Saugeen Shores Water Treatment Plant Expansion - Schedule ‘C’ Class Environmental Assessment

WELCOME

Public Information Centre 1
Southampton Town Hall
201 High Street, Southampton, Ontario
Wednesday, January 14th, 2026, 6:00-8:00 PM

The Purposes of this Public Information Centre:

- Provide a project overview of the Saugeen Shores Water Treatment Plant (WTP) Expansion Schedule ‘C’ Class Environmental Assessment (EA)
- To present the general alternative solutions considered, evaluation of alternatives, and rationale for the recommended solution
- To provide information on the recommended solution
- To present project findings to date and receive comments on the recommended Phase 2 general alternative solution
- To outline the project’s next steps and proposed schedule
- To get your feedback

We value your input!

Information of this EA can be found at https://engage.saugeenshores.ca/WTP

Your input will help to shape the decision-making process for this project

Class Environmental Assessment (EA) Process

The Town is undertaking a Schedule C Class EA to meet the requirements of Ontario's EA Act, requiring the completion of Phases 1 to 4 of the Municipal Class EA process in accordance with the Municipal Engineers Association's Municipal Class EA document dated 2024.

Phase 1

Problem Definition

Define the Problem or Opportunity

Phase 2

Identification and Evaluation of Alternative Solutions

Public Information Centre #1

Phase 3

Identification and Evaluation of Alternative Design Concepts

Public Information Centre #2

Establish Preferred Design Solution

Phase 4

Completion of Environmental Study Report (ESR), incorporating stakeholder feedback, followed by a 30-day Public Review period

Design and Construction

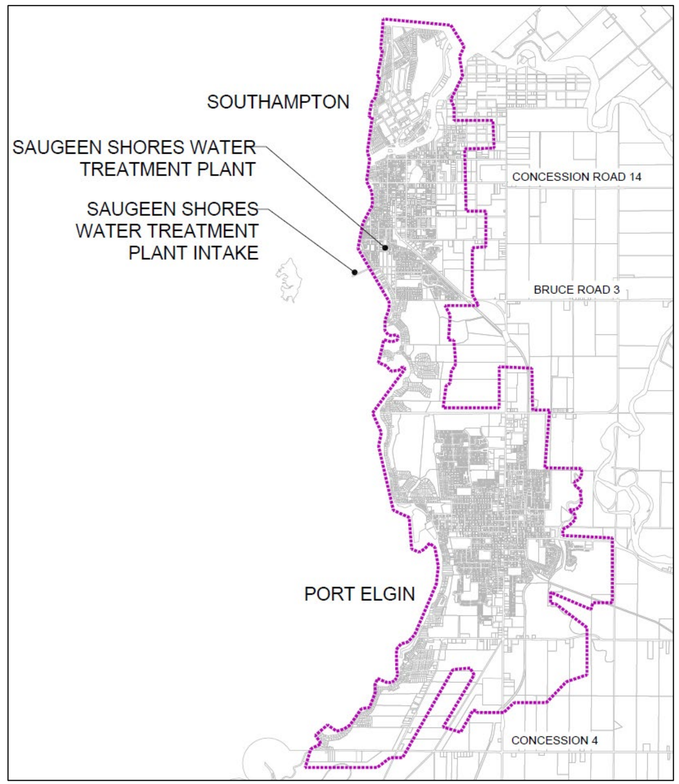
Implementation of the project – detailed design, construction and ongoing monitoring

