

# Dutton Wastewater Treatment Plant

Municipal Class Environmental Assessment  
Community Newsletter – December 2023



## Overview

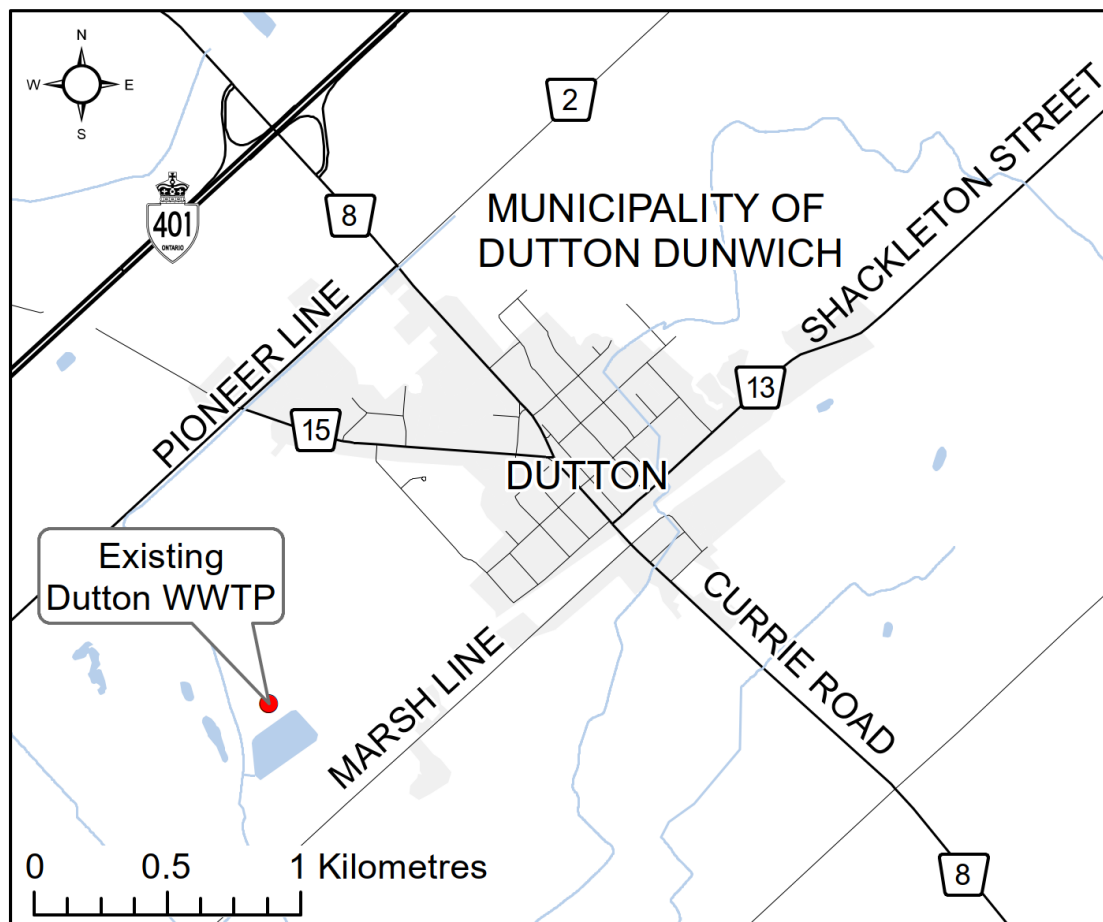
The volume of wastewater flowing to the Dutton Wastewater Treatment Plant (WWTP) is nearing the plant's capacity. Additional capacity is required to meet existing servicing needs and allow for growth in the community.

On behalf of the Municipality of Dutton Dunwich, Dillon Consulting Limited is conducting a study to determine the best approach to upgrade the plant.

The study is following the requirements of the Municipal Class Environmental Assessment (EA; 2023) as a Group C project. The initial phase of the study was presented at a Public Information Centre in April 2022, as summarized on the following page.

**The purpose of this newsletter is to provide an update on the study and present the preferred design concept for upgrades to the plant.**

## Project Location



## Alternative Solutions (Presented at the Public Information Centre)

The Municipal Class EA process requires that alternative solutions be developed to address the problem and opportunity identified.

Four alternative solutions were evaluated based on a number of criteria, including:

- Potential impacts to the natural, social, and cultural environments
- Technical performance and feasibility
- Relative capital and operating costs.

As presented at the Public Information Centre on April 28, 2022, the preferred solution is to upgrade and expand the existing WWTP. This solution is cost effective to accommodate future growth. The plant upgrade can be completed within the existing property and some of the existing equipment and buildings can be reused.

