Mid-Halton Wastewater Treatment Plant Expansion Municipal Class Environmental Assessment Study

Public Information Centre #1
June 26 to July 25, 2025
Background, Key Considerations and Next Steps

Halton REGION

Purpose of PIC #1

Welcome to the virtual Public Information Centre (PIC) #1 for the Mid-Halton Wastewater Treatment Plant (WWTP) Expansion Municipal Class Environmental Assessment (MCEA) Study

The purpose of this PIC is to:

- Share information about how the study is being conducted
- Share early considerations for capacity expansion at the Mid-Halton WWTP
- Gather input and share the next steps in the study.

We value your input!

Your input will help to shape the decision-making process for this project

Visit the Municipal Class Environmental Assessment (MCEA) Studies webpage on **halton.ca** to submit your comments

Background

- As part of the Region's overall strategy for meeting existing and future wastewater servicing needs for a growing population, the Mid-Halton WWTP must be expanded by 2031. This site has been planned to support future expansions to the WWTP.
- We are planning to increase the rated capacity of the Mid-Halton WWTP from its existing rated average flow capacity of 125 million litres per day (ML/d) to 175 ML/d by the year 2031.
- This study will identify a preferred expansion concept that provides:
  - Capacity expansion to meet existing and future treatment needs
  - Regulatory compliance
  - Operational efficiency and performance
  - Environmental protection and minimization of greenhouse gas (GHG) emissions
  - Reliable and sustainable infrastructure upgrades to support the required plant capacity

