

# St. Clair Township Courtright Wastewater Treatment Plant Class Environmental Assessment

Public Information Session #1

March 29, 2023



**Jacobs**

# St. Clair Township Courtright Wastewater Treatment Plant Class Environmental Assessment

## Introductions

- St. Clair Township Staff
- Jacobs Staff

# Welcome to Public Information Session #1

**Please sign in.**

The Township is undertaking an Environmental Assessment to expand its existing Courtright Wastewater Treatment Plant to accommodate future residential and industrial growth. Improvements will be needed at the existing plant to accept additional industrial sanitary flows anticipated to be generated in the next 3 years, and to accommodate anticipated future growth over the next 20 years.

The Schedule C Municipal Class Environmental Assessment will look at how the Township is currently managing and treating wastewater at the Courtright Wastewater Treatment Plant and identify how we will expand treatment capacity to continue to meet the demands of our growing community until 2042.

This is the first of two public information sessions that you will have the chance to have your say and help shape the environmental assessment.

# Class Environmental Assessment

## Class Environmental Assessment Purpose

The purpose of the Courtright Wastewater Treatment Plant (WWTP) Schedule C Municipal Class Environmental Assessment is to review future wastewater treatment needs and provide a sustainable solution to provide treatment capacity to 2042.

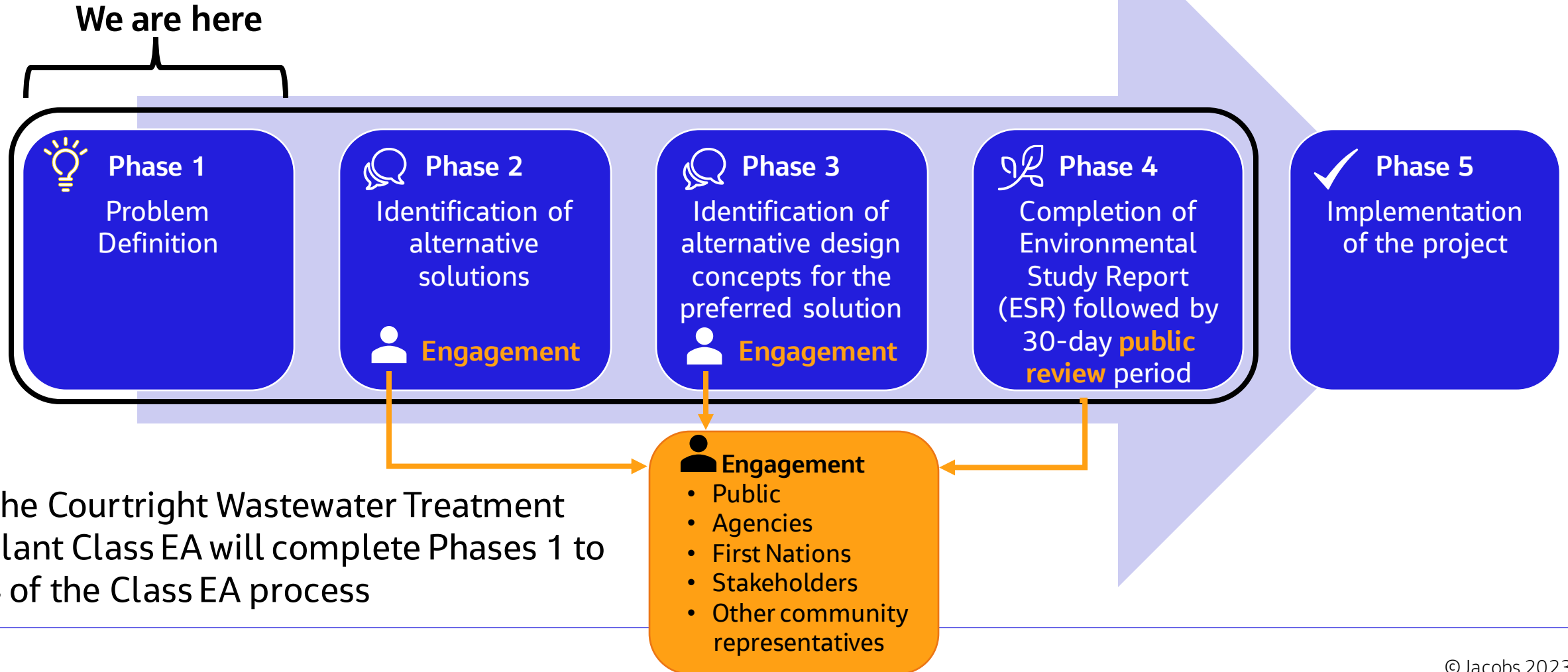
## Study Area

The Courtright WWTP collects and treats wastewater from the communities of Corunna, Mooretown and Courtright, as well as outlying industrial development as displayed in the figure.



# Class Environmental Assessment Process

The Class Environmental Assessment (EA) Process consists of five phases as follows:



The Courtright Wastewater Treatment Plant Class EA will complete Phases 1 to 4 of the Class EA process

# Public Engagement

St. Clair Township wants to provide an opportunity to offer suggestions, comments and ideas for the Class Environmental Assessment (EA) process. The Township is interested in feedback from community members, Indigenous groups, conservation authorities, utilities, and government agencies.

We will have two (2) public information sessions during the Class EA process. The next one is tentatively scheduled for September 2023 and will present the preferred alternative and alternative design concepts of this Class EA.

For the most up-to-date information related to the Class EA, please refer to the Township website: <https://www.stclairtownship.ca/>

Following completion of the Environmental Study Report (ESR), it will be posted to the Township website for a 30-day public review.

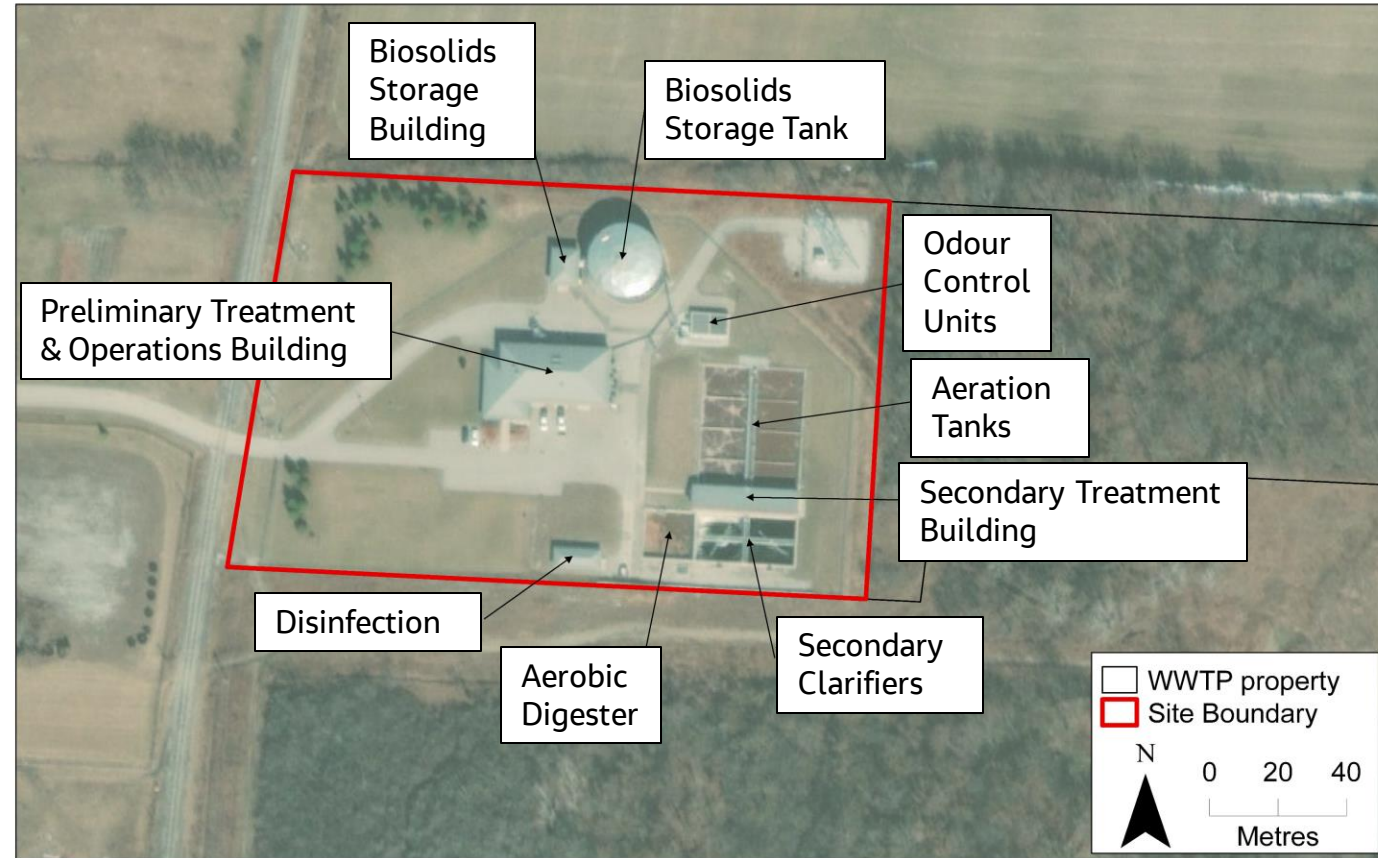
# Courtright Wastewater Treatment Plant (WWTP)