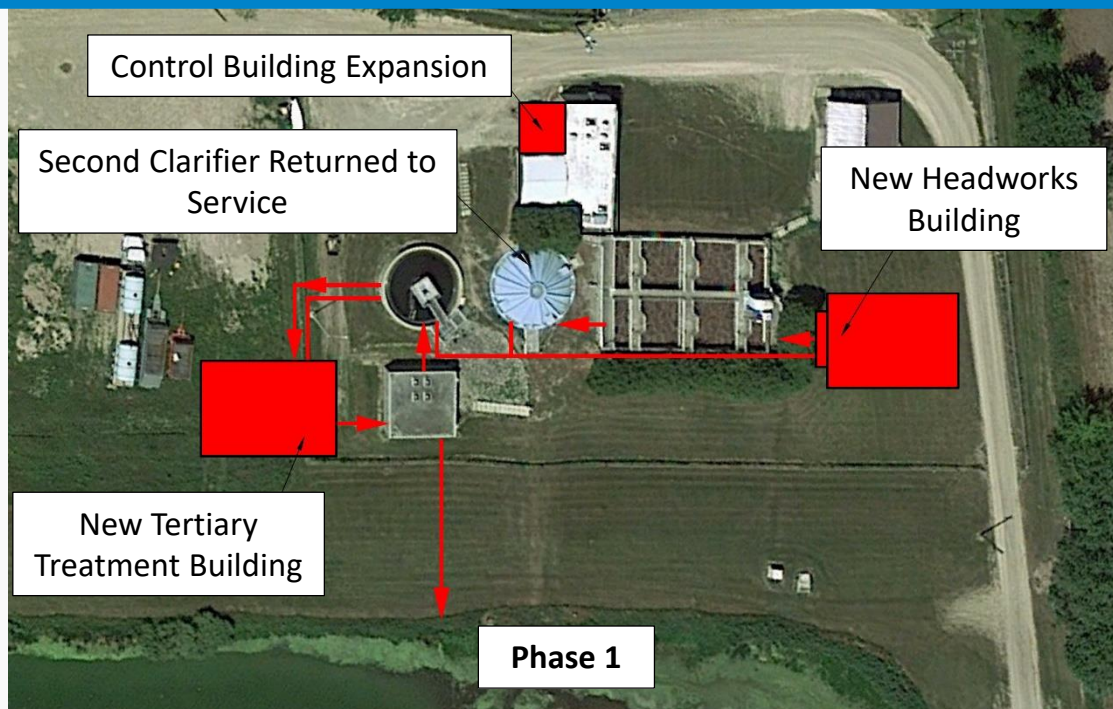
## Treatment Alternatives for the Upgrade and Expansion of the WWTP

A short-list of three treatment alternatives was developed based on the following key criteria:

- Technical performance, including ability to meet water quality objectives and ease to construct, operate, and maintain
- Feasibility of the required technology and practicality of implementing it
- Construction footprint for the design is restricted to lands currently owned by the Municipality
- Estimated costs to construct the upgrades, and to operate and maintain the plant.

The intent is to upgrade the plant in two phases, with Phase 1 addressing current needs and imminent growth in the community, and Phase 2 addressing longer-term growth.

### Alternative 1 – Extended Aeration



Advantages:

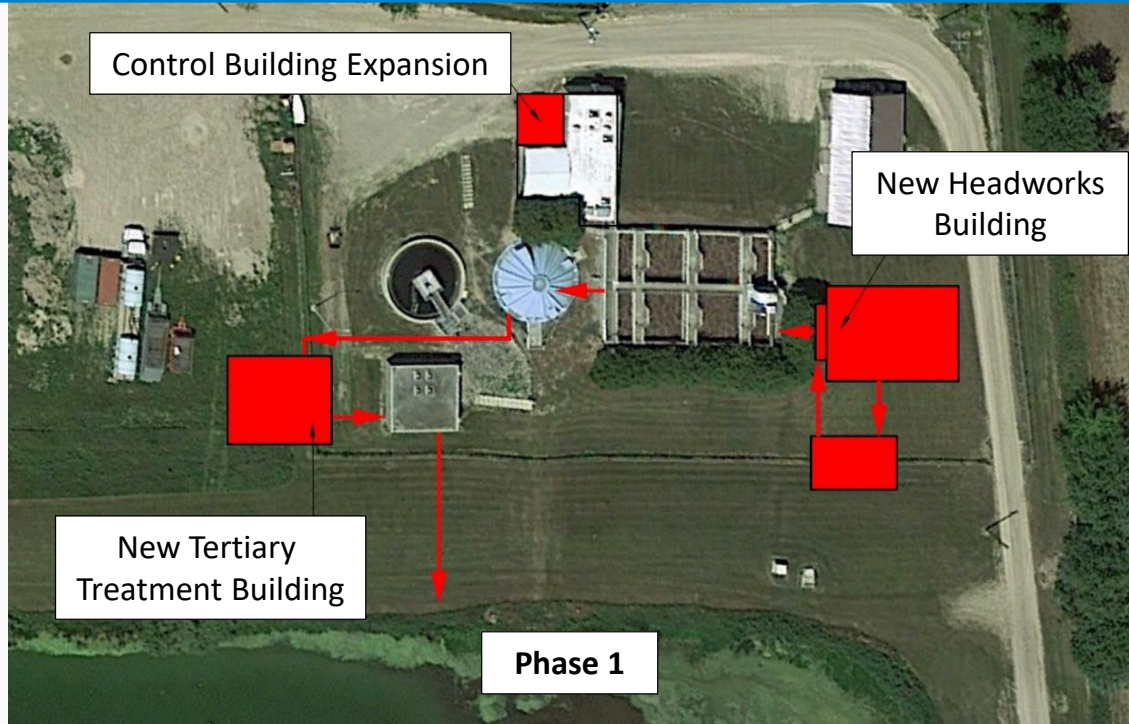
- Easy to operate
- Relatively small footprint
- Lowest cost for initial upgrades.

