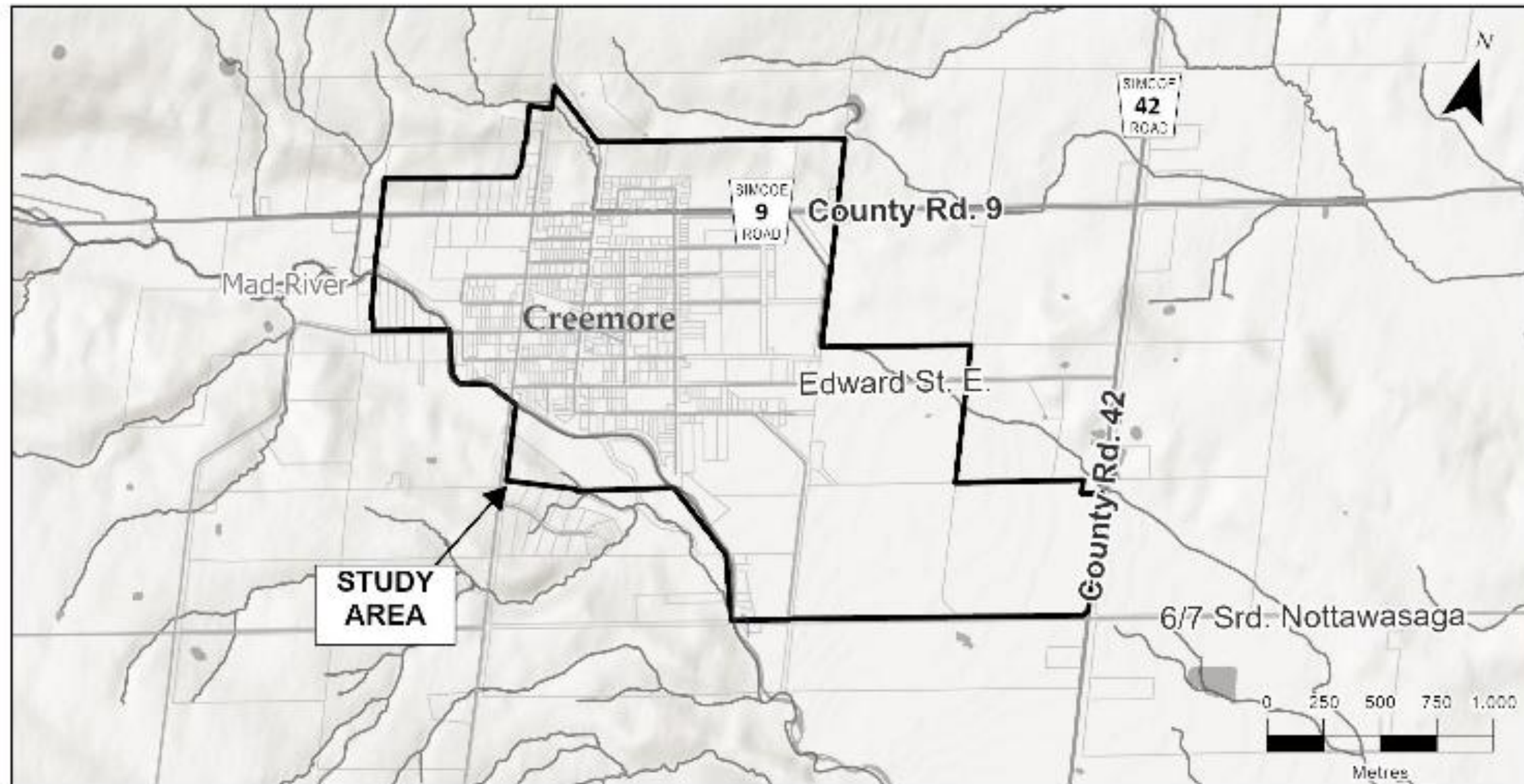


Creemore Water and Wastewater Master Servicing Plan



Public Information Centre #2
December 7, 2023, 5:00 p.m. – 7:30 p.m.
Creemore Community Centre

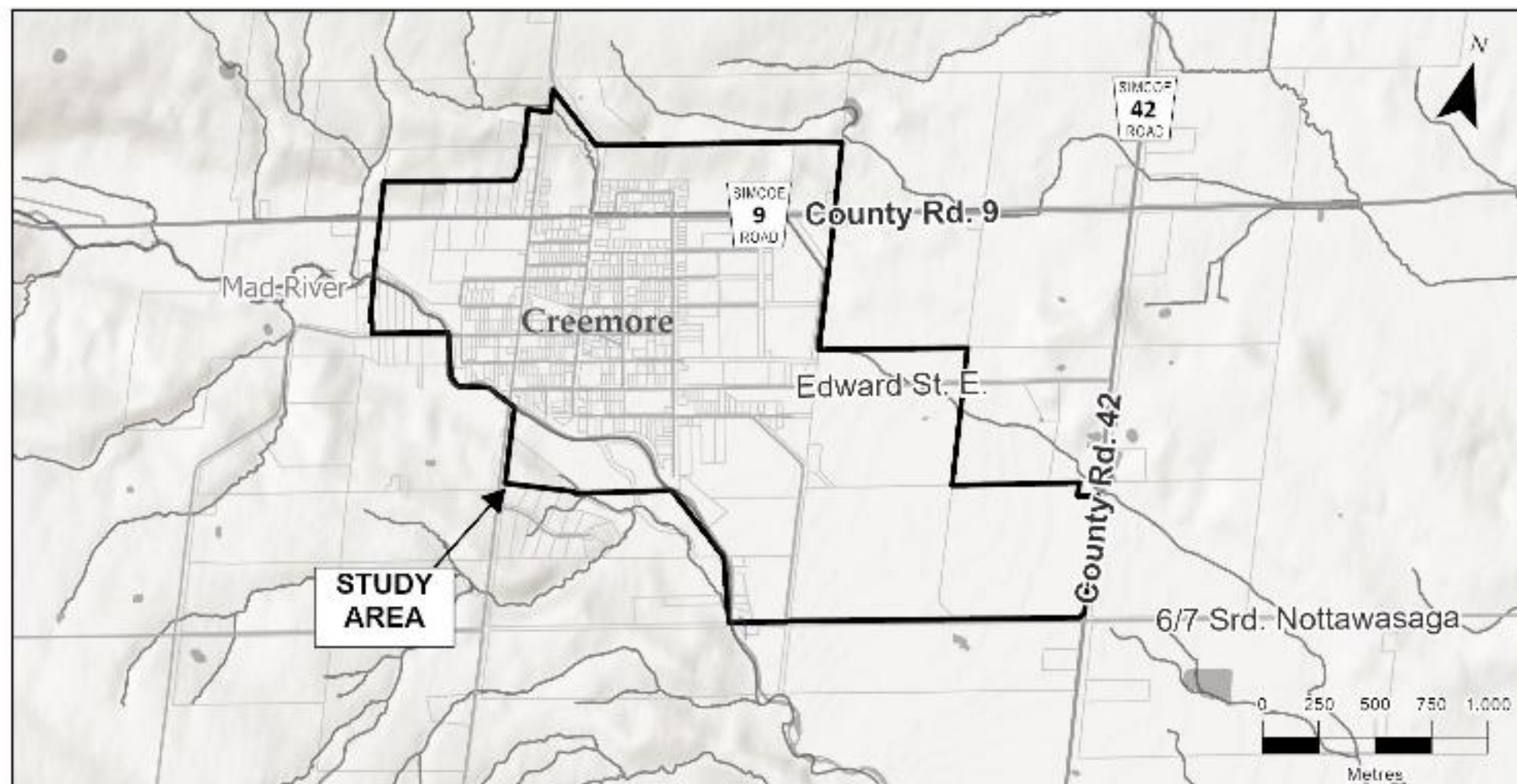
to Public Information Centre #2 for the
Creemore Water and Wastewater Master Servicing Plan



