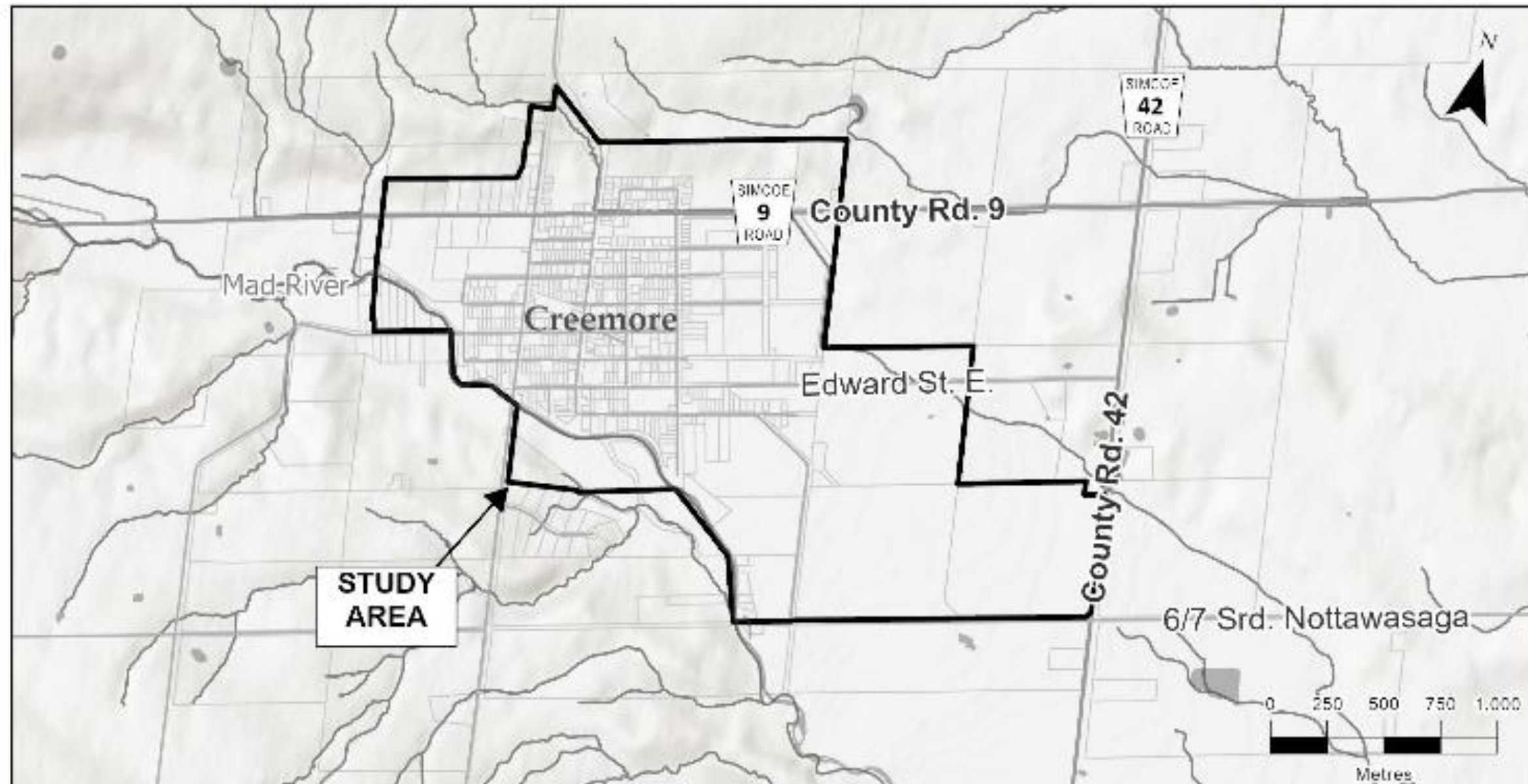


Creemore Water and Wastewater Master Servicing Plan



Public Information Centre
December 1, 2022, 5:00 p.m. – 7:30 p.m.
Creemore Community Centre

Welcome

to the Public Information Centre for the Creemore Water and Wastewater Master Servicing Plan

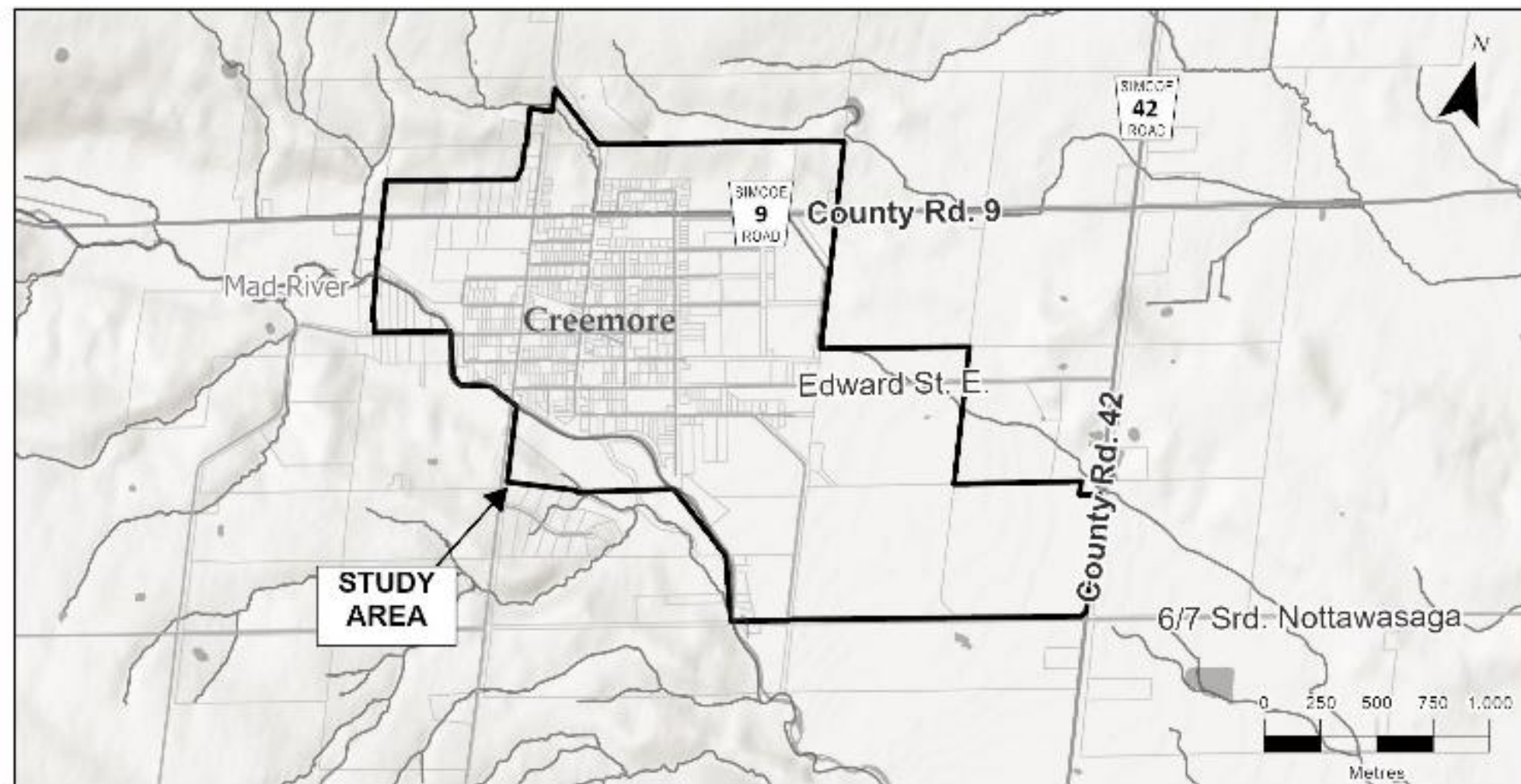


- Please Sign In
- Review display materials and discuss your questions and ideas with Study Team
- Please fill out a comment sheet and return to Study Team in person, email or mail by January 13, 2023.

