Simcoe-Townsend Water Supply System

Municipal Class Environmental Assessment

Norfolk County

Public Information Centre #1

August 4, 2022 from 5:00pm to 7:00pm

Norfolk County Administration Building Council Chambers
50 Colborne St S, Simcoe, ON

Welcome!

The goals of this Public Information Centre (PIC) are to:



- Introduce the project and why it is being undertaken



- Provide an overview of the process that this study will follow for the project
- Provide a summary of the problems and opportunities to address



- Present existing conditions within the study area
- Identify potentially affected residents and businesses within the project area



- Answer any questions you may have and provide an opportunity to get involved in the project

Comments received during this study will be used to help identify the recommended approach for current and future improvements within Norfolk County.

Project Objectives

We are taking steps to meet the future needs of Norfolk County. We are completing the first phase of the Inter Urban Water Supply System (IUWS), which will interconnect all the communities within the County to secure a reliable and consistent water supply. More information about the IUWS is available online: https://www.norfolkcounty.ca/living/roads-water-wastewater/inter-urban-water-supply/

The strategic priorities of the project are to:

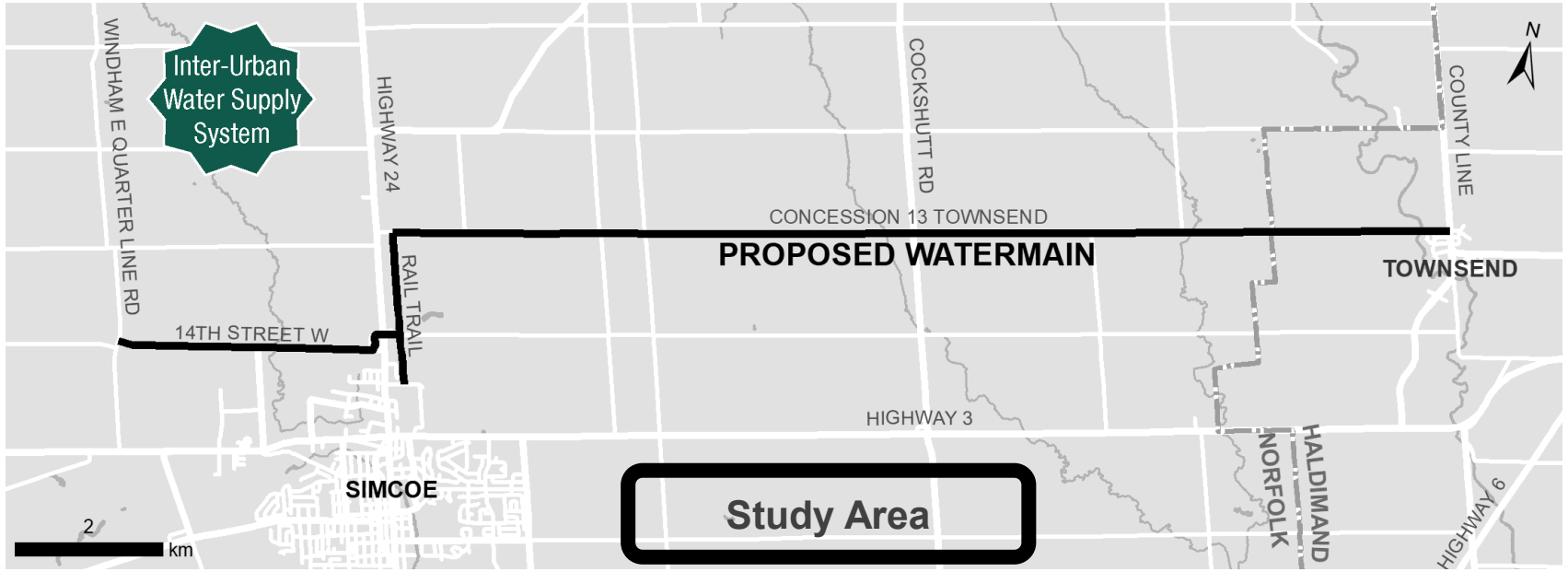
- Deliver high quality water services
- Ensure fire flow and water supply for growth to 2041 and beyond
- Build reliable infrastructure
- Provide future connections to Delhi and Waterford

The project will also focus on achieving the following sustainability goals within the County's water supply network.

