

Town of East Gwillimbury

# WELCOME

Water and Wastewater Master Plan  
Public Information Centre #2

April 10, 2019

## PURPOSE OF THE PROJECT

The Town of East Gwillimbury is undertaking a Town-wide Water and Wastewater Master Plan. The Master Plan will identify long-term strategies for servicing the current and future populations, based on the projected growth for the Town to the year 2041.

**Problem Statement:** The Town of East Gwillimbury is projected to experience significant population and employment growth over the next 25 years. As a result of this growth, a **safe, efficient, and reliable** source of water and wastewater services will become increasingly important and challenging. The Town's water and wastewater systems will need to be expanded as necessary to accommodate this growth.

## MASTER PLANNING PROCESS

A Master Plan is a **long term** plan that provides a 'roadmap' of the water and wastewater infrastructure requirements based on the existing and future growth projections to the year 2041.

At the end of this study, the key deliverables will be:

1. The completed Master Plan Report documenting the preferred solution, process and analyses that were conducted.
2. A list of future infrastructure projects recommended for the Town to implement the Master Plan, with high-level cost estimates and timing.
3. A map indicating where these future infrastructure projects will be located.

Complete a comprehensive review of background documentation, existing water and wastewater system and key relevant studies

Identify opportunities and constraints to improve the water and wastewater network based on existing and future populations.

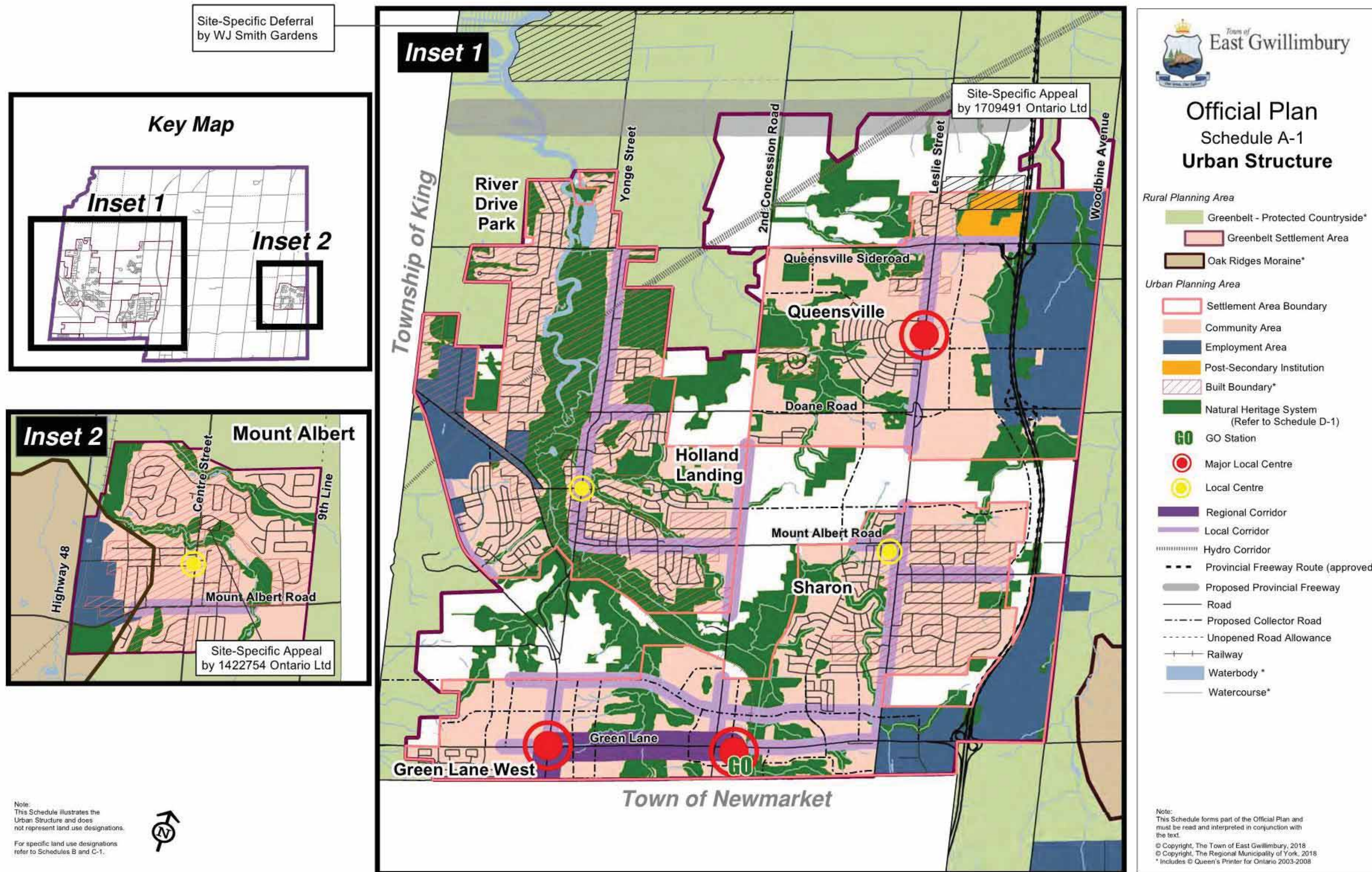
Calculate the future water and wastewater flows, and update the Town's water and wastewater models

Develop alternative servicing solutions for future growth

Evaluate the alternatives, using a set of criteria determined as part of the Master Plan, to arrive at a preferred servicing solution

Prepare cost estimates and timing for recommended future infrastructure projects to implement the Master Plan