Study Background

The Township of Clearview is undertaking a **Water and Wastewater Master Servicing Plan (MSP) for the Village of Creemore.**

The Master Servicing Plan will consider solutions for the long-term drinking water and sanitary wastewater servicing needs for the Community of Creemore and surrounding potential development opportunities.

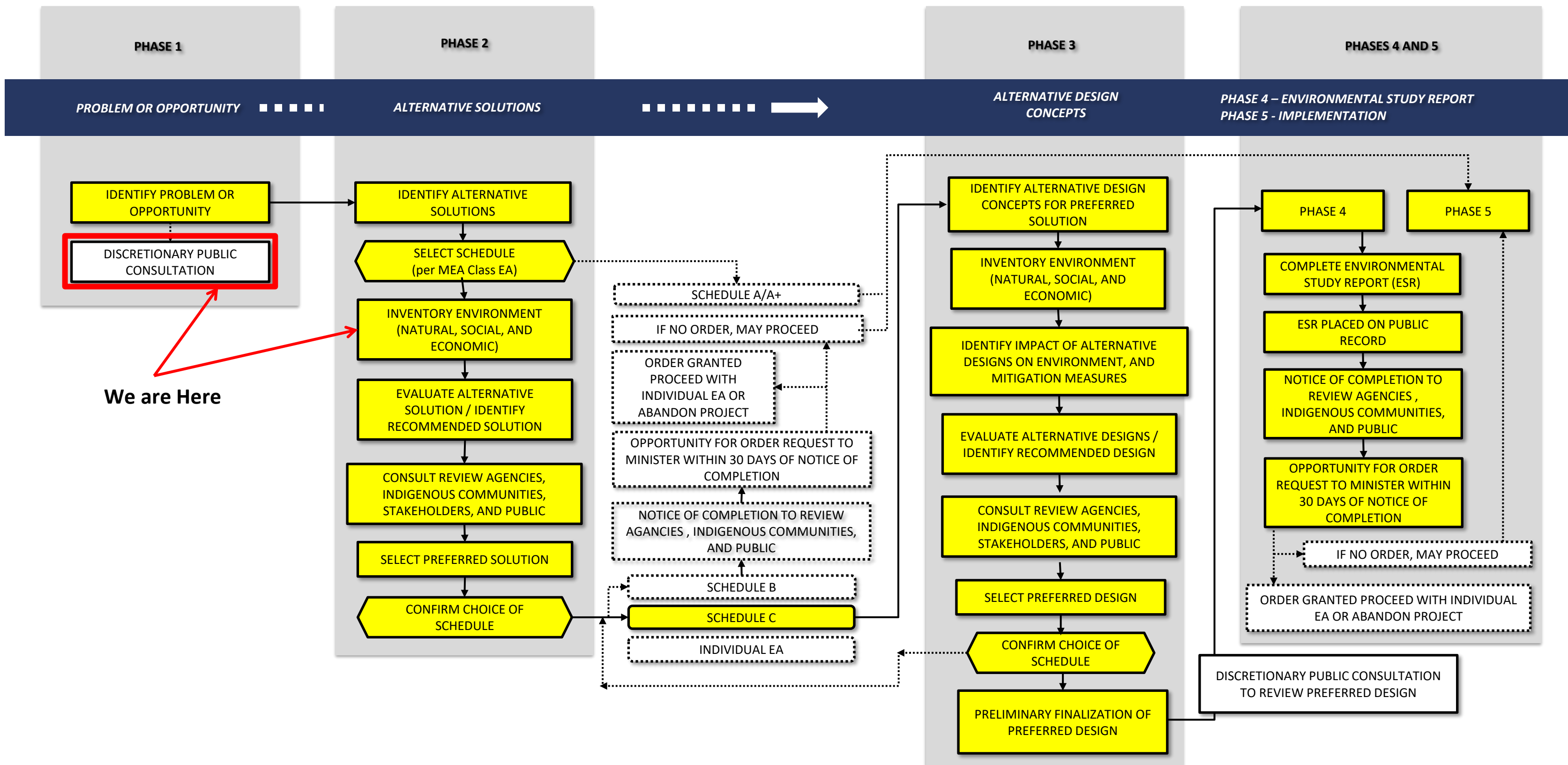


Purpose of this PIC is to:

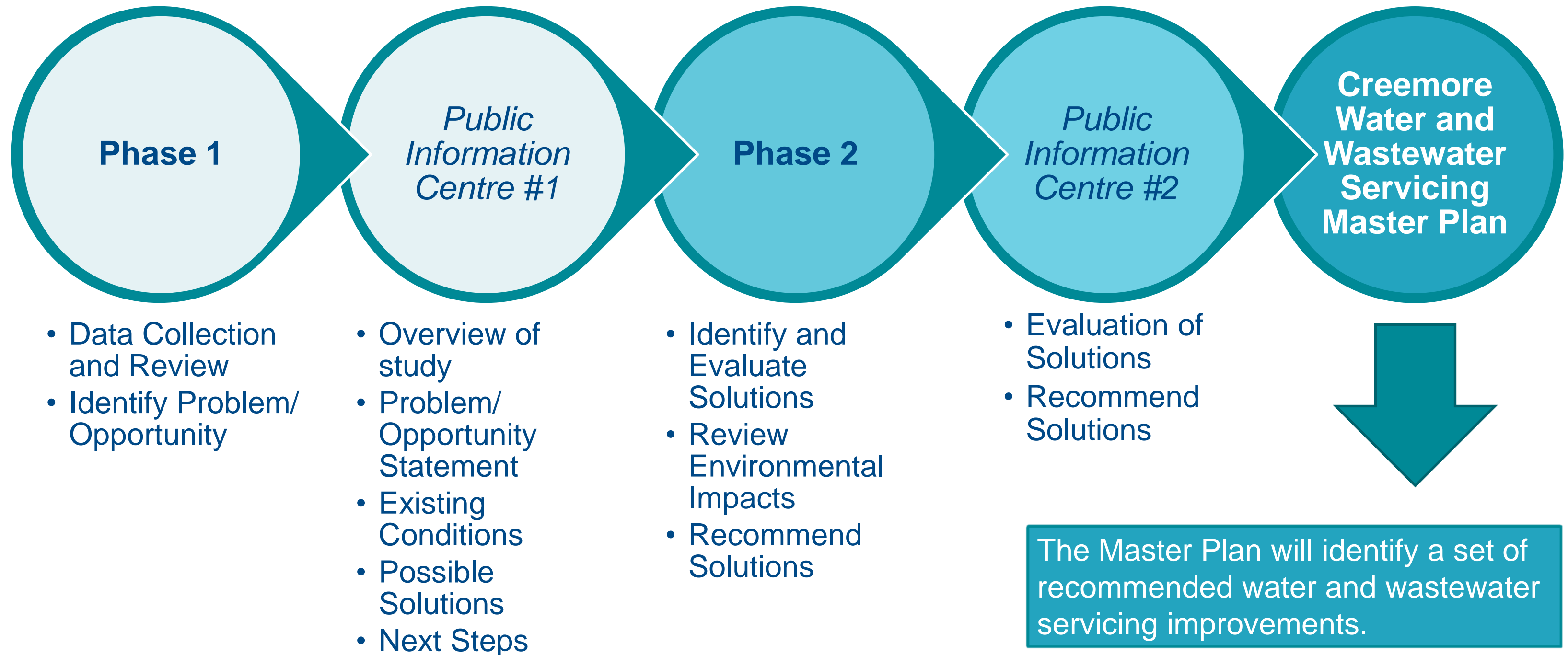
- Provide background information on the existing environment of the Study Area
- Provide an overview of the Master Plan process
- Present preliminary alternative solutions
- Obtain input on the alternative solutions
- Identify next steps

Municipal Class EA Process

Master Plans must address at least the first two phases of the Class EA process. The study has been carried out according to the guidelines set out in the Municipal Engineers Association (MEA) Class Environmental Assessment document (October 2000, as amended in 2007, 2011 & 2015).