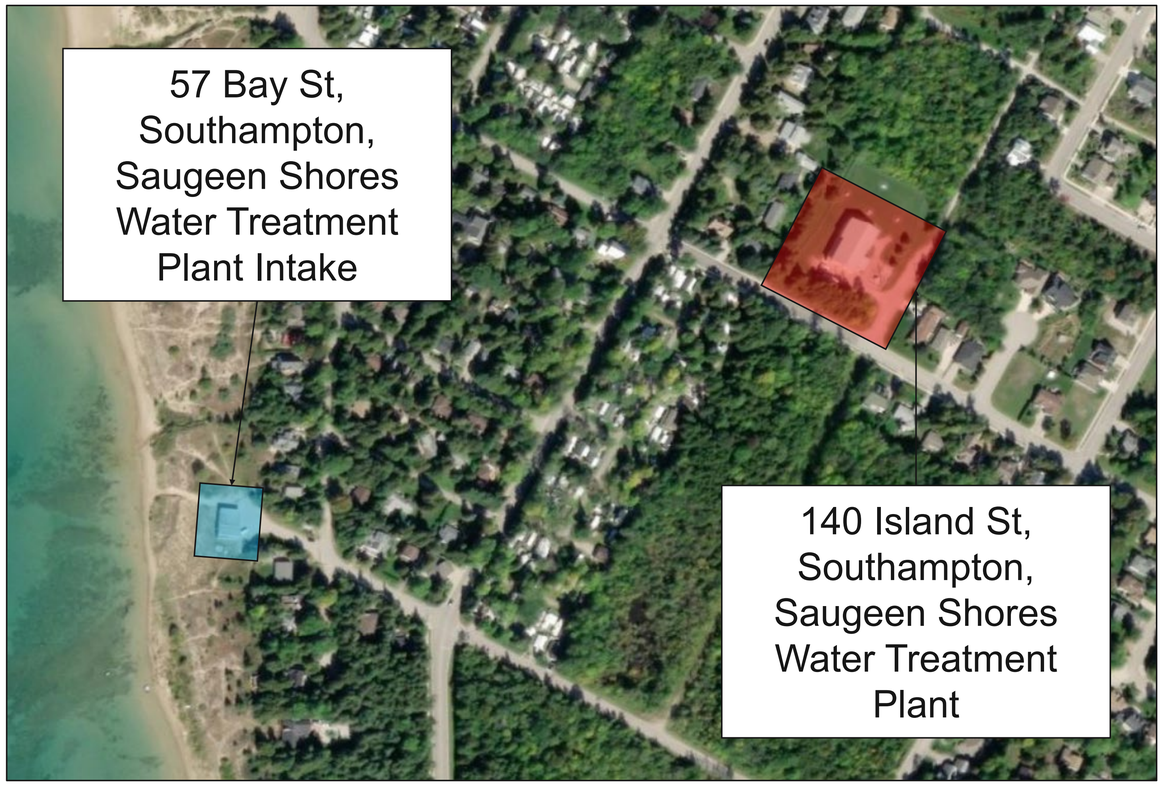
We are here

Next Steps & Expected Timeline:

- Completion of Class EA and Town Project Approvals – Winter 2026
- Project Design and Agency Approvals – 2027-2029
- Construction and Commissioning – 2029-2031