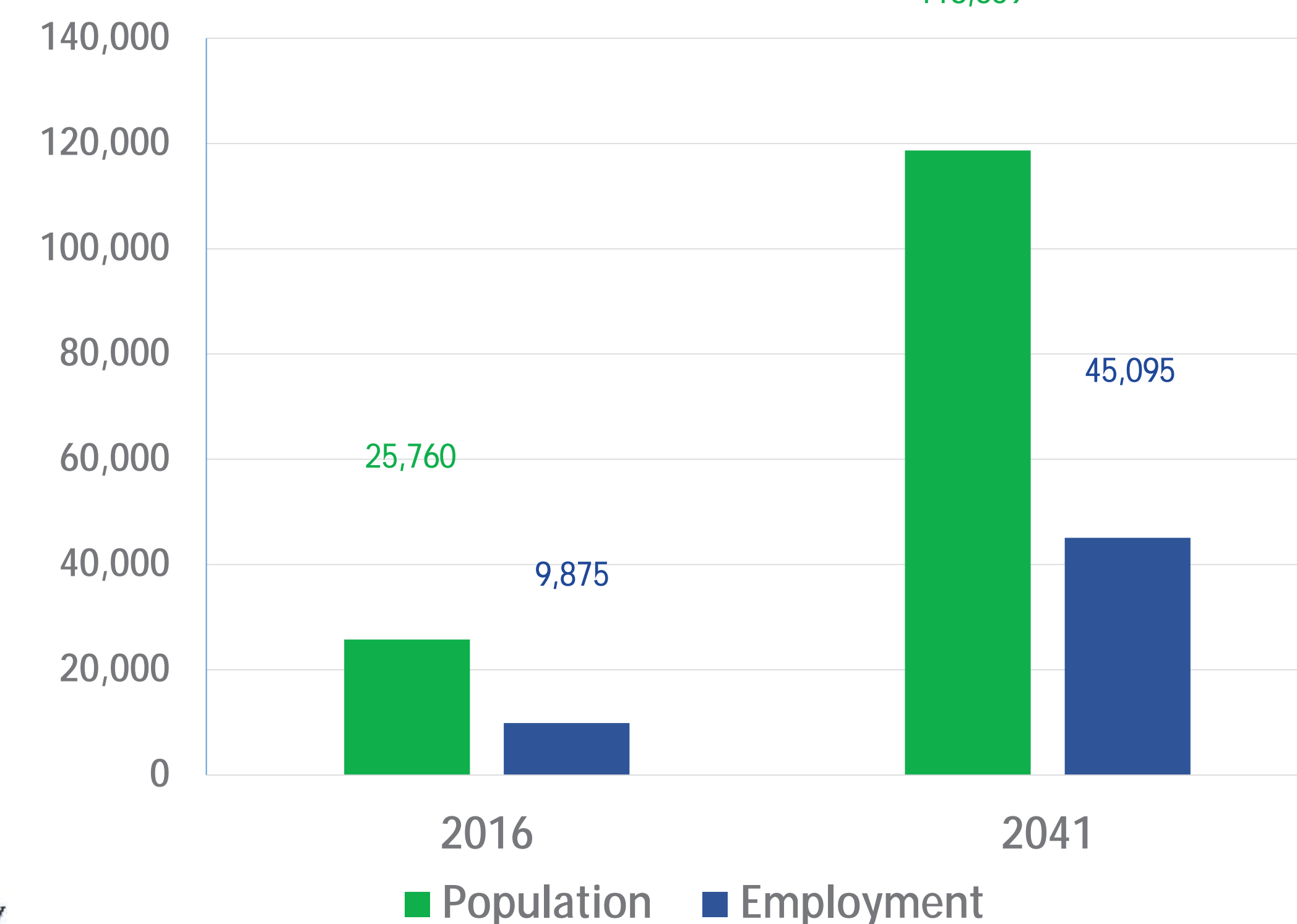


## ▶ PLANNED GROWTH

The Town is undertaking a review of the 2009 Water and Wastewater Master Plan to accommodate the Town's current and projected growth and to ensure that sufficient servicing can be provided to facilitate growth to 2041. Since the York Region water and sewer networks form a backbone to the East Gwillimbury networks, this Master Plan builds on York Region's Master Plan. The current Master Plan also reflects updates to provincial policy.

The *settlement areas* such as Green Lane West, Holland Landing, Sharon, Queensville and Mount Albert are intended to accommodate the Town's forecasted growth.

Provincial Growth Forecasts to the Year 2041



The Master Plan will be developed within the context of existing Provincial, Regional, and local policies