Master Plan Process – Approach #2



Projects identified within the Master Plan proceed in accordance with Municipal Class EA requirements, subject to municipal budgets and priorities.

Projects identified as Schedule B projects in the Master Plan can proceed to implementation phase (Phase 5).

Problem / Opportunity Statement

The Problem / Opportunity Statement is defined as:

“The Township of Clearview has identified the need to develop a comprehensive Water and Wastewater Master Servicing Plan for the Community of Creemore, to identify a cost-effective, water and wastewater servicing strategy for the lands within the existing settlement boundary.

The strategy will consider the needs of both existing serviced areas and areas of future growth. The strategy will identify works required to address the needs of the community to 2042 while considering and making provisions for servicing lands within the study area that are expected to be developed post 2042.

The Master Plan will satisfy the Municipal Class EA requirements for the Schedule B infrastructure projects identified in the Master Plan.”

Existing Conditions - Drinking Water System

The Creemore Drinking Water System is owned and operated by the Township and consists of a ground water supplied water treatment plant, a distribution system and water storage.

Water Supply and Treatment

The Creemore Water Treatment Plant (WTP) has rated capacity of 2,688 m³/d (31.1 L/s). The firm water supply capacity is 1,296 m³/d.

The water treatment exceeds minimum MECP requirements.

Storage Reservoir

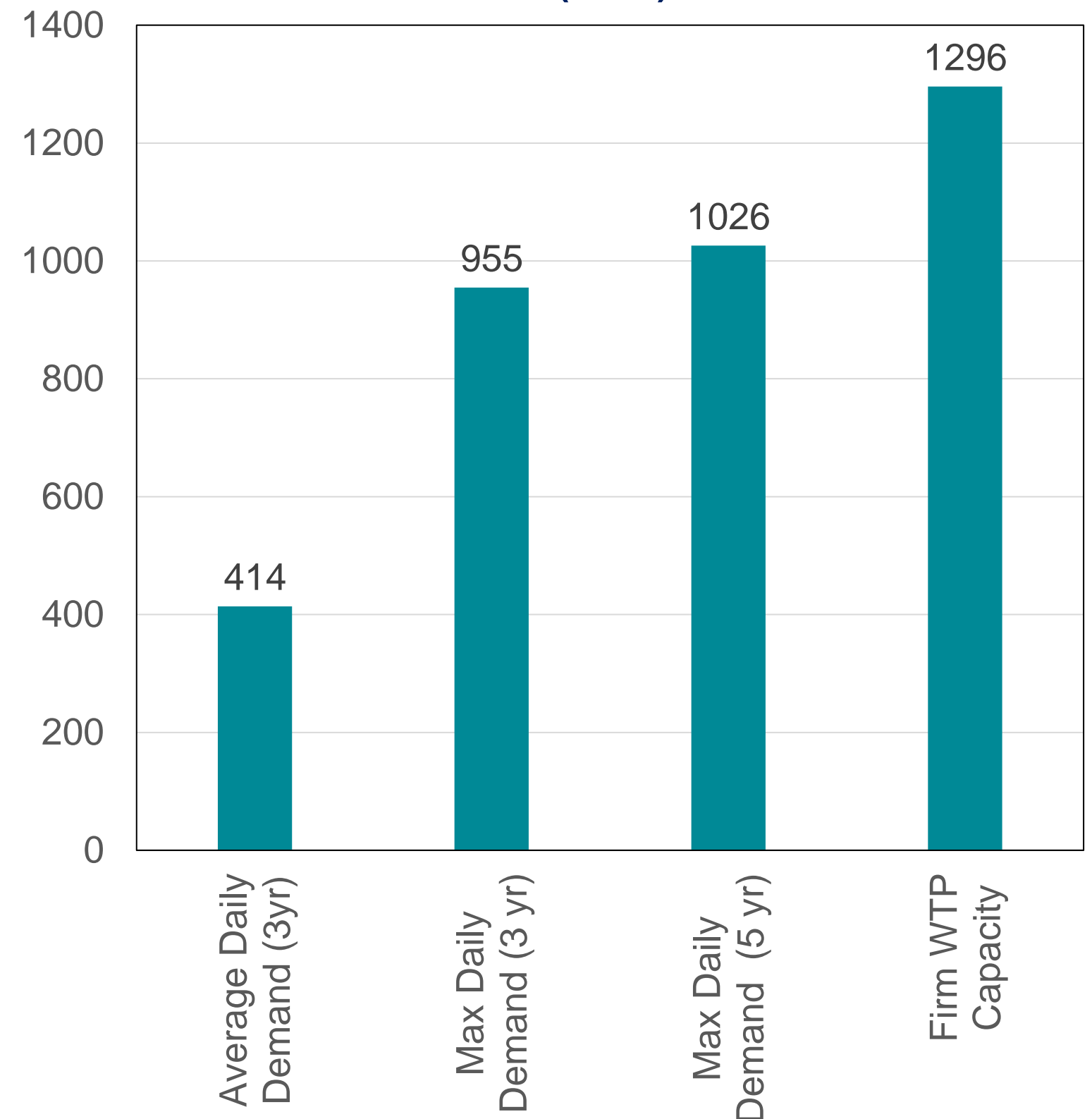
The drinking water system includes a grade level storage facility located at the north end of Collingwood St. and has a volume of 1,570 m³.