Background and Study Area

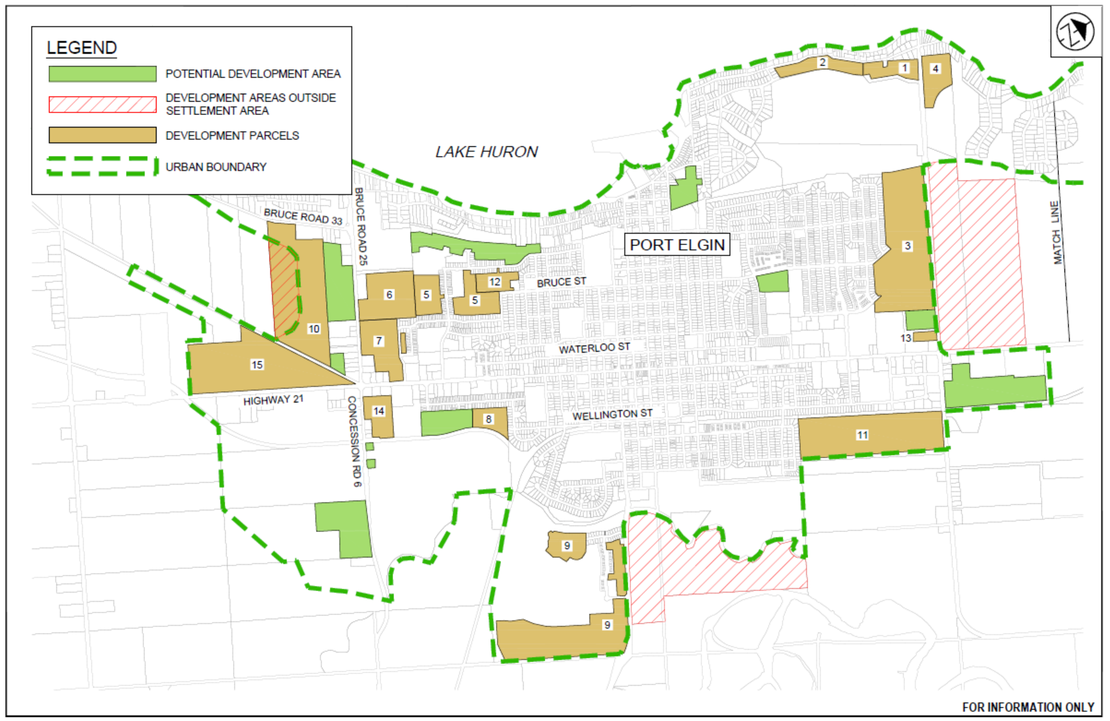




- The communities of Port Elgin and Saugeen Shores are currently supplied with treated water distributed from the Saugeen Shores WTP;
- The WTP is located in the southwest area of Southampton and has limited available capacity resulting from design limitations and operational challenges;
- Provincial growth forecasts and county-level growth forecasts indicate approximately 60% growth in the population of the urban areas by 2051;
- Additional treated water will be required beyond the current functional capacity of the WTP to provide service to the projected population.

Study Purpose





This study aims to:

- Facilitate growth within the urban lands;
- Provide a means to supply additional water for future development;
- Assess the potential to service the lands through existing infrastructure;
- Assess the requirement for water treatment capacity expansion or needs for additional supply sources;
- Select a preferred means of accessing and supplying additional water based on the evaluation of the alternatives.