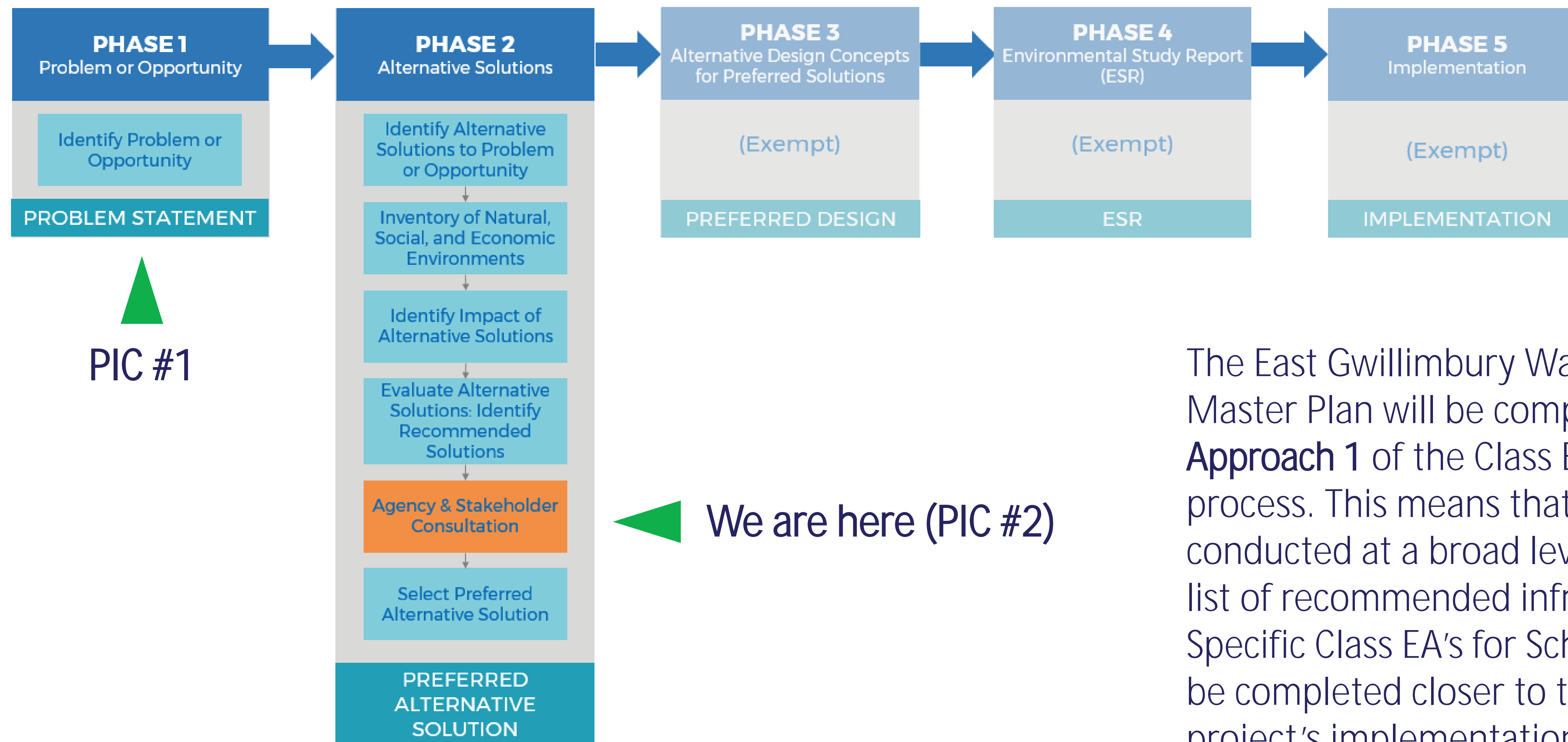
- Provincial Policy Statement, 2014
- Growth Plan for the Greater Golden Horseshoe, 2017 Update
- Oak Ridges Moraine Plan, 2002
- York Region Official Plan, 2010
- York Region Water and Wastewater Master Plan, 2016
- Lake Simcoe Protection Plan, 2009
- East Gwillimbury Official Plan, 2010
- East Gwillimbury Water and Wastewater Master Plan, 2009



## ▶ WHAT IS A MUNICIPAL CLASS EA

The Municipal Class Environmental Assessment (EA) was approved in 1990 under the *Ontario Environmental Assessment Act* as a way to streamline the planning of municipal infrastructure while managing environmental impacts, receive stakeholder and resident feedback, and ensure a transparent evaluation and decision process.

The Municipal Class EA Planning and Design process can include up to a total of **5** phases. The required phases to be completed are based on the type of study that is being conducted. At a minimum, a Master Plan must follow the first **2** phases. Phases 3 through 5 are usually completed as part of a separate process when the time comes to implement the recommended infrastructure projects.



The East Gwillimbury Water and Wastewater Master Plan will be completed using **Approach 1** of the Class EA Master Planning process. This means that the study is conducted at a broad level and will result in a list of recommended infrastructure projects. Specific Class EA's for Schedule B projects will be completed closer to the time of the project's implementation and after the Master Plan is finalized.



The alternative solutions have been screened based on the following :

- **Policy and Regulation Compatibility** – Does the alternative comply with the Provincial and Town policies related to growth management and land development?
- **Does the Solution Address the Problem Statement** - Alternatives that do not address the Problem Statement do not satisfy the Master Plan’s core objective to support future growth to 2041. Future planning policies and opportunities to provide water and wastewater servicing for existing and future development would not be adhered to in selecting this alternative.

### 1. Do Nothing

This alternative represents a scenario where no improvements or expansions would be undertaken. This alternative does not comply with Provincial and Town policy related to growth. With the “Do Nothing” alternative, municipal water and wastewater infrastructure will be inadequate for future development.

Policy/regulation compatibility?  
No.

Address Problem Statement?  
No.

### 2. Water Efficiency / Conservation

The Town currently has a Water Conservation strategy that limits Outdoor Water Use (By-Law 2002-100). Implementation of further water conservation and reduction strategies to reduce water consumption may have marginal benefits. Water efficiency/conservation does not address future development requirements

Policy/regulation compatibility?  
Yes (partial).

Address Problem Statement?  
No.

### 3. Limit Growth

This alternative involves restricting population growth within the Town. Lower growth rates may ensure sufficient supply to accommodate future demand. However, in line with the Provincial Growth Plan, York Region has identified targets for intensification for municipalities. The Town will be unable to meet its targets by limiting growth.

Policy/regulation compatibility?  
Yes (partial).

Address Problem Statement?  
No.

### 4. Upgrade and Expand the Water and Wastewater System Network

The Town is responsible for the distribution of water and collection of wastewater for residents and businesses. This alternative improves the existing water distribution system to address pressure and fire flow issues and expands the system to service new developments. It also improves the wastewater collection system preventing surcharge and services new developments.

Policy/regulation compatibility?  
Yes.

Address Problem Statement?  
Yes.