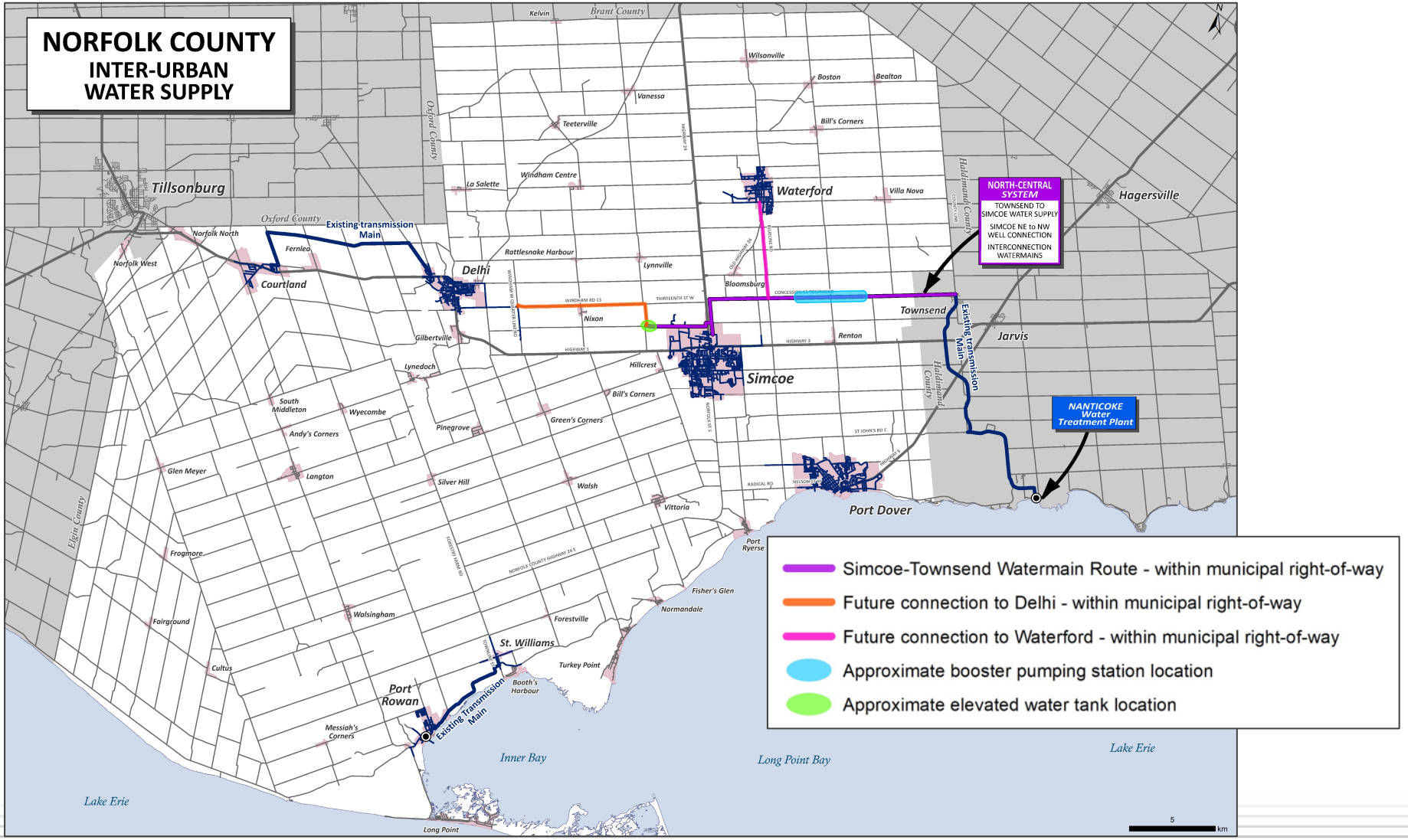
Alignment with Growth Demand	Flexibility Peak Demand	Operational Efficiency	Water Conservation	Increased Connectivity

Project Summary

Norfolk County is undertaking a Municipal Class Environmental Assessment (EA) study. The County is proposing to build a new watermain that connects Simcoe to the Townsend Water Supply System. The project will also include a new elevated water tank and booster station. The purpose of this new water infrastructure is to secure water supply from the Nanticoke Water Treatment Plant. The Simcoe-Townsend Water Supply System study will complete the first phase of the IUWS program.



Project Area



Schedule ‘B’ Municipal Class EA Study Process

This study will meet the requirements for Schedule ‘B’ projects and will satisfy the first two phases of the Class EA process.

