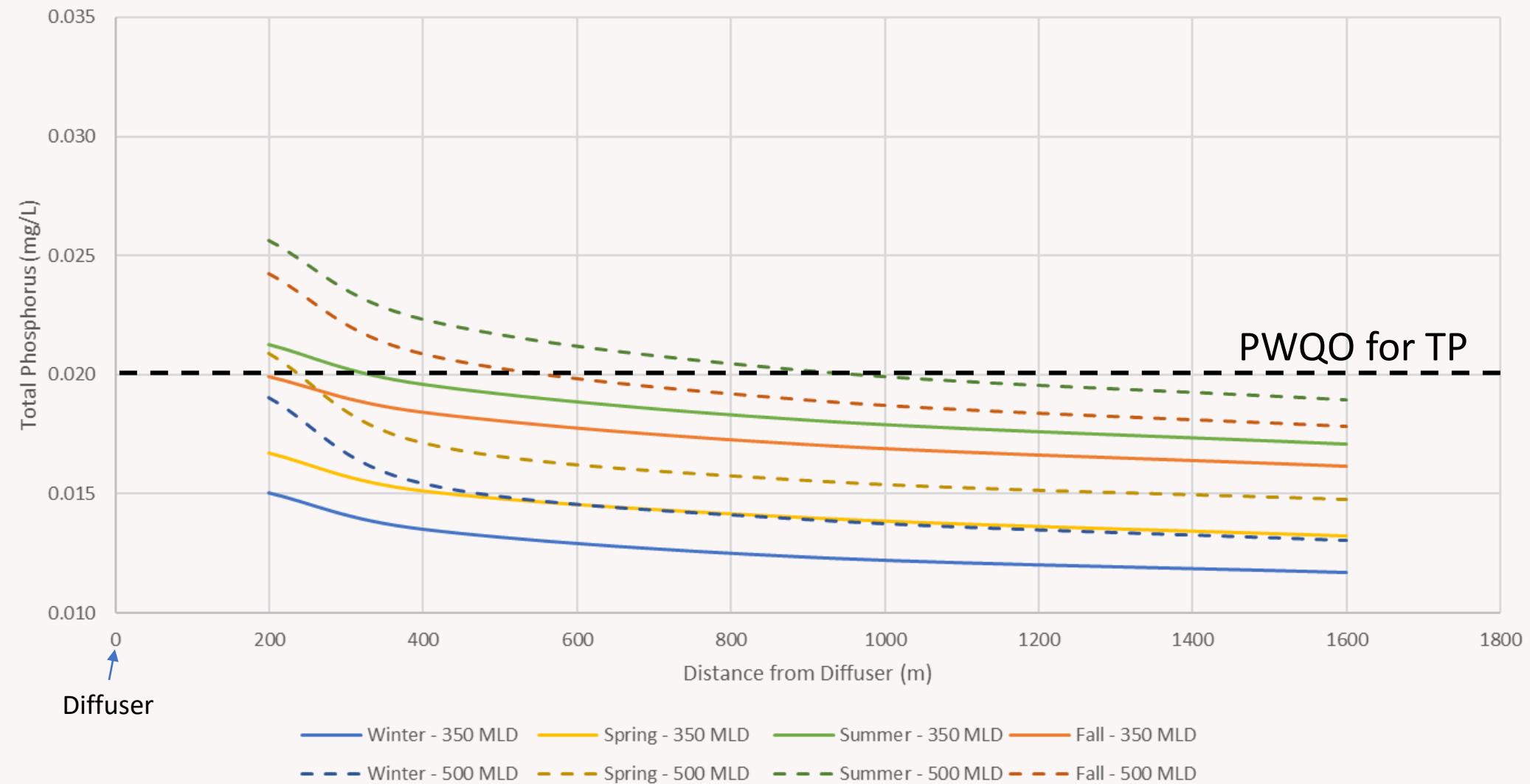
# Clarkson: Preliminary CORMIX Results (75<sup>th</sup> Percentile)

350 MLD (75th)

Distance from Diffuser (m)	Dilution Concentrations (mg/L)			
	Winter	Spring	Summer	Fall
200	0.015	0.017	0.021	0.024
400	0.014	0.015	0.020	0.021
900	0.012	0.014	0.018	0.019
1600	0.012	0.013	0.017	0.018

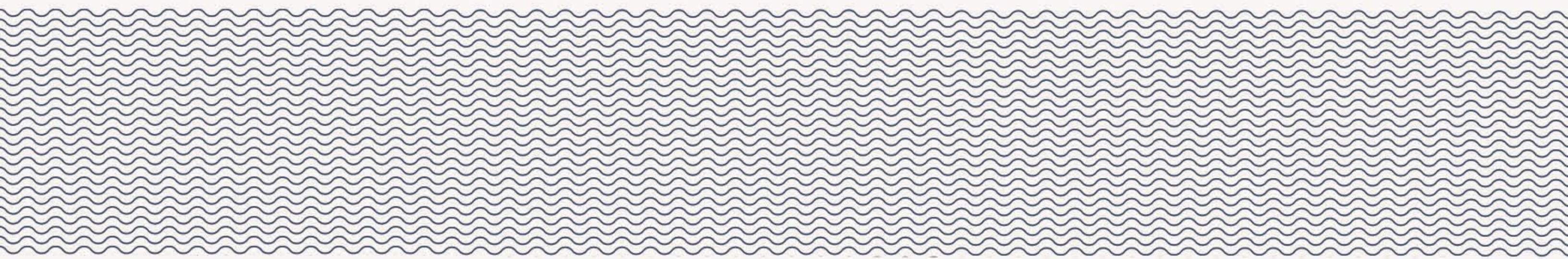
500 MLD (75th)

Distance from Diffuser (m)	Dilution Concentrations (mg/L)			
	Winter	Spring	Summer	Fall
200	0.019	0.021	0.026	0.024
400	0.015	0.017	0.022	0.021
900	0.014	0.016	0.020	0.019
1600	0.013	0.015	0.019	0.018





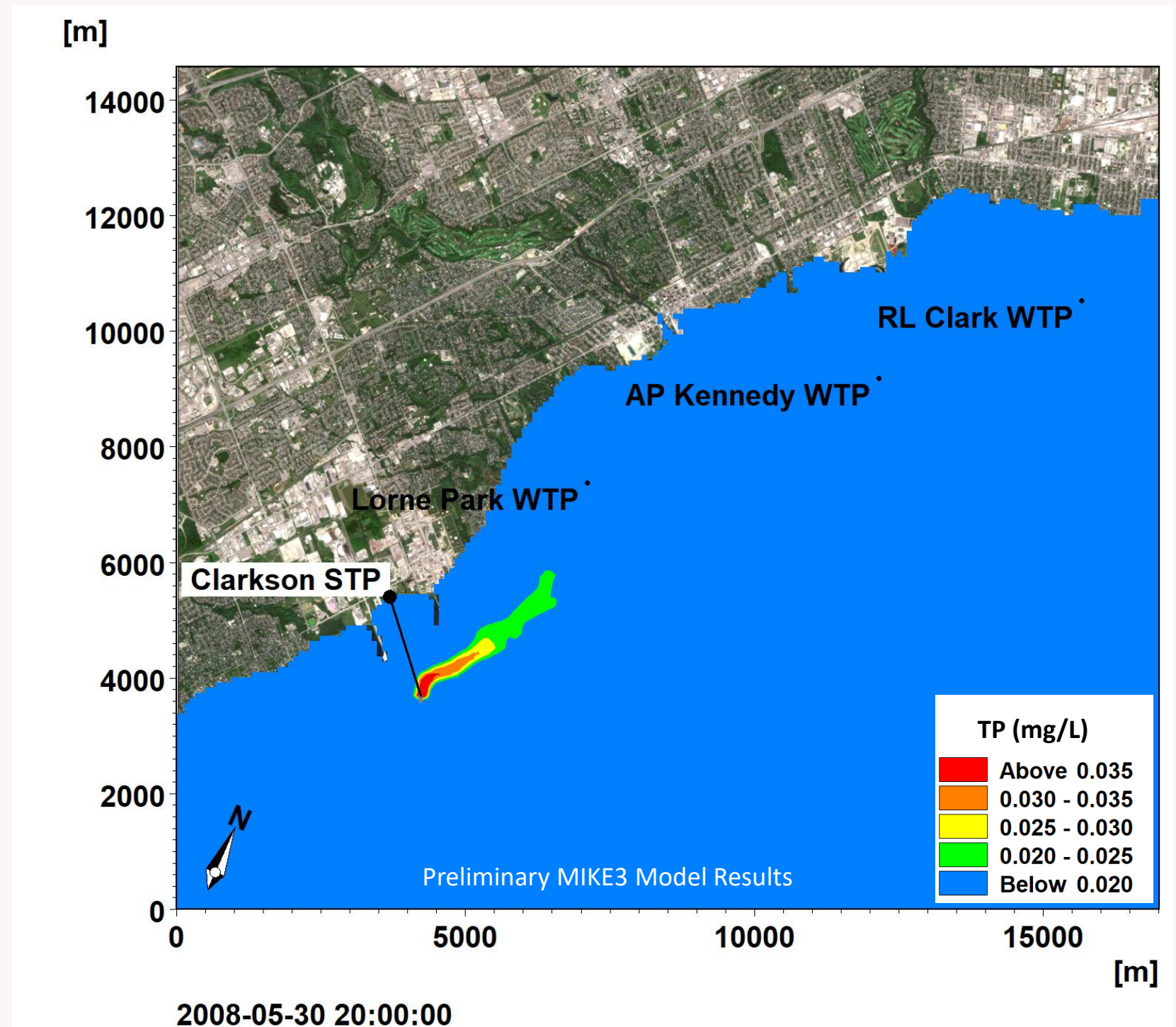
# Preliminary MIKE3 Results





## MIKE3 (3D) Model

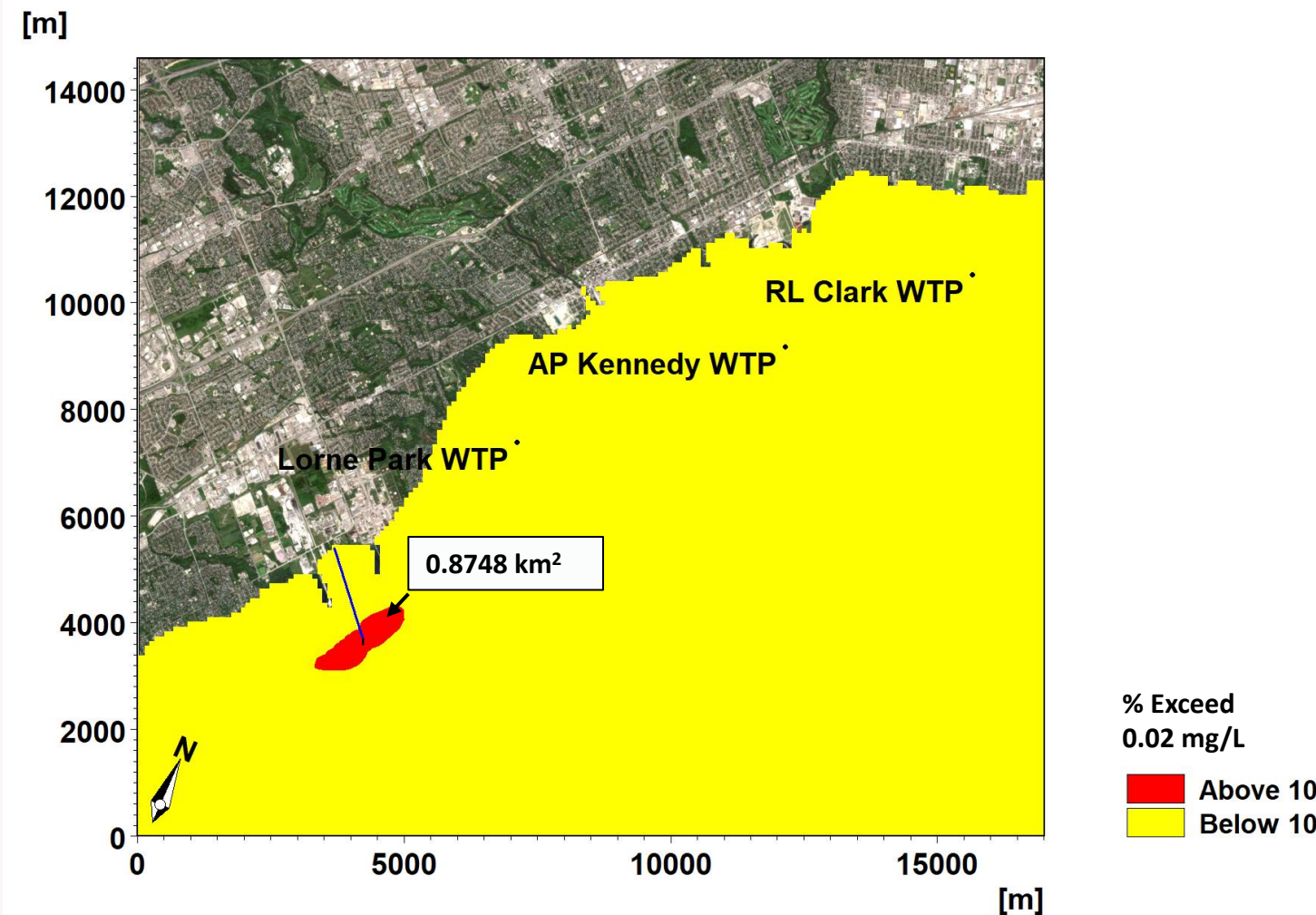
- Danish Hydraulic Institute
- Complex processes
  - Spatial and temporal winds
  - Heat exchange
  - Variable plume movement
- Accepted by regulatory agencies
- Strength: Far-field predictions
- Simulation period
  - April to October 2008



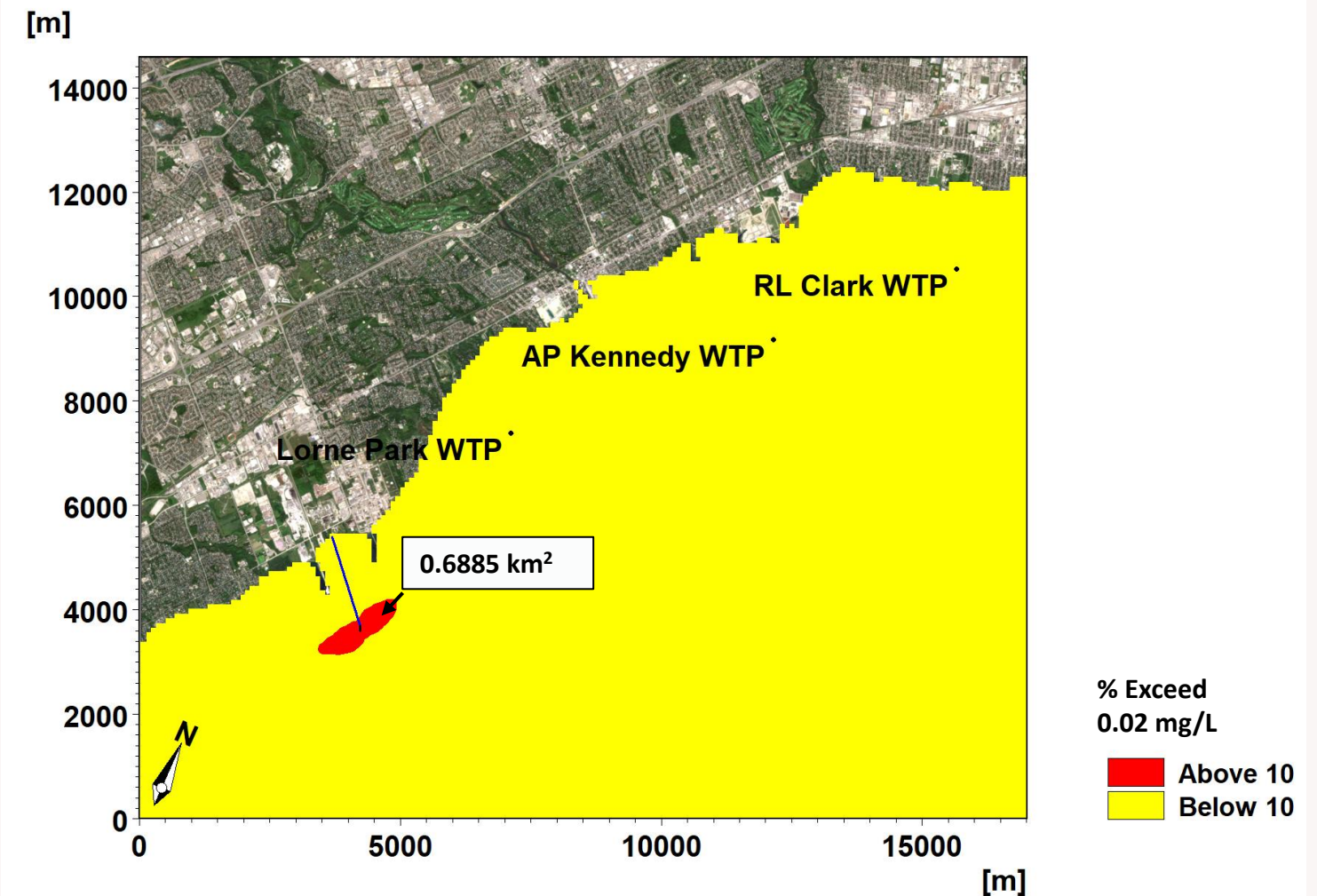


# Clarkson: Preliminary MIKE3 Results (TP Mixing Zone)

## 350 MLD (TP limit 1.0 mg/L)



## 500 MLD (TP limit 0.7 mg/L)





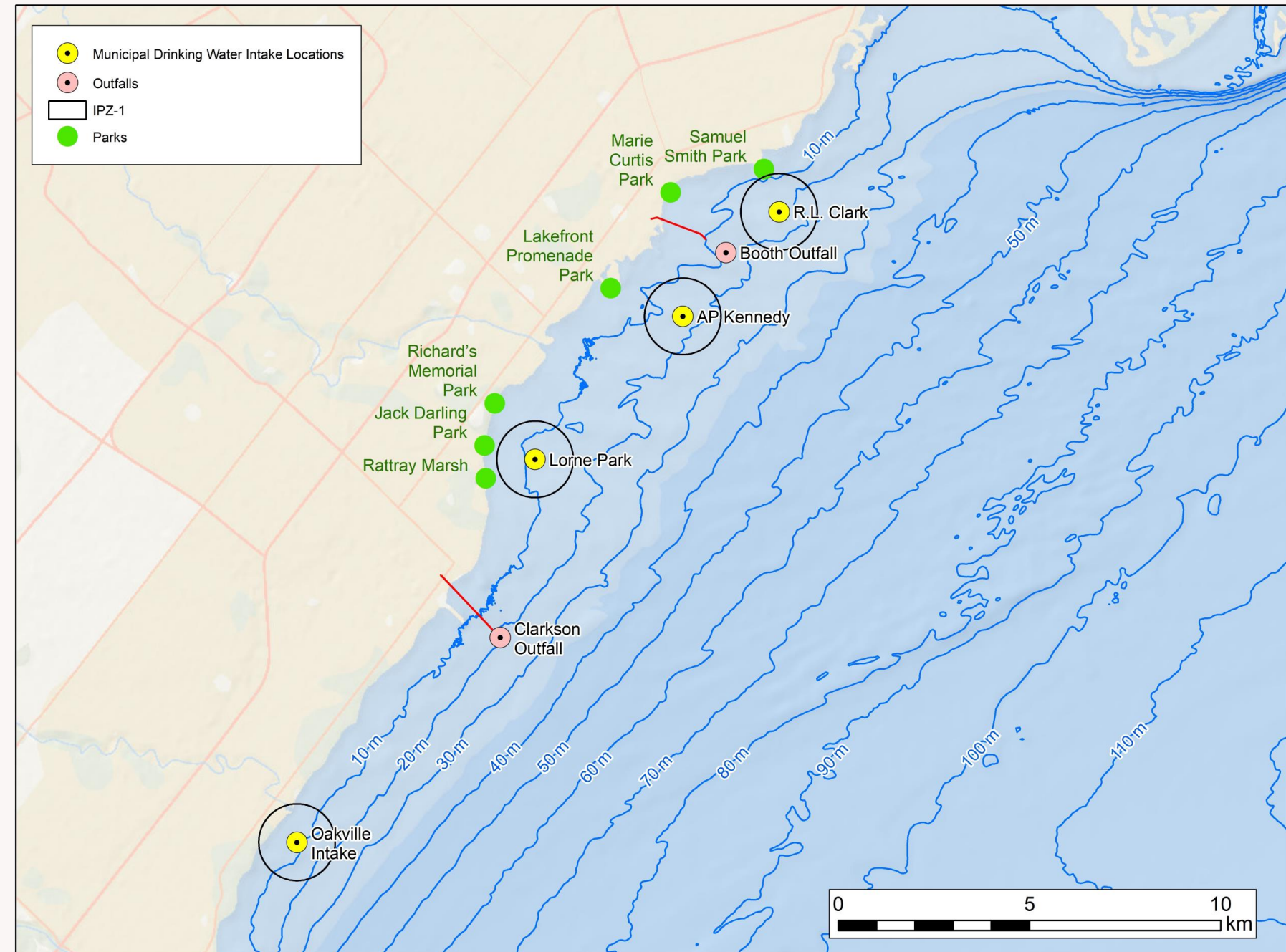
# Clarkson: Preliminary MIKE3 Results (Key Locations)

350 MLD (TP Limit 1.0 mg/L)

	TP		TAN	
	Max	Mean	Max	Mean
Intake Sources				
Lorne Park Intake	0.018	0.009	0.250	0.046
Lakeview Intake	0.016	0.009	0.166	0.040
R.L. Clark Intake	0.017	0.009	0.151	0.037
Fiducial Locations				
Ratray Marsh	0.019	0.009	0.173	0.044
Jack Darling Park	0.019	0.009	0.169	0.043
Richard's Memorial Park	0.019	0.009	0.169	0.043
Lakefront Promenade Park	0.017	0.009	0.151	0.042
Marie Curtis Park	0.014	0.009	0.115	0.040
Samuel Smith Park	0.015	0.009	0.141	0.038

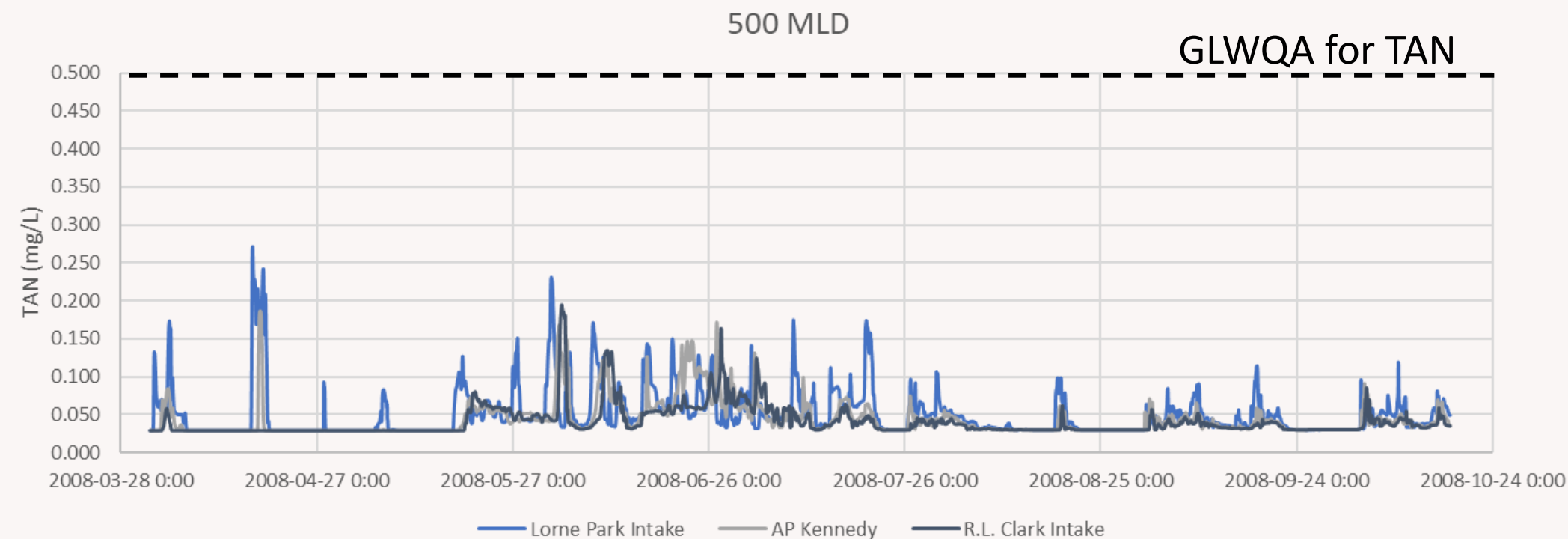
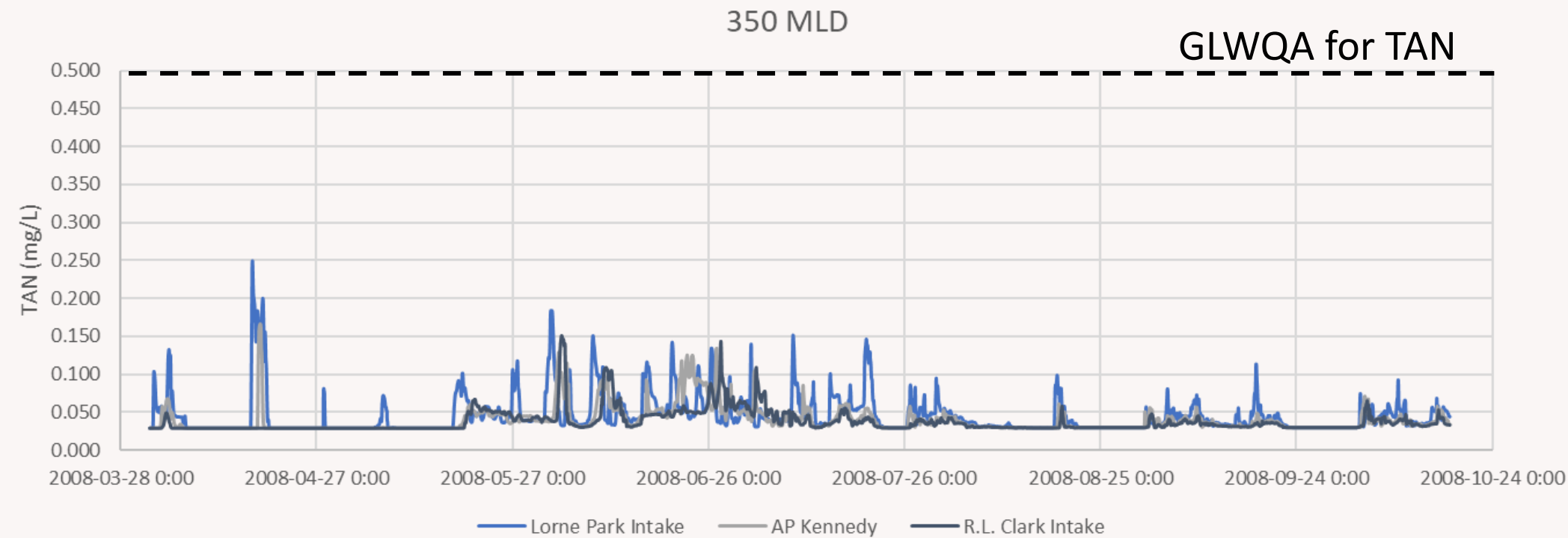
500 MLD (TP Limit 0.7 mg/L)

	TP		TAN	
	Max	Mean	Max	Mean
Intake Sources				
Lorne Park Intake	0.017	0.009	0.271	0.051
Lakeview Intake	0.016	0.009	0.187	0.043
R.L. Clark Intake	0.015	0.009	0.195	0.040
Intake Sources				
Ratray Marsh	0.017	0.009	0.194	0.047
Jack Darling Park	0.017	0.009	0.191	0.047
Richard's Memorial Park	0.017	0.009	0.192	0.046
Lakefront Promenade Park	0.016	0.009	0.174	0.045
Marie Curtis Park	0.013	0.009	0.136	0.043
Samuel Smith Park	0.014	0.009	0.172	0.041



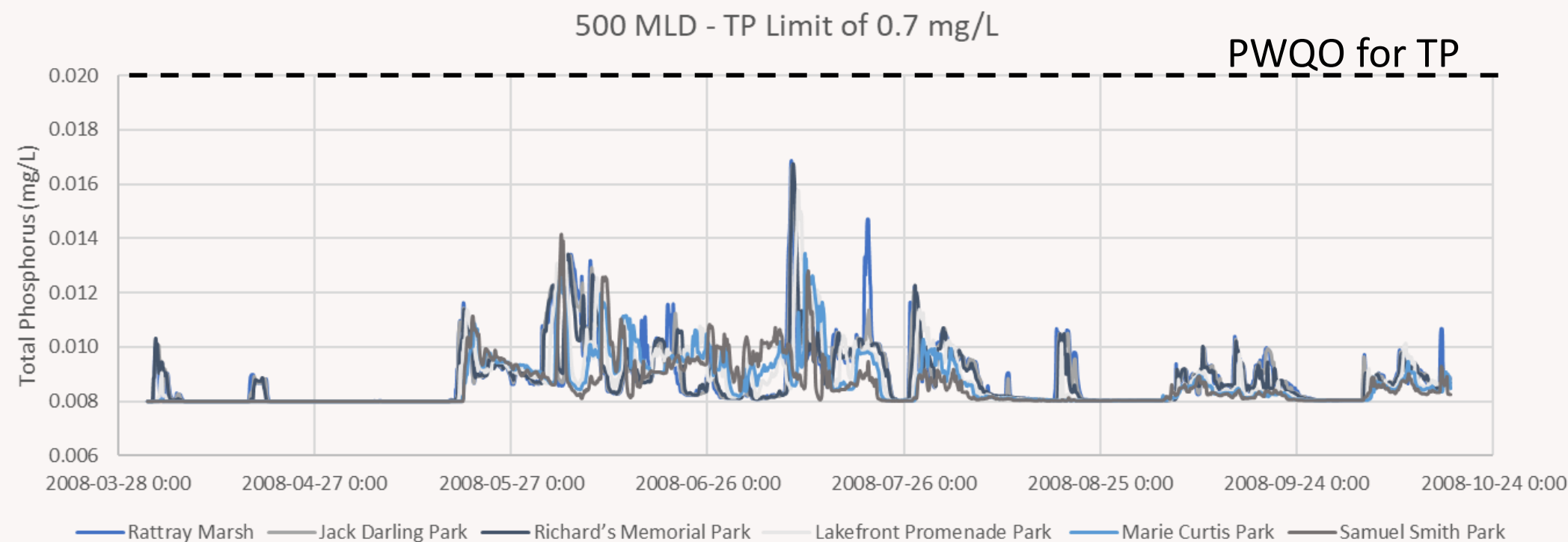
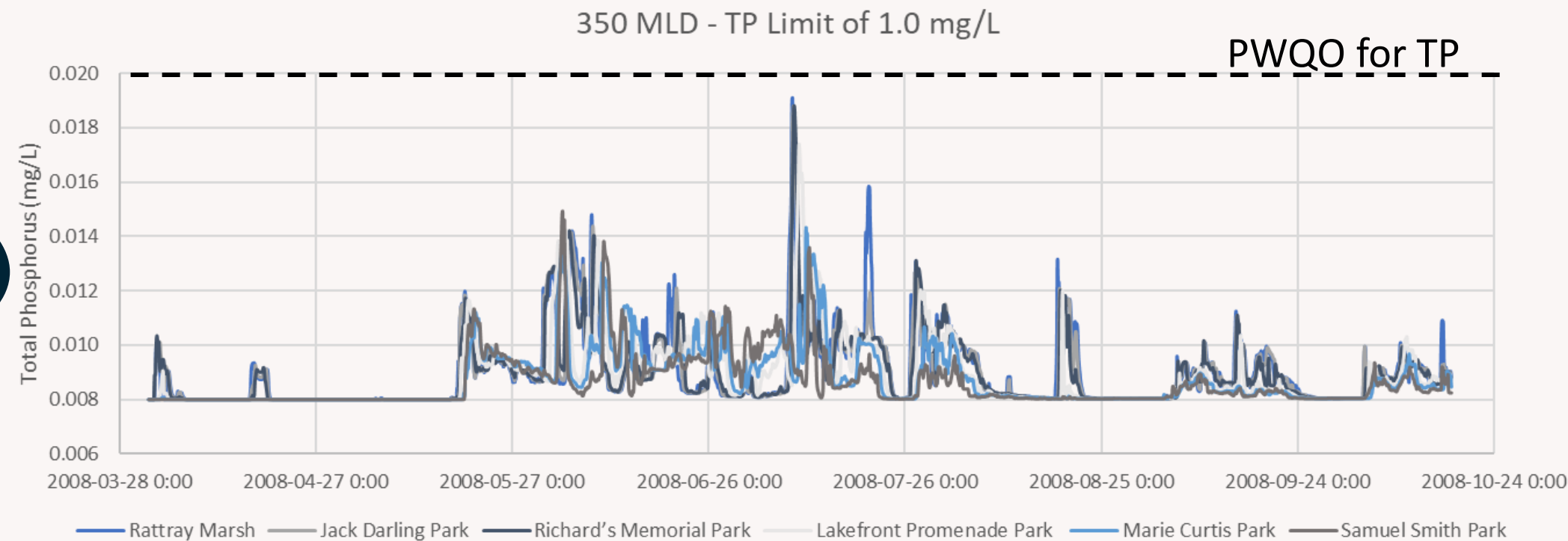
# Clarkson: Preliminary MIKE3 Results (Intake Locations)

- TAN does not exceed guidelines
- 500 MLD is slightly larger than 350 MLD



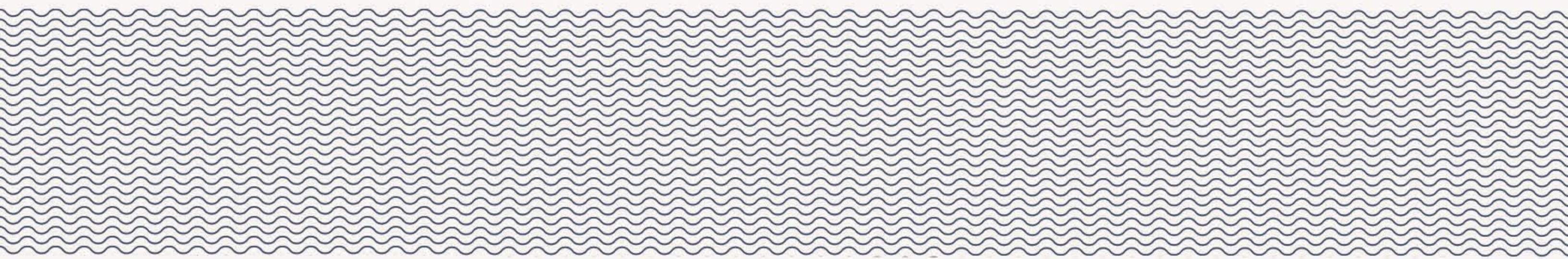
# Clarkson: Preliminary MIKE3 Results (Fiducial Locations)

- TP does not exceed PWQO
- 500 MLD with TP of 0.7 mg/L is slightly smaller than 350 MLD with TP of 1.0 mg/L





Booth WWTP



# Booth Effluent Conditions

Parameter	Basis	Winter (Dec-Feb)	Spring (Mar-May)	Summer (June-Aug)	Fall (Sept-Nov)
UIA (mg/L) <sup>1</sup>	75 <sup>th</sup>	0.0027	0.0022	0.0027	0.0020
TAN (mg/L)	Limits	34	28	8	19
TP (mg/L)	Limits	0.8	0.8	0.8	0.8
E.coli (counts/100mL)	Geomean	16	22	20	25
pH	75 <sup>th</sup>	7.0	7.1	7.0	7.0
Temperature (C)	75 <sup>th</sup>	18.1	18.4	24.3	22.4
Flow (Average)	500 MLD increased to 550 MLD				

<sup>1</sup>Calculated  
Based on data from 2016-2020

## G.E. Booth Wastewater Treatment Plant

Parameter	Averaging Calculator	ECA Objective (mg/L)	ECA Limit (mg/L)	Average Waste Loading (kg/d)
CBOD (mg/L)	Annual Average Effluent Concentration	15.0	25.0	N/A
TSS (mg/L)	Annual Average Effluent Concentration	15.0	25.0	N/A
TP (mg/L)	Monthly Average Effluent Concentration	0.7	0.8	394.0
TAN(mg/L)	Monthly Average Effluent Concentration	8.0 (May 1 - May 31) 6.0 (Jun 1 - Sep 30) 8.0 (Oct 1 - Oct 31) 17.0 (Nov 1 - Apr 30)	16.0 (May 1 - May 31) 8.0 (Jun 1 - Sep 30) 16.0 (Oct 1 - Oct 31) 34.0 (Nov 1 - Apr 30)	N/A



# Booth WWTP - Target Dilution

Param	PWQO	Effluent Concentration				Ambient Concentration			
		Winter	Spring	Summer	Fall	Winter	Spring	Summer	Fall
UIA	0.02 mg/L	0.0027	0.0022	0.0027	0.0020	0.0009	0.0004	0.0052	0.0007
TAN <sup>1</sup>	0.50 mg/L	34/1.2	28/0.7	8/0.7	19/0.6	0.038	0.014	0.041	0.021
TP	0.02 mg/L	0.8/0.50	0.8/0.40	0.8/0.50	0.8/0.50	0.006	0.007	0.010	0.010
E.coli	100 CFU/100mL	16	22	20	25	2	1	1	2

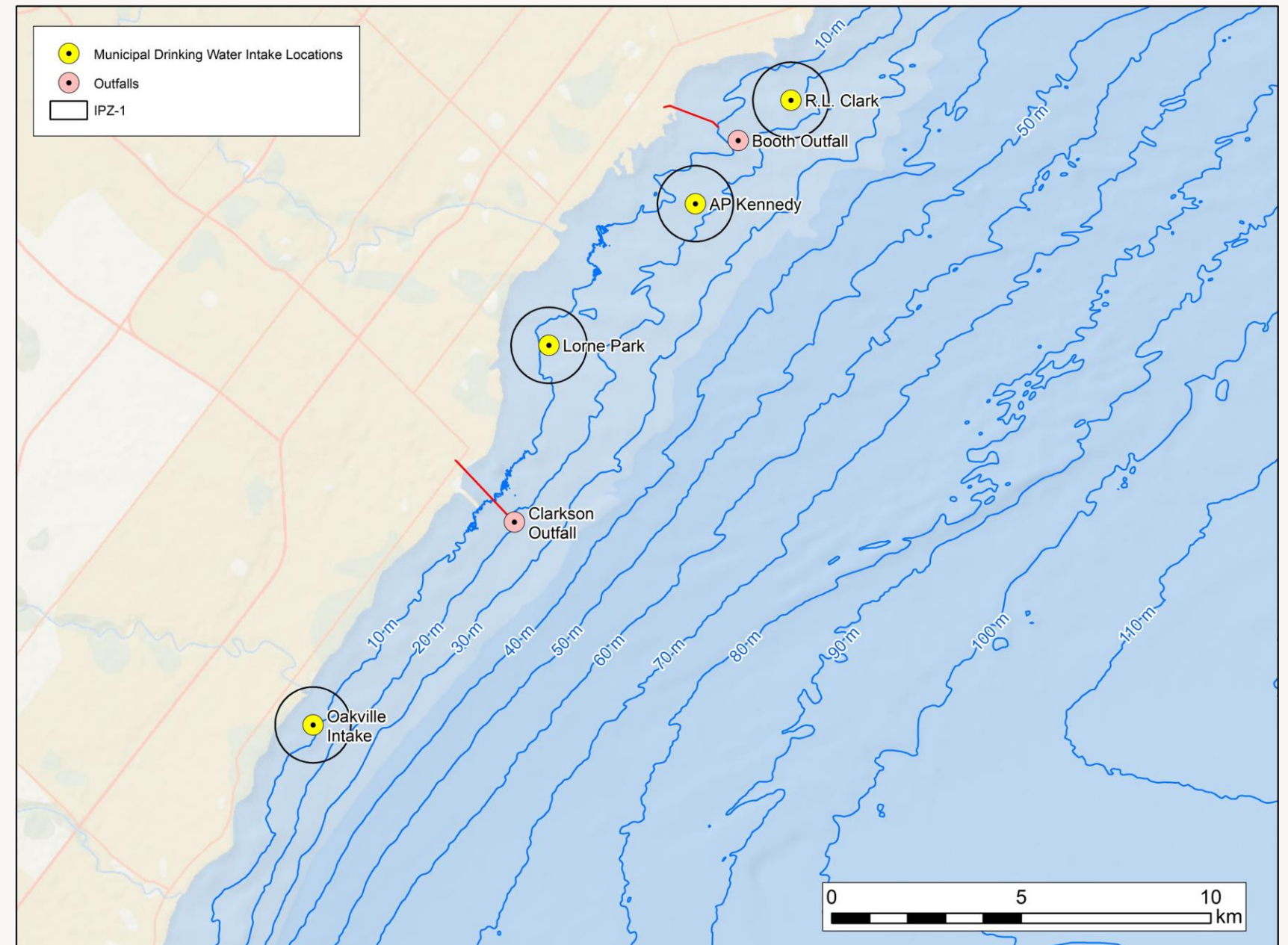
<sup>1</sup>GLWQA

Param	Target Dilution			
	Winter	Spring	Summer	Fall
UIA	0	0	0	0
TAN	74/3	58/1	17/1	40/1
TP	57/32	62/32	77/44	75/48
E.coli	0	0	0	0

TP and TAN Governs  
New outfall – will be  
looking to achieve at least  
77:1

# Approach

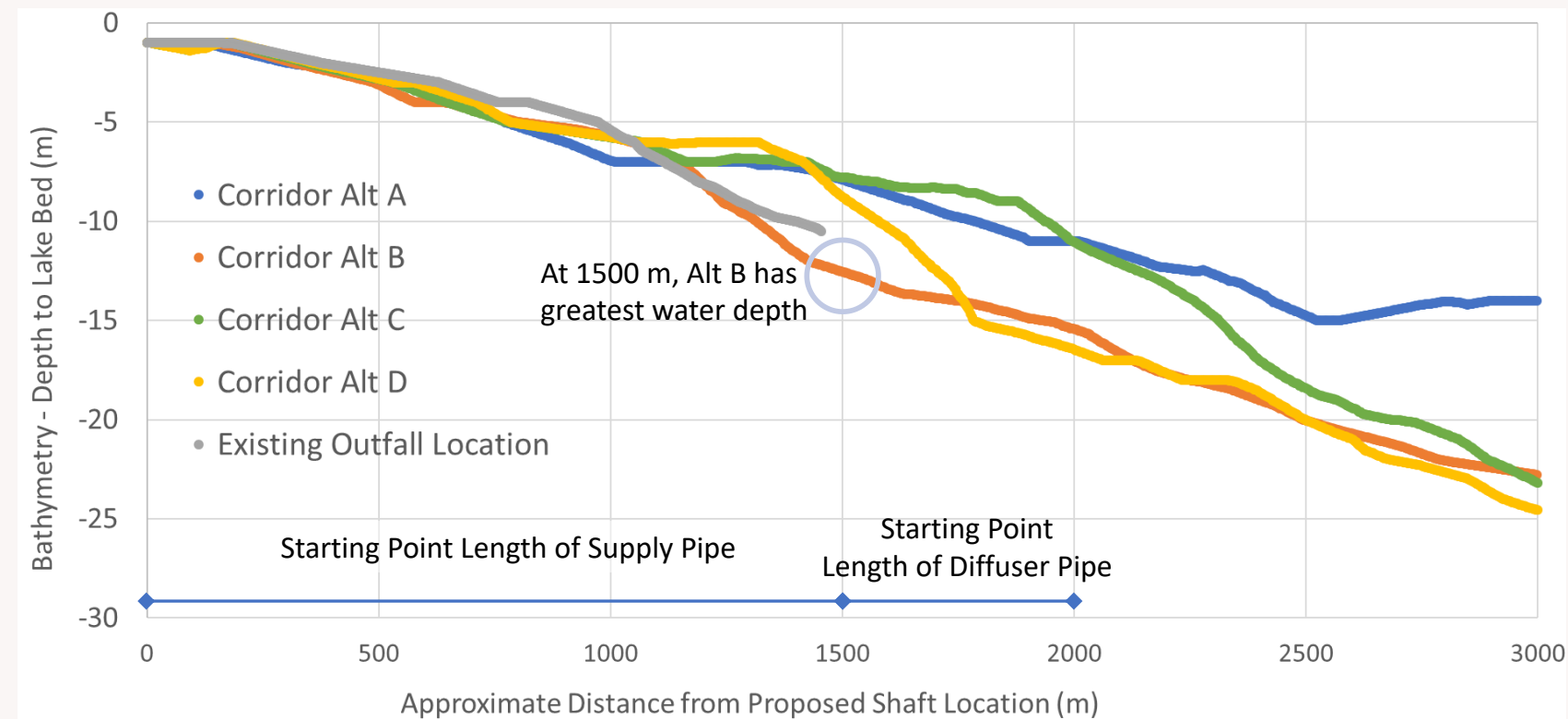
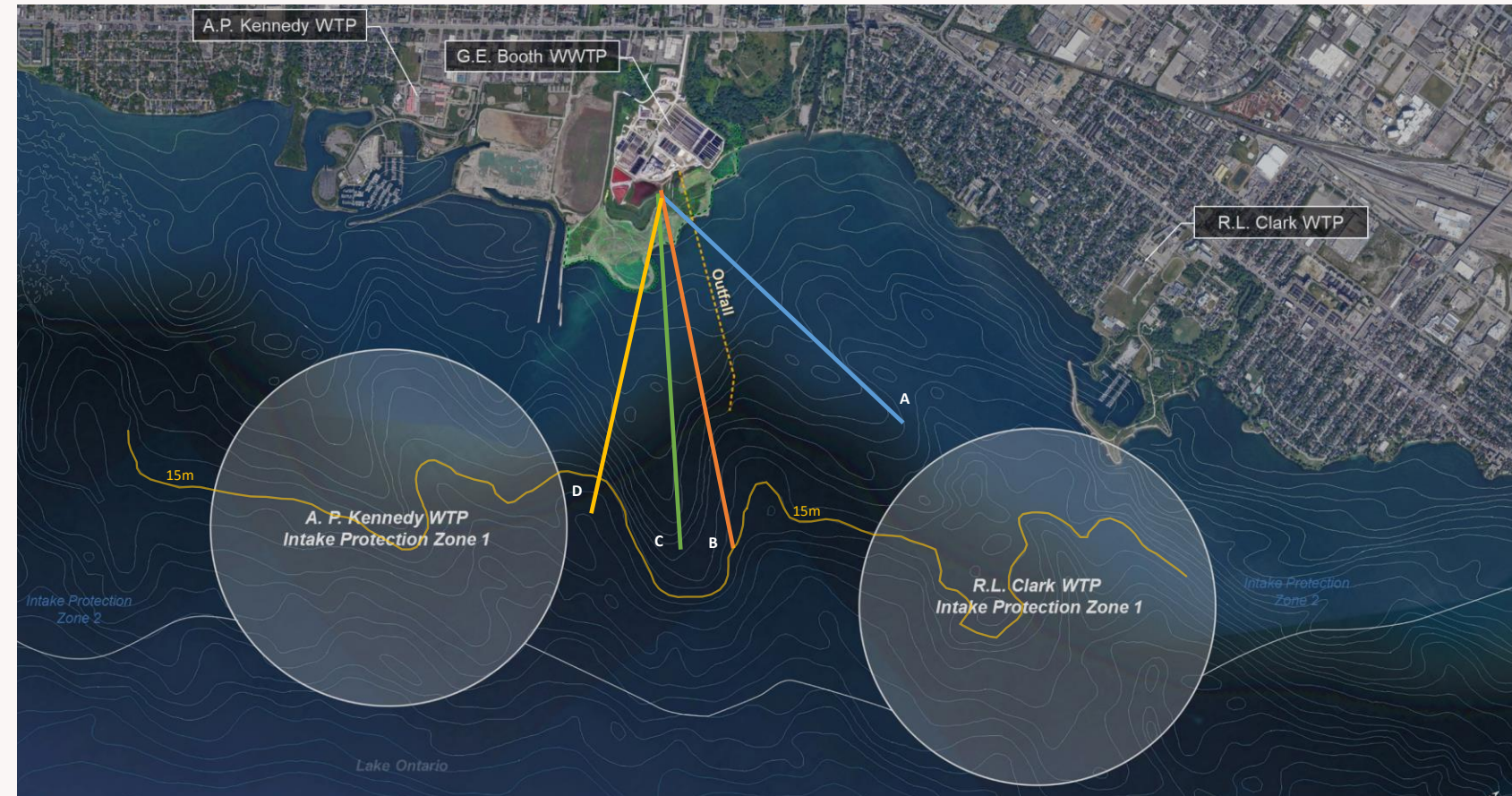
- Average daily flows
- Booth WWTP:
  - New outfall
  - Close to intakes and IPZ-1
  - Use limits to guide design of diffuser
- Focused on half pipe distance and NFR





# Booth: CORMIX Testing

- Alt B alignment considered
- Flows of 550 MLD only
- Diffuser length: 500m & 750m
- Distance from shore: 1500m & 2000m
- Water depths: 14m to 18.5m
- Assessed at half pipe length but also focused on 200m given proximity to IPZ-1





# Booth: CORMIX Results for Existing Conditions

## Diffuser System Details

Water Depth at Diffuser	10 m
Distance of Diffuser from Shore	1223 m
Length of Diffuser	212 m
No. Ports	35
Port Diameter	0.6 m
Flow Rate (500 MLD)	5.8 m <sup>3</sup> /S
Flow Rate (550 MLD)	6.4 m <sup>3</sup> /S

- Target dilutions are based on TAN (Winter) and TP for remaining seasons
- Existing diffuser system to be replaced as it does not generate the dilutions required to meet water quality criteria.

## 500 MLD

Season	Water Temperature (C)		Ambient	Target Dilution (Limits)	Target Dilution (75th)	Dilution Estimates from Diffuser				Distance (m) to meet Governing Dilution
	Effluent	Ambient	Velocity (m/s)			200m	400m	600m	1200m	
Winter	18.1	5.0	0.04	74	32	21	24	26	30	9161
Spring	18.4	6.6	0.04	62	32	21	24	26	30	7555
Summer	24.3	20.0	0.04	77	44	21	24	26	29	8604
Fall	22.4	19.0	0.04	75	48	20	23	25	28	7039

## 550 MLD

Season	Water Temperature (C)		Ambient	Target Dilution (Limits)	Target Dilution (75th)	Dilution Estimates from Diffuser				Distance (m) to meet Governing Dilution
	Effluent	Ambient	Velocity (m/s)			200m	400m	600m	1200m	
Winter	18.1	5.0	0.04	74	32	20	23	25	28	10198
Spring	18.4	6.6	0.04	62	32	20	23	25	28	8506
Summer	24.3	20.0	0.04	77	44	19	22	24	28	9554
Fall	22.4	19.0	0.04	75	48	18	21	23	27	7799

# Booth: CORMIX Results 500m Diffuser

Diffuser System Details	Test 1	Test 2
Water Depth at Diffuser	14.0 m	17.5 m
Distance of Diffuser from Shore	1500 m	2000 m
Length of Diffuser	500 m	500 m
No. Ports	51	51
Port Diameter	0.45 m	0.45 m
Flow Rate (550 MLD)	6.4 m <sup>3</sup> /S	6.4 m <sup>3</sup> /S

- Diffuser system with a length of 500m meets target dilutions at half pipe length when moved offshore 2000m in WD ~ 17.5m
- Occurs in far-field close to edge of IPZ-1 for RLC and APK
- Edge of near-field region varies but typically between 100m and 200m
- Given close proximity to intakes makes sense to evaluate diffusers near NFR

## Test 1: 550 MLD & 51 Ports (10m spacing)

Season	Water Temperature (C)		Ambient	Target Dilution (Limits)	Dilution Estimates from Diffuser				Distance (m) to meet Governing Dilution
	Effluent	Ambient	Velocity (m/s)		200m	400m	750 m	1500 m	
Winter	18.1	5.0	0.04	74	51	57	63	71	1820
Spring	18.4	6.6	0.04	62	51	57	63	71	664
Summer	24.3	20.0	0.04	77	51	56	62	70	2387
Fall	22.4	19.0	0.04	75	50	55	60	67	2403

## Test 2: 550 MLD & 51 Ports (10m spacing) & WD=17.5

Season	Water Temperature (C)		Ambient	Target Dilution (Limits)	Dilution Estimates from Diffuser				Distance (m) to meet Governing Dilution
	Effluent	Ambient	Velocity (m/s)		200m	400m	1000m	2000m	
Winter	18.1	5.0	0.04	74	63	70	81	92	557
Spring	18.4	6.6	0.04	62	63	70	81	92	189
Summer	24.3	20.0	0.04	77	62	69	80	90	821
Fall	22.4	19.0	0.04	75	61	67	77	87	881

# Booth: CORMIX Results 750m Diffuser

Diffuser System Details	Test 3	Test 4
Water Depth at Diffuser	15 m	18.5 m
Distance of Diffuser from Shore	1500 m	2000 m
Length of Diffuser	750 m	750 m
No. Ports	51	51
Port Diameter	0.45 m	0.45 m
Flow Rate (550 MLD)	6.4 m <sup>3</sup> /S	6.4 m <sup>3</sup> /S

- Both options meet target dilutions within 200m of diffuser
- Results of peak flow simulations may be important from source water perspective and may govern design (?)

Test 3: 550 MLD & 51 Ports (15m spacing) and 0.45m Diam

Season	Water Temperature (C)		Ambient	Target Dilution (Limits)	Target Dilution (75th)	Dilution Estimates from Diffuser				Distance (m) to meet Governing Dilution
	Effluent	Ambient	Velocity (m/s)			200m	400m	750 m	1500 m	
Winter	18.1	5.0	0.04	74	32	78	84	91	102	127
Spring	18.4	6.6	0.04	62	32	78	84	92	102	89
Summer	24.3	20.0	0.04	77	44	77	83	90	100	192
Fall	22.4	19.0	0.04	75	48	77	81	87	97	144

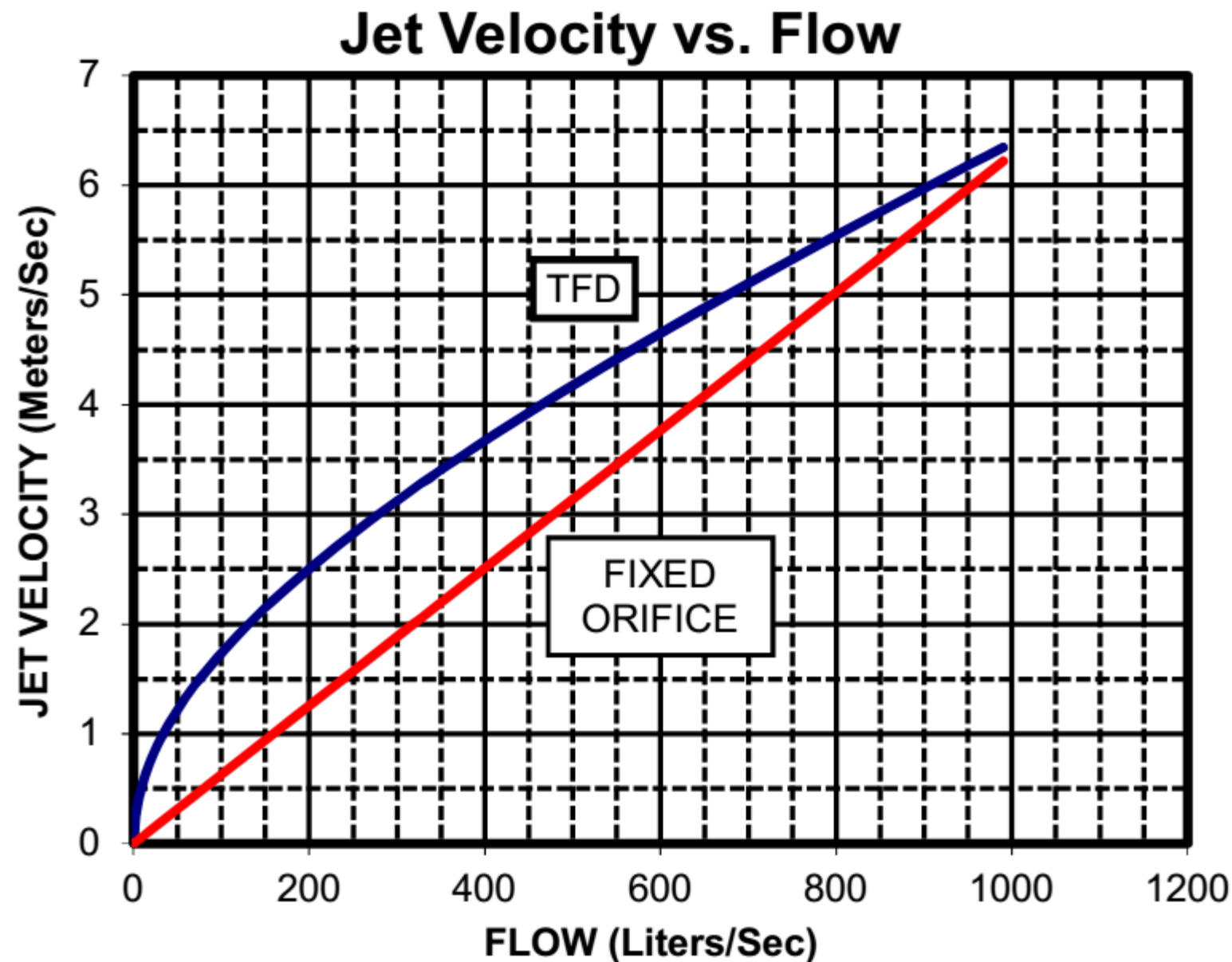
Test 4: 550 MLD & 51 Ports (15m spacing) and 0.45m Diam and WD=18.5m

Season	Water Temperature (C)		Ambient	Target Dilution (Limits)	Target Dilution (75th)	Dilution Estimates from Diffuser				Distance (m) to meet Governing Dilution
	Effluent	Ambient	Velocity (m/s)			200m	400m	1000m	2000m	
Winter	18.1	5.0	0.04	74	32	95	103	116	130	83
Spring	18.4	6.6	0.04	62	32	95	103	116	130	58
Summer	24.3	20.0	0.04	77	44	94	101	114	128	90
Fall	22.4	19.0	0.04	75	48	93	99	110	124	85



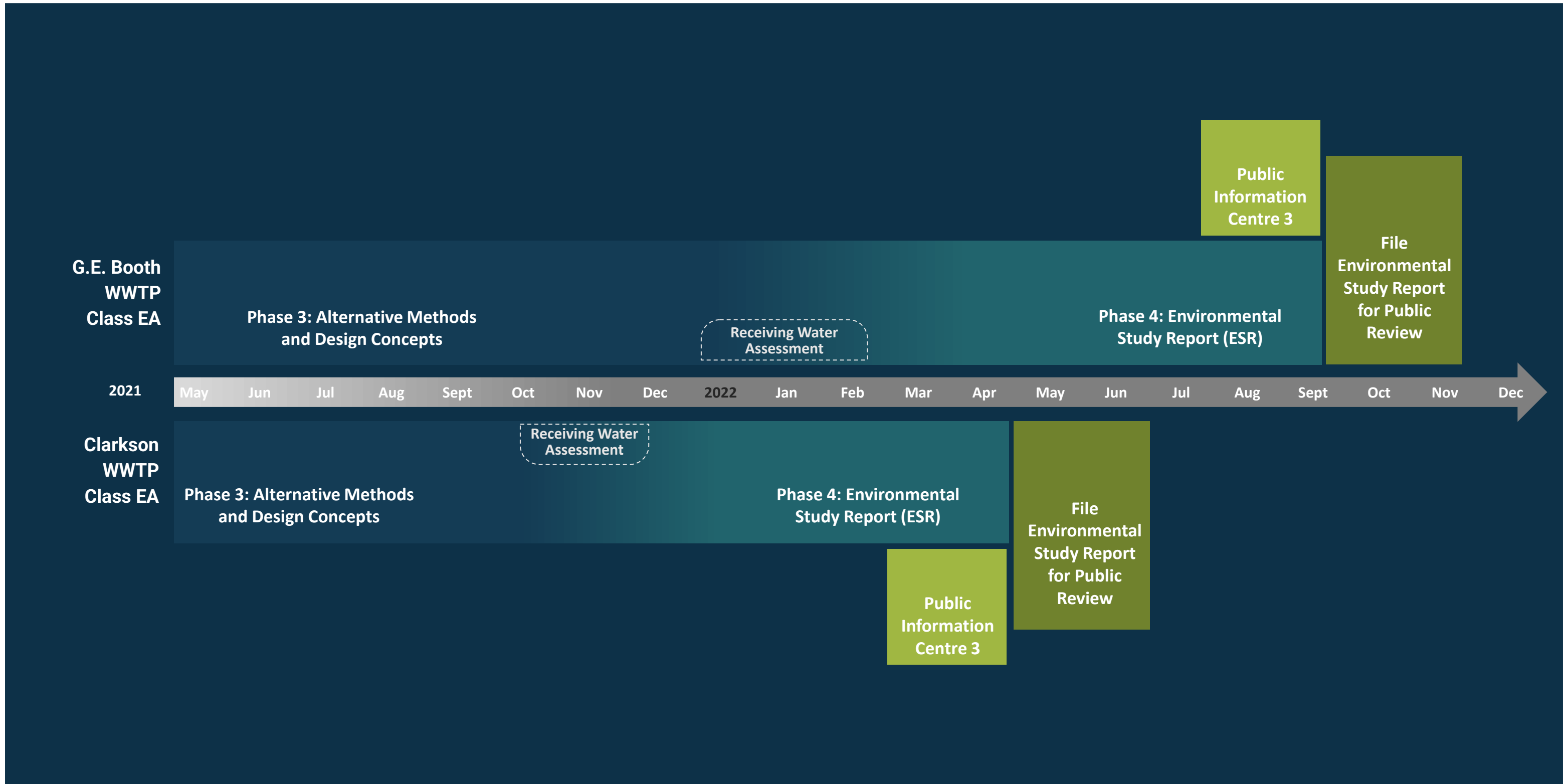
# Existing Clarkson Outfall Diffusers Retrofit Under Consideration

- Peel Region currently exploring retrofit of existing Clarkson diffusers
- Retrofit could offer a benefit by increasing discharge velocities and therefore mixing, compared to current ports



- Complete receiving water assessments
- Evaluate design concepts and identify Recommended Solutions
- Conduct PIC #3 for each EA to present Recommended Design Concepts
- Prepare ESRs and issue Notices of Completion

# Schedule





## Samantha Morrisey - GM BluePlan

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**Subject:** FW: G.E. Booth WWTP and Clarkson WWTP Schedule C Class EAs - MECP Mtg  
**Attachments:** 2021-11-04\_Peel EAs\_MECP Mtg.pdf; 2021-10-21 - Peel EAs - MECP Meeting Agenda.pdf

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**From:** Dania Chehab - GM BluePlan <Dania.Chehab@gmblueplan.ca>  
**Sent:** Monday, October 25, 2021 1:30 PM  
**To:** Bell, Trevor (MECP) <Trevor.Bell@ontario.ca>  
**Cc:** Jasmine Biasi - GM BluePlan <Jasmine.Biasi@gmblueplan.ca>; Laurie Boyce - GM BluePlan <Laurie.Boyce@gmblueplan.ca>  
**Subject:** RE: G.E. Booth WWTP and Clarkson WWTP Schedule C Class EAs - MECP Mtg

Hi Trevor,  
Presentation material and agenda for our meeting on November 4 are enclosed.  
Please let me know if any questions or comments.

