Municipality of Lakeshore
Water and Wastewater Master Plan Update

Public Information Centre #1

Welcome!

Please sign in, and feel free to browse the information panels.

Your comments are important to us. Please complete the survey (sheets provided) or online at www.Lakeshore.ca/WWMP prior to July 28, 2023.

Staff from the Municipality and their consultants (Jacobs) are available to answer any questions that you have.

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Purpose and Objectives

The purpose and objective of the **Lakeshore's Water and Wastewater Master Plan (WWMP) Update** is to:

- Confirm the current demands on the water and wastewater systems, re-evaluate growth and identify the future needs related to water and wastewater services within the Municipality of Lakeshore; and

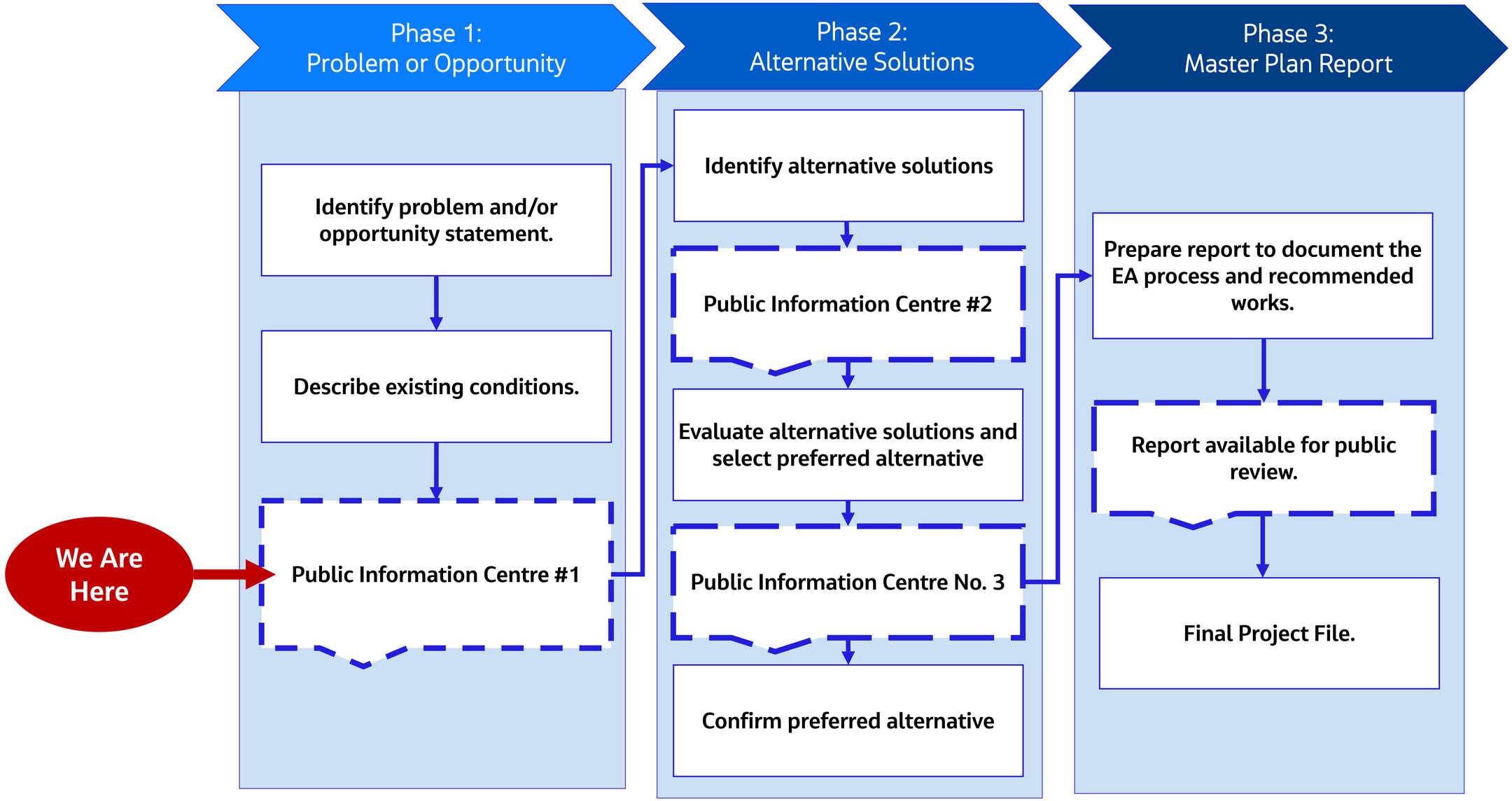
- Guide the planning and implementation of strategic water and wastewater infrastructure improvements for the next 20 years (to 2042).