Schedule ‘B’ projects have the potential for some adverse environmental effects. It is a requirement that the proponent contact affected members of the public and relevant review agencies. The County will ensure all are aware of the project and have the opportunity to provide input and feedback.

Phase 1: Problem and Opportunity	• Review background planning and policy documents (e.g., Official Plan) • Identify study area needs, problems and opportunities
Phase 2: Alternative Solutions	• Inventory the socio-economic, natural and cultural environments • Identify and evaluate feasible Alternative Solutions • Select the preferred Alternative Solution • Present to public, Indigenous communities and agencies for comment

Problems & Opportunities

The following problems and opportunities of the water supply system in Norfolk County were identified:

Problems

- Capacity for long-term growth
- Quality compliance
- Insufficient fire flow services
- Individual well systems
- High peak water demands (seasonal)
- Aging infrastructure
- Low water system pressure
- Concerns with existing backup of water system

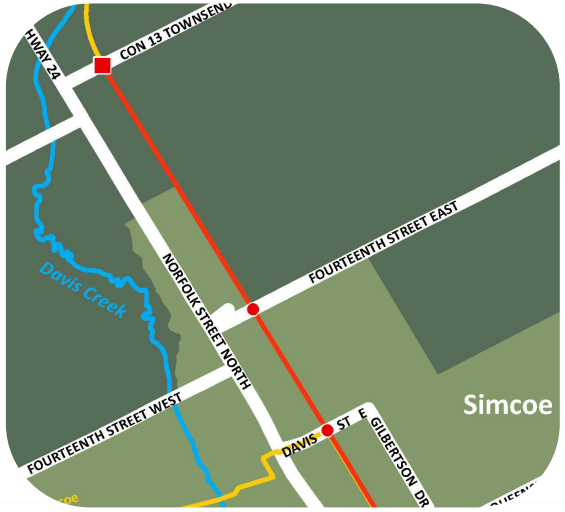
Opportunities

- Provides capacity for growth to 2041 and beyond
- High quality water services
- Provides fire flow supply for growth to 2041 and beyond
- Provides opportunity for residents to connect to centralized municipal services
- Accommodates high peak water demands year-round
- Builds and renews infrastructure for 50+ years
- Provides reliable and consistent water pressure
- Provides backup capacity to water system
- Allows for future development and economic growth

Existing Conditions – Socio-Economic

The lands surrounding the Town of Simcoe present a unique combination of uses. Majority of the lands along the proposed watermain route, with the exception of the Town of Simcoe, are designated for agricultural use. Operations within these lands includes various types of uses, such as: orchards, sweet potatoes farms, watermelon farms, honey farms, solar farms, recycling lands and many more.





The Norfolk Sunrise Trail is a walking & cycling trail that follows the railway line from 13th Concession south through the Town of Simcoe.

It is important we understand the uses of the lands adjacent to the study area to minimize the overall impacts of the project.

Existing Conditions – Fish & Fish Habitat

The study area is located within the Long Point Region Conservation Authority Watershed Boundary.

The following watercourses provide either direct fish habitat or provide important functions to direct habitat and are protected under the Fisheries Act:

- Patterson Creek
- Davis Creek
- Black Creek
- Catfish Creek
- Nanticoke Creek
- Unnamed watercourses (permanent watercourses, intermittent watercourses and constructed drains)



