

Welcome to this Public Open House for the **Cayuga Master Servicing Plan (MSP).**

We want to hear from you.

Please fill out the comment sheet provided at today's Public Open House and leave it in one of the boxes provided.

Additional information is available on the project website at www.haldimandcounty.ca

CAYUGA MASTER SERVICING PLAN

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Problem / Opportunity Statement

The purpose of this Master Servicing Plan Update is to evaluate Cayuga's long-term infrastructure needs to match the growth in Cayuga over the near-term (10 year) and long-term (25 year) future. Four servicing components will be evaluated through this Master Servicing Plan Update:

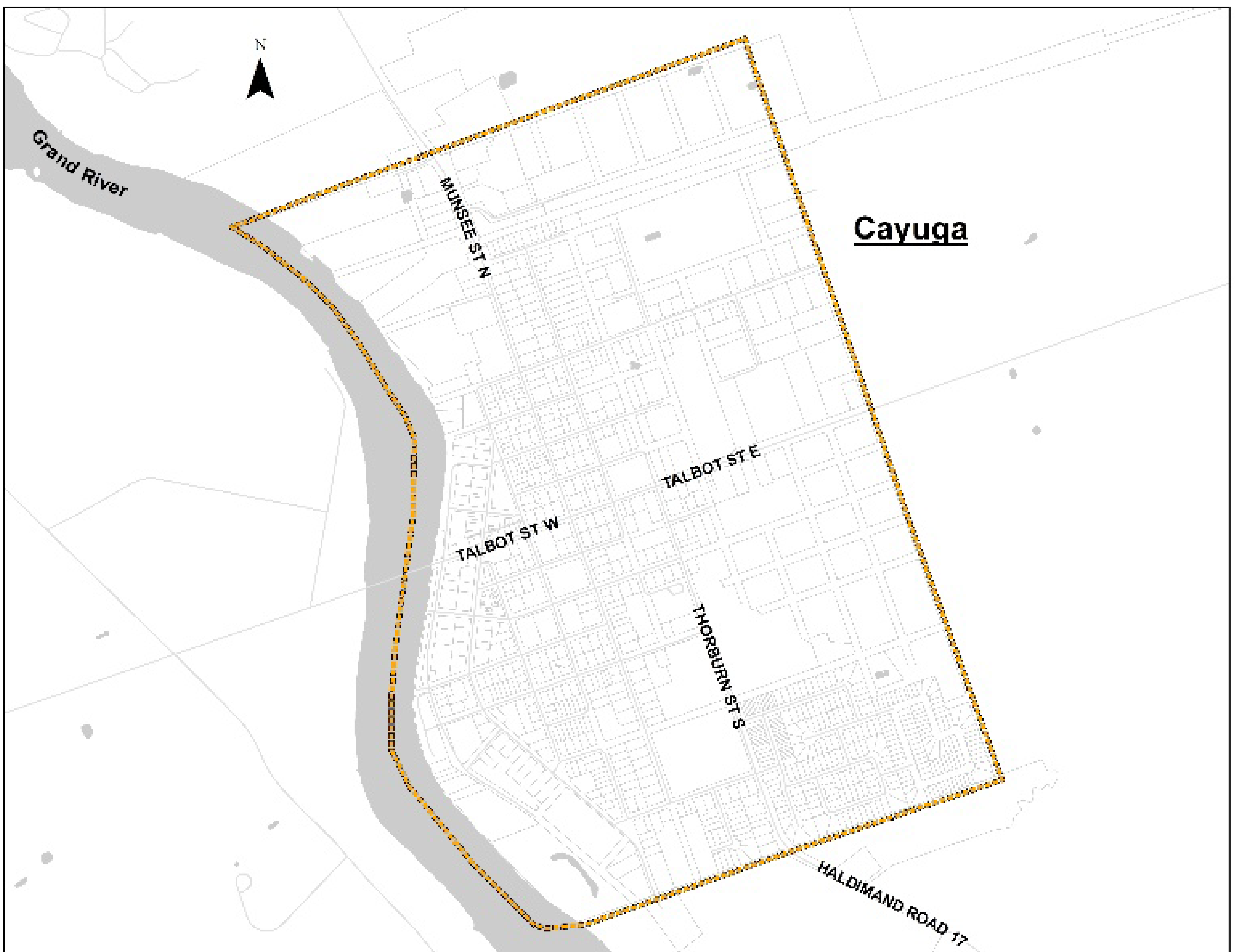
WATER

WASTEWATER

STORMWATER

TRANSPORTATION

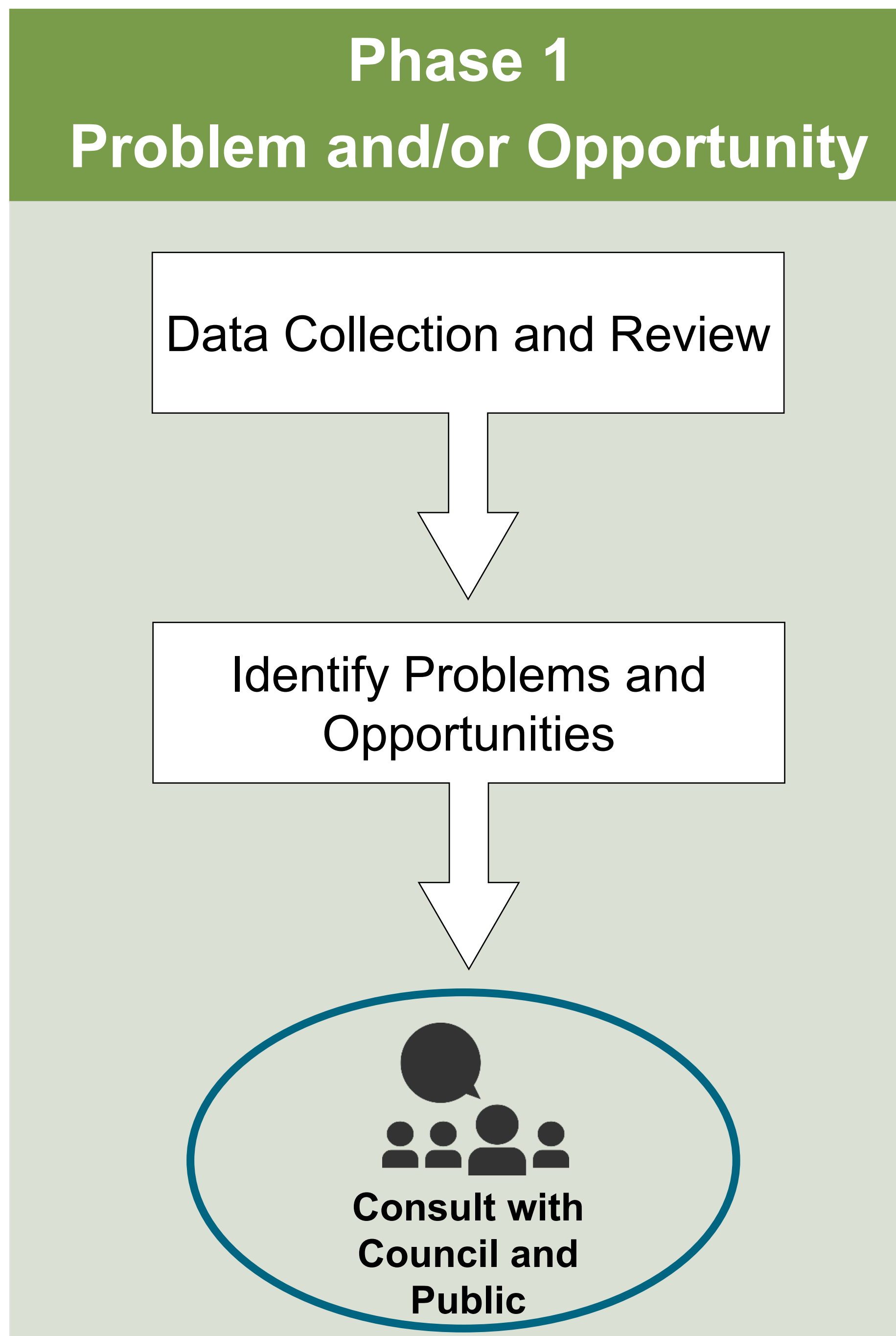
Through consultation with participating stakeholders and rightsholders, the Municipal Class Environmental Assessment (MCEA) framework will enable the consideration of options and identify preferred infrastructure solutions that are environmentally, socially, and financially responsible and sustainable.