Thanks,  
Dania

**Dania Chehab, M.Eng., P.Eng.**  
Infrastructure Planning

**GM BluePlan Engineering Limited**  
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t: 416.703.0667 ext. 7243 c: 416.576.0366  
[danialchehab@gmblueplan.ca](mailto:danialchehab@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



---

**From:** Bell, Trevor (MECP) <[Trevor.Bell@ontario.ca](mailto:Trevor.Bell@ontario.ca)>  
**Sent:** Thursday, October 14, 2021 11:56 AM  
**To:** Dania Chehab - GM BluePlan <[Dania.Chehab@gmblueplan.ca](mailto:Dania.Chehab@gmblueplan.ca)>  
**Cc:** Jasmine Biasi - GM BluePlan <[Jasmine.Biasi@gmblueplan.ca](mailto:Jasmine.Biasi@gmblueplan.ca)>; Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>  
**Subject:** RE: G.E. Booth WWTP and Clarkson WWTP Schedule C Class EAs - MECP Mtg

Hi Dania,

Sorry for the delay, just waiting for a couple of colleagues to indicate their availability. I think November 4 should probably be fine though. The technical reviewers have emphasized that they need to receive material for discussion in the meeting at least a week in advance. So if we can receive the information by October 28, November 4 will most likely work.

Thanks,  
Trevor

---

**From:** Dania Chehab - GM BluePlan <[Dania.Chehab@gmblueplan.ca](mailto:Dania.Chehab@gmblueplan.ca)>  
**Sent:** October 12, 2021 1:55 PM  
**To:** Bell, Trevor (MECP) <[Trevor.Bell@ontario.ca](mailto:Trevor.Bell@ontario.ca)>  
**Cc:** Jasmine Biasi - GM BluePlan <[Jasmine.Biasi@gmblueplan.ca](mailto:Jasmine.Biasi@gmblueplan.ca)>; Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>  
**Subject:** RE: G.E. Booth WWTP and Clarkson WWTP Schedule C Class EAs - MECP Mtg

**CAUTION -- EXTERNAL E-MAIL - Do not click links or open attachments unless you recognize the sender.**

Hi Trevor,  
Hope you had a great weekend!

Would November 4<sup>th</sup> work for a 2 hour meeting? We are available anytime that day. Please let me know as soon as you can.

Thanks,  
Dania

**Dania Chehab, M.Eng., P.Eng.**  
Infrastructure Planning

**GM BluePlan Engineering Limited**  
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[dania.chehab@gmblueplan.ca](mailto:дания.chehab@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



---

**From:** Bell, Trevor (MECP) <[Trevor.Bell@ontario.ca](mailto:Trevor.Bell@ontario.ca)>  
**Sent:** Wednesday, October 06, 2021 2:41 PM  
**To:** Dania Chehab - GM BluePlan <[Dania.Chehab@gmblueplan.ca](mailto:Dania.Chehab@gmblueplan.ca)>  
**Cc:** Jasmine Biasi - GM BluePlan <[Jasmine.Biasi@gmblueplan.ca](mailto:Jasmine.Biasi@gmblueplan.ca)>; Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>  
**Subject:** RE: G.E. Booth WWTP and Clarkson WWTP Schedule C Class EAs - MECP Mtg

Hi Dania,

Thank you. I apologize as well. I wish I had brought this to your attention earlier, but with so much going on it went under my radar unfortunately.

In terms of timing, it really depends on when we receive some materials to review. I would say bare minimum one week from then. So some dates to consider might be October 18, 19, or 20, at 9 am or 1 pm.

Thanks,  
Trevor

---

**From:** Dania Chehab - GM BluePlan <[Dania.Chehab@gmblueplan.ca](mailto:Dania.Chehab@gmblueplan.ca)>  
**Sent:** October 6, 2021 1:57 PM  
**To:** Bell, Trevor (MECP) <[Trevor.Bell@ontario.ca](mailto:Trevor.Bell@ontario.ca)>  
**Cc:** Jasmine Biasi - GM BluePlan <[Jasmine.Biasi@gmblueplan.ca](mailto:Jasmine.Biasi@gmblueplan.ca)>; Laurie Boyce - GM BluePlan

<[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>

**Subject:** RE: G.E. Booth WWTP and Clarkson WWTP Schedule C Class EAs - MECP Mtg

**CAUTION -- EXTERNAL E-MAIL - Do not click links or open attachments unless you recognize the sender.**

Trevor,

Apologies for the misunderstanding. We will have materials for review very soon.

Could you please provide a few options for date/time? We will also get some dates together to coordinate. We are hoping to meet with you and your team sooner than later, hopefully within the next couple of weeks.

Apologies again,

Dania

**Dania Chehab, M.Eng., P.Eng.**

Infrastructure Planning

**GM BluePlan Engineering Limited**

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[dania.chehab@gmblueplan.ca](mailto:dania.chehab@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



---

**From:** Bell, Trevor (MECP) <[Trevor.Bell@ontario.ca](mailto:Trevor.Bell@ontario.ca)>

**Sent:** Wednesday, October 06, 2021 1:40 PM

**To:** Dania Chehab - GM BluePlan <[Dania.Chehab@gmblueplan.ca](mailto:Dania.Chehab@gmblueplan.ca)>

**Cc:** Jasmine Biasi - GM BluePlan <[Jasmine.Biasi@gmblueplan.ca](mailto:Jasmine.Biasi@gmblueplan.ca)>; Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>

**Subject:** RE: G.E. Booth WWTP and Clarkson WWTP Schedule C Class EAs - MECP Mtg

Hi all,

Further to my previous email, I spoke with my colleagues and they indicated that it is much preferable to reschedule the meeting after the materials for discussion are provided. I apologize for the short notice, however with the materials to review in advance, the reviewers can come prepared and have a much more efficient and productive meeting.

Thanks,

Trevor

---

**From:** Bell, Trevor (MECP)

**Sent:** October 6, 2021 12:58 PM

**To:** Dania Chehab - GM BluePlan <[Dania.Chehab@gmblueplan.ca](mailto:Dania.Chehab@gmblueplan.ca)>

**Cc:** Jasmine Biasi - GM BluePlan <[Jasmine.Biasi@gmblueplan.ca](mailto:Jasmine.Biasi@gmblueplan.ca)>; Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>

**Subject:** RE: G.E. Booth WWTP and Clarkson WWTP Schedule C Class EAs - MECP Mtg

Hi Dania,

Hope you're doing well. We were under the impression that materials for discussion would be circulated before tomorrow's meeting. Apologies if you sent us something, but I can't seem to find anything in my emails. With the meeting tomorrow morning, do you have anything you can share for



the reviewers to look at prior to the meeting? I know this is last minute but in the absence of any material to review, the reviewers may want to push this meeting until they've had a chance to look at your results.

Thanks,  
Trevor

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**From:** Dania Chehab - GM BluePlan <[Dania.Chehab@gmblueplan.ca](mailto:Dania.Chehab@gmblueplan.ca)>  
**Sent:** September 15, 2021 12:01 PM  
**To:** Bell, Trevor (MECP) <[Trevor.Bell@ontario.ca](mailto:Trevor.Bell@ontario.ca)>  
**Cc:** Jasmine Biasi - GM BluePlan <[Jasmine.Biasi@gmblueplan.ca](mailto:Jasmine.Biasi@gmblueplan.ca)>; Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>  
**Subject:** RE: G.E. Booth WWTP and Clarkson WWTP Schedule C Class EAs - MECP Mtg

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Wonderful – thanks Trevor.

**Dania Chehab, M.Eng., P.Eng.**  
Infrastructure Planning

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**From:** Bell, Trevor (MECP) <[Trevor.Bell@ontario.ca](mailto:Trevor.Bell@ontario.ca)>  
**Sent:** Wednesday, September 15, 2021 12:01 PM  
**To:** Dania Chehab - GM BluePlan <[Dania.Chehab@gmblueplan.ca](mailto:Dania.Chehab@gmblueplan.ca)>  
**Cc:** Jasmine Biasi - GM BluePlan <[Jasmine.Biasi@gmblueplan.ca](mailto:Jasmine.Biasi@gmblueplan.ca)>; Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>  
**Subject:** RE: G.E. Booth WWTP and Clarkson WWTP Schedule C Class EAs - MECP Mtg

Hello,

October 7 works for the majority of reviewers from whom I've heard back, so I think you can go ahead and book the meeting.

Thanks,  
Trevor

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**From:** Dania Chehab - GM BluePlan <[Dania.Chehab@gmblueplan.ca](mailto:Dania.Chehab@gmblueplan.ca)>  
**Sent:** September 9, 2021 11:12 AM  
**To:** Bell, Trevor (MECP) <[Trevor.Bell@ontario.ca](mailto:Trevor.Bell@ontario.ca)>  
**Cc:** Jasmine Biasi - GM BluePlan <[Jasmine.Biasi@gmblueplan.ca](mailto:Jasmine.Biasi@gmblueplan.ca)>; Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>  
**Subject:** RE: G.E. Booth WWTP and Clarkson WWTP Schedule C Class EAs - MECP Mtg

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Hi Trevor,

We have narrowed down a meeting date of October 7, 10 am to 12 noon. Please let me know if this works for you and the reviewers - we'll circulate a Teams meeting invite shortly after hearing back.

If not, we'll coordinate a couple other options.

Thanks,  
Dania

**Dania Chehab, M.Eng., P.Eng.**  
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**From:** Bell, Trevor (MECP) <[Trevor.Bell@ontario.ca](mailto:Trevor.Bell@ontario.ca)>  
**Sent:** Wednesday, August 25, 2021 3:35 PM  
**To:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>  
**Cc:** Jasmine Biasi - GM BluePlan <[Jasmine.Biasi@gmblueplan.ca](mailto:Jasmine.Biasi@gmblueplan.ca)>; Dania Chehab - GM BluePlan <[Dania.Chehab@gmblueplan.ca](mailto:Dania.Chehab@gmblueplan.ca)>  
**Subject:** RE: G.E. Booth WWTP and Clarkson WWTP Schedule C Class EAs - MECP Mtg

Hi Laurie,

I'm pretty much wide open those two weeks. The technical reviewers will ask for material to review prior to the meeting in order to be as effective as possible. Can you share the results of your modelling or a report for the technical reviewers to look at beforehand?

Feel free to propose some dates and I'll coordinate with tech support.

Thanks,  
Trevor

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**From:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>  
**Sent:** August 25, 2021 12:33 PM  
**To:** Bell, Trevor (MECP) <[Trevor.Bell@ontario.ca](mailto:Trevor.Bell@ontario.ca)>  
**Cc:** Jasmine Biasi - GM BluePlan <[Jasmine.Biasi@gmblueplan.ca](mailto:Jasmine.Biasi@gmblueplan.ca)>; Dania Chehab - GM BluePlan <[Dania.Chehab@gmblueplan.ca](mailto:Dania.Chehab@gmblueplan.ca)>  
**Subject:** RE: G.E. Booth WWTP and Clarkson WWTP Schedule C Class EAs - MECP Mtg  
**Importance:** High

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Trevor: I know how busy everyone is, but am hoping I can set up a meeting with your team on behalf of the Region of Peel to discuss preliminary results of the assimilative capacity studies for the Clarkson and G.E. Booth WWTP. We have completed the initial CORMIX modelling, and working on the farfield modelling for the Clarkson WWTP. Are that dates

that work for you the last week of September or first week of October. We are looking forward to presenting the results to you ASAP and receiving your input. Please let me know when you are available and if you have questions please feel free to contact me at 416-471-0528.

Laurie

**Laurie Boyce, B.Sc., M.A.**

Strategic Planning and Project Advisor

**GM BluePlan Engineering Limited**

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## Jasmine Biasi - GM BluePlan

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**From:** Laurie Boyce - GM BluePlan  
**Sent:** Tuesday, May 04, 2021 11:31 AM  
**To:** Belayneh, Ted (MECP); Dania Chehab - GM BluePlan; Bell, Trevor (MECP); Simpson, Wayne (MECP); Nowicki, Amanda (MECP); Ahmed, Aziz (MECP); Sekula, Dominika; Chee Sing, Elizabeth (MECP); Shen, Lisai (MECP); Fletcher, Rachael (MECP); Kambeitz, Cindy; Fiona Duckett; Mike Fullarton; Troy Briggs  
**Cc:** Jasmine Biasi - GM BluePlan  
**Subject:** RE: G.E. Booth WWTP and Clarkson WWTP Schedule C Class EAs - MECP Mtg

Yes Ted this information is very useful! Thanks for pulling it together for us. We look forward to continuing work with you on these EAs.

**Laurie Boyce, B.Sc., M.A.**  
Strategic Planning and Project Advisor

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---

**From:** Belayneh, Ted (MECP) <Ted.Belayneh@ontario.ca>  
**Sent:** Friday, April 30, 2021 3:39 PM  
**To:** Dania Chehab - GM BluePlan <Dania.Chehab@gmblueplan.ca>; Laurie Boyce - GM BluePlan <Laurie.Boyce@gmblueplan.ca>; Bell, Trevor (MECP) <Trevor.Bell@ontario.ca>; Simpson, Wayne (MECP) <Wayne.Simpson@ontario.ca>; Nowicki, Amanda (MECP) <Amanda.Nowicki@ontario.ca>; Ahmed, Aziz (MECP) <Aziz.Ahmed@ontario.ca>; Sekula, Dominika <dominika.sekula@peelregion.ca>; Chee Sing, Elizabeth (MECP) <Elizabeth.CheeSing@ontario.ca>; Shen, Lisai (MECP) <Lisai.Shen@ontario.ca>; Fletcher, Rachael (MECP) <Rachael.Fletcher@ontario.ca>; Kambeitz, Cindy <cindy.kambeitz@peelregion.ca>; Fiona Duckett <duckett@baird.com>; Mike Fullarton <mfullarton@baird.com>; Troy Briggs <Troy.Briggs@cima.ca>  
**Subject:** RE: G.E. Booth WWTP and Clarkson WWTP Schedule C Class EAs - MECP Mtg

I do not have any edits on the minutes. Thanks.

I hope you found the summary on Clarkson useful. Here's a summary of my records for Lakeview. This may be less relevant as Lakeview is getting a new outfall too:

The Region completed an EA in Jul 2003 to expand Lakeview in 2 stages: to 448 MLD (first stage) and then 518 MLD (ultimate expansion). The 2003 ESR identified preferred design concepts for the expansions. The ECA for the first phase of expansion (448 MLD) was issued in April 2004 (C of A No. 0008-5WJLLV) and construction completed sometime in 2006. The 2003 EA also concluded with agreement between MOE and the Region to do supplemental modeling/ receiver evaluation when the Region applies for the ECA for the phase 2 expansion (518 MLD). Consistent with that agreement, the Region submitted the application for phase 2 (518 MLD) along with a supporting plume modeling & receiving water impact assessment report (KMK, March 2008). There was also an EA addendum completed around 2008 to address

some changes to the design concepts presented in the 2003 ESR. The Addendum was completed in March 17, 2008. We did not have much to say about the Addendum as it did not include a lot of discussion regarding receiver assessment or effluent targets.

I was not involved in the review of the 2003 ESR, but it was very extensive. My involvement began with the review of the 2008 ECA application for phase 2 and the supporting receiver modeling report. The main outstanding issues during the 2003 EA were mostly related to ammonia and TP – the EA deferred concluding these issues with a requirement to do the supplemental modeling for phase 2 (expansion to 518 MLD) and , so our discussions were solely focused on TP and ammonia. The 1<sup>st</sup> attached email gives you the full picture/ scope of our initial comments. After so many meetings and negotiations, we agreed on the effluent TP and ammonia targets that'd apply to the plant for the phase 2 expansion (this is contained in the 2<sup>nd</sup> email). We agreed on ammonia (TAN) limits that are exactly what you see in the ECA today: November to April: 34 mg/L ; May 1 to June 15: 16 mg/L; June 15 to September 15: 8 mg/L and September 15 to October 31: 16 mg/L.

For TP, we settled on: monthly average design objective of 0.7; an annual average load compliance limit of 362 kg and a monthly average concentration limit of 0.8 with up to two allowances to go as high as 1 mg/L. The annual loading cap was later relaxed somewhat to 394 kg/day based on a request from Peel in 2009. At the time, it was noted that the Region requested a change in the TP loading limit to 394 kg/d, which is based on the 0.76 mg/L weighted required average concentration limit (after accounting for two maximum per year of 1.0 mg/L). In doing so, the Region will operate the plant to achieve 0.7 mg/L and resulting annual TP loading will most likely still meet the current 362.6 kg/d amount, but without the concern of it being an exceedance.

Given Lakeview is getting a new outfall, your considerations of TP loading may change. I expect less of an impact on the TAN considerations. As you go through your records, you may also find some discussion about disinfection requirements that occurred in 2014. I don't think it is relevant anymore as the Region disinfects year-round anyway. The question then was this – the 2003 and 2008 reviews and also the ECAs issued at the time determined seasonal disinfection was adequate. But the Region was implementing year round disinfection. My understanding was that Peel did not proceed with this idea anyway. So, year round disinfection is still the practice.

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**From:** Dania Chehab - GM BluePlan <[Dania.Chehab@gmblueplan.ca](mailto:Dania.Chehab@gmblueplan.ca)>

**Sent:** April 29, 2021 9:45 AM

**To:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; Belayneh, Ted (MECP) <[Ted.Belayneh@ontario.ca](mailto:Ted.Belayneh@ontario.ca)>; Bell, Trevor (MECP) <[Trevor.Bell@ontario.ca](mailto:Trevor.Bell@ontario.ca)>; Simpson, Wayne (MECP) <[Wayne.Simpson@ontario.ca](mailto:Wayne.Simpson@ontario.ca)>; Nowicki, Amanda (MECP) <[Amanda.Nowicki@ontario.ca](mailto:Amanda.Nowicki@ontario.ca)>; Ahmed, Aziz (MECP) <[Aziz.Ahmed@ontario.ca](mailto:Aziz.Ahmed@ontario.ca)>; Sekula, Dominika <[dominika.sekula@peelregion.ca](mailto:dominika.sekula@peelregion.ca)>; Chee Sing, Elizabeth (MECP) <[Elizabeth.CheeSing@ontario.ca](mailto:Elizabeth.CheeSing@ontario.ca)>; Shen, Lisai (MECP) <[Lisai.Shen@ontario.ca](mailto:Lisai.Shen@ontario.ca)>; Fletcher, Rachael (MECP) <[Rachael.Fletcher@ontario.ca](mailto:Rachael.Fletcher@ontario.ca)>; Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>; Fiona Duckett <[duckett@baird.com](mailto:duckett@baird.com)>; Mike Fullarton <[mfullarton@baird.com](mailto:mfullarton@baird.com)>; Troy Briggs <[Troy.Briggs@cima.ca](mailto:Troy.Briggs@cima.ca)>

**Subject:** RE: G.E. Booth WWTP and Clarkson WWTP Schedule C Class EAs - MECP Mtg

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Good morning,

Meeting notes and a copy of the presentation material from our April 14 meeting are attached.

If you have any comments or clarifications, please let me know by May 14.

Thanks,  
Dania

**Dania Chehab, M.Eng., P.Eng.**  
Infrastructure Planning

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## Schedule C Class Environmental Assessments and Conceptual Designs of the South Peel Wastewater Treatment Plants

### Ministry of Environment, Conservation and Parks (MECP) Meeting Minutes

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**Meeting Date/Time:** April 14, 2021 10:00 am to 11:30 am

**Location:** Teams Meeting

**Minutes Prepared by:** Dania Chehab (GM BluePlan); reviewed by Laurie Boyce (GM BluePlan)

**Date of Minutes:** April 14, 2021

#### Attendance

**Chair:** Laurie Boyce (LB), GM BluePlan

<b>Attendees:</b>	<p><b>Region of Peel</b> Cindy Kambeitz (CK), Project Manager Dominika Pusika (DP), Compliance</p> <p><b>Consultant Team</b> Troy Briggs (TrB), Cima Fiona Duckett (FD), Baird Mike Fullarton (MiF), Baird Dania Chehab (DC), GM BluePlan</p>	<p><b>MECP</b> Ted Belayneh (TB) Aziz Ahmed (AA) Lisai Shen (LS) Wayne Simpson (WS) Rachael Fletcher (RF) Elizabeth Chee-Sing (EC-S) Amanda Nowicki (AN) Maisa Fumagalli (MF)</p>
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**Regrets:** Trevor Bell (TB)

Agenda Item	Discussion Topic	Action / Outcome
1.	<p><u>Introduction</u></p> <p>All attendees introduced themselves. LB introduced the project and purpose of the meeting.</p>	
2.	<p><u>Project Background and Progress to Date</u></p> <p>a. G.E. Booth WWTP Outfall will be sized to consider the long-term (100-year) vision. Outfall would be larger than the 1650 MLD required by this Class EA and have spare diffusers; capacity may be approximately 2000 MLD, to be confirmed as this Class EA progresses.</p>	<p>a. Receiving water assessment to consider the larger outfall capacity and size.</p>

	<p>It was also noted that the Clarkson WWTP outfall that was constructed c.2010 was sized using a similar approach.</p> <p>b. East-to-West Diversion Trunk Sewer is currently under construction and is not part of these Class EA studies.</p>	
<p>3.</p>	<p><u>Phase 2 Recommended Solutions</u></p> <p>a. Biosolids generated at Clarkson WWTP will no longer be trucked to G.E. Booth WWTP and will be managed on-site. As part of Phase 3, the Class EA will consider different biosolids treatment and management technologies as well as beneficial end-use options. Specific technology and end-use to be determined by the conclusion of Phase 3.</p> <p>b. Biosolids generated at G.E. Booth WWTP will be treated on-site. The existing incinerators will continue to operate, making use of existing installed infrastructure. Incineration capacity will not be expanded and alternative biosolids management methods will be reviewed for any required additional capacity. Specific technology and end-use to be determined by the conclusion of Phase 3.</p> <p>c. Peel is currently exploring opportunities for beneficial end-use of ash (external to this Class EA), and may include opportunities such as use of ash in brick or fertilizer manufacturing.</p>	
<p>4.</p>	<p><u>Receiving Water Assessment</u></p> <p>a. MECP (TB) emphasized importance of selecting baseline effluent conditions and taking into consideration actual effluent concentrations. Using effluent limits or objectives in baseline modelling may result in future model results to appear artificially worse than existing.</p>	<p>a. GMBP Team to review baseline conditions and use existing concentrations in addition to limits or objective.</p>

	<ul style="list-style-type: none"> <li>b. MECP (TB, LS) noted that a two-tiered approach is necessary for ammonia. The first step would be to verify that end-of-pipe ammonia concentrations are not acutely lethal and the second step would make sure that PWQO are met. Team (LB, TrB, TB, LS) agreed that, for this study, end-of-pipe concentration would likely govern.</li> <li>c. TB noted that there was historical concern with potential ability to achieve TAN limits for the Clarkson outfall (2008); however, this was found to not be an issue and plant performs well. <i>(TrB sent follow up email, post meeting, on background information)</i></li> <li>d. TB and FD discussed criteria for defining dilution locations with options for half-pipe or edge of mixing zone. TB indicated that PWQO do not specify where mixing zone dilution requirements are to be met. Potential location for model output would be at the edge of the nearfield mixing zone and at a distance of half the pipe length from shore, with an objective of minimizing the size of the mixing zone.</li> <li>e. TB noted that UIA levels listed in slide “Determine Target Dilutions” appear to be high. MiF explained that these values are preliminary and will be refined, and that purpose of the slide was mainly to describe the approach rather than specific values.</li> <li>f. MiF explained that model will not be calibrated under this project; the model being used was recently calibrated and fine-tuned to ADCP Lake Ontario data. FD added that a finer grid / mesh will be used in the area near the G.E. Booth and Clarkson WWTPs.</li> <li>g. MiF explained the difference between near-field (CORMIX) and far-field (MIKE3) modelling. Near-field models</li> </ul>	<ul style="list-style-type: none"> <li>b. GMBP Team will consider UIA (through TAN) in existing / baseline RWA model to establish understanding of existing conditions.</li> <li>d. GMBP Team to confirm location at which target dilutions would be met for each plant.</li> <li>e. GMBP team recognized information is incorrect and will update UIA/TAN concentrations.</li> </ul>
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	<p>rely more heavily on geometry and sizing while far-field modelling is more holistic and bigger scale (e.g. 800-900 m). Far-field modelling looks at potential impacts to WTP intakes and nearshore uses.</p> <p>h. TB indicated that while a 6- month model-period was useful, but there may be more benefit to modelling more extreme scenarios such as heavy winds and sub-optimal plant conditions to identify potential impacts to WTP intakes. MiF noted that specific time periods can be isolated to extract time-series or create animations to share with the public and interested stakeholders.</p>	<p>h. GMBP Team will consider public friendly ways to present results (e.g. animation).</p>
<p>5.</p>	<p><u>Schedule and Next Steps</u></p> <p>a. First PIC was completed in March 2020 and second PIC is currently underway.</p>	
<p>6.</p>	<p><u>Other Business</u></p> <p>a. TB noted that he participated in the meeting in an advisory role as he is familiar with the Clarkson (2008) outfall project. LS will be the RWA reviewer for this project.</p> <p>b. MECP (LS) indicated that in addition to TP concentrations, phosphorus loadings will be important.</p>	

A copy of the presentation material is enclosed and forms a part of these meeting minutes.

**Next Meeting:** To be set after preliminary results are available

Notice of any errors or omissions in this document should be communicated by attendees to minute taker within two (2) weeks of issue of these minutes.

# Peel Wastewater Treatment Solutions

G.E. Booth WWTP Schedule C Class EA  
Clarkson WWTP Schedule C Class EA

Meeting with Ministry of Environment,  
Conservation and Parks

—  
April 14, 2021



- **Introduction**
- **Project Background and Progress To Date**
- **Phase 2 Recommended Solutions**
- **Receiving Water Assessment**
  - General Approach
  - Compliance Objectives and Limits
  - Data Summary
  - Effluent Conditions
  - Target Dilutions
  - Modelling Approach (Near- and Far-field)
- **Schedule and Next Steps**



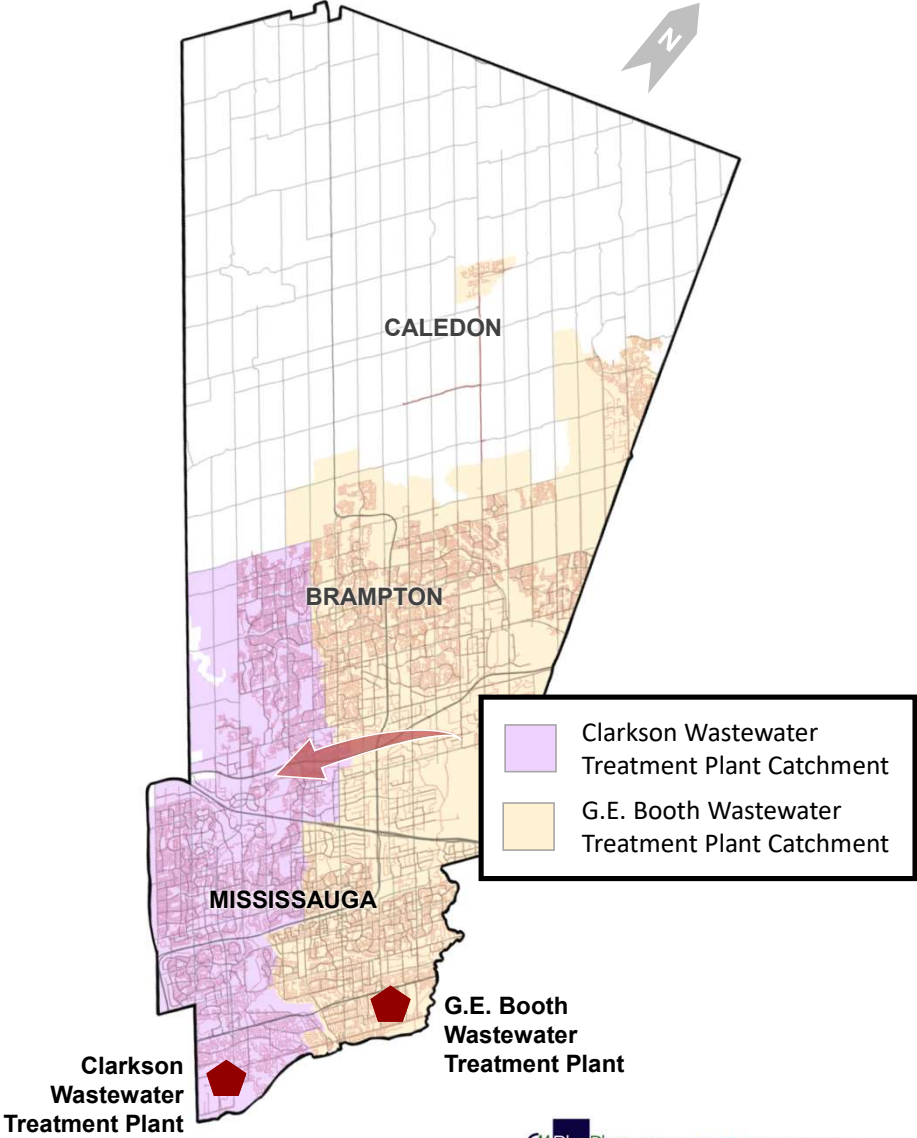
# Peel's Wastewater Treatment System



**Clarkson Wastewater Treatment Plant**



**G.E. Booth Wastewater Treatment Plant**



## Phase 1: Problem and Opportunity Statement

- How much additional wastewater flow and solids will be generated from approved population and employment growth?
- What Opportunities should be realized?

## Phase 2: Alternative Solutions

- What is the overall concept for treating wastewater in Peel?
- Should we expand one or both the existing wastewater treatment plants?
- How much should the wastewater treatment plant(s) be expanded by?
- Do we need additional outfall capacity? How much and where?

 **We are here  
(Beginning of Phase 3)**

## Phase 3: Alternative Technologies and Site Layouts (Design Concepts)

- What technologies should we use to treat our wastewater?
- How will we provide additional outfall capacity?
- How should the wastewater plant sites be laid out and look?
- How do we mitigate environmental and social impacts?

# Phase 1 – Problem and Opportunity Statement

## The Region is undertaking two Schedule C Class EAs to develop preferred solutions at the G.E Booth WWTP and the Clarkson WWTP that will:

- Meet future needs associated with population growth, new regulations, climate resiliency, energy efficiency, and wet weather flow management
- Address community expectations regarding level of service, odour, air/noise, water quality, protection of the environment and aesthetics
- Provide greater flexibility and reliability in wastewater and biosolids management.



## Class EA Phase 2 Recommendations

### FLOW REDUCTION

Continue programs to reduce flows to the wastewater collection system:

- Control stormwater inflow and groundwater infiltration (I/I) into the sewers
- Promote efficient use of water

### UPGRADE AND EXPAND WASTEWATER COLLECTION SYSTEM

Upgrade/New Sewers to meet capacity demands and construct the East to West diversion to optimize available capacities at the WWTPs

### WET WEATHER MANAGEMENT

Manage wet weather flows within the existing wastewater collection system as well as at the treatment plants

### EXPAND ONE OR BOTH OF THE EXISTING WASTEWATER TREATMENT PLANTS

- G.E. Booth Wastewater Treatment Plant
- Clarkson Wastewater Treatment Plant



- Expand the **G.E. Booth WWTP** from approximately 500 MLD to 550 MLD and Construct a New Outfall
- Expand the **Clarkson WWTP** from 350 MLD to 500 MLD

# G.E. Booth WWTP – Existing Facility



- Existing treatment processes include:
  - Screening/Grit removal
  - Primary clarification/Aeration
  - Secondary clarification
  - Chlorine/De-chlorination
  - Sludge Treatment and Dewatering
  - Incineration
- Existing plant capacity of approx. 500 MLD (518 MLD); current flows of 450 MLD
- Existing outfall:
  - 3.65 meters diameter and 1.4 km into Lake Ontario;
  - Peak capacity of 1200 MLD; insufficient size and capacity to meet future demands and regulations.





# G.E. Booth WWTP – Recommended Solution



- Divert flows from the G.E. Booth WWTP catchment to Clarkson WWTP through the East-to-West Diversion Trunk Sewer to alleviate existing capacity challenges.
- Stop receiving Clarkson WWTP sludge to free up incinerator capacity and diversify biosolids management options.
- Expand the G.E. Booth WWTP from approximately 500 MLD to 550 MLD by providing additional wastewater and sludge treatment capacity within the site boundaries.
- Eliminate the ash lagoons and beneficially market the ash product
- Construction of a new larger outfall that extends deeper into Lake Ontario. It will be sized to meet long-term capacity requirements.





# Clarkson WWTP – Existing



- Existing treatment processes include:

Screening/Grit removal	Sludge Digestion and Dewatering
Primary clarification/Aeration	Trucking Dewater Sludge to G.E. Booth WWTP for Incineration
Secondary clarification	
Chlorine/De-Chlorination	
- Existing plant capacity of 350 MLD; Current flows of 220 MLD, and therefore has excess capacity
- The outfall has sufficient capacity to meet future requirements - No expansion to outfall capacity is required.

# Clarkson WWTP – Recommended Solution



- Divert flows from the G.E. Booth WWTP catchment to Clarkson WWTP through the East-to-West Diversion Trunk Sewer to take advantage excess capacity at the Clarkson WWTP on the short-term.
- Expand the Clarkson WWTP from 350 MLD to 500 MLD by providing additional wastewater treatment capacity within the site boundaries.
- Stop trucking Clarkson WWTP biosolids to the G.E. Booth WWTP for incineration.
- Provide additional sludge treatment capacity at the Clarkson WWTP to effectively treat the sludge and produce high-quality biosolids end-products.

# Requirements for Receiving Water Assessment

- Point source effluent requirements for Ontario
- Effluent Mixing Zone
  - Discharge diffusers must provide a minimum mixing ratio of 20:1
  - PWQO should be met at edge of mixing zone
  - Mixing zone should be as small as possible and not interfere with other uses such as water supply intakes, bathing beaches, fish spawning or fish migration routes
- Improve nearshore and do not negatively impact drinking water sources

## Applicable Water Quality Objectives

Parameter	PWQO
E.Coli	<100 counts/100mL at beaches
Total Phosphorus	<0.02 mg/L at edge of mixing zone
Un-ionized Ammonia	<0.02 mg/L at edge of mixing zone



# RWIA Approach (Clarkson & G.E. Booth WWTPs)

- **Define ambient conditions**

- Physical characteristics (currents, temperature)
- Water quality parameters (TP, TAN, UIA, pH, *E.coli*)

- **Define effluent conditions**

- Flow rates & temperatures
- Water quality parameters (TP, TAN, UIA, pH, *E.coli*)

- **Determine target dilution**

- Define water quality objective in lake
- Governing constituent (highest dilution)

- **Evaluate outfalls and mixing zones**

- Near-field (CORMIX)
- Far-field (MIKE3)

# Compliance Objectives & Limits

## Clarkson Wastewater Treatment Plant

Parameter	Averaging Calculator	ECA Objective (mg/L)	ECA Limit (mg/L)	Average Waste Loading (kg/d)
CBOD (mg/L)	Annual Average Effluent Concentration	15.0	25.0	N/A
TSS (mg/L)	Annual Average Effluent Concentration	15.0	25.0	N/A
TP (mg/L)	Monthly Average Effluent Concentration	0.8	1.0	350.0
TAN(mg/L)	Monthly Average Effluent Concentration	8.0 (May 1 - Oct 31) 16.0 (Nov 1 - Apr 30)	16.0 (May 1 - June 15) 12.8 (Jun 16 - Sep 15) 16.0 (Sep 16 - Oct 31) 30.0 (Nov 1 - Apr 30)	N/A

## G.E. Booth Wastewater Treatment Plant

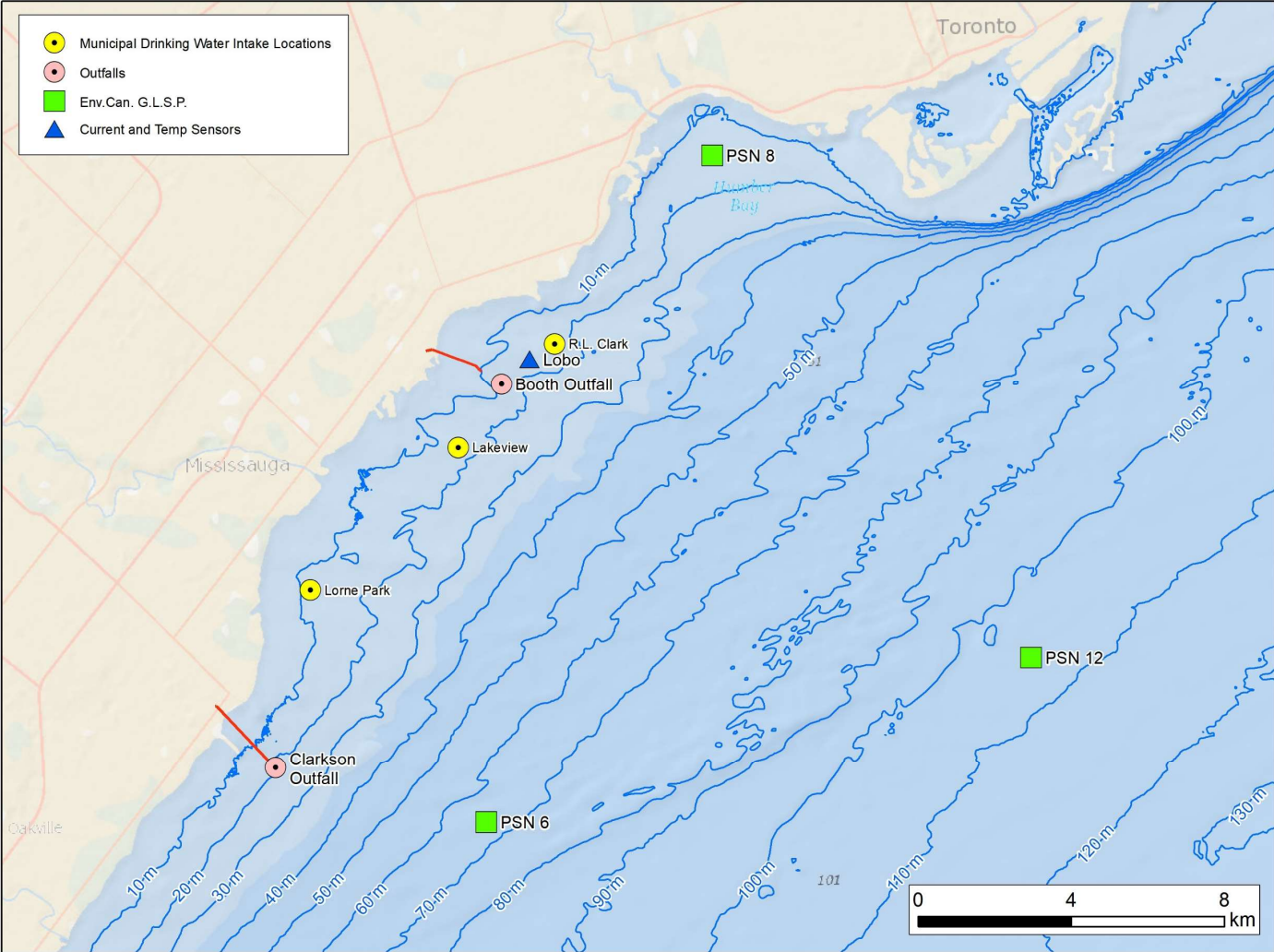
Parameter	Averaging Calculator	ECA Objective (mg/L)	ECA Limit (mg/L)	Average Waste Loading (kg/d)
CBOD (mg/L)	Annual Average Effluent Concentration	15.0	25.0	N/A
TSS (mg/L)	Annual Average Effluent Concentration	15.0	25.0	N/A
TP (mg/L)	Monthly Average Effluent Concentration	0.7	0.8	394.0
TAN(mg/L)	Monthly Average Effluent Concentration	8.0 (May 1 - May 31) 6.0 (Jun 1 - Sep 30) 8.0 (Oct 1 - Oct 31) 17.0 (Nov 1 - Apr 30)	16.0 (May 1 - May 31) 8.0 (Jun 1 - Sep 30) 16.0 (Oct 1 - Oct 31) 34.0 (Nov 1 - Apr 30)	N/A

# Define Ambient Conditions: Data Sources

Agency	Program	Station	Collection Period	Sampling Frequency	Measured Parameters
<b>Lake Water Quality</b>					
MECP	DWSP	Lakeview WTP Lorne Park WTP R.L. Clark WTP	2013-2020	1 to 4 times per year	TP, pH, Ammonia
Environment Canada	GLSP	6 & 8	2001-2018	1-3 times per year	TP, DO, Ammonia
Municipal	WTP Raw Water Sampling	Lakeview WTP Lorne Park WTP	2015-2020	~ 2 days	E.coli
<b>Physical Lake Characteristics</b>					
Environment Canada	GLSP	6 & 8	2001-2018	1-3 times per year	Temp
MECP	LOBO	Etobicoke	2013-2020	30 min	Currents



# Define Ambient Conditions: Data Source Locations



# Define Ambient Conditions: Data Analysis

Parameter		All Seasons	Winter (Dec-Feb)	Spring (Mar-May)	Summer (Jun-Aug)	Fall (Sep-Nov)
75 <sup>th</sup> Percentile	TP (mg/L)	0.0089	0.006	0.0065	0.009	0.010
	pH	8.1	8.1	8.1	8.2	8.1
	UIA (mg/L)	0.0017	0.0006	0.0005	0.0020	0.0016
	TAN (mg/L)	0.033	0.029	0.024	0.044	0.028
	Lake Ontario Temperature (°C)	n/a	4	5.4	22.4	13.1
E. Coli Geometric Mean (CFU/100 mL)		16	16	16	16	16
Water Current Speed Data (25 <sup>th</sup> Percentile)		0.048 m/s	0.048 m/s	0.033 m/s	0.055 m/s	0.048 m/s

# Define Effluent Conditions

## Clarkson Wastewater Treatment Plant

Parameter	Value	Basis
Total Phosphorus	1 mg/L	Effluent Limit
TAN	2.5 mg/L Spring 4.5 mg/L Summer	90 <sup>th</sup> percentile, 2016-2019 plant data
Temperature	16.2°C Spring 22.0°C Summer	75 <sup>th</sup> percentile, 2016-2019 plant data
Flow	350 MLD	Average rated capacity

## G.E. Booth Wastewater Treatment Plant

Parameter	Value	Basis
Total Phosphorus	0.8 mg/L	Effluent Limit
TAN	2.0 mg/L Spring 1.1 mg/L Summer	90 <sup>th</sup> percentile, 2012-2019 plant data
Temperature	17.8°C Spring 23.2°C Summer	75 <sup>th</sup> percentile, 2012-2019 plant data
Flow	500 MLD	Average rated capacity



# Determine Target Dilution

## Clarkson Wastewater Treatment Plant

Parameter	Water Quality Objective	Effluent Summer(Fall)	Ambient Summer(Fall)	Required Dilution Summer(Fall)
Un-ionized ammonia (UIA)	0.020 <sup>1</sup> mg/L	0.37(0.21) mg/L	0.0020(0.0016) mg/L	20:1(11:1)
Total Ammonia Nitrogen (TAN)	0.500 <sup>2</sup> mg/L	4.50(2.64) mg/L	0.044(0.028) mg/L	10:1(6:1)
Total Phosphorus (TP)	0.020 <sup>1</sup> mg/L	1.00(1.00) <sup>3</sup> mg/L	0.009(0.010) mg/L	90:1(99:1)
E.coli	100 counts/100mL <sup>1</sup>		15(15) counts/100mL	

## G.E. Booth Wastewater Treatment Plant

Parameter	Water Quality Objective	Effluent Summer(Fall)	Ambient Summer(Fall)	Required Dilution Summer(Fall)
Un-ionized ammonia (UIA)	0.020 <sup>1</sup> mg/L	0.10(0.07) mg/L	0.0020(0.0016) mg/L	5:1(4:1)
Total Ammonia Nitrogen (TAN)	0.500 <sup>2</sup> mg/L	1.10(0.86) mg/L	0.044(0.028) mg/L	2:1(2:1)
Total Phosphorus (TP)	0.020 <sup>1</sup> mg/L	0.80(0.80) <sup>3</sup> mg/L	0.009(0.010) mg/L	72:1(79:1)
E.coli	100 counts/100mL <sup>1</sup>		15(15) counts/100mL	

<sup>1</sup>Provincial Water Quality Objective

<sup>2</sup>Great Lakes Water Quality Agreement (GLWQA)

<sup>3</sup>ECA Limit

# Near-Field Analysis (CORMIX)

- Cornell Mixing Zone Expert System
- Strength of model is predicting mixing in the near-field
- Model setup to simulate seasonal conditions

Seasons	Ambient Lake Conditions		Effluent Conditions Clarkson WWTP		Effluent Conditions G.E. Booth WWTP	
	Temperature (°C) <sup>1</sup>	Speed (m/s) <sup>2</sup>	Temperature (°C) <sup>1</sup>	Flow (MLD)	Temperature (°C) <sup>3</sup>	Flow (MLD)
Winter	4.0	0.048	16.5	350	17.0	518
Spring	5.4	0.033	16.2	350	17.8	518
Summer	22.4	0.055	22.0	350	23.2	518
Fall	13.1	0.048	21.4	350	21.8	518

<sup>1</sup> Seasonal 75<sup>th</sup> Percentile Temperature Data in Receiving Water using GLSP (PSN 6 & 8)

<sup>2</sup> Seasonal 25<sup>th</sup> Percentile Current Speed Data using LOBO

<sup>3</sup> Seasonal 75<sup>th</sup> Percentile Temperature Data Derived from Effluent Measurements

# Far-Field Analysis (MIKE3)

- Danish Hydraulic Institute (DHI)
- Strength of model is predicting mixing in the far-field
- Model setup to simulate six-month period
  - May to October 2008 (ice free season)
  - Effluent: average daily flow
  - Low water level 74.2m IGLD85
  - Constant effluent and ambient water quality data

Parameter	Total Phosphorus (mg/L)	Total Ammonia Nitrogen (mg/L)
Effluent – Clarkson WWTP	1.0 <sup>1</sup>	3.1 <sup>2</sup>
Effluent – G.E. Booth WWTP	0.8 <sup>1</sup>	1.4 <sup>2</sup>
Ambient (75 <sup>th</sup> Percentile)	0.009 <sup>3</sup>	0.017 <sup>3</sup>

<sup>1</sup> ECA Limit

<sup>2</sup> 90<sup>th</sup> Percentile measured plant data

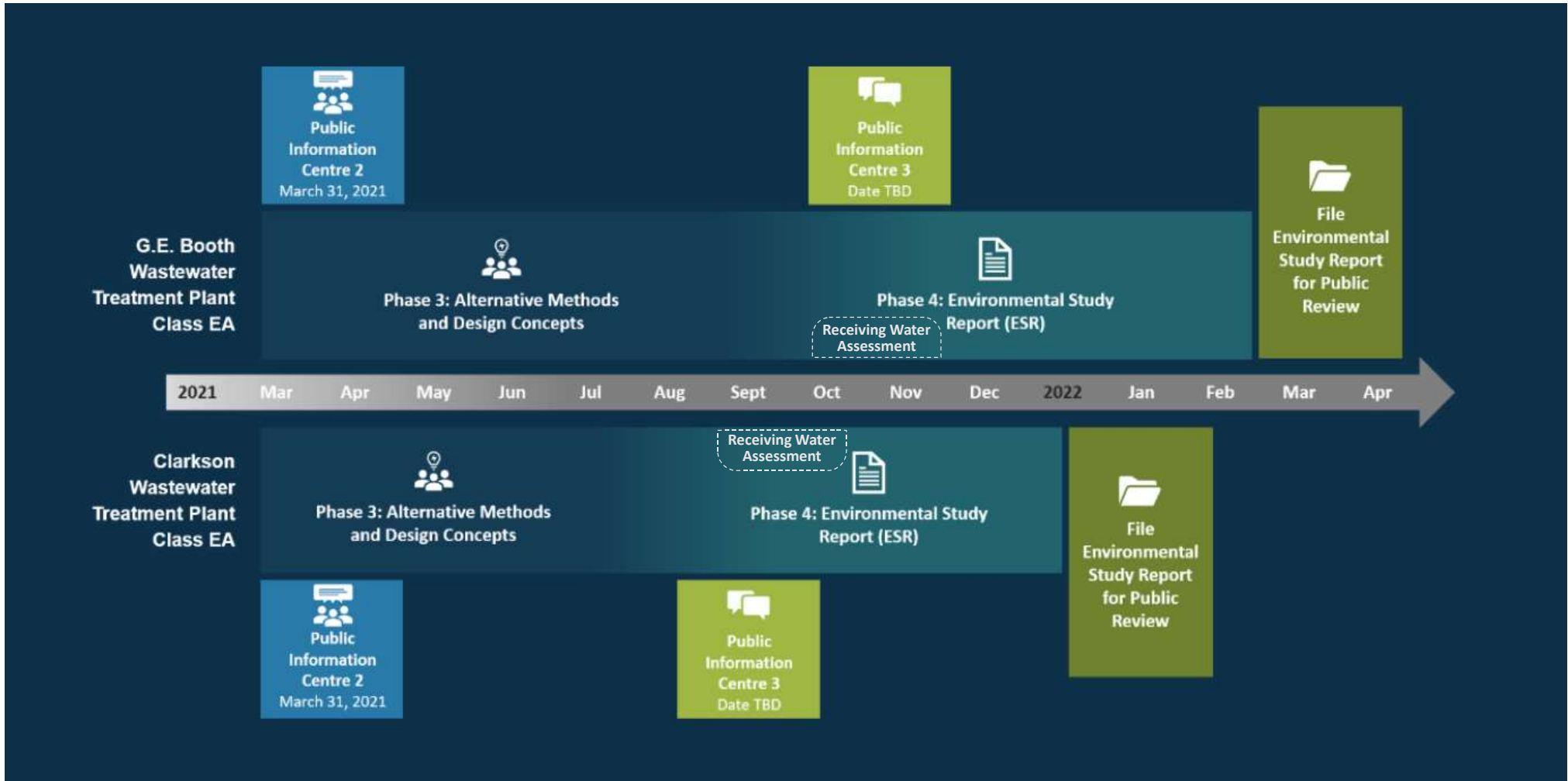
<sup>3</sup> 75<sup>th</sup> Percentile measured field data



## Next Steps

- Develop alternative design concepts
- Complete receiving water assessments
  - Clarkson WWTP – Early Fall 2021
  - G.E. Booth WWTP – Late Fall 2021
- Consult with MECP (Effluent Criteria)
- Evaluate design concepts and identify Recommended Solutions
- Conduct PIC #3 for each EA to present Recommended Design Concepts
- Prepare ESRs and issue Notices of Completion

# Schedule



## Jasmine Biasi - GM BluePlan

---

**From:** Laurie Boyce - GM BluePlan  
**Sent:** Tuesday, May 04, 2021 11:31 AM  
**To:** Jasmine Biasi - GM BluePlan  
**Subject:** FW: G.E. Booth WWTP and Clarkson WWTP Schedule C Class EAs - MECP Mtg

**Laurie Boyce, B.Sc., M.A.**  
Strategic Planning and Project Advisor

**GM BluePlan Engineering Limited**  
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[laurie.boyce@gmblueplan.ca](mailto:laurie.boyce@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



---

**From:** Belayneh, Ted (MECP) <Ted.Belayneh@ontario.ca>  
**Sent:** Thursday, April 15, 2021 10:07 AM  
**To:** Dania Chehab - GM BluePlan <Dania.Chehab@gmblueplan.ca>; Bell, Trevor (MECP) <Trevor.Bell@ontario.ca>; Kambeitz, Cindy <cindy.kambeitz@peelregion.ca>; Laurie Boyce - GM BluePlan <Laurie.Boyce@gmblueplan.ca>; Fiona Duckett <duckett@baird.com>; Mike Fullarton <mfullarton@baird.com>; Troy Briggs <Troy.Briggs@cima.ca>  
**Cc:** Simpson, Wayne (MECP) <Wayne.Simpson@ontario.ca>; Nowicki, Amanda (MECP) <Amanda.Nowicki@ontario.ca>; Ahmed, Aziz (MECP) <Aziz.Ahmed@ontario.ca>; Sekula, Dominika <dominika.sekula@peelregion.ca>; Chee Sing, Elizabeth (MECP) <Elizabeth.CheeSing@ontario.ca>; Shen, Lisai (MECP) <Lisai.Shen@ontario.ca>; Fletcher, Rachael (MECP) <Rachael.Fletcher@ontario.ca>  
**Subject:** RE: G.E. Booth WWTP and Clarkson WWTP Schedule C Class EAs - MECP Mtg

Laurie, Fiona and everybody else:

Thank you for the meeting yesterday. I thought it went very well and was helpful for all of us.

As I prepare my old notes on Clarkson to transfer to my colleagues, I did find a couple of old emails that I think will be useful for you as well (as I mentioned, I worked on the 2008/2009 EA to increase capacity from 200 to 350 MLD). I also noted a couple of issues you can easily address as part of this EA. The emails are particularly important to clarify ammonia related targets.

- 1) **Acute Lethality considerations:** The 1st email contains a long discussion between us and Peel regarding proposed effluent limits and how we consider the two ammonia related considerations: i) ensuring mixed water meeting PWQO at the edge of a mutually agreed upon mixing zone; and ii) ensuring the un-ionized fraction of ammonia is below 0.2 mg/L (non acutely lethal effluent). From the long discussions you can see we had some concern about the second criterion – data available at the time suggested the effluent ammonia limit for some months may need to be lowered. Especially for Feb and March (from a proposed total ammonia of 30 mg/L to 21 mg/L) and for April (from 30 mg/L to 16 mg/L). Peel was concerned



this may force them to add tankage and unnecessarily push the cost up. In the end, we agreed to use the originally proposed numbers and include verification monitoring for effluent pH and temp to validate the assumption NH3 will always remain below the threshold of 0.2 mg/L. this is clearly stated in the second attached email which summarizes our agreement when we concluded the review of the ACS during the EA.

However, I don't believe we did include explicit conditions in the ECA for the plant, requiring verification with monitoring of effluent pH and temp and confirm the assumptions that unionized ammonia is below 0.2 mg/L (regardless, I believe you do monitor pH and temp, perhaps continuously). From your presentation yesterday, we also note that the plant appears to be operating well below even the ammonia objectives so I don't believe there's any issue/ risk currently of NH3 being above 0.2 mg/L upon discharge. As we discussed at our meeting, you will also be including a discussion to clearly demonstrate that the effluent will continue to meet the non-toxic criteria requirement using the proposed monthly limits. I think this history and even some of the discussions in the old emails will help you address this question easily and quickly. If your analysis using the pH and temp you have since 2009/2010 suggests you may need to adjust the ammonia #s for a couple of months (per our discussions with Peel last time – see emails0, the current plant performance suggests that will not be a big issue as well. So, I don't expect this to be a sig problem for us, but one that we can and should address now.

- 2) The second point I'd like to note is more about correcting a minor error we may have made when amending the ECAs over the years. It is typical to represent ammonia targets in ECAs as Total Ammonia Nitrogen (TAN). But, often the discussions during the ACS stage use just total ammonia (not TAN). So, when we finalize effluent targets, it is always important to be clear in which form we are expressing the ammonia targets. As you can see from the discussions in the emails, during our deliberations during the EA, we did use ammonia as just "total ammonia" and also clarified what the values would be if expressed as TAN. The first ECA for the expansion (No. 1518-89JRM4, issued in Oct 2010) uses the total ammonia values as presented in the EA/ ACS and described in our discussions (i.e. not converted or adjusted to TAN). The same was used for the first amended ECA (No. 3202-8KFNHJ, issued in Sept 2011). But, when the ECA was amended to the current ECA (No. 0729-9KBNNY issued in June 2014), the description for the ammonia limits was changed from "total ammonia" to "TAN" but the values were not adjusted to the correct TAN values. The correct values, as shown in the emails are: so, if we use Tan for ECA purposes, we'd need to make the corrections:

	<b>Design objective as TAN (mg/L)</b>	<b>Compliance limit as TAN (mg/l)</b>
Nov 1 – April 30	13.2 (tot ammonia of 16)	24.7 (i.e. total ammonia of 30)
May 1 – June 15 Sept 16 – Oct 31	6.6 (tot ammonia of 8)	13.2 (tot. ammonia of 16)
June 16 - Sept 15		10.5 (tot ammonia of 12.8)

-----Original Appointment-----

**From:** Dania Chehab - GM BluePlan <[Dania.Chehab@gmblueplan.ca](mailto:Dania.Chehab@gmblueplan.ca)>

**Sent:** March 22, 2021 2:54 PM

**To:** Dania Chehab - GM BluePlan; Bell, Trevor (MECP); Kambeitz, Cindy; Laurie Boyce - GM BluePlan; Fiona Duckett; Mike Fullarton; Troy Briggs

**Cc:** Simpson, Wayne (MECP); Belayneh, Ted (MECP); Nowicki, Amanda (MECP); Ahmed, Aziz (MECP); Sekula, Dominika; Chee Sing, Elizabeth (MECP); Shen, Lisai (MECP); Bulman, Vincent (MECP)

**Subject:** G.E. Booth WWTP and Clarkson WWTP Schedule C Class EAs - MECP Mtg

**When:** April 14, 2021 10:00 AM-11:30 AM (UTC-05:00) Eastern Time (US & Canada).

**Where:** Microsoft Teams Meeting

**CAUTION -- EXTERNAL E-MAIL - Do not click links or open attachments unless you recognize the sender.**

Hi everyone,

The proponent has committed to providing information at least a week before the meeting.

Thanks,  
Trevor

**Trevor Bell** | Environmental Planner/Environmental Assessment Coordinator

*Project Review Unit, Environmental Assessment and Permissions Branch*

*Ministry of the Environment, Conservation and Parks*

5775 Yonge Street, 8<sup>th</sup> floor, Toronto ON, M2M 4J1

**New Phone:** 437-770-3731 | [trevor.bell@ontario.ca](mailto:trevor.bell@ontario.ca)

-----Original Appointment-----

**From:** Dania Chehab - GM BluePlan <[Dania.Chehab@gmblueplan.ca](mailto:Dania.Chehab@gmblueplan.ca)>

**Sent:** March 22, 2021 9:27 AM

**To:** Dania Chehab - GM BluePlan; Bell, Trevor (MECP); Kambeitz, Cindy; Laurie Boyce - GM BluePlan; Fiona Duckett; Mike Fullarton; Troy Briggs

**Subject:** G.E. Booth WWTP and Clarkson WWTP Schedule C Class EAs - MECP Mtg

**When:** April 14, 2021 10:00 AM-11:30 AM (UTC-05:00) Eastern Time (US & Canada).

**Where:** Microsoft Teams Meeting

**CAUTION -- EXTERNAL E-MAIL - Do not click links or open attachments unless you recognize the sender.**

Hello everyone,

The purpose of this meeting will be to meet with the MECP to discuss the above-referenced Class EAs.