Identification of the Problem/Opportunity Statement

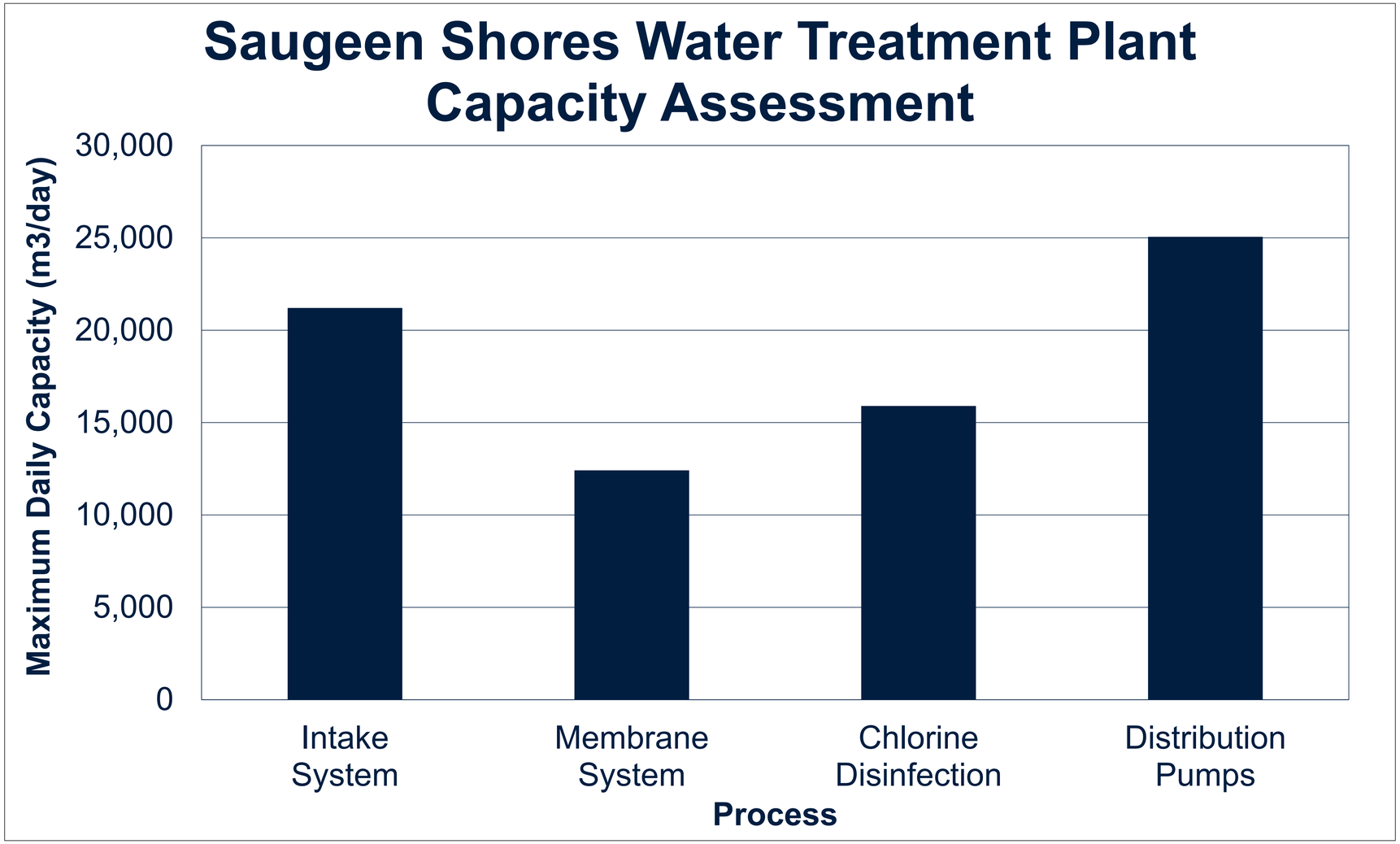
Growth potential within the urban area of Southampton and Port Elgin is currently limited by the functional capacity of the existing Saugeen Shores WTP. To support planned growth as per the land uses currently approved under the Saugeen Shores Official Plan, potential alternatives for increasing water supply capacity need to be reviewed in this Class EA study to provide needed water service for future development.

Objectives

To address the Problem/Opportunity Statement, this Class EA will:

1. Confirm the available capacity within the existing Saugeen Shores WTP;
2. Evaluate future water demands for the urban area of Saugeen Shores and the extent of water supply deficit;
3. Satisfy the Schedule ‘C’ Municipal Class Environmental Assessment Process.
4. Identify the preferred environmentally and financially responsible solution which will:
   - I. Provide infrastructure capacity and flexibility to meet future capacity demands.
   - II. Minimize environmental impacts and other impacts, including natural and socioeconomic impacts.
5. Identify the preferred environmentally and financially responsible design solution.
6. Recommend a design solution to the Town.