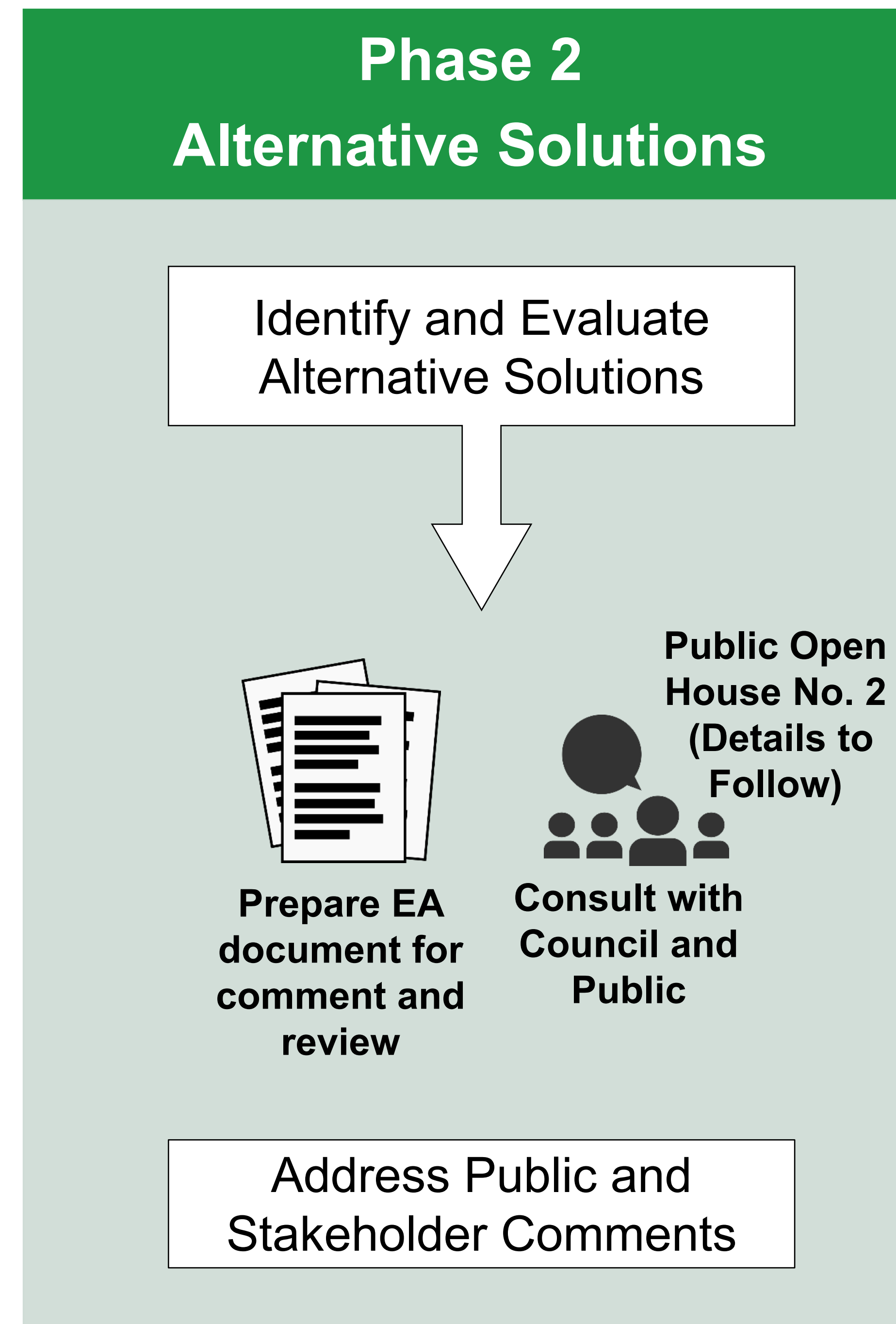
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Municipal Class Environmental Assessment (MCEA) Process