- Please Sign In
- Review display materials and discuss your questions and ideas with the Study Team
- Please fill out a comment sheet and return to the Study Team in person, by email or mail by January 22, 2024

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

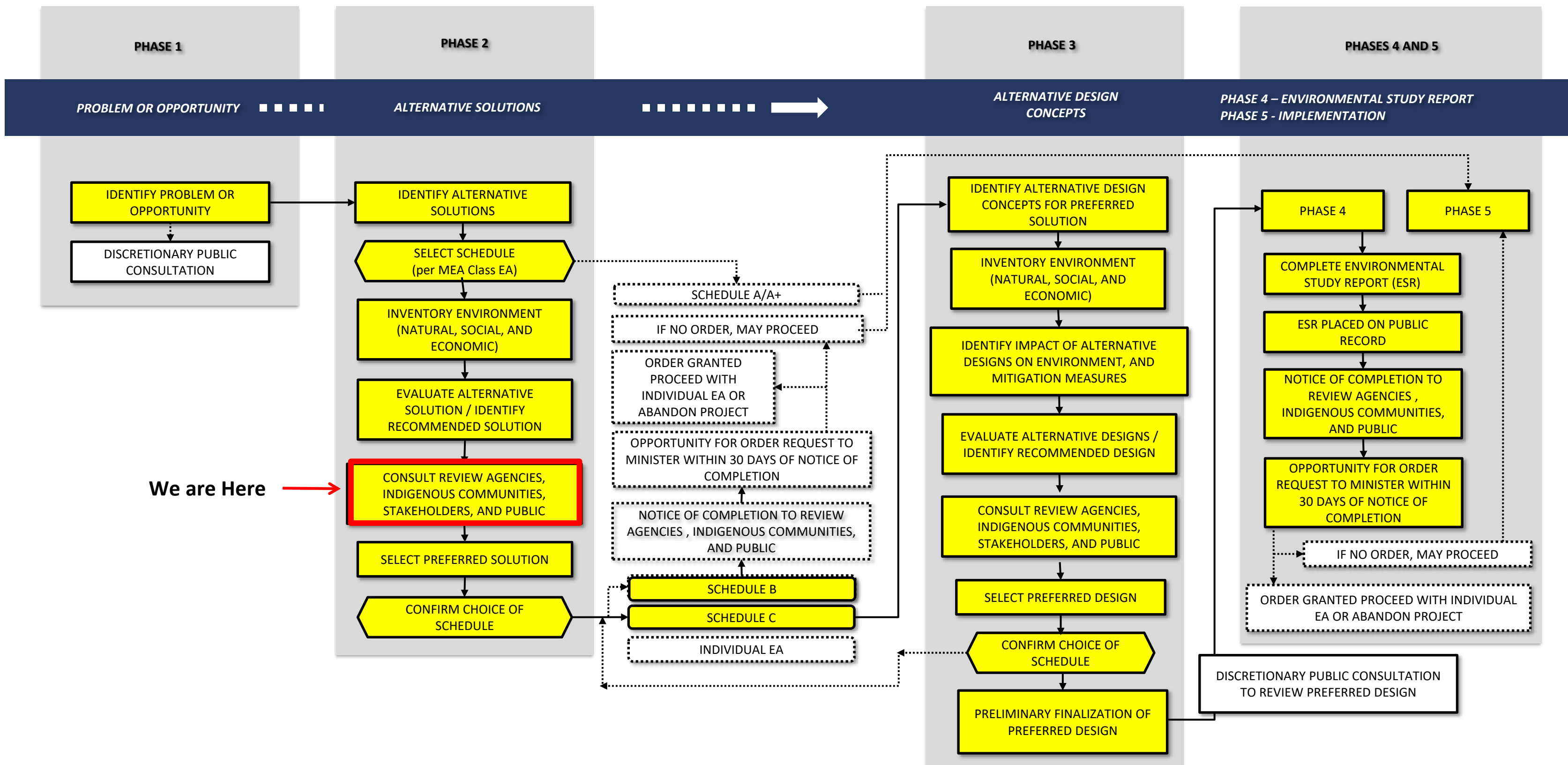
The Master Servicing Plan will consider solutions for the long-term drinking water and sanitary wastewater servicing needs for the Community of Creemore and potential development opportunities.

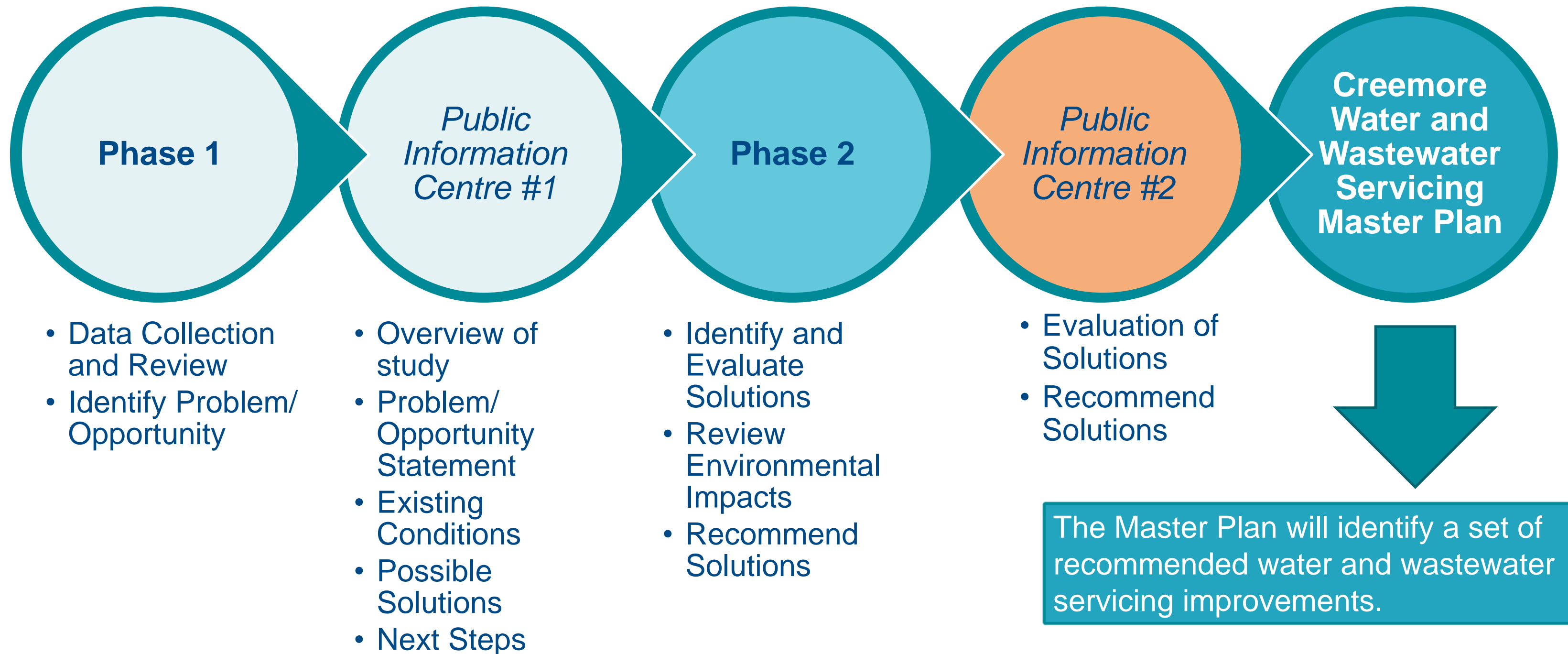


Purpose of this PIC is to:

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

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).