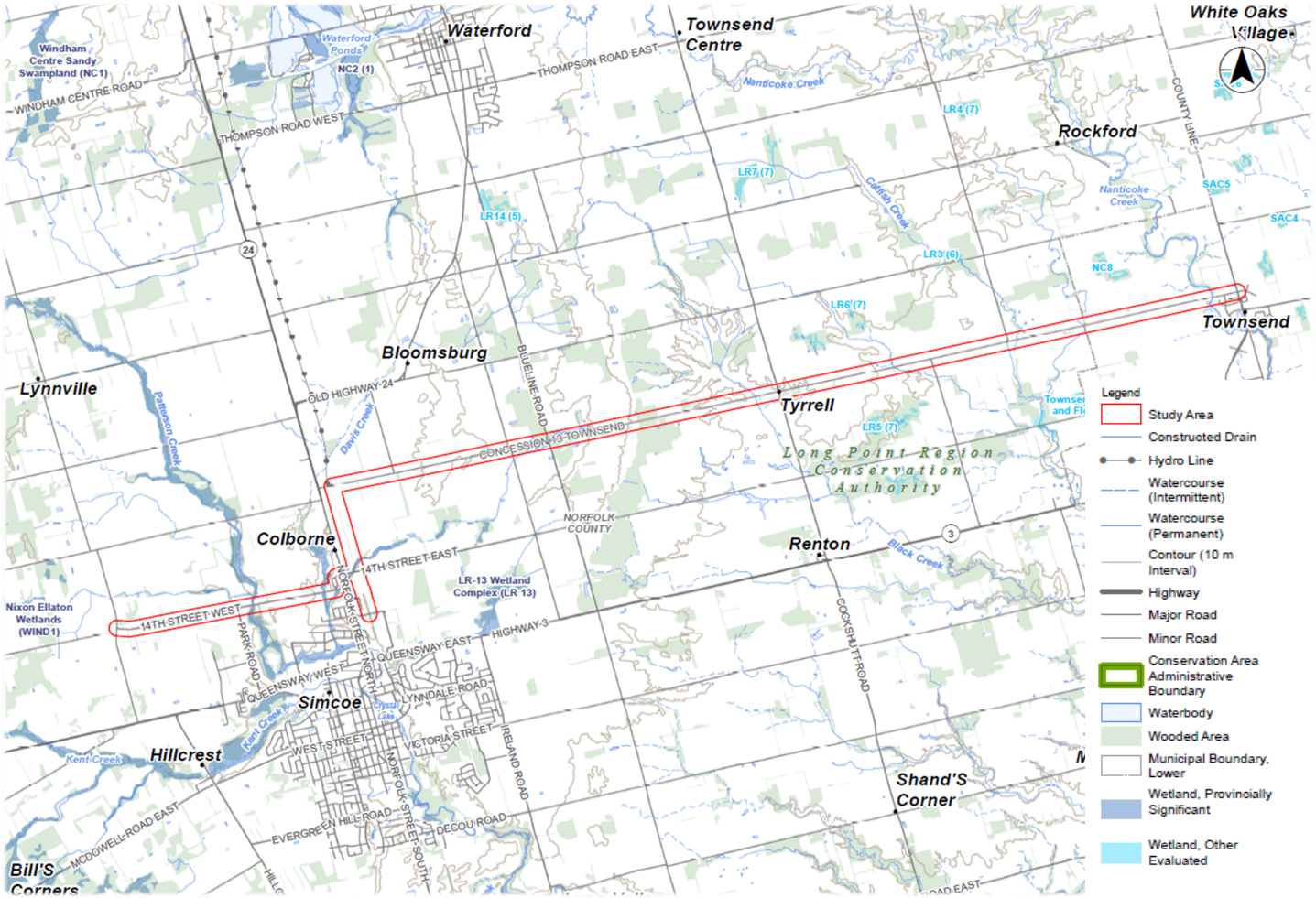
No species at risk fish have been identified in the study area.

Existing Conditions – Terrestrial Environment

The study area crosses the following designated natural heritage features:

- Provincially Significant Wetland (PSW) Complex
- Significant Woodlands
- Hazard Lands

