

Port Credit East Water and Wastewater Servicing Optimization Strategy - Schedule C Class Environmental Assessment

Welcome to Virtual Public Information Centre No. 2

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.

# **Public Information Centre (PIC) Objectives**

The objectives of virtual PIC No. 2 are to:

- Present the updated study area, new watermain scope, and objectives.
- Provide progress and next steps in the environmental assessment process.
- Present the preliminary preferred servicing strategies for all study components.
- Receive feedback on the preliminary preferred servicing strategies.



This is the second of three PICs for this study.

# How Can You Help?

Provide your input! After reviewing the PIC materials, navigate to the 'Stay Involved' section or <u>click here</u> to submit your comments. The comment form will be available from **May 18 - June 1, 2022**. All feedback will be taken into consideration as the study progresses.



# **Project Overview**

The existing sanitary pumping stations (Rosemere, Elmwood, and Hiawatha) and some of the sanitary sewer mains and watermains in the general Port Credit East area are experiencing operational challenges. The Region has initiated a Schedule "C" Municipal Class Environmental Assessment (EA) for this infrastructure to develop an integrated and optimized servicing strategy to meet existing and future growth.



# **Study Purpose**

This study investigated key alternative water and wastewater optimization strategies for the Port Credit East area including the Elmwood and Hiawatha Sewage Pumping Station (SPS) servicing areas, vicinity of the Rosemere SPS, and Lakeshore Road West to East from Front Street to Seneca Avenue.

# **Key Study Objectives**

- Satisfy the Schedule C Class EA process.
- Providing effective consultation with Stakeholders, Agencies, Indigenous Communities and the Public.
- Ensure a balanced and informed decision-making process.
- Reviewing previous study recommendations.
- Consider unique opportunities and challenges for water and wastewater servicing in the study area.
- Solutions are required to provide continued servicing to the existing community.
- Ensuring solution supports a long-term servicing strategy.
- Protecting the environment.

**Study Problem & Opportunity Statement:** Develop an integrated water and wastewater optimization strategy for Port Credit East including the Elmwood, Hiawatha, and Rosemere sewage pumping stations and vicinity to support existing servicing needs and projected growth.

# **Study Overview**

This study has four (4) key components:

- New Lakeshore Road Trunk Sewer.
- New Lakeshore Road Sub-Transmission Watermain.
- Rosemere Sewage Pumping Station.
- Elmwood and Hiawatha Sewage Pumping Stations.

Note: Both the Lakeshore Road Sewer and Watermains (study component 1 and 2) requires crossing of the Credit River. The Lakeshore Road Watermain is a new component of this project.



The Port Credit East evaluation process followed a multi-step approach to cover all study components and ensure solutions are selected in an integrated manner.

- 1. Evaluate Lakeshore Road Sewer Shaft Options.
- 2. Evaluate Lakeshore Road Sewer Alignment Options.
- 3. Evaluate Lakeshore Road Watermain Shaft Options.
- 4. Evaluate Lakeshore Road Watermain Alignment Options.
- 5. Based on preferred Lakeshore Road Sewer shaft location evaluate Rosemere SPS Options.
- Based on preferred Lakeshore Road Sewer shaft location evaluate Elmwood and Hiawatha SPS Options.
- 7. Ensure collective components align.

# **Project Approach**

# **The Municipal Class Environmental Assessment Process**

The Port Credit East Water and Wastewater Servicing Optimization Strategy is being undertaken as a Schedule C Class Environmental Assessment (EA), satisfying all five (5) phases in accordance with the Municipal Class EA process. For more information: <u>https://municipalclassea.ca/manual/page10.html</u>



We are currently within Phase 2 of the study, with the primary focus on the preliminary preferred solution. This study will hold three (3) Public Information Centres (PIC).



# **Evaluation Criteria**

The following criteria supported the selection of the preliminary preferred servicing strategies for each study component.



### **Technical Constructability and Feasibility**

- Ease of construction.
- Compatibility with existing / planned infrastructure.
- Minimize environmental and infrastructure crossings.
- Minimize conflicts with existing utilities.
- Provides ability to meet existing / future servicing standards.
- Available servicing capacity for future growth.
- Ease of access to maintain.
- Operation and maintenance considerations.
- Flexibility of system operations and operational security.

#### Environmental

- Climate change.
- Environmental crossing consideration.
- Minimize impact to environmental features, protected areas, species at risk, water features/resources, air quality, natural features and trees.
- Geology, hydrogeology, contamination considerations.

### **Socio-Economic and Cultural**

- Community (residents and local businesses) and traffic considerations.
- Public accessibility during construction and operation.
- Noise, vibration, dust and odour considerations.
- Cultural heritage resources.
- Archaeological resources.