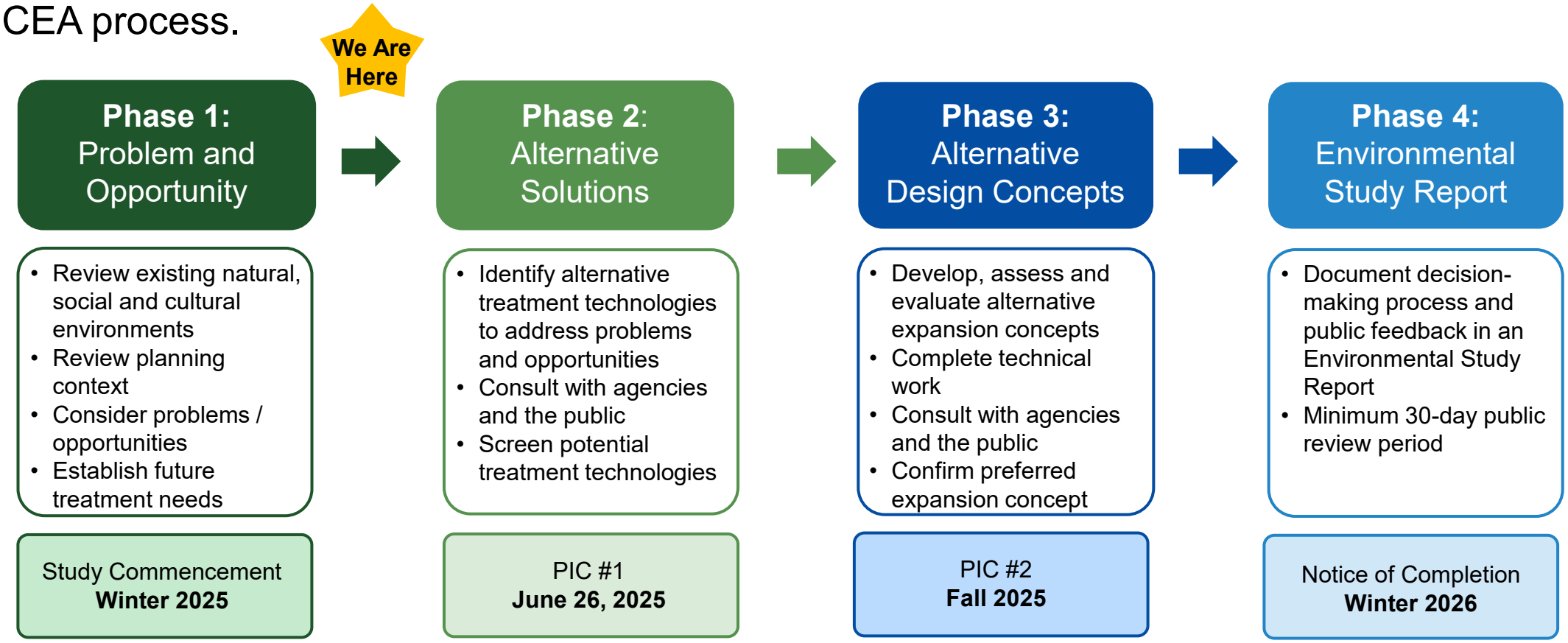
Study Area

The study area for the project will be within the Mid-Halton WWTP site, located at 2195 North Service Road W. in Oakville.

The WWTP expansion work will happen within the Study Area, but impacts will be considered for the surrounding community.

Study Process and Schedule

- This Study is following the planning and approval process for municipal infrastructure that follows Ontario's *Environmental Assessment Act*.
- This study has been identified as a Schedule 'C' project and will follow Phases 1 through 4 of the MCEA process.



Supporting Studies

To define existing conditions, assess alternative expansion concepts and establish appropriate mitigation measures for potential expansion impacts, the following studies are being undertaken:

Archaeological Assessment: To assess whether there is potential for archaeological resources within or around the WWTP.

Cultural Heritage Features: To confirm if there are any known cultural heritage features located within 300 m of the site.

Natural Environment Features: To identify natural habitats and species on the WWTP site and within 120 metres of the plant boundary.