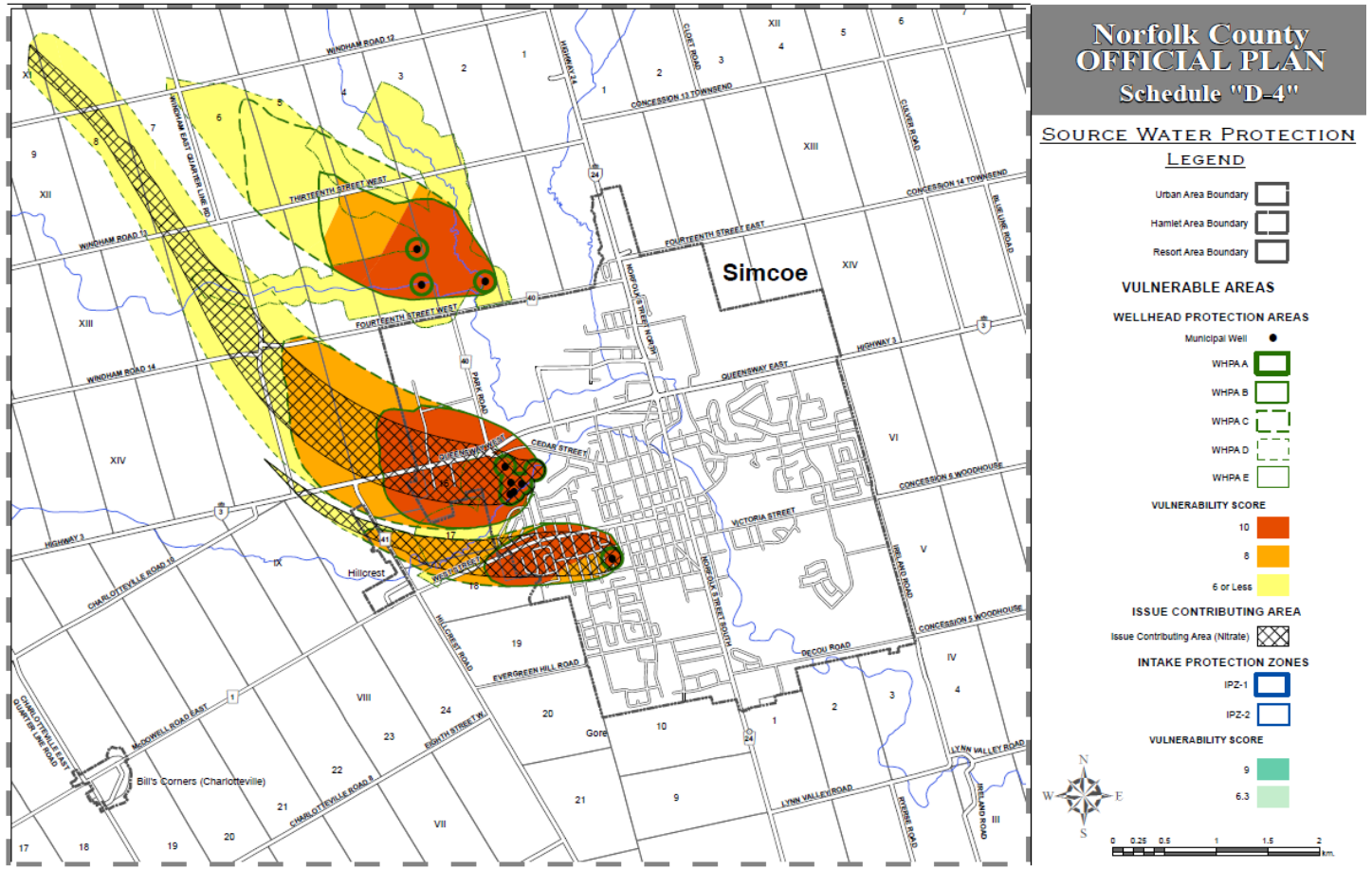
A review of background data sources identified 35 terrestrial species at risk that overlap with the study area. This will be reviewed further as the study progresses.



Source Water Protection

The study area is located within the Long Point Region Source Protection Plan Area, which contains policies for the protection of municipal drinking water sources within Norfolk County.

The western portion of the study area falls within a Highly Vulnerable Aquifer, and Significant Groundwater Recharge Area. Areas to the west of the Town of Simcoe, along Concession 14, fall within a Wellhead Protection Area (WHPA).



Existing Conditions – Cultural Environment

Norfolk County Heritage and Cultural Mapping was reviewed for cultural heritage resources within the study area. The following was identified within/adjacent to the proposed watermain alignment:

- Cemetery - St. Marys Cemetery, 234 14th Road West, Simcoe
- Designated Heritage Property – Mackay/Black Residence, 841 Norfolk Street North
- Farms and Orchards – Berlo's Best Sweet Potatoes, 325 Concession 13 Townsend, Simcoe
- Heritage Committee Identified Properties – Church, 962 Concession 13 Townsend
- Cemetery – Mount Hope/Tyrell Cemetery, Villa Nova Road, Simcoe