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

With Approach #2, projects identified as Schedule B projects in the Master Plan can proceed to implementation phase (Phase 5) following completion of the Master Plan.

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.”

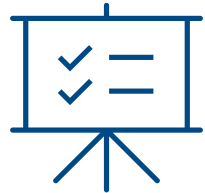
The Master Plan will satisfy the Municipal Class EA requirements for the Schedule B infrastructure projects identified in the Master Plan.



Public Information Centre #1 was hosted as a drop-in open house on December 1, 2022, at the Creemore Community Centre from 5:00pm to 7:30pm.



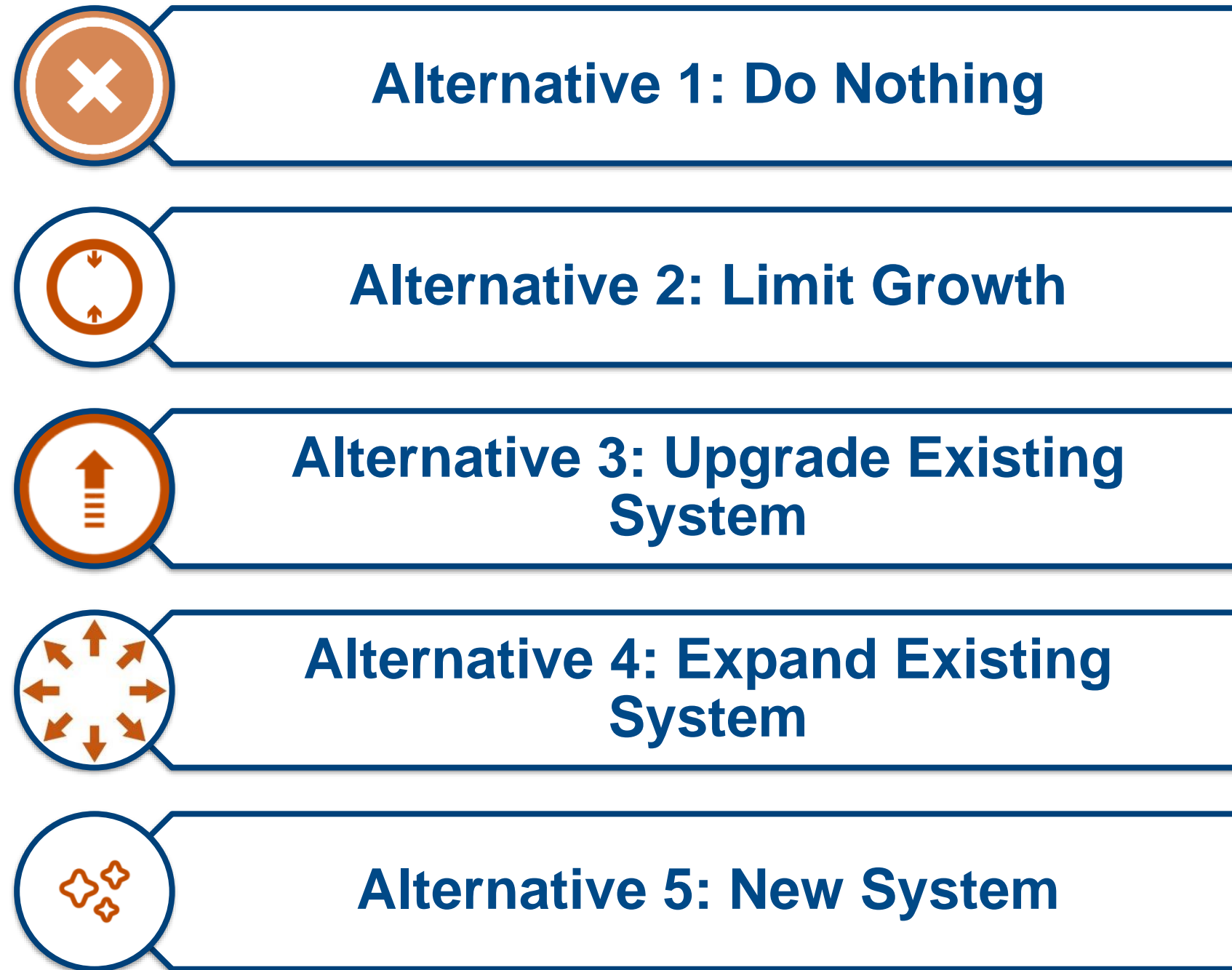
Ten people attended Public Information Centre #1. Written comments were received from 5 participants.



A summary of written comments with responses from the study team was provided in a PIC Summary Report posted on the study webpage at www.clearview.ca/CWWMSP

Comments received included the following general themes:

- Costs
- Anticipated population growth
- Anticipated servicing needs
- Preservation of unique community identity
- Opportunity for future community engagement
- Potential impact of high groundwater table
- Concern with spreading of bio-sludge and solids



- The range of typical, high-level alternatives is illustrated above
- They may be combined with non-structural solutions, such as programs focused on reducing water demand and wastewater flows, working with private industry and optimization of operation of existing facilities
- Alternatives Solutions to address the water and wastewater servicing needs were identified, reviewed and refined through the Study process

Drinking Water System

Meets the Problem Statement



Alternative 1: Do Nothing

Continue to operate the existing treatment plant up to its rated capacity of 2,688 m³/day
 Continue to operate the existing drinking water storage facilities with a volume of 1,570 m³
 Continue to service approximately 545 water accounts
 No construction or expansion of the water treatment plant. Perform regular maintenance as required
 No property acquisition



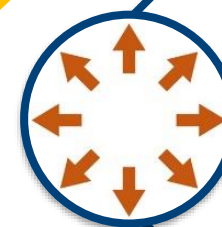
Alternative 2: Reduce Water Demand

Initiate water conservation program and/or adopt a municipal by-law directed at reducing water usage to increase available hydraulic capacity at the existing water treatment facility



Alternative 3: Upgrade Existing System

Add or replace equipment or facilities or change management practices to optimize system performance up to rated capacity.
 No property acquisition is required



Alternative 4: Expand Existing Water System (Beyond Rated Capacity)