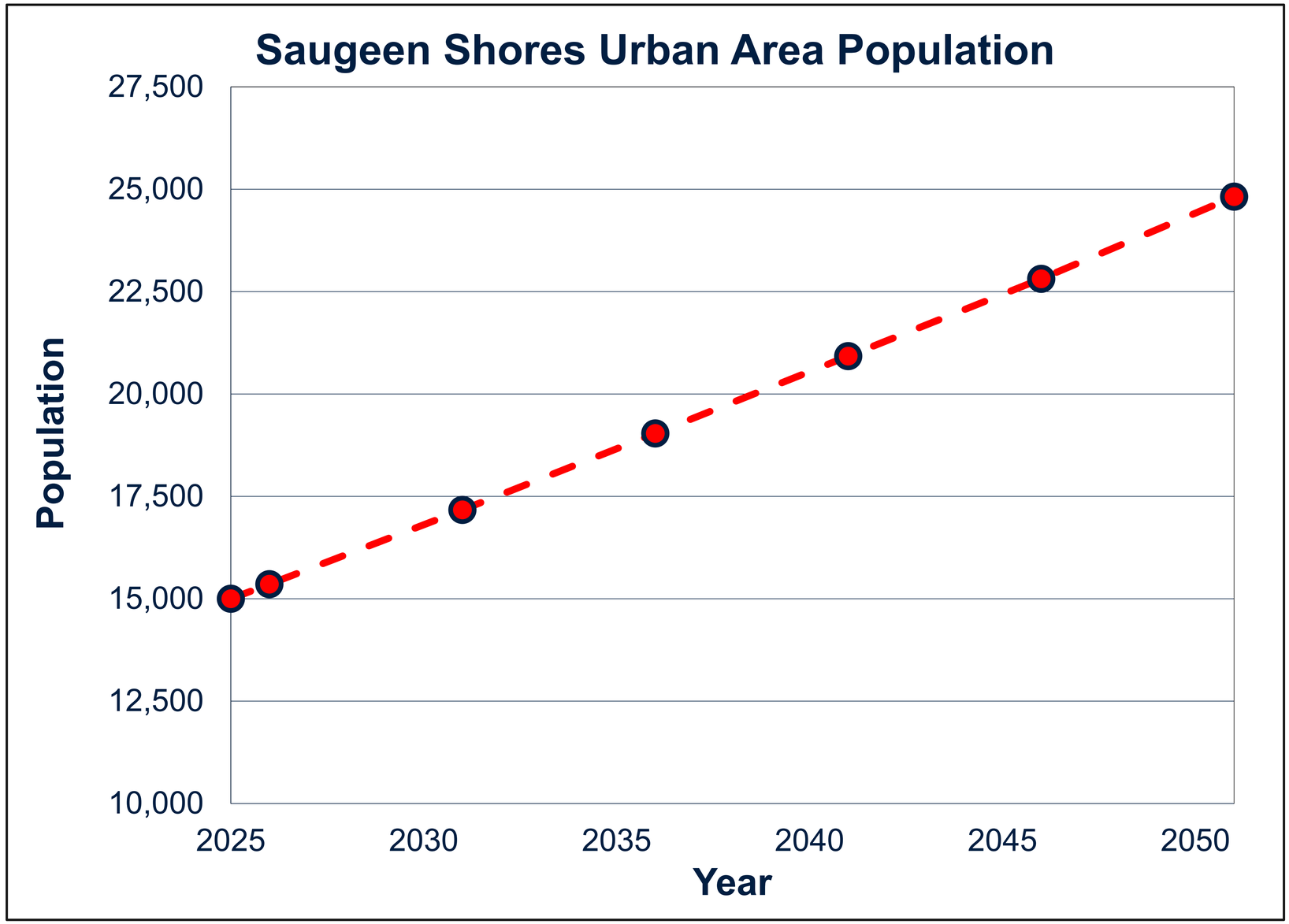
Saugeen Shores Capacity Review



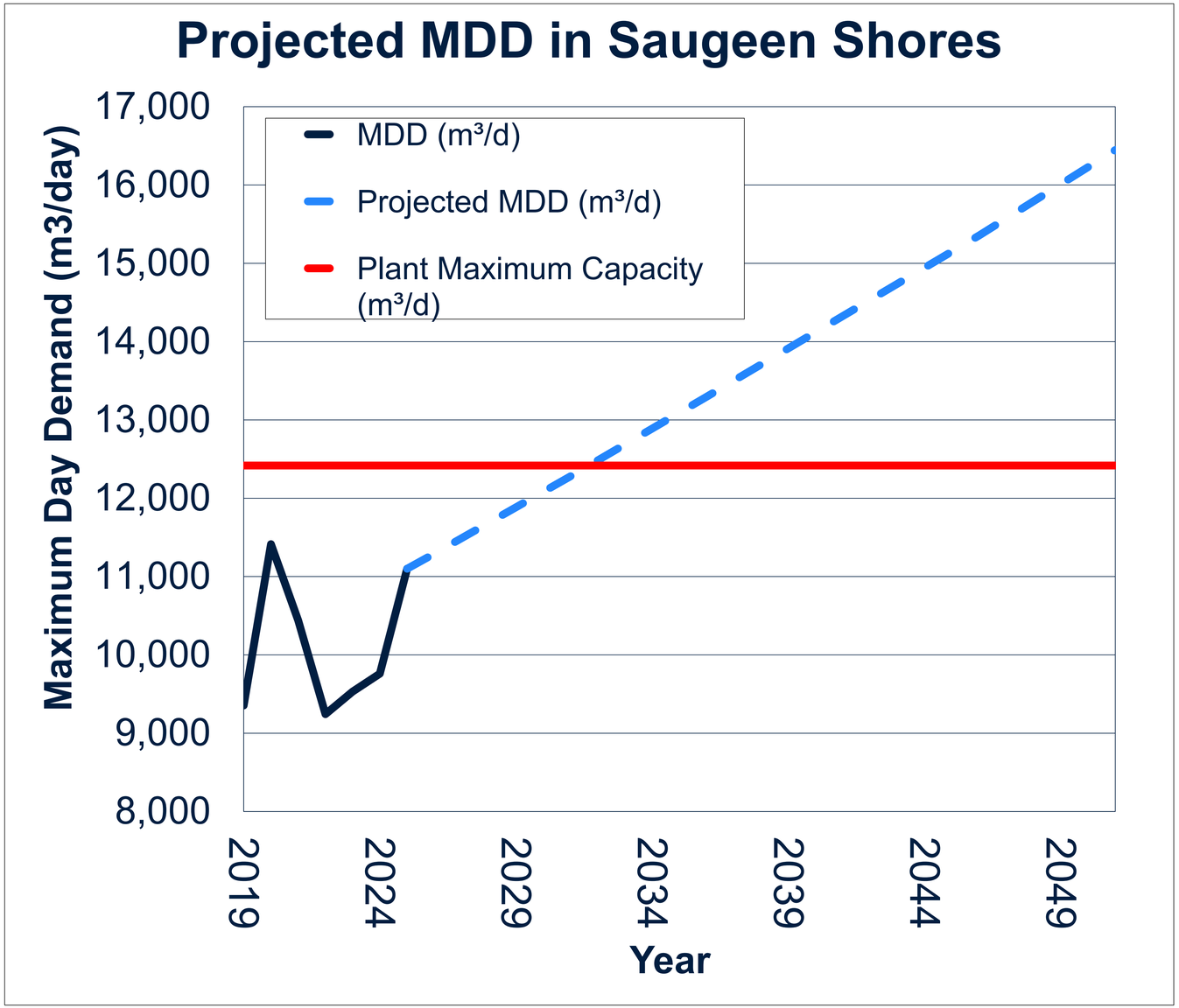
- The membrane treatment system is the limiting factor, meaning the plant's maximum capacity is 12,418 m^3/day

Population Growth Projection

- Population in the Saugeen Shores WTP catchment area is predicted to increase from approximately 15,000 people to 25,000 people by 2051.
- Additional water treatment is required to meet the demands of this growing population.



Projected Water Demands



- The growing population is set to increase the maximum day demands
- It is estimated that the demands will surpass the maximum capacity of the Saugeen Shores Water Treatment Plant by 2032
- Projecting 25 years in the future, the maximum day demand of the community will be over 30% higher than the current capacity of the Saugeen Shores Water Treatment Plant