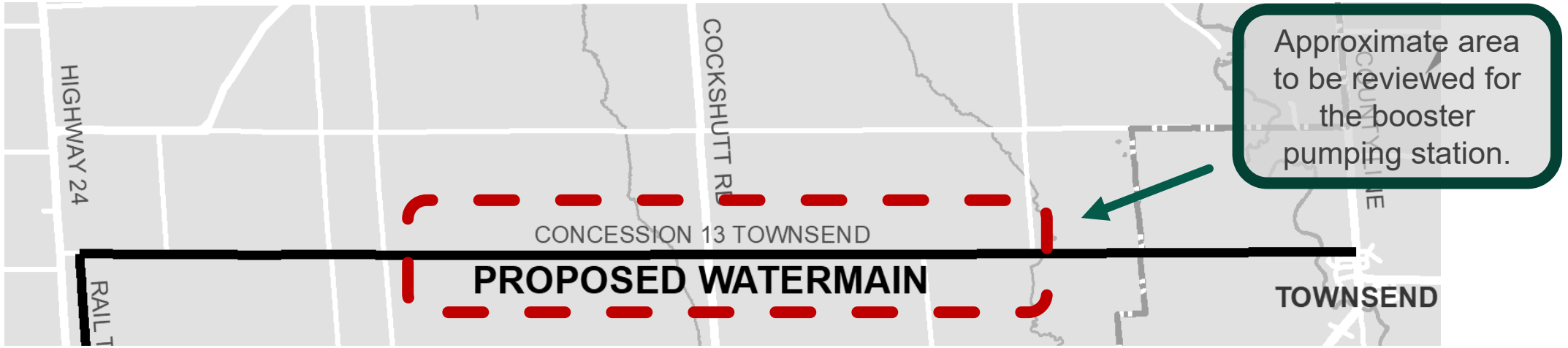




Booster Pumping Station

The transmission watermain is proposed to be approximately 20 km in length to connect Simcoe to the Townsend Water Supply System. Along the watermain, a pumping station will be constructed to boost the pressure of the flowing water, to keep it moving toward its destination.

During the next phase of the study, alternative locations for the booster pumping station will be evaluated. A site up to approximately 0.5 hectares (1.2 acres) will be required.