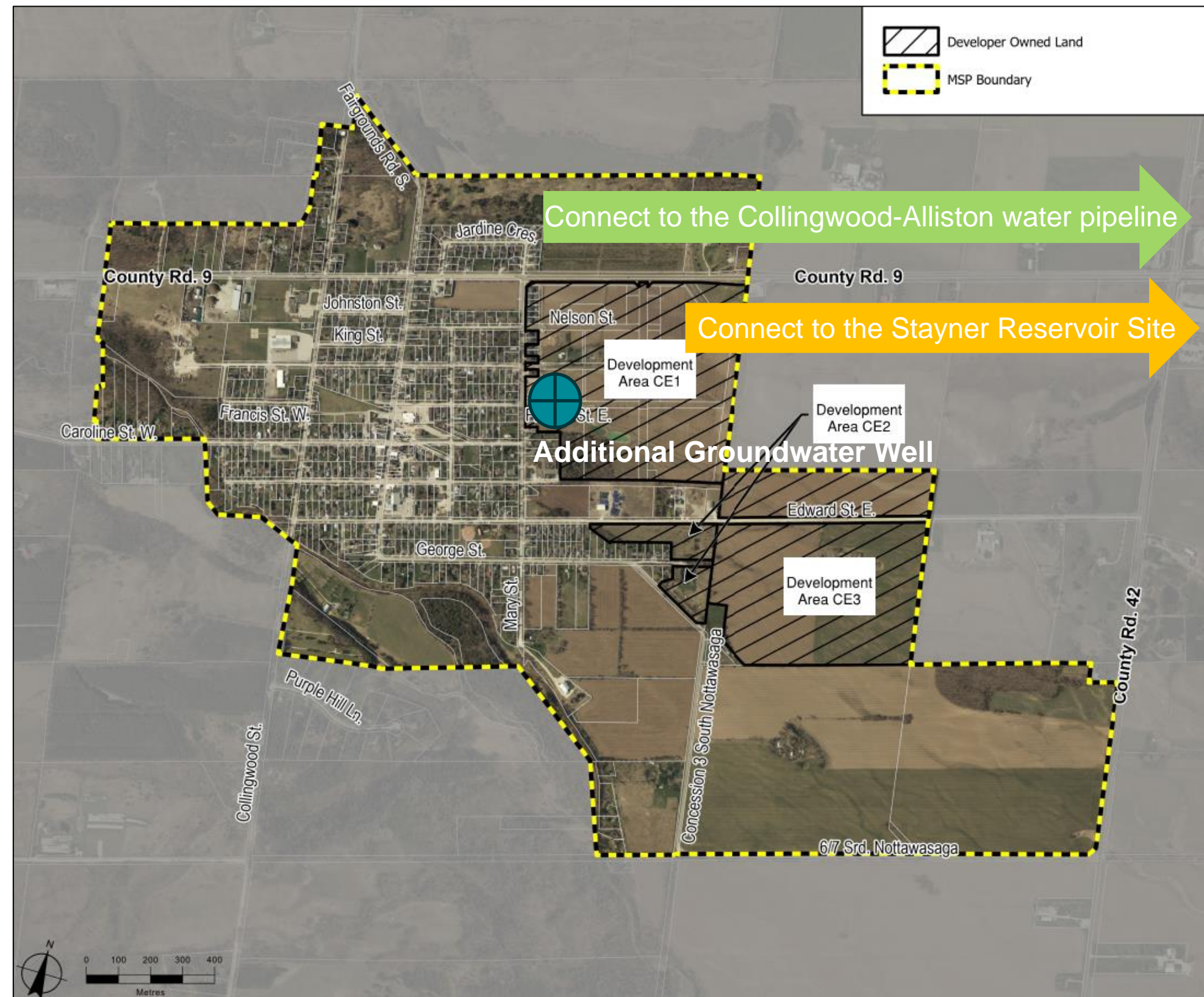
- ➔ Connect to an Adjacent System
- ➔ Connect to a Surface Water Source
- ➔ Add Additional Ground Water Wells

➔ Connect to an Adjacent System

- Creemore wells would remain in operation
- Connect to the Stayner Reservoir Site on Airport Road
- Install water main 2.1 km east along County Rd. 9 and 4.7 km north along County Rd. 42 to the limit of the Stayner drinking water system
- Construct a water booster pumping station to convey water from the Stayner Reservoir to the existing Creemore drinking water system













➔ Connect to a Surface Water Source

- Connect to the Collingwood-Alliston water pipeline supplied from the Collingwood Water Treatment Plant
- Connect near the existing New Lowell water treatment facility
- Construct emergency storage at the New Lowell water treatment facility
- Construct water booster station at the New Lowell water treatment facility to pump the water approximately 9.4 km along County Rd. 9 to the Creemore Drinking Water System



⊕ Add Additional Groundwater Wells

- Add a groundwater well(s) in the Creemore area
- Construct a new water treatment facility

Criteria for Evaluating Alternatives	Connect to Adjacent Water System (Stayner)	Additional Groundwater Supply	Connect to Surface Water Source (Collingwood Via New Lowell)
Natural Environment			
Socio-Cultural Environment			
Financial Factors			
Technical Factors			
Overall Summary	Not Carried Forward	Most Preferred	Not Carried Forward

Order of Preference:

Most Preferred  More Preferred  Somewhat Preferred  Less Preferred  Least Preferred 

Design considerations include, but are not limited to:

- Minimizing impact to natural features and heritage resources
- Ease of construction and maintenance
- Reliable service to existing areas and future growth
- Minimize impact to utilities
- Minimize cost (life cycle)
- Property impacts
- Required Permits

The expanded drinking water system needs to connect to the existing distribution system and water storage facilities.

The existing water storage facility is not large enough to support the forecasted growth. The following options are considered:

Grade Level Storage

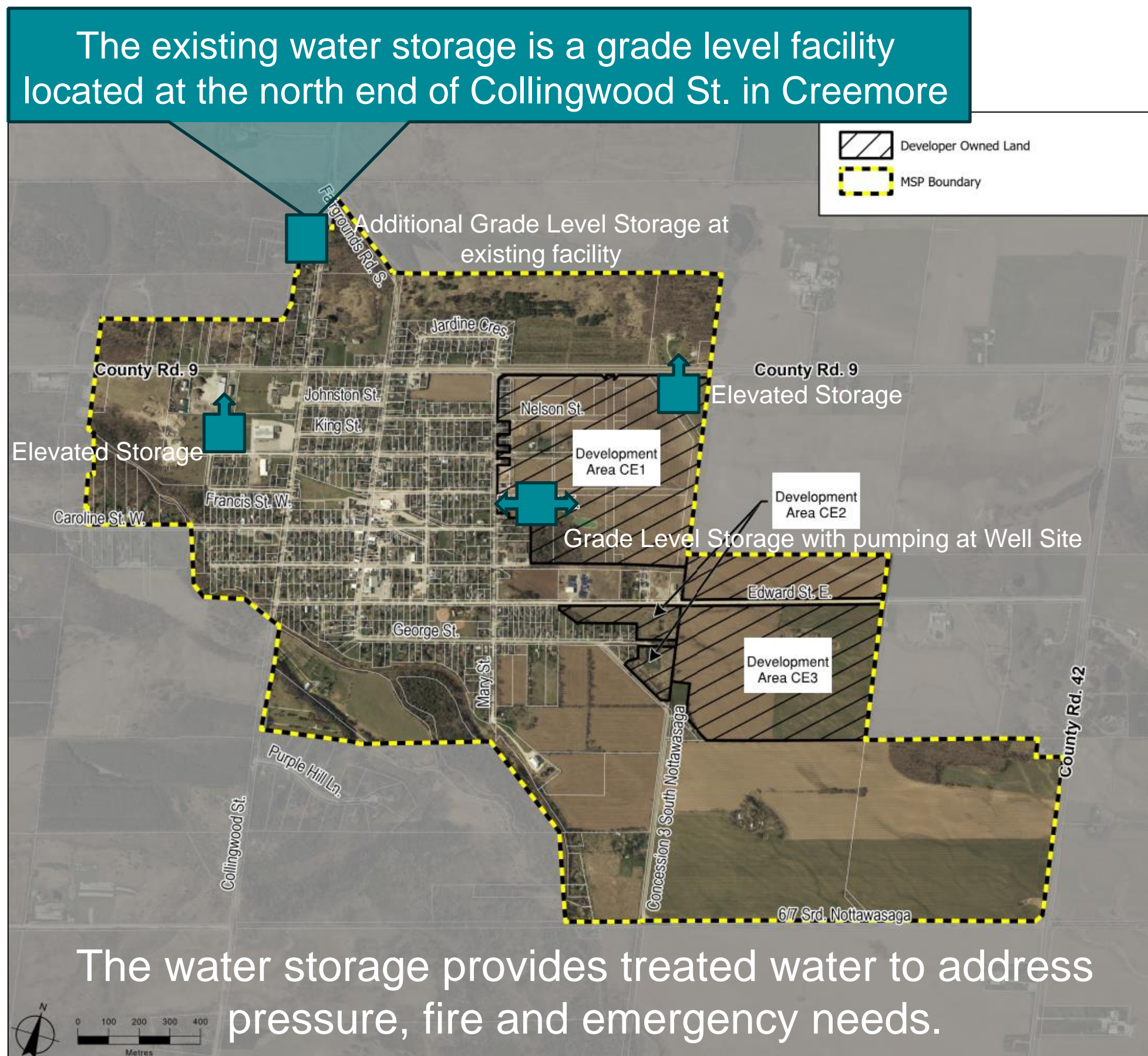
Provided at the existing site and works in tandem with existing facility. The new facility would be connected to the existing watermain. The existing cell would be twinned.

