## EVALUATION CRITERIA

### NATURAL ENVIRONMENT

- Proximity to environmentally sensitive and designated natural areas (e.g. Oak Ridges Moraine, Greenbelt)
- Impact on existing natural environment feature (e.g. Species at Risk)
- Impact on Areas of Natural and Scientific Interest (ANSI)
- Impact on watercourses and aquatic habitat

### SOCIAL & CULTURAL

- Impact to water quality, built heritage areas and areas of archaeological importance
- Aesthetic impact on existing and proposed development
- Consistency with Land Use designations, approved Development Plans, and proposed Land Use changes
- Traffic impacts during construction

### TECHNICAL

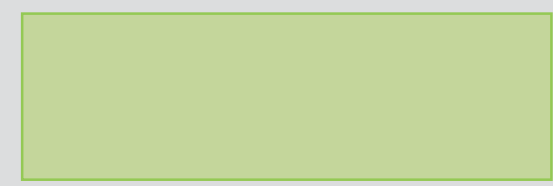
- Constructability, duration of construction and site access
- Ease of connection to existing infrastructure and ease of modifications required to existing infrastructure
- System reliability, redundancy and hydraulic performance
- Maintaining or enhancing security of supply
- Additional servicing opportunities

### ECONOMIC

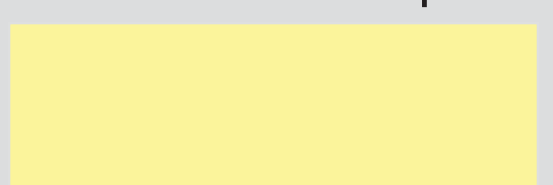
- Capital costs
- Operation costs
- Maintenance costs

### EVALUATION COLOUR RATING SYSTEM

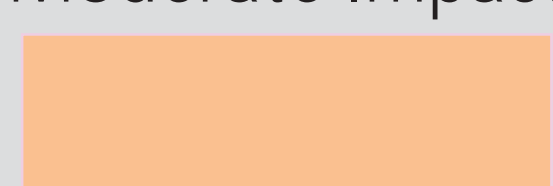
Most Preferred / Low Impact



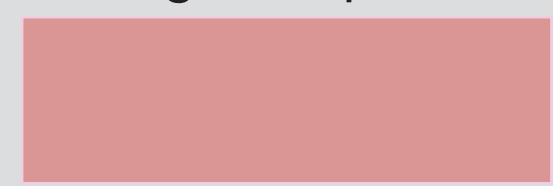
Preferred / Low to Moderate Impact



Less Preferred / Moderate Impact



Least Preferred / High Impact



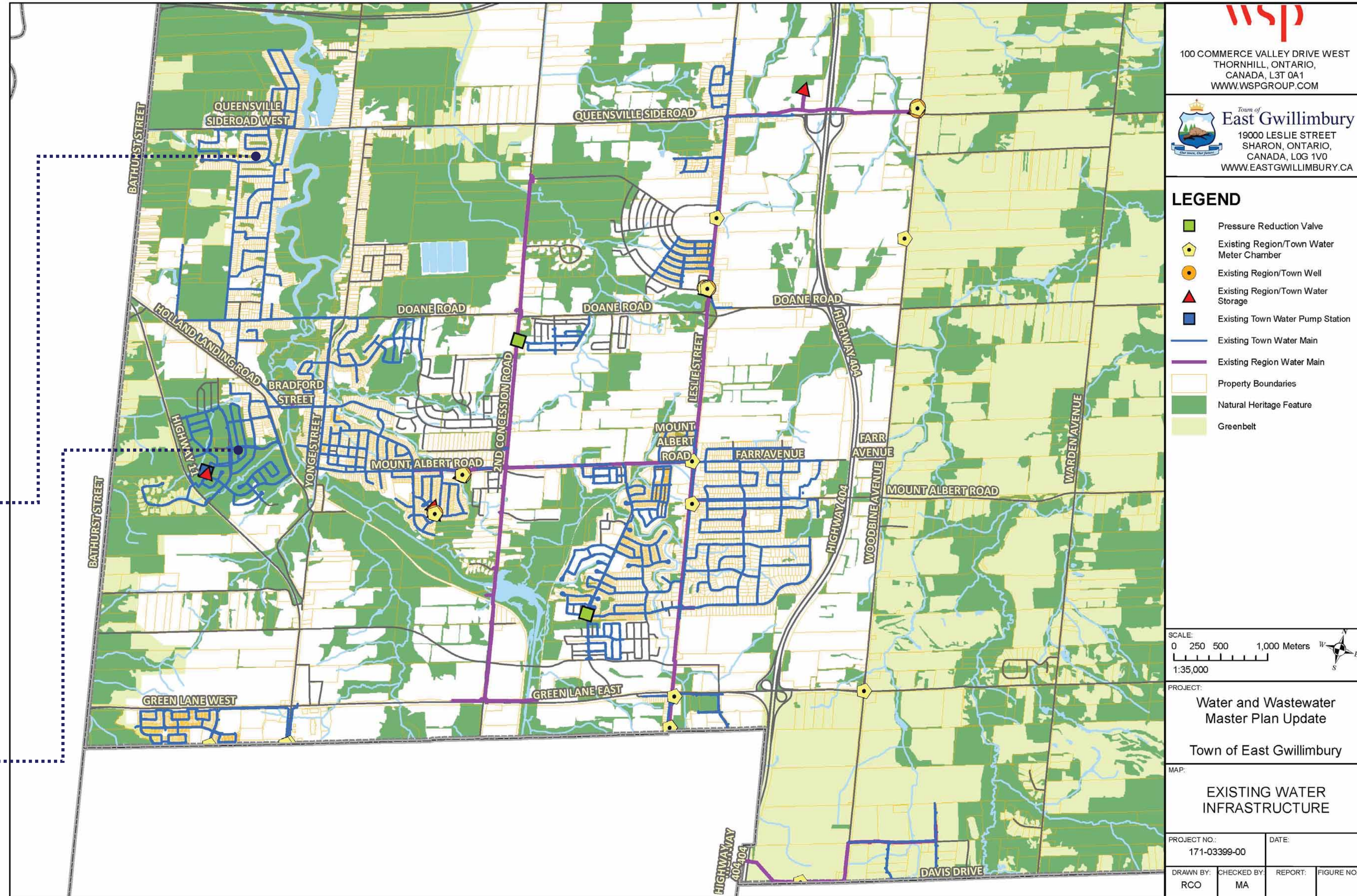


## EXISTING WATER SYSTEM – CENTRAL GROWTH AREA

Water projects outlined in the Master Plan either address existing system deficiencies or are required due to growth. Within the Central Growth Area, three projects had alternative solutions which were assessed based on the criteria outlined on **Board 6**. Project alternatives are presented on **Board 9**.