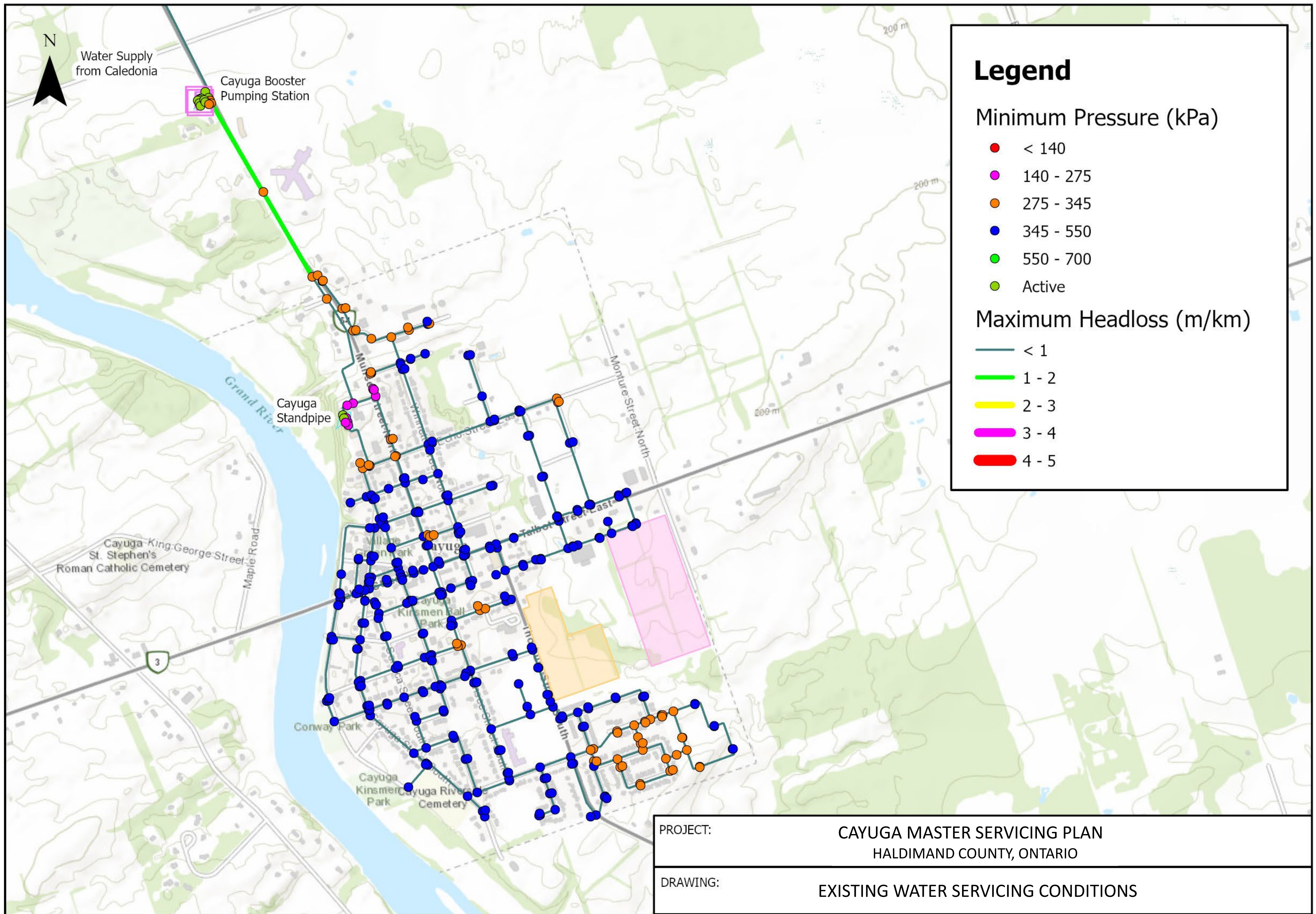
Current Project Stage (We Are Here)



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Existing Water Servicing Conditions



1

Watermains – Headlosses with existing water demands remain within an acceptable range, below the recommended limit of 2m/km. Similarly, the transmission watermain from Caledonia into Cayuga has headlosses within an acceptable range.

2

Water Pressure – The majority of the Water Service Area is within an acceptable operating range of 275 – 550 kPa. Some services along Victoria St and Munsee StN have minimum pressures slightly below 275 kPa.

3

Water Storage - The Cayuga system has sufficient storage under existing demands.