Grade Level Storage with Pumping

The existing water storage facility would remain and additional grade level storage with pumping would be provided at the site of the additional ground water well(s). Additional watermain would be needed to connect to the existing distribution system.

Elevated Storage

The existing facility would be abandoned and replaced with elevated water storage. Additional watermain would be needed to connect to the existing system. Elevated storage is not expandable.



Criteria for Evaluating Alternatives	Grade Level Storage- North Creemore, Collingwood Street	Elevated Storage- West Creemore, Community Centre	Elevated Storage- East Creemore, Tribute Lands	Grade Level Storage-Central East Creemore, Tribute Lands
Natural Environment				
Socio-Cultural Environment				
Financial Factors				
Technical Factors				
Overall Summary	Most Preferred	Not Carried Forward	Not Carried Forward	Not Carried Forward

Order of Preference:

Most Preferred  More Preferred  Somewhat Preferred  Less Preferred  Least Preferred 

Design considerations include, but are not limited to:

- Adequate available space
- Minimizing impact to property, structures/buildings
- Minimizing impact to natural features and heritage resources
- Minimize visual impacts
- Ease of construction and maintenance
- Reliable service to existing areas and future growth
- Minimize impact to utilities
- Minimize cost (life cycle)

Add Additional Ground Water Well + Grade Level Storage -North Creemore, Collingwood Street

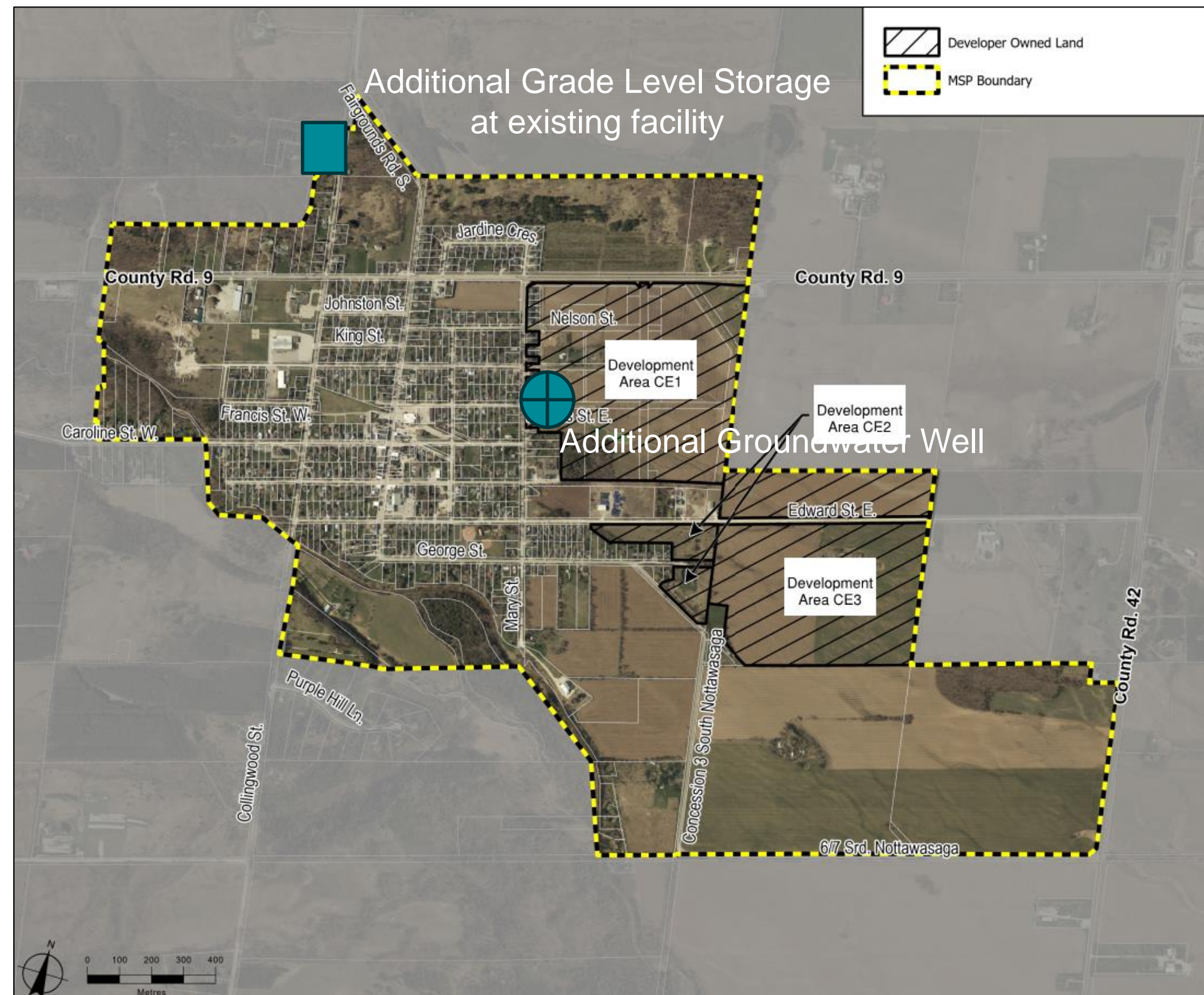
Possibly combined with other non-structural solutions, such as programs focused on reducing water demand

Additional Ground Water Well

- Additional well developed in the Creemore area
- Located within the southwest corner of development area CE1
- Connect to the existing water distribution system

Grade Level Storage

- New grade level storage at the existing storage site. It is proposed to twin the existing reservoir
- The existing facility would receive state of good repair upgrades
- The new storage would connect to the existing watermain that serves the existing reservoir



Wastewater System

Meets the Problem Statement

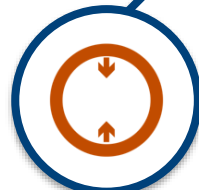


Alternative 1: Do Nothing

Continue to operate the existing treatment plant at reduced functionality (less than the current rated capacity of 1,400 m³/day)

Continue to service approximately 518 user connections

No construction or expansion of the wastewater treatment plant. Perform regular maintenance as required



Alternative 2: Reduce Wastewater Flow

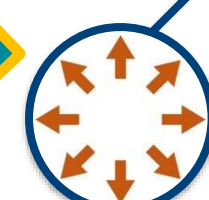
Enhance water conservation program and/or adopt a municipal by-law directed at reducing water usage to increase available hydraulic capacity at the existing wastewater treatment facility



Alternative 3: Upgrade Existing Treatment Plant

Add or replace equipment or facilities or change management practices to optimize system performance up to the current rated capacity of 1,400 m³/day.