We want to hear from you!

The purpose of this Public Information Centre is to inform you about the study's progress and gather public input to assist with the development of the plan.

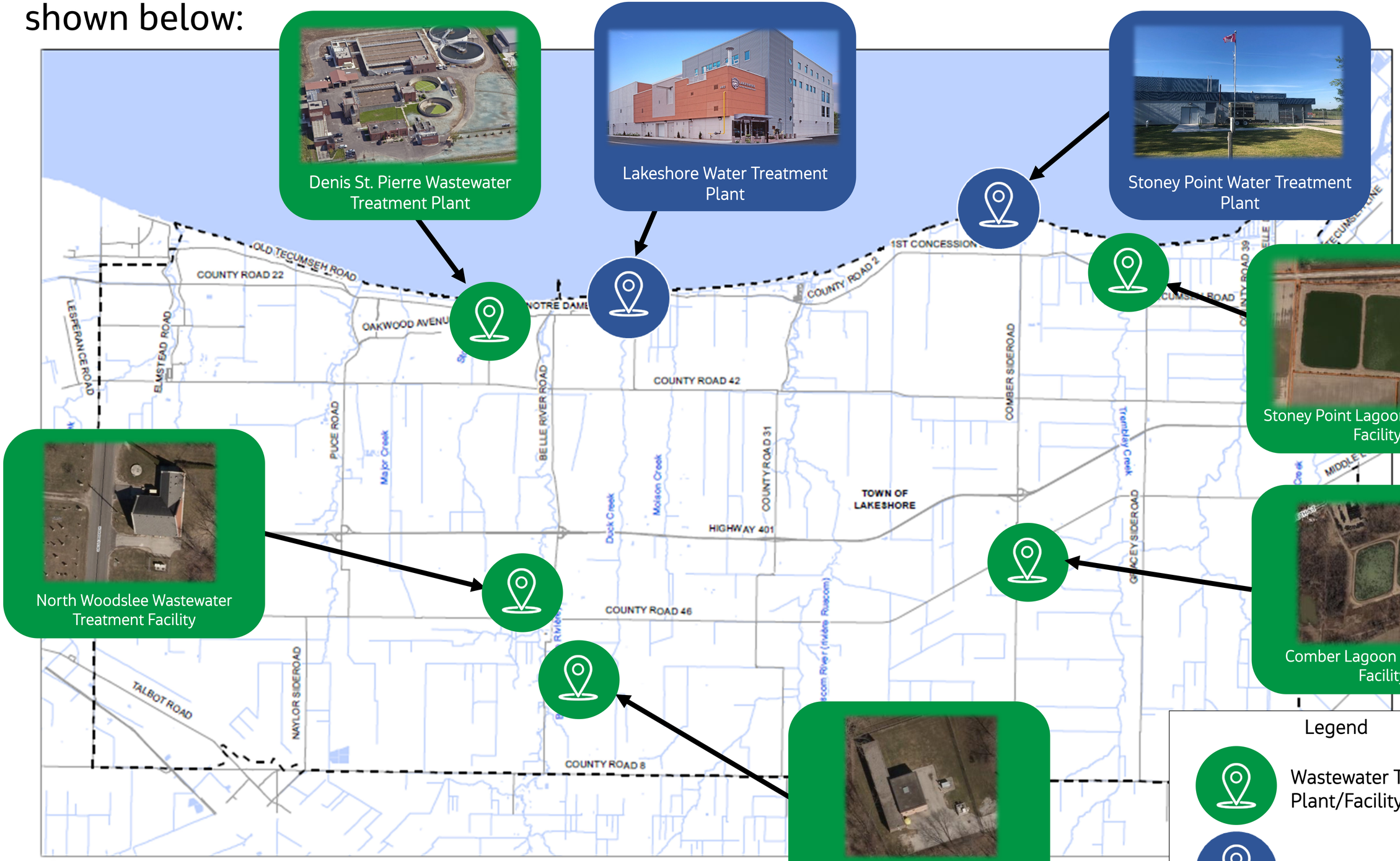
Class Environmental Assessment Process

This Master Plan is being carried out in accordance with the Municipal Engineers Association's Municipal Class Environmental Assessment process. Opportunities for engagement include three Public Information Centres and an opportunity to comment on the WWMP report.