Trevor, could you please forward this invitation to the reviewers.

Thanks,  
Dania

---

## Microsoft Teams meeting

**Join on your computer or mobile app**

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**Or call in (audio only)**

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## Jasmine Biasi - GM BluePlan

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**From:** Laurie Boyce - GM BluePlan  
**Sent:** Monday, March 22, 2021 9:45 AM  
**To:** Bell, Trevor (MECP)  
**Cc:** Dania Chehab - GM BluePlan; Jasmine Biasi - GM BluePlan; Kambeitz, Cindy; Fiona Duckett  
**Subject:** RE: G.E. Booth WWTP and Clarkson WWTP Schedule C Class EAs

Dania will be setting up the meeting shortly. We will provide you with information a week or so before the meeting. Thanks.

Laurie

**Laurie Boyce, B.Sc., M.A.**  
Strategic Planning and Project Advisor

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---

**From:** Bell, Trevor (MECP) <Trevor.Bell@ontario.ca>  
**Sent:** Friday, March 19, 2021 1:33 PM  
**To:** Laurie Boyce - GM BluePlan <Laurie.Boyce@gmblueplan.ca>  
**Subject:** RE: G.E. Booth WWTP and Clarkson WWTP Schedule C Class EAs

Hi Laurie,

The reviewers indicated that April 13 or 14 would work, however they would like the opportunity to review the materials prior to meeting. That way we can discuss internally first, and have a much more productive meeting and we can provide you with better feedback.

Thanks,  
Trevor.

---

**From:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>  
**Sent:** March 19, 2021 9:21 AM  
**To:** Bell, Trevor (MECP) <[Trevor.Bell@ontario.ca](mailto:Trevor.Bell@ontario.ca)>  
**Subject:** RE: G.E. Booth WWTP and Clarkson WWTP Schedule C Class EAs

**CAUTION -- EXTERNAL E-MAIL - Do not click links or open attachments unless you recognize the sender.**

Thanks. Have a good weekend. Laurie

**Laurie Boyce, B.Sc., M.A.**  
Strategic Planning and Project Advisor

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---

**From:** Bell, Trevor (MECP) <[Trevor.Bell@ontario.ca](mailto:Trevor.Bell@ontario.ca)>  
**Sent:** Thursday, March 18, 2021 2:40 PM  
**To:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>  
**Subject:** RE: G.E. Booth WWTP and Clarkson WWTP Schedule C Class EAs

Thanks Laurie, I'll get back to you asap

---

**From:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>  
**Sent:** March 18, 2021 9:25 AM  
**To:** Bell, Trevor (MECP) <[Trevor.Bell@ontario.ca](mailto:Trevor.Bell@ontario.ca)>  
**Cc:** Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>; Troy Briggs <[Troy.Briggs@cima.ca](mailto:Troy.Briggs@cima.ca)>; Jasmine Biasi - GM BluePlan <[Jasmine.Biasi@gmblueplan.ca](mailto:Jasmine.Biasi@gmblueplan.ca)>; Dania Chehab - GM BluePlan <[Dania.Chehab@gmblueplan.ca](mailto:Dania.Chehab@gmblueplan.ca)>  
**Subject:** G.E. Booth WWTP and Clarkson WWTP Schedule C Class EAs  
**Importance:** High

**CAUTION -- EXTERNAL E-MAIL - Do not click links or open attachments unless you recognize the sender.**

Trevor:

As per our discussion, the Region of Peel is proceeding with the Schedule C Class EAs for the G.E. Booth Wastewater Treatment Plant (WWTP) and the Clarkson WWTP. We are currently near the end of Phase 2 of the Class EA process, and are presenting the results of the evaluation of alternative solutions and the recommended solutions at a virtual PIC to be posted on March 31, 2021. (Notice has been forwarded in previous email). The recommended solutions are summarized as follows:

- Expand the G.E. Booth WWTP from approximately 500 MLD to 550 MLD
- Expand the Clarkson WWTP from 350 MLD to 500 MLD
- Construct a new outfall at the G.E. Booth WWTP
- Stop trucking digested/dewater sludge from the Clarkson WWTP to the G.E. Booth WWTP for incineration, and explore technologies for treating the additional sludge at each WWTP, including opportunities for beneficial use of the biosolids products.

As a first step in Phase 3, we are developing the approach for completing the Receiving Water Assessments at both WWTP, including the assimilative capacity modelling. We have collected the background water quality data, and developed the preliminary CORMIX and MIKE3 baseline models. At this stage, we would like to meet with you and your Technical Support Division to present, discuss and confirm the assimilative capacity modelling approaches and assumptions before proceeding with more detailed analyses.

We have suggested the following dates for a 1.5 hour meeting. Please let us know what date and time works best for you:

- April 9<sup>th</sup>
- April 12

- April 13
- April 14<sup>th</sup>

Information on the project and notice of PIC 2 is posted on the Region's websites: [www.peelregion.ca/GEBooth](http://www.peelregion.ca/GEBooth) and [www.peelregion.ca/Clarkson](http://www.peelregion.ca/Clarkson)

Please contact me if you have further questions or comments. Thanks.

Laurie

**Laurie Boyce, B.Sc., M.A.**

Strategic Planning and Project Advisor

**GM BluePlan Engineering Limited**

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## Jasmine Biasi - GM BluePlan

---

**From:** Jasmine Biasi - GM BluePlan  
**Sent:** Tuesday, October 27, 2020 3:58 PM  
**To:** trevor.bell@ontario.ca; Tina.Dufresne@ontario.ca; Zhiping.Yang@ontario.ca  
**Cc:** Laurie Boyce - GM BluePlan; Kambeitz, Cindy  
**Subject:** Peel Wastewater Treatment Solutions - Early Consultation Opportunity Discussion Summary Oct 7  
**Attachments:** 2020-10-07 - Peel Wastewater Treatment Solutions - Early Consultation Meeting 1 MECP.pdf

Hi all,

Please find attached a summary of discussions from the early consultation meeting held on October 7.

Please let me know if you have any additional comments or questions regarding the GE Booth and Clarkson Schedule C Class EAs.

Thank you,

**Jasmine Biasi, B.Eng., E.I.T**  
Infrastructure Planning

**GM BluePlan Engineering Limited**  
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t: 416.703.0667 ext. 7225 | c: 416.209.1892  
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## Peel Wastewater Treatment Solutions

G.E. Booth Wastewater Treatment Plant (WWTP) Schedule C Class EA

Clarkson Wastewater Treatment Plant (WWTP) Schedule C Class EA

### MECP Early Consultation Meeting Summary Notes

**Meeting Date/Time:** October 7, 2020 10:00 am to 11:00 am

**Location:** Skype Meeting

**Summary Prepared by:** Jasmine Biasi (GM BluePlan); reviewed by Laurie Boyce (GM BluePlan)

**Date of Summary:** October 7, 2020

#### Attendance

**Chair:** Laurie Boyce (CH)

**Attendees:** Cindy Kambeitz (CK), Jasmine Biasi (JB), Trevor Bell (MECP), Tina Dufresne (MECP), Zhiping Yang (MECP)

Agenda Item	Agenda Topic	Discussion
		<ul style="list-style-type: none"> <li>• Purpose: The overall purpose this meeting was to consult with and receive early input from key stakeholder, the Ministry of the Environment, Conservation and Parks (MECP) on the details of the virtual Public Information Centre (PIC) planned for October 14. The meeting presentation included an overview of the G.E. Booth and Clarkson WWTP Class EAs - the EA process, background information, and alternative solutions being considered. Details of discussions are presented below, and presentation materials are attached.</li> <li>• Actions: GMBP will continue to consult with MECP at key points during the EA process including two meetings in November: <ul style="list-style-type: none"> <li>○ Early to Mid-November - Contact Trevor Bell to discuss the progress of the EAs and comments/questions/concerns received from the first public information center and feedback.</li> <li>○ End of November – Meeting with MECP team to discuss the assumptions and modelling approaches for the assimilation capacity study.</li> </ul> </li> </ul>
1.	Attendee Introductions	All attendees on the call will be considered the main MECP stakeholders to be included at future consultation meetings.
2.	Purpose of Meeting	<p>Presentation Attached.</p> <p>Early Consultation opportunity to introduce the Environmental Assessment projects to the Ministry and present the details of the upcoming public information Centre. Meeting to help establish the Project Opportunity Statement for the Class EAs.</p>

3.	Presentation Discussion: Incineration and Inspiration Lakeview Community	<p>Tina noted that biosolids management and the potential expansion of incineration at G.E. Booth WWTP may be of large concern to the public, specifically those within the Inspiration Lakeview Community.</p> <p>GMBP and Peel expect to receive comments regarding incineration at G.E. Booth WWTP from PIC attendees, and surrounding land users. Cindy noted that the Region has been very proactive in communicating with the Inspiration Lakeview Community Developers, City of Mississauga, and prospective landowners, and will continue to extensively communicate with them through these EAs to receive their input. Air quality and odour studies are also part of these EAs.</p>
4.	Presentation Discussion: Other Key Stakeholders	<p>It was noted that it is important to also communicate with the CVC and TRCA given the new Jim Tovey Lakeview Conservation Area. CVC and TRCA are important stakeholders in this study, and Peel continues to communicate with them.</p> <p>Indigenous Communities will also be interested and are being consulted with. Comments have been received from Mississauga of the Credit First Nations, and the Region is working with them to ensure their procedures are followed and concerns addressed.</p>
5.	Presentation Discussion: Outfall and Assimilation Capacity	Discussed the Assimilation Capacity Modelling with Zhiping include the planned Cormix Far Field Modeling and MIKE3 Near Field Modelling and the approximate timeline for a future discussion of preliminary results.
6.	Other: MCEA Draft Amendment (2020)	<p>Discussed the new amendment to the Class EA processes, and the procedures for reviewing Part II Orders, and how it would impact these EAs. Trevor indicated that the new appeal process for Part II Orders is currently being implemented. Under the new process, proponents will continue to issue a Notice of Completion and place the Environmental Study Report (ESR) on the public record for 30-days. However, instead of concerns being filed with the Ministry, concerns will be addressed to the proponent. The Part II Order process will only apply if the objection deals with aboriginal or treaty rights.</p> <p>For all other concerns, the Part II Order process has been replaced by an additional 30-day period for the Ministry to decide if the Minister should take action (i.e. grant Part II Order or approve with conditions). It is important that the proponent</p>



		continue to consult with stakeholders to resolve the concerns through the review process.
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Notice of any errors or omissions in this document should be communicated by attendees to summary taker within two (2) days of issue of these summary notes.

## Jasmine Biasi - GM BluePlan

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**From:** Bell, Trevor (MECP) <Trevor.Bell@ontario.ca>  
**Sent:** Thursday, October 01, 2020 3:21 PM  
**To:** Laurie Boyce - GM BluePlan; Jasmine Biasi - GM BluePlan  
**Cc:** Kambeitz, Cindy  
**Subject:** RE: Early Consultation Opportunity - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Hi Laurie,

We appreciate the opportunity to meet with you to discuss these projects. Next Wednesday morning works for us.

Thanks,  
Trevor

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**From:** Laurie Boyce - GM BluePlan <Laurie.Boyce@gmblueplan.ca>  
**Sent:** October 1, 2020 2:27 PM  
**To:** Bell, Trevor (MECP) <Trevor.Bell@ontario.ca>; Jasmine Biasi - GM BluePlan <Jasmine.Biasi@gmblueplan.ca>  
**Cc:** Kambeitz, Cindy <cindy.kambeitz@peelregion.ca>  
**Subject:** RE: Early Consultation Opportunity - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

**CAUTION -- EXTERNAL E-MAIL - Do not click links or open attachments unless you recognize the sender.**

Trevor:

As indicated in previous correspondence, a virtual Public Information Centre (PIC) will be held to provide an overview of the Class EAs, including the EA process, background information, and some alternative solutions being considered. PIC display panels and a video walkthrough of their content will be posted on the project websites (below) on Oct. 14, 2020 at 5 p.m. This will be followed by a two-week question submission period closing Oct. 28, 2020. A formal response from the project team to all questions and comments will be posted on Nov. 25, 2020.

[www.peelregion.ca/GEBooth](http://www.peelregion.ca/GEBooth)  
[www.peelregion.ca/Clarkson](http://www.peelregion.ca/Clarkson)

We would be happy to present the details of the above to your team for early input. Please let us know which of the following dates work best for you:

Wednesday October 7, 2020 – morning  
Wednesday October 14 – morning

Laurie

**Laurie Boyce, B.Sc., M.A.**  
Strategic Planning and Project Advisor

**GM BluePlan Engineering Limited**  
1266 South Service Rd, Unit C3-1 | Stoney Creek, ON | L8E 5R9  
t: 905.643.6688 ext. 6334 | c: 416.471.0528  
[laurie.boyce@gmblueplan.ca](mailto:laurie.boyce@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



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**From:** Bell, Trevor (MECP) <[Trevor.Bell@ontario.ca](mailto:Trevor.Bell@ontario.ca)>  
**Sent:** Monday, September 28, 2020 2:31 PM  
**To:** Jasmine Biasi - GM BluePlan <[Jasmine.Biasi@gmblueplan.ca](mailto:Jasmine.Biasi@gmblueplan.ca)>  
**Cc:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>  
**Subject:** RE: Early Consultation Opportunity - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Hello again,

I would be happy to participate in a pre-consultation session along with staff from our Halton-Peel District Office.

Our Technical Support Section tends to get involved once there are some concrete plans and a draft assimilative capacity study, or even a work plan. So they will likely not participate at this time but please feel free to share any documents or presentations you have and I will forward them.

This week we are available at 9 am on Wednesday, Thursday, and Friday. Next week is a little more open. Please let me know what works for the project team.

Thanks,  
Trevor

**Trevor Bell** | Environmental Planner/Environmental Assessment Coordinator  
*Project Review Unit, Environmental Assessment and Permissions Branch*  
*Ministry of the Environment, Conservation and Parks*  
5775 Yonge Street, 8<sup>th</sup> floor, Toronto ON, M2M 4J1  
**New Phone: 437-770-3731** | [trevor.bell@ontario.ca](mailto:trevor.bell@ontario.ca)

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**From:** Bell, Trevor (MECP)  
**Sent:** September 18, 2020 3:31 PM  
**To:** Jasmine Biasi - GM BluePlan <[Jasmine.Biasi@gmblueplan.ca](mailto:Jasmine.Biasi@gmblueplan.ca)>  
**Cc:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>  
**Subject:** RE: Early Consultation Opportunity - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Hi Jasmine,

Thanks for your email. I'll reach out to our District Office and the water unit in our Technical Support Section to see if they would like to participate, and get back to you. FYI I'll be away the first half of next week, so I'll get back to you Thursday.

Thanks,  
Trevor



**Trevor Bell** | Environmental Planner/Environmental Assessment Coordinator

*Project Review Unit, Environmental Assessment and Permissions Branch*

*Ministry of the Environment, Conservation and Parks*

5775 Yonge Street, 8<sup>th</sup> floor, Toronto ON, M2M 4J1

New Phone: 437-770-3731 | [trevor.bell@ontario.ca](mailto:trevor.bell@ontario.ca)

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**From:** Jasmine Biasi - GM BluePlan <[Jasmine.Biasi@gmblueplan.ca](mailto:Jasmine.Biasi@gmblueplan.ca)>

**Sent:** September 18, 2020 3:05 PM

**To:** Bell, Trevor (MECP) <[Trevor.Bell@ontario.ca](mailto:Trevor.Bell@ontario.ca)>

**Cc:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>

**Subject:** Early Consultation Opportunity - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

**CAUTION -- EXTERNAL E-MAIL - Do not click links or open attachments unless you recognize the sender.**

Good afternoon Trevor,

I'm emailing on behalf of the Region of Peel Wastewater Treatment Plant Expansion Environmental Assessment Projects. We would like to invite the Ministry of the Environment, Conservation and Parks to participate in an early consultation opportunity in September to introduce the project and project objectives. This will align with the first Public Consultation Event planned for mid-October.

We believe this timing will provide an opportunity for you to address how the Ministry would like to be involved in the project and receive answers to any questions and comments you may have at this stage.

If you are interested in participating, please provide available dates and times and the project team will arrange.

If you have any questions about the studies, or if you suggest contacting an alternative member of your organization, please contact the Region Project Manager, Cindy Kambeitz (contact details below).

Cindy Kambeitz  
Project Manager  
Region of Peel  
905-751-7800 ext. 5400  
[clarkson@peelregion.ca](mailto:clarkson@peelregion.ca)  
[gebooth@peelregion.ca](mailto:gebooth@peelregion.ca)

Thank you,

**Jasmine Biasi, B.Eng., E.I.T**

Infrastructure Planning

**GM BluePlan Engineering Limited**

Royal Centre | 3300 Highway No. 7, Suite 402 | Vaughan ON L4K 4M3

t: 416.703.0667 ext. 7225 | c: 416.209.1892

[jasmine.biasi@gmblueplan.ca](mailto:jasmine.biasi@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



## Jasmine Biasi - GM BluePlan

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**From:** Bell, Trevor (MECP) <Trevor.Bell@ontario.ca>  
**Sent:** Monday, August 17, 2020 4:09 PM  
**To:** Kambeitz, Cindy  
**Cc:** Papageorgiou, Agni (MECP); Dufresne, Tina (MECP); Jasmine Biasi - GM BluePlan; GEBoothEA@peelregion.ca; ClarksonEA@peelregion.ca  
**Subject:** G.E. Booth and Clarkson Wastewater Treatment Plants - Schedule C Municipal Class EAs  
**Attachments:** MECP Response Letter\_Notice of Commencement\_G.E. Booth WWTP and Clarkson WWTP.pdf

Good afternoon,

Please find attached a letter from the Ministry of the Environment, Conservation and Parks, Environmental Approvals Branch, regarding the above mentioned project. Feel free to contact me directly with any questions or concerns you may have.

Sincerely,

**Trevor Bell** | Environmental Planner/Environmental Assessment Coordinator  
*Project Review Unit, Environmental Assessment and Permissions Branch*  
*Ministry of the Environment, Conservation and Parks*  
5775 Yonge Street, 8<sup>th</sup> floor, Toronto ON, M2M 4J1  
**New Phone: 437-770-3731** | [trevor.bell@ontario.ca](mailto:trevor.bell@ontario.ca)

Ministry of the Environment,  
Conservation and Parks

Ministère de l'Environnement, de la  
Protection de la nature et des Parcs

*Environmental Assessment Branch*

*Direction des évaluations  
environnementales*



1<sup>st</sup> Floor  
135 St. Clair Avenue W  
Toronto ON M4V 1P5  
Tel.: 416 314-8001  
Fax.: 416 314-8452

Rez-de-chaussée  
135, avenue St. Clair Ouest  
Toronto ON M4V 1P5  
Tél. : 416 314-8001  
Télééc. : 416 314-8452

August 17, 2020

Cindy Kambeitz  
Project Manager  
Region of Peel  
[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)  
BY EMAIL ONLY

Re: **G.E. Booth Wastewater Treatment Plant and Clarkson Wastewater Treatment Plant  
Region of Peel  
Schedule C Municipal Class Environmental Assessments  
Notice of Study Commencement**

Dear Ms. Kambeitz,

This letter is in response to the Notice of Commencement for the above noted projects. The Ministry of the Environment, Conservation and Parks (MECP) acknowledges the Region of Peel has indicated that the studies are following the approved environmental planning process for a Schedule C project under the Municipal Engineers Association's Municipal Class Environmental Assessment (Class EA).

The attached "Areas of Interest" document provides guidance regarding the ministry's interests with respect to the Class EA process. Please identify the areas of interest which are applicable to the project and ensure they are addressed. Proponents who address all the applicable areas of interest can minimize potential delays to the project schedule.

The Crown has a legal duty to consult Aboriginal communities when it has knowledge, real or constructive, of the existence or potential existence of an Aboriginal or treaty right and contemplates conduct that may adversely impact that right. Before authorizing this project, the Crown must ensure that its duty to consult has been fulfilled, where such a duty is triggered. Although the duty to consult with Aboriginal peoples is a duty of the Crown, the Crown may delegate procedural aspects of this duty to project proponents while retaining oversight of the consultation process.

The proposed project may have the potential to affect Aboriginal or treaty rights protected under Section 35 of Canada's *Constitution Act* 1982. Where the Crown's duty to consult is triggered in relation to the proposed project, **the MECP is delegating the procedural aspects of rights-based consultation to the proponent through this letter.** The Crown intends to rely on the delegated consultation process in discharging its duty to consult and maintains the right to participate in the consultation process as it sees fit.

Based on information provided to date and the Crown's preliminary assessment the proponent is required to consult with the following communities who have been identified as potentially affected by the proposed project:



- Mississaugas of the Credit First Nation;
- Six Nations of the Grand River;
- Haudenosaunee Confederacy Chiefs Council; and
- Huron-Wendat Nation, if there are potential archeological impacts

Steps that the proponent may need to take in relation to Aboriginal consultation for the proposed project are outlined in the "[Code of Practice for Consultation in Ontario's Environmental Assessment Process](#)".

Additional information related to Ontario's *Environmental Assessment Act* is available online at: [www.ontario.ca/environmentalassessments](http://www.ontario.ca/environmentalassessments)

Please also refer to the attached document "A Proponent's Introduction to the Delegation of Procedural Aspects of consultation with Aboriginal Communities" for further information.

The proponent must contact the Director of Environmental Assessment Branch under the following circumstances subsequent to initial discussions with the communities identified by MECP:

- Aboriginal or treaty rights impacts are identified to you by the communities;
- You have reason to believe that your proposed project may adversely affect an Aboriginal or treaty right;
- Consultation with Indigenous communities or other stakeholders has reached an impasse; or
- A Part II Order request is expected based on impacts to Aboriginal or treaty rights.

The MECP will then assess the extent of any Crown duty to consult for the circumstances and will consider whether additional steps should be taken, including what role you will be asked to play should additional steps and activities be required.

Once the Project File is finalized, the proponent must issue a Notice of Completion providing a minimum 30-day period during which documentation may be reviewed and comment and input can be submitted to the Proponent.

Please ensure that the Notice of Completion advises that outstanding concerns are to be directed to the proponent for a response, and that in the event there are outstanding concerns regarding potential adverse impacts to constitutionally protected Aboriginal and treaty rights, Part II Order requests on those matters should be addressed in writing to:

Minister Jeff Yurek  
Ministry of Environment, Conservation and Parks  
777 Bay Street, 5<sup>th</sup> Floor  
Toronto ON M7A 2J3  
[minister.mecp@ontario.ca](mailto:minister.mecp@ontario.ca)

and

Director, Environmental Assessment Branch  
Ministry of Environment, Conservation and Parks

135 St. Clair Ave. W, 1<sup>st</sup> Floor  
Toronto ON, M4V 1P5  
[EABDirector@ontario.ca](mailto:EABDirector@ontario.ca)

Please note the project cannot proceed until at least 30 days after the end of the public review period provided for in the Notice of Completion.

Further, the project may not proceed after this time if:

- a Part II Order request has been submitted to the ministry regarding potential adverse impacts to constitutionally protected Aboriginal and treaty rights; or
- the Director has issued a Notice of Proposed order regarding the project.

The public can request a higher level of assessment on a project if they are concerned about potential adverse impacts to constitutionally protected Aboriginal and treaty rights. In addition, the Minister may issue an order on his or her own initiative within a specified time period. The Director will issue a Notice of Proposed Order to the proponent if the Minister is considering an order for the project within 30 days after the conclusion of the comment period on the Notice of Completion. At this time, the Director may request additional information from the proponent.

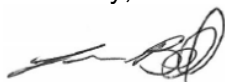
Once the requested information has been received, the Minister will have 30 days to make a decision or impose conditions on your project.

A draft copy of the report should be sent to me prior to the filing of the final report, allowing a minimum of 30 days for the ministry's technical reviewers to provide comments.

Please also ensure a copy of the final notice is sent to the ministry's Central Region EA notification email account ([eanotification.cregion@ontario.ca](mailto:eanotification.cregion@ontario.ca)) after the draft report is finalized.

Should you or your project team members have any questions regarding the material above, please contact me at [trevor.bell@ontario.ca](mailto:trevor.bell@ontario.ca).

Sincerely,



Trevor Bell  
Regional Environmental Assessment Coordinator

cc: Tina Dufresne, Manager, Halton Peel District Office, MECP  
Agni Papageorgiou, Supervisor, Project Review Unit, MECP  
Jasmine Biasi, Infrastructure Planning, GM BluePlan Engineering Limited

Attachments: Areas of Interest  
A Proponent's Introduction to the Delegation of Procedural Aspects of  
consultation with Aboriginal Communities

## AREAS OF INTEREST

*It is suggested that you check off each applicable area after you have considered / addressed it.*

### Species at Risk

- The Ministry of the Environment, Conservation and Parks has now assumed responsibility of Ontario's Species at Risk program. For any questions related to subsequent permit requirements, please contact [SAROntario@ontario.ca](mailto:SAROntario@ontario.ca).

### Planning and Policy

- Ontario has released "A Place to Grow: Growth Plan for the Greater Golden Horseshoe (2019)" which replaces the "Growth Plan for the Greater Golden Horseshoe (2017)". More information, including the Plan, is found here: <https://www.placestogrow.ca>.
- Parts of the study area may be subject to the [A Place to Grow: Growth Plan for the Greater Golden Horseshoe](#) (2019), [Oak Ridges Moraine Conservation Plan](#) (2017), [Niagara Escarpment Plan](#) (2017), [Greenbelt Plan](#) (2017) or [Lake Simcoe Protection Plan](#) (2014). Applicable policies should be referenced in the report, and the proponent should describe how the proposed project adheres to the relevant policies in these plans.
- The [Provincial Policy Statement](#) (2020) contains policies that protect Ontario's natural heritage and water resources. Applicable policies should be referenced in the report, and the proponent should describe how the proposed project is consistent with these policies.

### Source Water Protection (all projects)

The *Clean Water Act*, 2006 (CWA) aims to protect existing and future sources of drinking water. To achieve this, several types of vulnerable areas have been delineated around surface water intakes and wellheads for every municipal residential drinking water system that is located in a source protection area. These vulnerable areas are known as a Wellhead Protection Areas (WHPAs) and surface water Intake Protection Zones (IPZs). Other vulnerable areas that have been delineated under the CWA include Highly Vulnerable Aquifers (HVAs), Significant Groundwater Recharge Areas (SGRAs), Event-based modelling areas (EBAs), and Issues Contributing Areas (ICAs). Source protection plans have been developed that include policies to address existing and future risks to sources of municipal drinking water within these vulnerable areas.

Projects that are subject to the Environmental Assessment Act that fall under a Class EA, or one of the Regulations, have the potential to impact sources of drinking water if they occur in designated vulnerable areas or in the vicinity of other at-risk drinking water systems (i.e. systems that are not municipal residential systems). MEA Class EA projects may include activities that, if located in a vulnerable area, could be a threat to sources of drinking water (i.e. have the potential to adversely affect the quality or quantity of drinking water sources) and the activity could therefore be subject to policies in a source protection plan. Where an activity poses a risk to drinking water, policies in the local source protection plan may impact how or where that activity is undertaken. Policies may prohibit certain activities, or they may require risk management measures for these activities. Municipal Official Plans, planning decisions, Class EA projects (where the project includes an activity that is a threat to drinking water) and prescribed instruments must conform with policies that address significant risks to drinking water and must have regard for policies that address moderate or low risks.



- In October 2015, the MEA Parent Class EA document was amended to include reference to the Clean Water Act (Section A.2.10.6) and indicates that proponents undertaking a Municipal Class EA project must identify early in their process whether a project is or could potentially be occurring with a vulnerable area. **Given this requirement, please include a section in the report on source water protection.**
  - The proponent should identify the source protection area and should clearly document how the proximity of the project to sources of drinking water (municipal or other) and any delineated vulnerable areas was considered and assessed. Specifically, the report should discuss whether or not the project is located in a vulnerable area and provide applicable details about the area.
  - If located in a vulnerable area, proponents should document whether any project activities are prescribed drinking water threats and thus pose a risk to drinking water (this should be consulted on with the appropriate Source Protection Authority). Where an activity poses a risk to drinking water, the proponent must document and discuss in the report how the project adheres to or has regard to applicable policies in the local source protection plan. This section should then be used to inform and be reflected in other sections of the report, such as the identification of net positive/negative effects of alternatives, mitigation measures, evaluation of alternatives etc.
- While most source protection plans focused on including policies for significant drinking water threats in the WHPAs and IPZs it should be noted that even though source protection plan policies may not apply in HVAs, these are areas where aquifers are sensitive and at risk to impacts and within these areas, activities may impact the quality of sources of drinking water for systems other than municipal residential systems.
- In order to determine if this project is occurring within a vulnerable area, proponents can use this mapping tool: <http://www.applications.ene.gov.on.ca/swp/en/index.php>. The mapping tool will also provide a link to the appropriate source protection plan in order to identify what policies may be applicable in the vulnerable area.
- For further information on the maps or source protection plan policies which may relate to their project, proponents must contact the appropriate source protection authority. **Please consult with the local source protection authority to discuss potential impacts on drinking water. The contact for this project is Jennifer Stephens at (416) 661-6600 ext 5568 or [jstephens@trca.on.ca](mailto:jstephens@trca.on.ca). Please document the results of that consultation within the report and include all communication documents/correspondence.**

#### More Information

For more information on the *Clean Water Act*, source protection areas and plans, including specific information on the vulnerable areas and drinking water threats, please refer to Conservation Ontario's website where you will also find links to the local source protection plan/assessment report.

A list of the prescribed drinking water threats can be found in section 1.1 of Ontario Regulation 287/07 made under the *Clean Water Act*. In addition to prescribed drinking water threats, some source protection plans may include policies to address additional "local" threat activities, as approved by the MECP.

#### **Climate Change**

Ontario is leading the fight against climate change through the [Climate Change Action Plan](#). Recently

released, the plan lays out the specific actions Ontario will take in the next five years to meet its 2020 greenhouse gas reduction targets and establishes the framework necessary to meet its long-term targets. As a commitment of the action plan, **the province has now finalized a guide, "[Considering Climate Change in the Environmental Assessment Process](#)" (Guide).**

The Guide is now a part of the Environmental Assessment program's Guides and Codes of Practice. The Guide sets out the MECP's expectation for considering climate change in the preparation, execution and documentation of environmental assessment studies and processes. The guide provides examples, approaches, resources, and references to assist proponents with consideration of climate change in EA. **Proponents should review this Guide in detail.**

- The MECP expects proponents to:
  1. Take into account during the assessment of alternative solutions and alternative designs, the following:
    - a. the project's expected production of greenhouse gas emissions and impacts on carbon sinks (climate change mitigation); and
    - b. resilience or vulnerability of the undertaking to changing climatic conditions (climate change adaptation).
  2. Include a discrete section in the report detailing how climate change was considered in the EA.

How climate change is considered can be qualitative or quantitative in nature, and should be scaled to the project's level of environmental effect. In all instances, both a project's impacts on climate change (mitigation) and impacts of climate change on a project (adaptation) should be considered.

- The MECP has also prepared another guide to support provincial land use planning direction related to the completion of energy and emission plans. The "[Community Emissions Reduction Planning: A Guide for Municipalities](#)" document is designed to educate stakeholders on the municipal opportunities to reduce energy and greenhouse gas emissions, and to provide guidance on methods and techniques to incorporate consideration of energy and greenhouse gas emissions into municipal activities of all types. We encourage you to review the Guide for information.

#### **Air Quality, Dust and Noise**

- If there are sensitive receptors in the surrounding area of this project, an air quality/odour impact assessment will be useful to evaluate alternatives, determine impacts and identify appropriate mitigation measures. The scope of the assessment can be determined based on the potential effects of the proposed alternatives, and typically includes source and receptor characterization and a quantification of local air quality impacts on the sensitive receptors and the environment in the study area. The assessment will compare to all applicable standards or guidelines for all contaminants of concern. **Please contact this office for further consultation on the level of Air Quality Impact Assessment required for this project if not already advised.**
- **If a full Air Quality Impact Assessment is not required for the project, the report should still contain:**
  - A discussion of local air quality including existing activities/sources that significantly impact local air quality and how the project may impact existing conditions;
  - A discussion of the nearby sensitive receptors and the project's potential air quality impacts on present and future sensitive receptors;

- A discussion of local air quality impacts that could arise from this project during both construction and operation; and
- A discussion of potential mitigation measures.
- As a common practice, “air quality” should be used as an evaluation criterion for all road projects.
- Dust and noise control measures should be addressed and included in the construction plans to ensure that nearby residential and other sensitive land uses within the study area are not adversely affected during construction activities.
- The MECP recommends that non-chloride dust-suppressants be applied. For a comprehensive list of fugitive dust prevention and control measures that could be applied, refer to [Cheminfo Services Inc. Best Practices for the Reduction of Air Emissions from Construction and Demolition Activities](#). report prepared for Environment Canada. March 2005.
- The report should consider the potential impacts of increased noise levels during the operation of the completed project. The proponent should explore all potential measures to mitigate significant noise impacts during the assessment of alternatives.

#### □ **Ecosystem Protection and Restoration**

- Any impacts to ecosystem form and function must be avoided where possible. The report should describe any proposed mitigation measures and how project planning will protect and enhance the local ecosystem.
- All natural heritage features should be identified and described in detail to assess potential impacts and to develop appropriate mitigation measures. The following sensitive environmental features may be located within or adjacent to the study area:
  - Areas of Natural and Scientific Interest (ANSIs)
  - Rare Species of flora or fauna
  - Watercourses
  - Wetlands
  - Woodlots

We recommend consulting with the Ministry of Natural Resources and Forestry (MNR), Fisheries and Oceans Canada (DFO) and your local conservation authority to determine if special measures or additional studies will be necessary to preserve and protect these sensitive features. In addition, you may consider the provisions of the Rouge Park Management Plan if applicable.

#### □ **Surface Water**

- The report must include enough information to demonstrate that there will be no negative impacts on the natural features or ecological functions of any watercourses within the study area. Measures should be included in the planning and design process to ensure that any impacts to watercourses from construction or operational activities (e.g. spills, erosion, pollution) are mitigated as part of the proposed undertaking.
- Additional stormwater runoff from new pavement can impact receiving watercourses and flood conditions. Quality and quantity control measures to treat stormwater runoff should be considered for all new impervious areas and, where possible, existing surfaces. The ministry’s [Stormwater Management Planning and Design Manual \(2003\)](#) should be referenced in the report and utilized when designing stormwater control methods. **A Stormwater Management Plan should be prepared as part of the Class EA process** that includes:



- Strategies to address potential water quantity and erosion impacts related to stormwater draining into streams or other sensitive environmental features, and to ensure that adequate (enhanced) water quality is maintained
  - Watershed information, drainage conditions, and other relevant background information
  - Future drainage conditions, stormwater management options, information on erosion and sediment control during construction, and other details of the proposed works
  - Information on maintenance and monitoring commitments.
- Ontario Regulation 60/08 under the *Ontario Water Resources Act* (OWRA) applies to the Lake Simcoe Basin, which encompasses Lake Simcoe and the lands from which surface water drains into Lake Simcoe. If the proposed sewage treatment plant is listed in Table 1 of the regulation, the report should describe how the proposed project and its mitigation measures are consistent with the requirements of this regulation and the OWRA.
  - Any potential approval requirements for surface water taking or discharge should be identified in the report. A Permit to Take Water (PTTW) under the OWRA will be required for any water takings that exceed 50,000 L/day, except for certain water taking activities that have been prescribed by the Water Taking EASR Regulation – *O. Reg. 63/16*. These prescribed water-taking activities require registration in the EASR instead of a PTTW. Please review the [Water Taking User Guide for EASR](#) for more information. Additionally, an Environmental Compliance Approval under the OWRA is required for municipal stormwater management works.

#### □ **Groundwater**

- The status of, and potential impacts to any well water supplies should be addressed. If the project involves groundwater takings or changes to drainage patterns, the quantity and quality of groundwater may be affected due to drawdown effects or the redirection of existing contamination flows. In addition, project activities may infringe on existing wells such that they must be reconstructed or sealed and abandoned. Appropriate information to define existing groundwater conditions should be included in the report.
- If the potential construction or decommissioning of water wells is identified as an issue, the report should refer to Ontario Regulation 903, Wells, under the OWRA.
- Potential impacts to groundwater-dependent natural features should be addressed. Any changes to groundwater flow or quality from groundwater taking may interfere with the ecological processes of streams, wetlands or other surficial features. In addition, discharging contaminated or high volumes of groundwater to these features may have direct impacts on their function. Any potential effects should be identified, and appropriate mitigation measures should be recommended. The level of detail required will be dependent on the significance of the potential impacts.
- Any potential approval requirements for groundwater taking or discharge should be identified in the report. A Permit to Take Water (PTTW) under the OWRA will be required for any water takings that exceed 50,000 L/day, with the exception of certain water taking activities that have been prescribed by the Water Taking EASR Regulation – *O. Reg. 63/16*. These prescribed water-taking activities require registration in the EASR instead of a PTTW. Please review the [Water Taking User Guide for EASR](#) for more information.

#### □ **Contaminated Soils**

- Since the removal or movement of soils may be required, appropriate tests to determine

contaminant levels from previous land uses or dumping should be undertaken. If the soils are contaminated, you must determine how and where they are to be disposed of, consistent with *Part XV.1 of the Environmental Protection Act* (EPA) and Ontario Regulation 153/04, Records of Site Condition, which details the new requirements related to site assessment and clean up. Please contact the appropriate MECP District Office for further consultation if contaminated sites are present.

- Any current or historical waste disposal sites should be identified in the report. The status of these sites should be determined to confirm whether approval pursuant to Section 46 of the EPA may be required for land uses on former disposal sites.
- The location of any underground storage tanks should be investigated in the report. Measures should be identified to ensure the integrity of these tanks and to ensure an appropriate response in the event of a spill. The ministry's Spills Action Centre must be contacted in such an event.
- The report should identify any underground transmission lines in the study area. The owners should be consulted to avoid impacts to this infrastructure, including potential spills.

#### **Excess Materials Management**

- Activities involving the management of excess soil should be completed in accordance with the MECP's current guidance document titled "[Management of Excess Soil – A Guide for Best Management Practices](#)" (2014).
- All waste generated during construction must be disposed of in accordance with ministry requirements

#### **Servicing and Facilities**

- Any facility that releases emissions to the atmosphere, discharges contaminants to ground or surface water, provides potable water supplies, or stores, transports or disposes of waste must have an Environmental Compliance Approval (ECA) before it can operate lawfully. Please consult with the Environmental Approvals Access and Service Integration Branch (EAASIB) to determine whether a new or amended ECA will be required for any proposed infrastructure.
- We recommend referring to the ministry's [environmental land use planning guides](#) to ensure that any potential land use conflicts are considered when planning for any infrastructure or facilities related to wastewater, pipelines, landfills or industrial uses.

#### **Mitigation and Monitoring**

- Contractors must be made aware of all environmental considerations so that all environmental standards and commitments for both construction and operation are met. Mitigation measures should be clearly referenced in the report and regularly monitored during the construction stage of the project. In addition, we encourage proponents to conduct post-construction monitoring to ensure all mitigation measures have been effective and are functioning properly.
- Design and construction reports and plans should be based on a best management approach that centres on the prevention of impacts, protection of the existing environment, and opportunities for rehabilitation and enhancement of any impacted areas.
- The proponent's construction and post-construction monitoring plans must be documented in the report, as outlined in Section A.2.5 and A.4.1 of the MEA Class EA parent document.

## □ Consultation

- The report must demonstrate how the consultation provisions of the Class EA have been fulfilled, including documentation of all stakeholder consultation efforts undertaken during the planning process. This includes a discussion in the SR that identifies concerns that were raised and **describes how they have been addressed by the proponent** throughout the planning process. The Class EA also directs proponents to include copies of comments submitted on the project by interested stakeholders, and the proponent's responses to these comments.

## □ Class EA Process

- The report should provide clear and complete documentation of the planning process in order to allow for transparency in decision-making.
- If this project is a Master Plan: there are several different approaches that can be used to conduct a Master Plan, examples of which are outlined in Appendix 4 of the Class EA. The Master Plan should clearly indicate the selected approach for conducting the plan, by identifying whether the levels of assessment, consultation and documentation are sufficient to fulfill the requirements for Schedule B or C projects. Please note that any Schedule B or C projects identified in the plan would be subject to Part II Order Requests under the *Environmental Assessment Act*, although the plan itself would not be.
- The report must demonstrate how the consultation provisions of the Class EA have been fulfilled, including documentation of all stakeholder consultation efforts undertaken during the planning process. This includes a discussion in the report that identifies concerns that were raised and **describes how they have been addressed by the proponent** throughout the planning process. The Class EA also directs proponents to include copies of comments submitted on the project by interested stakeholders, and the proponent's responses to these comments.
- The Class EA requires the consideration of the effects of each alternative on all aspects of the environment. The report should include a level of detail (e.g. hydrogeological investigations, terrestrial and aquatic assessments) such that all potential impacts can be identified, and appropriate mitigation measures can be developed. Any supporting studies conducted during the Class EA process should be referenced and included as part of the report.
- Please include in the report a list of all subsequent permits or approvals that may be required for the implementation of the preferred alternative, including but not limited to, MECP's PTTW, EASR Registrations and ECAs, conservation authority permits, species at risk permits, and approvals under the *Impact Assessment Act*, 2019.
- Ministry guidelines and other information related to the issues above are available at <http://www.ontario.ca/environment-and-energy/environment-and-energy>. We encourage you to review all the available guides and to reference any relevant information in the report.



## A PROPONENT'S INTRODUCTION TO THE DELEGATION OF PROCEDURAL ASPECTS OF CONSULTATION WITH ABORIGINAL COMMUNITIES

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### Definitions

The following definitions are specific to this document and may not apply in other contexts:

**Aboriginal communities** – the First Nation or Métis communities identified by the Crown for the purpose of consultation.

**Consultation** – the Crown's legal obligation to consult when the Crown has knowledge of an established or asserted Aboriginal or treaty right and contemplates conduct that might adversely impact that right. This is the type of consultation required pursuant to s. 35 of the *Constitution Act, 1982*. Note that this definition does not include consultation with Aboriginal communities for other reasons, such as regulatory requirements.

**Crown** – the Ontario Crown, acting through a particular ministry or ministries.

**Procedural aspects of consultation** – those portions of consultation related to the process of consultation, such as notifying an Aboriginal community about a project, providing information about the potential impacts of a project, responding to concerns raised by an Aboriginal community and proposing changes to the project to avoid negative impacts.

**Proponent** – the person or entity that wants to undertake a project and requires an Ontario Crown decision or approval for the project.

### I. Purpose

The Crown has a legal duty to consult Aboriginal communities when it has knowledge of an existing or asserted Aboriginal or treaty right and contemplates conduct that may adversely impact that right. In outlining a framework for the duty to consult, the Supreme Court of Canada has stated that the Crown may delegate procedural aspects of consultation to third parties. This document provides general information about the Ontario Crown's approach to delegation of the procedural aspects of consultation to proponents.

This document is not intended to instruct a proponent about an individual project, and it does not constitute legal advice.

### II. Why is it Necessary to Consult with Aboriginal Communities?

The objective of the modern law of Aboriginal and treaty rights is the *reconciliation* of Aboriginal peoples and non-Aboriginal peoples and their respective rights, claims and interests. Consultation is an important component of the reconciliation process.

The Crown has a legal duty to consult Aboriginal communities when it has knowledge of an existing or asserted Aboriginal or treaty right and contemplates conduct that might adversely impact that right. For example, the Crown's duty to consult is triggered when it considers issuing a permit, authorization or approval for a project which has the potential to adversely impact an Aboriginal right, such as the right to hunt, fish, or trap in a particular area.

The scope of consultation required in particular circumstances ranges across a spectrum depending on both the nature of the asserted or established right and the seriousness of the potential adverse impacts on that right.

Depending on the particular circumstances, the Crown may also need to take steps to accommodate the potentially impacted Aboriginal or treaty right. For example, the Crown may be required to avoid or minimize the potential adverse impacts of the project.

### **III. The Crown's Role and Responsibilities in the Delegated Consultation Process**

The Crown has the responsibility for ensuring that the duty to consult, and accommodate where appropriate, is met. However, the Crown may delegate the procedural aspects of consultation to a proponent.

There are different ways in which the Crown may delegate the procedural aspects of consultation to a proponent, including through a letter, a memorandum of understanding, legislation, regulation, policy and codes of practice.

If the Crown decides to delegate procedural aspects of consultation, the Crown will generally:

- Ensure that the delegation of procedural aspects of consultation and the responsibilities of the proponent are clearly communicated to the proponent;
- Identify which Aboriginal communities must be consulted;
- Provide contact information for the Aboriginal communities;
- Revise, as necessary, the list of Aboriginal communities to be consulted as new information becomes available and is assessed by the Crown;
- Assess the scope of consultation owed to the Aboriginal communities;
- Maintain appropriate oversight of the actions taken by the proponent in fulfilling the procedural aspects of consultation;
- Assess the adequacy of consultation that is undertaken and any accommodation that may be required;
- Provide a contact within any responsible ministry in case issues arise that require direction from the Crown; and
- Participate in the consultation process as necessary and as determined by the Crown.

### **IV. The Proponent's Role and Responsibilities in the Delegated Consultation Process**

Where aspects of the consultation process have been delegated to a proponent, the Crown, in meeting its duty to consult, will rely on the proponent's consultation activities and documentation of those activities. The consultation process informs the Crown's decision of whether or not to approve a proposed project or activity.

A proponent's role and responsibilities will vary depending on a variety of factors including the extent of consultation required in the circumstance and the procedural aspects of consultation the Crown has delegated to it. Proponents are often in a better position than the Crown to discuss a project and its potential impacts with Aboriginal communities and to determine ways to avoid or minimize the adverse impacts of a project.

A proponent can raise issues or questions with the Crown at any time during the consultation process. If issues or concerns arise during the consultation that cannot be addressed by the proponent, the proponent should contact the Crown.

#### **a) What might a proponent be required to do in carrying out the procedural aspects of consultation?**

Where the Crown delegates procedural aspects of consultation, it is often the proponent's responsibility to provide notice of the proposed project to the identified Aboriginal communities. The notice should indicate that the Crown has delegated the procedural aspects of consultation to the proponent and should include the following information:

- a description of the proposed project or activity;
- mapping;
- proposed timelines;
- details regarding anticipated environmental and other impacts;
- details regarding opportunities to comment; and
- any changes to the proposed project that have been made for seasonal conditions or other factors, where relevant.

Proponents should provide enough information and time to allow Aboriginal communities to provide meaningful feedback regarding the potential impacts of the project. Depending on the nature of consultation required for a project, a proponent also may be required to:

- provide the Crown with copies of any consultation plans prepared and an opportunity to review and comment;
- ensure that any necessary follow-up discussions with Aboriginal communities take place in a timely manner, including to confirm receipt of information, share and update information and to address questions or concerns that may arise;
- as appropriate, discuss with Aboriginal communities potential mitigation measures and/or changes to the project in response to concerns raised by Aboriginal communities;
- use language that is accessible and not overly technical, and translate material into Aboriginal languages where requested or appropriate;
- bear the reasonable costs associated with the consultation process such as, but not limited to, meeting hall rental, meal costs, document translation(s), or to address technical & capacity issues;
- provide the Crown with all the details about potential impacts on established or asserted Aboriginal or treaty rights, how these concerns have been considered and addressed by the proponent and the Aboriginal communities and any steps taken to mitigate the potential impacts;
- provide the Crown with complete and accurate documentation from these meetings and communications; and
- notify the Crown immediately if an Aboriginal community not identified by the Crown approaches the proponent seeking consultation opportunities.

#### **b) What documentation and reporting does the Crown need from the proponent?**

Proponents should keep records of all communications with the Aboriginal communities involved in the consultation process and any information provided to these Aboriginal communities.

As the Crown is required to assess the adequacy of consultation, it needs documentation to satisfy itself that the proponent has fulfilled the procedural aspects of consultation delegated to it. The documentation required would typically include:

- the date of meetings, the agendas, any materials distributed, those in attendance and copies of any minutes prepared;
- the description of the proposed project that was shared at the meeting;
- any and all concerns or other feedback provided by the communities;



- any information that was shared by a community in relation to its asserted or established Aboriginal or treaty rights and any potential adverse impacts of the proposed activity, approval or disposition on such rights;
- any proposed project changes or mitigation measures that were discussed, and feedback from Aboriginal communities about the proposed changes and measures;
- any commitments made by the proponent in response to any concerns raised, and feedback from Aboriginal communities on those commitments;
- copies of correspondence to or from Aboriginal communities, and any materials distributed electronically or by mail;
- information regarding any financial assistance provided by the proponent to enable participation by Aboriginal communities in the consultation;
- periodic consultation progress reports or copies of meeting notes if requested by the Crown;
- a summary of how the delegated aspects of consultation were carried out and the results; and
- a summary of issues raised by the Aboriginal communities, how the issues were addressed and any outstanding issues.

In certain circumstances, the Crown may share and discuss the proponent's consultation record with an Aboriginal community to ensure that it is an accurate reflection of the consultation process.

### **c) Will the Crown require a proponent to provide information about its commercial arrangements with Aboriginal communities?**

The Crown may require a proponent to share information about aspects of commercial arrangements between the proponent and Aboriginal communities where the arrangements:

- include elements that are directed at mitigating or otherwise addressing impacts of the project;
- include securing an Aboriginal community's support for the project; or
- may potentially affect the obligations of the Crown to the Aboriginal communities.

The proponent should make every reasonable effort to exempt the Crown from confidentiality provisions in commercial arrangements with Aboriginal communities to the extent necessary to allow this information to be shared with the Crown.

The Crown cannot guarantee that information shared with the Crown will remain confidential. Confidential commercial information should not be provided to the Crown as part of the consultation record if it is not relevant to the duty to consult or otherwise required to be submitted to the Crown as part of the regulatory process.

## **V. What are the Roles and Responsibilities of Aboriginal Communities' in the Consultation Process?**

Like the Crown, Aboriginal communities are expected to engage in consultation in good faith. This includes:

- responding to the consultation notice;
- engaging in the proposed consultation process;
- providing relevant documentation;
- clearly articulating the potential impacts of the proposed project on Aboriginal or treaty rights; and
- discussing ways to mitigate any adverse impacts.

Some Aboriginal communities have developed tools, such as consultation protocols, policies or processes that provide guidance on how they would prefer to be consulted. Although not legally binding, proponents are encouraged to respect these community processes where it is reasonable to do so. Please note that there is no obligation for a proponent to pay a fee to an Aboriginal community in order to enter into a consultation process.

To ensure that the Crown is aware of existing community consultation protocols, proponents should contact the relevant Crown ministry when presented with a consultation protocol by an Aboriginal community or anyone purporting to be a representative of an Aboriginal community.

#### **VI. What if More Than One Provincial Crown Ministry is Involved in Approving a Proponent's Project?**

Depending on the project and the required permits or approvals, one or more ministries may delegate procedural aspects of the Crown's duty to consult to the proponent. The proponent may contact individual ministries for guidance related to the delegation of procedural aspects of consultation for ministry-specific permits/approvals required for the project in question. Proponents are encouraged to seek input from all involved Crown ministries sooner rather than later.

## Jasmine Biasi - GM BluePlan

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**From:** Laurie Boyce - GM BluePlan  
**Sent:** Tuesday, May 25, 2021 7:17 AM  
**To:** Species at Risk (MECP); Jasmine Biasi - GM BluePlan  
**Cc:** Kambeitz, Cindy; Dania Chehab - GM BluePlan; Robinson, Olivia  
**Subject:** RE: MECP SARB Comments: Peel Wastewater Treatment Solutions

Hi Shamus:

Thank you for your quick response. We will ensure that sufficient surveys for Species at Risk (SAR) are completed, should they be necessary, based on the proposed site plans for the G.E. Booth and Clarkson Wastewater Treatment Plants.

Laurie

**Laurie Boyce, B.Sc., M.A.**  
Strategic Planning and Project Advisor

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**From:** Species at Risk (MECP) <SAROntario@ontario.ca>  
**Sent:** Thursday, May 20, 2021 2:08 PM  
**To:** Laurie Boyce - GM BluePlan <Laurie.Boyce@gmblueplan.ca>; Jasmine Biasi - GM BluePlan <Jasmine.Biasi@gmblueplan.ca>  
**Cc:** Kambeitz, Cindy <cindy.kambeitz@peelregion.ca>; Dania Chehab - GM BluePlan <Dania.Chehab@gmblueplan.ca>; Robinson, Olivia <orobinson@savanta.ca>  
**Subject:** MECP SARB Comments: Peel Wastewater Treatment Solutions

Hi Laurie,

The Ministry of Environment, Conservation and Parks (MECP) Species at Risk Branch (SARB) has conducted review of the study areas for the G.E. Booth WWTP and Clarkson WWTP and has not detected any additional SAR occurrences which were not already identified in the consolidated species list.

While this review represents MECP's best currently available information, it is important to note that a lack of information for a site does not mean that SAR or their habitat are not present. There are many areas where the Government of Ontario does not currently have information, especially in areas not previously surveyed. On-site assessments will need to be performed to verify site conditions, identify and confirm presence of species at risk and/or their habitats.



It is the responsibility of the proponent to ensure that SAR are not killed, harmed, or harassed, and that their habitat is not damaged or destroyed through the proposed activities to be carried out on the site. If the proposed activities can not avoid impacting protected species and their habitats then the proponent will need to apply for a authorization under the Endangered Species Act (ESA).

Regards,

Shamus Snell  
A/ Management Biologist  
Species at Risk Branch  
Ministry of Environment, Conservation and Parks  
Email: [shamus.snell@ontario.ca](mailto:shamus.snell@ontario.ca)

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**From:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>  
**Sent:** May 7, 2021 7:40 AM  
**To:** Species at Risk (MECP) <[SAROntario@ontario.ca](mailto:SAROntario@ontario.ca)>; Jasmine Biasi - GM BluePlan <[Jasmine.Biasi@gmblueplan.ca](mailto:Jasmine.Biasi@gmblueplan.ca)>  
**Cc:** Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>; Dania Chehab - GM BluePlan <[Dania.Chehab@gmblueplan.ca](mailto:Dania.Chehab@gmblueplan.ca)>; Robinson, Olivia <[orobinson@savanta.ca](mailto:orobinson@savanta.ca)>  
**Subject:** RE: Notice of Virtual Public Information Centre 2: Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs - response  
**Importance:** High

**CAUTION -- EXTERNAL E-MAIL - Do not click links or open attachments unless you recognize the sender.**

Dear Shamus

We apologize for the delay in responding to your email. Thank you for your comments related to Species at Risk in the study areas for the G.E. Booth WWTP and Clarkson WWTP Class EAs and for providing a copy of the Client's Guide to Preliminary Screening for Species at Risk (Draft, May 2019). As part of Phase 2 of the Class EA, we have completed natural heritage characterizations of the WWTPs sites in order to assist in the assessment of alternatives and development of the preferred design concepts. As part of these natural heritage characterizations, preliminary screening of potential Species at Risk (SAR) has been conducted in line with the requirements of the Guide. Specifically, the following secondary source data was reviewed for each facility:

- Land Information Ontario (LIO) database (MNRF);
- Natural Heritage Information Centre (NHIC) database (MNRF);
- Ontario Breeding Bird Atlas (Bird Studies Canada);
- Ontario Reptile and Amphibian Atlas (Ontario Nature);
- Ontario Butterfly and Moth Atlas (Toronto Entomologists Association);
- Aquatic Species at Risk Distribution Mapping (DFO); and
- Savanta's SAR Assessment Tool.

The Environmental Assessment (EA) for the Lakeview Waterfront Connection (SENES Consultants 2014) was also reviewed.

A summary of results for each WWTP is presented below.

G.E. Booth WWTP

**Figure 4** (attached), from the Natural Heritage Characterization Report for the G.E. Booth WWTP illustrates the confirmed and candidate natural features on the site. Through the natural heritage characterization, and review of relevant studies we have identified potential SAR that may be present on or near the G.E. Booth WWTP site. The attached summary **Table 5** (from Appendix B, Natural Heritage Report) provides a list of all potential SAR species and identifies whether SAR habitat may be present within or adjacent to the G.E. Booth WWTP site. Twelve (12) SAR species were identified as candidate based on potential habitat availability.

The recommended solution for the G.E. Booth WWTP is to expand the plant from 518 megalitres per day (MLD) to 550 MLD, within the existing plant boundaries. The natural heritage features and potential SAR species on site (and in surrounding areas) will be protected through avoidance where possible. Detailed SAR surveys will be required within targeted communities, should site alteration and/or redevelopment be proposed within or immediately adjacent to candidate habitat, and appropriate mitigation measures will be considered to avoid adverse impacts.

#### Clarkson WWTP

We have attached **Figure 3** and **Table 7, Appendix B** from the Clarkson Natural Heritage Characterization Report) illustrating Preliminary ELCs on the site and Species at Risk (SAR) Habitat Potential, respectively. As indicated in **Table 7** candidate habitat for Little Brown Myotis may be present within the SWD vegetation community in the north-west corner of the property. Detailed SAR bat surveys would be required within the SWD community, should site alteration and/or redevelopment be proposed within or immediately adjacent to candidate habitat.

The recommended solution for the Clarkson WWTP is to expand the plant from 350 MLD to 500 MLD, within the existing plant boundaries. As with the G.E. Booth WWTP expansion, the natural heritage features and potential SAR species on site will be protected through avoidance where possible and, where not possible, appropriate mitigation measures will be considered to avoid adverse impacts to habitat and wildlife.

As mentioned above, it is our intention to avoid altering areas that could negatively impact SAR or their habitat at both WWTPs; we have taken these areas into consideration through our Phase 2 Class EA work and will be developing our Phase 3 Design Concepts with these in mind. Once the Preferred Design Concepts are developed we will provide the necessary information to the SARB and obtain ESA authorization prior to design if required.

Please let us know if you need any additional information at this time. Thanks again for you input.

Laurie

**Laurie Boyce, B.Sc., M.A.**

Strategic Planning and Project Advisor

**GM BluePlan Engineering Limited**

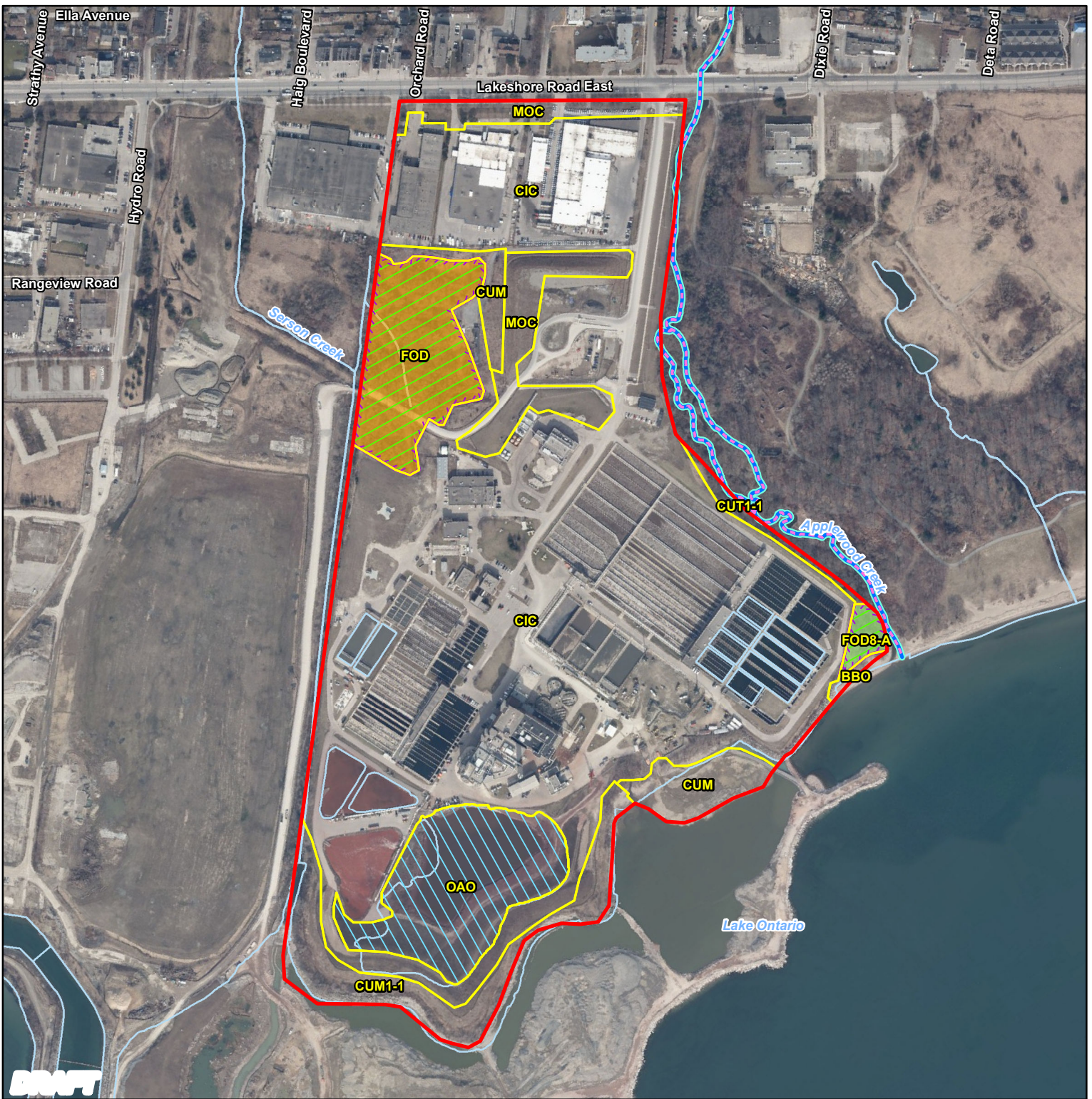
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Project 2003025

**NOTES:**  
 1. Coordinate System: NAD 1983 UTM Zone 17N.  
 2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2020.  
 3. Orthoimagery © First Base Solutions, 2020. Imagery taken in 2019.