Retain existing outfall



Alternative 4: Expand Existing Wastewater System (Beyond Rated Capacity)

Expand to required capacity of 2,100 m³/day at existing site and retain existing outfall location



Alternative 5: Expand with New Wastewater System

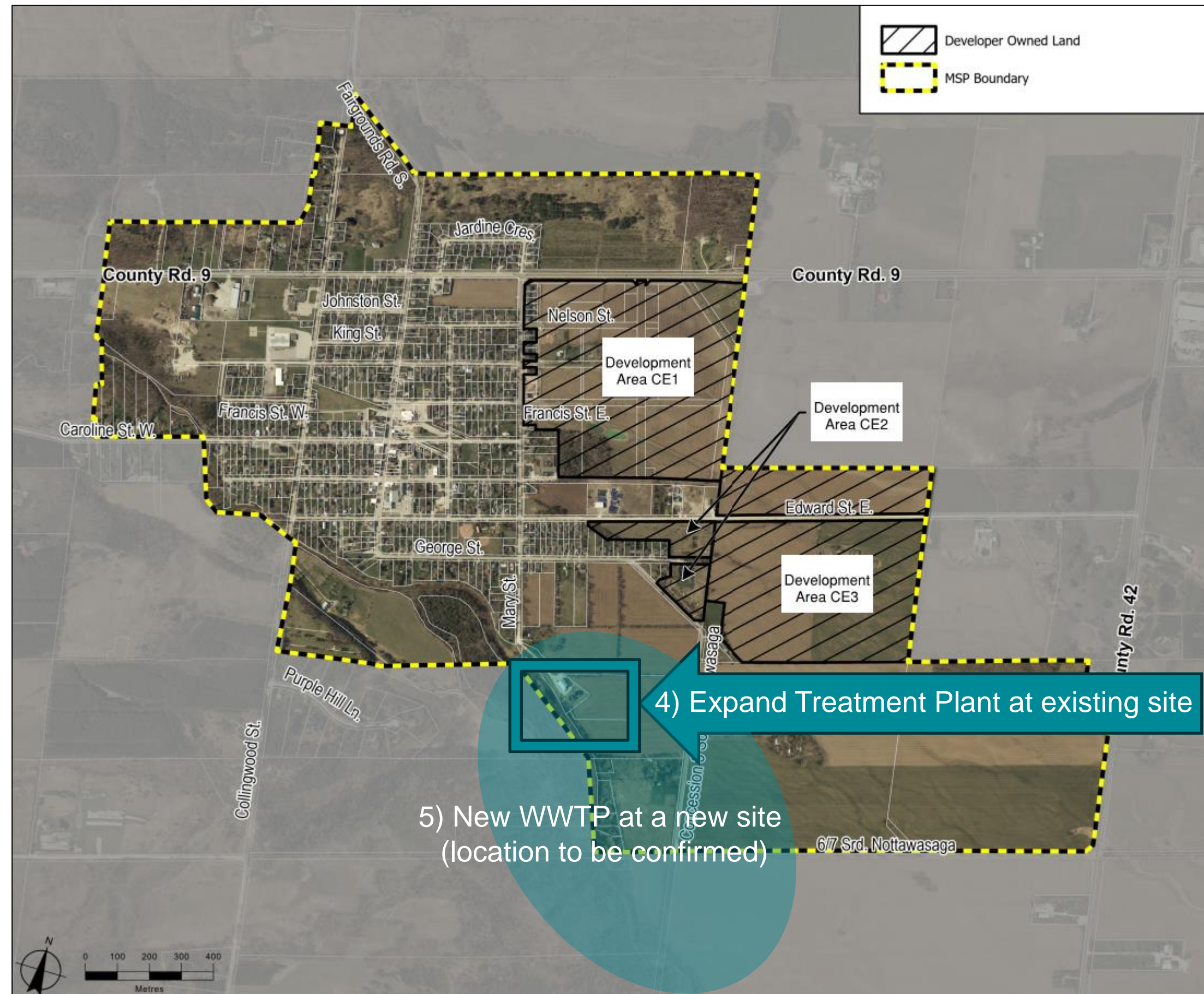
Construct a new treatment facility at a new site to increase rated capacity to 2,100m³/day, with a new outfall location. Retire the existing treatment facility









4) Expand at the Existing Site

- Construct an expanded WWTP at the existing site to increase rated treatment capacity to 2,100m³/day
- Retain the existing outfall location

5) New Facility at a New Site

- Construct a new WWTP at a new site to increase rated treatment capacity to 2,100m³/day
- Construct a new outfall location
- Retire the existing treatment facility



Criteria for Evaluating Alternatives	4) Expand the WWTP at the existing site (increase rated capacity)	5) Build a new WWTP at a new site
Natural Environment		
Socio-Cultural Environment		
Financial Factors		
Technical Factors		
Overall Summary	Most Preferred	Not Carried Forward

Order of Preference:

Most Preferred  More Preferred  Somewhat Preferred  Less Preferred  Least Preferred 

Design considerations include, but are not limited to:

- Adequate available space
- Minimizing impact to property, structures/buildings
- Minimizing impact to natural features and heritage resources
- Minimize visual impacts
- Ease of construction and maintenance
- Reliable service to existing areas and future growth
- Minimize impact to utilities
- Minimize cost (life cycle)

There are several options for collecting and conveying wastewater to the expanded wastewater treatment plant (WWTP) at the existing site

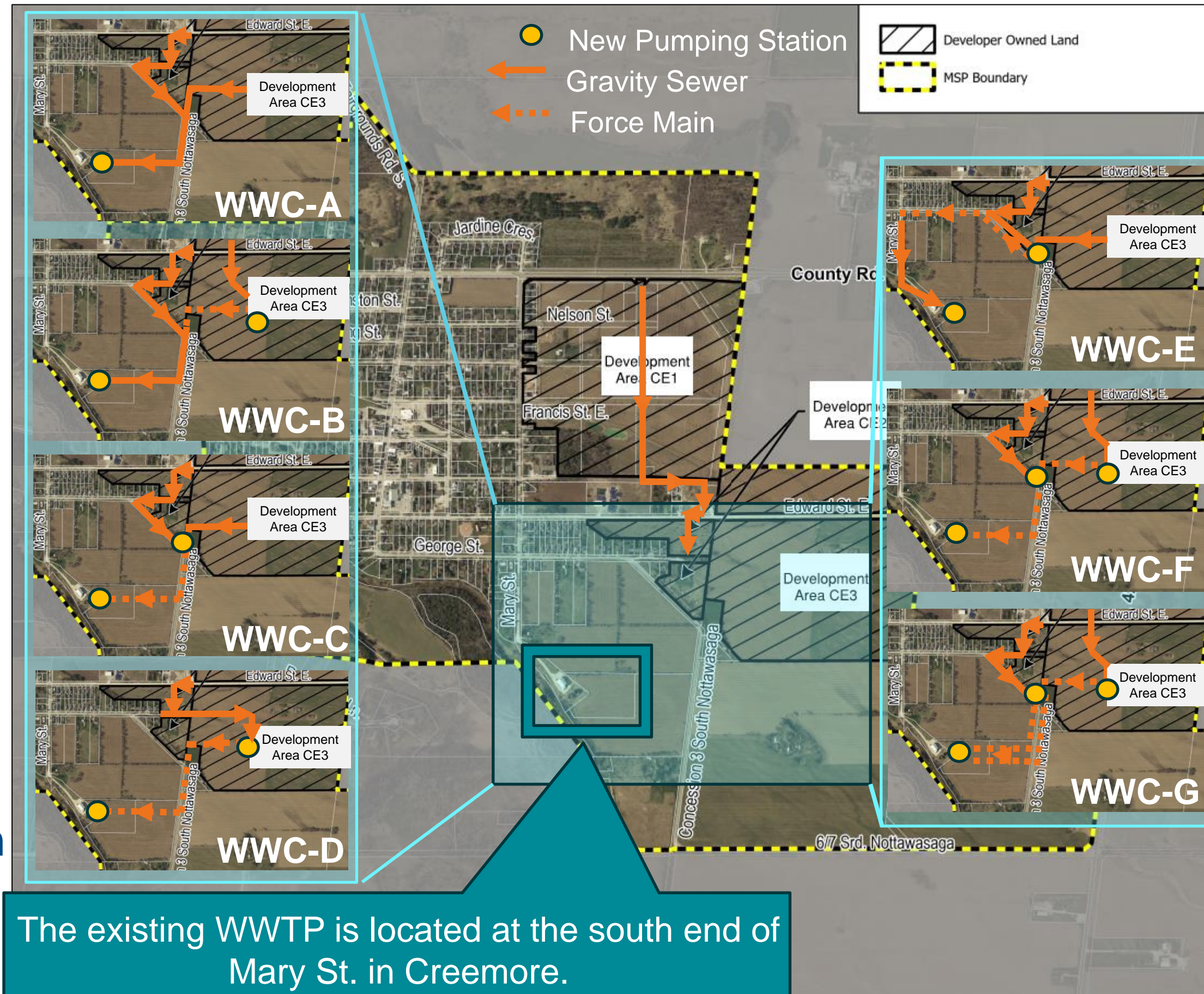
All existing flows to the existing WWTP are conveyed by gravity sewer to a pumping station which is integrated into the existing WWTP.





