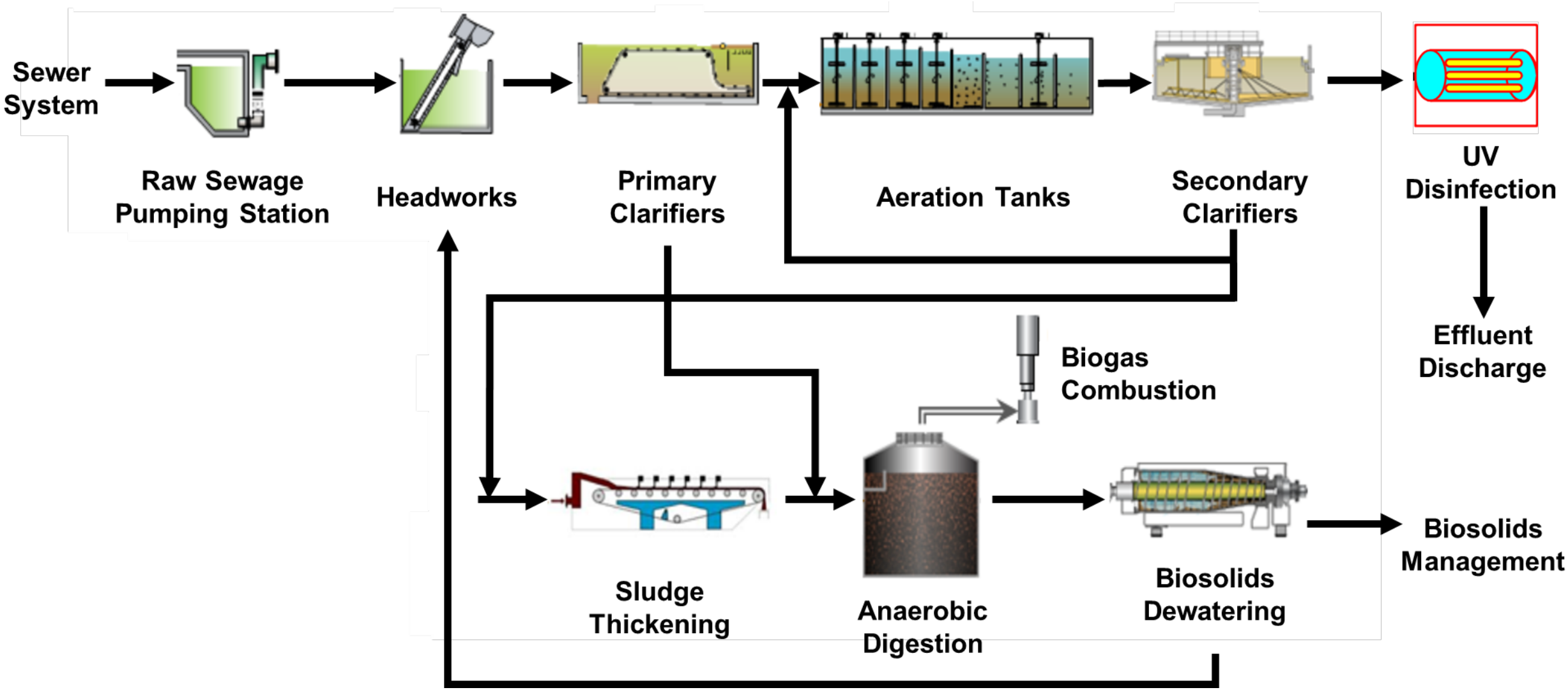
Supporting Studies

Receiving Water Impact Assessment: A study will be conducted to ensure the new expanded facility will meet all the effluent standards set by the Ministry of the Environment Conservation and Parks.

Air, Odour and Noise Assessments: to ensure the expansion minimizes impact on neighboring communities.

Climate Change and GHG Emissions: analysis to help select treatment technologies that minimize emissions.

Existing Mid-Halton WWTP Process



Mid-Halton WWTP Site Plan & Existing Facilities

- Pump Stations (PS) direct flow to the WWTP
- Headworks includes screening and grit removal
- Treatment Trains include:
  - Primary Treatment for suspended solids removal
  - Secondary treatment for biological treatment and solids removal
- UV Disinfection of final effluent
- Solids Handling which includes sludge treatment

Key Considerations for Plant Expansion

- Increasing capacity to 175 MLD by 2031 to support growth in the Region
- Maintaining flexibility on-site to allow for future expansions
- Optimizing operation and plant performance
- Protection of the environment and community
- Minimize Greenhouse Gas Emissions
- Control Odour and Noise