#### **Financial**

- Capital needs costs.
- Operation and maintenance costs.
- Lifecycle cost consideration.
- Consideration of potential financial risk during construction.

#### Legal / Jurisdictional

- Land use, land size, availability, and location.
- Permit requirements.
- Ownership, legal and jurisdictional considerations.
- Compliance with applicable planning and special land use policies.

# **Study Components: Evaluation Process Review**



# **Preliminary Preferred Strategy**

Through a comprehensive evaluation process, the preliminary preferred was selected for each of the following project components:

#### 1. New Lakeshore Trunk Sewer.

Option L6: Tunnel from Marina Park east to the municipal parking lot at Elmwood Avenue North and Lakeshore Road. Temporary parking lot proposed at Harold E. Kennedy Park during construction.

#### 2. New Lakeshore Sub-Transmission Watermain

Option W1: Shared shafts and construction compounds from Marina Park to parking lot corner of Elmwood Avenue North and Lakeshore Road.

#### 3. Rosemere SPS

Option R1: New Rosemere SPS and twin forcemains East to Vesta Drive

#### 4. Elmwood and Hiawatha SPS

Option EH14: Decommission both SPS's and connect to Lakeshore Road Trunk Sewer.

Detailed Evaluation Process

The following presents details of the short listed alternatives for each of the four (4) study components, their evaluation and screening process that resulted in the preliminary preferred strategy presented in the figure on the right.



Disclaimer: Location and alignment of proposed infrastructure are conceptual and not to scale. Preliminary design and alignment will be covered under Phase 3 of the EA process.

# 1. Lakeshore Road Trunk Sewer

The Front Street SPS Class EA (2019) recommended construction of a new gravity trunk sewer along Lakeshore Road from Front Street SPS to Jack Darling SPS.



Following this decision, an SPS Feasibility Study (2020) was completed and recommended extending this trunk sewer further east across the Credit River to Elmwood Avenue with future phases extending to G.E. Booth Wastewater Treatment Plant.

The Lakeshore Road trunk sewer will provide the Region ability to divert flows from east to west between G.E. Booth and Clarkson Wastewater Treatment Plants, as well as provide the opportunity to decommission several SPSs.

The preferred Lakeshore sewer strategy followed a stepped evaluation approach:

- 1. Long list of crossing alternatives for the Credit River and shaft/construction compound location(s).
- 2. Long list screening criteria.
- 3. Short list of crossing alternatives, shaft location(s) and sewer alignment.
- 4. Short list evaluation criteria.
- 5. Preliminary preferred crossing alternative/shaft location(s) and sewer alignment.

# Option 6: Tunnel from Marina Park east to the municipal parking lot at Elmwood Avenue North and Lakeshore Road.

- Direct tunnelled solution avoids major socio-economic impacts along Lakeshore Road and requires less property for shaft locations.
- Removes the need for construction along residential roads.
- Construction impacts will be limited to the Elmwood Avenue and Lakeshore Road municipal parking lot.
- Provides a long-term optimized gravity solution for Port Credit sewer servicing.



## Alternative Temporary Parking / Farmer's Market Location

Proposed parking lot replacement during construction at the Elmwood Avenue North and Lakeshore Road municipal parking lot.

- Alternative parking options were reviewed to replace the temporary loss of parking during construction.
- The Harold E. Kennedy Park is being considered as a temporary parking lot/ farmer's market location during construction at the Elmwood Avenue and Lakeshore Road municipal parking lot.
- Construction at the municipal parking lot is anticipated to be approximately 12 months.
- Following construction, the Harold E. Kennedy Park would be restored as full public park space.



This is the selected preliminary preferred strategy. See below for the detailed short listed alternatives that were evaluated.

# Lakeshore Trunk Sewer – Short List of Alternatives

# Long List of Conceptual Shaft Alternatives



## Option L2A

Sewer extending east from Stavebank S. along Port Street E., north along St. Lawrence Dr. to Lakeshore Rd., and east along Lakeshore Rd to reach the Elmwood Ave. N. Municipal Parking Lot.

This strategy was not selected based on major impacts associated with road closures, traffic impacts, limited properties available to facilitate construction, higher cost and greater potential for environmental impacts.



#### **Opportunities**

• Accessible and large open site at Port St and Stavebank Rd could facilitate a construction compound.