The existing sewers do not have capacity to accommodate wastewater from development areas outside of the Creemore Core sub area.

The Creemore East (CE) lands will not drain by gravity to the existing pumping station at the existing WWTP site.

The options for wastewater collection are combinations of:

- various sewer alignments
- additional pumping stations
- additional sanitary forcemain



Criteria for Evaluating Alternatives	WWC-A	WWC-B	WWC-C	WWC-D	WWC-E	WWC-F	WWC-G
Natural Environment							
Socio-Cultural Environment							
Financial Factors							
Technical Factors							
Overall Summary	Not Carried Forward	Not Carried Forward	Most Preferred	Not Carried Forward	Not Carried Forward	Not Carried Forward	Not Carried Forward

Order of Preference:

Most Preferred  More Preferred  Somewhat Preferred  Less Preferred  Least Preferred 

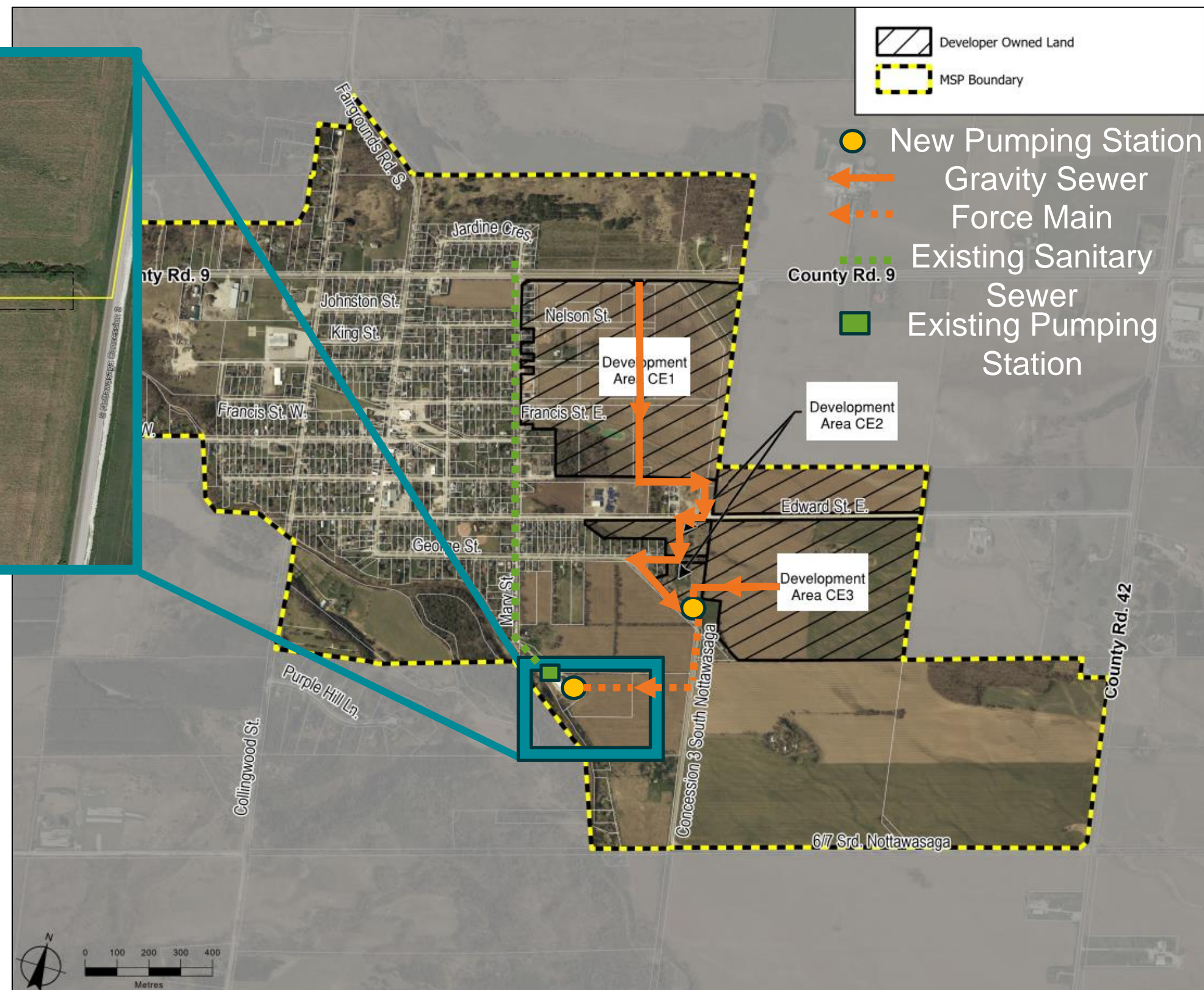
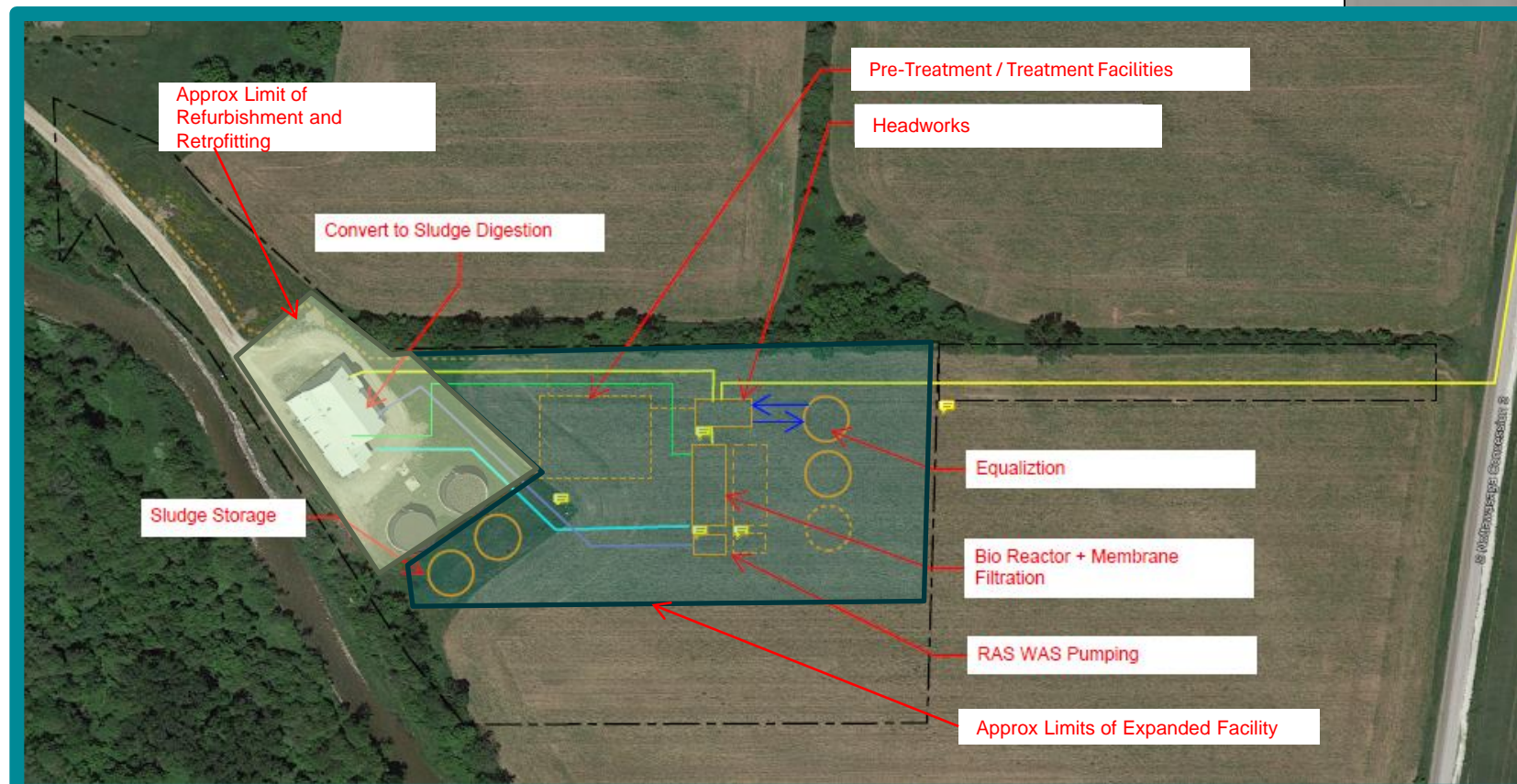
Design considerations include, but are not limited to:

- Ability to maximize existing infrastructure
- Minimizing impact to property, structures/buildings
- Minimizing impact to natural features and heritage resources
- Potential for phased implementation
- Ease of construction and maintenance
- Reliable service to existing areas and future growth
- Minimize impact to utilities
- Minimize cost (life cycle)

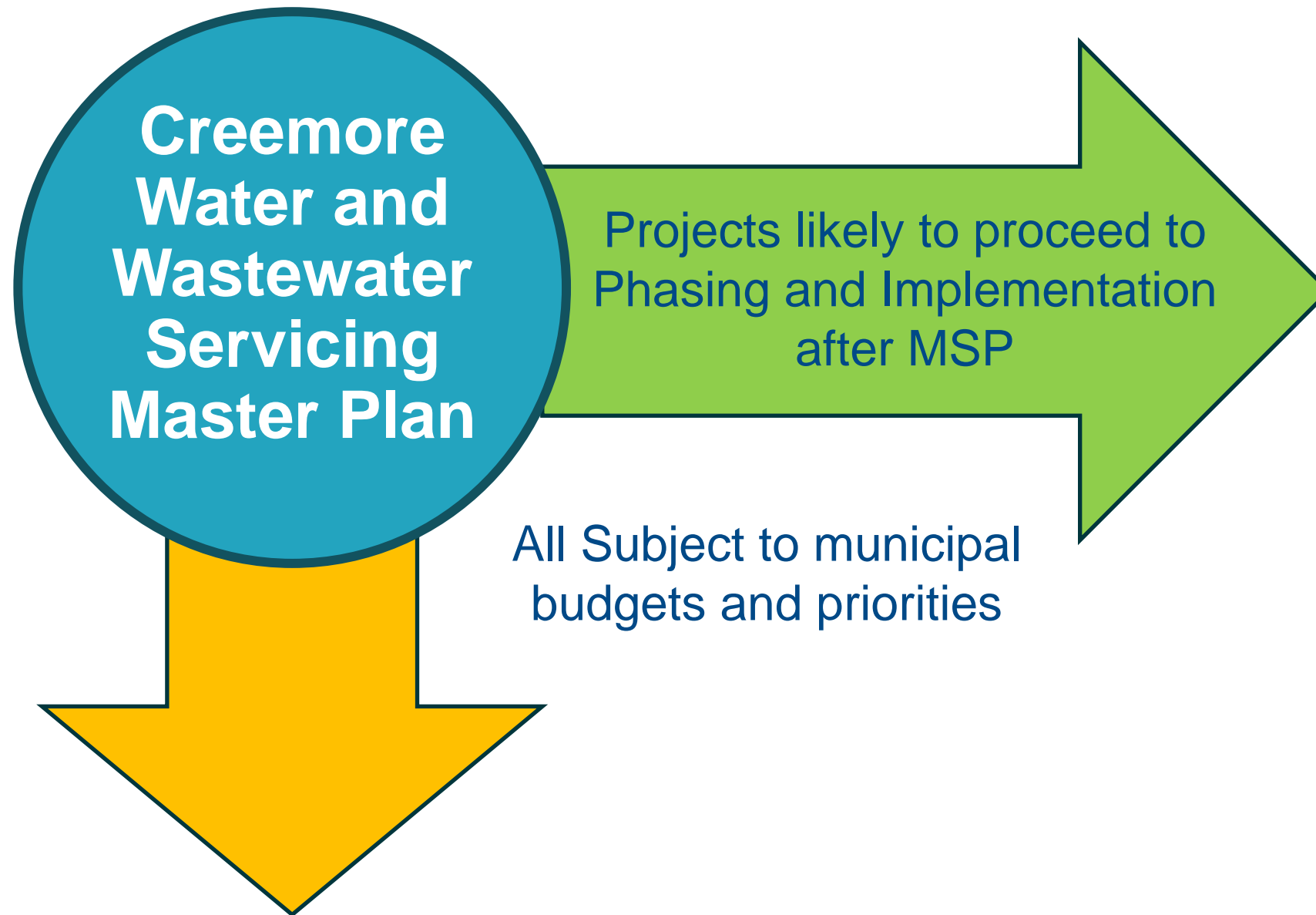
Expand Existing WWTP + Gravity Collection to CE2 development area, New Pump Station and Forcemain to WWTP

Possibly combined with other non-structural solutions, such as programs focused on reducing wastewater flows, working with private industry and optimization of operation of existing facilities.

What could the future WWTP plant look like?



- ADF = 2,100 m³/d PF = 6,800 m³/d
- New Headworks - Pumping / Screening
- New Bio Reactors and Membrane Filtration
- New RAS / WAS Pumping
- Retrofit Existing MBR Tanks for Sludge Digestion
- Additional Eq. Storage with improved diversion and return
- Additional Sludge Storage
- All to be refined through additional study (where applicable) and the detailed design and approvals process



Creemore Water and Wastewater Servicing Master Plan

Projects likely to proceed to Phasing and Implementation after MSP

All Subject to municipal budgets and priorities

Projects to proceed to Further MCEA Study after MSP

Wastewater System

- Improvements to Expand Existing WWTP at Existing Site from 1400m³/day to 2100m³/day (Schedule C MCEA)

Drinking Water System

- New Groundwater Well and Treatment Facility in Development Area CE1
- Watermain connections to the existing Distribution System
- Additional Grade Level Water Storage Facility at Existing Water Storage Location

Wastewater System

- Improvements to the existing WWTP to support 1400m³/day
- New Sanitary Sewers to New Sanitary Pumping Station (SPS) in Development Area CE2
- New SPS in Development Area CE2
- Forcemain from New SPS in Development Area CE2 to existing WWTP Site

Next Steps

- Review feedback from PIC
- Complete Well Assessment (in progress) and Evaluate and confirm Preferred Solutions
- Complete Stage 2 Archaeological Assessment (in progress)
- Identify and confirm projects to proceed to implementation (MCEA Schedule A/ A+ and B type projects)
- Identify and confirm projects that require additional study (MCEA Schedule C type projects)
- Draft Creemore Water and Wastewater Servicing Master Plan for public comment

Help shape decisions made in this Study

- Please fill out a comment form, or scan the QR code, or complete and submit the comment form available on the Township's website at the link provided.
- Information materials about the study will be made available online at www.clearview.ca/CWWMSP for review and comment until **January 22, 2024**.
- A summary of your written comments along with responses to comments received by January 22, 2024 will be provided in a Public Information Centre summary report posted on the project page of the Township's website.



If you would like more information or if you have any questions or concerns please contact:

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