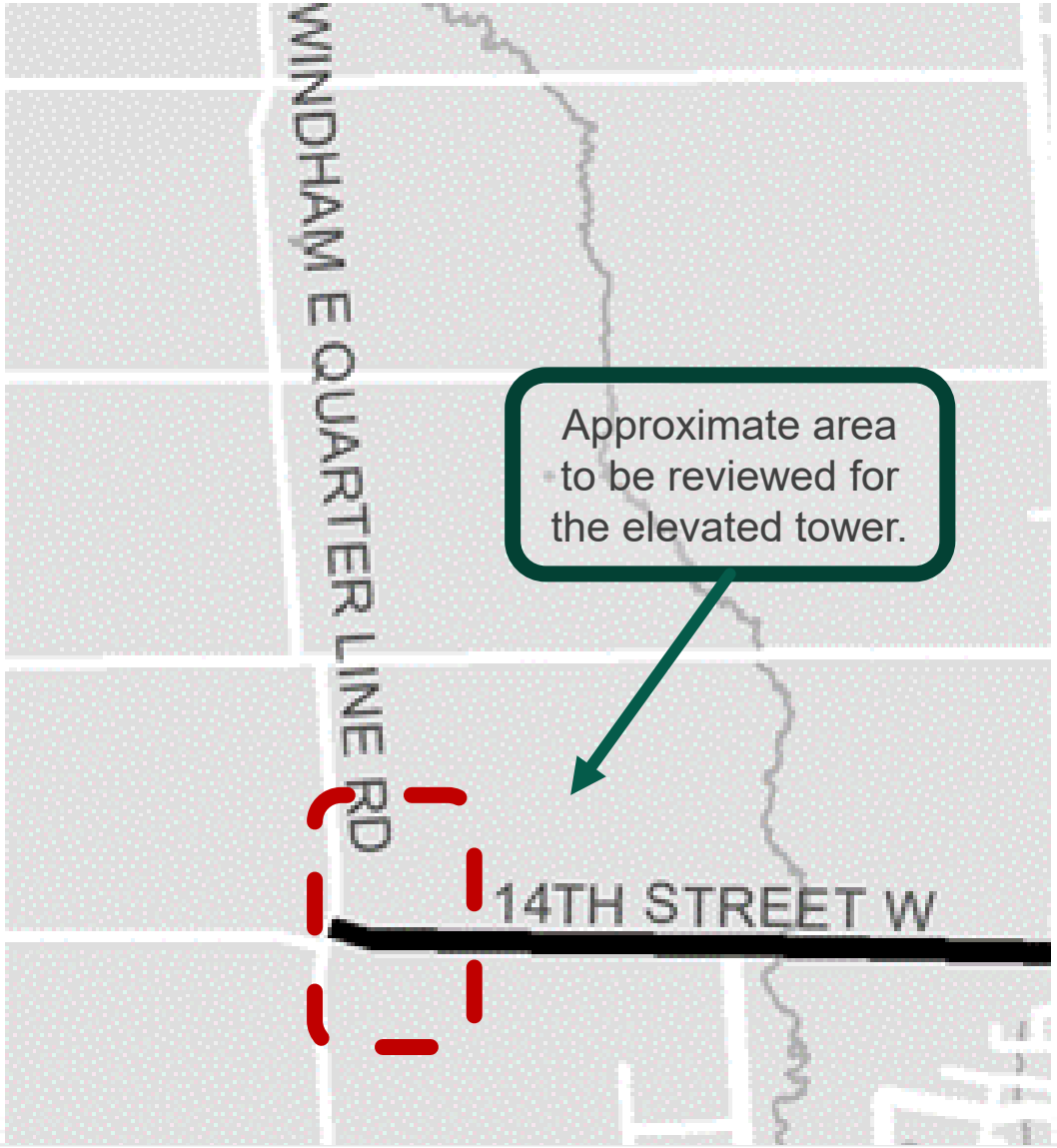


Elevated Water Tank

At the west end of the proposed transmission watermain (Simcoe), an elevated water tank will be constructed to act as a buffer during periods of peak demand (peak water consumption).

The tower will enable efficient operations and provide redundancy to the water supply system.

The elevated tower will be located on municipally-owned land.



Structure Design



Booster Pumping Station

- Building sized for ultimate capacity of 19,000 m^3/day.
- Pumps installed for initial capacity of 5,000 m^3/day
- Includes Standby Power and Re-chlorination facilities.



Elevated Water Tank

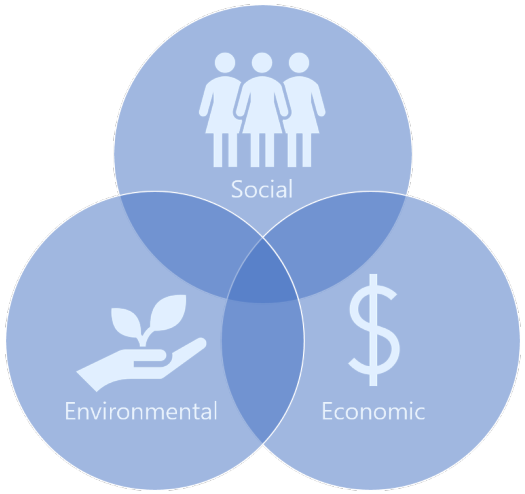
- Capacity 4,500 m^3 to be confirmed during Detail Design
- Diameter – 30 to 35 m
- Height – 50 m
- Includes future connections to Waterford and Delhi Systems

Evaluation Criteria

Alternative solutions will be assessed using the following factors and criteria. Depending on comments received from agencies, Indigenous communities, stakeholders and members of the public, criteria may be added or refined.

Socio-Economic Environment

- Potential to impact existing residences, businesses, agricultural operations, and community features
- Potential effect on approved/planned land uses
- Potential to support growth within Urban Areas



Natural Environment

- Potential to impact fish and fish habitat
- Potential to impact water resources including surface water (i.e., rivers, creeks, etc.), groundwater recharge areas and wellhead protection areas
- Potential to impact significant natural heritage features
- Potential to impact significant wildlife habitat and species at risk

Evaluation Criteria Continued

Cultural Environment

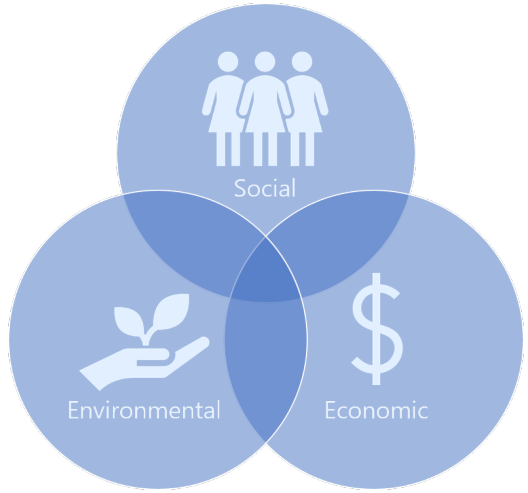
- Potential to impact archaeological resources
- Potential to impact cultural heritage resources