- Requires diagonal water crossing of the Credit River and crossing under the existing marina.
- Requires extra sewer length and a minimum of two (2) extra shaft compounds for the sewer to reach Lakeshore Rd. This will increase impacts to residents/businesses along Port St, St Lawrence Dr, and portions of Lakeshore Rd.
- Greater disturbance along Lakeshore Rd due to additional shaft/construction compound at St Lawrence Dr, and Lakeshore Rd.
- Multiple shaft/construction sites with various owners
- Loss of parking facilities during construction at Stavebank Rd/Port St and Elmwood Ave/Lakeshore Rd.
- Higher cost due to increased numbers of shaft/construction compound locations and longer alignment.
- Proposed construction sites are close to existing commercial/residential use increasing noise, air, and odour mitigation.

## Option L2B

Sewer extending east from Stavebank S. along Port Street E., south along St. Lawrence Dr., and north along Elmwood Ave S. to reach the Elmwood Ave. N. Municipal Parking Lot.

This strategy was not selected based on major impacts associated with road closures, traffic impacts, limited properties available to facilitate construction, higher cost and greater potential for environmental impacts.



#### **Opportunities**

- Accessible and large open site at Port St. and Stavebank Rd could facilitate a construction compound.
- Some shaft compounds are located away from Lakeshore Rd and would reduce traffic impact.

- Loss of parking facilities during construction at Stavebank Rd/Port St and Elmwood Ave/Lakeshore Rd.
- Requires longer water crossing (diagonal) of the Credit River and crossing under the existing marina.
- Strategy will require extra sewer length and a minimum of three (3) extra shaft compounds to get the sewer back to Lakeshore Rd. This will increase impacts to residents/businesses along Port St, St Lawrence Dr, and Elmwood Ave.
- Multiple shaft/construction sites with various owners
- Higher cost due to increased number of shaft/construction compound locations and longer alignment.
- Proposed construction sites are close to existing commercial/residential use increasing noise, air, and odour mitigation.

# **Option L6**

Direct sewer from Front Street along Lakeshore Rd. to reach the Elmwood Ave Municipal Parking Lot.

This strategy was carried forward as preferred servicing strategy due to avoidance of major traffic impacts, availability of City property to facilitate construction, lower cost, and minimize potential environmental impacts due to direct crossing of the Credit River.



#### **Opportunities**

- Avoids major socio-economic impacts along Lakeshore Rd and requires less property for shaft locations.
- Removes the need for construction along residential/major roads.
- Construction impacts will be limited to the Elmwood Ave/Lakeshore Rd municipal parking lot.
- Solution provides a direct crossing of Credit River within bedrock, minimizing environmental impacts.
- Lower cost due to reduced number of shaft/construction compound locations and shorter sewer alignment.

- Loss of parking facility during construction at Elmwood Ave N./Lakeshore Rd.
- Proposed construction sites are close to existing commercial/residential use increasing noise, air, and odour mitigation.

# 2. Lakeshore Sub-Transmission Watermain

The Lakeshore Road sub-transmission watermain is required to support growth along the waterfront and in the Port Credit area, support operations and security of supply for pressure Zone 1, and transfer of flows between East and West water distribution systems.



The preferred Lakeshore watermain strategy followed a stepped evaluation approach:

- 1. Long list of crossing of the Credit River and shaft / construction compound location(s).
- 2. Long list screening criteria.
- 3. Short list of crossing/shaft location(s) and watermain alignment.
- 4. Short list evaluation criteria.
- 5. Preliminary preferred crossing/shaft location(s) and watermain alignment.

# Option W1: Shared shafts and construction compounds from Marina Park to parking lot corner of Elmwood Avenue North and Lakeshore Road

- Solution provides unique ability to utilize the same construction compounds and shaft locations as the proposed Lakeshore Road Trunk Sewer.
- Shared shaft and construction compounds for crossing of the Credit River eliminates the need for a second crossing under a different alignment, minimizing potential impacts to natural environmental features.
- Removes the need for additional property shared Elmwood / Lakeshore parking lot location.
- Provides a long-term optimized water servicing strategy with minimized socio-economic surface disturbed.
- Selected alternative based on greatest benefits from a balanced evaluation process.



This is the selected preliminary preferred strategy. See below for the detailed short listed alternatives that were evaluated.

# Lakeshore Sub-Transmission Watermain – Short List of Alternatives

# Long List of Conceptual Shaft Alternatives



## **Option W1**

Shaft location at Elmwood Ave Parking Lot / Lakeshore Rd. Tunnelled Solution along Lakeshore Rd.

This strategy was selected as the preliminary preferred strategy because it utilizes the same construction compounds and shaft locations as the proposed Lakeshore Sewer avoiding major environmental and socio-economic disruptions.



#### **Opportunities**

- Direct crossing of the Credit River. Utilizes same shaft locations and construction compounds as the Lakeshore Rd trunk sewer.
- Avoids major socio-economic impacts along Lakeshore Rd. and requires less property for additional shaft locations.
- Removes the need for construction along residential/major roads.
- Construction impacts will be limited to the Elmwood Ave/ Lakeshore Rd parking lot.
- Significantly less disruption than open cut options.