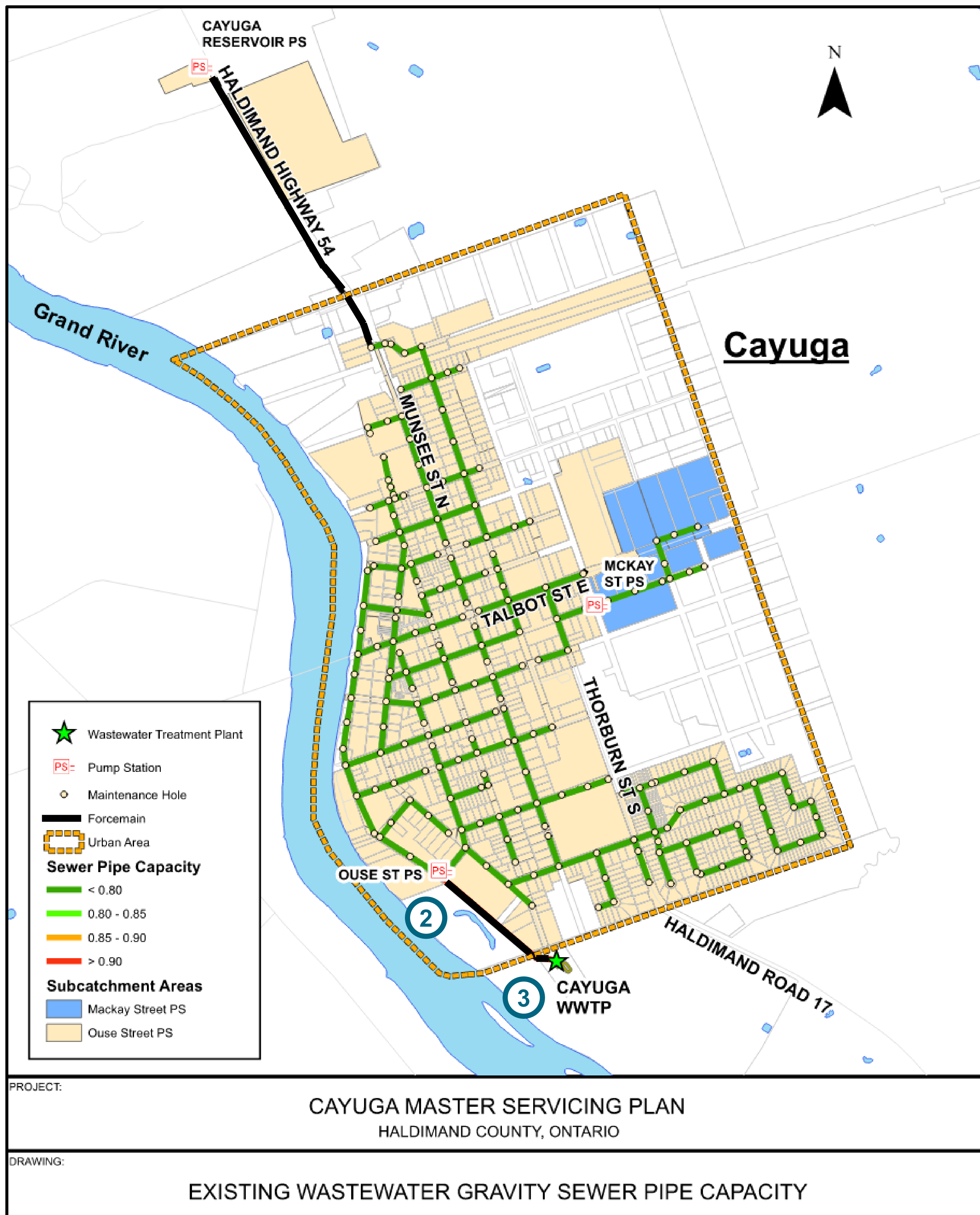
4

Water Supply – The existing water supply agreement is sufficient to service both Caledonia and Cayuga. The rated capacity of the Cayuga Booster Pumping Station (BPS) is sufficient to meet existing Cayuga demands.

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Existing Wastewater Servicing Conditions



1

Inflow & Infiltration (I&I) in Cayuga is above typical values, partially due to high water levels caused by wet weather events, and proximity to the Grand River; work is underway to identify potential remediation measures.

2

Ouse Street SPS: The Ouse St. Sewage Pumping Station (SPS) is experiencing **capacity constraints and seasonal issues** potentially due to high-water levels in the Grand River. High river levels have occasionally caused the equalization tank at the Ouse St. SPS, located in the GRCA floodplain, to fill and overflow. This can backup in the system and cause surcharging events. Additionally, all sanitary flows in Cayuga are directed to the Ouse St. SPS and a single forcemain **conveys all flows** from the SPS to the WWTP, with **no redundancy** in the event of failure