\*Preliminary Ecological Land Classification was digitized from airphoto interpretation in conjunction with the Environmental Assessment for Lakeview Waterfront Connection prepared by SENES Consultants - April 2014.

**Legend**

- Subject Lands
  - Preliminary Ecological Land Classification\*
  - Watercourse
  - Waterbody
- Key Natural Heritage Features and Hydrologically Sensitive Features (Region of Peel Official Plan 2018)**
- Confirmed Fish Habitat
  - Permanent Stream
  - Candidate Locally Significant Woodland
  - Candidate SWH and Significant Habitat for Endangered, Rare and Threatened Species
  - Wetland

**Provincially Significant Natural Heritage Features (Natural Heritage Reference Manual 2010)**

- Confirmed Fish Habitat
- Candidate SAR and SWH Habitat
- Confirmed Significant Woodland

**ELC Legend**

- BBO, Open Beach/Bar
- CIC, Commercial/Industrial
- CUM, Cultural Meadow
- CUM1-1, Dry - Moist Old Field Meadow
- CUT1-1, Sumac Cultural Thicket
- FOD, Deciduous Forest
- FOD3-A, Fresh-Moist Cottonwood Coastal Deciduous Forest
- MOC, Commercial/Industrial Open Space
- OAO, Open Aquatic

GE Booth Lakeview Wastewater Treatment Plan  
 GM BluePlan

Figure 4  
 Confirmed and Candidate  
 Natural Heritage Features

**DRAFT**



**SAVANTA**  
 A GEI Company



**Table 5: Species at Risk (SAR) Habitat Potential**

Species Name	SARO RANKING	Habitat Preferences	Habitat Potential within Subject Lands?
<b>SAR identified within the LWC Study Area</b>			
Eastern Wood-Pewee ( <i>Contopus virens</i> )	Special Concern	Deciduous forests and woodlands.	Yes – forested habitat is present.
Horned Grebe ( <i>Podiceps auritus</i> )	Special Concern	Open aquatic habitats with emergent vegetation.	Yes – open aquatic habitat present.
Peregrine Falcon ( <i>Falco peregrinus</i> )	Special Concern	Associated with large bodies of water and steep cliffs and/or tall buildings.	No – While large body of water present, perching habitat is not present within the Subject Lands.
Wood Thrush ( <i>Hylocichla mustelina</i> )	Special Concern	Mature deciduous and mixed forests.	Yes – forested habitat is present.
Monarch ( <i>Danaus plexippus</i> )	Special Concern	Caterpillars are confined to meadows and open areas where milkweed grows. Adult butterflies can be found in more diverse habitats.	Yes – cultural meadow habitat present.
Barn Swallow ( <i>Hirundo rustica</i> )	Threatened	Forages in fields, parks and along edge habitats; Nests in anthropogenic structures (barns, sheds, bridges etc.)	Yes – structures would need to be screened for habitat suitability.
Bobolink ( <i>Dolichonyx oryzivorus</i> )	Threatened	Tall grasslands, undercut pastures, overgrown fields and meadows.	Yes – small pockets of cultural meadow habitat present.
Chimney Swift ( <i>Chaetura pelagica</i> )	Threatened	Nest within chimneys and on other vertical surfaces.	Yes – structures will need to be screened for suitable chimneys.
Eastern Meadowlark ( <i>Sturnella magna</i> )	Threatened	Tall grasslands, undercut pastures, overgrown fields and meadows.	Yes – small pockets of cultural meadow habitat present.
Little Brown Myotis ( <i>Myotis lucifugus</i> )	Endangered	Overwinters in caves and abandoned mines. Roosts in mature	Yes – roosting habitat within forested communities may be

**Table 5: Species at Risk (SAR) Habitat Potential**

Species Name	SARO RANKING	Habitat Preferences	Habitat Potential within Subject Lands?
		deciduous and mixed forests.	present. Screening will be required to determine use.
Northern Myotis ( <i>Myotis septentrionalis</i> )	Endangered	Overwinters in caves and abandoned mines. Roosts in mature deciduous and mixed forests.	Yes – roosting habitat within forested communities may be present. Screening will be required to determine use.
Tri-colored Bat ( <i>Perimyotis subflavus</i> )	Endangered	Overwinters in caves and abandoned mines. Roosts in mature deciduous and mixed forests.	Yes – roosting habitat within forested communities may be present. Screening will be required to determine use.
Butternut ( <i>Juglans cinerea</i> )	Endangered	Deciduous forest with moist well draining soils.	Yes – deciduous communities are present.
American Eel ( <i>Anguilla rostrate</i> )	Endangered	Large open lakes leading to the Atlantic Ocean.	Yes – features associated with Lake Ontario and Applewood Creek are Present.
<b>SAR identified within the background wildlife review (Section 3.0)</b>			
Black Tern ( <i>Chlidonias niger</i> )	Special Concern	Shallow cattail marshes in open aquatic habitat	No – no shallow marshes present.
Blanding’s Turtle	Threatened	Permanent watercourse features	Yes – Applewood Creek is a permanent watercourse feature with seepages identified.

**Table 5: Species at Risk (SAR) Habitat Potential**

Species Name	SARO RANKING	Habitat Preferences	Habitat Potential within Subject Lands?
Common Nighthawk ( <i>Chordeiles minor</i> )	Special Concern	Open areas with little to no surrounding vegetation.	Yes – lakeshore habitat and pavement areas are present.
Eastern Wood-Pewee ( <i>Contopus virens</i> )	Special Concern	Deciduous forests and woodlands.	Yes – forested habitat is present.
Peregrine Falcon ( <i>Falco peregrinus</i> )	Special Concern	Associated with large bodies of water and steep cliffs and/or tall buildings.	No – While large body of water present, perching habitat is not present within the Subject Lands.
Wood Thrush ( <i>Hylocichla mustelina</i> )	Special Concern	Mature deciduous and mixed forests.	Yes – forested habitat is present.
Monarch ( <i>Danaus plexippus</i> )	Special Concern	Caterpillars are confined to meadows and open areas where milkweed grows. Adult butterflies can be found in more diverse habitats.	Yes – cultural meadow habitat present.
Musk Turtle ( <i>Sternotherus odoratus</i> )	Special Concern	Slow moving rivers and lake shores with abundant emergent vegetation.	No – nesting habitat present along beach would be disturbed from adjacent development (JTLCA).
Snapping Turtle ( <i>Chelydra serpentina</i> )	Special Concern	Open aquatic habitat with slow moving water and muddy substrate	Yes – potential nesting and overwintering habitat along stream.
Broad Beech Fern ( <i>Phegopteris hexagonoptera</i> )	Special Concern	Moist deciduous forest and woodlands.	No – While forested habitat is present, the site is highly disturbed.
Bank Swallow ( <i>Riparia riparia</i> )	Threatened	Vertical cliffs or banks along natural bluffs or eroding streamside banks	Yes – streams are present, screening for eroding banks is needed.



**Table 5: Species at Risk (SAR) Habitat Potential**

Species Name	SARO RANKING	Habitat Preferences	Habitat Potential within Subject Lands?
Barn Swallow ( <i>Hirundo rustica</i> )	Threatened	Forages in fields, parks and along edge habitats; Nests in anthropogenic structures (barns, sheds, bridges etc.)	Yes – structures would need to be screened for habitat suitability.
Bobolink ( <i>Dolichonyx oryzivorus</i> )	Threatened	Tall grasslands, undercut pastures, overgrown fields and meadows.	Yes – small pockets of cultural meadow habitat present.
Chimney Swift ( <i>Chaetura pelagica</i> )	Threatened	Nest within chimneys and on other vertical surfaces.	Yes – structures will need to be screened for suitable chimneys.
Eastern Meadowlark ( <i>Sturnella magna</i> )	Threatened	Tall grasslands, undercut pastures, overgrown fields and meadows.	Yes – small pockets of cultural meadow habitat present.
Least Bittern ( <i>Ixobrychus exilis</i> )	Threatened	Cattail marshes in open aquatic habitat with dense emergent vegetation	No – suitable open aquatic habitat is not present.
Butternut ( <i>Juglans cinerea</i> )	Endangered	Deciduous forest with moist well draining soils.	Yes – deciduous communities present.
Mottled Duskywing ( <i>Erynnis martialis</i> )*	Endangered	Dry habitats with sparse vegetation (open barrens, sandy patches among woodlands and alvars) with New Jersey Tea and/or Prairie Redroot.	No – suitable substrate is not present within the Subject Lands.
Rusty-patched Bumble Bee ( <i>Bombus affinis</i> )	Endangered	Open woodlands, oak savannah habitats.	No – no open woodlands or savannah habitat present.
American Eel ( <i>Anguilla rostrate</i> )	Endangered	Large open lakes leading to the Atlantic Ocean.	Yes – features associated with Lake Ontario and Applewood Creek are Present.

**Table 5: Species at Risk (SAR) Habitat Potential**

Species Name	SARO RANKING	Habitat Preferences	Habitat Potential within Subject Lands?
Redside Dace ( <i>Clinostomus elongatus</i> )	Endangered	Cold and cool water streams with slow moving areas.	No - no suitable streams present.

\*Historical observation.





Project 2003025

**NOTES:**  
 1. Coordinate System: NAD 1983 UTM Zone 17N.  
 2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2020.  
 3. Orthoimagery © First Base Solutions, 2020. Imagery taken in 2019.

**Legend**

- Subject Lands
- Preliminary Ecological Land Classification
- Watercourse

**ELC Legend**

- CUM1, Mineral Cultural Meadow
- DEV, Development
- DIST, Disturbed
- MAM2, Mineral Meadow Marsh
- SWD2-2, Green Ash Mineral Deciduous Swamp

Clarkson Wastewater Treatment Plan  
 GM BluePlan

Figure 3  
 Preliminary Ecological  
 Land Classification

**DRAFT**



**SAVANTA**  
 A GEI Company



**Table 7: Species at Risk (SAR) Habitat Potential**

Species Name	SARO RANKING	Habitat Preferences	Habitat Potential within Subject Lands?
<b>SAR identified within the background wildlife review (section 3.0)</b>			
Common Nighthawk ( <i>Chordeiles minor</i> )	Special Concern	Open areas with little to no surrounding vegetation.	No - While nearby lakeshore habitat and pavement areas present, no Common Nighthawk habitat is present within the Subject Lands ( <b>Table 4, Appendix B</b> ).
Eastern Wood-Pewee ( <i>Contopus virens</i> )	Special Concern	Deciduous forests and woodlands.	No - Eastern Wood-Pewee were not identified within the Subject Lands during targeted breeding bird surveys ( <b>Table 4, Appendix B</b> ).
Peregrine Falcon ( <i>Falco peregrinus</i> )	Special Concern	Associated with large riverine and wooded features.	No - While tall buildings and nearby lakeshore habitat are present, no suitable breeding habitat is present within the Subject Lands ( <b>Table 4, Appendix B</b> ).
Wood Thrush ( <i>Hylocichla mustelina</i> )	Special Concern	Mature deciduous and mixed forests.	No - Wood Thrush were not identified during targeted breeding bird surveys ( <b>Table 4, Appendix B</b> ).
Northern Map Turtle ( <i>Graptemys geographica</i> )	Special Concern	Riverine and lacustrine systems with deep, slow moving sections.	No - aquatic corridors required for movement from potential nesting habitat along beach are not present.
Snapping Turtle ( <i>Chelydra serpentina</i> )	Special Concern	Open aquatic habitat with slow moving water and muddy substrate	No -small meadow marsh features are present, but do not retain water past July.
Monarch ( <i>Danaus plexippus</i> )	Special Concern	Caterpillars are confined to meadows and open areas where milkweed	No - no large congregations of

**Table 7: Species at Risk (SAR) Habitat Potential**

Species Name	SARO RANKING	Habitat Preferences	Habitat Potential within Subject Lands?
		grows. Adult butterflies can be found in more diverse habitats.	milkweed were identified within the Subject Lands.
Bank Swallow ( <i>Riparia riparia</i> )	Threatened	Vertical cliffs or banks along natural bluffs or eroding streamside banks	No - streams or eroding banks are not present. Bank Swallow were observed foraging over the Subject Lands but no breeding habitat is present ( <b>Table 4, Appendix B</b> ).
Barn Swallow ( <i>Hirundo rustica</i> )	Threatened	Forages in fields, parks and along edge habitats; Nests in anthropogenic structures (barns, sheds, bridges etc.)	No - Barn Swallow were observed foraging over the Subject Lands during targeted breeding bird surveys, however no breeding habitat was identified ( <b>Table 4, Appendix B</b> ).
Bobolink ( <i>Dolichonyx oryzivorus</i> )	Threatened	Tall grasslands, undercut pastures, overgrown fields and meadows.	No - While small pockets of cultural meadow habitat present, no Bobolink were identified within the Subject Lands during targeted breeding bird surveys ( <b>Table 4, Appendix B</b> ).
Chimney Swift ( <i>Chaetura pelagica</i> )	Threatened	Nest within chimneys and on other vertical surfaces.	No - no Chimney Swifts were identified within the Subject Lands during targeted breeding bird surveys ( <b>Table 4, Appendix B</b> ).
Eastern Meadowlark	Threatened	Tall grasslands, undercut pastures, overgrown fields and meadows.	No - While small pockets of cultural meadow habitat present, no Bobolink were identified within the Subject Lands during targeted breeding

**Table 7: Species at Risk (SAR) Habitat Potential**

Species Name	SARO RANKING	Habitat Preferences	Habitat Potential within Subject Lands?
			bird surveys ( <b>Table 4, Appendix B</b> ).
Blanding's Turtle ( <i>Emydoidea blandingii</i> )	Threatened	Open aquatics, usually in large wetlands and shallow lakes.	No – small meadow marsh features are present, but do not retain water past July.
Little Brown Myotis	Endangered	Overwinters in caves and abandoned mines. Roosts in mature deciduous and mixed forests.	Yes – The small SWD vegetation community may support Little Brown Myotis. Targeted surveys required.
Henslow's Sparrow ( <i>Ammodramus henslowii</i> )	Endangered	Tall grasslands, undercut pastures, overgrown fields and meadows.	No – While small pockets of cultural meadow habitat present, no Henslow's Sparrow were identified within the Subject Lands during targeted breeding bird surveys ( <b>Table 4, Appendix B</b> ).
<b>SAR identified during ecological field investigations (section 4.0)</b>			
Peregrine Falcon ( <i>Falco peregrinus</i> )	Special Concern	Associated with large bodies of water and wooded features.	No – while tall buildings and nearby lakeshore habitat are present, they are not present within the Subject Lands. No Peregrine Falcons were identified within the Subject Lands during targeted breeding bird surveys ( <b>Table 4, Appendix B</b> ).
Bank Swallow ( <i>Riparia riparia</i> )	Threatened	Vertical cliffs or banks along natural bluffs or eroding streamside banks	No – streams or eroding banks are not present. Bank Swallows were identified foraging during targeted breeding bird surveys, however no



**Table 7: Species at Risk (SAR) Habitat Potential**

Species Name	SARO RANKING	Habitat Preferences	Habitat Potential within Subject Lands?
			breeding habitat was identified ( <b>Table 4, Appendix B</b> ).
Barn Swallow <i>(Hirundo rustica)</i>	Threatened	Forages in fields, parks and along edge habitats; Nests in anthropogenic structures (barns, sheds, bridges etc.)	No – structures would need to be screened for habitat suitability. Barn Swallows were identified foraging during targeted breeding bird surveys, however no breeding habitat was identified ( <b>Table 4, Appendix B</b> ).

## Jasmine Biasi - GM BluePlan

---

**From:** Species at Risk (MECP) <SAROntario@ontario.ca>  
**Sent:** Friday, March 19, 2021 10:56 AM  
**To:** Jasmine Biasi - GM BluePlan  
**Cc:** Kambeitz, Cindy; Laurie Boyce - GM BluePlan  
**Subject:** RE: Notice of Virtual Public Information Centre 2: Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs  
**Attachments:** Client Guide to Preliminary Screening-May 2019.pdf

Good Morning,

The Ministry of Environment, Conservation and Parks (MECP) requires all proponents complete a preliminary screening (guide attached) of their project to determine if they are going to have an impact to Species at Risk (SAR) or their habitat. If the proponent believes they are going to have an impact or are uncertain they should submit the results of their Preliminary Screening to the Species at Risk Branch (SARB) in order for formal review under the Endangered Species Act (ESA) to be completed. Generally, SARB cannot make a recommendation on if the proposed activities will contravene the ESA without the results of the Preliminary Screening. It is the proponents responsibility to provide this information to the SARB and obtain an ESA authorization if one is required.

It is the responsibility of the proponent to ensure that SAR are not killed, harmed, or harassed, and that their habitat is not damaged or destroyed through the proposed activities to be carried out on the site. If the proposed activities can not avoid impacting protected species and their habitats then the proponent will need to apply for a authorization under the Endangered Species Act.

Please Note: We are currently experiencing a large volume of requests at this time and as such your patience is greatly appreciated.

Regards,

Shamus Snell  
A/ Management Biologist  
Species at Risk Branch  
Ministry of the Environment, Conservation and Parks

---

**From:** Jasmine Biasi - GM BluePlan <Jasmine.Biasi@gmblueplan.ca>  
**Sent:** March 17, 2021 11:00 AM  
**Cc:** Kambeitz, Cindy <cindy.kambeitz@peelregion.ca>; Laurie Boyce - GM BluePlan <Laurie.Boyce@gmblueplan.ca>  
**Subject:** Notice of Virtual Public Information Centre 2: Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

**CAUTION -- EXTERNAL E-MAIL - Do not click links or open attachments unless you recognize the sender.**

To whom it may concern,

Attached is a Notice of Virtual Public Information Centre #2 for Peel Wastewater Treatment Solutions (G.E. Booth Wastewater Treatment Plant and Clarkson Wastewater Treatment Plant Schedule 'C' Class Environmental Assessments).

If you have any questions about the studies, or if you suggest contacting an alternate member of your organization, please contact the Region Project Manager, Cindy Kambeitz (contact information provided in the attached Notice).

Best Regards,

**Jasmine Biasi, B.Eng., E.I.T**

Infrastructure Planning

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***Client's Guide to Preliminary Screening for Species at Risk***

***Ministry of the Environment, Conservation and Parks  
Species at Risk Branch, Permissions and Compliance***

***DRAFT - May 2019***

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## 1.0 Purpose, Scope, Background and Context

### 1.1 Purpose of this Guide

This guide has been created to:

- help clients better understand their obligation to gather information and complete a preliminary screening for species at risk before contacting the ministry,
- outline guidance and advice clients can expect to receive from the ministry at the preliminary screening stage,
- help clients understand how they can gather information about species at risk by accessing publicly available information housed by the Government of Ontario, and
- provide a list of other potential sources of species at risk information that exist outside the Government of Ontario.

It remains the client's responsibility to:

- carry out a preliminary screening for their projects,
- obtain best available information from all applicable information sources,
- conduct any necessary field studies or inventories to identify and confirm the presence or absence of species at risk or their habitat,
- consider any potential impacts to species at risk that a proposed activity might cause, and
- comply with the *Endangered Species Act (ESA)*.

**To provide the most efficient service, clients should initiate species at risk screenings and seek information from all applicable information sources identified in this guide, at a minimum, prior to contacting Government of Ontario ministry offices for further information or advice.**

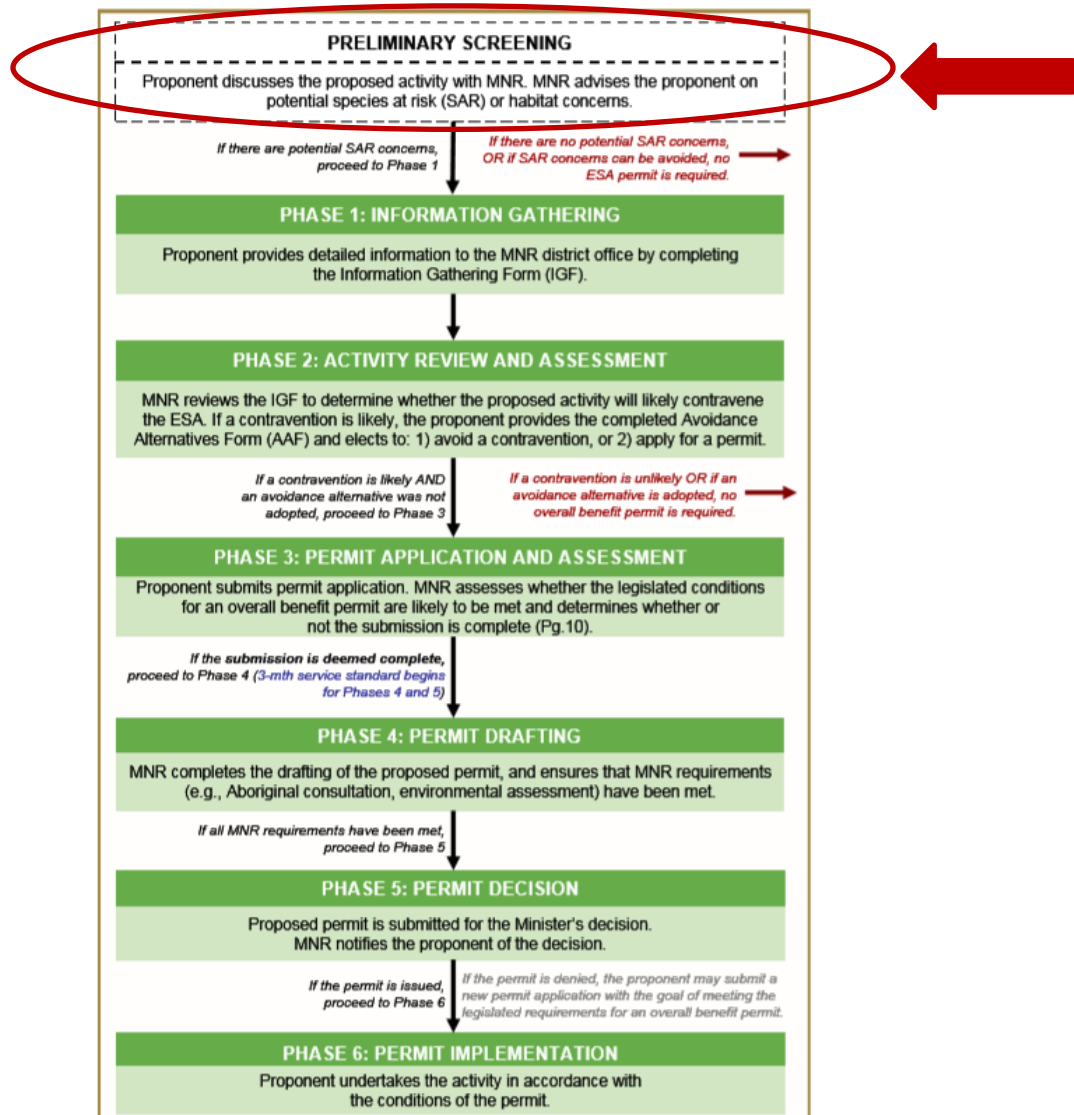
### 1.2 Scope

This guide is a resource for clients seeking to understand if their activity is likely to impact species at risk or if they are likely to trigger the need for an authorization under the ESA. It is not intended to circumvent any detailed site surveys that may be necessary to document species at risk or their habitat nor to circumvent the need to assess the impacts of a proposed activity on species at risk or their habitat. This guide is not an exhaustive list of available information sources for any given area as the availability of information on species at risk and their habitat varies across the province. This guide is intended to support projects and activities carried out on Crown and private land, by private landowners, businesses, other provincial ministries and agencies, or municipal government.



### 1.3 Background and Context

To receive advice on their proposed activity, clients must first determine whether any species at risk or their habitat exist or are likely to exist at or near their proposed activity, and whether their proposed activity is likely to contravene the ESA. Once this step is complete, clients may contact the ministry at [SAROntario@ontario.ca](mailto:SAROntario@ontario.ca) to discuss the main purpose, general methods, timing and location of their proposed activity as well as information obtained about species at risk and their habitat at, or near, the site. At this stage, the ministry can provide advice and guidance to the client about potential species at risk or habitat concerns, measures that the client is considering to avoid adverse effects on species at risk or their habitat and whether additional field surveys are advisable. This is referred to as the “Preliminary Screening” stage. For more information on additional phases in the diagram below, please refer to the *Endangered Species Act Submission Standards for Activity Review and 17(2)(c) Overall Benefit Permits* policy available online at <https://www.ontario.ca/page/species-risk-overall-benefit-permits>. Please note: any reference to MNR in the diagram is replaced by MECP.



## 2.0 Roles and Responsibilities

To provide the most efficient service, clients should initiate species at risk screenings and seek information from all applicable information sources identified in this guide prior to contacting Government of Ontario ministry offices for further information or advice.

**Step 1:** Client seeks information regarding species at risk or their habitat that exist, or are likely to exist, at or near their proposed activity by referring to all applicable information sources identified in this guide.

**Step 2:** Client reviews and consider guidance on whether their proposed activity is likely to contravene the ESA (see section 3.4 of this guide for guidance on what to consider).

**Step 3:** Client gathers information identified in the checklist in section 4 of this guide.

**Step 4:** Client contacts the ministry at [SAROntario@ontario.ca](mailto:SAROntario@ontario.ca) to discuss their preliminary screening. Ministry staff will ask the client questions about the main purpose, general methods, timing and location of their proposed activity as well as information obtained about species at risk and their habitat at, or near, the site. Ministry staff will also ask the client for their interpretation of the impacts of their activity on species at risk or their habitat as well as measures the client has considered to avoid any adverse impacts.

**Step 5:** Ministry staff will provide advice on next steps.

**Option A:** Ministry staff may advise the client they can proceed with their activity without an authorization under the ESA where the ministry is confident that:

- no protected species at risk or habitats are likely to be present at or near the proposed location of the activity; or
- protected species at risk or habitats are known to be present but the activity is not likely to contravene the ESA; or
- through the adoption of avoidance measures, the modified activity is not likely to contravene the ESA.

**Option B:** Ministry staff may advise the client to proceed to Phase 1 of the overall benefit permitting process (i.e. Information Gathering in the previous diagram), where:

- there is uncertainty as to whether any protected species at risk or habitats are present at or near the proposed location of the activity; or
- the potential impacts of the proposed activity are uncertain; or
- ministry staff anticipate the proposed activity is likely to contravene the ESA.

### 3.0 Information Sources

Land Information Ontario (LIO) and the Natural Heritage Information Centre (NHIC) maintain and provide information about species at risk, as well as related information about fisheries, wildlife, crown lands, protected lands and more. This information is made available to organizations, private individuals, consultants, and developers through online sources and is often considered under various pieces of legislation or as part of regulatory approvals and planning processes.

The information available from LIO or NHIC and the sources listed in this guide should not be considered as a substitute for site visits and appropriate field surveys. Generally, this information can be regarded as a starting point from which to conduct further field surveys, if needed. While this data represents best available current information, it is important to note that a lack of information for a site does not mean that species at risk or their habitat are not present. There are many areas where the Government of Ontario does not currently have information, especially in more remote parts of the province. The absence of species at risk location data at or near your site does not necessarily mean no species at risk are present at that location. On-site assessments can better verify site conditions, identify and confirm presence of species at risk and/or their habitats.

Information on the location (i.e. observations and occurrences) of species at risk is considered sensitive and therefore publicly available only on a 1km square grid as opposed to as a detailed point on a map. This generalized information can help you understand which species at risk are in the general vicinity of your proposed activity and can help inform field level studies you may want to undertake to confirm the presence, or absence of species at risk at or near your site.

Should you require specific and detailed information pertaining to species at risk observations and occurrences at or near your site on a finer geographic scale; you will be required to demonstrate your need to access this information, to complete data sensitivity training and to obtain a Sensitive Data Use License from the NHIC. Information on how to obtain a license can be found online at <https://www.ontario.ca/page/get-natural-heritage-information>.

Many organizations (e.g. other Ontario ministries, municipalities, conservation authorities) have ongoing licensing to access this data so be sure to check if your organization has this access and consult this data as part of your preliminary screening if your organization already has a license.



### 3.1 Make a Map: Natural Heritage Areas

The Make a Natural Heritage Area Map (available online at <https://www.ontario.ca/page/make-natural-heritage-area-map>) provides public access to natural heritage information, including species at risk, without the user needing to have Geographic Information System (GIS) capability. It allows users to view and identify generalized species at risk information, mark areas of interest, and create and print a custom map directly from the web application. The tool also shows topographic information such as roads, rivers, contours and municipal boundaries.

Users are advised that sensitive information has been removed from the natural areas dataset and the occurrences of species at risk has been generalized to a 1-kilometre grid to mitigate the risks to the species (e.g. illegal harvest, habitat disturbance, poaching).

The web-based mapping tool displays natural heritage data, including:

- Generalized Species at risk occurrence data (based on a 1-km square grid),
- Natural Heritage Information Centre data.

Data cannot be downloaded directly from this web map; however, information included in this application is available digitally through Land Information Ontario (LIO) at <https://www.ontario.ca/page/land-information-ontario>.

### 3.2 Land Information Ontario (LIO)

Most natural heritage data is publicly available. This data is managed in a large provincial corporate database called the LIO Warehouse and can be accessed online through the LIO Metadata Management Tool at

<https://www.javacoeapp.lrc.gov.on.ca/geonetwork/srv/en/main.home>. This tool provides descriptive information about the characteristics, quality and context of the data. Publicly available geospatial data can be downloaded directly from this site.

While most data are publicly available, some data may be considered highly sensitive (i.e. nursery areas for fish, species at risk observations) and as such, access to some data maybe restricted.

### 3.3 Additional Species at Risk Information Sources

- The Breeding Bird Atlas can be accessed online at <http://www.birdsontario.org/atlas/index.jsp?lang=en>
- eBird can be accessed online at <https://ebird.org/home>
- iNaturalist can be accessed online at <https://www.inaturalist.org/>
- The Ontario Reptile and Amphibian Atlas can be accessed online at <https://ontarionature.org/programs/citizen-science/reptile-amphibian-atlas>
- Your local Conservation Authority. Information to help you find your local Conservation Authority can be accessed online at <https://conservationontario.ca/conservation-authorities/find-a-conservation-authority/>

Local naturalist groups or other similar community-based organizations

- Local Indigenous communities
- Local land trusts or other similar Environmental Non-Government Organizations
- Field level studies to identify if species at risk, or their habitat, are likely present or absent at or near the site.
- When an activity is proposed within one of the continuous caribou ranges, please be sure to consider the caribou Range Management Policy. This policy includes figures and maps of the continuous caribou range, can be found online at <https://www.ontario.ca/page/range-management-policy-support-woodland-caribou-conservation-and-recovery>

### 3.4 Information Sources to Support Impact Assessments

- Guidance to help you understand if your activity is likely to adversely impact species at risk or their habitat can be found online at <https://www.ontario.ca/page/policy-guidance-harm-and-harass-under-endangered-species-act> and <https://www.ontario.ca/page/categorizing-and-protecting-habitat-under-endangered-species-act>
- A list of species at risk in Ontario is available online at <https://www.ontario.ca/page/species-risk-ontario>. On this webpage, you can find out more about each species, including where it lives, what threatens it and any specific habitat protections that apply to it by clicking on the photo of the species.

## 4.0 Check-List

Please feel free to use the check list below to help you confirm you have explored all applicable information sources and to support your discussion with Ministry staff at the preliminary screening stage.

- ✓ Land Information Ontario (LIO)
- ✓ Natural Heritage Information Centre (NHIC)
- ✓ The Breeding Bird Atlas
- ✓ eBird
- ✓ iNaturalist
- ✓ Ontario Reptile and Amphibian Atlas
- ✓ List Conservation Authorities you contacted: \_\_\_\_\_  
\_\_\_\_\_
- ✓ List local naturalist groups you contacted: \_\_\_\_\_  
\_\_\_\_\_
- ✓ List local Indigenous communities you contacted: \_\_\_\_\_  
\_\_\_\_\_
- ✓ List any other local land trusts or Environmental Non-Government Organizations you contacted: \_\_\_\_\_  
\_\_\_\_\_
- ✓ List and field studies that were conducted to identify species at risk, or their habitat, likely to be present or absent at or near the site: \_\_\_\_\_  
\_\_\_\_\_
- ✓ List what you think the likely impacts of your activity are on species at risk and their habitat (e.g. damage or destruction of habitat, killing, harming or harassing species at risk): \_\_\_\_\_  
\_\_\_\_\_



## Peel Wastewater Treatment Solutions

G.E. Booth Wastewater Treatment Plant (WWTP) Schedule C Class EA

Clarkson Wastewater Treatment Plant (WWTP) Schedule C Class EA

### MECP Early Consultation Meeting Summary Notes

**Meeting Date/Time:** October 7, 2020 10:00 am to 11:00 am

**Location:** Skype Meeting

**Summary Prepared by:** Jasmine Biasi (GM BluePlan); reviewed by Laurie Boyce (GM BluePlan)

**Date of Summary:** October 7, 2020

#### Attendance

**Chair:** Laurie Boyce (CH)

**Attendees:** Cindy Kambeitz (CK), Jasmine Biasi (JB), Trevor Bell (MECP), Tina Dufresne (MECP), Zhiping Yang (MECP)

Agenda Item	Agenda Topic	Discussion
		<ul style="list-style-type: none"> <li>• Purpose: The overall purpose this meeting was to consult with and receive early input from key stakeholder, the Ministry of the Environment, Conservation and Parks (MECP) on the details of the virtual Public Information Centre (PIC) planned for October 14. The meeting presentation included an overview of the G.E. Booth and Clarkson WWTP Class EAs - the EA process, background information, and alternative solutions being considered. Details of discussions are presented below, and presentation materials are attached.</li> <li>• Actions: GMBP will continue to consult with MECP at key points during the EA process including two meetings in November: <ul style="list-style-type: none"> <li>○ Early to Mid-November - Contact Trevor Bell to discuss the progress of the EAs and comments/questions/concerns received from the first public information center and feedback.</li> <li>○ End of November – Meeting with MECP team to discuss the assumptions and modelling approaches for the assimilation capacity study.</li> </ul> </li> </ul>
1.	Attendee Introductions	All attendees on the call will be considered the main MECP stakeholders to be included at future consultation meetings.
2.	Purpose of Meeting	<p>Presentation Attached.</p> <p>Early Consultation opportunity to introduce the Environmental Assessment projects to the Ministry and present the details of the upcoming public information Centre. Meeting to help establish the Project Opportunity Statement for the Class EAs.</p>

3.	Presentation Discussion: Incineration and Inspiration Lakeview Community	<p>Tina noted that biosolids management and the potential expansion of incineration at G.E. Booth WWTP may be of large concern to the public, specifically those within the Inspiration Lakeview Community.</p> <p>GMBP and Peel expect to receive comments regarding incineration at G.E. Booth WWTP from PIC attendees, and surrounding land users. Cindy noted that the Region has been very proactive in communicating with the Inspiration Lakeview Community Developers, City of Mississauga, and prospective landowners, and will continue to extensively communicate with them through these EAs to receive their input. Air quality and odour studies are also part of these EAs.</p>
4.	Presentation Discussion: Other Key Stakeholders	<p>It was noted that it is important to also communicate with the CVC and TRCA given the new Jim Tovey Lakeview Conservation Area. CVC and TRCA are important stakeholders in this study, and Peel continues to communicate with them.</p> <p>Indigenous Communities will also be interested and are being consulted with. Comments have been received from Mississauga of the Credit First Nations, and the Region is working with them to ensure their procedures are followed and concerns addressed.</p>
5.	Presentation Discussion: Outfall and Assimilation Capacity	Discussed the Assimilation Capacity Modelling with Zhiping include the planned Cormix Far Field Modeling and MIKE3 Near Field Modelling and the approximate timeline for a future discussion of preliminary results.
6.	Other: MCEA Draft Amendment (2020)	<p>Discussed the new amendment to the Class EA processes, and the procedures for reviewing Part II Orders, and how it would impact these EAs. Trevor indicated that the new appeal process for Part II Orders is currently being implemented. Under the new process, proponents will continue to issue a Notice of Completion and place the Environmental Study Report (ESR) on the public record for 30-days. However, instead of concerns being filed with the Ministry, concerns will be addressed to the proponent. The Part II Order process will only apply if the objection deals with aboriginal or treaty rights.</p> <p>For all other concerns, the Part II Order process has been replaced by an additional 30-day period for the Ministry to decide if the Minister should take action (i.e. grant Part II Order or approve with conditions). It is important that the proponent</p>

		continue to consult with stakeholders to resolve the concerns through the review process.
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Notice of any errors or omissions in this document should be communicated by attendees to summary taker within two (2) days of issue of these summary notes.



# Peel Wastewater Treatment Solutions

G.E. Booth WWTP Schedule C Class EA  
Clarkson WWTP Schedule C Class EA

Meeting: Early Consultation MECP  
Wednesday October 7, 2020



- **Background and Need for the Class EAs**
- **Questions to Address Through the Class EAs**
- **Phase 1: Opportunity Statement**
- **Phase 2: Alternative Solutions**
- **Public and Agency Consultation**
- **Schedule and Next Steps**



# Peel's Wastewater Treatment System



**Clarkson Wastewater Treatment Plant**



**G.E. Booth Wastewater Treatment Plant**



The East- West Diversion is a deep gravity trunk sewer of 2400 mm diameter currently being constructed along Derry Road. It is expected to be completed and operational by 2026. It allows Peel to divert flows from the G.E. Booth WWTP catchment area where there are capacity limitations, to the Clarkson WWTP catchment area which currently has surplus capacity.



# Location and Surrounding Land Uses



**Clarkson Wastewater Treatment Plant**



**G.E. Booth Wastewater Treatment Plant**



# Existing Wastewater Treatment Processes

## Existing Liquid Treatment

Wastewater from Residential, Commercial, Institutional, and Industrial Users drains through sewers to the Clarkson and G.E. Booth Wastewater Treatment Plants



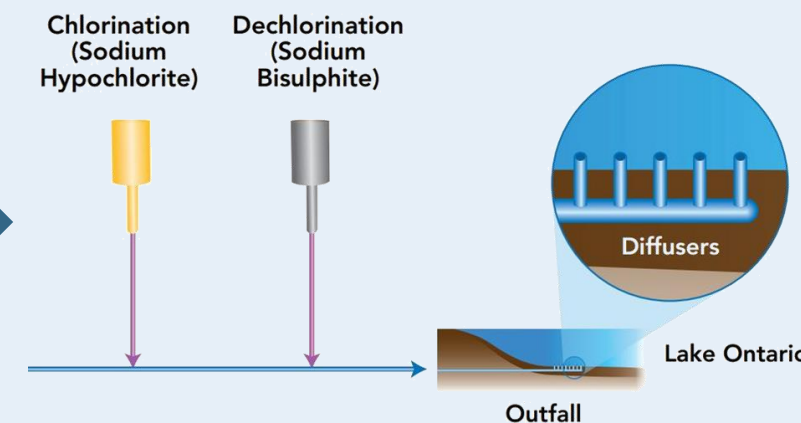
Screens and Grit Removal



Primary Treatment



Secondary Treatment



Disinfection

Outfall



Screens and Grits Materials trucked to landfill



Solids from primary and secondary treatment processes are collected and treated to produce sludge. The treated sludge is referred to as biosolids.



For more information on the wastewater treatment processes in the Region of Peel, please visit the following website:

<https://www.peelregion.ca/wastewater/>



# Existing Biosolids Treatment Processes

## Existing Liquid Treatment

Primary and Secondary Treated Solids



## Existing Biosolids Treatment



**Thickening & Dewatering**  
(G.E. Booth Wastewater Treatment Plant)



**Incineration**



**Ash Storage**



**Anaerobic Digestion and Dewatering**  
(Clarkson Wastewater Treatment Plant)



Approximately 3 trucks per day at 40m<sup>3</sup> capacity

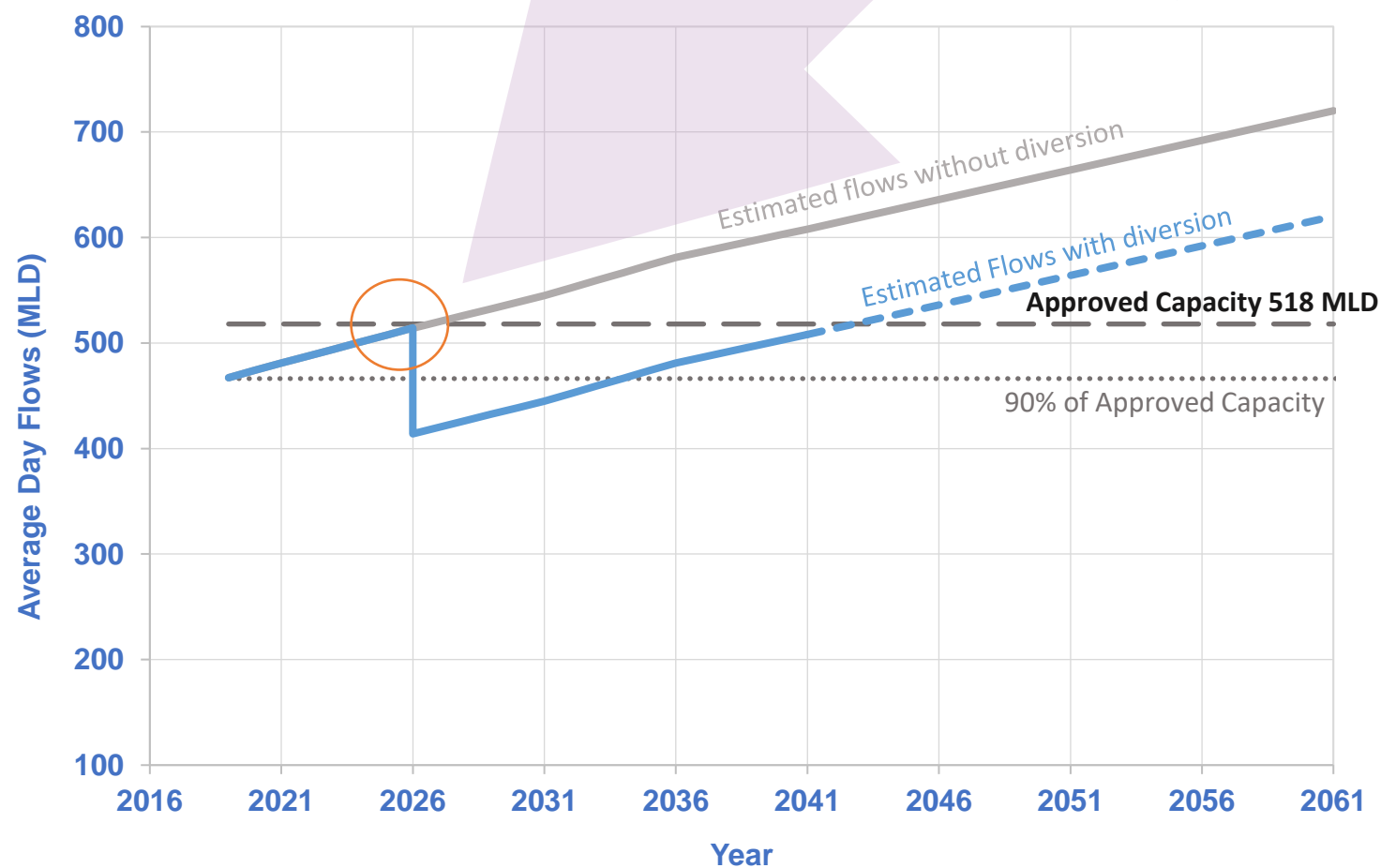
For more information on the biosolids treatment processes at both plants, please visit the following website:

<https://www.peelregion.ca/wastewater/>

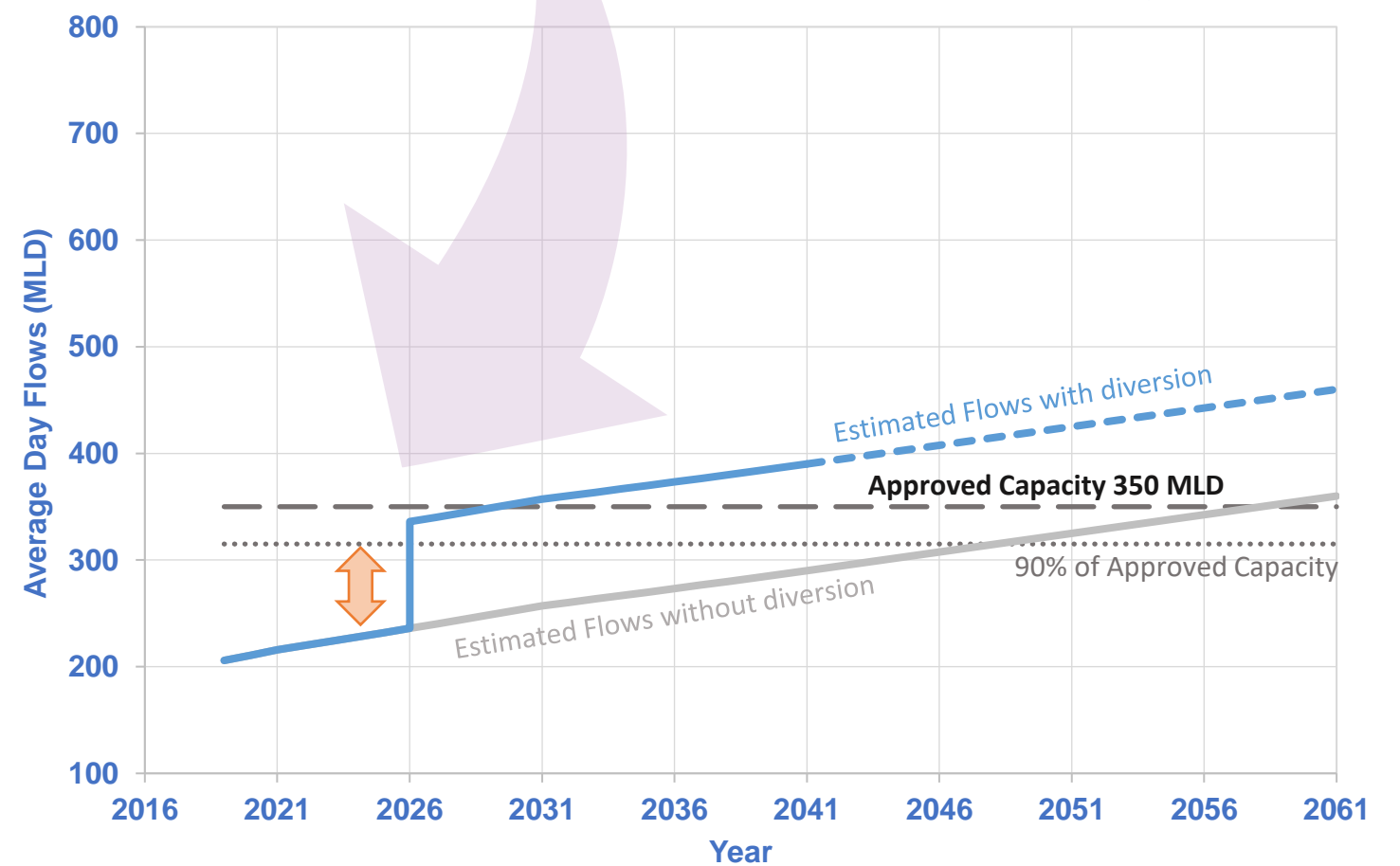


The G.E. Booth Wastewater Treatment Plant is approaching its capacity limits, while the Clarkson Wastewater Treatment Plant has approximately 80 Million Litres per day (MLD) existing surplus capacity

**G. E. Booth Wastewater Treatment Plant Flow Projections**



**Clarkson Wastewater Treatment Plant Flow Projections**



These EAs will identify the capacity expansion requirements at both Wastewater Treatment Plants to best utilize the existing surplus capacity at Clarkson and manage flow diversion over time.

# Need for the Class EAs

The Region's Growth Management Process and 2020 Water and Wastewater Master Plan identified that there will be significant growth across the Region of Peel.

With this approved growth to year 2041 and vision for growth beyond 2041, additional treatment capacity is required to meet the needs of Peel's citizens and to continue to protect the environment.

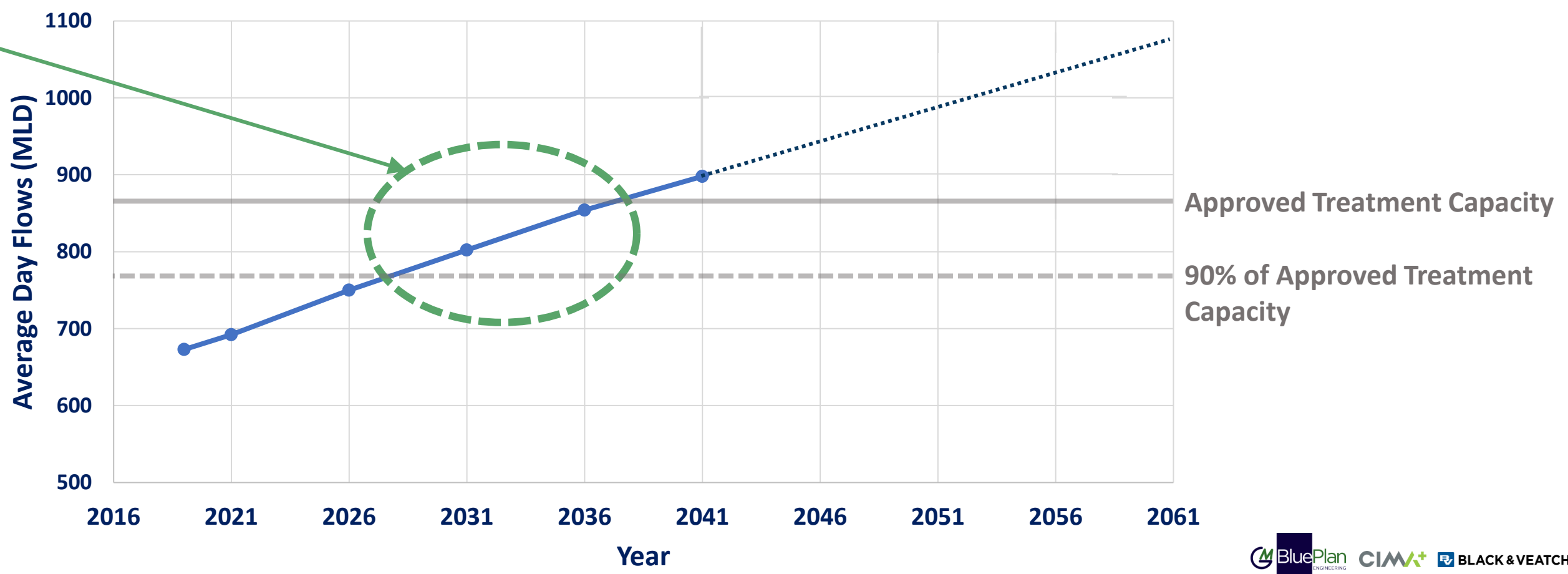
The Region of Peel is **GROWING!**

2016  
**2.12 Million**  
1,428,000 people  
695,000 jobs

2041  
**2.94 Million**  
1,970,000 people  
970,000 jobs

**40% increase**  
+ 542,000 people  
+ 275,000 jobs

**Total Peel Wastewater Flow Projections**



Additional Treatment Capacity Required

## Phase 1: Problem and Opportunity Statement

- How much additional wastewater flow and solids will be generated from approved population and employment growth?
- What Opportunities should be realized?

## Phase 2: Alternative Solutions

- What is the overall concept for treating wastewater in Peel?
- Should we expand one or both the existing wastewater treatment plants?
- How much should the wastewater treatment plant(s) be expanded by?
- Do we need additional outfall capacity? How much and where?
- How much biosolids capacity is need, and where should we treat our biosolids?

## Phase 3: Alternative Technologies and Site Layouts (Design Concepts)

- What technologies should we use to treatment our wastewater (liquid and solids components)?
- Where should our treated biosolids go and be used?
- How will we provide additional outfall capacity?
- How should the wastewater plant sites be laid out and look?
- How do we mitigate environmental and social impacts?



## The Clarkson WWTP and G.E. Booth WWTP Class EAs will develop a preferred wastewater treatment solution that will:

- Meet future needs associated with population growth, new regulations, climate resiliency, energy efficiency, and management of wet weather flows
- Address community expectations regarding level of service, odour, air/noise, water quality, protection of the environment and aesthetics
- Provide greater flexibility and reliability in wastewater and biosolids management.

## Major Steps

1. Review Long-List of Alternative Treatment Solutions
2. Develop (Combined) Short-List Alternatives
3. Develop the Evaluation Methodology and Criteria
4. Inventory Existing Conditions
5. Evaluate the (Combined) Alternative Solutions
6. Select Recommended Solution

# Long-list of Wastewater Treatment Solutions

## DO NOTHING

Maintain existing programs and infrastructure; no additional works

## LIMIT GROWTH

Limiting growth as to not trigger the need for new infrastructure

## NEW FACILITIES

Construct one or more new wastewater treatment facilities

**These alternatives do not meet project objectives and are not part of the Region of Peel's overall Wastewater Treatment Strategy.**

## FLOW REDUCTION

Reduce flows entering the wastewater collection system through:

- Reduce and control stormwater inflow and groundwater infiltration (I/I) into the sewers
- Water efficiency program

## UPGRADE AND EXPAND WASTEWATER COLLECTION SYSTEM

Upgrade/New Sewers to meet capacity demands and diversions to optimize available capacities

## WET WEATHER MANAGEMENT

Manage wet weather flows within the existing wastewater collection system as well as at the treatment plants

## EXPAND ONE OR BOTH OF THE EXISTING WASTEWATER TREATMENT PLANTS

- G.E. Booth Wastewater Treatment Plant
- Clarkson Wastewater Treatment Plant

**These alternatives support project objectives and are part of the Region of Peel's overall Wastewater Treatment Strategy.**





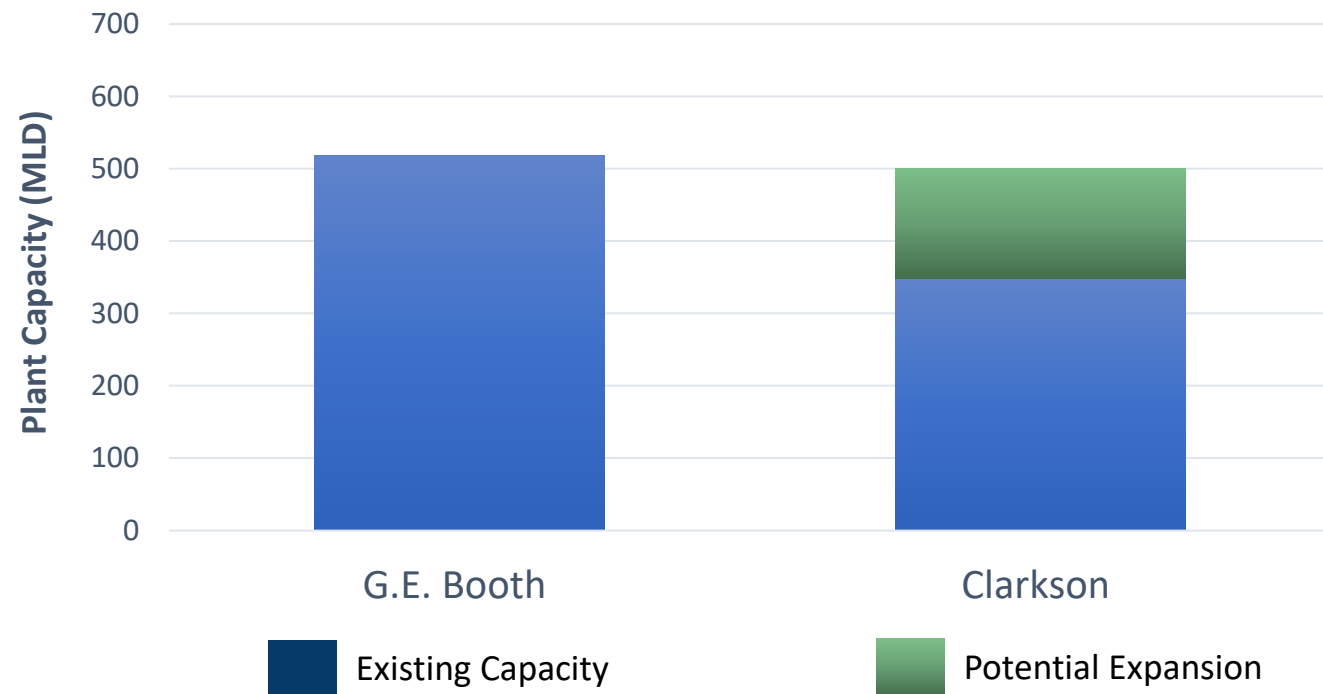
## Developing Alternative Solutions

1. Wastewater Treatment
2. Biosolids Management
3. Outfall Capacity Needs

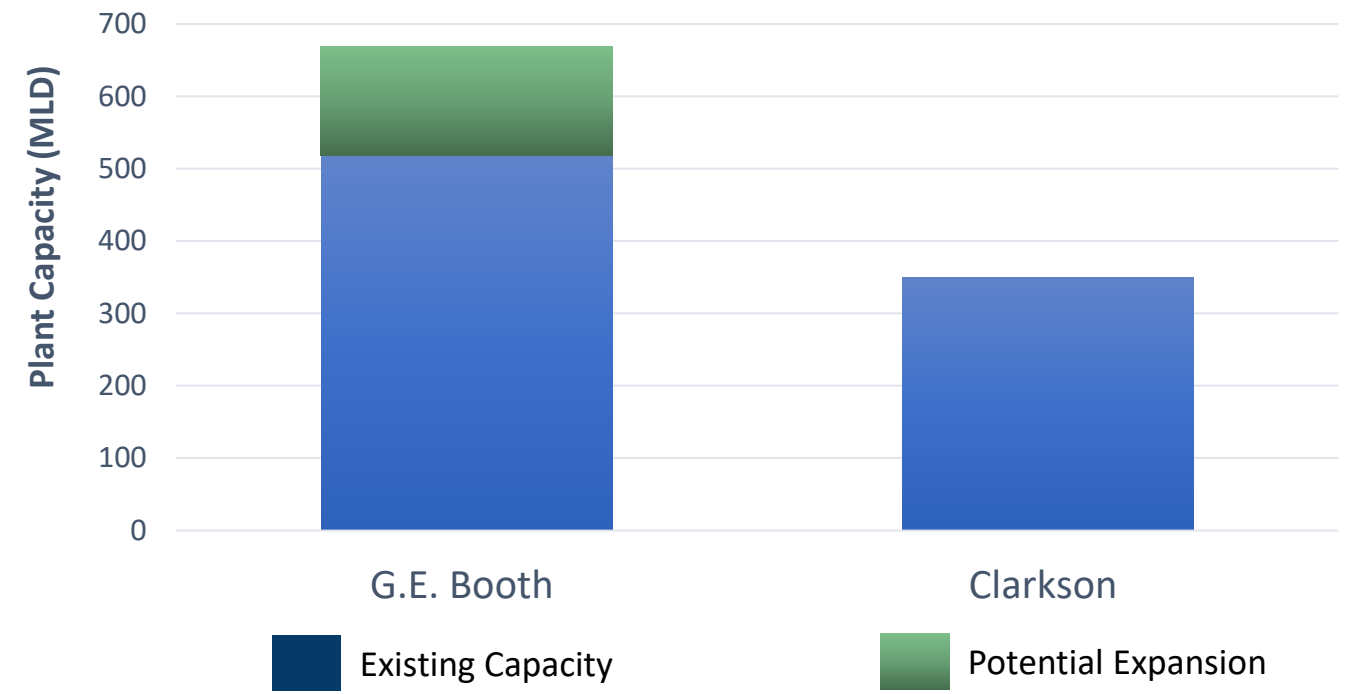


# Wastewater Expansion Strategies

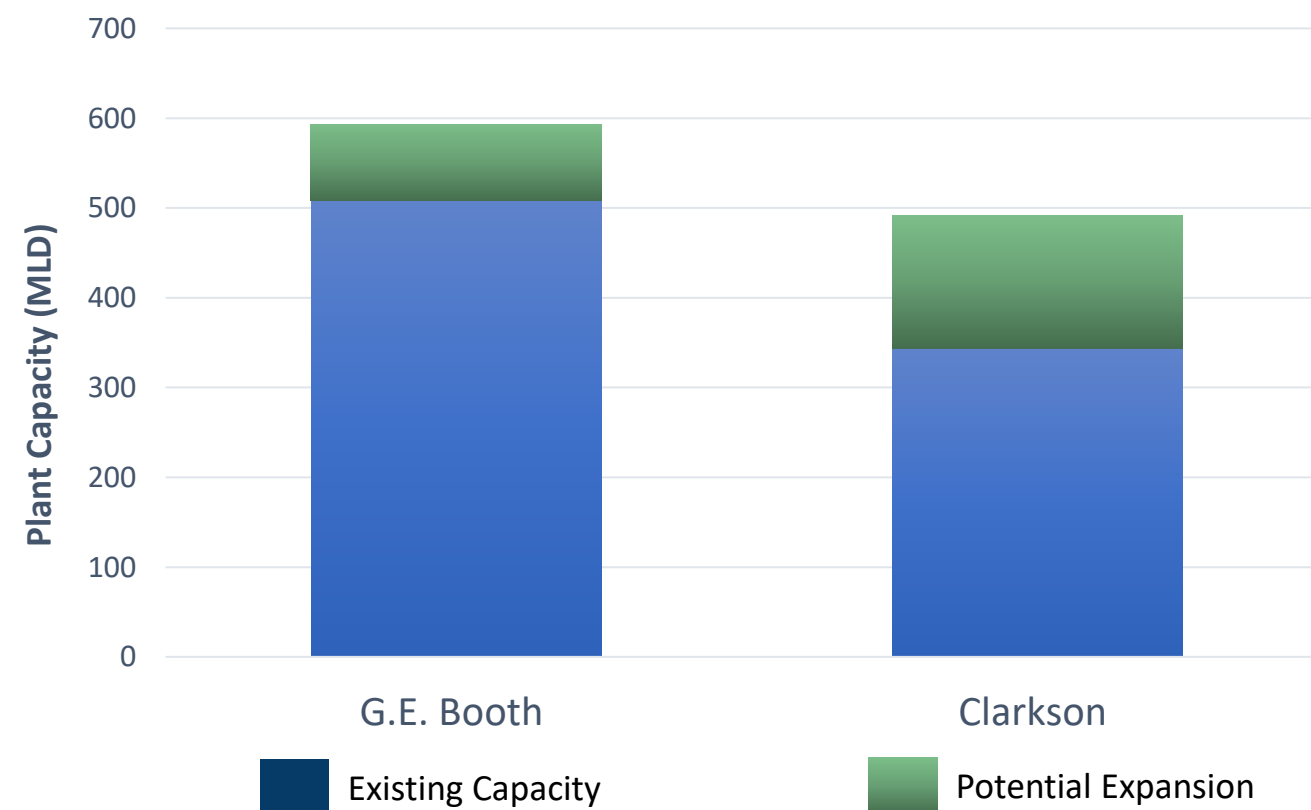
### STRATEGY 1: EXPANSION OF CLARKSON WASTEWATER TREATMENT PLANT ONLY



### STRATEGY 2: EXPANSION OF G.E. BOOTH WASTEWATER TREATMENT PLANT ONLY



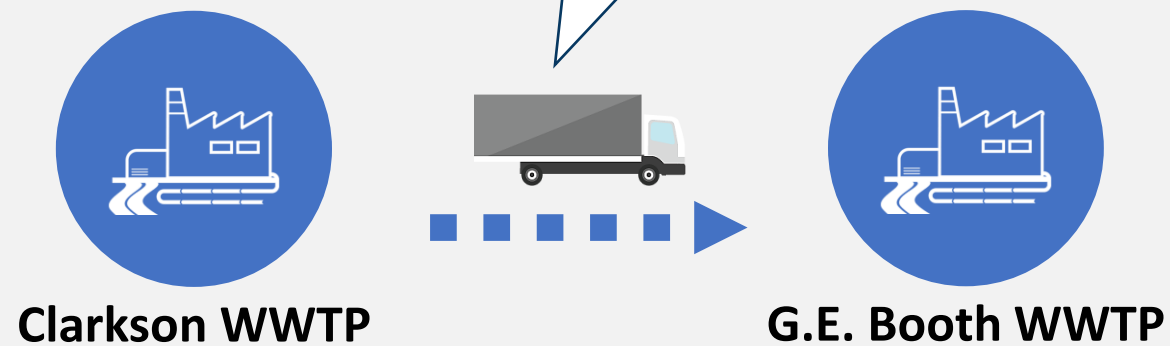
### STRATEGY 3: EXPANSION OF BOTH PLANTS



## Strategy 1

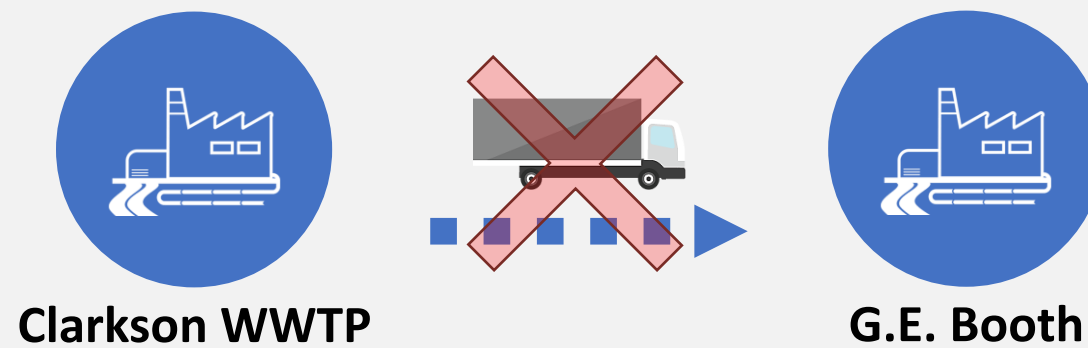
Continue to incinerate all existing and future biosolids at G.E. Booth Wastewater Treatment Plant.