- Impacts to design and construction of the Lakeshore Rd trunk sewer.
- Limited opportunity for watermain connections along tunnel alignment.
- Potential complex watermain operation and maintenance due to depth.
- Potential need for larger permanent easement at shaft locations.
- Loss of parking facility during construction at Elmwood Ave/Lakeshore Rd.

## **Option W2**

Shaft location at Stavebank Rd. / Lakeshore Rd. Opportunity for open-cut or tunnelled watermain along Lakeshore Rd.

This strategy was screened out as it has major social and cultural impacts including lane closures / traffic impacts along Lakeshore Rd and limited properties available to facilitate construction.



#### **Opportunities**

- Direct crossing of the Credit River.
- Construction mainly within road right of way.
- More opportunities for watermain connections along tunnel alignment at intermediate shaft locations and/or open cut sections.

- Limited availability for intermediate shaft locations along Lakeshore Rd.
- Requires significant disruption along Lakeshore Rd.
- Potential higher cost due to multiple shaft locations and construction compounds.

## **Option W5a**

Shaft location at Elizabeth St. / High St. Opportunity for open-cut or tunnelled watermain along High St.

This strategy was screened out as it has major major social and cultural impacts including lane closures / traffic impacts and limited properties available to facilitate construction. Alternative does provide opportunity to avoid major construction impacts along Lakeshore Rd.



#### **Opportunities**

- Direct crossing of the Credit River.
- Avoids crossing under bridge structure and marina.
- Intersection of Elizabeth St. / High St could facilitate a construction compound to cross the river.
- Construction mainly within road right of way.
- Option a avoids construction along Lakeshore Rd.

- Open-cut solution will require lane/road closures impacting local roads.
- Potential higher cost due to separate tunnel with multiple shaft locations and construction compounds.
- Requires additional alignment to cross the Credit River, increasing impact to the natural environment.

## **Option W5b**

Shaft location at Elizabeth St. / High St. Opportunity for open-cut or tunnelled watermain along High St.

This strategy was screened out as it has major major social and cultural impacts including lane closures / traffic impacts and limited properties available to facilitate construction. Alternative does provide opportunity to avoid major construction impacts along Lakeshore Rd.



#### **Opportunities**

- Direct crossing of the Credit River.
- Avoids crossing under bridge structure and marina.
- Intersection of Elizabeth St. / High St could facilitate a construction compound to cross the river.
- Construction mainly within road right of way.
- Option a avoids construction along Lakeshore Rd.

- Open-cut solution will require lane/road closures impacting local roads.
- Option W5b requires additional disruptions along Lakeshore Rd.
- Potential higher cost due to separate tunnel with multiple shaft locations and construction compounds.
- Requires additional alignment to cross the Credit River, increasing impact to the natural environment.

## **Option W8a**

Port St & Stavebank Rd Parking Lot / Port St. / Lakeshore Rd. Opportunity for open-cut or tunnelled watermain along Lakeshore Rd.

This strategy was screened out as it has major social and cultural impacts including lane closures / traffic impacts along Lakeshore Rd and limited properties available to facilitate construction



#### **Opportunities**

- Accessible and large open site at Port St and Stavebank Rd could facilitate a construction compound to cross the river.
- Construction mainly within road right of way.
- Opportunity to coordinate construction with infrastructure upgrades along Port St.

- Diagonal crossing of the Credit River. Does not avoid crossing under bridge structure and marina
- Open-cut solution will require lane/road closures impacting local roads
- Requires disruption along Lakeshore Rd.
- Loss of parking facilities during construction at Stavebank Rd/Port St
- Requires additional alignment to cross the Credit River, increasing impact to the natural environment.

## **Option W8b**

Port St & Stavebank Rd Parking Lot / Port St. / Lakeshore Rd. Opportunity for open-cut or tunnelled watermain along Lakeshore Rd.

This strategy was screened out as it has major social and cultural impacts including lane closures / traffic impacts along Lakeshore Rd and limited properties available to facilitate construction



#### **Opportunities**

- Accessible and large open site at Port St and Stavebank Rd could facilitate a construction compound to cross the river.
- Construction mainly within road right of way.
- Opportunity to coordinate construction with infrastructure upgrades along Port St.
- Option W8b avoids construction along Lakeshore Rd from Hurontario St to Lawrence Dr.

- Diagonal crossing of the Credit River. Does not avoid crossing under bridge structure and marina
- Open-cut solution will require lane/road closures impacting local roads
- Requires disruption along Lakeshore Rd.
- Loss of parking facilities during construction at Stavebank Rd/Port St
- Requires additional alignment to cross the Credit River, increasing impact to the natural environment.
- Option W8b requires a longer alignment that Option W8a.