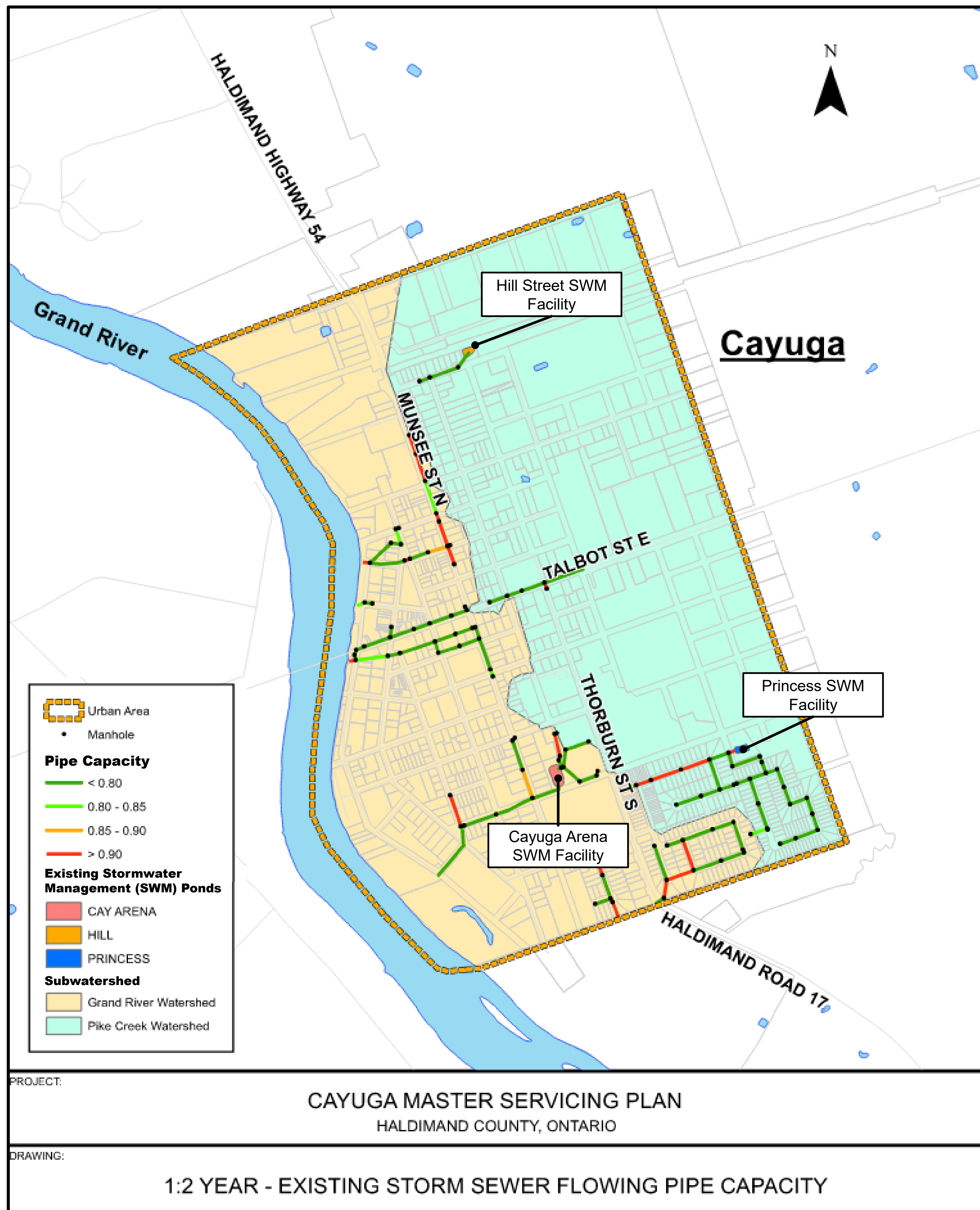
3

Wastewater Treatment Plant (WWTP) Performance: The WWTP has sufficient treatment capacity under existing conditions.

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Existing Stormwater Servicing Conditions



Under the 1:2-year storm event under existing conditions, 29% of the sewer system (~2 km of storm sewer) (shown in red) **has limited or no residual capacity**. These sewer sections are located throughout Cayuga in all subwatersheds.

No operational concerns have been noted by County staff regarding the stormwater system.