Increase in Truck Traffic to approximately 5-6 trucks per day by 2041



## Strategy 2

Treat the existing and future biosolids generated at each plant at their respective Wastewater Treatment Plants.



### Sludge Treatment Options

#### Clarkson WWTP

- Continue with existing sludge treatment method
- Select a different sludge treatment method

#### G.E. Booth WWTP

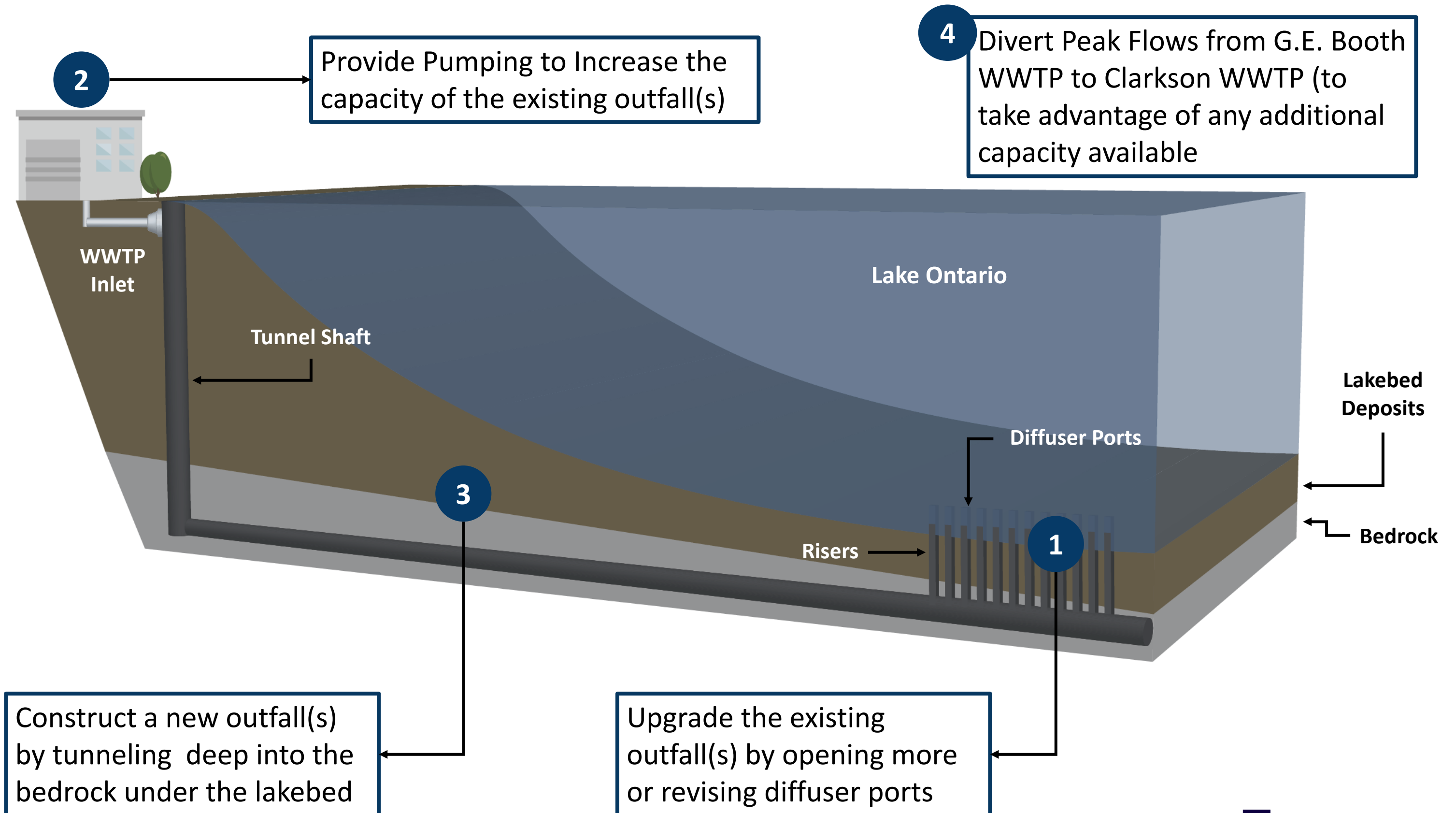
- Continue with incineration
- Select a different sludge treatment method

### Biosolids End-Use Options

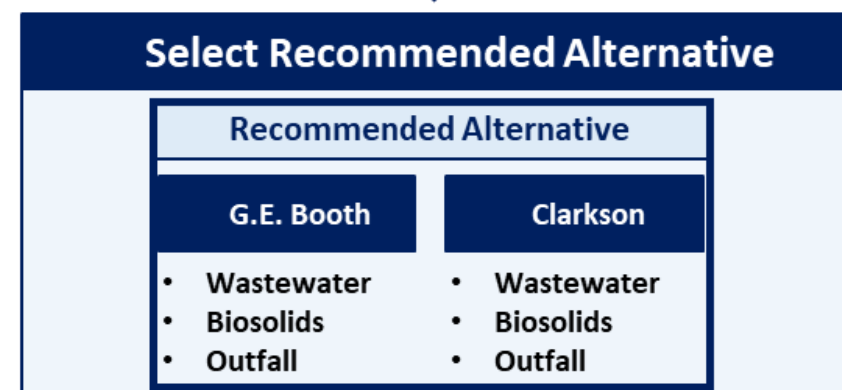
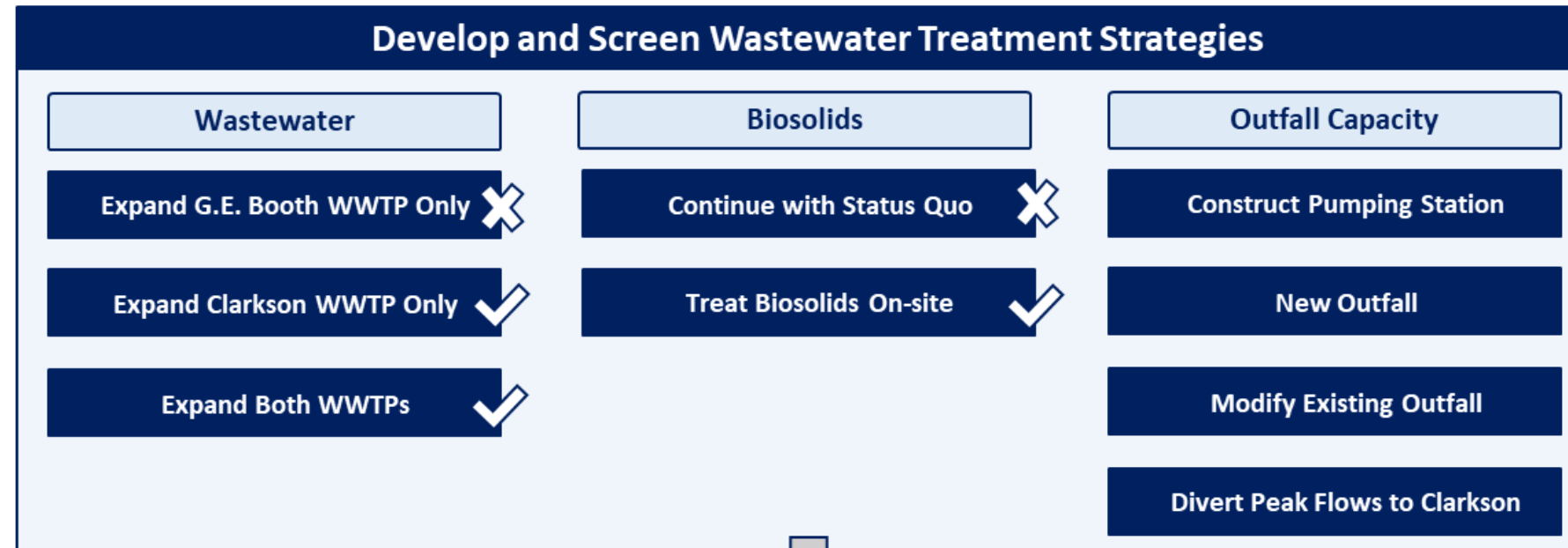
- Landfill
- Beneficial Land Application (e.g. agricultural, parks, golf courses)
- Residual ash product reuse



# Outfall Capacity Alternatives



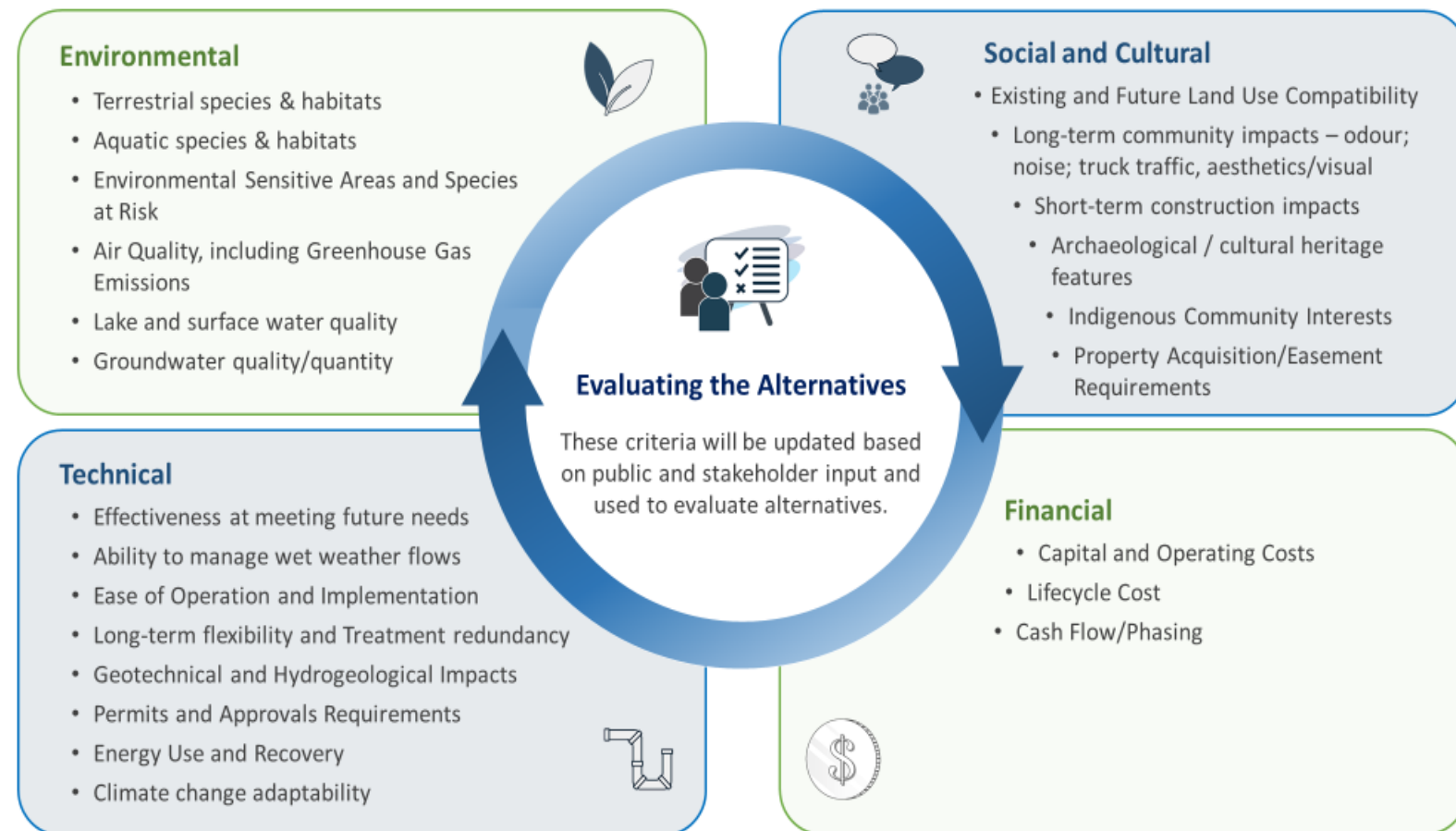
# Short-List of Alternative Solutions



G.E. Booth Phase 3 – Alternative Design Concepts

Clarkson Phase 3 – Alternative Design Concepts

- **Develop Evaluation Criteria**
- **Identify Impacts Scale**
  - 1 to 10 (with 10 being the most favourable)
- **Undertake Sensitivity Analysis with Different Criteria Category Weights**
  - e.g. social/cultural and natural environment criteria category rated higher than Technical and Costs
- **Present to the Public**
  - simplified version of assessment (e.g. symbols)





- **Purpose – To describe the service area and characterize the existing natural, social/cultural and technical conditions at and surrounding the WWTPs to support the assessment of alternative solutions:**
- **Supporting Studies and Key findings**

Supporting Studies	Key Findings	
	G.E. Booth WWTP	Clarkson WWTP
Natural Heritage Characterization Reports	Significant natural features and species (woodlots, wetland, wildlife habitat, JTLCA); CVC expressed concerns	Significant natural features and species (woodlots, wetland, wildlife habitat); CVC expressed concerns
Stage 1 Archaeological Assessment (AA)s	Extensively disturbed; Minor Stage 2 AA (northeast corner – non development area); Review by MCFN (then to MHSTCI)	Extensively disturbed; Minor Stage 2 AA (corners of the site); Review by MCFN (then to MHSTCI)
Archaeological Marine Assessment	No marine archaeological resources identified Review by MCFN (then to MHSTCI)	N/A
Phase 1 ESA (Environmentally Sensitive Areas)	Some Areas of Potential Environmental Concern (APEC); Need for Phase 2 ESA will be established in Phase 3 and undertaking during design.	Some Areas of Potential Environmental Concern (APEC); will be taken into consideration at design stage. Need for more boreholes will be established in Phase 3 and undertaken before design
Geological and Hydrogeological Desktop Review	Approx. 50 borehole logs (onshore)- well understood for construction purposes; some boreholes from construction of existing outfall; need for more boreholes will be established in Phase 3 and undertaken during design	Boreholes MTO/MofE near by; MECP Well Records; need for more boreholes will be established in Phase 3 and undertaken during design

- **Assimilative Capacity Studies**

- To identify effluent quality limits and objectives at expanded WWTPs capacity
- Using Cormix and Mike3 Models

- **Odour/Air Quality and Noise Assessments**

- To identify air quality and noise controls at expanded WWTPs capacity to meet MECP requirements

# Phase 1: Notice of Commencement

- **Joint Notice of Commencement issued July 16, 2020 via:**
  - Mail – 80 contacts
  - Email – 157 emailed
  - Mail and Email - 30 contacts (Indigenous communities, agencies and conservation authorities received copies via mail and email)
  - Announced on project webpage
  - Posted in Local Mississauga Newspaper

## Public Notice

**Region  
of Peel**  
working with you

### Peel Wastewater Treatment Solutions

#### NOTICES OF STUDY COMMENCEMENT

G.E. Booth Wastewater Treatment Plant Schedule C Class Environmental Assessment  
Clarkson Wastewater Treatment Plant Schedule C Class Environmental Assessment

**Background**  
The Region of Peel has initiated two Schedule C Class Environmental Assessments (EAs) for the G.E. Booth Wastewater Treatment Plant (WWTP) and the Clarkson WWTP to identify the preferred solutions for wastewater treatment and biosolids management in the Region. These two (2) Class EA studies are integrated, as the preferred solutions will impact both facilities. The Class EA process will evaluate alternatives to address capacity for future growth across the Region, to establish servicing, treatment and biosolids policy, and incorporate factors such as energy efficiency, climate resiliency, lifecycle planning and operational flexibility.

**The Process**  
The Class EA process for both the G.E. Booth and Clarkson WWTPs includes:

- Public and agency stakeholder consultation.
- Opportunities and constraints review.
- Investigation of alternative long-term servicing and biosolids management strategies, treatment technologies and design concepts.
- Evaluation of the impacts of alternatives.
- Selection and development of preferred alternatives, including the overall wastewater and biosolids management strategy, and design concepts for each WWTP.

**Your Input is Important**  
The Class EAs will take approximately eighteen (18) months to two (2) years to complete. Public Information Events as well as online engagement will be part of the studies to help the public stay informed and provide an opportunity to give the project team feedback for both Class EAs. The first Public Consultation Event is planned for Fall 2020 and will be a joint event to present information on both the G.E. Booth and Clarkson WWTP Class EAs. Once each Class EA is completed, the results will be published in two separate Environmental Study Reports that will be available for public review.


**Contact the Team**  
To be added to the mailing list or to receive further information about these Class EA studies, please contact:

**Cindy Kambeitz**  
Project Manager, Region of Peel  
905-791-7800 ext. 5040  
GEBoothEA@peelregion.ca  
ClarksonEA@peelregion.ca

**Accessibility**  
The Region of Peel is committed to meet the requirements outlined in the *Accessibility for Ontarians with Disabilities Act, 2005 (AODA)*. Please contact the project manager if you require an alternative format of this document and/or if you need support and accommodations to provide feedback for this study.

For more information on these Class EA studies visit the Region's website at: [www.peelregion.ca/GEBooth](http://www.peelregion.ca/GEBooth) and [www.peelregion.ca/Clarkson](http://www.peelregion.ca/Clarkson)

This notice was first issued on July 16, 2020





# Phase 1: Virtual PIC

- **Joint Notice of Virtual PIC issued October 1, 2020**
  - Mail – 88 contacts
  - Email – 167 emailed
  - Mail and Email - 37 contacts (Indigenous communities, agencies and conservation authorities received copies via mail and email)
  - Announced on project webpage
  - Posted in Local Mississauga Newspaper
- **PIC display panels and a video walkthrough of their content will be posted on Oct. 14, 2020**
- **A two-week question submission period will follow, closing on Oct 28, 2020**
- **A formal response from the project team to all questions and comments will be posted on Nov. 25, 2020.**

## Public Notice

### Peel Wastewater Treatment Solutions

#### NOTICE OF VIRTUAL PUBLIC INFORMATION EVENT NO. 1

G.E. Booth Wastewater Treatment Plant Schedule C Class Environmental Assessment  
Clarkson Wastewater Treatment Plant Schedule C Class Environmental Assessment

#### The Study:

The Region is completing two Schedule C Class Environmental Assessments (EAs) for the G.E. Booth Wastewater Treatment Plant (WWTP) and the Clarkson WWTP to identify preferred solutions for wastewater treatment and biosolids management to meet approved residential and employment growth plans. The Class EA studies will investigate and evaluate alternatives to address capacity for future growth across the Region and incorporate important factors such as energy efficiency and climate resiliency.



#### The Process:

These EA Studies are Schedule 'C' projects in accordance with the "Municipal Class Environmental Assessment" (MEA, October 2000, as amended in 2007, 2011 and 2015), which is an approved process under the Ontario Environmental Assessment Act. The Class EA process includes public and agency consultation, an evaluation of alternatives, an assessment of potential environmental effects of the proposed work and identification of reasonable measures to mitigate any potential adverse impacts.

#### Virtual Public Information Centre

A virtual Public Information Centre (PIC) will be held to provide an overview of the Class EAs, including the EA process, background information, and some alternative solutions being considered. All content and instructions on how to submit questions and feedback will be posted on the project webpages:

[www.peelregion.ca/GEBooth](http://www.peelregion.ca/GEBooth)

[www.peelregion.ca/Clarkson](http://www.peelregion.ca/Clarkson)

PIC display panels and a video walkthrough of their content will be posted on **Oct. 14, 2020 at 5 p.m.** This will be followed by a two-week question submission period closing **Oct. 28, 2020**. A formal response from the project team to all questions and comments will be posted on **Nov. 25, 2020**.

If you would like more information about the studies, we encourage you to use the following resources:

- Information presented at PIC's will be available on the Region's project website indefinitely, [www.peelregion.ca/GEBooth](http://www.peelregion.ca/GEBooth) and [www.peelregion.ca/Clarkson](http://www.peelregion.ca/Clarkson)

- The Region will be hosting two additional public information sessions in 2021 at key study milestones, where representatives will be able to answer future questions and discuss next steps.

#### Contact:

If you wish to submit comments or would like to be added to the project mailing list for future project notifications, please contact:

**Cindy Kambeitz, Project Manager**

905-791-7800, ext. 5040

[GEBooth@peelregion.ca](mailto:GEBooth@peelregion.ca)

[Clarkson@peelregion.ca](mailto:Clarkson@peelregion.ca)

The Region of Peel is committed to ensure that all Regional services, programs and facilities are inclusive and accessible for persons with disabilities. Please contact the Project Manager if you need any disability accommodations to provide comments or feedback for this study.

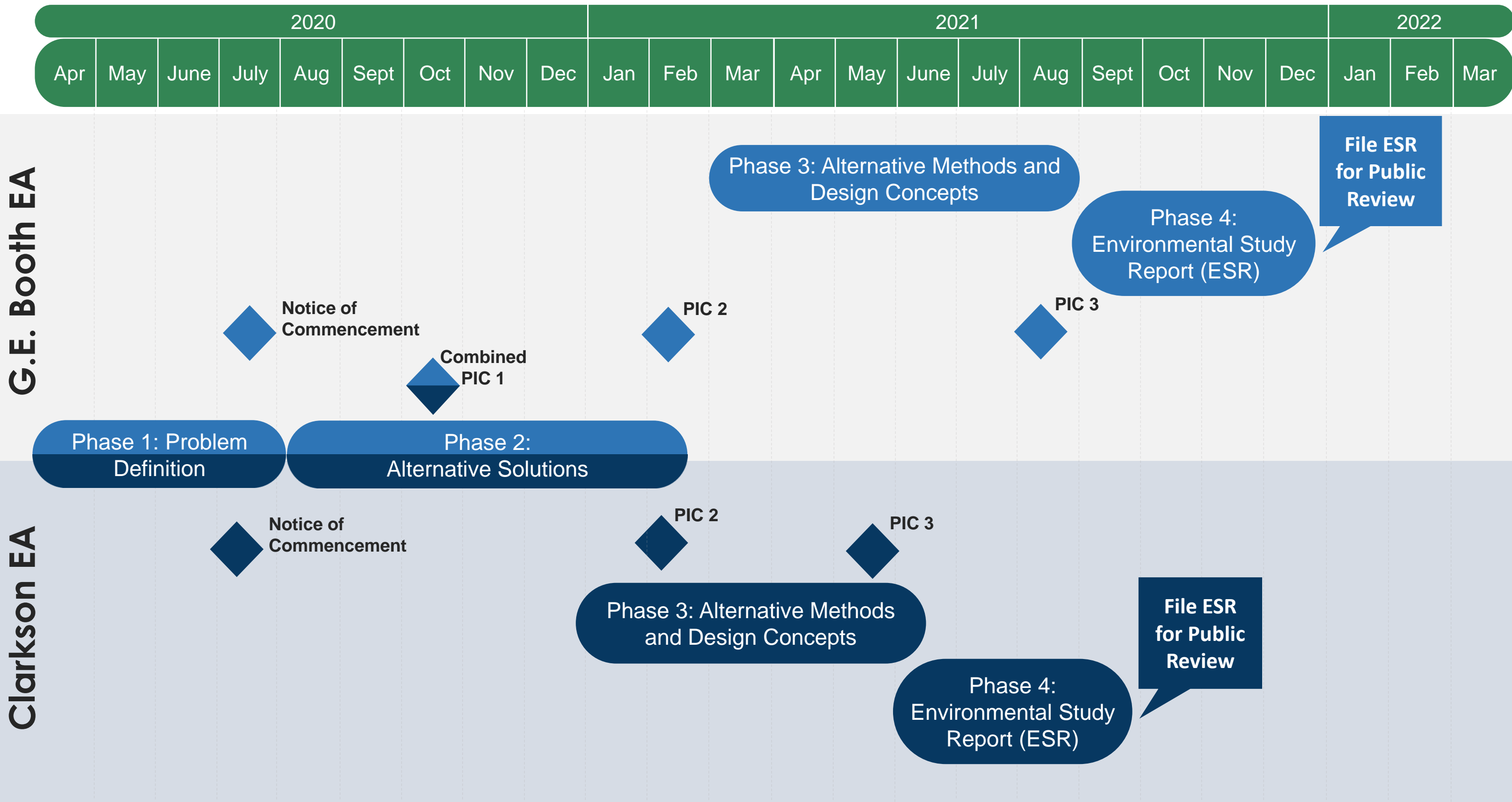
**This notice was first issued on October 1, 2020.**

With the exception of personal information, all comments will become part of the public record of the study. The study is being conducted according to the requirements of the Municipal Class Environmental Assessment, which is a planning process approved under Ontario's Environmental Assessment Act.

## Send Notice of Commencement to all required agencies, but the key agencies involved are:

- MECP
- CVC
- Mississaugas of the Credit First Nations
- City of Mississauga

# Proposed Schedule for Completion





## **Appendix T:**

# **Public and Agency Correspondence and Meetings**

**T4: Ontario Ministry of Heritage, Sports, Tourism and Cultural Industries  
(MHSTC)**

The **purpose of the checklist** is to determine:

- if a property(ies) or project area:
  - is a recognized heritage property
  - may be of cultural heritage value
- it includes all areas that may be impacted by project activities, including – but not limited to:
  - the main project area
  - temporary storage
  - staging and working areas
  - temporary roads and detours

**Processes covered** under this checklist, such as:

- *Planning Act*
- *Environmental Assessment Act*
- *Aggregates Resources Act*
- *Ontario Heritage Act* – Standards and Guidelines for Conservation of Provincial Heritage Properties

### **Cultural Heritage Evaluation Report (CHER)**

If you are not sure how to answer one or more of the questions on the checklist, you may want to hire a qualified person(s) (see page 5 for definitions) to undertake a cultural heritage evaluation report (CHER).

The CHER will help you:

- identify, evaluate and protect cultural heritage resources on your property or project area
- reduce potential delays and risks to a project

### **Other checklists**

Please use a separate checklist for your project, if:

- you are seeking a Renewable Energy Approval under Ontario Regulation 359/09 – [separate checklist](#)
- your Parent Class EA document has an approved screening criteria (as referenced in Question 1)

Please refer to the Instructions pages for more detailed information and when completing this form.

Project or Property Name

G.E. Booth Water Resource Recovery Facility Environmental Assessment and Conceptual Design

Project or Property Location (upper and lower or single tier municipality)

1300 Lakeshore Road East, Mississauga, ON L5E 1E9

Proponent Name

Region of Peel

Proponent Contact Information

Cindy Kambeitz (cindy.kambeitz@peelregion.ca) and Chris Hamel (chris.hamel@gmblueplan.ca)

### Screening Questions

	Yes	No
1. Is there a pre-approved screening checklist, methodology or process in place?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

If Yes, please follow the pre-approved screening checklist, methodology or process.

If No, continue to Question 2.

### Part A: Screening for known (or recognized) Cultural Heritage Value

	Yes	No
2. Has the property (or project area) been evaluated before and found <b>not</b> to be of cultural heritage value?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

If Yes, do **not** complete the rest of the checklist.

The proponent, property owner and/or approval authority will:

- summarize the previous evaluation and
- add this checklist to the project file, with the appropriate documents that demonstrate a cultural heritage evaluation was undertaken

The summary and appropriate documentation may be:

- submitted as part of a report requirement
- maintained by the property owner, proponent or approval authority

If No, continue to Question 3.

	Yes	No
3. Is the property (or project area):		
a. identified, designated or otherwise protected under the <i>Ontario Heritage Act</i> as being of cultural heritage value?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. a National Historic Site (or part of)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. designated under the <i>Heritage Railway Stations Protection Act</i> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. designated under the <i>Heritage Lighthouse Protection Act</i> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. identified as a Federal Heritage Building by the Federal Heritage Buildings Review Office (FHBRO)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. located within a United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

If Yes to any of the above questions, you need to hire a qualified person(s) to undertake:

- a Cultural Heritage Evaluation Report, if a Statement of Cultural Heritage Value has not previously been prepared or the statement needs to be updated

If a Statement of Cultural Heritage Value has been prepared previously and if alterations or development are proposed, you need to hire a qualified person(s) to undertake:

- a Heritage Impact Assessment (HIA) – the report will assess and avoid, eliminate or mitigate impacts

If No, continue to Question 4.



## Part B: Screening for Potential Cultural Heritage Value

	Yes	No
4. Does the property (or project area) contain a parcel of land that:		
a. is the subject of a municipal, provincial or federal commemorative or interpretive plaque?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. has or is adjacent to a known burial site and/or cemetery?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. is in a Canadian Heritage River watershed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. contains buildings or structures that are 40 or more years old?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## Part C: Other Considerations

	Yes	No
5. Is there local or Aboriginal knowledge or accessible documentation suggesting that the property (or project area):		
a. is considered a landmark in the local community or contains any structures or sites that are important in defining the character of the area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. has a special association with a community, person or historical event?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. contains or is part of a cultural heritage landscape?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**If Yes** to one or more of the above questions (Part B and C), there is potential for cultural heritage resources on the property or within the project area.

You need to hire a qualified person(s) to undertake:

- a Cultural Heritage Evaluation Report (CHER)

If the property is determined to be of cultural heritage value and alterations or development is proposed, you need to hire a qualified person(s) to undertake:

- a Heritage Impact Assessment (HIA) – the report will assess and avoid, eliminate or mitigate impacts

**If No** to all of the above questions, there is low potential for built heritage or cultural heritage landscape on the property.

The proponent, property owner and/or approval authority will:

- summarize the conclusion
- add this checklist with the appropriate documentation to the project file

The summary and appropriate documentation may be:

- submitted as part of a report requirement e.g. under the *Environmental Assessment Act*, *Planning Act* processes
- maintained by the property owner, proponent or approval authority

## Instructions

Please have the following available, when requesting information related to the screening questions below:

- a clear map showing the location and boundary of the property or project area
  - large scale and small scale showing nearby township names for context purposes
- the municipal addresses of all properties within the project area
- the lot(s), concession(s), and parcel number(s) of all properties within a project area

For more information, see the Ministry of Tourism, Culture and Sport's [Ontario Heritage Toolkit](#) or [Standards and Guidelines for Conservation of Provincial Heritage Properties](#).

In this context, the following definitions apply:

- **qualified person(s)** means individuals – professional engineers, architects, archaeologists, etc. – having relevant, recent experience in the conservation of cultural heritage resources.
- **proponent** means a person, agency, group or organization that carries out or proposes to carry out an undertaking or is the owner or person having charge, management or control of an undertaking.

### 1. Is there a pre-approved screening checklist, methodology or process in place?

An existing checklist, methodology or process may already be in place for identifying potential cultural heritage resources, including:

- one endorsed by a municipality
- an environmental assessment process e.g. screening checklist for municipal bridges
- one that is approved by the Ministry of Tourism, Culture and Sport (MTCS) under the Ontario government's [Standards & Guidelines for Conservation of Provincial Heritage Properties](#) [s.B.2.]

## Part A: Screening for known (or recognized) Cultural Heritage Value

### 2. Has the property (or project area) been evaluated before and found not to be of cultural heritage value?

Respond 'yes' to this question, if all of the following are true:

A property can be considered not to be of cultural heritage value if:

- a Cultural Heritage Evaluation Report (CHER) - or equivalent - has been prepared for the property with the advice of a qualified person and it has been determined not to be of cultural heritage value and/or
- the municipal heritage committee has evaluated the property for its cultural heritage value or interest and determined that the property is not of cultural heritage value or interest

A property may need to be re-evaluated, if:

- there is evidence that its heritage attributes may have changed
- new information is available
- the existing Statement of Cultural Heritage Value does not provide the information necessary to manage the property
- the evaluation took place after 2005 and did not use the criteria in Regulations 9/06 and 10/06

**Note:** Ontario government ministries and public bodies [prescribed under Regulation 157/10] may continue to use their existing evaluation processes, until the evaluation process required under section B.2 of the Standards & Guidelines for Conservation of Provincial Heritage Properties has been developed and approved by MTCS.

To determine if your property or project area has been evaluated, contact:

- the approval authority
- the proponent
- the Ministry of Tourism, Culture and Sport

### 3a. Is the property (or project area) identified, designated or otherwise protected under the *Ontario Heritage Act* as being of cultural heritage value e.g.:

- i. designated under the *Ontario Heritage Act*
  - individual designation (Part IV)
  - part of a heritage conservation district (Part V)

## Individual Designation – Part IV

A property that is designated:

- by a municipal by-law as being of cultural heritage value or interest [s.29 of the *Ontario Heritage Act*]
- by order of the Minister of Tourism, Culture and Sport as being of cultural heritage value or interest of provincial significance [s.34.5]. **Note:** To date, no properties have been designated by the Minister.

## Heritage Conservation District – Part V

A property or project area that is located within an area designated by a municipal by-law as a heritage conservation district [s. 41 of the *Ontario Heritage Act*].

For more information on Parts IV and V, contact:

- municipal clerk
- [Ontario Heritage Trust](#)
- local land registry office (for a title search)

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ii. subject of an agreement, covenant or easement entered into under Parts II or IV of the *Ontario Heritage Act*

An agreement, covenant or easement is usually between the owner of a property and a conservation body or level of government. It is usually registered on title.

The primary purpose of the agreement is to:

- preserve, conserve, and maintain a cultural heritage resource
- prevent its destruction, demolition or loss

For more information, contact:

- [Ontario Heritage Trust](#) - for an agreement, covenant or easement [clause 10 (1) (c) of the *Ontario Heritage Act*]
- municipal clerk – for a property that is the subject of an easement or a covenant [s.37 of the *Ontario Heritage Act*]
- local land registry office (for a title search)

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iii. listed on a register of heritage properties maintained by the municipality

Municipal registers are the official lists - or record - of cultural heritage properties identified as being important to the community.

Registers include:

- all properties that are designated under the *Ontario Heritage Act* (Part IV or V)
- properties that have not been formally designated, but have been identified as having cultural heritage value or interest to the community

For more information, contact:

- municipal clerk
- municipal heritage planning staff
- municipal heritage committee

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iv. subject to a notice of:

- intention to designate (under Part IV of the *Ontario Heritage Act*)
- a Heritage Conservation District study area bylaw (under Part V of the *Ontario Heritage Act*)

A property that is subject to a **notice of intention to designate** as a property of cultural heritage value or interest and the notice is in accordance with:

- section 29 of the *Ontario Heritage Act*
- section 34.6 of the *Ontario Heritage Act*. **Note:** To date, the only applicable property is Meldrum Bay Inn, Manitoulin Island. [s.34.6]

An area designated by a municipal by-law made under section 40.1 of the *Ontario Heritage Act* as a **heritage conservation district study area**.

For more information, contact:

- municipal clerk – for a property that is the subject of notice of intention [s. 29 and s. 40.1]
- [Ontario Heritage Trust](#)



v. included in the Ministry of Tourism, Culture and Sport's list of provincial heritage properties

Provincial heritage properties are properties the Government of Ontario owns or controls that have cultural heritage value or interest.

The Ministry of Tourism, Culture and Sport (MTCS) maintains a list of all provincial heritage properties based on information provided by ministries and prescribed public bodies. As they are identified, MTCS adds properties to the list of provincial heritage properties.

For more information, contact the MTCS Registrar at [registrar@mtc.gov.on.ca](mailto:registrar@mtc.gov.on.ca).

### **3b. Is the property (or project area) a National Historic Site (or part of)?**

National Historic Sites are properties or districts of national historic significance that are designated by the Federal Minister of the Environment, under the *Canada National Parks Act*, based on the advice of the Historic Sites and Monuments Board of Canada.

For more information, see the [National Historic Sites website](#).

### **3c. Is the property (or project area) designated under the *Heritage Railway Stations Protection Act*?**

The *Heritage Railway Stations Protection Act* protects heritage railway stations that are owned by a railway company under federal jurisdiction. Designated railway stations that pass from federal ownership may continue to have cultural heritage value.

For more information, see the [Directory of Designated Heritage Railway Stations](#).

### **3d. Is the property (or project area) designated under the *Heritage Lighthouse Protection Act*?**

The *Heritage Lighthouse Protection Act* helps preserve historically significant Canadian lighthouses. The Act sets up a public nomination process and includes heritage building conservation standards for lighthouses which are officially designated.

For more information, see the [Heritage Lighthouses of Canada](#) website.

### **3e. Is the property (or project area) identified as a Federal Heritage Building by the Federal Heritage Buildings Review Office?**

The role of the Federal Heritage Buildings Review Office (FHBRO) is to help the federal government protect the heritage buildings it owns. The policy applies to all federal government departments that administer real property, but not to federal Crown Corporations.

For more information, contact the [Federal Heritage Buildings Review Office](#).

See a [directory of all federal heritage designations](#).

### **3f. Is the property (or project area) located within a United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Site?**

A UNESCO World Heritage Site is a place listed by UNESCO as having outstanding universal value to humanity under the Convention Concerning the Protection of the World Cultural and Natural Heritage. In order to retain the status of a World Heritage Site, each site must maintain its character defining features.

Currently, the Rideau Canal is the only World Heritage Site in Ontario.

For more information, see Parks Canada – [World Heritage Site website](#).

## **Part B: Screening for potential Cultural Heritage Value**

### **4a. Does the property (or project area) contain a parcel of land that has a municipal, provincial or federal commemorative or interpretive plaque?**

Heritage resources are often recognized with formal plaques or markers.

Plaques are prepared by:

- municipalities
- provincial ministries or agencies
- federal ministries or agencies
- local non-government or non-profit organizations

For more information, contact:

- [municipal heritage committees](#) or local heritage organizations – for information on the location of plaques in their community
- Ontario Historical Society's [Heritage directory](#) – for a list of historical societies and heritage organizations
- Ontario Heritage Trust – for a [list of plaques](#) commemorating Ontario's history
- Historic Sites and Monuments Board of Canada – for a [list of plaques](#) commemorating Canada's history

#### **4b. Does the property (or project area) contain a parcel of land that has or is adjacent to a known burial site and/or cemetery?**

For more information on known cemeteries and/or burial sites, see:

- Cemeteries Regulations, Ontario Ministry of Consumer Services – for a [database of registered cemeteries](#)
- Ontario Genealogical Society (OGS) – to [locate records of Ontario cemeteries](#), both currently and no longer in existence; cairns, family plots and burial registers
- Canadian County Atlas Digital Project – to [locate early cemeteries](#)

In this context, adjacent means contiguous or as otherwise defined in a municipal official plan.

#### **4c. Does the property (or project area) contain a parcel of land that is in a Canadian Heritage River watershed?**

The Canadian Heritage River System is a national river conservation program that promotes, protects and enhances the best examples of Canada's river heritage.

Canadian Heritage Rivers must have, and maintain, outstanding natural, cultural and/or recreational values, and a high level of public support.

For more information, contact the [Canadian Heritage River System](#).

If you have questions regarding the boundaries of a watershed, please contact:

- your conservation authority
- municipal staff

#### **4d. Does the property (or project area) contain a parcel of land that contains buildings or structures that are 40 or more years old?**

A 40 year 'rule of thumb' is typically used to indicate the potential of a site to be of cultural heritage value. The approximate age of buildings and/or structures may be estimated based on:

- history of the development of the area
- fire insurance maps
- architectural style
- building methods

Property owners may have information on the age of any buildings or structures on their property. The municipality, local land registry office or library may also have background information on the property.

**Note:** 40+ year old buildings or structure do not necessarily hold cultural heritage value or interest; their age simply indicates a higher potential.

A building or structure can include:

- residential structure
- farm building or outbuilding
- industrial, commercial, or institutional building
- remnant or ruin
- engineering work such as a bridge, canal, dams, etc.

For more information on researching the age of buildings or properties, see the Ontario Heritage Tool Kit Guide [Heritage Property Evaluation](#).

## Part C: Other Considerations

### 5a. Is there local or Aboriginal knowledge or accessible documentation suggesting that the property (or project area) is considered a landmark in the local community or contains any structures or sites that are important to defining the character of the area?

Local or Aboriginal knowledge may reveal that the project location is situated on a parcel of land that has potential landmarks or defining structures and sites, for instance:

- buildings or landscape features accessible to the public or readily noticeable and widely known
- complexes of buildings
- monuments
- ruins

### 5b. Is there local or Aboriginal knowledge or accessible documentation suggesting that the property (or project area) has a special association with a community, person or historical event?

Local or Aboriginal knowledge may reveal that the project location is situated on a parcel of land that has a special association with a community, person or event of historic interest, for instance:

- Aboriginal sacred site
- traditional-use area
- battlefield
- birthplace of an individual of importance to the community

### 5c. Is there local or Aboriginal knowledge or accessible documentation suggesting that the property (or project area) contains or is part of a cultural heritage landscape?

Landscapes (which may include a combination of archaeological resources, built heritage resources and landscape elements) may be of cultural heritage value or interest to a community.

For example, an Aboriginal trail, historic road or rail corridor may have been established as a key transportation or trade route and may have been important to the early settlement of an area. Parks, designed gardens or unique landforms such as waterfalls, rock faces, caverns, or mounds are areas that may have connections to a particular event, group or belief.

For more information on Questions 5.a., 5.b. and 5.c., contact:

- Elders in Aboriginal Communities or community researchers who may have information on potential cultural heritage resources. Please note that Aboriginal traditional knowledge may be considered sensitive.
- [municipal heritage committees](#) or local heritage organizations
- Ontario Historical Society's "[Heritage Directory](#)" - for a list of historical societies and heritage organizations in the province

An internet search may find helpful resources, including:

- historical maps
- historical walking tours
- municipal heritage management plans
- cultural heritage landscape studies
- municipal cultural plans

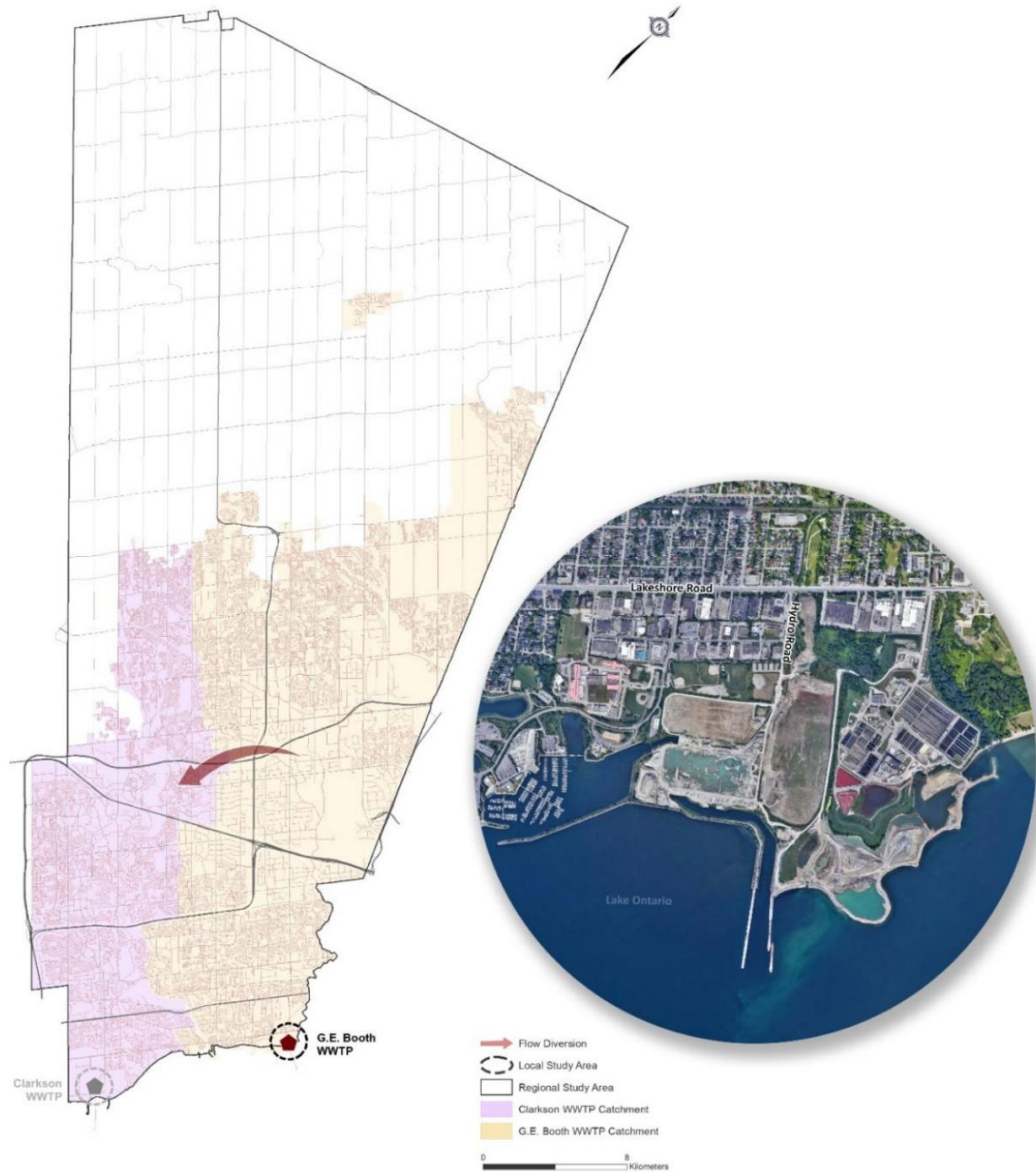
Information specific to trails may be obtained through [Ontario Trails](#).



# G.E. Booth Water Resource Recovery Facility (WRRF)

## Location

The G.E. Booth WRRF is located in southeast Mississauga, south of Lakeshore Road East, between Dixie Road and Cawthra Road, at 1300 Lakeshore Road East. The site has an area of approximately 36 hectares (90 acres). The property is owned by the Regional Municipality of Peel.



## Surrounding Land Uses

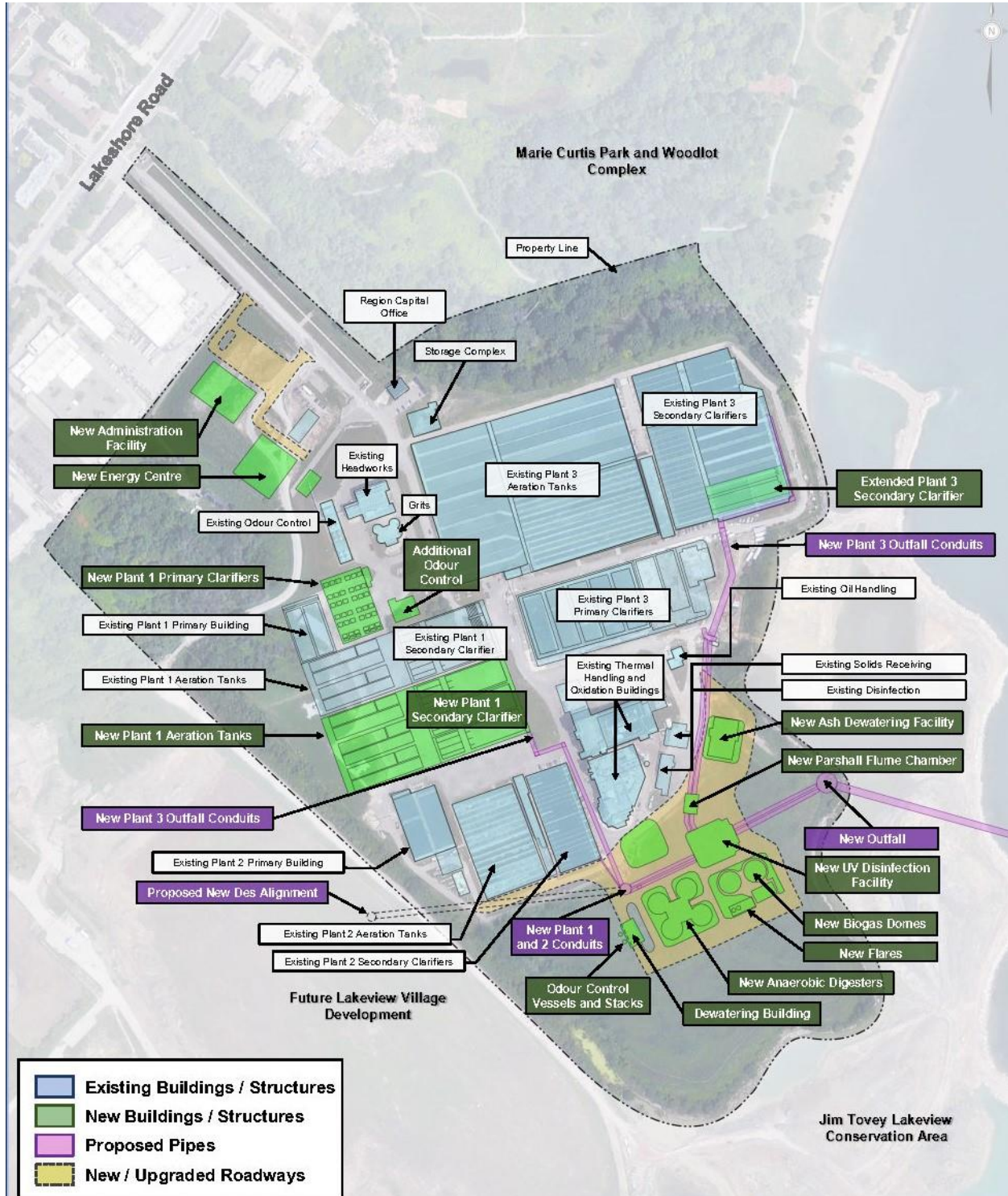
The G.E. Booth WRRF is located in an area that is currently zoned as a utility, with neighbouring lands to the west, the Lakeview Village development, identified as a Major Node. Lakeview Village is designated as business employment, medium density residential, public open space, mixed use, and institutional, as illustrated in the figure below from the City of Mississauga OP (2019). Lands east of the plant are designated as greenlands and public open space, while north of the plant is predominantly residential, with some mixed use along Lakeshore Road East (City of Mississauga, 2019).





## Expansion Project

The existing treatment facilities and the proposed expansion facilities are shown on the figure below. All expansion construction works will be onsite. Construction impacts will be short term and mitigated. The G.E. Booth WRRF will be operated to continue to meet all applicable requirements.





## **Cultural Heritage Resources**

The G.E. Booth WRRF facility is in vicinity of the community of Lakeview. Beginning in the 1890s, much of the land south of Lakeshore Road came under the possession of the Ontario Militia Department, who among other things established a rifle range. The federal government also built Canada's first aerodrome and flying school in the Lakeview area in 1915. During the Second World War the Department of National Defence took over the rifle range property for military training, while also establishing the Canada Arms School, Small Arms Militia Training Centre, and factories for ammunition and small arms. Lakeview thus became a military-oriented community. After the war the federal government sold off the parcels for public use (power generation, parks, water, and sewerage treatment) and private (commercial and industrial) use.

Heritage resources remain because of the past military uses in the area. The following are located within the G.E. Booth WRRF:

Long Branch Indoor Rifle Range (1940) – designated Cultural Heritage Property under City of Mississauga By-Law 170-2012;

Long Branch Outdoor Rifle Range (1910) – designated Cultural Heritage Property under City of Mississauga By-Law 0144-2017;

The Ministry of Citizenship and Multiculturalism (MCM)'s Criteria for Evaluating Potential Heritage Resources and Cultural Heritage Landscapes Screening Tool was applied to the expansion project. Given that the above designated cultural heritage resources are within proximity to proposed expansion areas, a Cultural Heritage Evaluation Report (CHER) will be required to be completed by a qualified person to determine whether the expansion project has the potential to impact any of these resources. The Region plans to undertake this evaluation during the design phase when expansion works are more fully developed, particularly the proposed new administration building which is planned at the northern entrance to the WRRF. If the expansion is determined to potentially affect or alter cultural heritage value a qualified person will then undertake a Heritage Impact Assessment (HIA) to assess and avoid, eliminate, or mitigate impacts. See the figure below for the location of the Long Branch Indoor and Outdoor Rifle Ranges in relation to the proposed expansion areas.



Lakeshore Road




**By-Law 0144-2017**  
Heritage Designation  
Outdoor Firing Range

Marie Curtis Park and  
Woodlot Complex

**By-Law 0170-2012**  
Heritage Designation Indoor  
Firing Range  
ROL-01119  
**Owner:** Region of Peel  
**PIN:** 13485-0309  
**Tenant:** The South Peel Rod  
and Gun Club  
**Purpose:** Operation of a gun  
shooting range

Future Lakeview Village  
Development

Jim Tovey Lakeview  
Conservation Area

-  Cultural Heritage Resource
-  Existing Buildings / Structures
-  New Buildings / Structures / Roadways

0 100 200 m



# G.E BOOTH WATER RESOURCE RECOVERY FACILITY

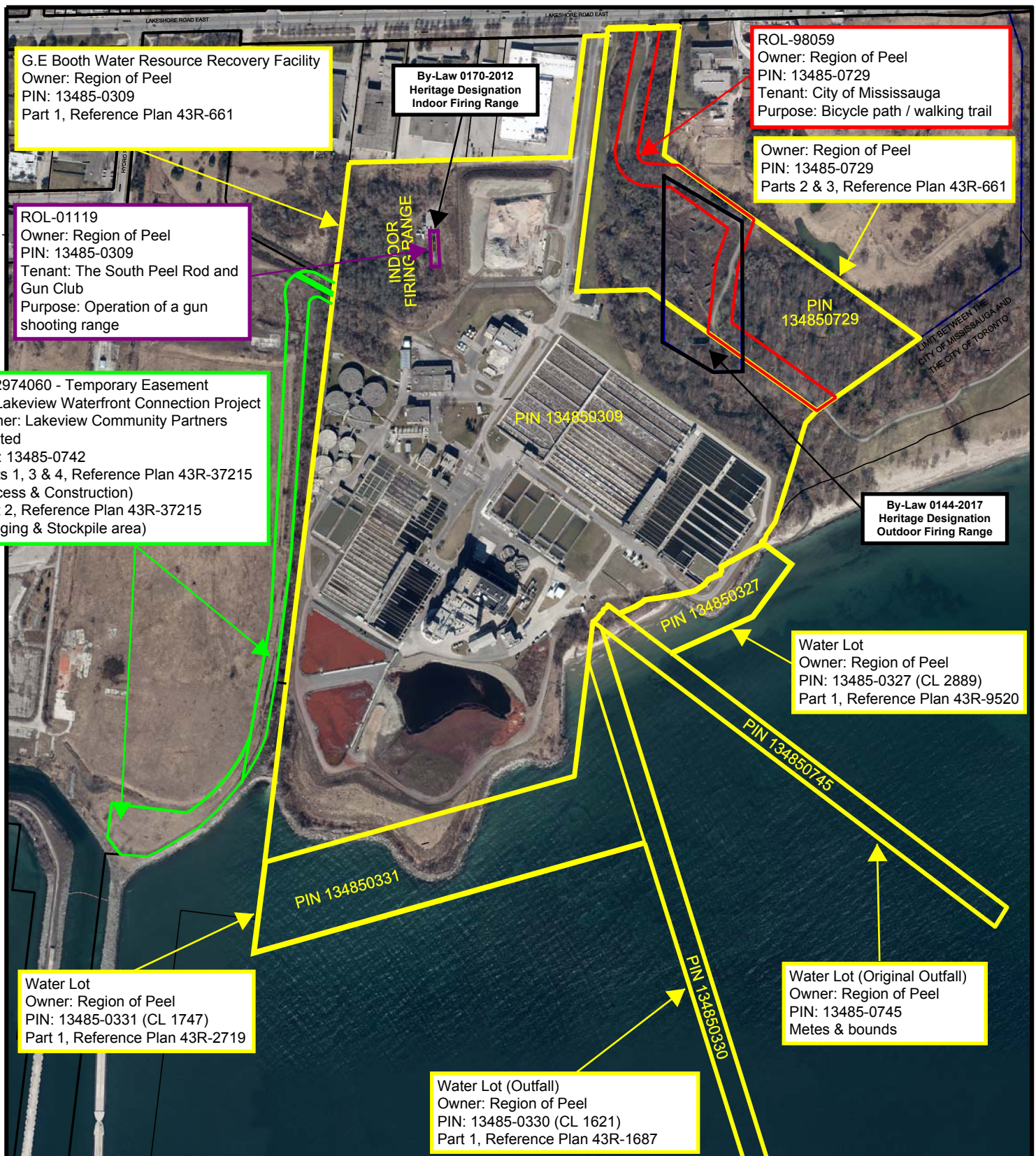
File Number: RO-98012.00

Property Type: Region Owned-Land & Buildings  
(includes 4 water lots)

Owner: The Regional Municipality of Peel  
Address: 1300 Lakeshore Road East, Mississauga  
Land Use: Wastewater Treatment Plant

PIN(S): 13485-0309; 13485-0729; 13485-0745; 13485-0330;  
13485-0331; 13485-0327  
Roll Number: 21-05-070-156-16200-0000  
Plan: See Property Summary  
Land Area: See Property Summary  
Building Area: N/A

Notes: Contamination has been identified on PIN 13485-0729.