## **Option W9a**

Port St & Stavebank Rd Parking Lot / Port St. / St. Lawrence Dr. / Lakeshore Rd. Opportunity for open-cut or tunnelled watermain along Lakeshore Rd.

This strategy was screened out as it has major social and cultural impacts including lane closures / traffic impacts along Lakeshore Rd and limited properties available to facilitate construction.



#### **Opportunities**

- Direct crossing of the Credit River.
- Avoids crossing under bridge structure and marina
- Accessible and large open site at Port St and Stavebank Rd could facilitate a construction compound to cross the river.
- Construction mainly within road right of way.
- Opportunity to coordinate construction with infrastructure upgrades along Port St.
- Option W9b avoids construction along Lakeshore Rd from Hurontario St. to Lawrence Dr.

- Open-cut solution will require lane/road closures impacting local roads
- Requires disruption along Lakeshore Rd.
- Loss of parking facilities during construction at Stavebank Rd/Port St
- Requires additional alignment to cross the Credit River, increasing impact to the natural environment.
- Option W9b requires a longer alignment than option W9a.

## **Option W9b**

Port St & Stavebank Rd Parking Lot / Port St. / St. Lawrence Dr. / Lakeshore Rd. Opportunity for open-cut or tunnelled watermain along Lakeshore Rd.

This strategy was screened out as it has major social and cultural impacts including lane closures / traffic impacts along Lakeshore Rd and limited properties available to facilitate construction.



#### **Opportunities**

- Direct crossing of the Credit River.
- Avoids crossing under bridge structure and marina
- Accessible and large open site at Port St and Stavebank Rd could facilitate a construction compound to cross the river.
- Construction mainly within road right of way.
- Opportunity to coordinate construction with infrastructure upgrades along Port St.
- Option W9b avoids construction along Lakeshore Rd from Hurontario St. to Lawrence Dr.

- Open-cut solution will require lane/road closures impacting local roads
- Requires disruption along Lakeshore Rd.
- Loss of parking facilities during construction at Stavebank Rd/Port St
- Requires additional alignment to cross the Credit River, increasing impact to the natural environment.
- Option W9b requires a longer alignment than option W9a.

# 3. Rosemere Sanitary Pumping Station

The existing Rosemere SPS is an important community asset that provides services for residents in the area.

This SPS does not meet current Regional Design Standards and is facing condition, maintenance, performance, and health and safety issues that need to be addressed. **A** "**do nothing**" **approach is not feasible.** 



A new servicing solution is required to continue operations for servicing of the existing community. This study evaluated several alternative servicing solutions including:

- New SPSs and forcemains,
- Decommission (removal) of existing SPSs via gravity servicing, or
- Combination of pumping and gravity servicing.

## **Option R1: New Rosemere SPS and twin forcemains East to Vesta Drive**

This strategy is required to provide continued servicing to the area including properties along Rosemere Road.

#### Construction

New Rosemere SPS within the next 5-10 years is needed to replace the existing aging facility. Duration of construction is anticipated to be approximately 12 months. Another component includes tunnelling new forcemains from the SPS facility east to Vesta Drive, reducing surface disturbance to residents.



#### Impacts

Strategy requires removal of trees along Rosemere Road. To reduce residential property impacts, the Region is working with City of Mississauga to place required infrastructure within City land.

This is the selected preliminary preferred strategy. See below for the detailed short listed alternatives that were evaluated.

# **Rosemere SPS – Short List**

Long List Alternatives for Rosemere SPS



Pumping Solution: New SPS & forcemain to the gravity system northeast of the rail tracks.

This strategy was selected as the preferred servicing strategy due to avoidance of major road closures and City property availability to facilitate construction.



### Opportunities

- New SPS would replace aging infrastructure and be built in accordance with new SPS Standards.
- Does not require interim SPS upgrades.
- New forcemains (along new alignment) is further removed from residential properties that have limited space for construction activities.

- Does not provide opportunity to decommission existing SPS.
- Proximity to the Mary Fix Creek, Kenollie Creek and Railway.
- Anticipated traffic impacts along local roads (Rosemere Rd, Sandham Rd).
- Additional property and/or easements required due to new forcemain and larger SPS footprint.
- Limited available space for shaft locations and construction compounds.
- Existing forcemain alignment is located within several private properties/in-between two residential houses.

Pumping Solution: New SPS & forcemain discharging directly to the new Lakeshore deep trunk sewer.

This strategy was not selected based on major social and cultural impacts associated with tree removals, major road closures, traffic impacts and limited properties available to facilitate construction.