**Water Issue #1:** Lower Fire Flows noted in the Queensville Sideroad/Sand Road Area

**Water Issue #2:** There is currently only one watermain connection between the new Holland Landing subdivision and the existing system on Bradford Street

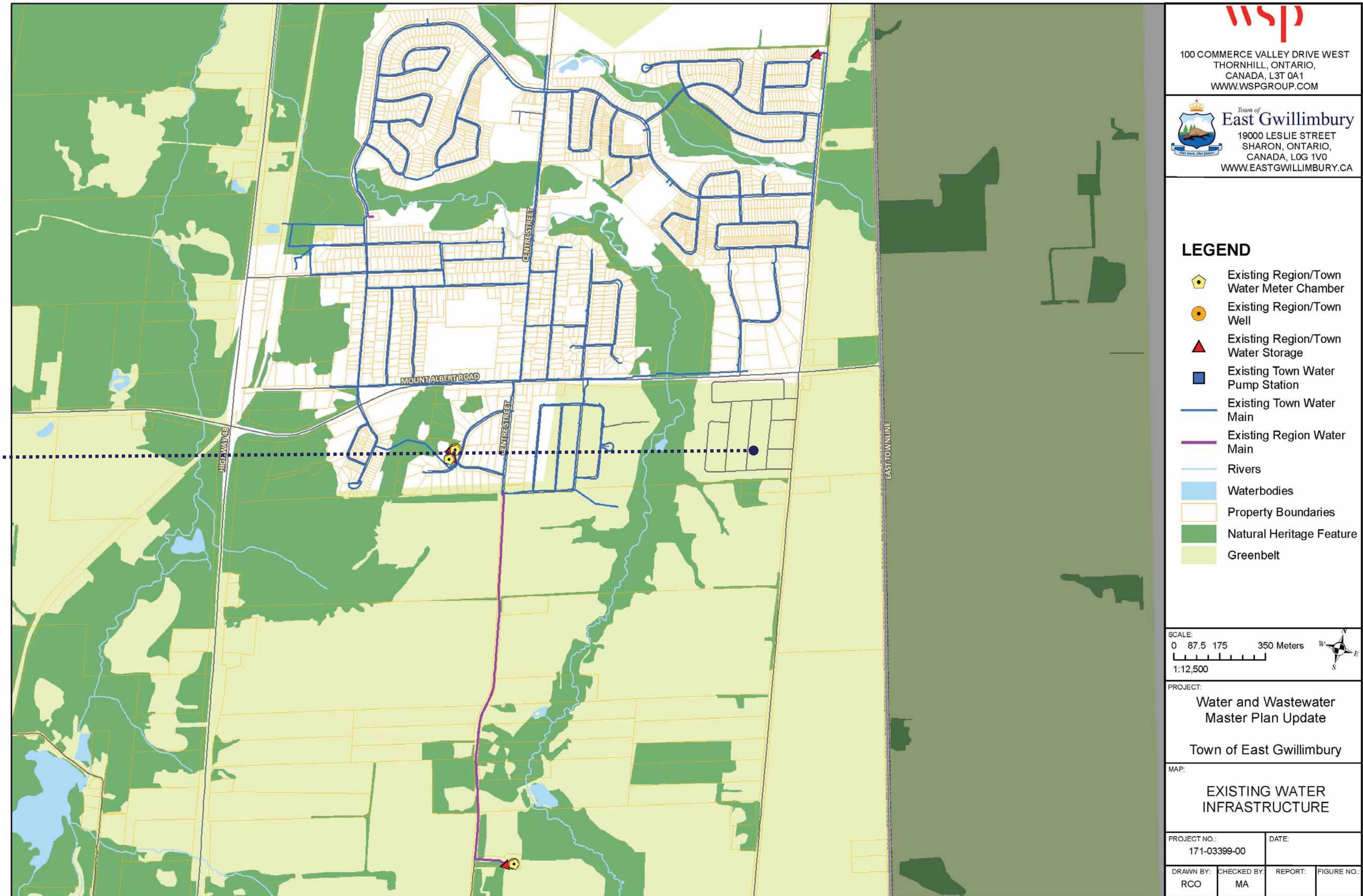




## EXISTING WATER SYSTEM – MOUNT ALBERT

The only water projects required within Mount Albert were due to growth. One of the projects in Mount Albert had alternative solutions which were assessed based on the criteria outlined on **Board 6**. Project alternatives are presented on **Board 10**.

