Mid Halton Wastewater Treatment Plant Upgrades – Online PIC #1 Script

Slide 1 (Welcome Slide)

Hello and welcome to the first Public Information Centre (PIC) for the Mid-Halton Wastewater Treatment Plant Expansion Municipal Class Environmental Assessment Study for Halton Region, which we will refer to as “the Study” in this video.

This study will consider a range of options to expand the Mid-Halton Wastewater Treatment Plant to support growth in Halton Region.

A PDF version of this slideshow is available online on the project page, which can be found on **halton.ca**. The Public Information Centre will be available for public comment until July 25, 2025.

Thank you for taking the time to watch this presentation and to learn more about the study. We encourage you to watch the video and share your input with the project team. Your feedback is valuable to us!

Slide 2 (Purpose of the Public Information Centre)

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; and
- Gather input and share the next steps in the study

Your feedback is important to us. Please take the opportunity to provide us your comments by completing the online survey available on the Municipal Class Environmental Assessment studies webpage on **halton.ca**.

Slide 3 (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.

The 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, and
- Reliable and sustainable infrastructure upgrades to support the required plant capacity

Slide 4 (Study Area)

This figure shows a map of the study area for the project, which is within the Mid-Halton WWTP site, located at 2195 North Service Road W. in Oakville. The study area also includes the Third Line Pumping Station located northeast of the WWTP.

The WWTP expansion work will occur within the study area identified, however impacts will be considered for both the plant and the surrounding community.

The existing infrastructure on the site and the wastewater treatment process will be discussed more on Slide 9.

Slide 5 (Study Process and Schedule)

This study follows the planning and approval process for municipal infrastructure that follows Ontario's *Environmental Assessment Act*.

Social, cultural and natural environments are considered during the study process. We will also consider community interests, technical agency requirements and project-specific issues.

This study has been identified as a Schedule "C" project and will follow Phases 1 to 4 of the MCEA process.

Consultation is ongoing throughout the four phases of the MCEA process, and we welcome your comments and feedback at any time during the study. The four boxes at the bottom of this slide represent key consultation milestones that are planned. Project notices will be issued to agencies, stakeholders, Indigenous Communities and the public in advance of these events. This study was initiated in Winter 2025, and we are currently at the beginning of Phase 2. A second PIC will be held later in the study to present and seek feedback on the work undertaken in Phase 3.

At the end of the study, an Environmental Study Report, or "ESR," will be prepared to document the planning and decision-making process. The ESR will be made available for public review for a minimum of 30 days. A Notice of Completion will be issued to commence the review period. Study completion is targeted for Winter 2026

Slide 6 (Supporting Studies Part 1)

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

- An Archaeological Assessment to assess whether there is potential for archaeological resources within or around the WWTP.
- A Cultural Heritage Features Study to confirm if there are any known cultural heritage features located within 300 m of the site.
- A Natural Environment Features Study to identify natural habitats and species on the WWTP site and within 120 metres of the plant boundary.

Slide 7 (Supporting Studies Part 2)

Additional supporting studies include:

- 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 impacts on the neighboring communities.
- A climate change and greenhouse gas emissions analysis to help select treatment technologies that minimize emissions and the impacts of climate change.

Slide 8 (The Existing Mid-Halton WWTP Process)

The figure on this slide provides a schematic diagram of the treatment steps at the Mid-Halton WWTP Facility.

Wastewater is conveyed to the Mid-Halton WWTP through the North Pumping Station and the Third Line Pumping Station, where it enters the plant at the headworks building to have any large debris removed. Wastewater flows are then conveyed to a distribution chamber, which splits flows between three parallel primary and secondary treatment trains (which are referred to as Trains A, B and C). A series of processes occur in these treatment trains that allow the wastewater to be safely returned to the environment. Flows from each train then flow into a combined channel that receives seasonal UV disinfection between May 1 and October 31 before final discharge. Treated effluent is then discharged through a dedicated outfall into Lake Ontario.

Biosolids generated during the wastewater treatment process are managed through several treatment components, including a thickening process, anaerobic digestion, and a dewatering process that removes enough water from the solids to change the consistency to that of a damp or dry solid. These dewatered biosolids are then conveyed to storage bins prior to trucking off-site for end use.

Slide 9 (Mid-Halton WWTP Site Plan & Existing Facilities)

This slide shows an aerial view of the Mid-Halton plant and identifies the location of the various existing treatment components at the facility.

As discussed on the previous slide, the main steps in the treatment process include:

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

Based on the required capacity of 175 million litres/day at the WWTP needed by the year 2031, it is anticipated that each of the treatment components at the facility will require an upgrade or expansion in order to meet the future demands.

Slide 10 (Key Considerations for Plant Expansion)

There are several considerations that are taken into account when developing alternatives for plant expansion. The key considerations for plant expansion include:

- Increasing capacity to 175 ML/d 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
- Minimizing greenhouse gas emissions
- Controlling odour and noise

Slide 11 (Process for Considering Treatment Technologies)

The project will involve completing upgrades that efficiently use the available space on the property. This will include completing upgrades within the existing treatment areas and the construction of new infrastructure using the space available on the site.

A long list of alternative technologies 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

Slide 12 (Screening Criteria for Long List of Treatment Technologies)

In order to narrow the long list down to a short list of viable options, a set of four screening criteria will be used. This will help the team determine if a technology is worth investigating further. Those criteria are:

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. And finally, can it be constructed and operational by 2031?

Slide 13 (Next Steps in the Evaluation Process)

After screening the long list of treatment technologies to identify a short list using the screening criteria presented, the project team will utilize the short list of treatment technologies to develop alternative expansion concepts for the Mid-Halton WWTP. This will allow the team to understand how each technology will be utilized and implemented as part of a comprehensive plant expansion. These alternative concepts will be similar to the example design concept site layout presented here. These will be further developed and assessed in Phase 3 of the Municipal Class Environmental Assessment Process.

Slide 14 (Preliminary Detailed Evaluation Criteria)

Once the alternative design concepts for the plant expansion have been defined, they will be evaluated using a set of detailed evaluation criteria broken into four categories. These categories include:

1. Natural Environment
2. Social and Cultural Environment
3. Technical Considerations
4. Cost

The criteria will be finalized based on input from this Public Information Centre.

Slide 15 (Next Steps – Municipal Class EA)

This concludes the video for Public Information Centre #1 of the Mid-Halton Wastewater Treatment Plant Expansion Municipal Class Environmental Assessment Study.

The next steps of this study are for the project team to:

- 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

We would like to invite you to provide your comments on the material we have presented and on the study in general. There are two ways to provide your comments:

- You can complete the survey provided online by July 25, 2025, on the Municipal Class Environmental Assessment Webpage on **halton.ca**.
- Or you can provide your comments directly to the project team at Halton Region by emailing MidHaltonUpgrades@halton.ca

Project information will continue to be updated on the Mid-Halton WWTP Expansion Study page on **halton.ca**. We would also like to invite you to join our mailing list for the project to receive updates on the project's progress. You can join the project mailing list to receive updates by sending your name and your email address to MidHaltonUpgrades@halton.ca

Thank you, and we look forward to receiving your feedback.