#### **Opportunities**

- New SPS would replace aging infrastructure and be built in accordance with new SPS Standards.
- Does not require interim SPS upgrades.
- Shallow open cut construction for forcemains south of the Railway along Stavebank.

- Does not provide opportunity to decommission existing SPS.
- Requires crossing of the Mary Fix Creek and Railway.
- Anticipated traffic impacts along local roads (Rosemere Rd, Stavebank Rd, Lakeshore Rd).
- Additional property and/or easements required due to larger SPS footprint.
- Limited available space for shaft locations and construction compounds.

Pumping Solution: New SPS & forcemain south to the gravity system along Stavebank Rd (connects to the new deep trunk sewer along Lakeshore).

This strategy was not selected based on major social and cultural impacts associated with tree removals, major road closures, traffic impacts and limited properties available to facilitate construction.



#### **Opportunities**

- New SPS would replace aging infrastructure and be built in accordance with new SPS Standards.
- Does not require interim SPS upgrades.
- Shallow open cut construction for gravity sewers along Stavebank.

- Does not provide opportunity to decommission existing SPS.
- Requires crossing of the Mary Fix Creek and Railway.
- Anticipated traffic impacts along local roads (Rosemere Rd, Stavebank Rd, Lakeshore Rd).
- Additional property and/or easements required due to larger SPS footprint.
- Limited available space for shaft locations and construction compounds.

Pumping Solution: New SPS & forcemain south to the gravity system along Stavebank Rd (connects the existing sewers to the Elmwood SPS drainage area).

This strategy was not selected based on major social and cultural impacts associated with tree removals, major road closures, traffic impacts and limited properties available to facilitate construction.



#### **Opportunities**

- New SPS would replace aging infrastructure and be built in accordance with new SPS Standards.
- Does not require interim SPS upgrades.
- Shallow open cut construction for gravity sewers along Stavebank.

- Does not provide opportunity to decommission existing SPS.
- Requires crossing of the Mary Fix Creek and Railway.
- Anticipated traffic impacts along local roads (Rosemere Rd, Stavebank Rd, Lakeshore Rd).
- Additional property and/or easements required due to larger SPS footprint.
- Limited available space for shaft locations and construction compounds.
- Requires upgrades of existing sewers along Stavebank Rd and Port St.

Gravity Solution: New gravity sewer from the current Rosemere SPS location to new deep trunk sewer along Lakeshore Rd via Stavebank Rd. Decommission of the existing Rosemere SPS.

This strategy was not selected based on major social and cultural impacts associated with tree removals, major road closures, traffic impacts and limited properties available to facilitate construction.



#### **Opportunities**

- Allows for SPS Decommission.
- Eliminates risk for system overflows.
- Minimizes long-term O&M needs.
- Maximizes benefit use of deep trunk sewer along Lakeshore Rd.

- Requires crossing of the Mary Fix Creek and Railway.
- Anticipated traffic impacts along local roads (Rosemere Rd, Stavebank Rd, Lakeshore Rd).
- Requires interim SPS upgrades to maintain SPS operation during construction.
- Limited space for deep open cut construction.
- Limited available space for shaft locations and construction compounds. Requires additional connection shaft along Lakeshore Rd.

# 4. Elmwood and Hiawatha SPS

The existing Elmwood and Hiawatha SPSs do not meet current Regional Pumping Station Design Standards and are facing condition, maintenance, performance, and health and safety issues that need to be addressed. In addition, the firm capacity of the existing SPSs cannot meet future projected flows. **A "do nothing" approach is not feasible.** 



A new servicing solution is required to continue operations for servicing of the existing community. This study evaluated several alternative servicing solutions including:

- New SPSs and forcemains,
- Decommission (removal) of existing SPSs via gravity servicing, or
- Combination of pumping and gravity servicing.

# Option EH14: Decommission SPS's and connect to Lakeshore Road Trunk Sewer by gravity solution

- Allows for decommissioning (removal) of two existing SPSs within public parks, providing additional public space. This includes Tall Oaks Park and Hiawatha Park.
- Solution maximizes the benefits of the new Lakeshore sewer.
- Construction will mainly be within road right-of-way minimizing impacts to surrounding natural environment.
- Short-term construction is required on local roads.
- Removes long-term operational and maintenance requirements.
- Cost-effective solution.



# Elmwood Hiawartha SPS – Short List of Alternatives

Long List of Conceptual Alternatives



Multiple New Sewage Pumping Stations: Elmwood SPS and Hiawatha SPS towards Beechwood SPS

This strategy was screened out as it does not maximize the new Lakeshore sewer, does not provide opportunity to decommission any SPSs, and will require additional land to site new facilities within public park space.