The Courtright WWTP has a current rated capacity of 6 million litres per day. This is equal to 100 backyard swimming pools per day.

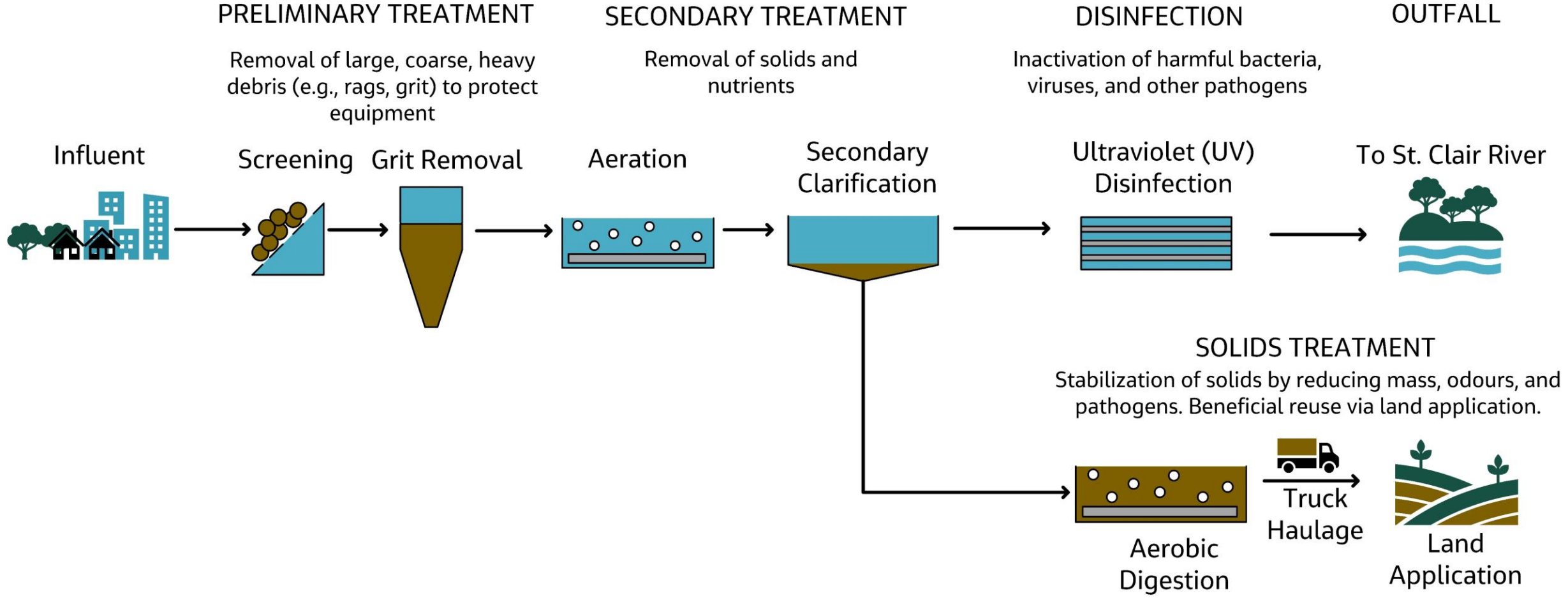
Wastewater arriving at the Courtright WWTP undergoes multiple stages of treatment: preliminary, secondary, and disinfection. The final treated effluent (high quality treated wastewater) is discharged to the St. Clair River.