Disadvantages:

- Requires larger footprint for Phase 2 expansion compared to other alternatives
- More complex to construct.



## Alternative 2 – Membrane Aerated Bio-Reactor



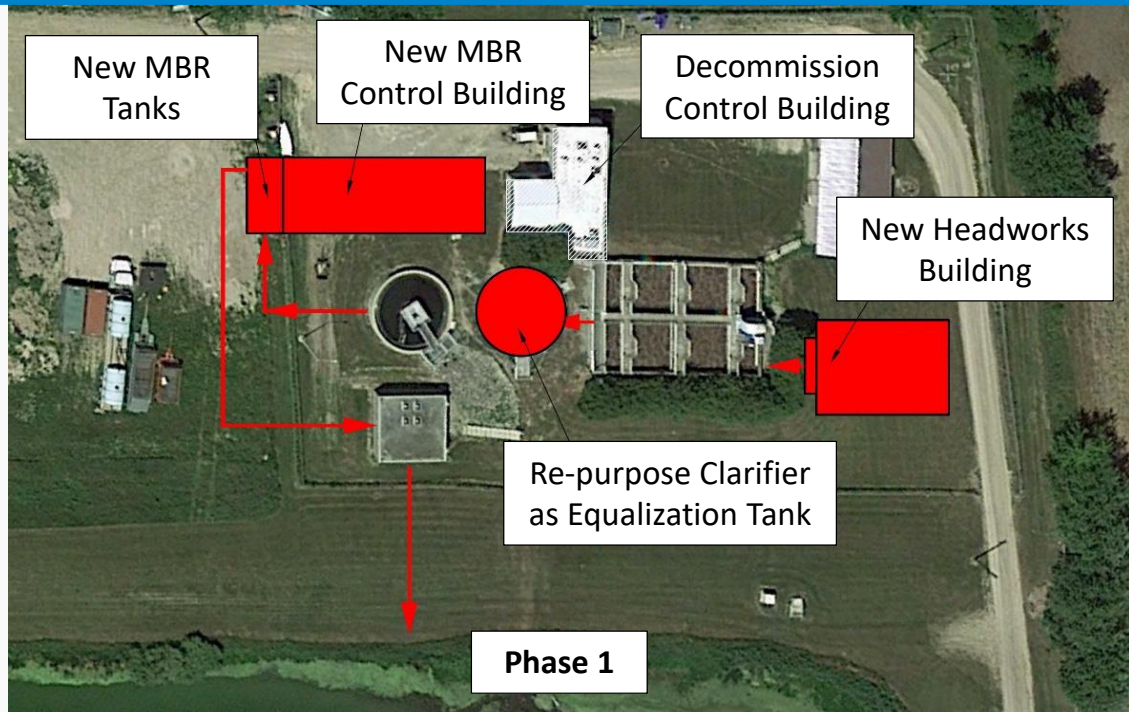
### Advantages:

- High quality water discharge
- Compact construction and less site disturbance
- Can be retrofitted into current facility and phased into future expansion.

### Disadvantages:

- More complex to operate
- New construction would be required in both Phases 1 and 2
- Higher capital and operating costs.

## Alternative 3 – Membrane Bio-Reactor



### Advantages:

- Compact footprint
- Can be retrofitted into current facility and phased into future expansion.

### Disadvantages:

- More complex to operate
- New construction required in both phases
- Higher capital and operating costs.

Based on the evaluation completed, an **extended aeration upgrade (Alternative 1)** is recommended to provide service to the community of Dutton during Phase 1.