#### **Opportunities**

- New SPSs would replace aging infrastructure and be built in accordance with new SPS Standards.
- Does not require interim SPS upgrades.
- Shallow open cut construction for forcemains along new alignments.

- Impacts to properties in the vicinity of the stations and along forcemain alignments.
- Proximity to Lake Ontario.
- Anticipated traffic impacts along local roads.
- Maintain SPS operation during construction.
- Additional property and/or easements required (larger SPS footprint).
- Potential impacts to waterfront trail, parks, mature & memorial trees.
- Does not benefit of use of deep trunk sewer along Lakeshore Rd.
- Long-term O&M needs.

Single New Sewage Pumping Station: Hiawatha SPS towards Beechwood

This strategy was screened out as it does not maximize benefit of use of the new Lakeshore sewer and will require additional land to site a new facility within public park space.



#### **Opportunities**

- Supports Elmwood SPS decommission.
- New Hiawatha SPS would replace aging infrastructure and be built in accordance with new SPS Standards.
- Shallow open cut construction for forcemains along new alignments.
- Provides some public space enhancements.
- Reduces risk for system overflows.
- Reduces long-term O&M needs.

- Impacts to properties in the vicinity of the stations and along forcemain and gravity sewer alignments.
- Proximity to Lake Ontario.
- Anticipated traffic impacts along local roads.
- Requires interim SPS upgrades.
- Maintain SPS operation during construction.
- Additional property and/or easements required (larger SPS footprint).
- Potential impacts to waterfront trail, parks, mature & memorial trees.
- Limited available space for shaft locations and construction compounds.
- Partially utilizes proposed deep trunk sewer at Lakeshore Rd.

Single New Sewage Pumping Station: Hiawatha SPS towards new trunk sewer along Lakeshore Rd

This strategy was screened out as it does not maximize benefit of use of the new Lakeshore sewer and will require additional land to site a new facility within public park space.



#### **Opportunities**

- Supports Elmwood SPS decommission.
- New Hiawatha SPS would replace aging infrastructure and be built in accordance with new SPS Standards.
- Shallow open cut construction for forcemains along new alignments.
- Provides some public space enhancements.
- Reduces risk for system overflows.
- Reduces long-term O&M needs.

- Impacts to properties in the vicinity of the stations and along forcemain and gravity sewer alignments.
- Proximity to Lake Ontario.
- Anticipated traffic impacts along local roads.
- Requires interim SPS upgrades.
- Maintain SPS operation during construction.
- Additional property and/or easements required (larger SPS footprint).
- Potential impacts to waterfront trail, parks, mature & memorial trees.
- Limited available space for shaft locations and construction compounds.
- Requires additional shaft and length of Lakeshore trunk sewer to be constructed for connection from Hiawatha SPS.
- Does not maximize benefit of use of deep trunk sewer along Lakeshore Rd for a gravity solution.

Single New Sewage Pumping Station: Hiawatha SPS towards Elmwood

This strategy was screened out as it does not maximize benefit of use of the new Lakeshore sewer and will require additional land to site a new facility within public park space.



#### **Opportunities**

- Supports Elmwood SPS decommission.
- New Hiawatha SPS would replace aging infrastructure and be built in accordance with new SPS Standards.
- Shallow open cut construction for forcemains along new alignments.
- Provides some public space enhancements.
- Reduces risk for system overflows.
- Reduces long-term O&M needs.

- Impacts to properties in the vicinity of the stations and along forcemain and gravity sewer alignments.
- Proximity to Lake Ontario.
- Anticipated traffic impacts along local roads.
- Requires interim SPS upgrades.
- Maintain SPS operation during construction.
- Additional property and/or easements required (larger SPS footprint).
- Potential impacts to waterfront trail, parks, mature & memorial trees.
- Limited available space for shaft locations and construction compounds.
- Does not maximize benefit of use of deep trunk sewer along Lakeshore Rd for a gravity solution.
- Gravity sewers from Hiawatha to Elmwood will require upgrades. Existing sewers are located within easements on private property.

Single New Sewage Pumping Station - Elmwood SPS towards new trunk sewer along Lakeshore Rd

This strategy was screened out as it does not maximize benefit of use of the new Lakeshore sewer and will require additional land to site a new facility within public park space.



#### **Opportunities**

- Supports Hiawatha SPS decommission.
- New Elmwood SPS would replace aging infrastructure and be built in accordance with new SPS Standards.
- Shallow open cut construction for forcemains along new alignments.
- Provides some public space enhancements.
- Reduces risk for system overflows.
- Less reduction of long-term O&M needs.