Distribution System

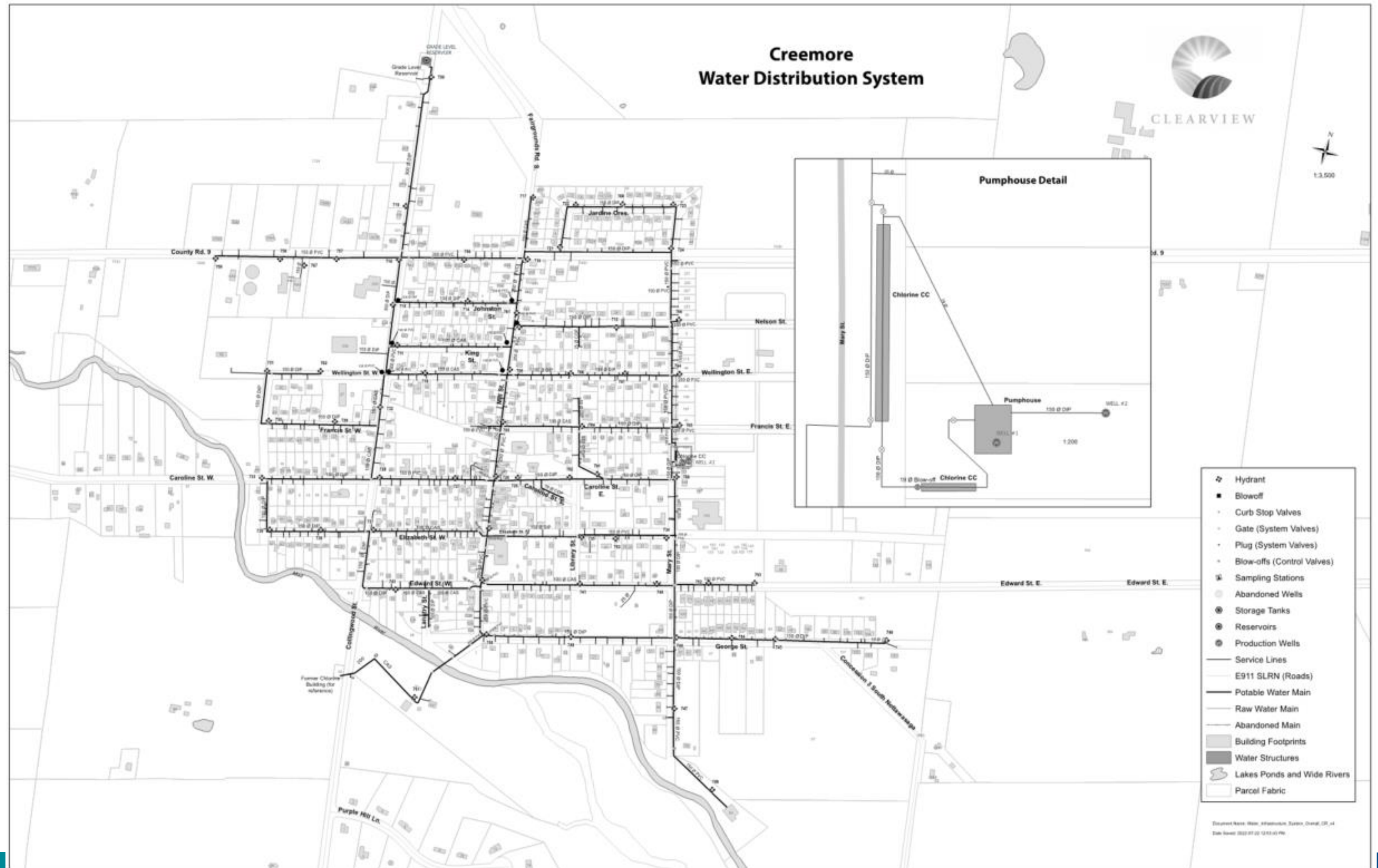
The distribution system consists of approximately 11.9 kilometers of watermain.

There are approximately 545 serviced units on the Creemore drinking water system. A small number of water users are not on the municipal sewer system.

Creemore WTP Capacity and Historical Demand (m³/d)



Existing Conditions - Drinking Water System



Existing Conditions - Wastewater System

The Creemore Wastewater System, including the Creemore Wastewater Treatment Plant (WWTP), and a gravity sewer wastewater collection system, is owned by the Township. The collection system is operated by the Township and the WWTP Operation is contracted to the Town of Collingwood.

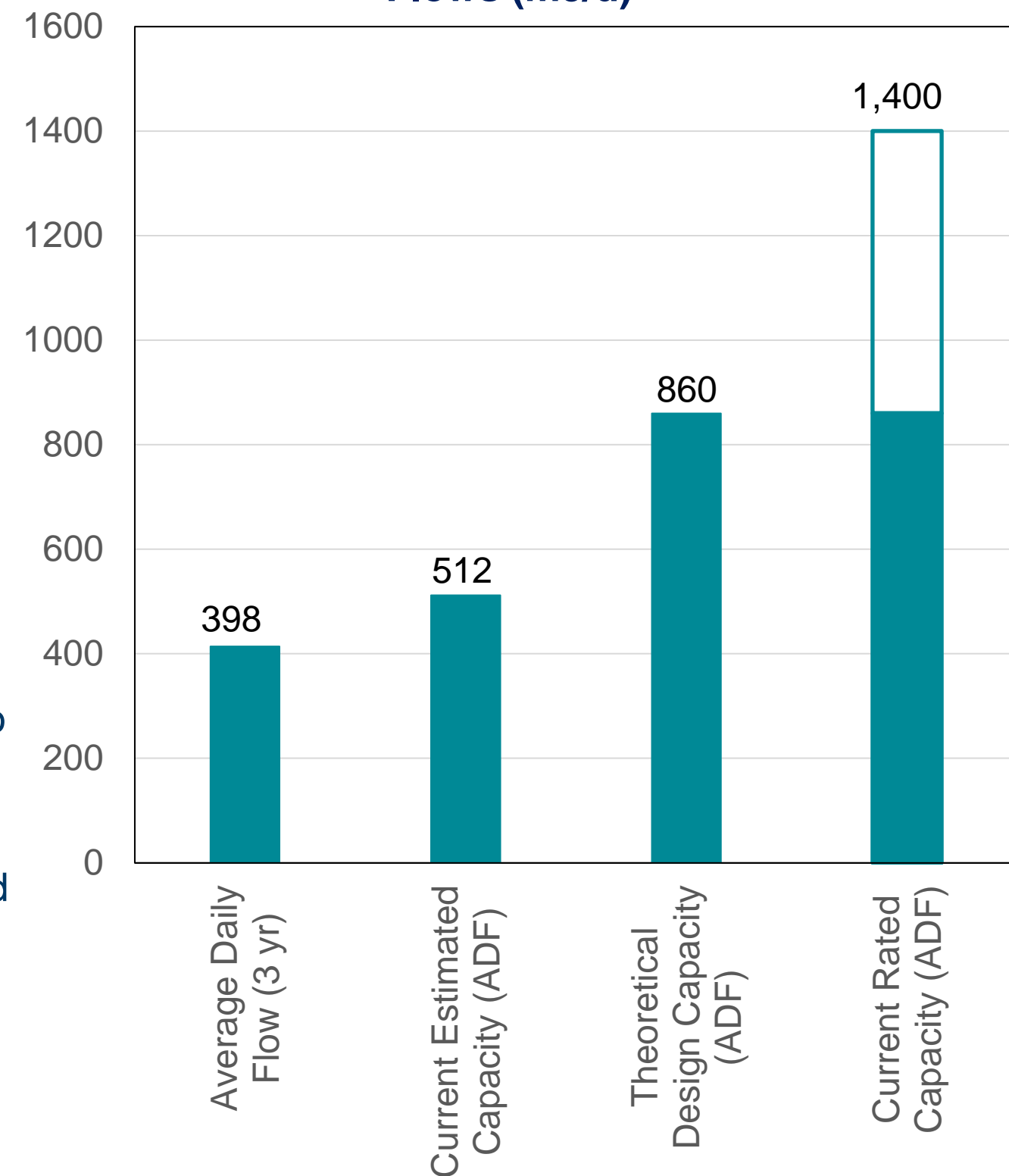
Wastewater Treatment

- The Creemore WWTP plant is a membrane bio reactor type facility that receives wastewater from the collection system and treats it prior to discharging the treated effluent to the Mad River.
- The wastewater received at the WWTP is much stronger than contemplated at the time of design:
 - While average flows are 46% of design, the organic loading is at 80-90% of design, which triggers the need for improvement.
 - Creemore Springs Brewery is permitted to discharge high strength wastewater to the collection system under an agreement with the Township which set out volumes, strengths and costs.
- The existing facility can only handle an average daily flow (ADF) of 512 m³/d. Upgrades are expected in order to restore the original design capacity and further upgrades to provide an ADF of 1,400 m³/d. The facility has at times been unable to handle the peak flows received.