Lakeshore's Water and Wastewater Facilities

The current water and wastewater treatment facilities owned by Lakeshore are shown below:



Lakeshore's Water System

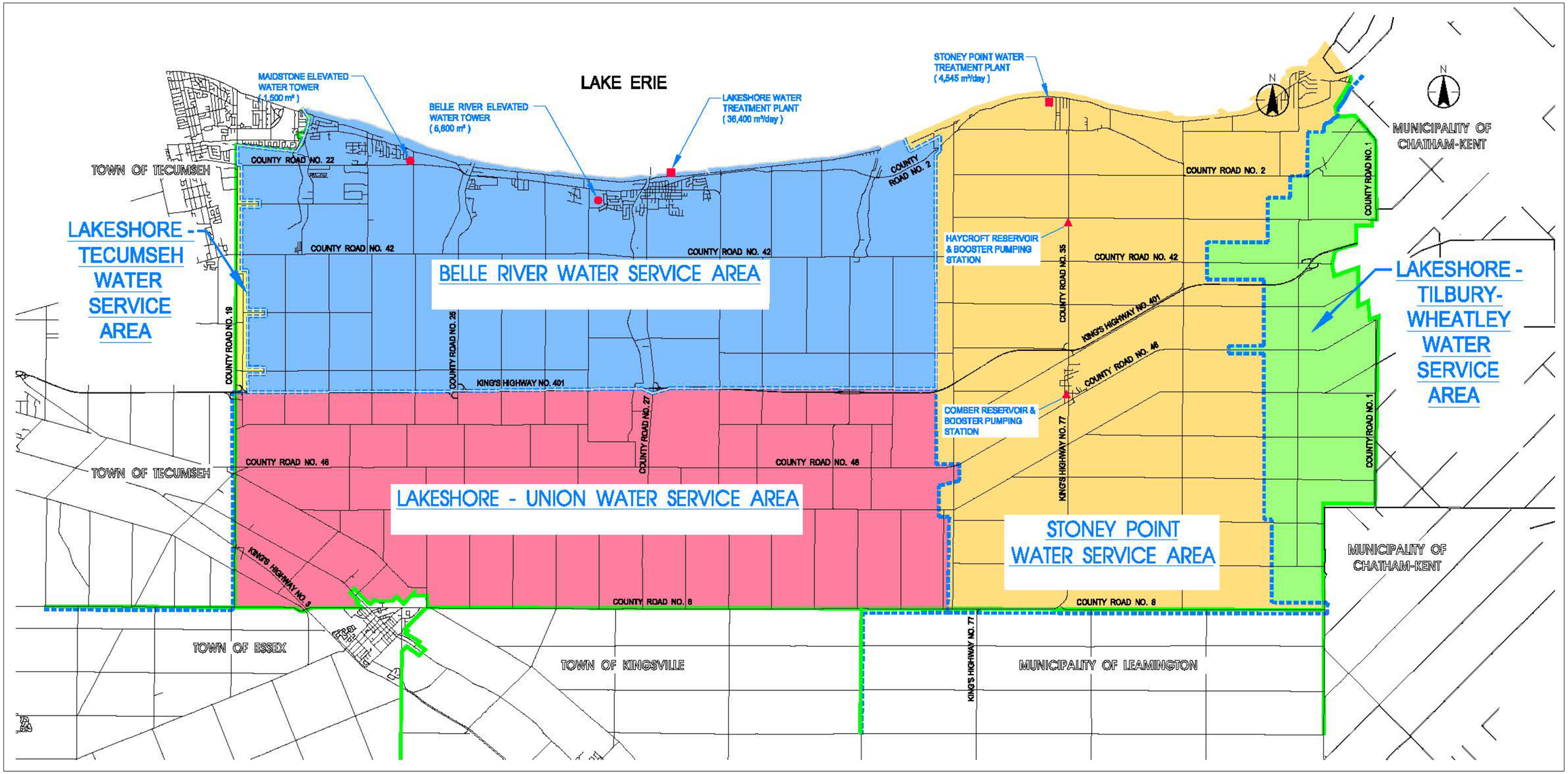
Lakeshore's Drinking Water system comprises of the following:

- Two (2) Water Treatment plants;
- Two (2) Water Tower Storage facilities (one tower has recently been taken out of service and decommissioned);
- A distribution network of approximately 485 kilometers of watermains; and
- Various water appurtenances including fire hydrants, water meters, water valves, etc.