Solids that are removed from the wastewater treatment processes are stabilized through aerobic digestion and stored on-site. The digested solids are hauled by truck off-site for land application under the Nutrient Management Act.

Odours are managed through liquid-phase odour control (constructed in 2015) and a biofilter system to treat odorous air from preliminary treatment (constructed in 2019).

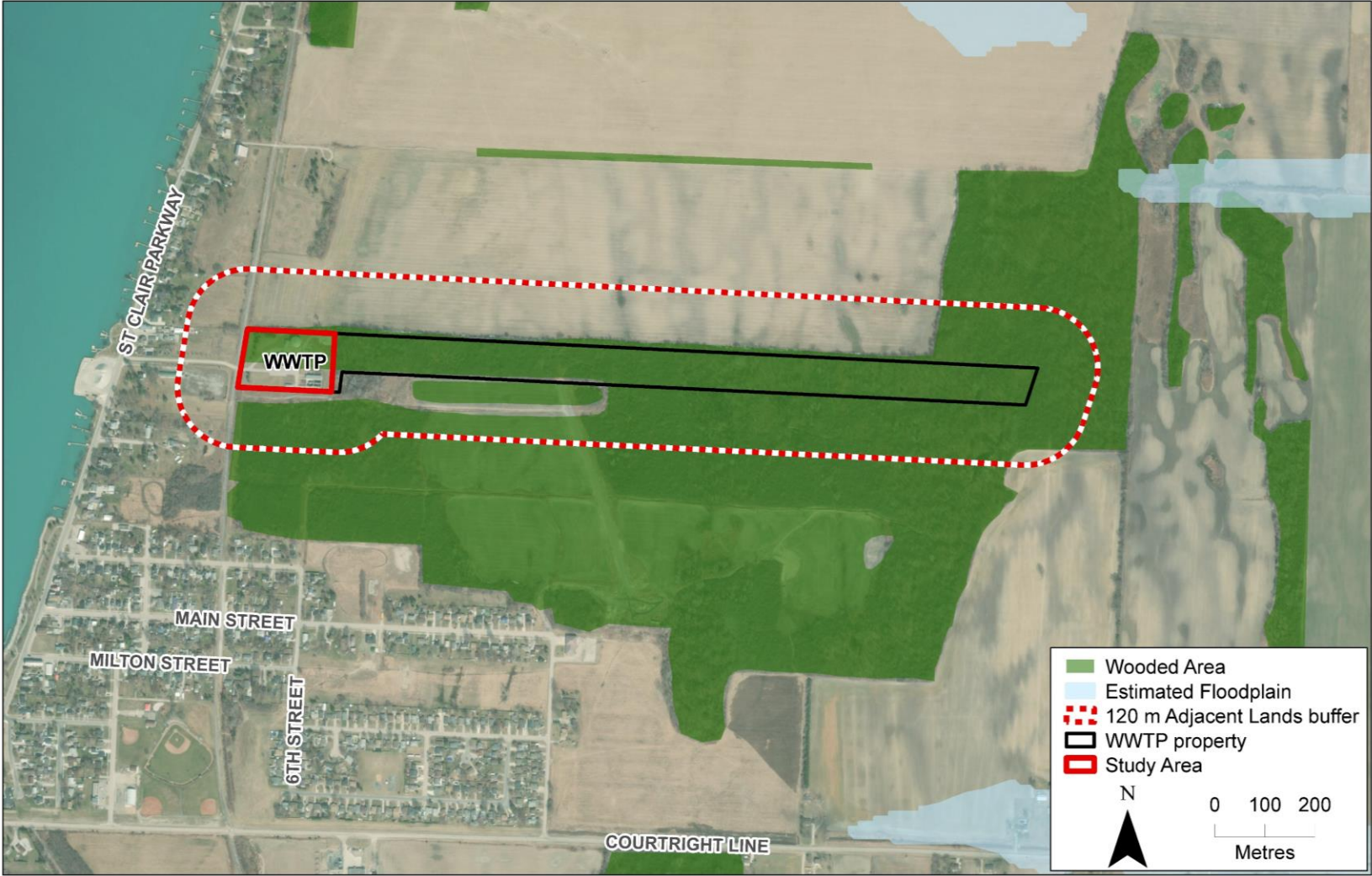


# Courtright Wastewater Treatment Plant Process Flow Diagram





# Study Area Considerations – Natural Environment Features



# Study Area Considerations – Archaeological Potential



# Future Needs

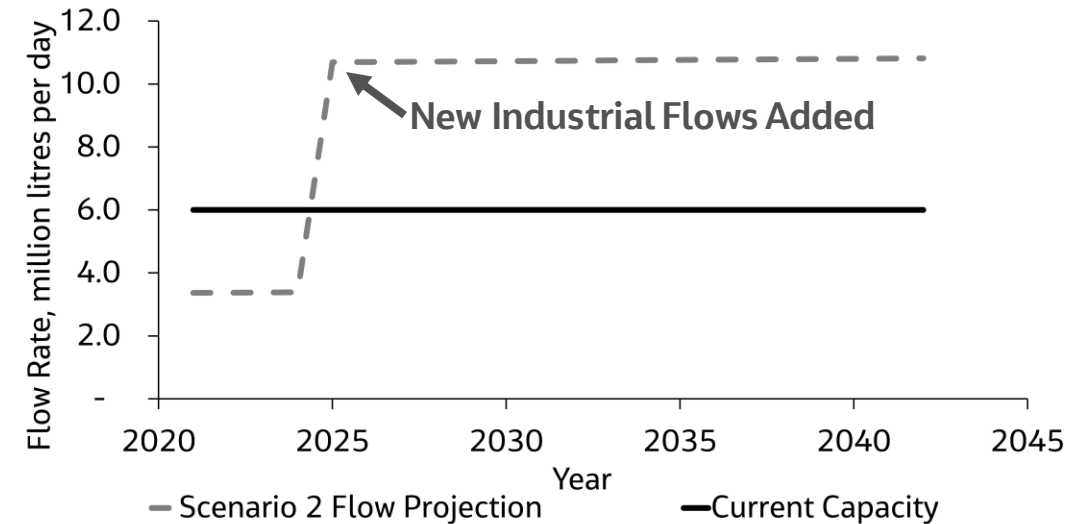
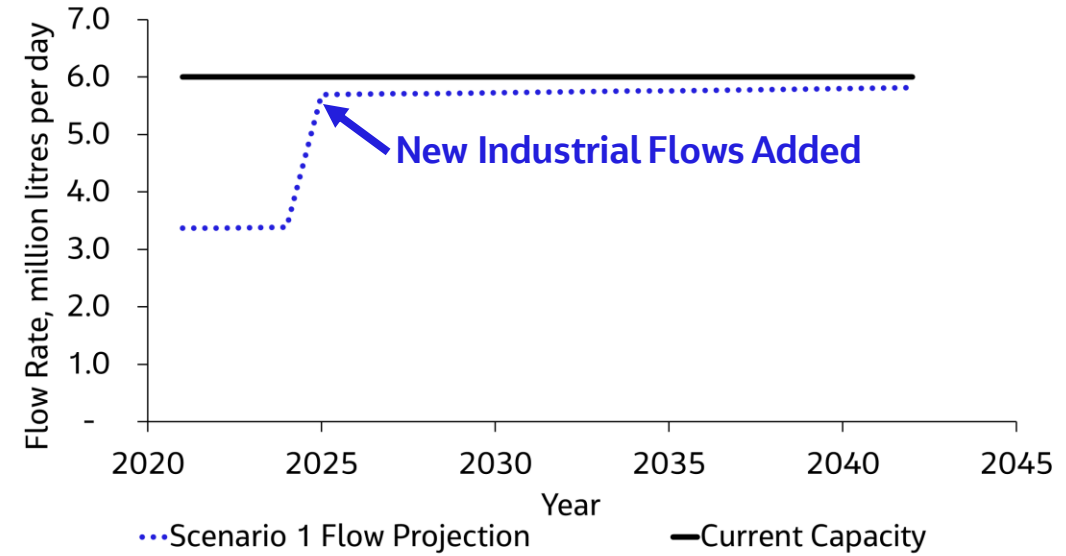
The Courtright Wastewater Treatment Plant (WWTP) service population is projected to be 9,200 by 2042.