**Water Issue #3:** Servicing required for the new development south west of Mount Albert Road and Ninth Line



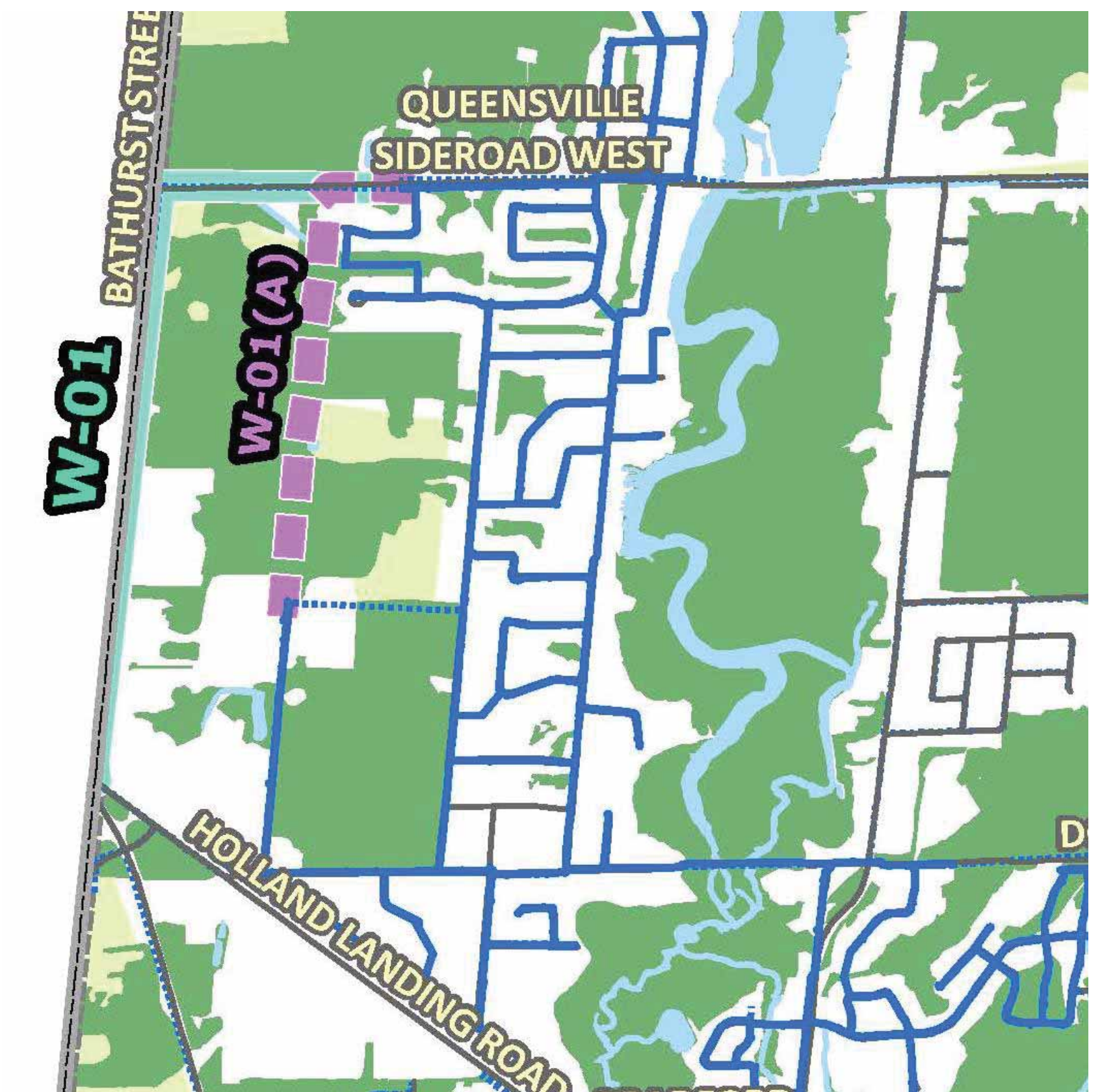
York Region is currently carrying out an Environmental Assessment (EA) to investigate Water Quality in this area.



## Water Issue #1 – Queensville Low Fire Flows

The area near Queensville Sideroad and Sand Road was observed to have lower fire flows. An additional watermain loop is required to provide network looping and increase the fire flows.

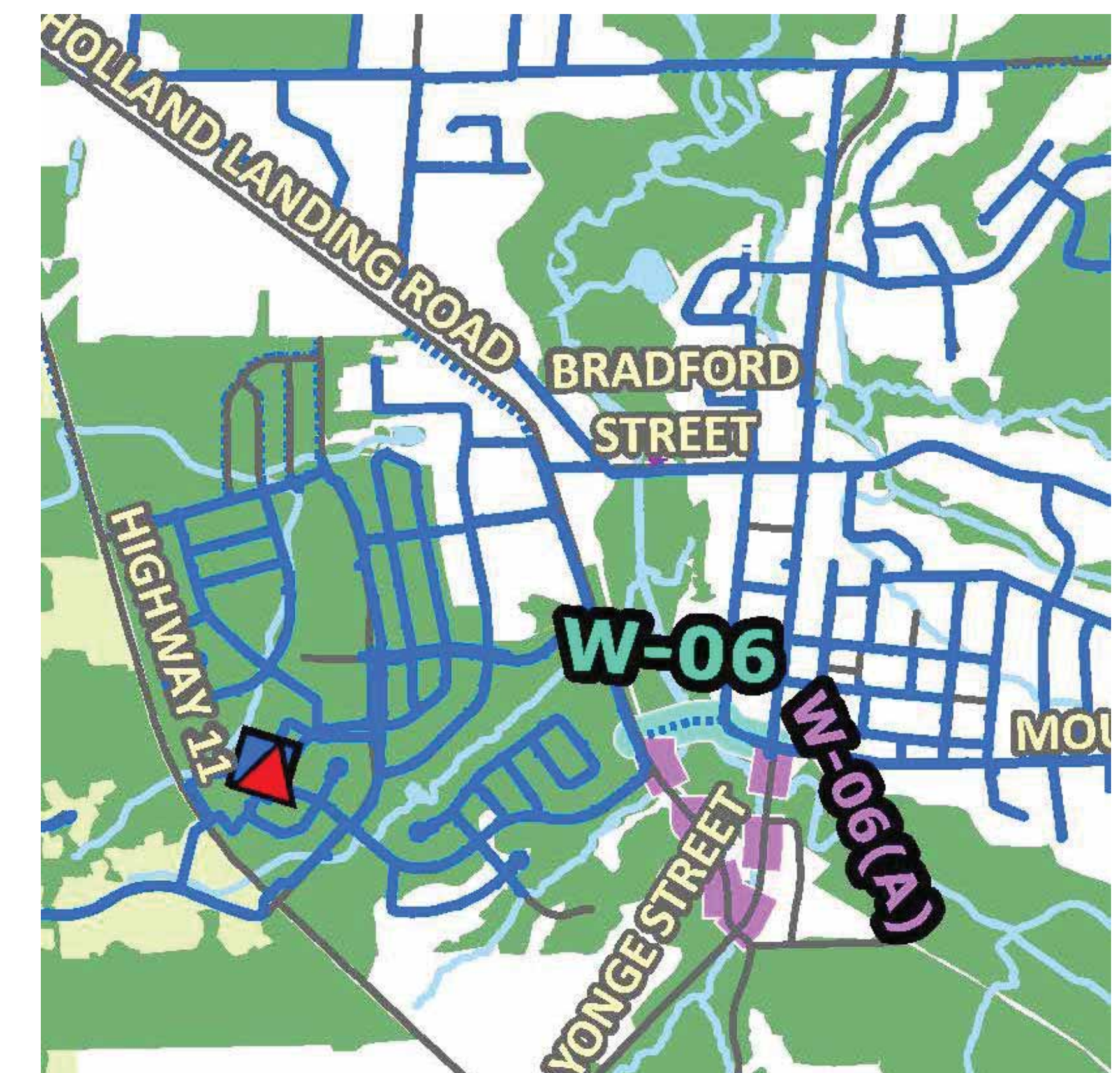
	Alternatives	Evaluation Criteria			
		Natural Env.	Social / Cultural	Technical	Economic
W-01	Install the watermain along the existing Bathurst Street Right-of-Way (ROW). This option will also provide servicing along Bathurst Street. <b>(Recommended)</b>				
W-01 (A)	Install the watermain directly from Sluse Road to Queensville Sideroad. This option traverses a currently undeveloped area.				