- Impacts to properties in the vicinity of the stations and along forcemain and gravity sewer alignments.
- Proximity to Lake Ontario.
- Anticipated traffic impacts along local roads.
- Requires interim SPS upgrades.
- Maintain SPS operation during construction.
- Additional property and/or easements required (larger SPS footprint).
- Potential impacts to waterfront trail, parks, mature & memorial trees.
- Limited available space for shaft locations and construction compounds.
- Does not maximize benefit of use of deep trunk sewer along Lakeshore Rd for a gravity solution.
- Requires new gravity sewers from Hiawatha to Elmwood SPS which will influence the depth of the Elmwood SPS wet well.

West Conveyance 1: Decommission of existing Elmwood SPS and Hiawatha SPS. New gravity sewers from current SPS locations to new deep trunk sewer along Lakeshore Rd.

This strategy was screened out even though it maximizes the Lakeshore trunk sewer and decommissioning of Elmwood & Hiawatha SPS, but requires further construction on local residential and Lakeshore Rd.



#### **Opportunities**

- Allows for gravity service and supports Elmwood SPS and Hiawatha SPS decommission.
- Provides public space enhancements at both SPS locations
- Eliminates risk for system overflows.
- Minimizes long-term O&M needs.
- Maximizes benefit of use of deep trunk sewer along Lakeshore Rd.

- Impacts to properties in the vicinity of the stations and along gravity sewer alignments.
- Proximity to Lake Ontario.
- Anticipated traffic impacts along local roads.
- Requires interim SPS upgrades.
- Maintain SPS operation during construction.
- Less additional property and/or easements required.
- Potential impacts to waterfront trail, parks, mature & memorial trees.
- Limited available space for shaft locations and construction compounds.
- Requires additional shaft and length of Lakeshore trunk sewer to be constructed for connection from Hiawatha SPS.

West Conveyance 2: Decommission of existing Elmwood SPS and Hiawatha SPS. New gravity sewers from current Hiawatha SPS location to Elmwood Avenue. New gravity sewers from current Elmwood SPS location to new deep trunk sewer along Lakeshore Rd.

This strategy was selected as Preferred Elmwood & Hiawatha SPSs Strategy: Maximizes benefit of use of proposed Lakeshore deep trunk sewer and decommissions Elmwood and Hiawatha SPSs.



#### **Opportunities**

- Allows for gravity service and supports Elmwood SPS and Hiawatha SPS decommission.
- Provides public space enhancements at both SPS locations
- Eliminates risk for system overflows.
- Minimizes long-term O&M needs.
- Maximizes benefit of use of deep trunk sewer along Lakeshore Rd.

- Impacts to properties in the vicinity of the stations and along gravity sewer alignments.
- Proximity to Lake Ontario.
- Anticipated traffic impacts along local roads.
- Requires interim SPS upgrades.
- Maintain SPS operation during construction.
- Less additional property and/or easements required.
- Potential impacts to waterfront trail, parks, mature & memorial trees.
- Limited available space for shaft locations and construction compounds.
- Requires longer length of sewer and number of shafts on local roads than Option EH13.

# **Study Next Steps**

The project team will be working on a number of tasks outlined below following this PIC:

- Confirm preferred servicing strategies
  - SPS Servicing Strategies
  - Sewer and Watermain Alignments
  - Property Requirements
- Complete additional technical studies on the preferred sites / alignments which may include:
  - o Stage 2 Archaeological Assessment
  - Natural Features Assessment
  - Geotechnical Study
  - Phase 1 Environmental Site Assessment
- Phase 3 Alternative Design Concepts
- Continue to consult with review and approval agencies and other key stakeholders

# **Project Timeline**

- Fall 2020 Completed
  - Notice of Commencement and Phase 1 of the Class EA process completed in November 2020.
- Summer 2021 Completed
  - Review of baseline and alternatives. Due to the current public gathering restrictions regarding Covid-19, the first PIC was held virtually from August 25 to September 8, 2021.
- Spring 2022
  - Evaluation completed to select the preliminary preferred solution. This is currently where the project is, with this virtual PIC as a key component. The virtual PIC is being held from May 18 to June 1, 2022.
- Winter 2022
  - PIC No. 3 is anticipated to be held in Winter of 2022 to present the preliminary preferred design concepts for the preferred solution.
- Spring 2023
  - A detailed costing, phasing and implementation plan are anticipated to be developed and completed. A notice of completion is anticipated.

# **Stay Involved**

We encourage you to get involved by filling out the <u>comment sheet</u> by June 1, 2022 to provide any feedback on the study and/or if you would like to receive project information updates. Responses to all comments received will be posted on June 10, 2022.

# Please contact the Project Manager, Italia Ponce, P.Eng, at any point during the study if you have questions or comments.

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Visit the Project Website

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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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