Wastewater Collection

- The Mary St. Trunk sewer, with the current and future users, will be at capacity and not able to accommodate flows from outside the Creemore Core through the existing sewer system.
- The majority of the collection system was constructed at the same time as the WWTP in 1999. The Township undertook a successful program to reduce extraneous flows entering the collection system in the early 2010's.
- There are approximately 518 service connections on the Creemore Collection System.

Creemore WWTP ADF Rating and Historical Flows (m³/d)



Existing Conditions – Wastewater System



Service Population

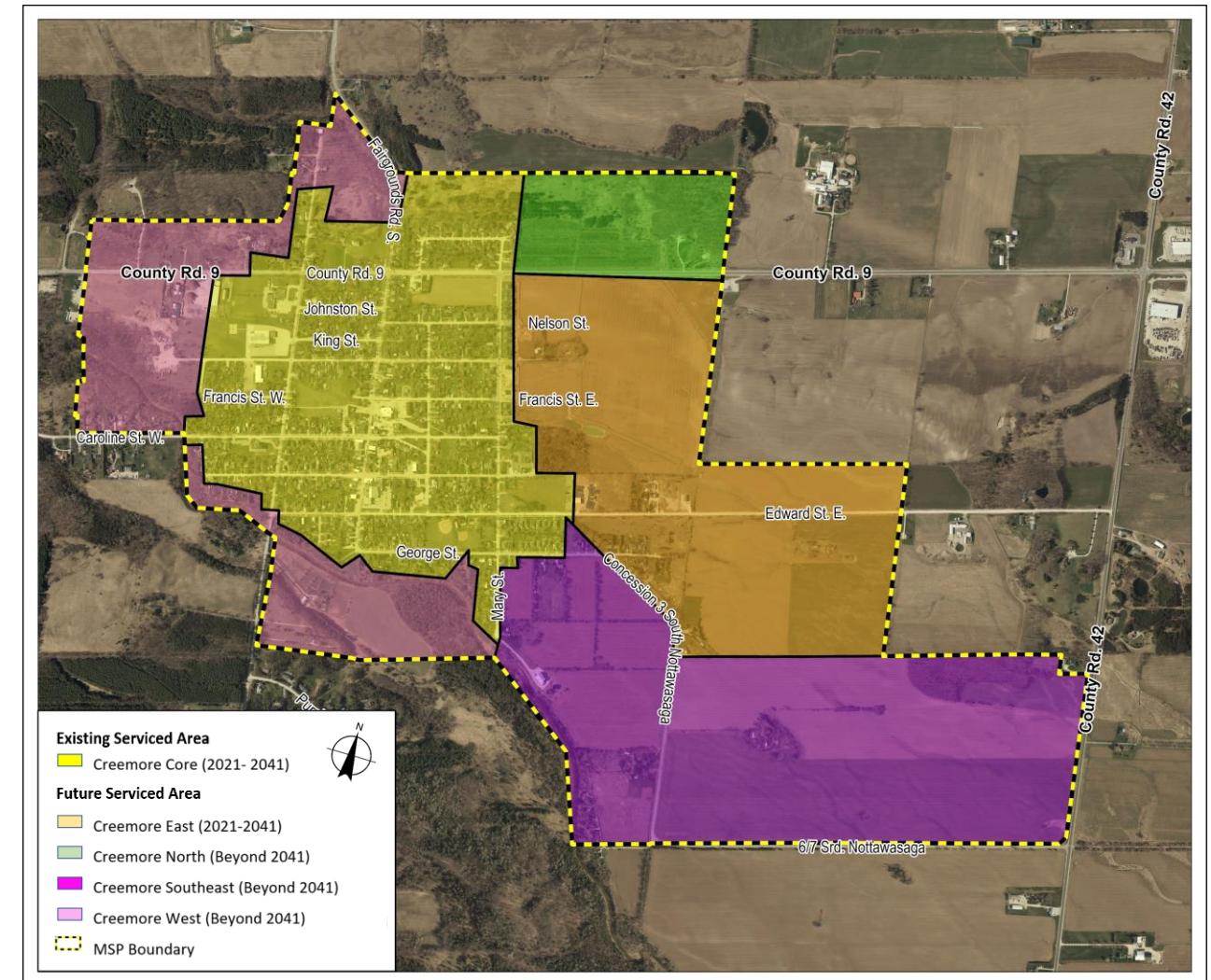
Existing Service Population – Creemore Core

- The area are approximately 1203 persons serviced by 481 residential water connections and 64 Industrial, Commercial and Institutional (I/C/I) water connections.
- The area has approximately 1129 persons serviced by 451 residential wastewater connections and 67 I/C/I wastewater connection.
- Other areas are on individual private services.

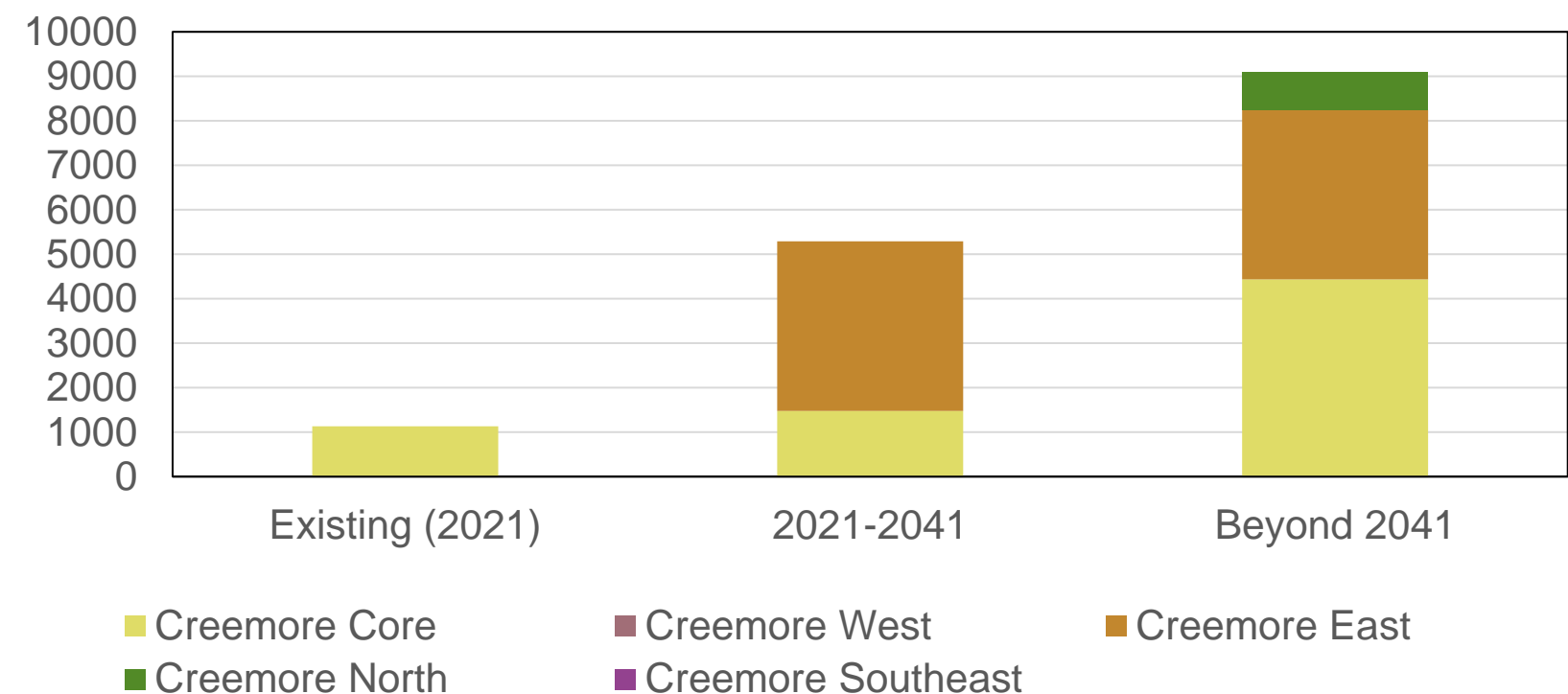
Future Service Population Assumptions

- Future residential units are expected to have 3 persons per unit.
- Unit counts for the development areas are based either on preliminary plans of subdivisions if available or lot yields similar to currently proposed plans.
- New growth in the various service areas are assumed to be on individual or municipal services as shown below:

	Private Services	Municipal Services
Creemore Core	N	Y
Creemore West	Y	N
Creemore North	N	Y
Creemore East	N	Y
Creemore Southeast	Y	N



Projected Future Service Population for Municipal Services (persons) by Planning Horizon



Existing Conditions

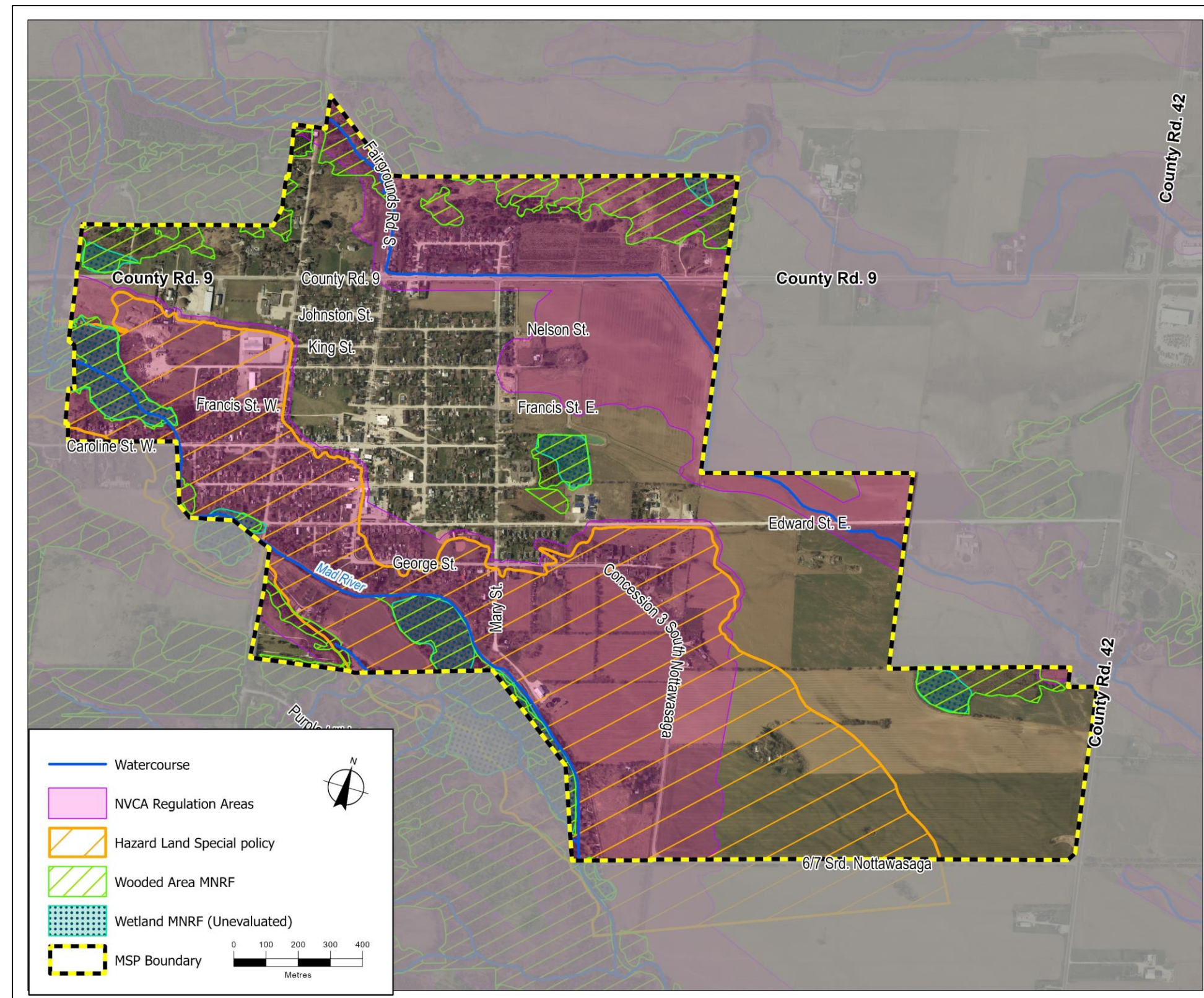
Natural Environmental Features

Natural features within the MSP area

- Nottawasaga Valley Conservation (NVCA) regulated and Hazard Land Special Policy areas.
- Ministry of Northern Development, Mines, Natural Resources and Forestry wetlands (unevaluated) and wooded areas.

Aquatic Habitat

- Mad River flows along the southern boundary and is regulated by NVCA.