Some Lakeshore residents are serviced by other water systems including Union Water, Tecumseh and Tilbury - Wheatley. These systems do not form part of Lakeshore's managed systems.

Existing Water Service Areas

The below map shows the existing water service areas within Lakeshore:



Water Treatment & Storage

The below tables show the current capacity and demand of the Water Treatment Plants and the available storage to meet the demands of both facilities:

Treatment Plant	Current Rated Capacity (m^3/day)	Existing Demand (m^3/day)	Remarks
Lakeshore Water Treatment Plant	36,000	18,182	Currently the Lakeshore Water Treatment Plant is operating at 51% of it's rated capacity. There is remaining reserve capacity.
Stoney Point Water Treatment Plant	4,545	3,642	Currently the Lakeshore Water Treatment Plant is operating at 80% of it's rated Capacity. There is limited reserve capacity.

Storage	Current Rated Capacity (m^3)	Existing Demand (Max Day)	Remarks
Lakeshore Water Storage System	17,222	12,837	Currently there is sufficient storage within the Lakeshore Water Servicing Area (Belle River)
Stoney Point Water Storage System	3,271	2,173	Currently there is sufficient storage within the Stoney Point Water Storage System.

Note that ongoing hydraulic modelling of the Belle River and Stoney Point water distribution system is being completed as part of this WWMP Update.

Water Distribution System

Jacobs is currently working on an update to Lakeshore's water distribution model as part of the WWMP Update.

At this time, there are no known water distribution capacity constraints in Lakeshore. However, these will be identified through the update to the distribution model.

Example Water Distribution Model from Stoney Point Water Distribution System

Lakeshore's Wastewater System

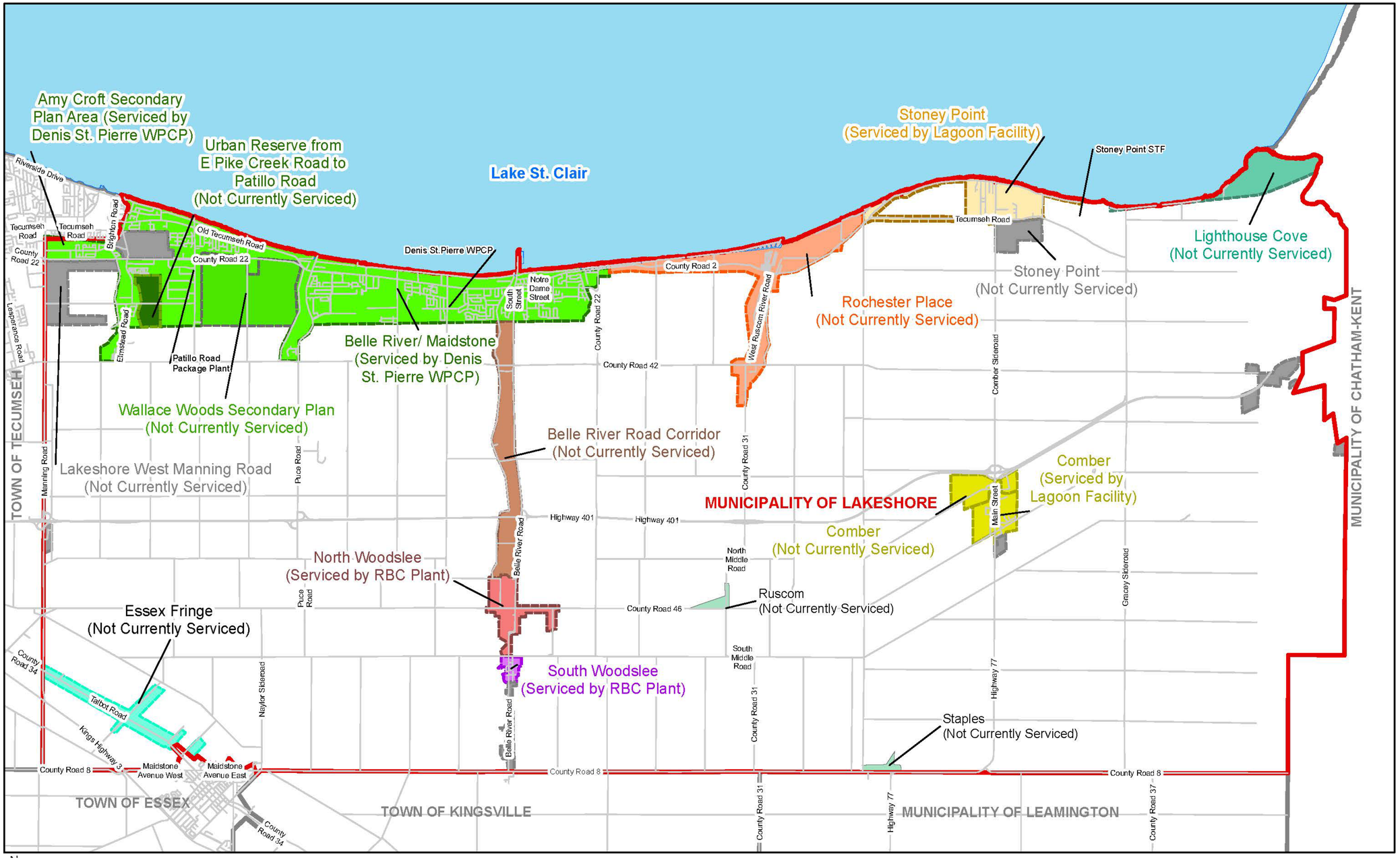
Lakeshore's Wastewater systems are comprised of:

- Five (5) Wastewater Treatment plants/facilities:
  - One (1) Wastewater Treatment Plant
  - Two (2) dual cell sewage treatment lagoons
  - Two (2) Rotating Biological Contactors (RBC)
- A sanitary distribution network of 180 kilometers of sanitary sewers; and
- A total of 24 sanitary pumping stations.

Some Lakeshore residents are serviced by private systems such as septic systems or private lagoon systems.

Current Wastewater Serviced/Unserviced Areas by Community

The below shows wastewater servicing by Community.



Wastewater Treatment System

This table shows the current capacity and existing flows to the Wastewater Treatment Plants and Facilities. The existing average daily flows are based on data from 2018 to 2022.

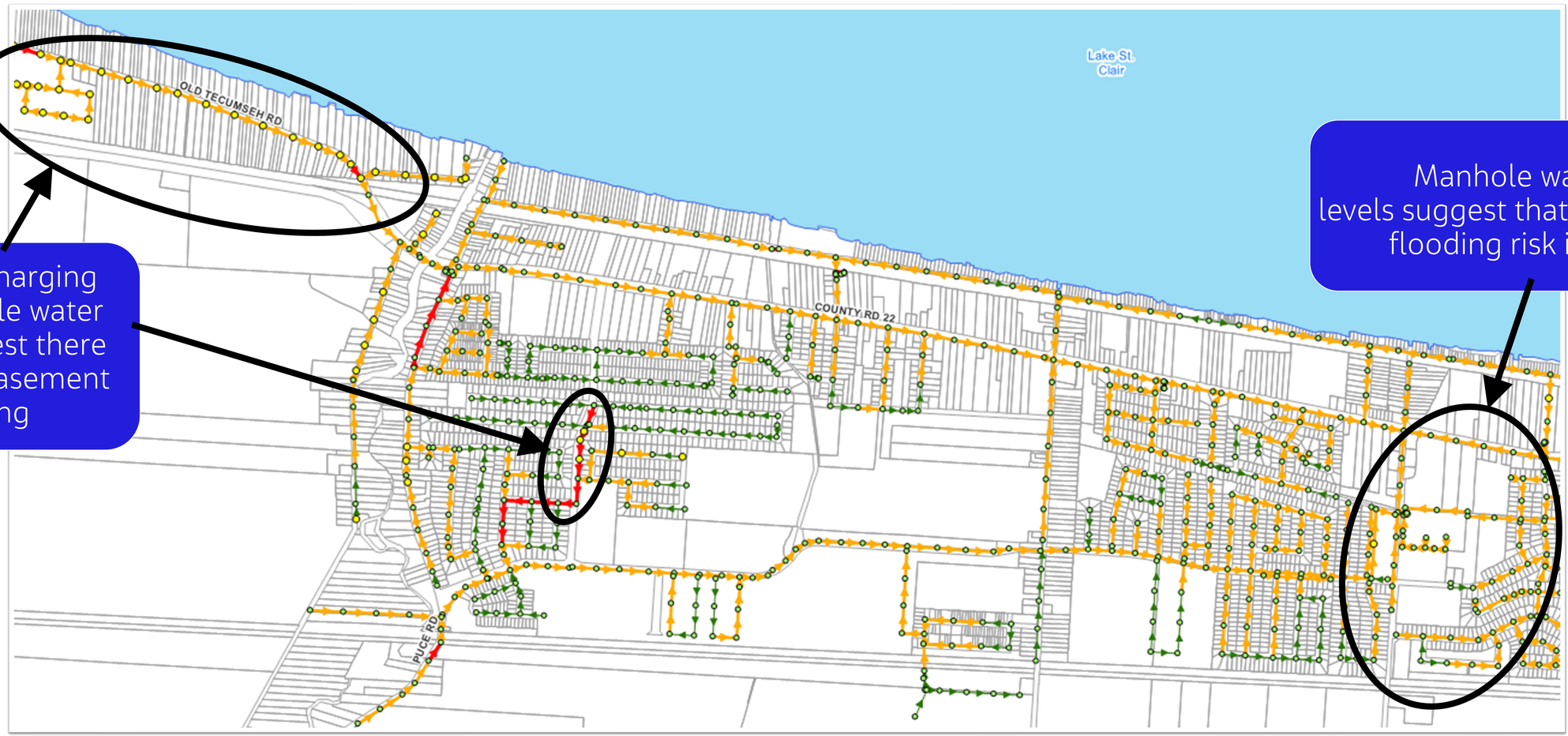
Treatment Plant	Current Rated Capacity (m^3/day)	Existing Average Daily Flows (m^3/day)	Remarks
Denis St. Pierre Wastewater Treatment Plant	14,500	13,558	An expansion to the Denis St. Pierre facility is currently underway. The first phase of the expansion will increase the capacity of the plant to 20,000 m^3/day.
Stoney Point Lagoon Facility	949	1,211	The Stoney Point facility is currently over the rated hydraulic capacity.
Comber Lagoon Facility	430	402	The Comber Lagoon Facility is near capacity, triggering the need for expansion.
North Woodslee Treatment Facility	330	44	The North Woodslee facility has remaining hydraulic capacity.
South Woodslee Treatment Facility	210	46	The South Woodslee facility has remaining hydraulic capacity.

Three (3) out of five (5) treatment facilities within Lakeshore are approaching or over their rated capacity under existing conditions.

Wastewater Collection System

Jacobs completed an update of Lakeshore's sanitary conveyance model in late 2021. The model represents the Denis St. Pierre wastewater collection system area.

This model update identified areas of constraint within the Denis St. Pierre Wastewater Service Area under 5-year storm event conditions. This figure shows an example of the modelled conditions. The model suggests there are system constraints within the majority of the Denis St. Pierre sewershed.