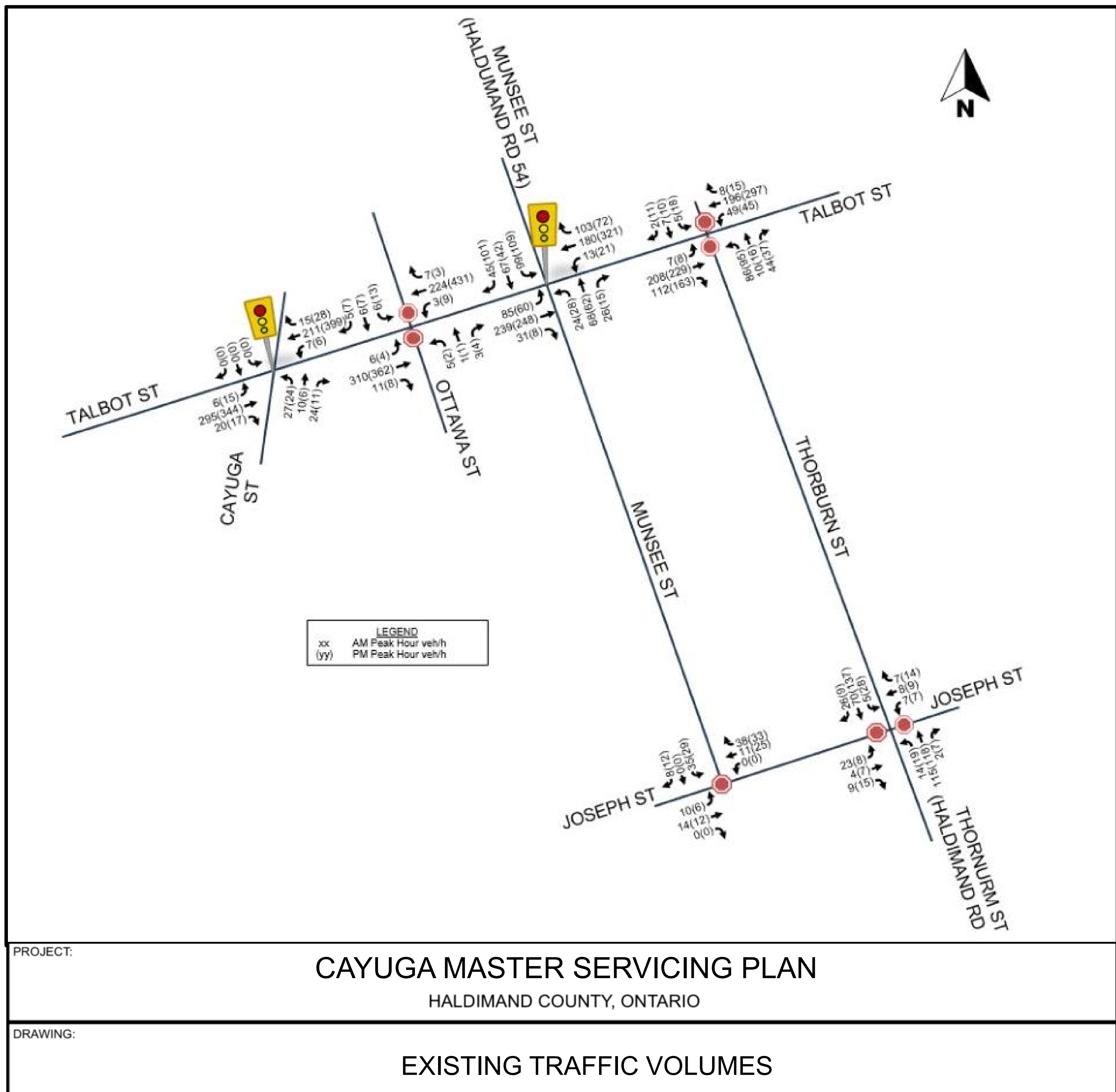


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Existing Transportation Servicing Conditions

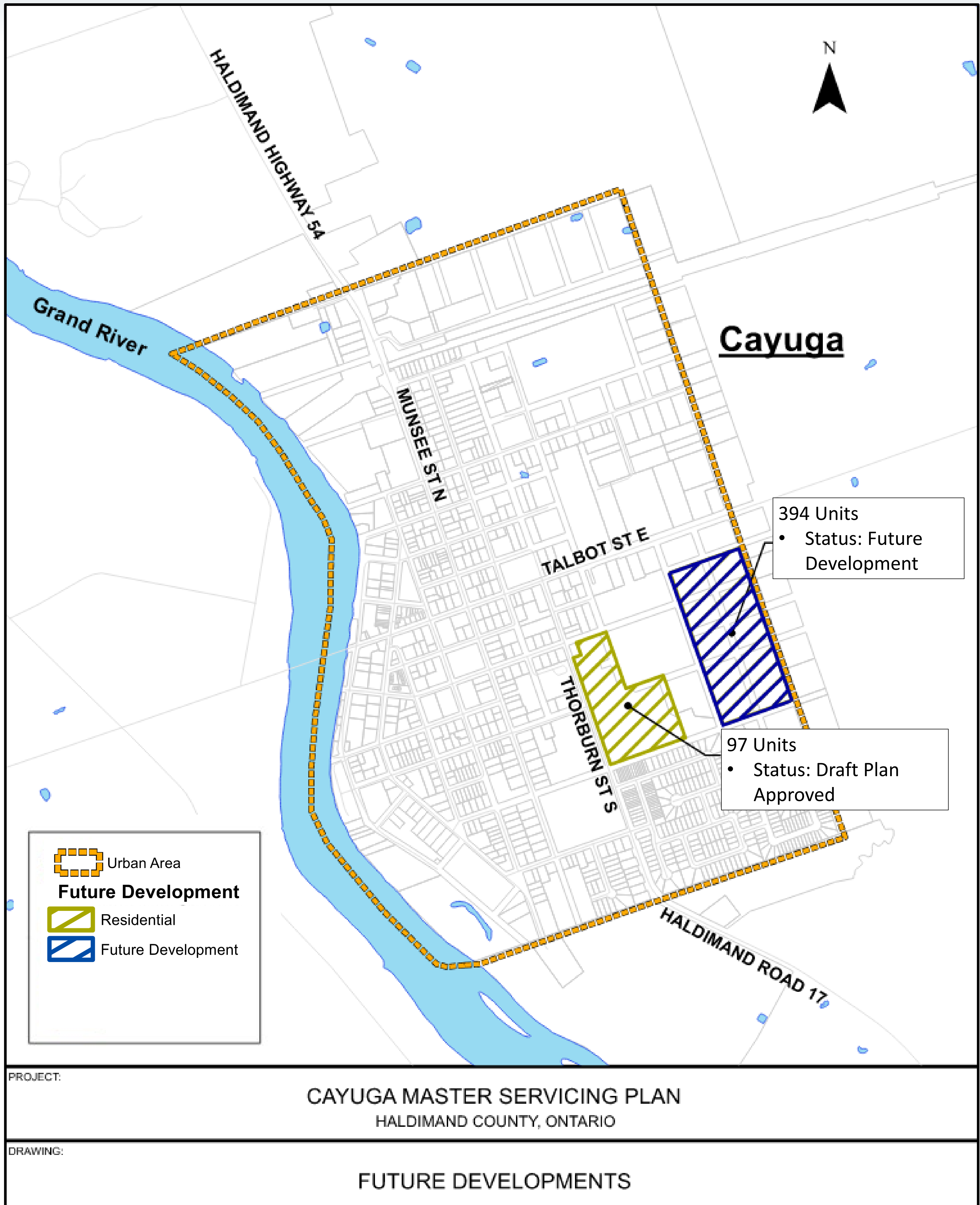


Under existing conditions, there are **no major transportation servicing issues or constraints**. All intersections are operating with acceptable volumes of traffic and have sufficient storage capacity during the morning and afternoon peak hours.