## Water Issue #2 – Holland Landing Subdivision Service Connection

There is population growth planned for the area west of Holland Landing Road. The community currently only has one watermain connection to the rest of the network. This poses a network security risk and a secondary supply is required from Olive Street. A secondary supply will increase fire flows and enhance water quality. Both alternatives will require direct drilling underneath the stream and railway crossing.

	Alternatives	Evaluation Criteria			
		Natural Env.	Social / Cultural	Technical	Economic
W-06	Install the watermain directly from Olive Street to Holland Landing Road. This option requires a shorter length of watermain, and direct drilling will limit the environmental impact. <b>(Recommended):</b>				
W-06 (A)	Install the watermain to the south along the Yonge Street ROW and then north along the Holland Landing Road ROW. Direct drilling will be required due to the stream and railway crossings required.				



KEY

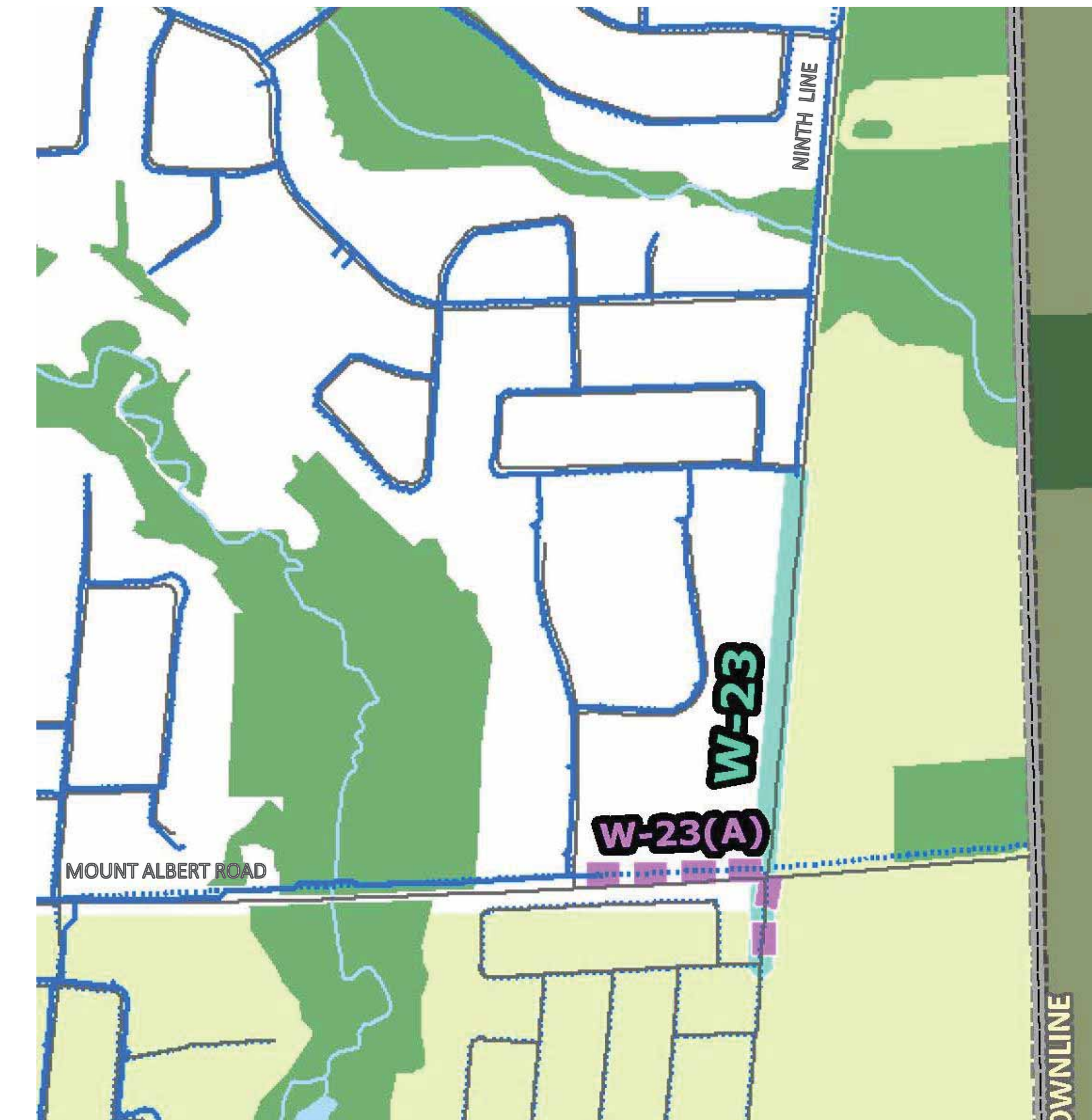
Most Preferred	Preferred	Less Preferred	Least Preferred
----------------	-----------	----------------	-----------------



## Water Issue #3 – Secondary Servicing for new Subdivision in Mount Albert

A new subdivision is planned for the south west corner of Mount Albert Road and Ninth Line. This subdivision will connect to the existing water network from the stub at Mount Albert Road and Samuel Harper Ct. A secondary servicing is required for network security and looping.