In addition to residential wastewater flows from population growth, new industrial flows are expected to be introduced within the next three years. Two scenarios were developed:

Scenario	Additional Industrial Flow (million litres per day)	Total Projected Flow by 2042 (million litres per day)
Scenario 1	2.3	5.8
Scenario 2	7.3	10.8

The Courtright WWTP current capacity is 6 million litres per day (as shown by the black solid line). The plant is currently treating 3.4 million litres per day (current and projected flows shown by the dashed lines). By 2042, the plant would be operating at 97 percent of its current capacity in Scenario 1 and 180 percent of its current capacity in Scenario 2.

The Ministry of Environment, Conservation and Parks (MECP) requires the Township to undertake a Class Environmental Assessment for expansion when flows reach 80 percent of treatment capacity. Therefore, expansion is required under both scenarios.



# Future Needs – Assimilative Capacity

A desktop assimilative capacity review was completed to identify future effluent concentration limits and objectives that will maintain or improve the health of the St. Clair River as the flows from the Courtright Wastewater Treatment Plant increase.

The following effluent parameters were reviewed:

- Carbonaceous Biochemical Oxygen Demand (cBOD<sub>5</sub>)
- Total Suspended Solids (TSS)
- Total Ammonia Nitrogen (TAN)
- Total Phosphorus (TP)
- Escherichia Coli (*E. coli*)
- pH

Effluent Parameter	Current Concentration Limit	Current Concentration Objective	Proposed Changes
cBOD <sub>5</sub>	25 mg/L	15 mg/L	None
TSS	25 mg/L	15 mg/L	None
TAN	8 mg/L (May to October) 10 mg/L (November to April)	3 mg/L (May to October) 5 mg/L (November to April)	Annual Limit: 8 mg/L Annual Objective: 3 mg/L
TP	0.94 mg/L	0.50 mg/L	None
E. Coli	200 CFU per 100 mL	150 CFU per 100 mL	None
pH	6.0 to 9.5	6.5 to 8.5	None

Units:

- milligrams per litre (mg/L)
- colony forming units (CFU) per 100 milliliters (mL)

## Next Steps

Thank you for your interest in the Courtright Wastewater Treatment Plant Class Environmental Assessment.

### **Your feedback is an important part of the Environmental Assessment process.**

- Join the project mailing list to receive project updates. Please provide your contact information (name and email) to the contacts below.
- Please refer to the Township website for the most up-to-date information related to the Class EA: <https://www.stclairtownship.ca/>

A dedicated email address has been set up for this study. To provide your comments or request more information, please contact: [CourtrightClassEA@jacobs.com](mailto:CourtrightClassEA@jacobs.com), alternatively you can reach the Township and Consultant contacts below.

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Thank you

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