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Future Development



Existing (2024)

2,333

Equivalent Units

Near-term
Residential Growth

97

Equivalent Units

Future Development
Growth

394

Equivalent Units

Total (Existing +
Future)

2,824

Equivalent Units

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Climate Change Impacts, Mitigation, and Adaptation



Impacts of Climate Change

- **Higher precipitation** from extreme weather
 - Increased **Inflow and Infiltration**, impacting sanitary system and treatment plant performance
 - **Higher flows and runoff**, impacting stormwater system performance
 - **Higher nutrient loading and algal blooms**, impacting drinking water treatment performance
 - **Flooding** of infrastructure
- **Water level fluctuations** in lakes and groundwater table impacting water supply
- **Evaporation** due to extreme heat
- **Energy usage** during extreme weather



Mitigation and Adaptation

- Once proposed infrastructure alternatives are identified (Phase 2 of the MCEA), climate change mitigation and adaptation measures will be identified and assessed
- **Potential Mitigation and Adaptation Measures:**
 - Working with Conservation Authority, Provincial, and Federal **climate change adaptation initiatives**
 - **Renewable energy generation** and backup power
 - Building **resilient infrastructure**
 - Consideration of **future climate** conditions during the design of infrastructure



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Cumulative Effects and Potential Impacts to Treaty Rights

Haldimand County is home to many Indigenous peoples, including the Six Nations of the Grand River and the Mississaugas of the Credit First Nation. The United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), and Canada’s commitment to implement these rights under the UNDRIP Act (UNDRIPA), was used as reference to determine the potential impacts of this Master Servicing Plan to the rights of Indigenous People within the project study area:

Rights Relating to Culture, Traditions, Customs, and Spirituality:

UNDRIP Act Article	Impact Considerations	Impact Mitigation
<ul style="list-style-type: none">Articles 11.1, 12.1, 15.1, 24.1, 25, 31.1	<ul style="list-style-type: none">Several areas have potential for archaeological and cultural heritage significance.Natural features of traditional significance (e.g., hardwood trees, medicinal plants, animals) may also be present.	<ul style="list-style-type: none">Once preferred project sites are known, a walk-through could be conducted with the affected First Nation community and knowledge learned could be incorporated into the project.

Rights Relating to Decision Making and Participation in Projects:

UNDRIP Act Article	Impact Considerations	Impact Mitigation
<ul style="list-style-type: none">Articles 13.2, 18	<ul style="list-style-type: none">First Nation peoples have the right to participate in decision-making for matters that affect their rights.There may be interested persons who are unable to understand information and unable to participate in the project	<ul style="list-style-type: none">The study will meet the intention of meaningful consultation with First Nation communities, ensuring all project information can be understood by First Nation peoples.First Nation peoples can participate in the evaluation and decision-making process by providing comments and concerns on proposed projects.

Rights Relating to Development and Economic & Social Conditions:

UNDRIP Act Article	Impact Considerations	Impact Mitigation
<ul style="list-style-type: none">Articles 21.1, 21.2, 23	<ul style="list-style-type: none">First Nation peoples living in Cayuga have the right to improvement of their municipal services without discrimination.	<ul style="list-style-type: none">Areas of Cayuga requiring municipal service improvement will be identified without discrimination against First Nation communities.Appropriate provincial guidelines will be followed for preferred projects so members of First Nation communities will be protected from municipal services in poor condition.

Rights Relating to the Environment and Conservation:

UNDRIP Act Article	Impact Considerations	Impact Mitigation
<ul style="list-style-type: none">Articles 29.1, 29.2	<ul style="list-style-type: none">Development of municipal services will be proposed as part of this MSP update, which may have environmental impacts.	<ul style="list-style-type: none">Potential projects will undergo an evaluation process that considers the protection and conservation of the environment.Through consultation, particular areas or conditions of concerns held by Indigenous communities can be discussed and incorporated into the project.



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Get Involved

How Do I Get More Information?

- Complete the sign-in form to join the study mailing list
- Check the website (www.haldimandcounty.ca) for study updates
- Plan to attend the next Public Information Centre, details to follow.
- If you have questions regarding the study, or have any accessibility requirements in order to participate in this project, please contact one of the individuals below at any time:

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