Process for Considering Treatment Technologies

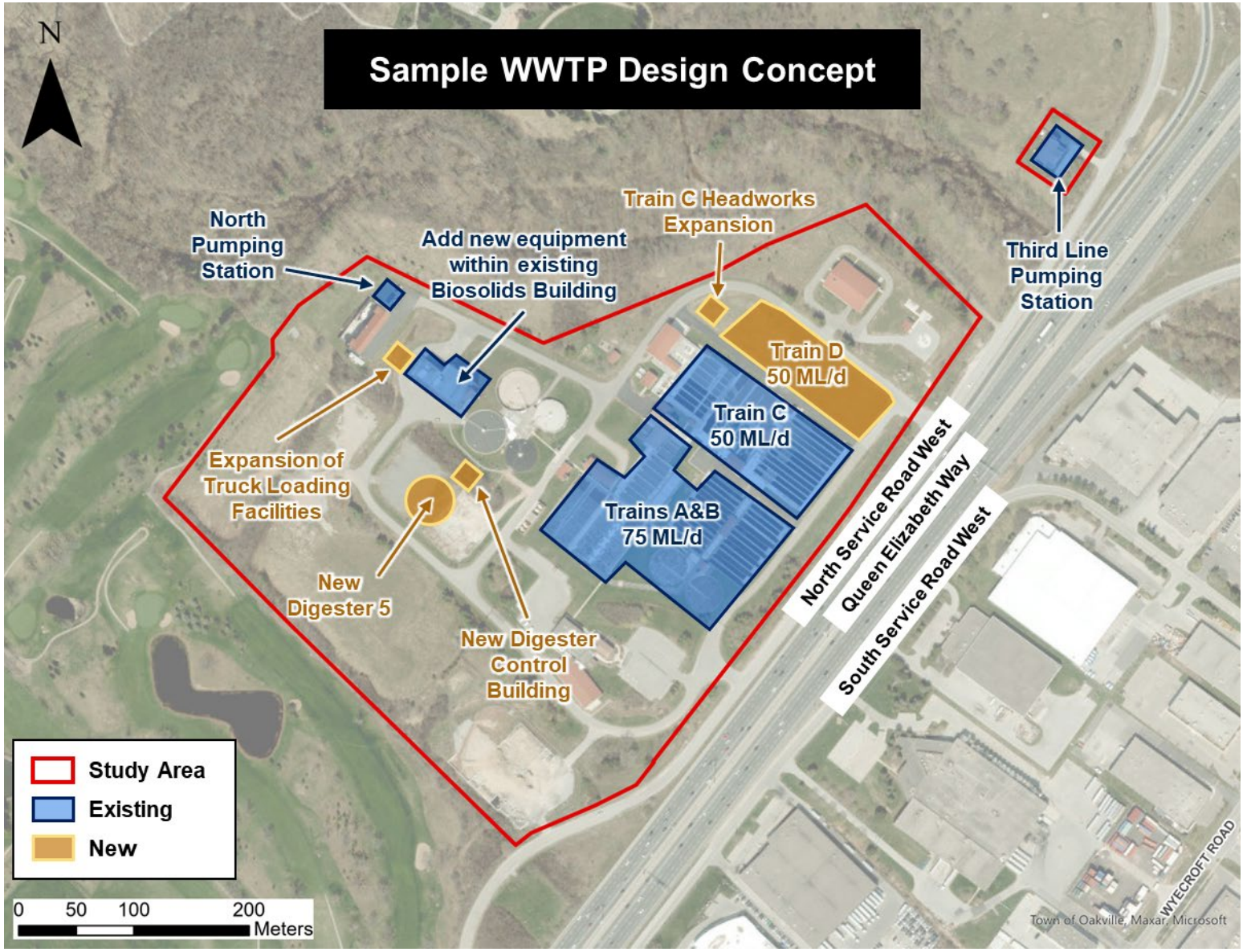
- The project will involve completing upgrades that efficiently use the available space on the property. This will include upgrades within the existing treatment areas and the construction of new infrastructure using the space available on the site
- A long list of technology alternatives will be considered for the capacity expansion
- Creating a long list allows the project team to review the potential advantages and disadvantages of many technologies before narrowing them down into a smaller set of options for detailed analysis
- The project team is examining technologies to upgrade each of the treatment processes in the plant including:
  - Headworks
  - Primary Treatment
  - Secondary Treatment
  - Disinfection
  - Sludge management

Screening Criteria for Long List of Treatment Technologies

1. Is it a demonstrated, proven technology with experience at similar facilities?
2. Is it able to provide opportunities for future expansion to a buildout capacity beyond what is required by 2031?
3. Does it present opportunities to reduce GHG emissions?
4. Can it be constructed and operational by 2031?

Next Steps in the Evaluation Process

- Identify a short list of treatment technologies using screening criteria
- Develop alternative optimization and expansion concepts using short list of treatment technologies similar to the example shown here
- Further evaluate the alternative design concepts using detailed evaluation criteria.



Preliminary Detailed Evaluation Criteria

Category	Natural Environment	Social/ Cultural Environment	Technical Considerations	Cost Optimization
Criteria	• Terrestrial and aquatic habitats • Groundwater quantity & quality • Surface water quality • GHG Emissions	• Noise & Odour • Truck Traffic • Visual/ Aesthetics • Archaeological & Cultural Heritage Resources • Impacts during Construction	• Ease of Operations & Maintenance • Ease of Implementation • Performance Effectiveness & Reliability • Compatibility with existing processes & infrastructure • Long Term Flexibility	• Capital Costs • Operations & Maintenance Costs • Lifecycle Costs

Next Steps in the MCEA Study

Following this Public Information Centre, the Project Team will:

- Review and consider feedback from agencies, stakeholders, Indigenous Communities, and the public
- Develop and assess alternative design concepts for plant expansion
- Present a preliminary preferred design concept at Public Information Centre #2 (PIC 2) in Fall 2025

How to stay involved:

Online survey
Provide your feedback by **July 25, 2025**

Study webpage
Learn more about the project at halton.ca

Contact the Project Team
Reach out to the Project Manager

Erica Wilson
Project Manager
Halton Region
905-825-6000 ext. 7093
MidHaltonUpgrades@Halton.ca