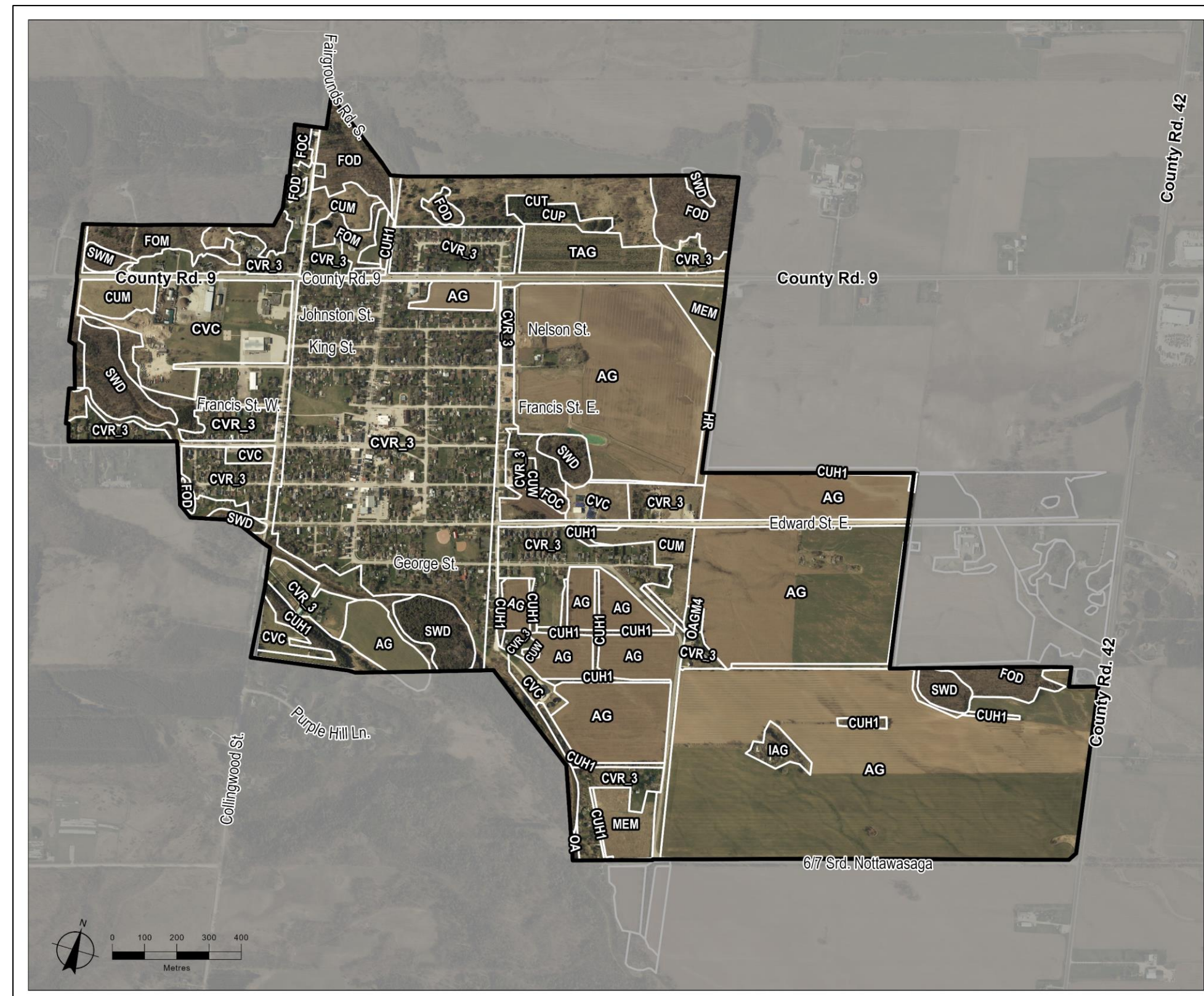


Existing Conditions Ecological Land Classification

Natural features within the MSP area
18 distinct ecological land classification (ELC) vegetation communities.

ELC Descriptions:

- AG: Agriculture
- CUH1: Hedgerow
- CUM: Cultural Meadow
- CUP: Cultural Plantation
- CUT: Cultural Thickets
- CUW: Cultural Woodland
- CVC: Commercial and Institutional
- CVR_3: Single Family Residential
- FOC: Coniferous Forest
- FOD: Deciduous Forest
- FOM: Mixed Forest
- IAG: Agricultural Infrastructure
- OA: Open Water
- OAGM4: Open Pasture
- SWD: Deciduous Swamp
- SWM: Mixed Swamp
- TAG: Treed Agriculture



Existing Conditions

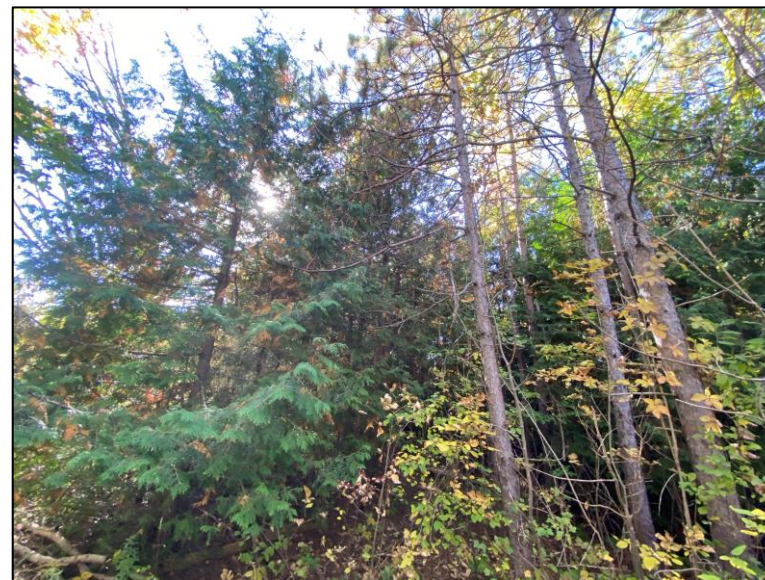
Natural Environment

Vegetation Communities

- Pastures, Forests, Hedgerows, and Agricultural.

Potential Habitat

- Potential wildlife habitat may be suitable for species adapted to urban environment such as squirrel, chipmunk, raccoon, bird species.
- Habitat for Species at Risk may include trees and roosting bat habitat within the forested vegetation communities / treed hedgerows (several bat species are Endangered), or breeding forest woodland birds.

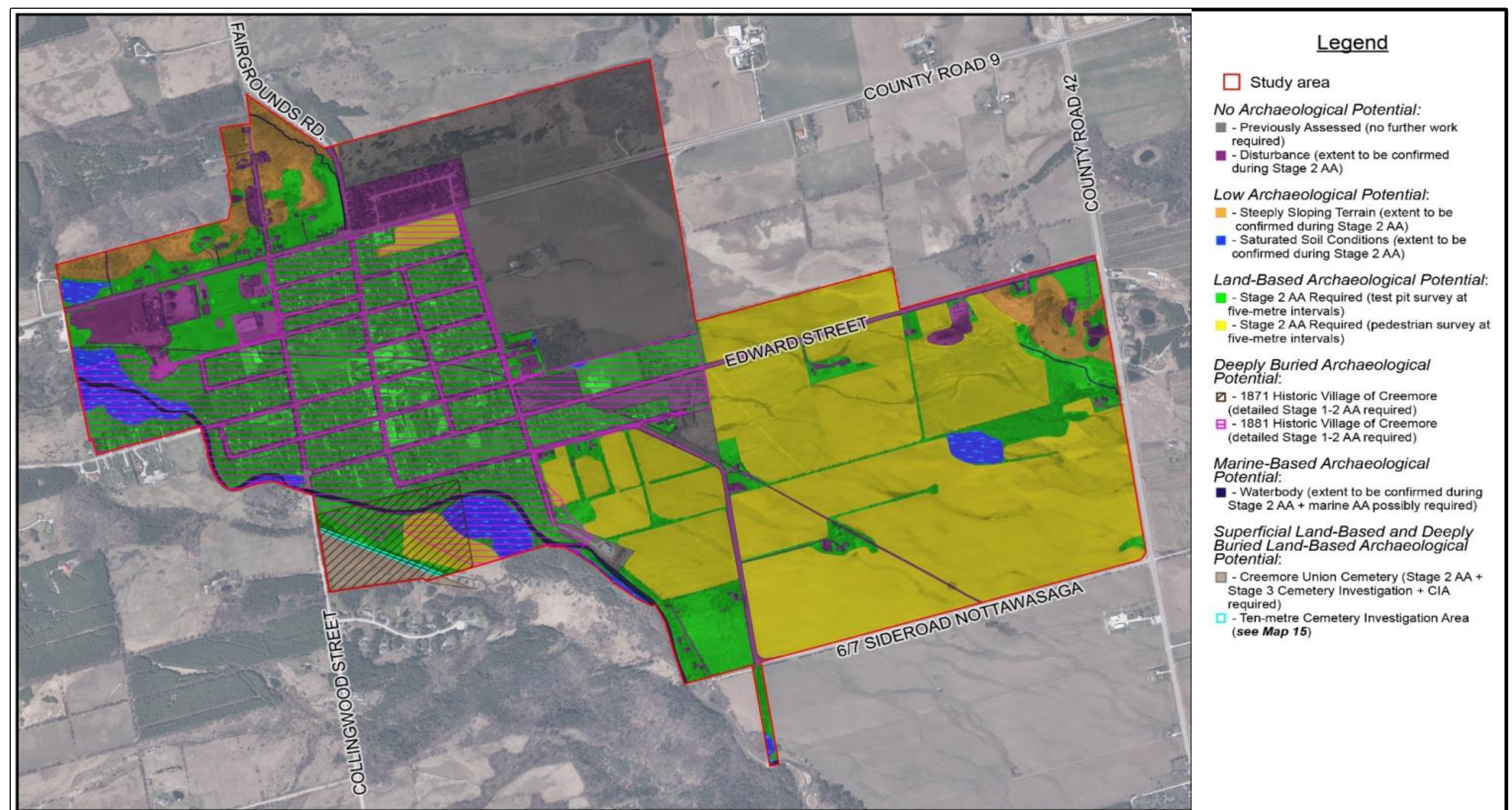


Existing Conditions Archaeological Environment

Stage 1 Archaeological Assessment (AA)

Upon selection of future projects identified within the Creemore Water and Wastewater Master Servicing Plan area:

- Any infrastructure projects which would impact areas identified as having land-based archaeological potential or occurring within the historic limits of the Village of Creemore, must be subjected to a detailed Stage 2 AA, to determine the presence of either deeply buried or near the surface archaeological resources.



