

Halton Region Biosolids Composting Facility M-C-E-A Study – Virtual Public Information Centre Presentation Script – Video #1

Slide 1 (Introduction)

Hello and welcome to the Halton Region Biosolids Composting Facility Municipal Class Environmental Assessment (or M-C-E-A) Study Public Information Centre. The Public Information Centre will be available virtually for public review and comment until May 2nd, 2024. A PDF version of this presentation is also available online on the project webpage, which can be found on halton.ca.

Slide 2 (Video 1 – Introduction and Background)

This is the Introduction and Background video. This is the first of three videos for the Halton Region Biosolids Composting Facility M-C-E-A Study. In this video, we will review the project background, study area, existing conditions and opportunity.

Slide 3 (Purpose of Public Information Centre)

The purpose of this Public Information Centre is to share information about the study and to gather input on the preliminary preferred location for a biosolids composting facility within Halton Region. We appreciate your interest in the study and look forward to receiving your feedback and comments.

Slide 4 (Project Background)

Halton Region owns and operates six wastewater treatment plants that clean wastewater and safely return the water back to the environment. The wastewater treatment process produces a solids by-product, known as “biosolids,” which is rich in organic matter and nutrients. The local agricultural community has been using biosolids for crop production for over four decades.

Slide 5 (Project Background (Continued))

This slide presents a timeline of past events that are relevant to this study.

In 2012, the Region’s Biosolids Master Plan was completed and recommended further investigation of biosolids composting to complement the Region’s land application program, which is how all biosolids generated in the Region are currently managed.

In 2015, a Biosolids Composting Pilot Study was completed and confirmed that compost made using biosolids generated in the Region meets Provincial compost quality requirements.

In 2020, a Biosolids Composting Feasibility Study was completed and recommended a Region-owned biosolids composting facility to make biosolids compost.

In 2021, Regional Council approved that Halton Region staff proceed with a M-C-E-A Study.

In 2022, Halton Region initiated a Schedule B M-C-E-A Study to identify the preferred location for a Region-owned biosolids composting facility, which is the subject of this Public Information Centre.

Slide 6 (Study Area)

The figure on this slide presents the study area, which includes the area within the boundary of Halton Region. The biosolids composting facility will be located in Halton Region.

Slide 7 (Municipal Class Environmental Assessment Process)

The Halton Region Biosolids Composting Facility M-C-E-A Study is being completed as a Schedule B M-C-E-A Study, following the process outlined by the Municipal Engineers Association. As a Schedule B M-C-E-A Study, Phases 1 and 2 of the M-C-E-A Study process will be completed. In Phase 1, the problem and opportunities were defined. In Phase 2, alternative sites for the biosolids composting facility were evaluated to identify a preliminary preferred solution. The preferred solution will be finalized considering the consultation feedback, and implemented following completion of this study.

Slide 8 (Existing Conditions – Halton Region Biosolids Management Program)

The Region owns and operates six wastewater treatment plants. The plants have a total treatment capacity of 370,000 cubic metres per day and combined, treated an average wastewater flow of approximately 245,000 cubic metres per day from 2019 to 2021. This is equivalent to approximately 100 Olympic sized swimming pools full each day.

The Region's wastewater treatment plants generate biosolids. Biosolids generated at the Skyway and Mid-Halton wastewater treatment plants are dewatered onsite, which means that extra water is removed from the biosolids to minimize the amount that needs to be hauled away.

Biosolids generated from the other four facilities are transported to the W.A. Bill Johnson Biosolids Management Centre, which is located on Regional Road 25 in the Town of Oakville.

All biosolids are beneficially reused through seasonal agricultural land application and mine tailings area reclamation.

Slide 9 (Existing Conditions – Halton Region Biosolids Management Centre (BMC))

The Biosolids Management Centre has 10 storage tanks to hold the biosolids, a dewatering station to remove excess water from the biosolids, and an administration and maintenance building. An aerial view of the Biosolids Management Centre is shown on this slide.

Slide 10 (Changes and Challenges Affecting Biosolids Management)

Changes affecting biosolids management include increased biosolids generation due to population growth and increased urban development, which has reduced agricultural land availability for biosolids application. Challenges affecting biosolids management are related to the fact that most of the Region's biosolids are managed outside of the region, which increases transportation distances, carbon emissions, and weather-related risks during transportation, such as spills. There are also risks of increased landfill needs as a contingency for biosolids disposal due to reduced agricultural land availability and increased frequency of extreme weather events that limit biosolids transportation.

Slide 12 (Problem/ Opportunity)

To address the changes and challenges described on the previous slide, we are looking into a Region-owned biosolids composting facility. This M-C-E-A Study will identify the preferred location for a Region-owned biosolids composting facility, which will include the biosolids composting process, bulking agent (such as woodchips) storage, an odour control system, and office space.

Slide 13 (Composting Technology – Aerated Static Pile (ASP) Biosolids Composting)

The preferred technology for the proposed biosolids composting facility is aerated static piles. The figure on this slide presents a process flow diagram for a typical aerated static pile biosolids composting facility. First, biosolids and bulking agents are received and mixed. Mixed material is transferred to the aerated static pile composting system for primary composting. This process involves sending air through piles of mixed material while microorganisms break down the material to produce compost and requires 21 calendar days to complete. Following primary composting, the compost material is screened to improve quality and the remaining screened material is recycled back to the compost mixing operation. Screened compost is then transported to another area of the facility for aerated curing, which is a similar process to primary composting except at lower temperatures, and requires 28 calendar days to complete. Curing completes the composting process and produces a finished compost product. Finished compost product is then stored as required until it is beneficially used in areas such as landscaping or agriculture.