Technical Considerations

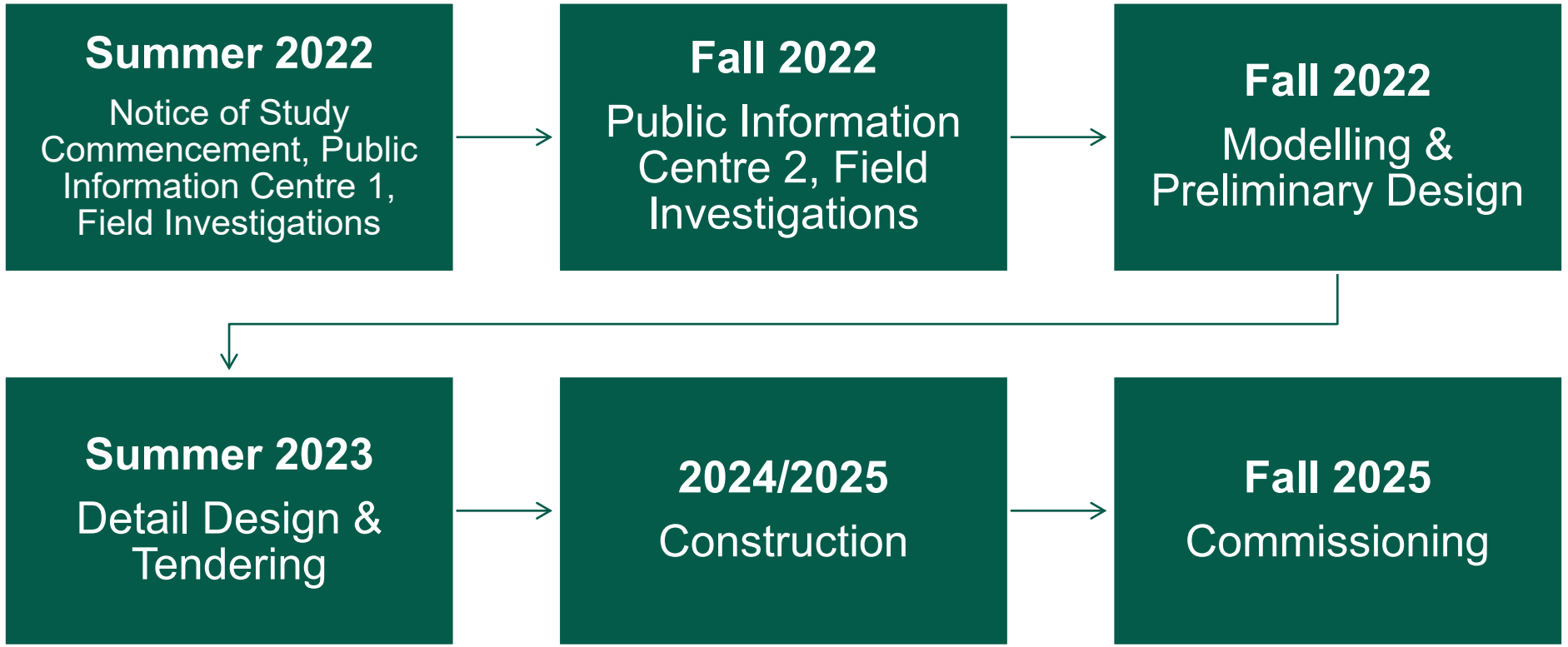
- Potential land requirements including acquisition or easements (temporary/permanent)
- Potential to impact existing utilities and infrastructure
- Constructability (e.g., open cut, non-destructive technologies, etc.)

Financial

- Estimated capital and operational costs



Anticipated Project Timelines



Timelines are contingent on project progress, approvals and available funding.

Next Steps

Following the PIC, the project team will complete the next steps identified below:

- Review and respond to comments received
- Continue to engage Indigenous communities, the public and agencies
- Develop and evaluate Alternative Solutions
- Present Recommended Alternative Solution(s) at PIC #2 (Fall 2022)
- Confirm solution and complete reporting for 30-day review



Thank you for participating!

Thank you for participating in the Public Information Centre for the Norfolk County Simcoe-Townsend Water Supply System Municipal Class EA Study. Your feedback is valuable and appreciated.

Please provide comments by filling out the comment form or by contacting a member of the project team below by **September 1, 2022**:

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