## Jasmine Biasi - GM BluePlan

---

**From:** Jasmine Biasi - GM BluePlan  
**Sent:** Wednesday, May 05, 2021 2:42 PM  
**To:** joseph.harvey@ontario.ca  
**Cc:** Laurie Boyce - GM BluePlan; Kambeitz, Cindy  
**Subject:** FW: File 0012744 - Clarkson Wastewater Treatment Plant Schedule C Class Environmental Assessment

Hi Joseph,

Please see Laurie's email below regarding the above referenced project.

Thank you,

**Jasmine Biasi, B.Eng., E.I.T**  
Infrastructure Planning

### GM BluePlan Engineering Limited

Royal Centre | 3300 Highway No. 7, Suite 402 | Vaughan ON L4K 4M3  
t: 416.703.0667 ext. 7225 | c: 416.209.1892  
[jasmine.biasi@gmblueplan.ca](mailto:jasmine.biasi@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



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**From:** Laurie Boyce - GM BluePlan <Laurie.Boyce@gmblueplan.ca>  
**Sent:** Thursday, April 29, 2021 9:29 AM  
**To:** ClarksonEA <clarksonea@peelregion.ca>; Jasmine Biasi - GM BluePlan <Jasmine.Biasi@gmblueplan.ca>  
**Cc:** Kambeitz, Cindy <cindy.kambeitz@peelregion.ca>  
**Subject:** RE: File 0012744 - Clarkson Wastewater Treatment Plant Schedule C Class Environmental Assessment

Joseph:

The Stage 1 Archaeological Assessment (AA) of the Clarkson Wastewater Treatment Plant (WWTP) site has been completed and reviewed by Mississaugas of the Credit First Nations (MCFN). Comments from MCFN were received, and the Stage 1 AA was updated to reflect MCFN and submitted to the MHSTCI (Reference - P439-0095-2020 by Archeoworks Inc). The Stage 1 AA identified areas on the WWTP site having archaeological resource potential, and a Stage 2 AA was recommended for these areas. The Stage 2 AA will be undertaken in planned expansion areas of the site that have been identified as having potential for archaeological resources. The Stage 2 AA is scheduled for June/July 2021, depending on the weather, COVID-19 restrictions, and availability of MCFN staff (who have expressed interest in attending).

We will ensure that you receive the Stage 2 AA once completed. Please let us know if you have any further questions or would like to discuss the project further. Thank you for your interest in the EA.

Laurie

**Laurie Boyce, B.Sc., M.A.**  
Project Manager

**GM BluePlan Engineering Limited**

1266 South Service Rd, Unit C3-1 | Stoney Creek, ON | L8E 5R9

t: 905.643.6688 ext. 6334 | c: 416.471.0528

[laurie.boyce@gmblueplan.ca](mailto:laurie.boyce@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



---

**From:** ClarksonEA <[clarksonea@peelregion.ca](mailto:clarksonea@peelregion.ca)>

**Sent:** Monday, April 26, 2021 1:49 PM

**To:** Jasmine Biasi - GM BluePlan <[Jasmine.Biasi@gmblueplan.ca](mailto:Jasmine.Biasi@gmblueplan.ca)>; Laurie Boyce - GM BluePlan

<[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>

**Subject:** FW: File 0012744 - Clarkson Wastewater Treatment Plant Schedule C Class Environmental Assessment

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**From:** Harvey, Joseph (MHSTCI) <[Joseph.Harvey@ontario.ca](mailto:Joseph.Harvey@ontario.ca)>

**Sent:** April 26, 2021 11:40 AM

**To:** ClarksonEA <[clarksonea@peelregion.ca](mailto:clarksonea@peelregion.ca)>

**Subject:** File 0012744 - Clarkson Wastewater Treatment Plant Schedule C Class Environmental Assessment

**CAUTION: EXTERNAL MAIL. DO NOT CLICK ON LINKS OR OPEN ATTACHMENTS YOU DO NOT TRUST.**

Cindy Kambeitz,

Good Morning,

Could you please provide us with an update on the status of technical cultural heritage studies for the above referenced undertaking.

Kind Regards,

**Joseph Harvey | Heritage Planner (A)**

**Heritage, Tourism and Culture Division | Programs and Services Branch | Heritage Planning Unit**

Ministry of Heritage, Sport, Tourism and Culture Industries

401 Bay Street

17<sup>th</sup> Floor, Suite 1700

Toronto, ON M7A 0A7

613.242.3743

[Joseph.Harvey@ontario.ca](mailto:Joseph.Harvey@ontario.ca)

## Jasmine Biasi - GM BluePlan

---

**From:** Kambeitz, Cindy <cindy.kambeitz@peelregion.ca>  
**Sent:** Wednesday, October 21, 2020 2:48 PM  
**To:** Harvey, Joseph (MHSTCI)  
**Cc:** Jasmine Biasi - GM BluePlan  
**Subject:** RE: Notice of Virtual Public Information Centre: Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Joseph,

The following Project Information Forms (PIF) were submitted:

- Clarkson and G.E. Booth WWTPs Stage 1 Archaeological Assessments - P439-0095-2020 by Archeoworks INC
- G.E. Booth WWTP Marine AA - 2020-08 – by Scarlett Janusas Archaeology Inc. (SJA)

Cindy Kambeitz  
Project Manager, Wastewater Capital Treatment  
Region of Peel  
(416)518-1377  
[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)

---

**From:** Harvey, Joseph (MHSTCI) <Joseph.Harvey@ontario.ca>  
**Sent:** October 16, 2020 2:15 PM  
**To:** Kambeitz, Cindy <cindy.kambeitz@peelregion.ca>  
**Subject:** RE: Notice of Virtual Public Information Centre: Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

**CAUTION: EXTERNAL MAIL. DO NOT CLICK ON LINKS OR OPEN ATTACHMENTS YOU DO NOT TRUST.**

Good Afternoon Cindy,

Thankyou for your prompt reply. Could you please provide the Project Information Form numbers (PIF#) associated with the draft Stage 1 Archaeological Assessments for;

- the Clarkson Wastewater Treatment Plant (WWTP),
- G.E. Booth WWTP, and
- The G.E. Booth WWTP Marine Archaeological Assessment.

Kind regards,

**Joseph Harvey**  
613 242 3743



---

**From:** Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>

**Sent:** October 15, 2020 12:30 PM

**To:** Harvey, Joseph (MHSTCI) <[Joseph.Harvey@ontario.ca](mailto:Joseph.Harvey@ontario.ca)>

**Cc:** Jasmine Biasi - GM BluePlan <[Jasmine.Biasi@gmblueplan.ca](mailto:Jasmine.Biasi@gmblueplan.ca)>; Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>

**Subject:** RE: Notice of Virtual Public Information Centre: Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

**CAUTION -- EXTERNAL E-MAIL - Do not click links or open attachments unless you recognize the sender.**

Hi Joseph,

Thank you for your email. We received initial comments from MHSTCI and are pleased to provide an update on the cultural heritage components of our studies.

As part of the background review for these Class EAs, we have completed draft Stage 1 Archaeological Assessments (AAs) at both the Clarkson Wastewater Treatment Plant (WWTP) and G.E. Booth WWTP sites, as well as a draft Marine Archaeological Assessment at the G.E. Booth WWTP. We are currently reviewing and will shortly be submitting copies to the Ministry of Heritage, Sport, Tourism and Culture Industries for review, as required. The Region is also forwarding the Reports to the Mississaugas of the Credit First Nation (MCFN) for their technical review and input, and will be working with them to complete a Stage 2 AA in the above noted areas. Findings of the reports are summarized below:

Both the Stage 1 EAs found potential for archaeological resources on the Clarkson and Booth sites, with specifics noted below:

**G.E. Booth WWTP (Map 9, attached)**

- Most of the property has been extensively disturbed or previously assessed, except as noted below.
- Archaeological potential is retained at the northwest corner of the property, in the forested area near Serson Creek and TRCA Access Road for the Jim Tovey Lakeview Conservation Area; a Stage 2 AA would be required

**Clarkson WWTP (Map 10, attached)**

- Most of the property has been extensively disturbed or permanently wet, except as noted below.
- Archaeological potential is retained in limited areas on the property, requiring Stage 2 AA:
  - o Landscaped area at the southeast end of the property, along Lakeshore Road West
  - o Treed area located near middle of west limit of property, along Arrowhead Road
  - o Northwest corner of property
  - o Northwest corner of property

The Region is also forwarding the Reports to Mississaugas of the Credit First Nation (MCFN) for their technical review and input, and will be working with them to complete a Stage 2 AA in the above noted areas.

The Marine Archeological Assessment focused on the potential location of a new outfall (if required), extending approximately 2 km into Lake Ontario, as shown in the attached map (Figure 2) of the Marine study area.

**The Marine AA concluded the following (Figure 2 Attached):**

- About half of the Lake Ontario study area has been previously assessed
- Remaining area does not show archeological potential at this time
- No further archeological assessment would be required for the study area; however, compliance regulations must be adhered to in the event that archeological resources are located during the project.

As indicated we will forward the complete Stage 1 AA and Marine AA, shortly. Please let me know if you have other comments at this time.

Cindy Kambeitz  
Project Manager, Wastewater Capital Treatment  
Region of Peel  
(416)518-1377  
[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)

---

**From:** Harvey, Joseph (MHSTCI) <[Joseph.Harvey@ontario.ca](mailto:Joseph.Harvey@ontario.ca)>  
**Sent:** October 14, 2020 11:57 AM  
**To:** Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>  
**Subject:** Notice of Virtual Public Information Centre: Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

**CAUTION: EXTERNAL MAIL. DO NOT CLICK ON LINKS OR OPEN ATTACHMENTS YOU DO NOT TRUST.**

Cindy Kambeitz,

On August 5<sup>th</sup> MHSTCI provided initial comments on the above referenced MCEA undertakings. For our records please provide us with a status update on all technical cultural heritage studies being undertaken for the G.E. Booth and Clarkson Wastewater Treatment MCEAs.

Regards,

**Joseph Harvey | Heritage Planner (A)**  
**Heritage, Tourism and Culture Division | Programs and Services Branch | Heritage Planning Unit**  
Ministry of Heritage, Sport, Tourism and Culture Industries  
401 Bay Street  
17<sup>th</sup> Floor, Suite 1700  
Toronto, ON M7A 0A7  
613.242.3743  
[Joseph.Harvey@ontario.ca](mailto:Joseph.Harvey@ontario.ca)

## **Jasmine Biasi - GM BluePlan**

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**From:** Harvey, Joseph (MHSTCI) <Joseph.Harvey@ontario.ca>  
**Sent:** Wednesday, August 05, 2020 5:46 PM  
**To:** ClarksonEA@peelregion.ca  
**Cc:** Barboza, Karla (MHSTCI); Jasmine Biasi - GM BluePlan  
**Subject:** Notice of Commencement - Clarkson Wastewater Treatment Plant  
**Attachments:** 2020-08-05\_ClarksonWTP-MHSTCI-Ltr.pdf

Cindy Kambeitz,

Please find attached MHSTCI's comments for the above referenced project. Contact me with any further questions or concerns.

### **Joseph Harvey | Heritage Planner (A)**

**Heritage, Tourism and Culture Division | Programs and Services Branch | Heritage Planning Unit**

Ministry of Heritage, Sport, Tourism and Culture Industries

401 Bay Street

17<sup>th</sup> Floor, Suite 1700

Toronto, ON M7A 0A7

613.242.3743

[Joseph.Harvey@ontario.ca](mailto:Joseph.Harvey@ontario.ca)



Ministry of Heritage, Sport,  
Tourism and Culture Industries

Programs and Services Branch  
401 Bay Street, Suite 1700  
Toronto, ON M7A 0A7  
Tel: 613.242.3743

Ministère des Industries du Patrimoine,  
du Sport, du Tourisme et de la Culture

Direction des programmes et des services  
401, rue Bay, Bureau 1700  
Toronto, ON M7A 0A7  
Tél: 416.242.3743



August 5, 2020

EMAIL ONLY

Cindy Kambeitz  
Project Manager  
Region of Peel  
[ClarksonEA@peelregion.ca](mailto:ClarksonEA@peelregion.ca)

**MHSTCI File :** 0012744  
**Proponent :** The Region of Peel  
**Subject :** Notice of Study Commencement  
**Project :** Clarkson Water Treatment Plant  
**Location :** The Region of Peel

Dear Cindy Kambeitz:

Thank you for providing the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI) with the Notice of Study Commencement for the above-referenced project. MHSTCI's interest in this Environmental Assessment (EA) project relates to its mandate of conserving Ontario's cultural heritage, which includes:

- Archaeological resources, including land and marine;
- Built heritage resources, including bridges and monuments; and,
- Cultural heritage landscapes.

Under the EA process, the proponent is required to determine a project's potential impact on cultural heritage resources. The recommendations below are for a Schedule C Municipal Class EA project, as described in the notice of study commencement.

### **Project Summary**

The Region of Peel has initiated a Schedule C Class Environmental Assessments (EAs) for the Clarkson Wastewater Treatment Plant to identify the preferred solutions for wastewater treatment and biosolids management in the Region.

### **Identifying Cultural Heritage Resources**

While some cultural heritage resources may have already been formally identified, others may be identified through screening and evaluation. Indigenous communities may have knowledge that can contribute to the identification of cultural heritage resources, and we suggest that any engagement with Indigenous communities includes a discussion about known or potential cultural heritage resources that are of value to these communities. Municipal Heritage Committees, historical societies and other local heritage organizations may also have knowledge that contributes to the identification of cultural heritage resources.

### **Archaeological Resources**

This EA project may impact archaeological resources and should be screened using the MHSTCI [Criteria for Evaluating Archaeological Potential](#) to determine if an archaeological assessment is needed. MHSTCI archaeological sites data are available at [archaeology@ontario.ca](mailto:archaeology@ontario.ca). If the EA

project area exhibits archaeological potential, then an archaeological assessment (AA) should be undertaken by an archaeologist licenced under the *OHA*, who is responsible for submitting the report directly to MHSTCI for review.

### **Built Heritage and Cultural Heritage Landscapes**

The MHSTCI [Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes](#) should be completed to help determine whether this EA project may impact cultural heritage resources. If potential or known heritage resources exist, MHSTCI recommends that a Heritage Impact Assessment (HIA), prepared by a qualified consultant, should be completed to assess potential project impacts. Our Ministry's [Info Sheet #5: Heritage Impact Assessments and Conservation Plans](#) outlines the scope of HIAs. Please send the HIA to MHSTCI for review and make it available to local organizations or individuals who have expressed interest in review.

### **Environmental Assessment Reporting**

All technical cultural heritage studies and their recommendations are to be addressed and incorporated into EA projects. Please advise MHSTCI whether any technical cultural heritage studies will be completed for this EA project, and provide them to MHSTCI before issuing a Notice of Completion or commencing any work on the site. If screening has identified no known or potential cultural heritage resources, or no impacts to these resources, please include the completed checklists and supporting documentation in the EA report or file.

Thank you for consulting MHSTCI on this project and please continue to do so throughout the EA process. If you have any questions or require clarification, do not hesitate to contact me.

Sincerely,

Joseph Harvey  
Heritage Planner  
[joseph.harvey@Ontario.ca](mailto:joseph.harvey@Ontario.ca)

Copied to: Jasmine Biasi, Infrastructure Planning, G.M. Blue Plan Engineering Ltd.

It is the sole responsibility of proponents to ensure that any information and documentation submitted as part of their EA report or file is accurate. MHSTCI makes no representation or warranty as to the completeness, accuracy or quality of the any checklists, reports or supporting documentation submitted as part of the EA process, and in no way shall MHSTCI be liable for any harm, damages, costs, expenses, losses, claims or actions that may result if any checklists, reports or supporting documents are discovered to be inaccurate, incomplete, misleading or fraudulent.

Please notify MHSTCI if archaeological resources are impacted by EA project work. All activities impacting archaeological resources must cease immediately, and a licensed archaeologist is required to carry out an archaeological assessment in accordance with the *Ontario Heritage Act* and the *Standards and Guidelines for Consultant Archaeologists*.

If human remains are encountered, all activities must cease immediately and the local police as well as the Registrar, Burials of the Ministry of Government and Consumer Services (416-326-8800) must be contacted. In situations where human remains are associated with archaeological resources, MHSTCI should also be notified to ensure that the site is not subject to unlicensed alterations which would be a contravention of the *Ontario Heritage Act*.

## **Appendix T:**

# **Public and Agency Correspondence and Meetings**

**T5: Public and Agency Correspondence and Meetings**



## Samantha Morrisey - GM BluePlan

---

**From:** ClarksonEA <clarksonea@peelregion.ca>  
**Sent:** Wednesday, December 02, 2020 12:57 PM  
**To:** Jasmine Biasi - GM BluePlan; Laurie Boyce - GM BluePlan  
**Subject:** FW: Peel Water and Wastewater Master Plan - EA Notice Response  
**Attachments:** WATER AND WASTEWATER MASTER PLAN - Regional Study Area.PNG

Just noticed this.

---

**From:** Hallen, Frances (IO) <Frances.Hallen@infrastructureontario.ca>  
**Sent:** November 20, 2020 12:04 PM  
**To:** ClarksonEA <clarksonea@peelregion.ca>; GEBoothEA <geboothea@peelregion.ca>  
**Subject:** Peel Water and Wastewater Master Plan - EA Notice Response

**CAUTION: EXTERNAL MAIL. DO NOT CLICK ON LINKS OR OPEN ATTACHMENTS YOU DO NOT TRUST.**

Good afternoon,

Thank you for sending us the Notice for the Peel Water and Wastewater Master Plan.

Our initial scan indicates that property owned by the Minister of Government and Consumer Services is within and adjacent to your project's local and regional study areas. This property is identified by the following Pins in the local study area:

- 551 AVONHEAD RD: 134930097
- Teranet Leasehold Parcels:
  - 134850350
  - 134850340
  - 134850354
  - 134850353
  - 134850343
  - 134850352
  - 134850715
- Teranet Ownership Parcels:
  - 134850336
  - 134850335
  - 134850716
- OPP Detachment
  - 135040923
- MTO PROGRAM USE T-08953
  - 133370658

Many more properties have been identified in the regional study area, and can be identified in the attached map/screenshot.

While these were identified in our scan, it is ultimately the proponent's responsibility to verify if provincial government property is within the study area. Title documents may identify owners of provincial government property as any of the following:

- His Majesty the King
- Her Majesty the Queen
- Hydro One
- Hydro One Networks Inc.
- Management Board Secretariat (MBS)
- Minister of Economic Development, Employment and Infrastructure (MEDEI)
- Minister of Energy and Infrastructure (MEI)
- Minister of Government and Consumer Services (MGCS)
- Minister of Infrastructure (MOI)
- Minister of Natural Resources and Forestry (MNRF)
- Minister of Public Infrastructure Renewal (PIR)
- Minister of Public Works
- Minister of Transportation (MTO)
- Ontario Lands Corporation (OLC)
- Ontario Realty Corporation (ORC)

If provincial government property in the study area is not required for the project, please continue to consult us as a directly affected stakeholder. However, if government property is required for the project, the proponent should contact us so that we can advise about requirements for obtaining government property.

Additionally, please remember to send notices to our dedicated notice email address:  
[noticereview@infrastructureontario.ca](mailto:noticereview@infrastructureontario.ca)

Kind regards,

Frances Hallen






**Frances Hallen** (she, her)  
Infrastructure Ontario  
Co-op Student, Environmental Management

[Frances.Hallen@infrastructureontario.ca](mailto:Frances.Hallen@infrastructureontario.ca)

Mobile: 613-252-7678

[www.infrastructureontario.ca](http://www.infrastructureontario.ca)

Follow IO at:   

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*This communication may contain confidential information intended only for the person(s) to whom it is addressed. Any dissemination or use of this information by others than the intended recipient(s) is prohibited. If you have received this message in error please notify the writer and permanently delete the message and all attachments. Thank you.*

This email, including any attachments, is intended for the personal and confidential use of the recipient(s) named above.

Do you have a good understanding of the need for these studies? If not please explain why.	Explanation	Wastewater Treatment:	Biosolids Management	Outfall	Do you have any concerns or suggestions regarding the existing Clarkson WWTP Site or expanding the treatment facilities at the Clarkson WWTP	What do you believe are the top three (3) most important outcome of this study? (Check appropriate boxes)	Do you have any additional comments or questions for the Project Team regarding these Environmental Assessments?	Date Submitted	Natural Environment	Social/Cultural Heritage	Financial	Technical
No	No need, please shut down or relocate GEB to somewhere else.	Build more collection pumping stations to Clarkson which all industries belongs to.	Less or no Biosolids in GEB	Wastewater outfall is so near water plant inlet. Need to limit the outfall with more restrictions.	Clarkson should be expanding per City of Mississauga master plan.	["Improving Lake Ontario Water Quality", "Community Well Being", "Meet Future Needs and Changing Conditions (e.g. Climate Change)"]	Where are the Public consultation and engagement other than this form?	10/20/2020 5:44:26 PM	2	1	3	4
Yes	N/A	N/A	Think alternative incineration engineering or technology, current incinerators at booth have not satisfied design requirements. get rid of current thickening centrifuges, operating and maintaining is kind of waste of money ,dewater centrifuges can meet process requirements	N/A	Bio solid treatment requires redesign incineration and odour are the main concerns	["Protecting our natural environment", "Cost efficient solutions", "Protecting public health"]	N/A	10/20/2020 8:11:48 PM	1	2	3	1
Yes	N/A	More water conservation so less wastewater treatment needed	Incineration is the best method to deal with biosolids and I support incineration	Add more diffusers instead of adding a new pipe	No	["Community Well Being", "Cost efficient solutions", "Improving Lake Ontario Water Quality"]	N/A	10/21/2020 9:42:54 PM	1	1	2	2
No	Please consider pandemic impact.	New technology, odour control, downsizing, absolutely no bypassing to Lake Ontario	Truck away or incinerator	Please far away from water plant	Expanding Clarkson and have a plan I place to shut down GEB	["Protecting our natural environment", "Protecting public health", "Improving Lake Ontario Water Quality"]	N/A	10/27/2020 3:54:54 PM	1	2	3	4



## Samantha Morrisey - GM BluePlan

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**From:** Sit, Michael (MTO) <Michael.Sit@ontario.ca>  
**Sent:** Tuesday, July 28, 2020 12:02 PM  
**To:** Jasmine Biasi - GM BluePlan  
**Cc:** Laurie Boyce - GM BluePlan; Kambeitz, Cindy; Khan, Moin (MTO)  
**Subject:** RE: Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Hello Jasmine,

Thanks for the below notification, however this geographic area falls under the responsibility of a different Manager in MTO's Program Deliver Section (formerly: Planning and Design Office), Mr. Moin Khan. I've forwarded the notice to him and have copied him on this email so that you're connected.

Thanks,  
Mike

---

**From:** Jasmine Biasi - GM BluePlan <Jasmine.Biasi@gmblueplan.ca>  
**Sent:** July 16, 2020 1:25 PM  
**Cc:** Laurie Boyce - GM BluePlan <Laurie.Boyce@gmblueplan.ca>; Kambeitz, Cindy <cindy.kambeitz@peelregion.ca>  
**Subject:** Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

**CAUTION -- EXTERNAL E-MAIL - Do not click links or open attachments unless you recognize the sender.**

To whom it may concern,

Attached is a Notice of Commencement for Peel Wastewater Treatment Solutions (G.E. Booth Wastewater Treatment Plant and Clarkson Wastewater Treatment Plant Schedule 'C' Class Environmental Assessments).

If you have any questions about the study, please contact the Region Project Manager, Cindy Kambeitz (contact information provided in the attached Notice).

Best Regards,

**Jasmine Biasi, B.Eng., E.I.T**  
Infrastructure Planning

**GM BluePlan Engineering Limited**  
Royal Centre | 3300 Highway No. 7, Suite 402 | Vaughan ON L4K 4M3  
t: 416.703.0667 ext. 7225 | c: 416.209.1892  
[jasmine.biasi@gmblueplan.ca](mailto:jasmine.biasi@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



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## Jasmine Biasi - GM BluePlan

---

**From:** Lagakos, Ted (MTO) <Ted.Lagakos@ontario.ca>  
**Sent:** Wednesday, July 22, 2020 3:31 PM  
**To:** Jasmine Biasi - GM BluePlan  
**Cc:** Shen, Rey (MTO); Fox, Daniel (MTO); Asif, Shahbaz (MTO); Pilla, Angelo (MTO)  
**Subject:** RE: Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Good afternoon Jasmine,

This request was redirected to my attention for comment.

Thank you for providing the ministry with an opportunity to comment on the subject circulation. Note that MTO has no objection in principle with respect to the subject EA proposals.

In general, any proposed works within our “permit control limit” (up to 800m from our property limits) will involve MTO review/approval and permits. It is strongly recommended that you continue to approach the ministry well in advance of any final planning and/or major decisions so that we can assess and mitigate any impacts to our provincial highway system.

For background purposes, I am attaching the link to our public website where you will find information about our new Pre-Consultation request module, our online permitting system called Highway Corridor Management System (HCMS) and a map of the above mentioned MTO control areas. You will also notice that there additional information about our Land Development review process and our Public Service Commitments.

<https://www.hcms.mto.gov.on.ca/>

I trust that this is satisfactory. Please continue to keep the ministry in the loop on these projects.

Thank you,  
Ted Lagakos  
Senior Project Manager  
Highway Corridor Management Section – Central Region

Ministry of Transportation  
159 Sir William Hearst Avenue, 7<sup>th</sup> Floor  
Toronto, ON M3M 0B7

E-Mail: [ted.lagakos@ontario.ca](mailto:ted.lagakos@ontario.ca)  
Web: [www.mto.gov.on.ca/english/engineering/management/corridor](http://www.mto.gov.on.ca/english/engineering/management/corridor)



---

**From:** Jasmine Biasi - GM BluePlan <[Jasmine.Biasi@gmblueplan.ca](mailto:Jasmine.Biasi@gmblueplan.ca)>

**Sent:** July 16, 2020 1:25 PM

**Cc:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>

**Subject:** Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

**CAUTION -- EXTERNAL E-MAIL - Do not click links or open attachments unless you recognize the sender.**

To whom it may concern,

Attached is a Notice of Commencement for Peel Wastewater Treatment Solutions (G.E. Booth Wastewater Treatment Plant and Clarkson Wastewater Treatment Plant Schedule 'C' Class Environmental Assessments).

If you have any questions about the study, please contact the Region Project Manager, Cindy Kambeitz (contact information provided in the attached Notice).

Best Regards,

**Jasmine Biasi, B.Eng., E.I.T**  
Infrastructure Planning

**GM BluePlan Engineering Limited**

Royal Centre | 3300 Highway No. 7, Suite 402 | Vaughan ON L4K 4M3

t: 416.703.0667 ext. 7225 | c: 416.209.1892

[jasmine.biasi@gmblueplan.ca](mailto:jasmine.biasi@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



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## Appendix U:

# Indigenous Communications and Engagement

Schedule C Municipal Class Environmental Assessment

# **G.E. Booth Water Resource Recovery Facility**

## **Indigenous Communications – General**

## Jasmine Biasi - GM BluePlan

---

**From:** Bell, Trevor (MECP) <Trevor.Bell@ontario.ca>  
**Sent:** Monday, August 17, 2020 4:09 PM  
**To:** Kambeitz, Cindy  
**Cc:** Papageorgiou, Agni (MECP); Dufresne, Tina (MECP); Jasmine Biasi - GM BluePlan; GEBoothEA@peelregion.ca; ClarksonEA@peelregion.ca  
**Subject:** G.E. Booth and Clarkson Wastewater Treatment Plants - Schedule C Municipal Class EAs  
**Attachments:** MECP Response Letter\_Notice of Commencement\_G.E. Booth WWTP and Clarkson WWTP.pdf

Good afternoon,

Please find attached a letter from the Ministry of the Environment, Conservation and Parks, Environmental Approvals Branch, regarding the above mentioned project. Feel free to contact me directly with any questions or concerns you may have.

Sincerely,

**Trevor Bell** | Environmental Planner/Environmental Assessment Coordinator  
*Project Review Unit, Environmental Assessment and Permissions Branch*  
*Ministry of the Environment, Conservation and Parks*  
5775 Yonge Street, 8<sup>th</sup> floor, Toronto ON, M2M 4J1  
**New Phone: 437-770-3731** | [trevor.bell@ontario.ca](mailto:trevor.bell@ontario.ca)



Ministry of the Environment,  
Conservation and Parks

Ministère de l'Environnement, de la  
Protection de la nature et des Parcs

*Environmental Assessment Branch*

*Direction des évaluations  
environnementales*



1<sup>st</sup> Floor  
135 St. Clair Avenue W  
Toronto ON M4V 1P5  
Tel.: 416 314-8001  
Fax.: 416 314-8452

Rez-de-chaussée  
135, avenue St. Clair Ouest  
Toronto ON M4V 1P5  
Tél. : 416 314-8001  
Télééc. : 416 314-8452

August 17, 2020

Cindy Kambeitz  
Project Manager  
Region of Peel  
[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)  
BY EMAIL ONLY

Re: **G.E. Booth Wastewater Treatment Plant and Clarkson Wastewater Treatment Plant  
Region of Peel  
Schedule C Municipal Class Environmental Assessments  
Notice of Study Commencement**

Dear Ms. Kambeitz,

This letter is in response to the Notice of Commencement for the above noted projects. The Ministry of the Environment, Conservation and Parks (MECP) acknowledges the Region of Peel has indicated that the studies are following the approved environmental planning process for a Schedule C project under the Municipal Engineers Association's Municipal Class Environmental Assessment (Class EA).

The attached "Areas of Interest" document provides guidance regarding the ministry's interests with respect to the Class EA process. Please identify the areas of interest which are applicable to the project and ensure they are addressed. Proponents who address all the applicable areas of interest can minimize potential delays to the project schedule.

The Crown has a legal duty to consult Aboriginal communities when it has knowledge, real or constructive, of the existence or potential existence of an Aboriginal or treaty right and contemplates conduct that may adversely impact that right. Before authorizing this project, the Crown must ensure that its duty to consult has been fulfilled, where such a duty is triggered. Although the duty to consult with Aboriginal peoples is a duty of the Crown, the Crown may delegate procedural aspects of this duty to project proponents while retaining oversight of the consultation process.

The proposed project may have the potential to affect Aboriginal or treaty rights protected under Section 35 of Canada's *Constitution Act* 1982. Where the Crown's duty to consult is triggered in relation to the proposed project, **the MECP is delegating the procedural aspects of rights-based consultation to the proponent through this letter.** The Crown intends to rely on the delegated consultation process in discharging its duty to consult and maintains the right to participate in the consultation process as it sees fit.

Based on information provided to date and the Crown's preliminary assessment the proponent is required to consult with the following communities who have been identified as potentially affected by the proposed project:

- Mississaugas of the Credit First Nation;
- Six Nations of the Grand River;
- Haudenosaunee Confederacy Chiefs Council; and
- Huron-Wendat Nation, if there are potential archeological impacts

Steps that the proponent may need to take in relation to Aboriginal consultation for the proposed project are outlined in the "[Code of Practice for Consultation in Ontario's Environmental Assessment Process](#)".

Additional information related to Ontario's *Environmental Assessment Act* is available online at: [www.ontario.ca/environmentalassessments](http://www.ontario.ca/environmentalassessments)

Please also refer to the attached document "A Proponent's Introduction to the Delegation of Procedural Aspects of consultation with Aboriginal Communities" for further information.

The proponent must contact the Director of Environmental Assessment Branch under the following circumstances subsequent to initial discussions with the communities identified by MECP:

- Aboriginal or treaty rights impacts are identified to you by the communities;
- You have reason to believe that your proposed project may adversely affect an Aboriginal or treaty right;
- Consultation with Indigenous communities or other stakeholders has reached an impasse; or
- A Part II Order request is expected based on impacts to Aboriginal or treaty rights.

The MECP will then assess the extent of any Crown duty to consult for the circumstances and will consider whether additional steps should be taken, including what role you will be asked to play should additional steps and activities be required.

Once the Project File is finalized, the proponent must issue a Notice of Completion providing a minimum 30-day period during which documentation may be reviewed and comment and input can be submitted to the Proponent.

Please ensure that the Notice of Completion advises that outstanding concerns are to be directed to the proponent for a response, and that in the event there are outstanding concerns regarding potential adverse impacts to constitutionally protected Aboriginal and treaty rights, Part II Order requests on those matters should be addressed in writing to:

Minister Jeff Yurek  
Ministry of Environment, Conservation and Parks  
777 Bay Street, 5<sup>th</sup> Floor  
Toronto ON M7A 2J3  
[minister.mecp@ontario.ca](mailto:minister.mecp@ontario.ca)

and

Director, Environmental Assessment Branch  
Ministry of Environment, Conservation and Parks

135 St. Clair Ave. W, 1<sup>st</sup> Floor  
Toronto ON, M4V 1P5  
[EABDirector@ontario.ca](mailto:EABDirector@ontario.ca)

Please note the project cannot proceed until at least 30 days after the end of the public review period provided for in the Notice of Completion.

Further, the project may not proceed after this time if:

- a Part II Order request has been submitted to the ministry regarding potential adverse impacts to constitutionally protected Aboriginal and treaty rights; or
- the Director has issued a Notice of Proposed order regarding the project.

The public can request a higher level of assessment on a project if they are concerned about potential adverse impacts to constitutionally protected Aboriginal and treaty rights. In addition, the Minister may issue an order on his or her own initiative within a specified time period. The Director will issue a Notice of Proposed Order to the proponent if the Minister is considering an order for the project within 30 days after the conclusion of the comment period on the Notice of Completion. At this time, the Director may request additional information from the proponent.

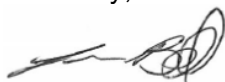
Once the requested information has been received, the Minister will have 30 days to make a decision or impose conditions on your project.

A draft copy of the report should be sent to me prior to the filing of the final report, allowing a minimum of 30 days for the ministry's technical reviewers to provide comments.

Please also ensure a copy of the final notice is sent to the ministry's Central Region EA notification email account ([eanotification.cregion@ontario.ca](mailto:eanotification.cregion@ontario.ca)) after the draft report is finalized.

Should you or your project team members have any questions regarding the material above, please contact me at [trevor.bell@ontario.ca](mailto:trevor.bell@ontario.ca).

Sincerely,



Trevor Bell  
Regional Environmental Assessment Coordinator

cc: Tina Dufresne, Manager, Halton Peel District Office, MECP  
Agni Papageorgiou, Supervisor, Project Review Unit, MECP  
Jasmine Biasi, Infrastructure Planning, GM BluePlan Engineering Limited

Attachments: Areas of Interest  
A Proponent's Introduction to the Delegation of Procedural Aspects of  
consultation with Aboriginal Communities



## AREAS OF INTEREST

*It is suggested that you check off each applicable area after you have considered / addressed it.*

### Species at Risk

- The Ministry of the Environment, Conservation and Parks has now assumed responsibility of Ontario's Species at Risk program. For any questions related to subsequent permit requirements, please contact [SAROntario@ontario.ca](mailto:SAROntario@ontario.ca).

### Planning and Policy

- Ontario has released "A Place to Grow: Growth Plan for the Greater Golden Horseshoe (2019)" which replaces the "Growth Plan for the Greater Golden Horseshoe (2017)". More information, including the Plan, is found here: <https://www.placestogrow.ca>.
- Parts of the study area may be subject to the [A Place to Grow: Growth Plan for the Greater Golden Horseshoe](#) (2019), [Oak Ridges Moraine Conservation Plan](#) (2017), [Niagara Escarpment Plan](#) (2017), [Greenbelt Plan](#) (2017) or [Lake Simcoe Protection Plan](#) (2014). Applicable policies should be referenced in the report, and the proponent should describe how the proposed project adheres to the relevant policies in these plans.
- The [Provincial Policy Statement](#) (2020) contains policies that protect Ontario's natural heritage and water resources. Applicable policies should be referenced in the report, and the proponent should describe how the proposed project is consistent with these policies.

### Source Water Protection (all projects)

The *Clean Water Act*, 2006 (CWA) aims to protect existing and future sources of drinking water. To achieve this, several types of vulnerable areas have been delineated around surface water intakes and wellheads for every municipal residential drinking water system that is located in a source protection area. These vulnerable areas are known as a Wellhead Protection Areas (WHPAs) and surface water Intake Protection Zones (IPZs). Other vulnerable areas that have been delineated under the CWA include Highly Vulnerable Aquifers (HVAs), Significant Groundwater Recharge Areas (SGRAs), Event-based modelling areas (EBAs), and Issues Contributing Areas (ICAs). Source protection plans have been developed that include policies to address existing and future risks to sources of municipal drinking water within these vulnerable areas.

Projects that are subject to the Environmental Assessment Act that fall under a Class EA, or one of the Regulations, have the potential to impact sources of drinking water if they occur in designated vulnerable areas or in the vicinity of other at-risk drinking water systems (i.e. systems that are not municipal residential systems). MEA Class EA projects may include activities that, if located in a vulnerable area, could be a threat to sources of drinking water (i.e. have the potential to adversely affect the quality or quantity of drinking water sources) and the activity could therefore be subject to policies in a source protection plan. Where an activity poses a risk to drinking water, policies in the local source protection plan may impact how or where that activity is undertaken. Policies may prohibit certain activities, or they may require risk management measures for these activities. Municipal Official Plans, planning decisions, Class EA projects (where the project includes an activity that is a threat to drinking water) and prescribed instruments must conform with policies that address significant risks to drinking water and must have regard for policies that address moderate or low risks.

- In October 2015, the MEA Parent Class EA document was amended to include reference to the Clean Water Act (Section A.2.10.6) and indicates that proponents undertaking a Municipal Class EA project must identify early in their process whether a project is or could potentially be occurring with a vulnerable area. **Given this requirement, please include a section in the report on source water protection.**
  - The proponent should identify the source protection area and should clearly document how the proximity of the project to sources of drinking water (municipal or other) and any delineated vulnerable areas was considered and assessed. Specifically, the report should discuss whether or not the project is located in a vulnerable area and provide applicable details about the area.
  - If located in a vulnerable area, proponents should document whether any project activities are prescribed drinking water threats and thus pose a risk to drinking water (this should be consulted on with the appropriate Source Protection Authority). Where an activity poses a risk to drinking water, the proponent must document and discuss in the report how the project adheres to or has regard to applicable policies in the local source protection plan. This section should then be used to inform and be reflected in other sections of the report, such as the identification of net positive/negative effects of alternatives, mitigation measures, evaluation of alternatives etc.
- While most source protection plans focused on including policies for significant drinking water threats in the WHPAs and IPZs it should be noted that even though source protection plan policies may not apply in HVAs, these are areas where aquifers are sensitive and at risk to impacts and within these areas, activities may impact the quality of sources of drinking water for systems other than municipal residential systems.
- In order to determine if this project is occurring within a vulnerable area, proponents can use this mapping tool: <http://www.applications.ene.gov.on.ca/swp/en/index.php>. The mapping tool will also provide a link to the appropriate source protection plan in order to identify what policies may be applicable in the vulnerable area.
- For further information on the maps or source protection plan policies which may relate to their project, proponents must contact the appropriate source protection authority. **Please consult with the local source protection authority to discuss potential impacts on drinking water. The contact for this project is Jennifer Stephens at (416) 661-6600 ext 5568 or [jstephens@trca.on.ca](mailto:jstephens@trca.on.ca). Please document the results of that consultation within the report and include all communication documents/correspondence.**

#### More Information

For more information on the *Clean Water Act*, source protection areas and plans, including specific information on the vulnerable areas and drinking water threats, please refer to Conservation Ontario's website where you will also find links to the local source protection plan/assessment report.

A list of the prescribed drinking water threats can be found in section 1.1 of Ontario Regulation 287/07 made under the *Clean Water Act*. In addition to prescribed drinking water threats, some source protection plans may include policies to address additional "local" threat activities, as approved by the MECP.

#### **Climate Change**

Ontario is leading the fight against climate change through the [Climate Change Action Plan](#). Recently

released, the plan lays out the specific actions Ontario will take in the next five years to meet its 2020 greenhouse gas reduction targets and establishes the framework necessary to meet its long-term targets. As a commitment of the action plan, **the province has now finalized a guide, "[Considering Climate Change in the Environmental Assessment Process](#)" (Guide).**

The Guide is now a part of the Environmental Assessment program's Guides and Codes of Practice. The Guide sets out the MECP's expectation for considering climate change in the preparation, execution and documentation of environmental assessment studies and processes. The guide provides examples, approaches, resources, and references to assist proponents with consideration of climate change in EA. **Proponents should review this Guide in detail.**

- The MECP expects proponents to:
  1. Take into account during the assessment of alternative solutions and alternative designs, the following:
    - a. the project's expected production of greenhouse gas emissions and impacts on carbon sinks (climate change mitigation); and
    - b. resilience or vulnerability of the undertaking to changing climatic conditions (climate change adaptation).
  2. Include a discrete section in the report detailing how climate change was considered in the EA.

How climate change is considered can be qualitative or quantitative in nature, and should be scaled to the project's level of environmental effect. In all instances, both a project's impacts on climate change (mitigation) and impacts of climate change on a project (adaptation) should be considered.

- The MECP has also prepared another guide to support provincial land use planning direction related to the completion of energy and emission plans. The "[Community Emissions Reduction Planning: A Guide for Municipalities](#)" document is designed to educate stakeholders on the municipal opportunities to reduce energy and greenhouse gas emissions, and to provide guidance on methods and techniques to incorporate consideration of energy and greenhouse gas emissions into municipal activities of all types. We encourage you to review the Guide for information.

#### **Air Quality, Dust and Noise**

- If there are sensitive receptors in the surrounding area of this project, an air quality/odour impact assessment will be useful to evaluate alternatives, determine impacts and identify appropriate mitigation measures. The scope of the assessment can be determined based on the potential effects of the proposed alternatives, and typically includes source and receptor characterization and a quantification of local air quality impacts on the sensitive receptors and the environment in the study area. The assessment will compare to all applicable standards or guidelines for all contaminants of concern. **Please contact this office for further consultation on the level of Air Quality Impact Assessment required for this project if not already advised.**
- **If a full Air Quality Impact Assessment is not required for the project, the report should still contain:**
  - A discussion of local air quality including existing activities/sources that significantly impact local air quality and how the project may impact existing conditions;
  - A discussion of the nearby sensitive receptors and the project's potential air quality impacts on present and future sensitive receptors;



- A discussion of local air quality impacts that could arise from this project during both construction and operation; and
- A discussion of potential mitigation measures.
- As a common practice, “air quality” should be used as an evaluation criterion for all road projects.
- Dust and noise control measures should be addressed and included in the construction plans to ensure that nearby residential and other sensitive land uses within the study area are not adversely affected during construction activities.
- The MECP recommends that non-chloride dust-suppressants be applied. For a comprehensive list of fugitive dust prevention and control measures that could be applied, refer to [Cheminfo Services Inc. Best Practices for the Reduction of Air Emissions from Construction and Demolition Activities](#). report prepared for Environment Canada. March 2005.
- The report should consider the potential impacts of increased noise levels during the operation of the completed project. The proponent should explore all potential measures to mitigate significant noise impacts during the assessment of alternatives.

#### □ **Ecosystem Protection and Restoration**

- Any impacts to ecosystem form and function must be avoided where possible. The report should describe any proposed mitigation measures and how project planning will protect and enhance the local ecosystem.
- All natural heritage features should be identified and described in detail to assess potential impacts and to develop appropriate mitigation measures. The following sensitive environmental features may be located within or adjacent to the study area:
  - Areas of Natural and Scientific Interest (ANSIs)
  - Rare Species of flora or fauna
  - Watercourses
  - Wetlands
  - Woodlots

We recommend consulting with the Ministry of Natural Resources and Forestry (MNRF), Fisheries and Oceans Canada (DFO) and your local conservation authority to determine if special measures or additional studies will be necessary to preserve and protect these sensitive features. In addition, you may consider the provisions of the Rouge Park Management Plan if applicable.

#### □ **Surface Water**

- The report must include enough information to demonstrate that there will be no negative impacts on the natural features or ecological functions of any watercourses within the study area. Measures should be included in the planning and design process to ensure that any impacts to watercourses from construction or operational activities (e.g. spills, erosion, pollution) are mitigated as part of the proposed undertaking.
- Additional stormwater runoff from new pavement can impact receiving watercourses and flood conditions. Quality and quantity control measures to treat stormwater runoff should be considered for all new impervious areas and, where possible, existing surfaces. The ministry’s [Stormwater Management Planning and Design Manual \(2003\)](#) should be referenced in the report and utilized when designing stormwater control methods. **A Stormwater Management Plan should be prepared as part of the Class EA process** that includes:

- Strategies to address potential water quantity and erosion impacts related to stormwater draining into streams or other sensitive environmental features, and to ensure that adequate (enhanced) water quality is maintained
  - Watershed information, drainage conditions, and other relevant background information
  - Future drainage conditions, stormwater management options, information on erosion and sediment control during construction, and other details of the proposed works
  - Information on maintenance and monitoring commitments.
- Ontario Regulation 60/08 under the *Ontario Water Resources Act* (OWRA) applies to the Lake Simcoe Basin, which encompasses Lake Simcoe and the lands from which surface water drains into Lake Simcoe. If the proposed sewage treatment plant is listed in Table 1 of the regulation, the report should describe how the proposed project and its mitigation measures are consistent with the requirements of this regulation and the OWRA.
  - Any potential approval requirements for surface water taking or discharge should be identified in the report. A Permit to Take Water (PTTW) under the OWRA will be required for any water takings that exceed 50,000 L/day, except for certain water taking activities that have been prescribed by the Water Taking EASR Regulation – *O. Reg. 63/16*. These prescribed water-taking activities require registration in the EASR instead of a PTTW. Please review the [Water Taking User Guide for EASR](#) for more information. Additionally, an Environmental Compliance Approval under the OWRA is required for municipal stormwater management works.

#### □ **Groundwater**

- The status of, and potential impacts to any well water supplies should be addressed. If the project involves groundwater takings or changes to drainage patterns, the quantity and quality of groundwater may be affected due to drawdown effects or the redirection of existing contamination flows. In addition, project activities may infringe on existing wells such that they must be reconstructed or sealed and abandoned. Appropriate information to define existing groundwater conditions should be included in the report.
- If the potential construction or decommissioning of water wells is identified as an issue, the report should refer to Ontario Regulation 903, Wells, under the OWRA.
- Potential impacts to groundwater-dependent natural features should be addressed. Any changes to groundwater flow or quality from groundwater taking may interfere with the ecological processes of streams, wetlands or other surficial features. In addition, discharging contaminated or high volumes of groundwater to these features may have direct impacts on their function. Any potential effects should be identified, and appropriate mitigation measures should be recommended. The level of detail required will be dependent on the significance of the potential impacts.
- Any potential approval requirements for groundwater taking or discharge should be identified in the report. A Permit to Take Water (PTTW) under the OWRA will be required for any water takings that exceed 50,000 L/day, with the exception of certain water taking activities that have been prescribed by the Water Taking EASR Regulation – *O. Reg. 63/16*. These prescribed water-taking activities require registration in the EASR instead of a PTTW. Please review the [Water Taking User Guide for EASR](#) for more information.

#### □ **Contaminated Soils**

- Since the removal or movement of soils may be required, appropriate tests to determine

contaminant levels from previous land uses or dumping should be undertaken. If the soils are contaminated, you must determine how and where they are to be disposed of, consistent with *Part XV.1 of the Environmental Protection Act* (EPA) and Ontario Regulation 153/04, Records of Site Condition, which details the new requirements related to site assessment and clean up. Please contact the appropriate MECP District Office for further consultation if contaminated sites are present.

- Any current or historical waste disposal sites should be identified in the report. The status of these sites should be determined to confirm whether approval pursuant to Section 46 of the EPA may be required for land uses on former disposal sites.
- The location of any underground storage tanks should be investigated in the report. Measures should be identified to ensure the integrity of these tanks and to ensure an appropriate response in the event of a spill. The ministry's Spills Action Centre must be contacted in such an event.
- The report should identify any underground transmission lines in the study area. The owners should be consulted to avoid impacts to this infrastructure, including potential spills.

#### □ **Excess Materials Management**

- Activities involving the management of excess soil should be completed in accordance with the MECP's current guidance document titled "[Management of Excess Soil – A Guide for Best Management Practices](#)" (2014).
- All waste generated during construction must be disposed of in accordance with ministry requirements

#### □ **Servicing and Facilities**

- Any facility that releases emissions to the atmosphere, discharges contaminants to ground or surface water, provides potable water supplies, or stores, transports or disposes of waste must have an Environmental Compliance Approval (ECA) before it can operate lawfully. Please consult with the Environmental Approvals Access and Service Integration Branch (EAASIB) to determine whether a new or amended ECA will be required for any proposed infrastructure.
- We recommend referring to the ministry's [environmental land use planning guides](#) to ensure that any potential land use conflicts are considered when planning for any infrastructure or facilities related to wastewater, pipelines, landfills or industrial uses.

#### □ **Mitigation and Monitoring**

- Contractors must be made aware of all environmental considerations so that all environmental standards and commitments for both construction and operation are met. Mitigation measures should be clearly referenced in the report and regularly monitored during the construction stage of the project. In addition, we encourage proponents to conduct post-construction monitoring to ensure all mitigation measures have been effective and are functioning properly.
- Design and construction reports and plans should be based on a best management approach that centres on the prevention of impacts, protection of the existing environment, and opportunities for rehabilitation and enhancement of any impacted areas.
- The proponent's construction and post-construction monitoring plans must be documented in the report, as outlined in Section A.2.5 and A.4.1 of the MEA Class EA parent document.



## □ Consultation

- The report must demonstrate how the consultation provisions of the Class EA have been fulfilled, including documentation of all stakeholder consultation efforts undertaken during the planning process. This includes a discussion in the SR that identifies concerns that were raised and **describes how they have been addressed by the proponent** throughout the planning process. The Class EA also directs proponents to include copies of comments submitted on the project by interested stakeholders, and the proponent's responses to these comments.

## □ Class EA Process

- The report should provide clear and complete documentation of the planning process in order to allow for transparency in decision-making.
- If this project is a Master Plan: there are several different approaches that can be used to conduct a Master Plan, examples of which are outlined in Appendix 4 of the Class EA. The Master Plan should clearly indicate the selected approach for conducting the plan, by identifying whether the levels of assessment, consultation and documentation are sufficient to fulfill the requirements for Schedule B or C projects. Please note that any Schedule B or C projects identified in the plan would be subject to Part II Order Requests under the *Environmental Assessment Act*, although the plan itself would not be.
- The report must demonstrate how the consultation provisions of the Class EA have been fulfilled, including documentation of all stakeholder consultation efforts undertaken during the planning process. This includes a discussion in the report that identifies concerns that were raised and **describes how they have been addressed by the proponent** throughout the planning process. The Class EA also directs proponents to include copies of comments submitted on the project by interested stakeholders, and the proponent's responses to these comments.
- The Class EA requires the consideration of the effects of each alternative on all aspects of the environment. The report should include a level of detail (e.g. hydrogeological investigations, terrestrial and aquatic assessments) such that all potential impacts can be identified, and appropriate mitigation measures can be developed. Any supporting studies conducted during the Class EA process should be referenced and included as part of the report.
- Please include in the report a list of all subsequent permits or approvals that may be required for the implementation of the preferred alternative, including but not limited to, MECP's PTTW, EASR Registrations and ECAs, conservation authority permits, species at risk permits, and approvals under the *Impact Assessment Act*, 2019.
- Ministry guidelines and other information related to the issues above are available at <http://www.ontario.ca/environment-and-energy/environment-and-energy>. We encourage you to review all the available guides and to reference any relevant information in the report.

## A PROPONENT'S INTRODUCTION TO THE DELEGATION OF PROCEDURAL ASPECTS OF CONSULTATION WITH ABORIGINAL COMMUNITIES

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### Definitions

The following definitions are specific to this document and may not apply in other contexts:

**Aboriginal communities** – the First Nation or Métis communities identified by the Crown for the purpose of consultation.

**Consultation** – the Crown's legal obligation to consult when the Crown has knowledge of an established or asserted Aboriginal or treaty right and contemplates conduct that might adversely impact that right. This is the type of consultation required pursuant to s. 35 of the *Constitution Act, 1982*. Note that this definition does not include consultation with Aboriginal communities for other reasons, such as regulatory requirements.

**Crown** – the Ontario Crown, acting through a particular ministry or ministries.

**Procedural aspects of consultation** – those portions of consultation related to the process of consultation, such as notifying an Aboriginal community about a project, providing information about the potential impacts of a project, responding to concerns raised by an Aboriginal community and proposing changes to the project to avoid negative impacts.

**Proponent** – the person or entity that wants to undertake a project and requires an Ontario Crown decision or approval for the project.

### I. Purpose

The Crown has a legal duty to consult Aboriginal communities when it has knowledge of an existing or asserted Aboriginal or treaty right and contemplates conduct that may adversely impact that right. In outlining a framework for the duty to consult, the Supreme Court of Canada has stated that the Crown may delegate procedural aspects of consultation to third parties. This document provides general information about the Ontario Crown's approach to delegation of the procedural aspects of consultation to proponents.

This document is not intended to instruct a proponent about an individual project, and it does not constitute legal advice.

### II. Why is it Necessary to Consult with Aboriginal Communities?

The objective of the modern law of Aboriginal and treaty rights is the *reconciliation* of Aboriginal peoples and non-Aboriginal peoples and their respective rights, claims and interests. Consultation is an important component of the reconciliation process.

The Crown has a legal duty to consult Aboriginal communities when it has knowledge of an existing or asserted Aboriginal or treaty right and contemplates conduct that might adversely impact that right. For example, the Crown's duty to consult is triggered when it considers issuing a permit, authorization or approval for a project which has the potential to adversely impact an Aboriginal right, such as the right to hunt, fish, or trap in a particular area.

The scope of consultation required in particular circumstances ranges across a spectrum depending on both the nature of the asserted or established right and the seriousness of the potential adverse impacts on that right.

Depending on the particular circumstances, the Crown may also need to take steps to accommodate the potentially impacted Aboriginal or treaty right. For example, the Crown may be required to avoid or minimize the potential adverse impacts of the project.

### **III. The Crown's Role and Responsibilities in the Delegated Consultation Process**

The Crown has the responsibility for ensuring that the duty to consult, and accommodate where appropriate, is met. However, the Crown may delegate the procedural aspects of consultation to a proponent.

There are different ways in which the Crown may delegate the procedural aspects of consultation to a proponent, including through a letter, a memorandum of understanding, legislation, regulation, policy and codes of practice.

If the Crown decides to delegate procedural aspects of consultation, the Crown will generally:

- Ensure that the delegation of procedural aspects of consultation and the responsibilities of the proponent are clearly communicated to the proponent;
- Identify which Aboriginal communities must be consulted;
- Provide contact information for the Aboriginal communities;
- Revise, as necessary, the list of Aboriginal communities to be consulted as new information becomes available and is assessed by the Crown;
- Assess the scope of consultation owed to the Aboriginal communities;
- Maintain appropriate oversight of the actions taken by the proponent in fulfilling the procedural aspects of consultation;
- Assess the adequacy of consultation that is undertaken and any accommodation that may be required;
- Provide a contact within any responsible ministry in case issues arise that require direction from the Crown; and
- Participate in the consultation process as necessary and as determined by the Crown.

### **IV. The Proponent's Role and Responsibilities in the Delegated Consultation Process**

Where aspects of the consultation process have been delegated to a proponent, the Crown, in meeting its duty to consult, will rely on the proponent's consultation activities and documentation of those activities. The consultation process informs the Crown's decision of whether or not to approve a proposed project or activity.

A proponent's role and responsibilities will vary depending on a variety of factors including the extent of consultation required in the circumstance and the procedural aspects of consultation the Crown has delegated to it. Proponents are often in a better position than the Crown to discuss a project and its potential impacts with Aboriginal communities and to determine ways to avoid or minimize the adverse impacts of a project.

A proponent can raise issues or questions with the Crown at any time during the consultation process. If issues or concerns arise during the consultation that cannot be addressed by the proponent, the proponent should contact the Crown.

#### **a) What might a proponent be required to do in carrying out the procedural aspects of consultation?**



Where the Crown delegates procedural aspects of consultation, it is often the proponent's responsibility to provide notice of the proposed project to the identified Aboriginal communities. The notice should indicate that the Crown has delegated the procedural aspects of consultation to the proponent and should include the following information:

- a description of the proposed project or activity;
- mapping;
- proposed timelines;
- details regarding anticipated environmental and other impacts;
- details regarding opportunities to comment; and
- any changes to the proposed project that have been made for seasonal conditions or other factors, where relevant.

Proponents should provide enough information and time to allow Aboriginal communities to provide meaningful feedback regarding the potential impacts of the project. Depending on the nature of consultation required for a project, a proponent also may be required to:

- provide the Crown with copies of any consultation plans prepared and an opportunity to review and comment;
- ensure that any necessary follow-up discussions with Aboriginal communities take place in a timely manner, including to confirm receipt of information, share and update information and to address questions or concerns that may arise;
- as appropriate, discuss with Aboriginal communities potential mitigation measures and/or changes to the project in response to concerns raised by Aboriginal communities;
- use language that is accessible and not overly technical, and translate material into Aboriginal languages where requested or appropriate;
- bear the reasonable costs associated with the consultation process such as, but not limited to, meeting hall rental, meal costs, document translation(s), or to address technical & capacity issues;
- provide the Crown with all the details about potential impacts on established or asserted Aboriginal or treaty rights, how these concerns have been considered and addressed by the proponent and the Aboriginal communities and any steps taken to mitigate the potential impacts;
- provide the Crown with complete and accurate documentation from these meetings and communications; and
- notify the Crown immediately if an Aboriginal community not identified by the Crown approaches the proponent seeking consultation opportunities.

#### **b) What documentation and reporting does the Crown need from the proponent?**

Proponents should keep records of all communications with the Aboriginal communities involved in the consultation process and any information provided to these Aboriginal communities.

As the Crown is required to assess the adequacy of consultation, it needs documentation to satisfy itself that the proponent has fulfilled the procedural aspects of consultation delegated to it. The documentation required would typically include:

- the date of meetings, the agendas, any materials distributed, those in attendance and copies of any minutes prepared;
- the description of the proposed project that was shared at the meeting;
- any and all concerns or other feedback provided by the communities;

- any information that was shared by a community in relation to its asserted or established Aboriginal or treaty rights and any potential adverse impacts of the proposed activity, approval or disposition on such rights;
- any proposed project changes or mitigation measures that were discussed, and feedback from Aboriginal communities about the proposed changes and measures;
- any commitments made by the proponent in response to any concerns raised, and feedback from Aboriginal communities on those commitments;
- copies of correspondence to or from Aboriginal communities, and any materials distributed electronically or by mail;
- information regarding any financial assistance provided by the proponent to enable participation by Aboriginal communities in the consultation;
- periodic consultation progress reports or copies of meeting notes if requested by the Crown;
- a summary of how the delegated aspects of consultation were carried out and the results; and
- a summary of issues raised by the Aboriginal communities, how the issues were addressed and any outstanding issues.

In certain circumstances, the Crown may share and discuss the proponent's consultation record with an Aboriginal community to ensure that it is an accurate reflection of the consultation process.

### **c) Will the Crown require a proponent to provide information about its commercial arrangements with Aboriginal communities?**

The Crown may require a proponent to share information about aspects of commercial arrangements between the proponent and Aboriginal communities where the arrangements:

- include elements that are directed at mitigating or otherwise addressing impacts of the project;
- include securing an Aboriginal community's support for the project; or
- may potentially affect the obligations of the Crown to the Aboriginal communities.

The proponent should make every reasonable effort to exempt the Crown from confidentiality provisions in commercial arrangements with Aboriginal communities to the extent necessary to allow this information to be shared with the Crown.

The Crown cannot guarantee that information shared with the Crown will remain confidential. Confidential commercial information should not be provided to the Crown as part of the consultation record if it is not relevant to the duty to consult or otherwise required to be submitted to the Crown as part of the regulatory process.

## **V. What are the Roles and Responsibilities of Aboriginal Communities' in the Consultation Process?**

Like the Crown, Aboriginal communities are expected to engage in consultation in good faith. This includes:

- responding to the consultation notice;
- engaging in the proposed consultation process;
- providing relevant documentation;
- clearly articulating the potential impacts of the proposed project on Aboriginal or treaty rights; and
- discussing ways to mitigate any adverse impacts.

Some Aboriginal communities have developed tools, such as consultation protocols, policies or processes that provide guidance on how they would prefer to be consulted. Although not legally binding, proponents are encouraged to respect these community processes where it is reasonable to do so. Please note that there is no obligation for a proponent to pay a fee to an Aboriginal community in order to enter into a consultation process.