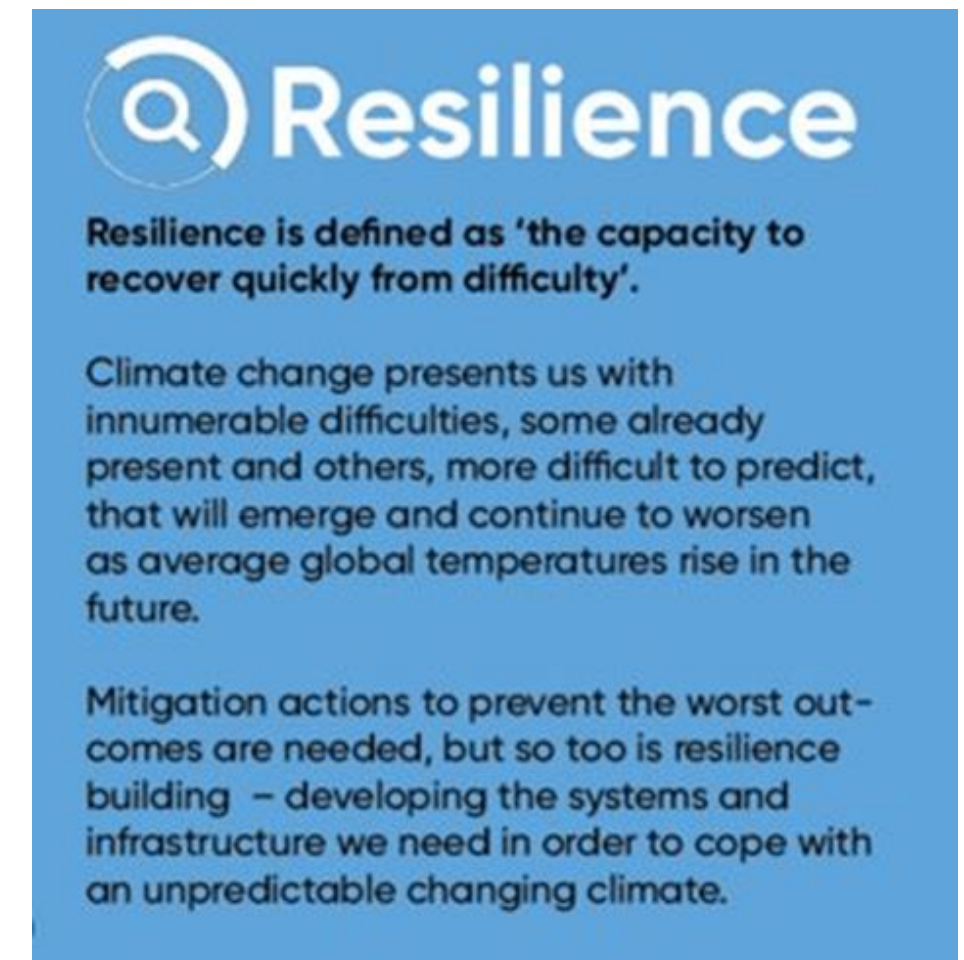
Climate Change

Climate change is defined as any significant change in long-term weather patterns. The term can apply to any major variation in temperature, wind patterns and/or precipitation.

The MECP finalized a document entitled “Considering Climate Change in the Environmental Assessment Process” in 2017 that provides guidance relating to the Ministry’s expectations for considering climate change during the EA process.

As the alternative solutions for the required new infrastructure is developed, climate change will be considered as part of this Master Servicing Plan study. There are two types of climate change effects that will be considered.

1. The first is the effect that a project can have on climate change. In this case, the degree to which the project can provide some climate change mitigation measures is to be assessed.
2. The second is the effect climate change has on the project. In this case, the degree to which the project can demonstrate adaptation to climate change impacts is assessed.



Resilience

Resilience is defined as ‘the capacity to recover quickly from difficulty’.

Climate change presents us with innumerable difficulties, some already present and others, more difficult to predict, that will emerge and continue to worsen as average global temperatures rise in the future.

Mitigation actions to prevent the worst outcomes are needed, but so too is resilience building – developing the systems and infrastructure we need in order to cope with an unpredictable changing climate.

The assessment of alternative solutions will incorporate climate change as part of the environmental assessment process, including recommendations for systems resiliency as well as identifying and minimizing negative impacts during project implementation.

Alternative Solutions Water and Wastewater Systems

- Alternatives Solutions to address the water and wastewater serving needs will be identified, reviewed and refined through the Study process.
- The range of typical alternatives is illustrated to the right.
- They may be combined with non-structural solutions such as programs focused on reducing water demand and wastewater flows and optimization of operation of existing facilities.



Evaluation Criteria

The alternative solutions will be evaluated relative to each other against a set of criteria. Typical evaluation criteria are provided below under each of the project environments:



Natural environment

- Potential impact to vegetation and designated natural features
- Potential impact to wildlife, aquatic habitat and habitat of species at risk
- Potential impact to water resources and drainage
- Potential climate change impact and resilience



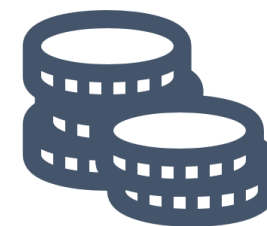
Socio-cultural environment

- Potential impact to heritage resources (e.g. archaeology, cultural heritage)
- Nuisance impacts (e.g. noise, visual, or construction impacts)
- Conformity to municipal and agency policy
- Public Safety



Engineering environment

- Complexity
- Safety
- Design constraints and Utility impacts
- Constructability



Financial environment

- Estimated capital costs
- Estimated operation and maintenance costs
- Estimated life cycle costs

Next Steps

- Review feedback from PIC
- Identify the Alternative Solutions
- Inventory the Natural, Social-cultural, Engineering and Financial Environment
- Identify Impact of the Alternative Solutions on the Environment and Identify Mitigating Measures
- Confirm Alternative Solutions and Identify Preliminary Preferred Solution(s)
- Consult Agencies and Public (PIC #2)
- Select Preferred Solution
- Review and Confirm EA Schedule

You are invited to provide comments by completing the comment sheet provided. Please submit comment sheets to a Study Team member below on or before January 13, 2023.

Mike Rawn, C.E.T., CMM III

Director Public Works
Township of Clearview
217 Gideon St
Stayner, ON L0M 1S0
Tel: 1-705-428-6230 x 243
E-mail: mrawn@clearview.ca

Philip Rowe, C.E.T., EP

Consultant Project Manager
R.J. Burnside & Associates Limited
6990 Creditview Road, Unit 2, Mississauga, ON
L5N 8R9
Tel: 1-800-265-9662 ext. 5915
E-mail: CreemoreMP@rjburnside.com

Thank you!