Identification of Alternative Solutions

Alternative	Feasibility
Modification of Saugeen Shores WTP	• Provides a temporary way to increase plant capacity, but would not meet ultimate demand; • Lowest natural or social environmental impact as work is contained within the existing site; • Most cost-effective alternative in terms of capacity gained per dollar. • Maximizes leveraging of existing infrastructure.
Expansion of the Saugeen Shores WTP	• Capable of meeting the ultimate demand within the planning period; • Moderate cost in comparison to establishing a new facility, prevents long term operational expense related to managing multiple facilities; • Limits natural and social environmental impact as expansion is localized and proximate to existing infrastructure.
Establishment of a new WTP facility	• Capable of meeting the ultimate demand within the planning period; • High cost in comparison to expanding the existing facilities, increases long term operational needs by adding additional facility to manage; • Unknowns related to natural and social environmental impact as new site would need to be identified;
Secure water supply from a neighboring community	• Review of potential partner communities available reserve capacity did not yield sufficient supply; • No feasible location in a reasonable radius could supply the ultimate demand at their current capacity. • Would require significant long-term disruptions for connection line construction.

Preliminary Detailed Evaluation Criteria

There are four major factors to consider when evaluating the feasibility of the alternatives:

- Natural Environment
- Technical Considerations
- Social/Cultural Environment
- Economic Considerations

Detailed Evaluation Methodology

- Each of the alternatives was evaluated based on its potential impact on the study area environment (physical, natural, cultural, and socio-economic), with “Low Impact” as the most preferable result and “High Impact” as the least preferable result.
- The evaluation is presented in a table or matrix to provide a simplified, visual comparison.
- The Harvey Ball scoring system was used and implemented using the scoring system defined below. Alternatives are evaluated comparatively based on their environmental impacts.

Rating	Natural Environment	Socio-Cultural	Technical	Economics
● Most Preferred	Low Impact	Low Impact	High Technical Merit	Low Cost
◕ Moderately to Highly Preferred	Low to Moderate Impact	Low to Moderate Impact	Moderate to High Technical Merit	Low to Moderate Cost
◑ Moderately Preferred	Moderate Impact	Moderate Impact	Moderate Technical Merit	Moderate Cost
◔ Less Preferred	Moderate to High Impact	Moderate to High Impact	Low to Moderate Technical Merit	Moderate to High Cost
○ Least Preferred	High Impact	High Impact	Low Technical Merit	High Cost

Evaluation of Alternatives and Preferred Solution

Evaluation Criteria	A1: Modification of WTP	A2: Expansion of WTP	A3: Establish New WTP	A4: Water From Neighbouring Community
Natural Environment	●	◕	◔	◔
Technical Considerations	◑	●	●	○
Social/Cultural Environment	●	◕	◑	◑
Economic Considerations	◕	◕	◔	◔
Total Score	◕	◕	◑	◔

- Alternative 1 and Alternative 2 are the highest-scoring alternatives;
- Alternative 2 meets the technical requirements while moderating cost and effect on the environment, making it the preferred solution;
- Alternative 1 provides significant benefits and can provide a short-term solution to immediate needs;
- Ultimately, the preferred overall solution is Modification of the Existing WTP (A1) to maximize capacity through the existing infrastructure to meet short-term capacity demands, with planning for Expansion of the WTP (A2) in the future to achieve capacity for the ultimate demands within the planning period.

Phase 3 Decision Criteria

Natural Environment

- Proximity to Key Natural Heritage Features or Regulated Areas
- Terrestrial Vegetation/ Wildlife (Including SAR)
- Surface Water and Fisheries

Social/Cultural Environment

- Archaeological Resources
- Cultural Heritage Resources
- Aesthetics, Noise, Odour
- Impacts to Property Owners and Adjacent Properties
- Climate Change/Air Quality

Technical Considerations

- Suitability of Elevation and Topography
- Geotechnical Suitability
- Hydrogeological Suitability
- Hydraulics

Cost Optimization

- Capital Costs
- Operating Costs
- Maintenance Costs

- We want community feedback: Is something missing from the decision criteria?

Next Steps

Following this Public Information Centre, the Project Team will:

Review and consider feedback from this PIC

Develop and assess alternative design concepts for WTP expansion

Present a preliminary preferred design concept at Public Information Centre #2 (PIC 2), Summer 2026