Erb Street Water Supply Iron and Manganese Upgrades

Schedule C Municipal Class Environmental Assessment Virtual Public Consultation Centre #2

https://www.regionofwaterloo.ca/CurrentWaterProjects/

https://www.youtube.com/user/regionofwaterloo
Welcome!

Goals of this Virtual Public Consultation Centre are to:

- Provide an update on the Study since PCC #1
- Provide an overview of Preliminary Study Recommendations
- Provide an overview of the Evaluation of Alternative Treatment Facility Site Locations
- Provide an opportunity for you to learn about the project and get involved.

Please contact a member of the Study Team if you have any questions or want to provide input on the Study. We’d love to hear from you!
Project Overview

What are we doing?
We are planning upgrades to the Erb St Water Supply System to provide treatment for iron and manganese. This study will look at the best way to complete these upgrades.

Why are we doing it?
Lower aesthetic drinking water objectives for manganese are expected in the near future. The Erb St Water Supply System has been identified as requiring upgrades to meet these future aesthetic objectives. We are taking steps now to ensure we are ready to meet these objectives.

What does it mean to you?
These upgrades will require a new building to house the treatment equipment. It is expected additional property will be required. There is no change in the amount of water being taken from the Erb St Water Supply wells.
Iron and Manganese are naturally occurring metals commonly found in soil. They are often present in groundwater sources of drinking water.

Iron and Manganese may have aesthetic impacts such as staining of laundry and fixtures, undesirable taste, and discoloration.
Changes in Drinking Water Standards

The Province of Ontario regulates standards for drinking water to protect health and provides aesthetic objectives to produce drinking water that is pleasant to consumers.

The Province is considering a reduction to the manganese aesthetic objective in drinking water from 0.05 milligrams per litre (mg/L) to 0.02 mg/L based on guidance from Health Canada.

The Erb Street Water Supply System has been identified by the Region of Waterloo as requiring upgrades to meet future aesthetic objectives.
Municipal Class Environmental Assessment Process

We are here

Phase 1
Identify the problem/opportunity

Phase 2
Develop and evaluate alternative solutions. Identify preferred solution

Phase 3
Develop and evaluate alternative project designs. Select preferred design

Phase 4
Document the process in an Environmental Study Report

Phase 5
Project implementation (design and construction)

Public Consultation Centre #1

Public Consultation Centre #2

Continuous Stakeholder Engagement

30-day public review period
Overview of PCC#1

Preferred Treatment Technology

Traditional Oxidation + Filtration
- Natural Environment
- Socio-Economic/Cultural
- Technical
- Cost
- Overall Score

Location for the new Treatment Facility

New Treatment Building at New Site
- Existing well sites did not have sufficient area to accommodate new treatment equipment
- New locations to be evaluated based on impacts to the natural, social/cultural, technical, and economic impacts

Residuals Management

1. Equalization Tank with Liquid Stream Recycling and Solids Removal by Trucking
2. Equalization Tank with Liquid Stream Recycling and Discharge to Sewer
We have undertaken environmental reviews to help evaluate alternative sites. This includes terrestrial and aquatic habitat investigations, and reviews of built cultural heritage and archeological potential.
We have evaluated the alternative site locations based on these criteria:

**Social/Cultural**
- Minimizes impacts on existing residences, business, agricultural uses and other planned land uses and developments
- Protects archaeological and cultural heritage resources
- Protects health/safety

**Natural Environment**
- Protects environmental features
- Protects wildlife and species at risk
- Protects groundwater, streams, and rivers
- Minimizes climate change impacts

**Technical**
- Provides reliable service and meets existing and future needs
- Aligns with planned infrastructure improvements
- Impacts on existing infrastructure and utilities, and other constructability considerations
- Aligns with permitting and approval process

**Financial**
- Provides low capital costs
- Provides low long-term operations and maintenance costs
### Summary of Evaluation of Alternative Treatment Facility Locations

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**Legend**
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- Somewhat aligned with criteria
- Well aligned with criteria
- Not well aligned with criteria
- Low alignment with criteria

**Preliminary Preferred Location**

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**Region of Waterloo**

**Stantec**
### Residuals Management

**1. Equalization Tank with Liquid Stream Recycling and Discharge to Sewer**

**2. Equalization Tank with Liquid Stream Recycling and Solids Removal by Trucking**

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**Preliminary Preferred Approach**
Preliminary Study Recommendations

• New water treatment facility using traditional oxidation and filtration treatment technology

• Located directly adjacent to the existing reservoir, close to available sanitary sewer outlet and utility connections

• Currently owned by the City of Waterloo, and has been identified for potential purchase through the West Side Employment Lands subdivision development

• Limited environmental features on the site (Tree Preservation Plan to be prepared during design)
Next Steps

We are here

Public Consultation Centre #1

Review input and confirm alternative solutions and treatment technology

Public Consultation Centre #2

Complete environmental inventories and evaluate alternative treatment facility sites and residuals management

Identify preferred treatment facility location concept (Fall 2020)

Document the project in an Environmental Study Report

Begin design in 2022 and start construction in 2025

Continuous Stakeholder Consultation

Regional Council will provide approval to file the Environmental Study Report for a 30-day public review period
Thank you

Please fill out a comment sheet found at the link below and provide it to one of the team members by

Friday January 15, 2021.

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