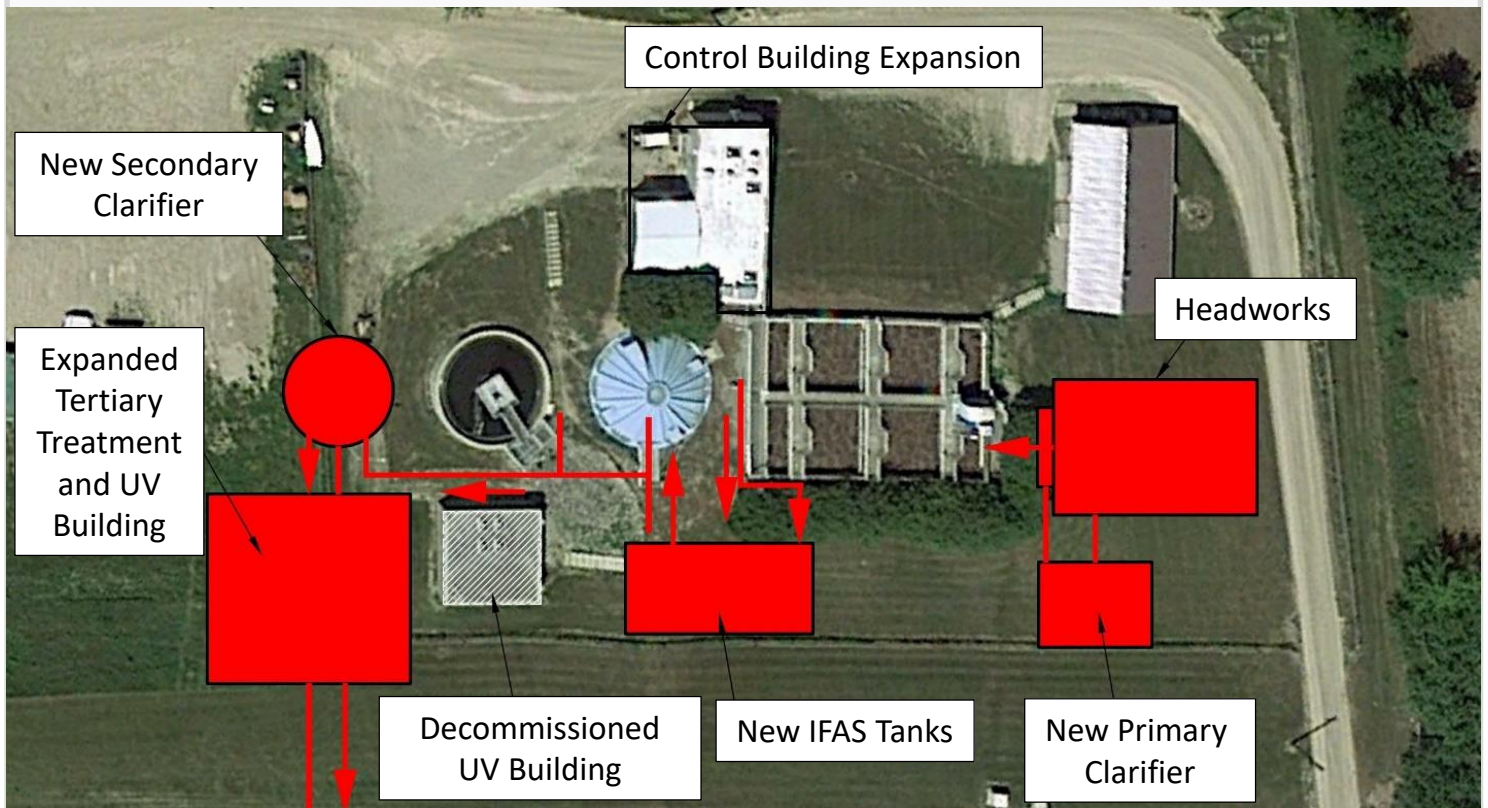
What's New

Phase 1 construction will require minimal additional footprint, new construction, and site disturbance. Operation of the upgraded plant in Phase 1 will be similar to the existing plant.

Phase 2 construction will be based on future growth needs and timing. The treatment technology for Phase 2 is subject to change; however, a conceptual layout is provided below for reference.

Funding will be confirmed once the design and cost are finalized. Potential funding sources include development charges and government grants.

### Conceptual Design for Phase 2 Upgrades



### Next Steps, Comments, and Questions

If you have comments or questions about the study, please contact either of the project team members listed below by **January 24, 2024**. The Environmental Study Report for the project is planned to be published for a 30-day public comment period in spring 2024. A Notice of Completion will be distributed with details on how you can view the report and provide comments.

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