To ensure that the Crown is aware of existing community consultation protocols, proponents should contact the relevant Crown ministry when presented with a consultation protocol by an Aboriginal community or anyone purporting to be a representative of an Aboriginal community.

#### **VI. What if More Than One Provincial Crown Ministry is Involved in Approving a Proponent's Project?**

Depending on the project and the required permits or approvals, one or more ministries may delegate procedural aspects of the Crown's duty to consult to the proponent. The proponent may contact individual ministries for guidance related to the delegation of procedural aspects of consultation for ministry-specific permits/approvals required for the project in question. Proponents are encouraged to seek input from all involved Crown ministries sooner rather than later.



# Peel Wastewater Treatment Solutions

## G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class Environmental Assessments

### INDIGENOUS COMMUNITY ENGAGEMENT PLAN

SEPTEMBER 2020

#### 1.0 Purpose of this Memorandum

This memorandum provides an overview of the Indigenous Community Engagement process for the G.E. Booth Wastewater Treatment Plant (WWTP) and the Clarkson WWTP Schedule C Class Environmental Assessments (EAs). This engagement process is part of Peel's overall Consultation, Communication and Engagement Plan for the Class EAs.

#### 2.0 Overview of the Schedule C Class Environmental Assessments

The Region of Peel retained GM BluePlan Engineering Limited (GM BluePlan) to undertake two Schedule 'C' Class Environmental Assessments and Conceptual Designs, one each for the G.E. Booth and Clarkson Wastewater Treatment Plants (WWTPs). These Class EAs will investigate alternative solutions for wastewater treatment and biosolids management to service Region of Peel growth and confirm the overall servicing strategy such as flow diversion between plants. These Class EAs will identify alternative system-wide strategies and will also determine roadmaps for on-site expansion of each WWTP, as well as a new outfall at the G.E. Booth WWTP. While the underlying need is additional capacity for growth across the Region, these Class EAs will integrate strategies that influence infrastructure and policy beyond simply the WWTPs, including factors such as energy efficiency, climate resiliency, lifecycle planning and operational flexibility.

The Class EAs are being undertaken in accordance with the Municipal Class Environmental Assessment (MEA) process developed by the Municipal Engineers Association (October 2000, as amended in 2007, 2011 and 2015), which is approved under the Ontario Environmental Assessment Act. The Class EA process is transparent and clearly demonstrates the decision-making process of why infrastructure is needed, how the natural, social and cultural environments will be protected, how the necessary strategies and expansions will be implemented, and the costs of the recommendations. The scope of the work involves completing all phases of the Class EA process:

- Phase 1: Definition of the problem/opportunity statement
- Phase 2: Identification and assessment of alternative solutions for Peel-wide treatment of wastewater

- Phase 3: Identification and assessment of design alternatives for the preferred solutions including treatment technologies and design concepts
- Phase 4: Completion of Environmental Study Reports (ESRs)
- Phase 5: Completion of the first stage towards implementation - Enhanced Conceptual Designs for the G.E. Booth and Clarkson WWTPs

As expansions of the Clarkson and G.E Booth WWTPs may impact established Indigenous rights and territories, it is important that affected communities be engaged in the Class EAs. Recognizing the distinct features of Indigenous Peoples, and the value they add in preserving our culture and heritage, the Region has developed this Plan to engage Indigenous Communities through the Class EAs. It is part of the overall Communication and Consultation Plan for these Class EAs.

### 3.0 Guiding Principles

Peel's overall Communications, Consultation and Engagement Program is driven by six key principles:

- **Respect:** for all parties engaged in the process;
- **Clear, consistent communication:** to ensure broad understanding, and that all communicators on behalf of the Class EAs are using consistent messages;
- **Demonstrated organizational and community values:** ensure all communications reflect the values of Peel Region as an organization and as a community;
- **Transparency:** communicate the EA process openly;
- **Flexibility:** The Plan will be a living document allowing adaptability when opportunities arise throughout the EA process; and,
- **Offer a variety of feedback options:** A broad a range of methods for the public to provide input will be offered throughout the EA process including comment forms at public consultation events and online or virtual consultation opportunities including by email, web page or virtual meetings to ensure documentable, accessible and simple procedures are in place.

These principles will be adhered to when consulting with all interested members of the public, government agencies, and other stakeholders, and when engaging Indigenous Communities.

With respect to Indigenous Engagement, the Region will ensure all required Indigenous Communities are involved in the Class EAs, and follow the protocols set by these Indigenous Communities in terms of engagement, cultural and heritage inventories, and mitigation of impacts. The goal is to work with Indigenous Communities such that projects within their traditional lands and waters are planned, reviewed and developed in a manner that ensures healthy communities, ecological protection and sustainable development.

## 4.0 Indigenous Communities and Related Government Agencies

Early in the process the Ministry of the Environment, Conservation and Parks (MECP) was contacted to identify all key Indigenous Communities as well as government agencies that must be consulted with and potentially engaged in the Class EAs. These include:

- Indigenous Communities
  - Haudenosaunee Confederacy Chiefs Council
  - Huron-Wendat Nation
  - Mississaugas of the Credit First Nation
  - Six Nations of the Grand River
- Federal Agencies
  - Indigenous and Northern Affairs Canada
  - Environment Canada
  - Fisheries and Oceans Canada
- Provincial Agencies
  - Ministry of Indigenous Affairs
  - Ministry of Economic Development, Job Creation and Trade
  - Ministry of the Environment, Conservation and Parks
  - Ministry of Heritage, Sports, Tourism and Culture Industries

These agencies, in addition to other agencies (e.g. Conservation Authorities, Infrastructure Ontario, Ontario Ministry of Transportation and others), members of the public and other stakeholders, are included on the mailing list for the Class EAs.

## 5.0 Methods of Communication and Engagement

### 5.1 Phase 1: Problem/Opportunity

Defining the problem and opportunity statement is the foundation for the Class EA process and will serve as reference for the planning and evaluation under the studies. For this project, while separate studies will be completed, there is benefit in developing the problem and opportunity statement together to incorporate broader holistic servicing issues.

Public and stakeholder input early in the process is essential to advise the government agencies, the public and other stakeholders of the Class EAs, and to encourage them to be involved throughout the process. Phase 1 communications strategies include:



- Establishment of Mailing Lists
- Notice of Commencements - Notices of commencement were emailed or sent via mail and included on the project websites starting July 2020. The notice was also published in the Mississauga News.
- Establishment of an overall Project Web-site page with background Information on both Class EAs
  - [www.peelregion.ca/GEBooth](http://www.peelregion.ca/GEBooth)
  - [www.peelregion.ca/Clarkson](http://www.peelregion.ca/Clarkson)
- Key stakeholders were also contacted directly via phone call to solicit input and discuss engagement protocols. These included MECP, Credit Valley Conservation Authority (CVC), and the City of Mississauga
- **Indigenous Community Engagement:**
  - MCFN – Agreements have been signed with respect to MCFN Archaeological Review and Field Liaison Representative Participation. The MCFN will review Draft Stage 1 AAs, and provide comments, prior to submitting to MHSTCI. Peel will continue to work with MCFN through the processes to receive input on recommended solutions and mitigation measures, as well as participate in future Stage 2 AA on-site field investigations.
  - Huron-Wendat Nation – The Huron-Wendat Nation asked if archaeological assessments were being undertaken. They will continue to be kept informed of the Class EA work and findings and will be made aware of MCFN’s involvement.
- **Issues Management and Tracking Forms:** All contact information will be contained in a database such that all comments received can be directly linked and stored easily and efficiently. Comment and responses logs will be prepared for each Class EA and updated as required. All comments will be addressed and considered, noting that the Region of Peel will not disclose the private information contained in any inquiry.

## 5.2 Phase 2: Identification and Assessment of Alternative Solutions

The evaluation process to determine the preferred Phase 2 solutions involves identification of alternative solutions, inventory of the natural, social, cultural and technical features at the WWTP sites and surrounding areas, assessment of alternative solutions, and selection of a preferred solution.

Major communications methods during Phase 2 include:

- Municipal/Stakeholder Meetings
- Notices of PICs

- PIC #1: One joint G.E. Booth and Clarkson WWTPs Class EA PIC to receive input of the background information, problem/opportunity statement, long-list of alternatives and evaluation criteria. This PIC was a virtual meeting and posted on the Region's websites on [www.peelregion.ca/GEBooth](http://www.peelregion.ca/GEBooth) and [www.peelregion.ca/clarkson](http://www.peelregion.ca/clarkson). A questionnaire survey was also included.
- PIC #2: PICs for each plant will be held at the end of Phase 2 to solicit public comments and suggestions and confirm the preliminary preferred solution.
- Updates to the project websites
- Depending on the amount of public engagement, fact sheets, information handouts, and lists of frequently asked questions (FAQs) may be developed, which will serve as additional education pieces for the public and stakeholders who want to stay informed. Questionnaires may also be used to seek public and stakeholder input on factors important to them in the evaluation of alternatives.
- **Indigenous Communities Engagement:** MCFN to review and provide comments on Stage 1 archaeological assessment, prior to submission to the MHSTCI. Continued communications with MCFN and other communities to ensure their requirements are met.

The goal is to complete Phase 2 early 2021.

### 5.3 Phase 3: Identification and Assessment of Alternative Design Concepts

Alternative design concepts will focus on establishing treatment technologies and site layouts for expansion of each WWTP. A PIC for each WWTP will be held to present the assessment of alternative design concepts, the recommended design concepts and measures to mitigate impacts to the natural and cultural environments and to the surrounding communities.

Major communications methods during Phase 3 include:

- Municipal/Stakeholder Meetings
- Two Notices of PICs
- PIC #3: Two separate PICs, one each for the G.E. Booth WWTP EA and the Clarkson WWTP EA to present the preferred design concept prior to proceeding to conceptual design. The PICs will highlight the treatment technologies, design concepts, measures to mitigate impacts, and implementation plans.
- Updates to the project website
- Depending on the amount of public engagement, fact sheets, information handouts, and lists of frequently asked questions (FAQs) may be developed, which will serve as additional education pieces for the public and stakeholders who want to stay informed. Questionnaires may also be

used to seek public and stakeholder input on factors important to them in the evaluation of alternatives.

- **Engaging Indigenous Communities** – Including engagement in Stage 2 archaeological field work, and meetings to discuss design concepts, impacts and mitigation.

The goal is to complete Phase 3 for the Clarkson WWTP Class EA in late spring 2021 and the G.E. Booth WWTP Class EA by fall 2021.

## **5.4 Phase 4: Environmental Study Reports**

Environmental Study Reports (ESRs) will be prepared for the G.E. Booth and Clarkson WWTP Class EAs, which will include all technical information and summarize all public and agency consultation, and Indigenous Communities engagement documentation (with the exception of private information). The final ESRs will be structured to document the full study in an easily understood manner to ensure clear communication with the public and stakeholders.

Once the ESRs are finalized, Notices of Study Completion will be prepared. The notices will be distributed to individuals on the mailing list, advertised in local newspapers and posted on the Regions website. The ESRs will be available for a minimum 30-day review period. During this period, the public and stakeholders will be encouraged to read the reports and provide comments. Hard copies of the final ESRs will be filed at agreed public facilities. Electronic copies and supporting appendices will also be made available on the project website.

The goal is to file the ESR for the Clarkson WWTP Class EA in mid-2021, with the G.E. Booth WWTP Class EA being filed later in 2021.

All public documents will be produced to comply with the Accessibility for Ontarians with Disabilities Act (A.O.D.A.). Upon request, alternate formats of reports will be made available.



July 16, 2020  
Haudenosaunee Confederacy Chiefs Council  
P.O. Box 714  
Ohsweken, Ontario, N0A 1M0

**RE: Notices of Study Commencement  
Peel Wastewater Treatment Solutions  
G.E. Booth and Clarkson Schedule C Class Environmental Assessments (EA)**

Dear Mr. Hohahes Leroy Hill:

Please find attached the Notices of Study Commencement for Peel Wastewater Treatment Solutions, G.E. Booth Wastewater Treatment Plant (WWTP) Schedule C Class EA and Clarkson WWTP Class EA studies. These two (2) Schedule C Class EAs are being undertaken to establish preferred solutions for meeting future wastewater treatment needs in the Peel Wastewater Treatment system and are being undertaken in an integrated manner as the preferred solutions will impact both facilities.

Determining the most suitable solutions, technologies and conceptual designs for the G.E. Booth and Clarkson WWTPs will require balancing different priorities and making the right decisions for Peel and its citizens. There are many factors that must be considered including wastewater flow management, protecting the natural environment, odour management, climate change, energy efficiency, technical considerations and costs. Through the EAs, these factors will be further identified and alternatives evaluated in order to make informed decisions.

Effective consultation with the public and stakeholders is key to the success of these studies. The communications and consultation plan for these Class EAs has been developed to ensure that key stakeholders and the public have a voice at each step along the way to help select the right solutions, technologies and designs.

Please let us know if you are interested in being involved in both or either the G.E. Booth and/or Clarkson Schedule C Class EAs, or if you have any concerns regarding the studies.

Sincerely,

**Ms. Cindy Kambeitz**



Project Manager  
Region of Peel  
Phone: 905.980.7800 ext. 5040

**Ms. Laurie Boyce**



Project Manager  
GM BluePlan Engineering  
Phone: 905.643.6688 ext. 6334

**Emails for the Schedule C Class EAs:**

GEBoothEA@peelregion.ca

ClarksonEA@peelregion.ca

**Websites for the Schedule C Class EAs:**

[www.peelregion.ca/GEBooth](http://www.peelregion.ca/GEBooth)

[www.peelregion.ca/Clarkson](http://www.peelregion.ca/Clarkson)

July 16, 2020  
Huron-Wendat Nation  
255 Place Chef Michel Laveau  
Wendake, Quebec, G0A 4V0

**RE: Notices of Study Commencement  
Peel Wastewater Treatment Solutions  
G.E. Booth and Clarkson Schedule C Class Environmental Assessments (EA)**

Dear Mr. Maxime Picard:

Please find attached the Notices of Study Commencement for Peel Wastewater Treatment Solutions, G.E. Booth Wastewater Treatment Plant (WWTP) Schedule C Class EA and Clarkson WWTP Class EA studies. These two (2) Schedule C Class EAs are being undertaken to establish preferred solutions for meeting future wastewater treatment needs in the Peel Wastewater Treatment system and are being undertaken in an integrated manner as the preferred solutions will impact both facilities.

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Please let us know if you are interested in being involved in both or either the G.E. Booth and/or Clarkson Schedule C Class EAs, or if you have any concerns regarding the studies.

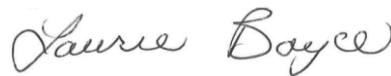
Sincerely,

**Ms. Cindy Kambeitz**



Project Manager  
Region of Peel  
Phone: 905.980.7800 ext. 5040

**Ms. Laurie Boyce**



Project Manager  
GM BluePlan Engineering  
Phone: 905.643.6688 ext. 6334

**Emails for the Schedule C Class EAs:**

[GEBoothEA@peelregion.ca](mailto:GEBoothEA@peelregion.ca)

[ClarksonEA@peelregion.ca](mailto:ClarksonEA@peelregion.ca)

**Websites for the Schedule C Class EAs:**

[www.peelregion.ca/GEBooth](http://www.peelregion.ca/GEBooth)

[www.peelregion.ca/Clarkson](http://www.peelregion.ca/Clarkson)

July 16, 2020  
Huron-Wendat Nation  
255 Place Chef Michel Laveau  
Wendake, Quebec, G0A 4V0

**RE: Notices of Study Commencement  
Peel Wastewater Treatment Solutions  
G.E. Booth and Clarkson Schedule C Class Environmental Assessments (EA)**

Dear Ms. Tina Durand:

Please find attached the Notices of Study Commencement for Peel Wastewater Treatment Solutions, G.E. Booth Wastewater Treatment Plant (WWTP) Schedule C Class EA and Clarkson WWTP Class EA studies. These two (2) Schedule C Class EAs are being undertaken to establish preferred solutions for meeting future wastewater treatment needs in the Peel Wastewater Treatment system and are being undertaken in an integrated manner as the preferred solutions will impact both facilities.

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Effective consultation with the public and stakeholders is key to the success of these studies. The communications and consultation plan for these Class EAs has been developed to ensure that key stakeholders and the public have a voice at each step along the way to help select the right solutions, technologies and designs.

Please let us know if you are interested in being involved in both or either the G.E. Booth and/or Clarkson Schedule C Class EAs, or if you have any concerns regarding the studies.

Sincerely,

**Ms. Cindy Kambeitz**



Project Manager  
Region of Peel  
Phone: 905.980.7800 ext. 5040

**Ms. Laurie Boyce**



Project Manager  
GM BluePlan Engineering  
Phone: 905.643.6688 ext. 6334

**Emails for the Schedule C Class EAs:**

GEBoothEA@peelregion.ca

ClarksonEA@peelregion.ca

**Websites for the Schedule C Class EAs:**

[www.peelregion.ca/GEBooth](http://www.peelregion.ca/GEBooth)

[www.peelregion.ca/Clarkson](http://www.peelregion.ca/Clarkson)



July 16, 2020  
Mississaugas of the Credit First Nation  
2789 Mississauga Road, RR#6  
Hagersville, Ontario, N0A 1H0

**RE: Notices of Study Commencement  
Peel Wastewater Treatment Solutions  
G.E. Booth and Clarkson Schedule C Class Environmental Assessments (EA)**

Dear Councilor Cathie Jamieson:

Please find attached the Notices of Study Commencement for Peel Wastewater Treatment Solutions, G.E. Booth Wastewater Treatment Plant (WWTP) Schedule C Class EA and Clarkson WWTP Class EA studies. These two (2) Schedule C Class EAs are being undertaken to establish preferred solutions for meeting future wastewater treatment needs in the Peel Wastewater Treatment system and are being undertaken in an integrated manner as the preferred solutions will impact both facilities.

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Effective consultation with the public and stakeholders is key to the success of these studies. The communications and consultation plan for these Class EAs has been developed to ensure that key stakeholders and the public have a voice at each step along the way to help select the right solutions, technologies and designs.

Please let us know if you are interested in being involved in both or either the G.E. Booth and/or Clarkson Schedule C Class EAs, or if you have any concerns regarding the studies.

Sincerely,

**Ms. Cindy Kambeitz**



Project Manager  
Region of Peel  
Phone: 905.980.7800 ext. 5040

**Ms. Laurie Boyce**



Project Manager  
GM BluePlan Engineering  
Phone: 905.643.6688 ext. 6334

**Emails for the Schedule C Class EAs:**

GEBoothEA@peelregion.ca

ClarksonEA@peelregion.ca

**Websites for the Schedule C Class EAs:**

[www.peelregion.ca/GEBooth](http://www.peelregion.ca/GEBooth)

[www.peelregion.ca/Clarkson](http://www.peelregion.ca/Clarkson)

July 16, 2020  
Mississaugas of the Credit First Nation  
2789 Mississauga Road, RR#6  
Hagersville, Ontario, N0A 1H0

**RE: Notices of Study Commencement  
Peel Wastewater Treatment Solutions  
G.E. Booth and Clarkson Schedule C Class Environmental Assessments (EA)**

Dear Mr. Mark Laforme:

Please find attached the Notices of Study Commencement for Peel Wastewater Treatment Solutions, G.E. Booth Wastewater Treatment Plant (WWTP) Schedule C Class EA and Clarkson WWTP Class EA studies. These two (2) Schedule C Class EAs are being undertaken to establish preferred solutions for meeting future wastewater treatment needs in the Peel Wastewater Treatment system and are being undertaken in an integrated manner as the preferred solutions will impact both facilities.

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Please let us know if you are interested in being involved in both or either the G.E. Booth and/or Clarkson Schedule C Class EAs, or if you have any concerns regarding the studies.

Sincerely,

**Ms. Cindy Kambeitz**



Project Manager  
Region of Peel  
Phone: 905.980.7800 ext. 5040

**Ms. Laurie Boyce**



Project Manager  
GM BluePlan Engineering  
Phone: 905.643.6688 ext. 6334

**Emails for the Schedule C Class EAs:**

[GEBoothEA@peelregion.ca](mailto:GEBoothEA@peelregion.ca)

[ClarksonEA@peelregion.ca](mailto:ClarksonEA@peelregion.ca)

**Websites for the Schedule C Class EAs:**

[www.peelregion.ca/GEBooth](http://www.peelregion.ca/GEBooth)

[www.peelregion.ca/Clarkson](http://www.peelregion.ca/Clarkson)

July 16, 2020  
Six Nations of the Grand River  
1695 Chiefswood Road., P.O. Box 5000  
Ohsweken, Ontario, N0A 1M0

**RE: Notices of Study Commencement  
Peel Wastewater Treatment Solutions  
G.E. Booth and Clarkson Schedule C Class Environmental Assessments (EA)**

Dear Chief Mark B. Hill:

Please find attached the Notices of Study Commencement for Peel Wastewater Treatment Solutions, G.E. Booth Wastewater Treatment Plant (WWTP) Schedule C Class EA and Clarkson WWTP Class EA studies. These two (2) Schedule C Class EAs are being undertaken to establish preferred solutions for meeting future wastewater treatment needs in the Peel Wastewater Treatment system and are being undertaken in an integrated manner as the preferred solutions will impact both facilities.

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Effective consultation with the public and stakeholders is key to the success of these studies. The communications and consultation plan for these Class EAs has been developed to ensure that key stakeholders and the public have a voice at each step along the way to help select the right solutions, technologies and designs.

Please let us know if you are interested in being involved in both or either the G.E. Booth and/or Clarkson Schedule C Class EAs, or if you have any concerns regarding the studies.

Sincerely,

**Ms. Cindy Kambeitz**



Project Manager  
Region of Peel  
Phone: 905.980.7800 ext. 5040

**Ms. Laurie Boyce**



Project Manager  
GM BluePlan Engineering  
Phone: 905.643.6688 ext. 6334

**Emails for the Schedule C Class EAs:**

[GEBoothEA@peelregion.ca](mailto:GEBoothEA@peelregion.ca)

[ClarksonEA@peelregion.ca](mailto:ClarksonEA@peelregion.ca)

**Websites for the Schedule C Class EAs:**

[www.peelregion.ca/GEBooth](http://www.peelregion.ca/GEBooth)

[www.peelregion.ca/Clarkson](http://www.peelregion.ca/Clarkson)



Schedule C Municipal Class Environmental Assessment

# **G.E. Booth Water Resource Recovery Facility**

## **Indigenous Communications – Mississaugas of the Credit First Nation (MCFN)**

## September 2020

---

**From:** Jasmine Biasi - GM BluePlan <[Jasmine.Biasi@gmblueplan.ca](mailto:Jasmine.Biasi@gmblueplan.ca)>  
**Sent:** Friday, September 18, 2020 3:06 PM  
**To:** [cathiej@mncfn.ca](mailto:cathiej@mncfn.ca); [Mark.laforme@mncfn.ca](mailto:Mark.laforme@mncfn.ca)  
**Cc:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>  
**Subject:** Early Consultation Opportunity - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Good afternoon,

I'm emailing on behalf of the Region of Peel Wastewater Treatment Plant Expansion Environmental Assessment Projects and would like to confirm you received the notice of project commencement sent to you on July 16, 2020.

The Region of Peel and GM BluePlan team would like to invite you and/or additional members of your community to participate in an early consultation opportunity in September to introduce the project and project objectives. We believe this timing will provide an opportunity for you to address how the community would like to be involved in the project and receive answers to any questions and comments you may have at this stage. The first Public Consultation Event is planned for mid-October.

If you are interested in participating, please provide available dates and times and the project team will arrange.

If you have any questions about the studies, or if you suggest contacting an alternative member of your community, please contact the Region Project Manager, Cindy Kambeitz (contact details below).

Cindy Kambeitz  
Project Manager  
Region of Peel  
905-751-7800 ext. 5040  
[clarkson@peelregion.ca](mailto:clarkson@peelregion.ca)  
[gebooth@peelregion.ca](mailto:gebooth@peelregion.ca)

Thank you,

**Jasmine Biasi, B.Eng., E.I.T**  
Infrastructure Planning

**GM BluePlan Engineering Limited**  
Royal Centre | 3300 Highway No. 7, Suite 402 | Vaughan ON L4K 4M3  
t: 416.703.0667 ext. 7225 | c: 416.209.1892  
[jasmine.biasi@gmblueplan.ca](mailto:jasmine.biasi@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



---

**From:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>

**Sent:** Monday, September 21, 2020 2:57 PM

**To:** Jasmine Biasi - GM BluePlan <[Jasmine.Biasi@gmblueplan.ca](mailto:Jasmine.Biasi@gmblueplan.ca)>; Councillor, Cathie Jamieson <[CathieJ@mncfn.ca](mailto:CathieJ@mncfn.ca)>;  
Mark LaForme <[Mark.LaForme@mncfn.ca](mailto:Mark.LaForme@mncfn.ca)>

19

**Cc:** Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>

**Subject:** RE: Early Consultation Opportunity - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Mark: Enjoyed speaking with you. We look forward to your response on the notice of commencement, and will keep you informed of the first virtual Public Information Event to be held mid- August.

Laurie

**Laurie Boyce, B.Sc., M.A.**

Strategic Planning and Project Advisor

**GM BluePlan Engineering Limited**

1266 South Service Rd, Unit C3-1 | Stoney Creek, ON | L8E 5R9  
t: 905.643.6688 ext. 6334 | c: 416.471.0528

[laurie.boyce@gmblueplan.ca](mailto:laurie.boyce@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)





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**From:** Fawn Sault <[Fawn.Sault@mncfn.ca](mailto:Fawn.Sault@mncfn.ca)>  
**Sent:** Wednesday, September 30, 2020 12:25 PM  
**To:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; [cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)  
**Cc:** Mark LaForme <[Mark.LaForme@mncfn.ca](mailto:Mark.LaForme@mncfn.ca)>  
**Subject:** RE: Early Consultation Opportunity - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Good Afternoon Laurie and Cindy,

Thank you for reaching out. We did receive your Notice of Study Commencement. As you may already know one of the ways we require proponents to engage with us is in providing transparency during the environmental survey and archaeological assessment process. The best way to accomplish this is by having Field Liaison Representatives (FLR's) on location while field work is occurring. Can you please tell me if you have completed any archaeological or natural heritage studies or if you are planning to?

I look forward to hearing from you.

Miigwech,

Fawn Sault  
Consultation Coordinator  
Mississaugas of the Credit First Nation  
4065 Hwy. 6, Hagersville, N0A 1H0  
Website: [http://mncfn.ca/](http://mncfn.ca)  
Ph: 905-768-4260  
Cell:289-527-6580

October 2020

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**From:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>  
**Sent:** Thursday, October 1, 2020 2:08 PM  
**To:** Fawn Sault <[Fawn.Sault@mncfn.ca](mailto:Fawn.Sault@mncfn.ca)>; [cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)  
**Cc:** Mark LaForme <[Mark.LaForme@mncfn.ca](mailto:Mark.LaForme@mncfn.ca)>; Jasmine Biasi - GM BluePlan <[Jasmine.Biasi@gmblueplan.ca](mailto:Jasmine.Biasi@gmblueplan.ca)>  
**Subject:** RE: Early Consultation Opportunity - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Fawn:

Further to my long voicemail message, we have completed the following draft assessments, which we will be pleased to share:

- Stage 1 Archaeological Assessment for the Clarkson Wastewater Treatment Plant
- Stage 1 Archeological Assessment for the G.E. Booth Wastewater Treatment Plant,
- Background Marine Archaeological Assessment (Desktop) for the G.E. Booth Wastewater Treatment Plant (in the event that a new outfall may be required for the plant; to be confirmed through the EA process.)

Stage 2 Archaeological Assessments were recommended on parts of the Clarkson And Booth Sites, and Peel Region is planning to proceed with the Stage 2 work, following your input on the Stage 1 findings and in coordination with your Field Liaison Representatives. To take advantage of the spring and summer seasons, we have also undertaken some field work for the Natural Heritage Characterization at both sites.

Please let us know if you would like to receive draft Archaeological Assessments, and your process for coordinating with your Field Liaison Representatives for future field investigations. We look forward to working with you on these Class EAs. Also note that our first Virtual Public Information Event, with display panels and a video walkthrough their content, will be posted on Peel Region's website October 14, 2020 at 5 pm. The purpose of the Event is to describe the purpose and objectives of the Class EAs, and to present relevant background information and preliminary alternatives being considered.

[www.peelregion.ca/Clarkson](http://www.peelregion.ca/Clarkson)  
[www.peelregion.ca/GEBooth](http://www.peelregion.ca/GEBooth)

Miigwech,

Laurie

---

**From:** Fawn Sault  
**Sent:** Monday, October 5, 2020 1:01 PM  
**To:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; [cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)  
**Cc:** Mark LaForme <[Mark.LaForme@mncfn.ca](mailto:Mark.LaForme@mncfn.ca)>; Jasmine Biasi - GM BluePlan <[Jasmine.Biasi@gmblueplan.ca](mailto:Jasmine.Biasi@gmblueplan.ca)>; Megan DeVries <[Megan.DeVries@mncfn.ca](mailto:Megan.DeVries@mncfn.ca)>  
**Subject:** RE: Early Consultation Opportunity - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Good Afternoon Laurie,

Thank you for the update. Yes we require the draft archaeological assessments for our review. Please send them to my colleague Megan DeVries, our Archaeological Operations Supervisor, who I have cc'd in this response. Megan will send you the required documentation for the participation of our FLR's.

Please let me know if there is anything else you require.

Miigwech,

Fawn Sault  
Consultation Coordinator  
Mississaugas of the Credit First Nation  
4065 Hwy. 6, Hagersville, NOA 1H0  
Website: <http://mncfn.ca/>  
Ph: 905-768-4260  
Cell:289-527-6580

---

**From:** Megan DeVries <[Megan.DeVries@mncfn.ca](mailto:Megan.DeVries@mncfn.ca)>  
**Sent:** Tuesday, October 06, 2020 9:52 AM  
**To:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; [cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)  
**Cc:** Mark LaForme <[Mark.LaForme@mncfn.ca](mailto:Mark.LaForme@mncfn.ca)>; Jasmine Biasi - GM BluePlan <[Jasmine.Biasi@gmblueplan.ca](mailto:Jasmine.Biasi@gmblueplan.ca)>; Fawn Sault <[Fawn.Sault@mncfn.ca](mailto:Fawn.Sault@mncfn.ca)>  
**Subject:** FW: Early Consultation Opportunity - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Good morning,

Please find attached a letter from the Mississaugas of the Credit First Nation ("MCFN") regarding the upcoming assessment for Peel Wastewater Treatment Solutions, as identified below.

Please note that this year, in order to continue maintaining DOCA capacity for fulsome project participation, DOCA will be introducing charges for technical review of project information. In the exercise of its stewardship responsibility, DOCA seeks to work together with project proponents and their archaeological consultants to ensure that



archaeological work is done properly and respectfully. DOCA has retained technical advisers with expertise in the field of archaeology. These experts will review the technical aspects and cultural appropriateness of the archaeological assessments and strategies associated with your project. Upon completion of these reviews, MCFN will identify, if necessary, mitigation measures to address any project impacts upon MCFN rights. For cultural materials and human remains, DOCA may advise that this includes ceremonies required by Anishinaabe law, as well as request adjustments to the proposed fieldwork strategy.

The proponent is expected to pay the costs for MCFN to engage in a technical review of the project. DOCA anticipates at this time that all archaeological review will be undertaken by in-house technical experts, but will advise the proponent if an outside peer-review is required. Please find attached the agreement that covers MCFN's inhouse technical review of the archaeological assessments and strategies associated with your project(s). If you could please fill in the additional required information, highlighted in yellow, and return to us a signed copy, that would be greatly appreciated. After we have received it, we can execute the contract on our end and return the completed contract to you. Afterwards, I can arrange scheduling and other related matters directly with the consultant if you prefer.

Sincerely,  
Megan.

**Megan DeVries, M.A.**  
**Archaeological Operations Supervisor**



**Department of Consultation and Accommodation (DOCA)**

**Mississaugas of the Credit First Nation (MCFN)**

4065 Highway 6 North, Hagersville, ON N0A 1H0

P: 905-768-4260 | M: 289-527-2763

<http://www.mncfn.ca>

This email and any files transmitted with it are confidential and intended solely for the use of the individual or entity to whom they are addressed. If you are not the intended recipient you are notified that disclosing, copying, distributing or taking any action in reliance on the contents of this information is strictly prohibited. Please note that any views or opinions presented in this email are solely those of the author and do not necessarily represent those of the Mississaugas of the Credit First Nation.

---

**From:** Jasmine Biasi - GM BluePlan <[Jasmine.Biasi@gmblueplan.ca](mailto:Jasmine.Biasi@gmblueplan.ca)>  
**Sent:** Tuesday, October 20, 2020 5:19 PM  
**To:** Megan DeVries <[Megan.DeVries@mncfn.ca](mailto:Megan.DeVries@mncfn.ca)>  
**Cc:** Mark LaForme <[Mark.LaForme@mncfn.ca](mailto:Mark.LaForme@mncfn.ca)>; Fawn Sault <[Fawn.Sault@mncfn.ca](mailto:Fawn.Sault@mncfn.ca)>; Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; [cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)  
**Subject:** RE: Early Consultation Opportunity - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Dear Ms. DeVries,

Please find attached letter responses re: Archaeological Review and FLR Participation.

The agreements will follow once approved by the Regions Legal team.

Please let me know if you have any questions or comments.

Thank you,

Jasmine Biasi, B.Eng., E.I.T  
Infrastructure Planning

**GM BluePlan Engineering Limited**  
Royal Centre | 3300 Highway No. 7, Suite 402 | Vaughan ON L4K 4M3  
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[jasmine.biasi@gmblueplan.ca](mailto:jasmine.biasi@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



---

**From:** Megan DeVries <[Megan.DeVries@mncfn.ca](mailto:Megan.DeVries@mncfn.ca)>  
**Sent:** October 21, 2020 8:59 AM  
**To:** Jasmine Biasi - GM BluePlan <[Jasmine.Biasi@gmblueplan.ca](mailto:Jasmine.Biasi@gmblueplan.ca)>  
**Cc:** Mark LaForme <[Mark.LaForme@mncfn.ca](mailto:Mark.LaForme@mncfn.ca)>; Fawn Sault <[Fawn.Sault@mncfn.ca](mailto:Fawn.Sault@mncfn.ca)>; Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>  
**Subject:** RE: Early Consultation Opportunity - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

**CAUTION: EXTERNAL MAIL. DO NOT CLICK ON LINKS OR OPEN ATTACHMENTS YOU DO NOT TRUST.**

Good morning,

Thank you kindly for this update. We will await the executed agreements.

Sincerely,  
Megan.

Megan DeVries, M.A.  
Archaeological Operations Supervisor



Department of Consultation and Accommodation (DOCA)  
Mississaugas of the Credit First Nation (MCFN)  
4065 Highway 6 North, Hagersville, ON N0A 1H0  
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15

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**From:** Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>  
**Sent:** Friday, October 30, 2020 10:41 AM  
**To:** Megan DeVries <[Megan.DeVries@mncfn.ca](mailto:Megan.DeVries@mncfn.ca)>; Jasmine Biasi - GM BluePlan <[Jasmine.Biasi@gmblueplan.ca](mailto:Jasmine.Biasi@gmblueplan.ca)>  
**Cc:** Mark LaForme <[Mark.LaForme@mncfn.ca](mailto:Mark.LaForme@mncfn.ca)>; Fawn Sault <[Fawn.Sault@mncfn.ca](mailto:Fawn.Sault@mncfn.ca)>; Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>  
**Subject:** RE: Early Consultation Opportunity - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs



Hi Megan,

Peel's legal team reviewed the agreements and made some minor edits. I went ahead and signed with witness (attached). Please review and contact me if you have any concerns. If all is acceptable, please sign and forward the final executed documents to us.

Just a note – we created two agreements (GE Booth & Clarkson) as the EAs are being completed and filed individually and have separate budgets. Any costs incurred for MCFN participation should be invoiced specific to each project.

Thank you,

Cindy Kambeitz  
Project Manager, Wastewater Capital Treatment  
Region of Peel  
(416)518-1377  
[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)

November 2020

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**From:** Megan DeVries <[Megan.DeVries@mncfn.ca](mailto:Megan.DeVries@mncfn.ca)>  
**Sent:** November 2, 2020 9:58 AM  
**To:** Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>; Jasmine Biasi - GM BluePlan <[Jasmine.Biasi@gmblueplan.ca](mailto:Jasmine.Biasi@gmblueplan.ca)>  
**Cc:** Mark LaForme <[Mark.LaForme@mncfn.ca](mailto:Mark.LaForme@mncfn.ca)>; Fawn Sault <[Fawn.Sault@mncfn.ca](mailto:Fawn.Sault@mncfn.ca)>; Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>  
**Subject:** RE: Early Consultation Opportunity - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

**CAUTION: EXTERNAL MAIL. DO NOT CLICK ON LINKS OR OPEN ATTACHMENTS YOU DO NOT TRUST.**

Hi Cindy,

Please find the executed FLR participation agreements attached. Can you advise on the status of the signing of the review agreements?

Sincerely,  
Megan.

**Megan DeVries, M.A.**  
Archaeological Operations Supervisor



**Department of Consultation and Accommodation (DOCA)**  
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---

**From:** Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>  
**Sent:** Tuesday, November 03, 2020 2:59 PM  
**To:** Megan DeVries <[Megan.DeVries@mncfn.ca](mailto:Megan.DeVries@mncfn.ca)>; Jasmine Biasi - GM BluePlan <[Jasmine.Biasi@gmblueplan.ca](mailto:Jasmine.Biasi@gmblueplan.ca)>  
**Cc:** Mark LaForme <[Mark.LaForme@mncfn.ca](mailto:Mark.LaForme@mncfn.ca)>; Fawn Sault <[Fawn.Sault@mncfn.ca](mailto:Fawn.Sault@mncfn.ca)>; Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>  
**Subject:** RE: Early Consultation Opportunity - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Hi Megan,

The signed review agreements are attached. Please note 1 addition – the Region requests an MCFN review period of 3 weeks (Section 2). Once again, if this is acceptable, please sign and forward the final executed documents to us.

Thank you,

Cindy Kambeitz  
Project Manager, Wastewater Capital Treatment  
Region of Peel  
(416)518-1377

---

**From:** Jasmine Biasi - GM BluePlan <[Jasmine.Biasi@gmblueplan.ca](mailto:Jasmine.Biasi@gmblueplan.ca)>  
**Sent:** Tuesday, November 3, 2020 3:29 PM

**To:** Megan DeVries <[Megan.DeVries@mncfn.ca](mailto:Megan.DeVries@mncfn.ca)>  
**Cc:** Mark LaForme <[Mark.LaForme@mncfn.ca](mailto:Mark.LaForme@mncfn.ca)>; Fawn Sault <[Fawn.Sault@mncfn.ca](mailto:Fawn.Sault@mncfn.ca)>; Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>  
**Subject:** RE: Early Consultation Opportunity - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Hi Megan,

Please find attached the following items for your review:

- A letter response RE: MCFN review of Draft Archaeological Assessments for the G.E. Booth and Clarkson Wastewater Treatment Plants
- Draft Stage 1 Archaeological Assessment for the Clarkson WWTP and G.E. Booth WWTP sites (Archeoworks Inc, July 2020)
- Draft Background Research Marine Archaeological Assessment for the G.E. Booth WWTP proposed new outfall (Scarlett Janusas Archaeology Inc, July 2020)
- Indigenous Community Engagement Plan

Please let me know if you have any questions or comments.

Thank you,

Jasmine Biasi, B.Eng., E.I.T  
Infrastructure Planning

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## January 2021

---

**From:** Adrian Blake <[Adrian.Blake@mncfn.ca](mailto:Adrian.Blake@mncfn.ca)>  
**Sent:** Friday, January 08, 2021 10:43 AM  
**To:** Jasmine Biasi - GM BluePlan <[Jasmine.Biasi@gmblueplan.ca](mailto:Jasmine.Biasi@gmblueplan.ca)>  
**Cc:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>; Megan DeVries <[Megan.DeVries@mncfn.ca](mailto:Megan.DeVries@mncfn.ca)>; Peter Epler <[Peter.Epler@mncfn.ca](mailto:Peter.Epler@mncfn.ca)>  
**Subject:** RE: Early Consultation Opportunity - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Good morning,

MCFN has completed its reviews of the three archaeological assessments you provided us as part of your Schedule C Class EA for the Booth and Clarkson WWTPs.

Regarding the Marine AA report by Scarlett Janusas Archaeology Inc, July 2020- MCFN at this time currently has no concerns with the contents or the recommendations made within it.

Regarding the Stage 1 AA for the G.E. Booth WWTP - MCFN at this time currently has no concerns with the contents or the recommendations made within it.

Regarding the Stage 1 AA for the Clarkson WWTP – There is a portion of this property in the south corner, the area near the intersection of Lakeshore and Avonhead Rds. This area is currently grassed and undeveloped. In the report this area is not recommended by the consultant archaeologist for Stage 2 survey. MCFN feels that based on the historical and contemporary photographs provided in the report that there is not enough evidence to show landscaping in this area did involve grading below topsoil. As an accommodation we would like to see this area tested by the consultant archaeologist at judgemental intervals to confirm the extent of the disturbance in the area and if there is any evidence of intact topsoil.

Let me know if you have any questions from me or require further clarification.

Kind regards,  
**Adrian Blake, M.S.**  
Field Archaeologist



**Department of Consultation and Accommodation (DOCA)**

**Mississaugas of the Credit First Nation (MCFN)**

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**From:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>  
**Sent:** Wednesday, January 27, 2021 8:30 AM  
**To:** Adrian Blake <[Adrian.Blake@mncfn.ca](mailto:Adrian.Blake@mncfn.ca)>; Jasmine Biasi - GM BluePlan <[Jasmine.Biasi@gmblueplan.ca](mailto:Jasmine.Biasi@gmblueplan.ca)>  
**Cc:** Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>; Megan DeVries <[Megan.DeVries@mncfn.ca](mailto:Megan.DeVries@mncfn.ca)>; Peter Epler <[Peter.Epler@mncfn.ca](mailto:Peter.Epler@mncfn.ca)>; Dania Chehab - GM BluePlan <[Dania.Chehab@gmblueplan.ca](mailto:Dania.Chehab@gmblueplan.ca)>; [kslocki@archeoworks.com](mailto:kslocki@archeoworks.com)  
**Subject:** Early Consultation Opportunity - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs: Response

Adrian:

Thanks again for your review of the Stage 1 Archaeological Assessments (AA) for the G.E. Booth and Clarkson Wastewater Treatment Plants (WWTPs), completed as part of the ongoing Schedule C Class Environmental Assessments (EAs) for the Plants. With respect to your team's comments on the Stage 1 AA for the Clarkson WWTP, we have asked our archaeologist to relook at the grassed area on the southwestern portion of the site near the intersection of Lakeshore and Avonhead Rds. Additional review of the photos and aerials specific to this area (attached) suggest that the undeveloped, grassed area at the southwest corner of the Clarkson WWTP property was previously disturbed. This conclusion is based on:

- the aerials (e.g., 1968 and 1973)
- the site plan (showing presence of berms and utility/servicing lines through the grassed area), and
- on site observations of the area (soil had been moved around; artificial berms; graded/landscaped topography; presence of utility markers).

That being said, Peel Region has no objections to subject this area to Stage 2 survey, to be certain of finding. Please confirm the extent of the area MCFN would like tested, so we could mark it accordingly in our figures.

Regarding timelines, the earliest we expect to undertake the Stage 2 AA would be mid-May.

We look forward to hearing from you.

Laurie

**Laurie Boyce, B.Sc., M.A.**  
Strategic Planning and Project Advisor

**GM BluePlan Engineering Limited**  
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---

**From:** Adrian Blake <[Adrian.Blake@mncfn.ca](mailto:Adrian.Blake@mncfn.ca)>  
**Sent:** Wednesday, January 27, 2021 2:17 PM  
**To:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; Jasmine Biasi - GM BluePlan <[Jasmine.Biasi@gmblueplan.ca](mailto:Jasmine.Biasi@gmblueplan.ca)>  
**Cc:** Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>; Megan DeVries <[Megan.DeVries@mncfn.ca](mailto:Megan.DeVries@mncfn.ca)>; Peter Epler <[Peter.Epler@mncfn.ca](mailto:Peter.Epler@mncfn.ca)>; Dania Chehab - GM BluePlan <[Dania.Chehab@gmblueplan.ca](mailto:Dania.Chehab@gmblueplan.ca)>; [kslocki@archeoworks.com](mailto:kslocki@archeoworks.com)  
**Subject:** RE: Early Consultation Opportunity - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs: Response

Good afternoon Laurie,

Thank you for your response and the continued engagement of the Peel Region.

The document you attached helped me better understand what was being communicated in the original report, and the extent of the landscaping that has taken place. I want to make clear that this is not a contention of the consultants judgement that this area is disturbed.

What I am asking for is the use of the *Standards and Guidelines for Consultant Archaeologists* Section 2.1.8 – Property survey to confirm previous disturbance. In particular, the use of Standard 2 of this section:

“Place Stage 2 test pits throughout the disturbed areas according to the professional judgment (and where physically viable) so as to confirm that these areas have been completely disturbed.” (p.38).

While this is most often done when previously undocumented disturbances are found during Stage 2, testing this area at judgmental intervals and including documentary proof in the report that this particular area has been completely disturbed will make us at MCFN-DOCA much more confident that nothing of value to us was lost.

I do not have the same base mapping as you do, but I have attached two crude maps showing the approximate area I would like to see this done in. I can also provide a written description: The corner area where Avonhead and Lakeshore meet, go east until you reach the pumping station and north until you reach where the large berms begin. The area is roughly the corner wood lot and the manicured lawns within the berms and the pumping house.

Let me know if you have any further questions or want better clarification of the area we would like tested.

Kind regards,  
Adrian Blake, M.S.  
Field Archaeologist





April 2021

---

**From:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>  
**Sent:** Tuesday, April 13, 2021 8:40 AM  
**To:** Adrian Blake <[Adrian.Blake@mncfn.ca](mailto:Adrian.Blake@mncfn.ca)>; Jasmine Biasi - GM BluePlan <[Jasmine.Biasi@gmblueplan.ca](mailto:Jasmine.Biasi@gmblueplan.ca)>  
**Cc:** Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>; Megan DeVries <[Megan.DeVries@mncfn.ca](mailto:Megan.DeVries@mncfn.ca)>; Peter Epler <[Peter.Epler@mncfn.ca](mailto:Peter.Epler@mncfn.ca)>; Dania Chehab - GM BluePlan <[Dania.Chehab@gmblueplan.ca](mailto:Dania.Chehab@gmblueplan.ca)>; [kslocki@archeoworks.com](mailto:kslocki@archeoworks.com)  
**Subject:** RE: Early Consultation Opportunity - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs: Response  
**Importance:** High

Hi Adrian:

On behalf of the Region of Peel, the Stage 1 Archaeological Assessment (AA) for the Clarkson WWTP and G.E. Booth WWTP (Archeoworks Inc., March 2021) has been update to reflect your comments (see attached report). Specifically, the, grassed area on the southwestern portion of the Clarkson WWTP site near the intersection of Lakeshore and Avonhead Roads has been identified as an additional area with potential for archaeological resources. This updated Stage 1 AA has now been submitted to the Ministry of Heritage, Sports, Tourism and Culture Industries (MHSTCI).

The Region plans to complete the Stage 2 AAs in the locations identified in the Stage 1 AA in June/July 2021, depending on weather conditions, COVID-19 restrictions, and MCFN's Field Liaison Representatives (FLRs) availability. We will work with your team to determine the most appropriate date for the Stage 2 AAs. We will not commence any Stage 2 field work until we have coordinated with your team.

Thanks for your input, and we look forward to continuing to work with you on these important Class EA studies. If there are further questions or comments please do not hesitate to call or email me.

Laurie

**Laurie Boyce, B.Sc., M.A.**  
Strategic Planning and Project Advisor

**GM BluePlan Engineering Limited**  
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---

**From:** Megan DeVries <[Megan.DeVries@mncfn.ca](mailto:Megan.DeVries@mncfn.ca)>  
**Sent:** April 13, 2021 9:14 AM  
**To:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; Adrian Blake <[Adrian.Blake@mncfn.ca](mailto:Adrian.Blake@mncfn.ca)>; Jasmine Biasi - GM BluePlan <[Jasmine.Biasi@gmblueplan.ca](mailto:Jasmine.Biasi@gmblueplan.ca)>  
**Cc:** Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>; Peter Epler <[Peter.Epler@mncfn.ca](mailto:Peter.Epler@mncfn.ca)>; Dania Chehab - GM BluePlan <[Dania.Chehab@gmblueplan.ca](mailto:Dania.Chehab@gmblueplan.ca)>; [kslocki@archeoworks.com](mailto:kslocki@archeoworks.com)  
**Subject:** RE: Early Consultation Opportunity - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs: Response

Hello Laurie,

Our executed agreement for FLR participation in these fieldwork activities was limited to the **2020** archaeological assessments and therefore a new agreement is required to facilitate our participation in the coming field season.

Therefore, please find attached the 2021 contract which will cover MCFN's participation in the upcoming fieldwork. This contract covers both environmental and archaeological fieldwork. The costs associated with this involvement reflect a number of expenses not visible at first glance: payment for the Field Liaison Representatives themselves, operational costs for the department, and efforts to engage the community to garner feedback on these projects. If you could please fill in the additional required information, highlighted in yellow, and return to us a signed copy, that would be greatly appreciated. After we have received it, we can execute the contract on our end and return the completed contract to you. Afterwards, I can arrange scheduling and other related matters directly with the consultant if you prefer.

Please note that, in order to continue maintaining DOCA capacity for fulsome project participation, DOCA charges for technical review of project information. In the exercise of its stewardship responsibility, DOCA seeks to work together with project proponents and their archaeological consultants to ensure that archaeological work is done properly and respectfully. DOCA has retained technical advisers with expertise in the field of archaeology. These experts will review the technical aspects and cultural appropriateness of the archaeological assessments and strategies associated with your project. The proponent is expected to pay the costs for MCFN to engage in a technical review of the project. DOCA anticipates at this time that all archaeological review will be undertaken by in-house technical experts, but will advise the proponent if an outside peer-review is required. Please find attached the agreement that covers MCFN's inhouse technical review of the archaeological assessments and strategies associated with your project(s).

Please let me know if you have any questions or concerns.

Sincerely,  
Megan.

**Megan DeVries, M.A. (she/her)**  
**Archaeological Operations Supervisor**



**Department of Consultation and Accommodation (DOCA)**  
**Mississauga of the Credit First Nation (MCFN)**  
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---

**From:** Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>  
**Sent:** Thursday, April 15, 2021 10:43 AM  
**To:** Megan DeVries <[Megan.DeVries@mncfn.ca](mailto:Megan.DeVries@mncfn.ca)>; Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; Adrian Blake <[Adrian.Blake@mncfn.ca](mailto:Adrian.Blake@mncfn.ca)>; Jasmine Biasi - GM BluePlan <[Jasmine.Biasi@gmblueplan.ca](mailto:Jasmine.Biasi@gmblueplan.ca)>  
**Cc:** Peter Epler <[Peter.Epler@mncfn.ca](mailto:Peter.Epler@mncfn.ca)>; Dania Chehab - GM BluePlan <[Dania.Chehab@gmblueplan.ca](mailto:Dania.Chehab@gmblueplan.ca)>; [kslocki@archeoworks.com](mailto:kslocki@archeoworks.com)  
**Subject:** RE: Early Consultation Opportunity - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs: Response

Hi Megan,

Attached are updated agreements for 2021 and signed by Peel Region.

**Cindy Kambeitz**, PMP, PMI-RMP  
Project Manager, Wastewater Treatment Capital  
Region of Peel  
(416)518-1377  
[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)

---

**From:** Megan DeVries <[Megan.DeVries@mncfn.ca](mailto:Megan.DeVries@mncfn.ca)>  
**Sent:** Thursday, April 15, 2021 12:47 PM  
**To:** Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>; Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; Adrian Blake <[Adrian.Blake@mncfn.ca](mailto:Adrian.Blake@mncfn.ca)>; Jasmine Biasi - GM BluePlan <[Jasmine.Biasi@gmblueplan.ca](mailto:Jasmine.Biasi@gmblueplan.ca)>  
**Cc:** Peter Epler <[Peter.Epler@mncfn.ca](mailto:Peter.Epler@mncfn.ca)>; Dania Chehab - GM BluePlan <[Dania.Chehab@gmblueplan.ca](mailto:Dania.Chehab@gmblueplan.ca)>; [kslocki@archeoworks.com](mailto:kslocki@archeoworks.com)  
**Subject:** RE: Early Consultation Opportunity - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs: Response

Hello Cindy,

Please find attached the fully executed agreements for your records. Please note the DOCA Project Number for these files are 2020-0621 for GE Booth and 2020-0622 for Clarkson.

Regards,  
Megan.

**Megan DeVries, M.A. (she/her)**  
Archaeological Operations Supervisor



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September 2021

**From:** Dania Chehab - GM BluePlan  
**Sent:** Tuesday, September 28, 2021 10:21 AM  
**To:** 'Megan DeVries'  
**Cc:** Peter Epler; Adrian Blake; kslocki@archeoworks.com; Kambeitz, Cindy; Laurie Boyce - GM BluePlan; Jasmine Biasi - GM BluePlan  
**Subject:** Project Update - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs  
**Attachments:** 2021-09-27-Update Letter to MCFN.pdf

Good morning Megan,

We are writing to provide you with an update for the G.E. Booth WWTP and Clarkson WWTP Class EAs, per the attached letter.

Please let us know if you have any questions or would like to discuss. We are happy to coordinate a call or meeting, at your discretion.

Thanks,  
Dania

Dania Chehab, M.Eng., P.Eng.  
Infrastructure Planning

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September 27, 2021

Ms. Megan DeVries  
Department of Consultation and Accommodation (DOCA)  
Mississaugas of the Credit First Nation (MCFN)  
4065 Highway 6 North  
Hagersville, ON N0A 1H0

**RE: Project Update – Archaeological Assessments for the Two (2) Peel Wastewater Treatment Solutions Class Environmental Assessments (EA) – Clarkson Wastewater Treatment Plant (WWTP) Schedule C Class EA and the G.E. Booth WWTP Plant Schedule C Class EA**

Dear Ms. DeVries:

We are writing to provide you with an update on the Region of Peel's Class EAs for the Clarkson and G.E. Booth WWTPs.

Since our previous letter in April 2021, we have completed Phase 2 of the Class EA Process and identified the preferred solution for each facility. Specifically, the G.E. Booth WWTP will be expanded from 500 megalitres per day (MLD) to 550 MLD and Clarkson WWTP from 350 MLD to 500 MLD. Both expansion projects will remain within the existing property limits for each respective site.

Through our Phase 2 activities, we also established the proposed spatial requirements for each plant's expansion, taking into consideration known information about the sites, such as natural environment and archaeological conditions, to avoid disruption where possible. The site layouts for both the G.E. Booth and Clarkson WWTPs are illustrated in Figures 1 and 2, below, and include areas that may be disrupted by permanent construction as well as temporary construction staging. The layouts also show areas that were identified to require Stage 2 Archaeological Assessments (AA). As shown, the proposed works are not planned to impact areas with archaeological potential and will be limited to spaces that have been previously disturbed or previously assessed and not requiring further study.







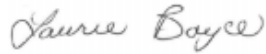
Based on the above construction and staging boundaries, all construction activities will take place outside of areas identified to retain archaeological potential. Therefore, we have concluded archaeological study for both the G.E. Booth and Clarkson WWTPs at the Stage 1 AA level, and no further assessment will be conducted for these Class EAs.

The Region of Peel is committed to avoiding impacts to areas that retain archaeological potential through reasonable means, such as installing temporary fencing during construction of components resulting from these Class EAs. The Region also affirms that, in the future, any additional works required at the plants will follow protocols set in place by the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI), including completing further archaeological study, as required.

As always, the Region will keep MCFN informed and involved in all future archaeological assessments. We appreciate your involvement in this project and welcome you to continue to coordinate with Laurie Boyce, GM BluePlan Project Manager, for any further comments or questions.

Sincerely,

Laurie Boyce



Consultant Project Manager  
GM BluePlan  
laurie.boyce@gmblueplan.ca  
Cell: 416-471-0528

Cindy Kambeitz



Proponent Project Manager  
Region of Peel  
cindy.kambeitz@peelregion.ca  
905-791-7800 ext. 5040

cc: Adrian Blake, M.S., Field Archaeologist, MCFN

October 2021

---

**From:** Dania Chehab - GM BluePlan  
**Sent:** Friday, October 15, 2021 10:53 AM  
**To:** Megan DeVries <[Megan.DeVries@mncfn.ca](mailto:Megan.DeVries@mncfn.ca)>  
**Cc:** Peter Epler <[Peter.Epler@mncfn.ca](mailto:Peter.Epler@mncfn.ca)>; Adrian Blake <[Adrian.Blake@mncfn.ca](mailto:Adrian.Blake@mncfn.ca)>; [kslocki@archeoworks.com](mailto:kslocki@archeoworks.com); Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>; Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; Jasmine Biasi - GM BluePlan <[Jasmine.Biasi@gmblueplan.ca](mailto:Jasmine.Biasi@gmblueplan.ca)>  
**Subject:** RE: Project Update - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Hi Megan,

Thanks for the call this morning. As discussed and noted in our letter, we have completed the archaeological investigations for the above projects (DOCA number 2021-0621 and 2021-0622 for GE Booth and Clarkson, respectively) and will not be proceeding with any further assessment for these Class EAs.

I understand that our letter below has been received and filed by MCFN and you do not require anything further for these Class EAs.

Thanks again,

Dania

Dania Chehab, M.Eng., P.Eng.  
Infrastructure Planning

GM BluePlan Engineering Limited  
Royal Centre | 3300 Highway No. 7, Suite 402 | Vaughan ON L4K 4M3  
t: 416.703.0667 ext. 7243 c: 416.576.0366  
[дания.chehab@gmblueplan.ca](mailto:дания.chehab@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)





March 2022

---

**From:** Dania Chehab - GM BluePlan <[Dania.Chehab@gmblueplan.ca](mailto:Dania.Chehab@gmblueplan.ca)>  
**Sent:** March 10, 2022 10:54 AM  
**To:** Adam LaForme <[Adam.LaForme@mncfn.ca](mailto:Adam.LaForme@mncfn.ca)>  
**Cc:** Peter Epler <[Peter.Epler@mncfn.ca](mailto:Peter.Epler@mncfn.ca)>; Adrian Blake <[Adrian.Blake@mncfn.ca](mailto:Adrian.Blake@mncfn.ca)>; [kslocki@archeoworks.com](mailto:kslocki@archeoworks.com); Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>; Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; MCFN.Consultation <[MCFN.Consultation@mncfn.ca](mailto:MCFN.Consultation@mncfn.ca)>; DOCA Admin <[DOCA.Admin@mncfn.ca](mailto:DOCA.Admin@mncfn.ca)>; Benjamin Peachman - GM BluePlan <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>  
**Subject:** RE: Project Update - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Good morning Adam,

We had previously been in touch with Megan DeVries for the G.E. Booth WWTP and Clarkson WWTP Class EAs, per the email thread below. I am writing to provide MCFN with an update to the Clarkson WWTP archeological assessment, specifically.

For the Clarkson WWTP, a few specific pockets of the property were identified as retaining archeological potential and requiring Stage 2 assessment (map enclosed for convenience). As of the date of our last correspondence with MCFN, we had anticipated that the proposed site layout associated with the recommended design concept for Clarkson would avoid nearing areas that retained archeological potential (areas shaded in red in the enclosed map).

As our project team further developed the design concept, we recently identified that we MAY encroach on the area at the top-left corner of the property (marked in redline "cloud" on map). While we have not yet confirmed whether the site layout will impact this location, we intend to proactively conduct a Stage 2 Archaeological Assessment for this corner of the property. We understand that MCFN would like to have FLRs attend and we would like to coordinate any field activities with your team. The Stage 2 assessment is tentatively scheduled for the end of May 2022, specific date to be confirmed depending on weather conditions etc.

Please let us know your next steps and if you require any documentation/forms to be completed.

Thank you,  
Dania

Dania Chehab, M.Eng., P.Eng., ENV SP  
Infrastructure Planning

GM BluePlan Engineering Limited  
Royal Centre | 3300 Highway No. 7, Suite 402 | Vaughan ON L4K 4M3  
t: 416.703.0667 ext. 7243 c: 416.576.0366  
[danial.chehab@gmblueplan.ca](mailto:danial.chehab@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



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**From:** Adam LaForme <[Adam.LaForme@mncfn.ca](mailto:Adam.LaForme@mncfn.ca)>  
**Sent:** Friday, March 11, 2022 9:08 AM  
**To:** Dania Chehab - GM BluePlan <[Dania.Chehab@gmblueplan.ca](mailto:Dania.Chehab@gmblueplan.ca)>  
**Cc:** Adrian Blake <[Adrian.Blake@mncfn.ca](mailto:Adrian.Blake@mncfn.ca)>; [kslocki@archeoworks.com](mailto:kslocki@archeoworks.com); Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>; Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; MCFN.Consultation <[MCFN.Consultation@mncfn.ca](mailto:MCFN.Consultation@mncfn.ca)>; DOCA Admin <[DOCA.Admin@mncfn.ca](mailto:DOCA.Admin@mncfn.ca)>; Benjamin Peachman - GM BluePlan <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>  
**Subject:** RE: Project Update - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Good Morning Dania,

Thank you for reaching out and providing us with additional information regarding this project.