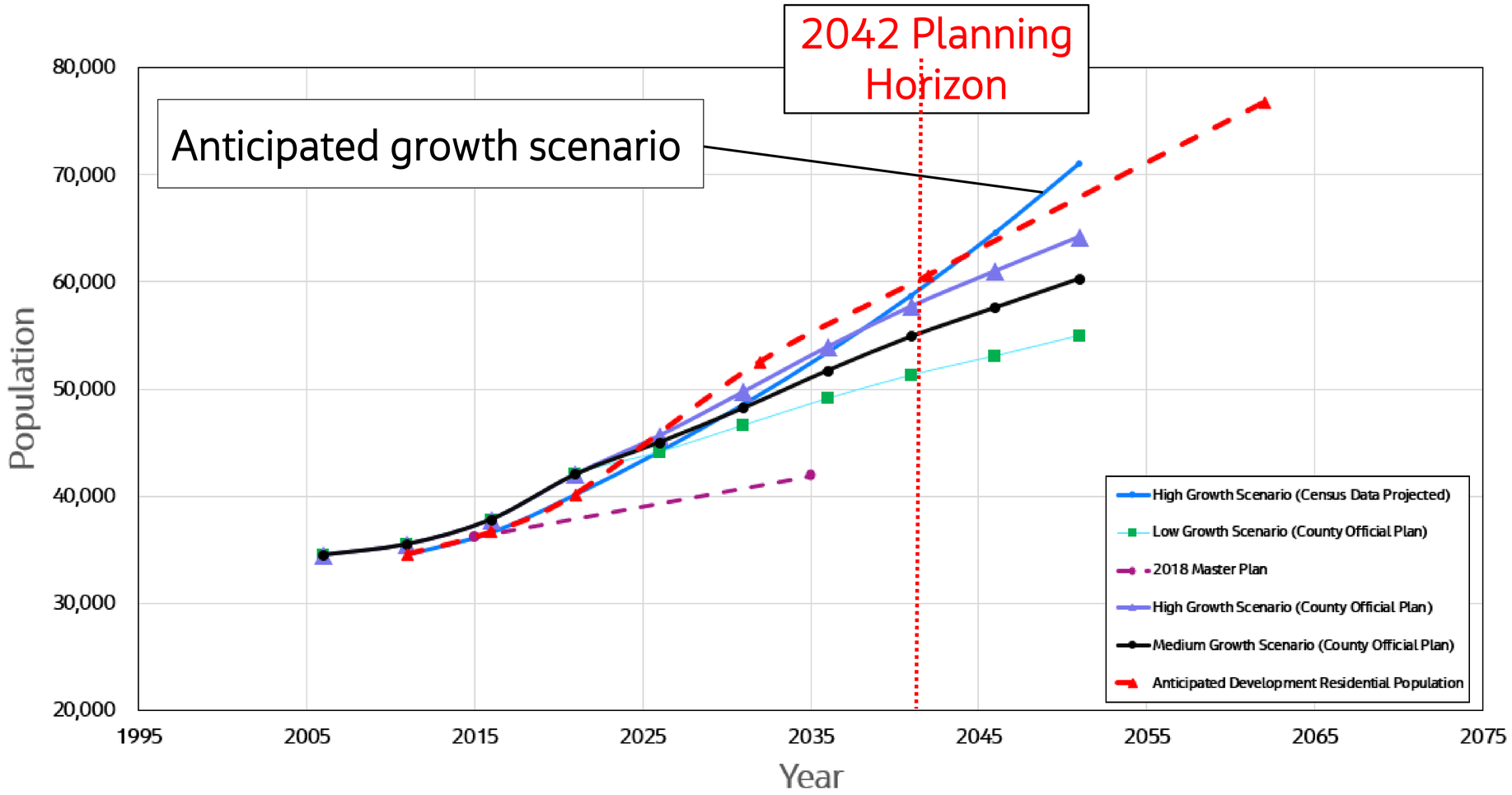
Currently the remaining collection systems have not been modelled.

Summary of Key Considerations

- There are capacity constraints identified at multiple wastewater treatment facilities, in particular Stoney Point and Comber.
- There are numerous sanitary conveyance system constraints identified in the Denis St. Pierre sewershed.
- Conveyance system and treatment capacity are impacted by high levels of inflow and infiltration within the sanitary system.
- Intensification trends of residential areas result in increased wastewater flow and drinking water demand greater than the infrastructure was originally designed to service (apartment buildings, multi-unit residential, buildings, and Additional Residential Units [ARUs]).
- Provincial policy and direction emphasizes redevelopment of additional housing opportunities, including intensification, and in particular ARUs.
- Growth has been realized more quickly than projected in the 2018 Master Plan, impacting the ability to proactively finance and fund recommendations put forward in the 2018 Master Plan.
- There is interest in developing areas that currently do not have Municipal wastewater servicing.
- Accommodation of current development proposals.
- Ability to accommodate the expected growth of Lakeshore.

Population Growth

Lakeshore is expected to reach a population of nearly 60,000 people by 2042, which is a population increase of approximately 50 percent.



- The Anticipated Development Residential Population growth scenario is based on the anticipated developments being built and occupied within 40 years.
- The High Growth Population Scenario projected using Census Data will be used for this Master Plan because it provides an appropriately conservative growth scenario that aligns well with proposed development.
- These population projections will be used to identify future needs and the timing of recommendations.

Next Steps

Thank you for your interest in Lakeshore's WWMP Update. Your feedback is an important part of the Master Plan process.

- Please refer to the Municipality's website for the most up-to-date information related to the WWMP Update and to sign up for the project mailing list: www.Lakeshore.ca/WWMP
- A second Public Information Centre will be held in the fall of 2023 and will summarize the alternative solutions.
- A dedicated email address has been set up for this study. To provide your comments or request more information please email LakeshoreWWMP@jacobs.com .
- Alternatively, you can reach the following contacts:

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