MCFN would like to participate in the stage 2 assessment. I have attached our Participation agreement and the Review agreement., they have been updated for the 2022 field season. If you have any question regarding either agreement or if you have any other questions, please feel free to contact me.

Thank you,

Adam LaForme (he/him)  
Archaeological Operations Supervisor



Mississaugas of the Credit First Nation (MCFN)  
Department of Consultation and Accommodation (DOCA)  
4065 Highway 6 North, Hagersville, ON N0A 1H0  
Cell 289-527-2763

April 2022

---

**From:** Benjamin Peachman - GM BluePlan <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>  
**Sent:** April 8, 2022 4:13 PM  
**To:** Adam LaForme <[Adam.LaForme@mncfn.ca](mailto:Adam.LaForme@mncfn.ca)>; [kslocki@archeoworks.com](mailto:kslocki@archeoworks.com)  
**Cc:** Adrian Blake <[Adrian.Blake@mncfn.ca](mailto:Adrian.Blake@mncfn.ca)>; Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>; Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; MCFN.Consultation <[MCFN.Consultation@mncfn.ca](mailto:MCFN.Consultation@mncfn.ca)>; DOCA Admin <[DOCA.Admin@mncfn.ca](mailto:DOCA.Admin@mncfn.ca)>  
**Subject:** RE: Project Update - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Hi Adam,

As requested in your email below, please find attached the signed agreements pertaining to MCFN's involvement in the Stage 2 Archeological Assessment at the Clarkson Wastewater Treatment Plant site in Mississauga. Once you've had a chance to review, can you return the fully executed agreements for Peel's records. A contact from Archeoworks will reach out to your team to coordinate timing of the site visit.

Moving forward, please direct all correspondence related to this project to myself (not Dania).

Thank you and looking forward to working with you,

Benjamin Peachman, P. Eng.  
Infrastructure Planning

**GM BluePlan Engineering Limited**  
Royal Centre | 3300 Highway No. 7, Suite 402 | Vaughan ON L4K 4M3  
t: 416.703.0667 ext. 7216 | c: 437.328.5016  
[benjamin.peachman@gmblueplan.ca](mailto:benjamin.peachman@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)





---

**From:** Adam LaForme <[Adam.LaForme@mncfn.ca](mailto:Adam.LaForme@mncfn.ca)>  
**Sent:** Tuesday, April 12, 2022 10:00 AM  
**To:** Benjamin Peachman - GM BluePlan <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>; [kslocki@archeoworks.com](mailto:kslocki@archeoworks.com); Field Coordinator <[field.coordinator@mncfn.ca](mailto:field.coordinator@mncfn.ca)>  
**Cc:** Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>; Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; DOCA Admin <[DOCA.Admin@mncfn.ca](mailto:DOCA.Admin@mncfn.ca)>  
**Subject:** RE: Project Update - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Good morning Benjamin,

I have attached the fully signed agreements for your records. Please contact our [@Field Coordinator](#) Mariah Sault to schedule FLRs.

Thank you,

Adam LaForme (he/him)  
Archaeological Operations Supervisor



Mississaugas of the Credit First Nation (MCFN)  
Department of Consultation and Accommodation (DOCA)  
4065 Highway 6 North, Hagersville, ON NOA 1H0  
Cell 289-527-2763

## May 2022

---

**From:** [kslocki@archeoworks.com](mailto:kslocki@archeoworks.com) <[kslocki@archeoworks.com](mailto:kslocki@archeoworks.com)>  
**Sent:** Wednesday, May 11, 2022 1:29 PM  
**To:** Adam LaForme <[Adam.LaForme@mncfn.ca](mailto:Adam.LaForme@mncfn.ca)>; 'Benjamin Peachman - GM BluePlan' <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>; Field Coordinator <[field.coordinator@mncfn.ca](mailto:field.coordinator@mncfn.ca)>  
**Cc:** 'Kambeitz, Cindy' <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>; 'Laurie Boyce - GM BluePlan' <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; DOCA Admin <[DOCA.Admin@mncfn.ca](mailto:DOCA.Admin@mncfn.ca)>  
**Subject:** RE: Project Update - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Hi Mariah - We are looking to undertake the Stage 2AA for this project either the week of May 23<sup>rd</sup> or May 30<sup>th</sup>. Please kindly advise as to FLR availability and we will schedule accordingly.

Thanks!  
Kim

---

**From:** Field Coordinator <[field.coordinator@mncfn.ca](mailto:field.coordinator@mncfn.ca)>  
**Sent:** Wednesday, May 11, 2022 1:39 PM  
**To:** [kslocki@archeoworks.com](mailto:kslocki@archeoworks.com); Adam LaForme <[Adam.LaForme@mncfn.ca](mailto:Adam.LaForme@mncfn.ca)>; 'Benjamin Peachman - GM BluePlan' <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>  
**Cc:** 'Kambeitz, Cindy' <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>; 'Laurie Boyce - GM BluePlan' <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>;

DOCA Admin <[DOCA.Admin@mncfn.ca](mailto:DOCA.Admin@mncfn.ca)>  
**Subject:** RE: Project Update - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Good afternoon Kim,

Thank you for the email.

I'll be able to let you know closer to the dates mentioned, we generally follow up with deployment emails the afternoon before fieldwork commences.

If you have any questions/concerns please don't hesitate to reach out to me.

I hope you have a safe and wonderful rest of your day.

Chii miigwech,

**Mariah Sault (she/her)**  
Field Coordinator



**Mississaugas of the Credit First Nation (MCFN)**  
**Department of Consultation and Accommodation (DOCA)**  
4065 Highway 6 North, Hagersville, ON N0A 1H0  
**Web:** [www.mncfn.ca](http://www.mncfn.ca)  
**Facebook:** Mississaugas of the Credit First Nation  
**Cell:** 905-870-2918

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## Samantha Morrisey - GM BluePlan

---

**From:** kaldridge@archeoworks.com  
**Sent:** Monday, May 30, 2022 11:20 AM  
**To:** 'Adam LaForme'; Benjamin Peachman - GM BluePlan; 'Field Coordinator'  
**Cc:** Kim Slocki; 'Ian Boyce'; dhutsulakalonso@archeoworks.com; 'Cindy'; Laurie Boyce - GM BluePlan; 'DOCA Admin'  
**Subject:** RE: Project Update - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs  
**Attachments:** clarkson parking .pdf

Good morning Mariah,

Please find below the requested information regarding the Clarkson WWTP 2AA. Should you require any further information please do not hesitate to reach out.

Sincerely,

Kassandra

Start Date: May 31<sup>st</sup>, 2022

Duration: half a day

Start Time: 8am

Consultant Company: Archeoworks Inc.

Field Director(s): Diana Hutsulak-Alonso

Cell Phone(s): 647-896-2945

Assessment: Stage 2AA test pitting

Borden Number (if applicable): n/a

Required PPE: HI VIS, hard hats, steel toe boots, gloves

Meeting Location Address: 375 Avonhead Road, Mississauga. Please park at the gated entrance, once everyone has arrived security will let everyone in.

Size of Field Crew: 3

A map outlining the site and parking area: Please find attached

Kassandra Aldridge, MSc., HBSc.



**archeoworks inc.**

16715-12 Yonge St., Suite 1029, Newmarket, ON, L3X 1X4

T: 647-239-8346 | F: 647-436-1938

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October 2022

---

**From:** kslocki@archeoworks.com <kslocki@archeoworks.com>

**Sent:** October 20, 2022 10:08 PM

**To:** Adam LaForme <Adam.LaForme@mncfn.ca>; Adrian Blake <Adrian.Blake@mncfn.ca>; Marie-Annick Prevost <Marie-Annick.Prevost@mncfn.ca>

**Cc:** 'Benjamin Peachman - GM BluePlan' <Benjamin.Peachman@gmblueplan.ca>; 'Laurie Boyce - GM BluePlan' <Laurie.Boyce@gmblueplan.ca>

**Subject:** RE: Project Update - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Good evening,

Please find attached our Stage 2AA report tied to the proposed expansion of the South Peel Wastewater Treatment Plant, in the City of Mississauga, Region of Peel. We welcome any comments that you may have.

Further, if I can provide any additional information or answer any questions about the results of the Stage 2AA, please do not hesitate to contact myself directly at any time.

Kind regards,  
Kim

Kim Slocki, M.Litt., B.A.H.



**archeoworks inc.**

16715-12 Yonge St., Suite 1029, Newmarket, ON, L3X 1X4  
T: 416-676-5597 | F: 647-436-1938

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## Samantha Morrisey - GM BluePlan

---

**From:** Marie-Annick Prevost <Marie-Annick.Prevost@mncfn.ca>  
**Sent:** Monday, October 24, 2022 10:23 AM  
**To:** kslocki@archeoworks.com  
**Cc:** Benjamin Peachman - GM BluePlan; Laurie Boyce - GM BluePlan; Adam LaForme  
**Subject:** RE: Project Update - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Aanii Kim,

On behalf of the Mississaugas of the Credit First Nation, Department of Consultation and Accommodation, I reviewed the Stage 2 Archaeological Assessment report prepared by Archeoworks for the South Peel Wastewater Plant EA.

I do not have questions or comments about the archaeological work conducted or the content of the report.

We look forward to collaborating with you on future projects.

Miigwech,

Marie-Annick Prevost, Ph.D. (she/her)  
Field archaeologist



Mississaugas of the Credit First Nation (MCFN)  
Department of Consultation and Accommodation (DOCA)  
4065 Highway 6 North, Hagersville, ON N0A 1H0  
Cell: 905-870-5844

**From:** Adam LaForme <Adam.LaForme@mncfn.ca>  
**Sent:** Friday, October 21, 2022 9:27 AM  
**To:** kslocki@archeoworks.com; Adrian Blake; Marie-Annick Prevost  
**Cc:** Benjamin Peachman - GM BluePlan; Laurie Boyce - GM BluePlan  
**Subject:** RE: Project Update - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Good morning Kim,

Thank you for sharing the stage 2 AA report for the South Peel Wastewater Treatment Plant project.

One of DOCA's Field Archaeologist will review and respond with comment within a weeks time.

Kind Regards,

Adam LaForme (he/him)  
Archaeological Operations Supervisor



Mississaugas of the Credit First Nation (MCFN)  
Department of Consultation and Accommodation (DOCA)  
4065 Highway 6 North, Hagersville, ON N0A 1H0  
Cell 289-527-2763



## Benjamin Peachman - GM BluePlan

---

**From:** Adrian Blake <Adrian.Blake@mncfn.ca>  
**Sent:** Friday, July 07, 2023 3:52 PM  
**To:** kslocki@archeoworks.com  
**Cc:** Benjamin Peachman - GM BluePlan; Laurie Boyce - GM BluePlan  
**Subject:** RE: Project Update - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Good afternoon Kim,

I have now finished reviewing the following report:

Stage 1 Archaeological Assessment for  
Proposed Administrative Facility Building within the  
G.E. Booth Wastewater Treatment Plant at  
1300 Lakeshore Road East  
(P439-0155-2022)

I have no additional comments, questions, or concerns for you regarding this assessment before your final submission to MCM.

Have a good weekend,  
**Adrian Blake, MSc. (he/him)**  
**Field Archaeologist**



**Department of Consultation and Accommodation (DOCA)**  
**Mississaugas of the Credit First Nation (MCFN)**  
4065 Highway 6 North, Hagersville, ON N0A 1H0  
M: 905-979-3862  
<http://www.mncfn.ca>

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---

**From:** kslocki@archeoworks.com <kslocki@archeoworks.com>  
**Sent:** Wednesday, May 31, 2023 7:03 PM  
**To:** Marie-Annick Prevost <Marie-Annick.Prevost@mncfn.ca>  
**Cc:** 'Benjamin Peachman - GM BluePlan' <Benjamin.Peachman@gmblueplan.ca>; 'Laurie Boyce - GM BluePlan' <Laurie.Boyce@gmblueplan.ca>; Adam LaForme <Adam.LaForme@mncfn.ca>  
**Subject:** RE: Project Update - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Good evening,

Please find attached our draft Stage 1 Archaeological Assessment Report, for your review, tied to a new Administration Building within the GW Booth Facility that was determined to be entirely disturbed.

We would greatly appreciate receiving any comments you may have by June 16, 2023.

Kind regards,  
Kim

Kim Slocki, M.Litt., B.A.H.



16715-12 Yonge St., Suite 1029, Newmarket, ON, L3X 1X4  
T: 416-676-5597 | F: 647-436-1938

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---

**From:** Marie-Annick Prevost <[Marie-Annick.Prevost@mncfn.ca](mailto:Marie-Annick.Prevost@mncfn.ca)>  
**Sent:** Monday, October 24, 2022 10:23 AM  
**To:** [kslocki@archeoworks.com](mailto:kslocki@archeoworks.com)  
**Cc:** 'Benjamin Peachman - GM BluePlan' <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>; 'Laurie Boyce - GM BluePlan' <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; Adam LaForme <[Adam.LaForme@mncfn.ca](mailto:Adam.LaForme@mncfn.ca)>  
**Subject:** RE: Project Update - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Aanii Kim,

On behalf of the Mississaugas of the Credit First Nation, Department of Consultation and Accommodation, I reviewed the Stage 2 Archaeological Assessment report prepared by Archeoworks for the South Peel Wastewater Plant EA.

I do not have questions or comments about the archaeological work conducted or the content of the report.

We look forward to collaborating with you on future projects.

Miigwech,

Marie-Annick Prevost, Ph.D. (she/her)  
Field archaeologist



Mississaugas of the Credit First Nation (MCFN)  
Department of Consultation and Accommodation (DOCA)  
4065 Highway 6 North, Hagersville, ON N0A 1H0  
Cell: 905-870-5844

## Benjamin Peachman - GM BluePlan

---

**Subject:** FW: Project Update - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

---

**From:** Benjamin Peachman - GM BluePlan

**Sent:** Wednesday, January 11, 2023 10:23 AM

**To:** Adam LaForme <Adam.LaForme@mncfn.ca>

**Cc:** Laurie Boyce - GM BluePlan <Laurie.Boyce@gmblueplan.ca>; Kambeitz, Cindy <cindy.kambeitz@peelregion.ca>

**Subject:** RE: Project Update - Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Hello Adam,

We have completed the Environmental Study Report for the Clarkson WWTP Environmental Assessment and anticipate filing shortly. We would like to extend our thanks for your community's involvement in the process and input into the project. While the full report will be available for review upon filing, would you like to be circulated the executive summary for review beforehand? As always, we appreciate any input and are available to discuss.

Thank you,

**Benjamin Peachman, P. Eng.**

Infrastructure Planning

**GM BluePlan Engineering Limited**

Royal Centre | 3300 Highway No. 7, Suite 402 | Vaughan ON L4K 4M3

t: 416.703.0667 ext. 7216 | c: 437.328.5016

[benjamin.peachman@gmblueplan.ca](mailto:benjamin.peachman@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)





Schedule C Municipal Class Environmental Assessment

# **G.E. Booth Water Resource Recovery Facility**

## **Indigenous Communications – Huron Wendat Nation**

June 2020

---

**De:** "Jasmine Biasi - GM BluePlan" <Jasmine.Biasi@gmblueplan.ca>  
**Cc:** "Laurie Boyce - GM BluePlan" <Laurie.Boyce@gmblueplan.ca>, "Kambeitz, Cindy" <cindy.kambeitz@peelregion.ca>  
**Envoyé:** Jeudi 16 Juillet 2020 13:25:15  
**Objet:** Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

To whom it may concern,

Attached is a Notice of Commencement for Peel Wastewater Treatment Solutions (G.E. Booth Wastewater Treatment Plant and Clarkson Wastewater Treatment Plant Schedule 'C' Class Environmental Assessments).

If you have any questions about the study, please contact the Region Project Manager, Cindy Kambeitz (contact information provided in the attached Notice).

Best Regards,

Jasmine Biasi, B.Eng., E.I.T  
Infrastructure Planning

**GM BluePlan Engineering Limited**  
Royal Centre | 3300 Highway No. 7, Suite 402 | Vaughan ON L4K 4M3  
t: 416.703.0667 ext. 7225 | c: 416.209.1892  
[jasmine.biasi@gmblueplan.ca](mailto:jasmine.biasi@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



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July 2020

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**From:** Maxime Picard <maxime.picard@cnhw.qc.ca>  
**Sent:** July 21, 2020 10:46 AM  
**To:** Jasmine Biasi - GM BluePlan <Jasmine.Biasi@gmblueplan.ca>  
**Cc:** Laurie Boyce - GM BluePlan <Laurie.Boyce@gmblueplan.ca>; Kambeitz, Cindy <cindy.kambeitz@peelregion.ca>  
**Subject:** Re: Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

**CAUTION: EXTERNAL MAIL. DO NOT CLICK ON LINKS OR OPEN ATTACHMENTS YOU DO NOT TRUST.**

Good morning Jasmine,

Thanks for your email on the Peel Wastewater Treatment Solutions Project.

Can you please clarify if any archaeological assessments will be initiated as part of the EAs ?

Regards,

Maxime Picard

**From:** Kambeitz, Cindy <cindy.kambeitz@peelregion.ca>  
**Sent:** Tuesday, July 21, 2020 12:06 PM  
**To:** Maxime Picard; Jasmine Biasi - GM BluePlan  
**Cc:** Laurie Boyce - GM BluePlan  
**Subject:** RE: Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Hi Maxime,

I am Cindy Kambeitz, Peel Region's Project Manager for this project. Yes, archaeological assessments are included in our EAs. Stage 1 Archaeological Assessments have already begun at both facilities including terrestrial and marine resources. Stage 2/3 AAs will be conducted if required.

This information will be shared in future public consultation forums but we can also provide assessment summaries/reports and consult with you directly if preferred. Stage 1 AA reports should be completed in Sept/Oct.

Regards,

Cindy Kambeitz  
Project Manager, Wastewater Capital Treatment  
Region of Peel  
(416)518-1377  
[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)



March 2021

---

**De :** Jasmine Biasi - GM BluePlan [<mailto:Jasmine.Biasi@gmblueplan.ca>]  
**Envoyé :** 17 mars 2021 11:00  
**Cc :** Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>; Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>  
**Objet :** Notice of Virtual Public Information Centre 2: Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

To whom it may concern,

Attached is a Notice of Virtual Public Information Centre #2 for Peel Wastewater Treatment Solutions (G.E. Booth Wastewater Treatment Plant and Clarkson Wastewater Treatment Plant Schedule 'C' Class Environmental Assessments).

If you have any questions about the studies, or if you suggest contacting an alternate member of your organization, please contact the Region Project Manager, Cindy Kambeitz (contact information provided in the attached Notice).

Best Regards,

**Jasmine Biasi, B.Eng., E.I.T**

Infrastructure Planning

**GM BluePlan Engineering Limited**

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[jasmine.biasi@gmblueplan.ca](mailto:jasmine.biasi@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)

---

**From:** Mélanie Vincent <melanievincent21@yahoo.ca>  
**Sent:** March 28, 2021 12:04 PM  
**To:** Kambeitz, Cindy <cindy.kambeitz@peelregion.ca>  
**Cc:** mario.groszlouis@cnhw.qc.ca  
**Subject:** Re: TR: Notice of Virtual Public Information Centre 2: Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

**CAUTION: EXTERNAL MAIL. DO NOT CLICK ON LINKS OR OPEN ATTACHMENTS YOU DO NOT TRUST.**

Good Day Ms. Kambeitz, the Huron-Wendat Nation acknowledges reception of the Notice. We would like to know if we can obtain the GIS files (shapefiles) of the project area in order to determine if there are any Wendat archaeological sites in the area or around. Thank you,

**Mélanie Vincent, M.Sc.AJS**  
**Cell / SMS: (418) 580-4442**  
[melanievincent21@yahoo.ca](mailto:melanievincent21@yahoo.ca)  
*Gestion MV Management*  
*Gestion de projets / Project Management*

**From:** Kambeitz, Cindy <cindy.kambeitz@peelregion.ca>  
**Sent:** Wednesday, March 31, 2021 10:00 AM  
**To:** Mélanie Vincent  
**Cc:** mario.groszlouis@cnhw.qc.ca; Jasmine Biasi - GM BluePlan; Laurie Boyce - GM BluePlan  
**Subject:** RE: TR: Notice of Virtual Public Information Centre 2: Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs  
**Attachments:** Clarkson\_Lakeview\_WWTP.cpg; Clarkson\_Lakeview\_WWTP.dbf; Clarkson\_Lakeview\_WWTP.prj; Clarkson\_Lakeview\_WWTP.sbn; Clarkson\_Lakeview\_WWTP.sbx; Clarkson\_Lakeview\_WWTP.shp; Clarkson\_Lakeview\_WWTP.shx; Clarkson\_Lakeview\_WWTP.shp.xml

Hi Melanie,

Attached are the shapefiles for both plants. Please note that "Lakeview" is the former name for the GE Booth WWTP. If you have any issues opening the attached documents, let me know.

We have completed Stage 1 Archaeological Assessments for both plants. If your geographical review indicates an interest by the Huron-Wendat Nation, please advise and we will share these reports with you.

Thank you,

**Cindy Kambeitz**, PMP, PMI-RMP  
Project Manager, Wastewater Treatment Capital  
Region of Peel  
(416)518-1377  
[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)

April 2021

---

**De :** Jasmine Biasi - GM BluePlan [<mailto:Jasmine.Biasi@gmblueplan.ca>]

**Envoyé :** 12 avril 2021 15:31

**À :** [lori-jeanne.bolduc@cnhw.qc.ca](mailto:lori-jeanne.bolduc@cnhw.qc.ca)

**Cc :** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>;  
Dania Chehab - GM BluePlan <[Dania.Chehab@gmblueplan.ca](mailto:Dania.Chehab@gmblueplan.ca)>; [mario.grosLouis@cnhw.qc.ca](mailto:mario.grosLouis@cnhw.qc.ca)

**Objet :** Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Hi Lori-Jeanne,

We apologize for the difficulties you experienced opening the shapefiles we previously sent for the Clarkson and G.E. Booth Wastewater Treatment Plants. Please find attached the requested updated property boundary shapefiles for both plants. We have updated these files to ensure they load easily on your end.

In addition to the requested shapefiles, we have attached a PDF with figures presenting the results of the Stage 1 Archaeological Assessments (AA) that were completed on both sites (we are happy to forward copies of the report if you are interested). These maps highlight areas where Stage 2 work will need to be completed before construction. Please note that the Mississaugas of the Credit First Nation (MCFN) have also shown interest in this project and the Region continues to engage with them regarding future Stage 2 AA's. The Stage 2 AA's are currently planned for June/July 2021.

We hope this information is helpful. Please let me know if you have any questions or difficulties accessing the attached files.

Thank you,

Jasmine Biasi, B.Eng., E.I.T  
Infrastructure Planning

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t: 416.703.0667 ext. 7225 | c: 416.209.1892  
[jasmine.biasi@gmblueplan.ca](mailto:jasmine.biasi@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)





**From:** lori-jeanne bolduc <[lori-jeanne.bolduc@cnhw.qc.ca](mailto:lori-jeanne.bolduc@cnhw.qc.ca)>  
**Sent:** Wednesday, April 14, 2021 11:38 AM  
**To:** Jasmine Biasi - GM BluePlan <[Jasmine.Biasi@gmblueplan.ca](mailto:Jasmine.Biasi@gmblueplan.ca)>  
**Cc:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>;  
Dania Chehab - GM BluePlan <[Dania.Chehab@gmblueplan.ca](mailto:Dania.Chehab@gmblueplan.ca)>; [mario.gros louis@cnhw.qc.ca](mailto:mario.gros louis@cnhw.qc.ca)  
**Subject:** RE: Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Hi Jasmine,

Thank you for the files. The Huron-Wendat Nation is interested in participating in all archaeological fieldwork for this project, including stage 2. Is there funding available for the Huron-Wendat Nation to be involved?

Best regards,



**NATION HURONNE-WENDAT**  
**Bureau du Nionwentsiö**

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**Lori-Jeanne Bolduc, M. ATDR**  
Conseillère en aménagement du territoire  
255, Place Chef Michel-Laveau  
Wendake (Qc) GOA 4V0  
Téléphone : 418-843-3767 # 2211  
Courriel : [lori-jeanne.bolduc@cnhw.qc.ca](mailto:lori-jeanne.bolduc@cnhw.qc.ca)



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**De :** Laurie Boyce - GM BluePlan [<mailto:Laurie.Boyce@gmblueplan.ca>]  
**Envoyé :** 15 avril 2021 14:37  
**À :** lori-jeanne bolduc <[lori-jeanne.bolduc@cnhw.qc.ca](mailto:lori-jeanne.bolduc@cnhw.qc.ca)>; lori-jeanne <[bolduc@wendaket.ca](mailto:bolduc@wendaket.ca)>  
**Objet :** RE: Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Lori-Jeanne:

I am the project manager for the above noted EAs on behalf of our client – the Regional Municipality of Peel. I tried to phone you directly to speak about your request, but was told the best way to contact you was via email. Will you please give me a call directly to discuss? I would like to better understand your protocols and requirements before speaking to Peel about your request. Thanks

Laurie

416-471-0528

**Laurie Boyce, B.Sc., M.A.**  
Strategic Planning and Project Advisor

**GM BluePlan Engineering Limited**  
1266 South Service Rd, Unit C3-1 | Stoney Creek, ON | L8E 5R9  
t: 905.643.6688 ext. 6334 | c: 416.471.0528  
[laurie.boyce@gmblueplan.ca](mailto:laurie.boyce@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



---

**From:** valerie janssen <[valerie.janssen@cnhw.qc.ca](mailto:valerie.janssen@cnhw.qc.ca)>  
**Sent:** Thursday, April 29, 2021 5:40 PM  
**To:** Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>  
**Cc:** jean-francois richard <[jeanfrancois.richard@cnhw.qc.ca](mailto:jeanfrancois.richard@cnhw.qc.ca)>; isabelle lechasseur <[isabelle.lechasseur@cnhw.qc.ca](mailto:isabelle.lechasseur@cnhw.qc.ca)>  
**Subject:** RE: Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Good evening Laurie,

My colleague, Lori-Jeanne, send my your email. I will be in charge in the coordination of the Huronne-Wendat Nation to this project.

It will be a pleasure for me to this discuss with you. Is there a moment next week that suits you better ?

If there is anything, you can join me at (418) 563-0551.

Bests regards,

Valérie



May 2021

**From:** Laurie Boyce - GM BluePlan  
**Sent:** Friday, May 14, 2021 8:48 AM  
**To:** valerie.janssen  
**Cc:** jean-francois.richard; isabelle.lechasseur; Jasmine Biasi - GM BluePlan; Dania Chehab - GM BluePlan; Kambeitz, Cindy; kslocki@archeoworks.com  
**Subject:** RE: Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs  
**Attachments:** P439-0095-2020\_29Mar2021\_RE\_St1\_SouthPeelWWTPs.pdf

Valerie:

Thanks for speaking to me earlier this week. As discussed, I have provided you with a copy of the Stage 1 AA that has been submitted to the Ontario Ministry of Heritage, Sports, Tourism and Cultural Industries so you can confirm if Huron- Wendat Nation will potentially be impacted. We are currently assessing alternative treatment methods and site layouts for expansion at both of the Wastewater Treatment Plants, and will be undertaking Stage 2 AA in proposed expansion areas identified as having potential in the Stage 1 AA, and will keep you informed of results.

Laurie

**Laurie Boyce, B.Sc., M.A.**  
Strategic Planning and Project Advisor

**GM BluePlan Engineering Limited**  
1266 South Service Rd, Unit C3-1 | Stoney Creek, ON | L8E 5R9  
t: 905.643.6688 ext. 6334 | c: 416.471.0528  
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## Benjamin Peachman - GM BluePlan

---

**Subject:** FW: Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

---

**From:** Benjamin Peachman - GM BluePlan

**Sent:** Wednesday, January 11, 2023 10:38 AM

**To:** Thieffaine Terrier <Thieffaine.Terrier@wendake.ca>

**Cc:** Alexandra Daigle <Alexandra.Daigle@wendake.ca>; Raphaelle Gaudreau-Couture <Raphaelle.Gaudreau-Couture@wendake.ca>; Jean-Francois Richard <Jean-Francois.Richard@wendake.ca>; Laurie Boyce - GM BluePlan <Laurie.Boyce@gmblueplan.ca>; Kambeitz, Cindy <cindy.kambeitz@peelregion.ca>

**Subject:** RE: Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Hello Thiéffaine,

We have completed the Environmental Study Report for the Clarkson WWTP Environmental Assessment and anticipate filing shortly. We would like to extend our thanks for your community's involvement in the process and input into the project. While the full report will be available for review upon filing, would you like to be circulated the executive summary for review beforehand? As always, we appreciate any input and are available to discuss.

Thank you,

**Benjamin Peachman, P. Eng.**

Infrastructure Planning

**GM BluePlan Engineering Limited**

Royal Centre | 3300 Highway No. 7, Suite 402 | Vaughan ON L4K 4M3

t: 416.703.0667 ext. 7216 | c: 437.328.5016

[benjamin.peachman@gmblueplan.ca](mailto:benjamin.peachman@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



---

**From:** Thieffaine Terrier <[Thieffaine.Terrier@wendake.ca](mailto:Thieffaine.Terrier@wendake.ca)>

**Sent:** Friday, November 18, 2022 8:39 AM

**To:** Kim Slocki <[kslocki@archeoworks.com](mailto:kslocki@archeoworks.com)>

**Cc:** Alexandra Daigle <[Alexandra.Daigle@wendake.ca](mailto:Alexandra.Daigle@wendake.ca)>; Raphaelle Gaudreau-Couture <[Raphaelle.Gaudreau-Couture@wendake.ca](mailto:Raphaelle.Gaudreau-Couture@wendake.ca)>; Jean-Francois Richard <[Jean-Francois.Richard@wendake.ca](mailto:Jean-Francois.Richard@wendake.ca)>; Benjamin Peachman - GM BluePlan <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>; Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>

**Subject:** RE: Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Good morning Kim,

Our team reviewed this report. Everything is fine for us, we don't have comments.

Have a great day,  
Thiéffaine Terrier



**NATION HURONNE-WENDAT**  
**Bureau du Nionwentsïo**

**Thiéfaine Terrier, M. A**  
Analyste archéologue

255, Place Chef Michel-Laveau  
Wendake (Qc) G0A 4V0  
Téléphone : 418-843-3767  
Courriel : thiefaine.terrier@wendake.ca



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**De :** [kslocki@archeoworks.com](mailto:kslocki@archeoworks.com) <[kslocki@archeoworks.com](mailto:kslocki@archeoworks.com)>

**Envoyé :** 20 octobre 2022 22:05

**À :** 'Benjamin Peachman - GM BluePlan' <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>; Thiéfaine Terrier <[Thiefaine.Terrier@wendake.ca](mailto:Thiefaine.Terrier@wendake.ca)>

**Cc :** Jean-Francois Richard <[Jean-Francois.Richard@wendake.ca](mailto:Jean-Francois.Richard@wendake.ca)>; Isabelle Lechasseur <[Isabelle.Lechasseur@wendake.ca](mailto:Isabelle.Lechasseur@wendake.ca)>; 'Laurie Boyce - GM BluePlan' <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; Raphaëlle Gaudreau-Couture <[Raphaelle.Gaudreau-Couture@wendake.ca](mailto:Raphaelle.Gaudreau-Couture@wendake.ca)>; Dominic Ste-Marie <[Dominic.Sainte-Marie@wendake.ca](mailto:Dominic.Sainte-Marie@wendake.ca)>

**Objet :** RE: Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Good evening, Thiéfaine,

Please find attached our Stage 2AA report tied to the proposed expansion of the South Peel Wastewater Treatment Plant, in the City of Mississauga, Region of Peel. We welcome any comments that you may have.

Further, if I can provide any additional information or answer any questions about the results of the Stage 2AA, please do not hesitate to contact myself directly at any time.

Kind regards,  
Kim

**Kim Slocki, M.Litt., B.A.H.**



16715-12 Yonge St., Suite 1029, Newmarket, ON, L3X 1X4  
T: 416-676-5597 | F: 647-436-1938

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**From:** [kslocki@archeoworks.com](mailto:kslocki@archeoworks.com) <[kslocki@archeoworks.com](mailto:kslocki@archeoworks.com)>

**Sent:** Friday, June 3, 2022 11:39 AM

**To:** 'Benjamin Peachman - GM BluePlan' <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>; 'Marie-Sophie Gendron' <[Marie-Sophie.Gendron@wendake.ca](mailto:Marie-Sophie.Gendron@wendake.ca)>

**Cc:** 'Jean-Francois Richard' <[Jean-Francois.Richard@wendake.ca](mailto:Jean-Francois.Richard@wendake.ca)>; 'Isabelle Lechasseur' <[Isabelle.Lechasseur@wendake.ca](mailto:Isabelle.Lechasseur@wendake.ca)>; 'Laurie Boyce - GM BluePlan' <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>;

'cindy.kambeitz@peelregion.ca' <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>

**Subject:** RE: Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Hi Marie-Sophie,

As an update, the Stage 2 Archaeological Assessment (AA) for this project was completed yesterday. No archaeological resources were encountered. A draft of our Stage 2 AA report will be forwarded for review and comment once available.

If I can provide any additional information regarding this assessment, please do not hesitate to contact myself directly at any time.

Kind regard,  
Kim

Kim Slocki, M.Litt., B.A.H.



16715-12 Yonge St., Suite 1029, Newmarket, ON, L3X 1X4  
T: 416-676-5597 | F: 647-436-1938

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**From:** Benjamin Peachman - GM BluePlan <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>

**Sent:** Tuesday, May 31, 2022 8:32 AM

**To:** [kslocki@archeoworks.com](mailto:kslocki@archeoworks.com); 'Marie-Sophie Gendron' <[Marie-Sophie.Gendron@wendake.ca](mailto:Marie-Sophie.Gendron@wendake.ca)>

**Cc:** 'Jean-Francois Richard' <[Jean-Francois.Richard@wendake.ca](mailto:Jean-Francois.Richard@wendake.ca)>; 'Isabelle Lechasseur' <[Isabelle.Lechasseur@wendake.ca](mailto:Isabelle.Lechasseur@wendake.ca)>; Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; [cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)

**Subject:** RE: Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Hi Marie-Sophie,

Upon discussing with Kim, the Stage 2 AA has been rescheduled for this Thursday, June 2<sup>nd</sup>.

Please let me know if you plan on having a field representative attend; if so, they can use the specific project details below & attached:

Start Date: June 2<sup>nd</sup>, 2022

Duration: half a day

Start Time: 8am

Consultant Company: Archeoworks Inc.



Field Director(s): Diana Hutsulak-Alonso

Cell Phone(s): 647-896-2945

Assessment: Stage 2AA test pitting

Borden Number (if applicable): n/a

Required PPE: HI VIS, hard hats, steel toe boots, gloves

Meeting Location Address: 375 Avonhead Road, Mississauga. Please park at the gated entrance, once everyone has arrived security will let everyone in.

Size of Field Crew: 3

A map outlining the site and parking area: Please find attached

I'll follow up with the results from the investigation once received.

Thanks,

**Benjamin Peachman, P. Eng.**

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[benjamin.peachman@gmblueplan.ca](mailto:benjamin.peachman@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



---

**From:** Benjamin Peachman - GM BluePlan

**Sent:** Monday, May 30, 2022 10:09 AM

**To:** [kslocki@archeoworks.com](mailto:kslocki@archeoworks.com); 'Marie-Sophie Gendron' <[Marie-Sophie.Gendron@wendake.ca](mailto:Marie-Sophie.Gendron@wendake.ca)>

**Cc:** 'Jean-Francois Richard' <[Jean-Francois.Richard@wendake.ca](mailto:Jean-Francois.Richard@wendake.ca)>; 'Isabelle Lechasseur' <[Isabelle.Lechasseur@wendake.ca](mailto:Isabelle.Lechasseur@wendake.ca)>; Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; [cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)

**Subject:** RE: Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Hi Marie-Sophie,

The weather appears to be favourable for tomorrow's site visit at the Clarkson WWTP to complete the Stage 2 AA field work so unless Kim advises otherwise, I believe it'll be completed tomorrow. Just following up on whether a field rep should be expected so Kim's group can confirm specific timing for tomorrow's visit. We'll also provide regular updates on the results going forward.

Thanks,

**Benjamin Peachman, P. Eng.**

Infrastructure Planning

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[benjamin.peachman@gmblueplan.ca](mailto:benjamin.peachman@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



---

**From:** Benjamin Peachman - GM BluePlan

**Sent:** Friday, May 20, 2022 2:41 PM

**To:** [kslocki@archeoworks.com](mailto:kslocki@archeoworks.com); 'Marie-Sophie Gendron' <[Marie-Sophie.Gendron@wendake.ca](mailto:Marie-Sophie.Gendron@wendake.ca)>

**Cc:** 'Jean-Francois Richard' <[Jean-Francois.Richard@wendake.ca](mailto:Jean-Francois.Richard@wendake.ca)>; 'Isabelle Lechasseur' <[Isabelle.Lechasseur@wendake.ca](mailto:Isabelle.Lechasseur@wendake.ca)>; Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; [cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)

**Subject:** RE: Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Hi Kim, thank you for the update.

Marie-Sophie, do you anticipate attendance to site by one of your field representatives on this date?

Regards,

**Benjamin Peachman, P. Eng.**  
Infrastructure Planning

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**From:** [kslocki@archeoworks.com](mailto:kslocki@archeoworks.com) <[kslocki@archeoworks.com](mailto:kslocki@archeoworks.com)>

**Sent:** Friday, May 20, 2022 2:15 PM

**To:** Benjamin Peachman - GM BluePlan <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>; 'Marie-Sophie Gendron' <[Marie-Sophie.Gendron@wendake.ca](mailto:Marie-Sophie.Gendron@wendake.ca)>

**Cc:** 'Jean-Francois Richard' <[Jean-Francois.Richard@wendake.ca](mailto:Jean-Francois.Richard@wendake.ca)>; 'Isabelle Lechasseur' <[Isabelle.Lechasseur@wendake.ca](mailto:Isabelle.Lechasseur@wendake.ca)>; Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; [cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)

**Subject:** RE: Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Hi Benjamin,

Please note we have a crew scheduled to undertake the Stage 2AA for this project on Tuesday May 31<sup>st</sup>.

Kind regards,  
Kim

**Kim Slocki, M.Litt., B.A.H.**



16715-12 Yonge St., Suite 1029, Newmarket, ON, L3X 1X4

T: 416-676-5597 | F: 647-436-1938

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**From:** Benjamin Peachman - GM BluePlan <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>  
**Sent:** Thursday, May 19, 2022 11:57 AM  
**To:** Marie-Sophie Gendron <[Marie-Sophie.Gendron@wendake.ca](mailto:Marie-Sophie.Gendron@wendake.ca)>  
**Cc:** Jean-Francois Richard <[Jean-Francois.Richard@wendake.ca](mailto:Jean-Francois.Richard@wendake.ca)>; Isabelle Lechasseur <[Isabelle.Lechasseur@wendake.ca](mailto:Isabelle.Lechasseur@wendake.ca)>; Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; [cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca); [kslocki@archeoworks.com](mailto:kslocki@archeoworks.com)  
**Subject:** RE: Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Hi Marie-Sophie,

Thank you for your quick response. We haven't firmed up a date yet for the Stage 2 AA field work but our archeologist (Kim Slocki, cc'ed) will advise once confirmed and we'd welcome the attendance of your field representative. If there are any agreements or paperwork you need signed prior to a site visit, can you circulate to me and I'll ensure they are funneled through the proper channels.

If the timing doesn't work for your field representative to attend, I'll ensure to keep you updated on status and send you a draft of the report prior to its circulation to the ministry.

Regards,

**Benjamin Peachman, P. Eng.**  
Infrastructure Planning

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[benjamin.peachman@gmblueplan.ca](mailto:benjamin.peachman@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



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**From:** Marie-Sophie Gendron <[Marie-Sophie.Gendron@wendake.ca](mailto:Marie-Sophie.Gendron@wendake.ca)>  
**Sent:** Wednesday, May 18, 2022 1:19 PM  
**To:** Benjamin Peachman - GM BluePlan <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>  
**Cc:** Jean-Francois Richard <[Jean-Francois.Richard@wendake.ca](mailto:Jean-Francois.Richard@wendake.ca)>; Isabelle Lechasseur <[Isabelle.Lechasseur@wendake.ca](mailto:Isabelle.Lechasseur@wendake.ca)>; Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; [cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca); [kslocki@archeoworks.com](mailto:kslocki@archeoworks.com)  
**Subject:** RE: Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Good afternoon Benjamin,

Usually, we send field representative with the team for the fieldwork and like to review the draft copy of the report before it is sent to the ministry. Depending of the dates of the fieldwork, it is possible that we will not be able to send a field representative with the team. If that is the case, I always ask for an update once a week on the work and we will comment the draft copy of the report.

Tiawenhk inenh chia' entïio'!



Marie-Sophie



**NATION HURONNE-WENDAT**  
**Bureau du Nionwentsïo**

**Marie-Sophie Gendron, B.A.**

Analyste archéologue

255, Place Chef Michel-Laveau

Wendake (Qc) G0A 4V0

Téléphone : 418-843-3767

Courriel : marie-sophie.gendron@wendake.ca



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**De :** Benjamin Peachman - GM BluePlan <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>

**Envoyé :** 18 mai 2022 10:30

**À :** Marie-Sophie Gendron <[Marie-Sophie.Gendron@wendake.ca](mailto:Marie-Sophie.Gendron@wendake.ca)>

**Cc :** Jean-Francois Richard <[Jean-Francois.Richard@wendake.ca](mailto:Jean-Francois.Richard@wendake.ca)>; Isabelle Lechasseur <[Isabelle.Lechasseur@wendake.ca](mailto:Isabelle.Lechasseur@wendake.ca)>; Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; [cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca); [kslocki@archeoworks.com](mailto:kslocki@archeoworks.com)

**Objet :** RE: Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Hi Marie-Sophie,

I hope you are keeping well. I'm just following up on my earlier email below. We are planning on completing the field work for the Stage 2 AA within the next 2 weeks and will circulate you the results once available. Does your team require anything further in terms of budgetary scope to review the results? I'm available if you'd like to discuss over the phone as well.

Thank you,

**Benjamin Peachman, P. Eng.**

Infrastructure Planning

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---

**From:** Benjamin Peachman - GM BluePlan

**Sent:** Friday, April 22, 2022 9:12 AM

**To:** Marie-Sophie Gendron <[Marie-Sophie.Gendron@wendake.ca](mailto:Marie-Sophie.Gendron@wendake.ca)>

**Cc:** Jean-Francois Richard <[Jean-Francois.Richard@wendake.ca](mailto:Jean-Francois.Richard@wendake.ca)>; Isabelle Lechasseur <[Isabelle.Lechasseur@wendake.ca](mailto:Isabelle.Lechasseur@wendake.ca)>; Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; [cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca); [kslocki@archeoworks.com](mailto:kslocki@archeoworks.com)

**Subject:** RE: Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Good morning Marie-Sophie,

Thank you for your prompt response and we look forward to working with you on this project. Based on the attached previous email, it was our understanding that your team would not be in attendance for the Stage 2 AA, but that we'd send you the results and await your input prior to finalizing. Can you confirm if this approach is still acceptable?

Regards,

**Benjamin Peachman, P. Eng.**  
Infrastructure Planning

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[benjamin.peachman@gmblueplan.ca](mailto:benjamin.peachman@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



---

**From:** Marie-Sophie Gendron <[Marie-Sophie.Gendron@wendake.ca](mailto:Marie-Sophie.Gendron@wendake.ca)>

**Sent:** Wednesday, April 20, 2022 10:05 AM

**To:** Benjamin Peachman - GM BluePlan <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>

**Cc:** Jean-Francois Richard <[Jean-Francois.Richard@wendake.ca](mailto:Jean-Francois.Richard@wendake.ca)>; Isabelle Lechasseur <[Isabelle.Lechasseur@wendake.ca](mailto:Isabelle.Lechasseur@wendake.ca)>; Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; [cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca); [kslocki@archeoworks.com](mailto:kslocki@archeoworks.com)

**Subject:** RE: Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Good morning Benjamin,

I hope this email finds you doing well. I would like to introduce myself, Marie-Sophie Gendron, I am an archaeologist working for the Huron-Wendat Nation. From now on, I will be your point of contact for any archaeological matter. Thank you for contacting the Nation about this project. We will happily collaborate on this matter. Could you tell me the estimated duration of the project? I will be able to provide a quote for the presence of our field representative.

Entïio'!

Marie-Sophie



**NATION HURONNE-WENDAT**  
**Bureau du Nionwentsïo**

**Marie-Sophie Gendron, B.A.**  
Analyste archéologue

255, Place Chef Michel-Laveau  
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Téléphone : 418-843-3767  
Courriel : marie-sophie.gendron@wendake.ca



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**De :** Benjamin Peachman - GM BluePlan <[Benjamin.Peachman@gmblueplan.ca](mailto:Benjamin.Peachman@gmblueplan.ca)>

**Envoyé :** 19 avril 2022 16:33

**À :** Valerie Janssen <[Valerie.Janssen@wendake.ca](mailto:Valerie.Janssen@wendake.ca)>

**Cc :** Jean-Francois Richard <[Jean-Francois.Richard@wendake.ca](mailto:Jean-Francois.Richard@wendake.ca)>; Isabelle Lechasseur <[Isabelle.Lechasseur@wendake.ca](mailto:Isabelle.Lechasseur@wendake.ca)>; Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; [cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca); [kslocki@archeoworks.com](mailto:kslocki@archeoworks.com)

**Objet :** RE: Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Good afternoon Valérie,

I hope you are keeping well. While we have not been introduced, I am assisting Laurie with the Schedule C Class EAs for the expansion of the Clarkson Wastewater Treatment Plant (WWTP) and G.E. Booth WWTP. Moving forward, all future correspondence relating to these projects can be directed to Laurie and myself.

Since Dania's previous email below in October 2021, we've advanced through a significant portion of Phase 3 of the EA for the Clarkson WWTP. While Phases 1 & 2 of the Class EAs were undertaken concurrently as an integrated solution for the expansions of the Clarkson and G.E. Booth WWTPs, Phase 3 of the Class EA process has been completed with a detailed focus on each WWTP separately. Phase 3 of the EA for the Clarkson WWTP involved investigating alternative design concepts for the preferred solution identified in Phase 2, which as stated below by Dania, involved expanding the plant from 350 MLD to 500 MLD. We completed long-list screening of wastewater treatment, disinfection, and biosolids management technologies and subsequent detailed evaluations of the short-listed design concepts. We also completed a Value Engineering session with external consultants who provided a peer review of the Phase 3 recommendations for the Clarkson WWTP. We will be conducting a Public Information Centre outlining the Phase 3 recommendations for the Clarkson WWTP on May 11<sup>th</sup>, 2022, after which we will move into Phase 4, which involves the preparation and filing of the Environmental Study Report.

The following link provides recently completed renderings of the concept plan for the Clarkson WWTP per the Phase 3 recommendations.

[https://sendafile.gmblueplan.ca/public\\_uploads/2022-04-19\\_201843\\_BenjaminPeachman.zip](https://sendafile.gmblueplan.ca/public_uploads/2022-04-19_201843_BenjaminPeachman.zip)



A few specific pockets of the property were previously identified as retaining archeological potential and requiring Stage 2 assessment (map enclosed for convenience). As of the date of our last correspondence, we had anticipated that the proposed site layout associated with the recommended design concept for Clarkson would avoid nearing areas that retained archeological potential (areas shaded in red in the enclosed map).

As our project team further developed the design concept, we identified that we MAY encroach on the area at the top-left corner of the property (marked in redline "cloud" on map). While we have not yet confirmed whether the site layout will impact this location, we intend to proactively conduct a Stage 2 Archaeological Assessment (AA) for this corner of the property. The Stage 2 AA is tentatively scheduled in May 2022 and the results from the investigation will be circulated to your office once received.

Please feel free to reach out with any questions or concerns. We will continue to provide updates on the project as it progresses and we appreciate your involvement and input on the project.

Thank you,

**Benjamin Peachman, P. Eng.**

Infrastructure Planning

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t: 416.703.0667 ext. 7216 | c: 437.328.5016

[benjamin.peachman@gmblueplan.ca](mailto:benjamin.peachman@gmblueplan.ca) | [www.gmblueplan.ca](http://www.gmblueplan.ca)



---

**From:** Dania Chehab - GM BluePlan

**Sent:** Friday, October 15, 2021 10:43 AM

**To:** valerie janssen <[valerie.janssen@cnhw.qc.ca](mailto:valerie.janssen@cnhw.qc.ca)>

**Cc:** jean-francois richard <[jeanfrancois.richard@cnhw.qc.ca](mailto:jeanfrancois.richard@cnhw.qc.ca)>; isabelle lechasseur <[isabelle.lechasseur@cnhw.qc.ca](mailto:isabelle.lechasseur@cnhw.qc.ca)>;

Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>; Jasmine

Biasi - GM BluePlan <[Jasmine.Biasi@gmblueplan.ca](mailto:Jasmine.Biasi@gmblueplan.ca)>; [kslocki@archeoworks.com](mailto:kslocki@archeoworks.com)

**Subject:** RE: Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Good morning Valérie,

Hope you are doing well. I called your office today hoping to check in, but reception mentioned you were not available by phone. Could you let me know a good time to call? (alternatively, you are more than welcome to contact me at my cell number anytime).

I would just like to have a quick chat about our email below to discuss the archaeological assessment and any comments or questions you may have.

Take care and have a wonderful weekend,

Dania

**Dania Chehab, M.Eng., P.Eng.**

Infrastructure Planning

**GM BluePlan Engineering Limited**

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t: 416.703.0667 ext. 7243 c: 416.576.0366



---

**From:** Dania Chehab - GM BluePlan

**Sent:** Tuesday, September 28, 2021 10:13 AM

**To:** valerie janssen <[valerie.janssen@cnhw.qc.ca](mailto:valerie.janssen@cnhw.qc.ca)>

**Cc:** jean-francois richard <[jeanfrancois.richard@cnhw.qc.ca](mailto:jeanfrancois.richard@cnhw.qc.ca)>; isabelle lechasseur <[isabelle.lechasseur@cnhw.qc.ca](mailto:isabelle.lechasseur@cnhw.qc.ca)>; Laurie Boyce - GM BluePlan <[Laurie.Boyce@gmblueplan.ca](mailto:Laurie.Boyce@gmblueplan.ca)>; Kambeitz, Cindy <[cindy.kambeitz@peelregion.ca](mailto:cindy.kambeitz@peelregion.ca)>; Jasmine Biasi - GM BluePlan <[Jasmine.Biasi@gmblueplan.ca](mailto:Jasmine.Biasi@gmblueplan.ca)>; [kslocki@archeoworks.com](mailto:kslocki@archeoworks.com)

**Subject:** RE: Peel Wastewater Treatment Solutions, G.E. Booth and Clarkson Wastewater Treatment Plants Schedule C Class EAs

Good morning Valerie,

We are writing to provide you with an update on the Region of Peel's Class EAs for the Clarkson and G.E. Booth WWTPs.

Since our previous discussions in May 2021, we have completed Phase 2 of the Class EA Process and identified the preferred solution for each facility. Specifically, the G.E. Booth WWTP will be expanded from 500 megalitres per day (MLD) to 550 MLD and Clarkson WWTP from 350 MLD to 500 MLD. Both expansion projects will remain within the existing property limits for each respective site.

Through our Phase 2 activities, we also established the proposed spatial requirements for each plant's expansion, taking into consideration known information about the sites, such as natural environment and archaeological conditions, to avoid disruption where possible. The site layouts for both the G.E. Booth and Clarkson WWTPs are illustrated in the attached figures, and include areas that may be disrupted by permanent construction as well as temporary construction staging. The layouts also show areas that were identified to require Stage 2 Archaeological Assessments (AA). As shown, the proposed works are not planned to impact areas with archaeological potential and will be limited to spaces that have been previously disturbed or previously assessed and not requiring further study.

Based on the above construction and staging boundaries, all construction activities will take place outside of areas identified to retain archaeological potential. Therefore, we have concluded archaeological study for both the G.E. Booth and Clarkson WWTPs at the Stage 1 AA level, and no further assessment will be conducted for these Class EAs.

The Region of Peel is committed to avoiding impacts to areas that retain archaeological potential through reasonable means, such as installing temporary fencing during construction of components resulting from these Class EAs. The Region also affirms that, in the future, any additional works required at the plants will follow protocols set in place by the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI), including completing further archaeological study, as required.

As always, the Region will keep you informed of all future archaeological assessments. We appreciate your involvement in this project and welcome you to continue to coordinate with us for any further comments or questions.

Dania

**Dania Chehab, M.Eng., P.Eng.**  
Infrastructure Planning

**GM BluePlan Engineering Limited**  
Royal Centre | 3300 Highway No. 7, Suite 402 | Vaughan ON L4K 4M3

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Schedule C Municipal Class Environmental Assessment

**G.E. Booth Water Resource Recovery  
Facility**

**Indigenous Communications – Six Nations of the Grand  
River**

## Benjamin Peachman - GM BluePlan

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**Subject:** FW: Peel Wastewater Treatment Solutions - Clarkson and G.E. Booth WRRF Class Environmental Assessments

---

**From:** Benjamin Peachman - GM BluePlan

**Sent:** Tuesday, March 21, 2023 2:42 PM

**To:** markhill@sixnations.ca

**Cc:** Kambeitz, Cindy <cindy.kambeitz@peelregion.ca>; Laurie Boyce - GM BluePlan <Laurie.Boyce@gmblueplan.ca>

**Subject:** Peel Wastewater Treatment Solutions - Clarkson and G.E. Booth WRRF Class Environmental Assessments

Hello Mark,

We are writing to provide you with an update on the Region of Peel's Class EAs for the Clarkson and G.E. Booth Water Resource Recovery Facilities (WRRFs).

As you may be aware from the Public Information Centre (PIC) notices circulated to you, we have completed Phase 2 of the Class EA Process and identified the preferred solution for each facility. Specifically, the G.E. Booth WWTP will be expanded from 518 megalitres per day (MLD) to 550 MLD and Clarkson WWTP from 350 MLD to 500 MLD. Both expansion projects will remain within the existing property limits for each respective site.

We are currently conducting a PIC outlining the Phase 3 recommendations for the G.E. Booth WRRF. The PIC materials are available for review on Peel's website ([www.peelregion.ca/GEBooth](http://www.peelregion.ca/GEBooth)) and we welcome your comments. The feedback period extends until March 29<sup>th</sup>, 2023.

We completed Phase 3 of the Class EA Process for the Clarkson WRRF which included a PIC held on May 11<sup>th</sup>, 2022 to identify the preferred Phase 3 design concepts. The Clarkson PIC materials are also available for review on Peel's website ([www.peelregion.ca/Clarkson](http://www.peelregion.ca/Clarkson)). Upon receipt and incorporation of the PIC comments, we completed the Environmental Study Report (ESR) and conceptual design of the plant expansion. As we near the filing date for the Clarkson ESR, we were wondering if you'd like to have an advance copy of the Executive Summary or specific report sections for review prior to the filing.

We appreciate your involvement in these projects and welcome any comments or questions on either study.

Thank you.

**Benjamin Peachman, P. Eng.**

Infrastructure Planning

**GM BluePlan Engineering Limited**

Royal Centre | 3300 Highway No. 7, Suite 402 | Vaughan ON L4K 4M3

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Schedule C Municipal Class Environmental Assessment

**G.E. Booth Water Resource Recovery  
Facility**

**First Nations and Aboriginal Peoples – Preliminary  
Assessment Checklist: First Nations and Métis Community  
Interest**



## G.E. Booth Water Resource Recovery Facility (WRRF) Schedule C Class Environmental Assessment (EA)

### Municipal Class EA - Companion Guide (rev 02 – December 10, 2018) A.3.7 First Nations and Aboriginal Peoples - Preliminary Assessment Checklist: First Nation and Métis Community Interest (updated September 19, 2023)

Screening Question	Yes	No	Description
<p>1. Are you aware of concerns from First Nation and Métis communities about your project or a similar project in the area?</p> <p>The types of concerns can range from interested inquiries to environmental complaints, and even to land use concerns. You should consider whether the interest represents on-going, acute and/or widespread concern.</p>	Yes		<p>The Mississaugas of the Credit First Nation (MCFN) and the Huron-Wendat indicated their interest early in the study. The Region of Peel provided funding to both First Nations (FNs) to review and provide input into the Stage 1 and 2 Archaeological Assessments (AAs) and the Marine AA. Both FN Communities had no concerns regarding the findings of the AA.</p> <p>The Haudenosaunee Development Council (HDI), a department of the Haudenosaunee Confederacy, also expressed interest in the Class EA. The Region continues to engage the HDI to ensure that their input is considered, and concerns addressed.</p>
<p>2. Is your project occurring on Crown land, or is it close to a water body? Might it change access to either?</p>	Yes		<p>The G.E. Booth WRRF treatment expansion works are on-site on the region-owned property. However, a new outfall extending approximately 3 km into Lake Ontario is also part of the undertaking. The outfall will be tunnelled under the lakebed, with the diffusers connected to the tunnel and rising to the lakebed surface. The lakebed is Crown Land managed by the Ontario Ministry of Natural Resources and Forestry (MNRF).</p>
<p>3. Is the project located in an open or forested area where hunting or trapping could take place?</p>		No	<p>The G.E. Booth WRRF is located in the southeast corner of the City of Mississauga south of Lakeshore Road East, between Dixie Road and Cawthra Road at 300 Lakeshore Road East in Mississauga. The site has an area of approximately 36 hectares (90 acres).</p> <p>The site is currently classified as public utility lands and is disturbed with few remaining vegetated areas. Surrounding land uses/features include:</p>

			<ul style="list-style-type: none"> <li>• Retail business along Lakeshore Road East to the north; with mixed residential/commercial lands north or Lakeshore Road East.</li> <li>• Applewood Creek and Marie Curtis Park to the east.</li> <li>• The Jim Tovey Lakeview Conservation Area (JTLCA) to the south.</li> <li>• The planned Lakeview Village Development to the west.</li> </ul> <p>The project is not located in an open or forested area where hunting or trapping could take place.</p>
4. Does the project involve the clearing of forested land?		No	See above. The project does not involve the clearing of forested lands.
5. Is the project located away from developed, urban areas?		No	As described above, the G.E. Booth WRRF is located adjacent to planned and existing developed urban areas. Significant measures to mitigate impacts to surrounding land uses and users are planned as part of the project as described in the Environmental Study Report (ESR).
6. Is your project close to, or adjacent to, an existing reserve?		No	The project is not close to, or adjacent to reserves that may be of interest to the First Nation and Métis communities living there.
7. Is there potential the project affects First Nations and/or Métis' ability to access areas of significance to them?		No	The project will not affect First Nations and/or Métis' ability to access areas of significance to them.
8. Is the area subject to a land claim?		No	No known land claims have been filed federally or provincially.
9. Does the project have the potential to impact any archaeological sites?		No	Two Stage 1 Archaeological Assessment (AA)s were completed to confirm archaeological potential within the G.E. Booth WRRF Study Area. The AAs concluded that much of the study area has been previously disturbed and does not require further archaeological assessment, with exception of the treed area at the northwest corner of the property. This project does not encroach upon this area.

		<p>In addition, a desktop marine archaeological assessment was completed to understand the archaeological potential of near-shore areas and extended study area into Lake Ontario which could be used for an additional outfall. No known records exist for archaeological resources.</p> <p>As indicated, MCFN and Huron-Wendat reviewed the AAs, and had no further concerns.</p>
<p>10. Does the project have the potential to impact any cultural heritage sites?</p>	<p>Yes</p>	<p>As part of the expansion, a new administration building is planned. The following heritage resources are located within 300 metres of the planned administration building.</p> <ul style="list-style-type: none"> <li>• Long Branch Indoor Rifle Range (1940) – designated Cultural Heritage Property under City of Mississauga By-Law 170-2012; and the</li> <li>• Long Branch Outdoor Rifle Range (1910) – designated Cultural Heritage Property under City of Mississauga By-Law 0144-2017.</li> </ul> <p>The Ministry of Citizenship and Multiculturalism (MCM)’s Criteria for Evaluating Potential Heritage Resources and Cultural Heritage Landscapes Screening Tool was applied to the expansion project. Although construction of the administration building is not expected to impact the above heritage resources, a Cultural Heritage Evaluation Report (CHER) will be required to be completed by a qualified person to determine the potential to impact any of these resources. The Region plans to undertake this evaluation during the design phase when expansion works are more fully developed. If the expansion is determined to potentially affect or alter cultural heritage value, a qualified person will then undertake a Heritage Impact Assessment (HIA) to assess and avoid, eliminate, or mitigate impacts.</p>





Lakeshore Road

**By-Law 0144-2017**  
Heritage Designation  
Outdoor Firing Range




Marie Curtis Park and  
Woodlot Complex

**By-Law 0170-2012**  
Heritage Designation Indoor  
Firing Range

ROL-01119  
**Owner:** Region of Peel  
**PIN:** 13485-0309  
**Tenant:** The South Peel Rod  
and Gun Club  
**Purpose:** Operation of a gun  
shooting range

Future Lakeview Village  
Development

Jim Tovey Lakeview  
Conservation Area

-  Cultural Heritage Resource
-  Existing Buildings / Structures
-  New Buildings / Structures / Roadways