	Alternatives	Evaluation Criteria			
		Natural Env.	Social / Cultural	Technical	Economic
W-23	Extend the watermain on Ninth Line southwards from Donald Stewart Crescent to the new subdivision. <b>(Recommended)</b>	Most Preferred	Preferred	Less Preferred	Least Preferred
W-23(A)	Extend the primary service watermain along Mount Albert Road and then south along Ninth Line to connect to the subdivision on Ninth Line.	Most Preferred	Preferred	Least Preferred	Less Preferred



KEY

Most Preferred	Preferred	Less Preferred	Least Preferred
----------------	-----------	----------------	-----------------



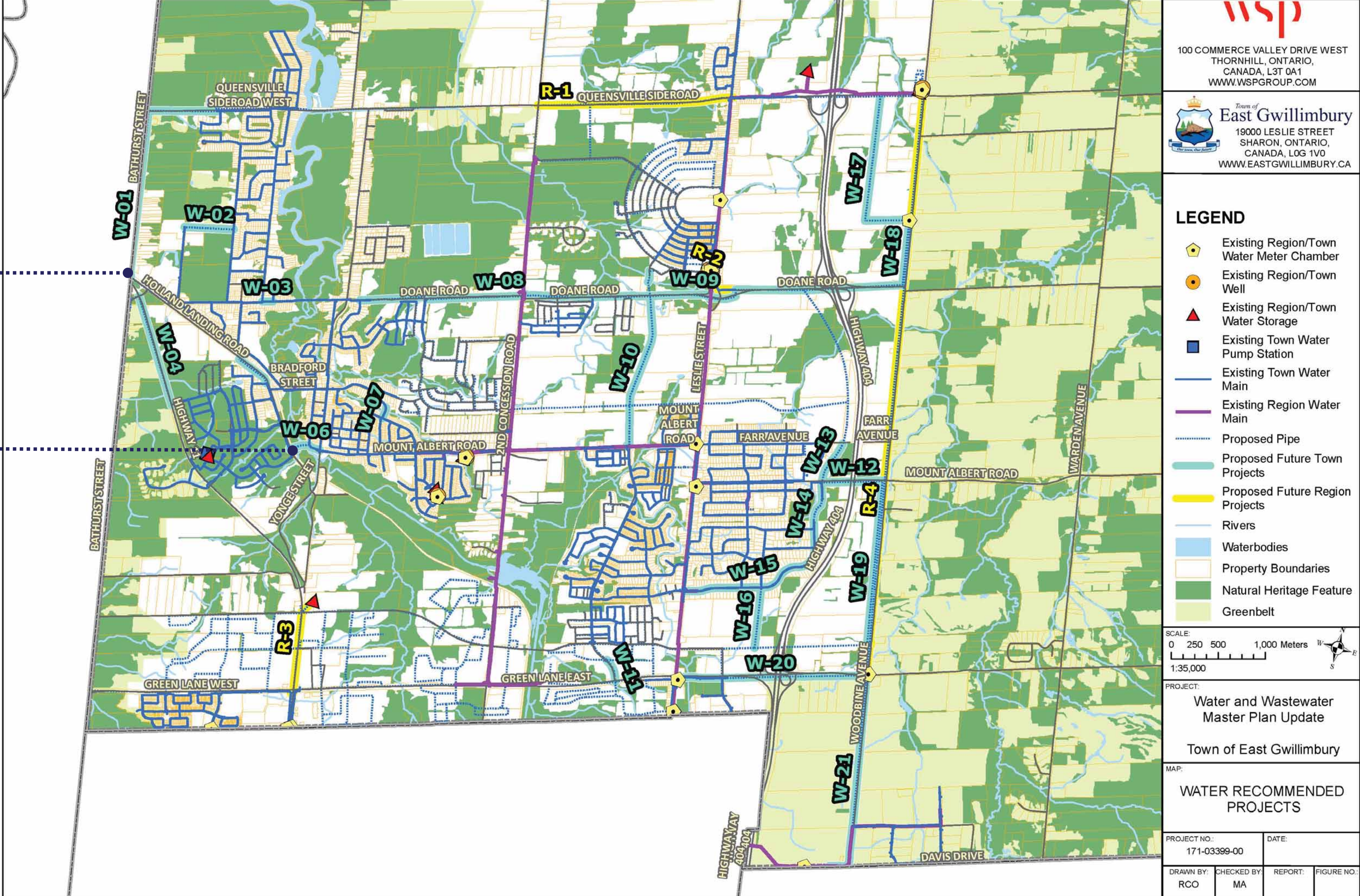
## EAST GWILLIMBURY – CENTRAL GROWTH AREA

All projects recommended through this study constitute improvements to the system, and require the upgrade of existing watermains or the installation of new watermains. For the two projects where alternative options were explored (**Board 9**), the preferred alternative for these two projects are labelled.

The projects can be implemented over time, when opportunities for implementation arise. Timing for implementation is recommended to coincide with the Town's other proposed projects for interrelated infrastructure such as roads, sewers and storm sewers.

Water Issue #1 Preferred Alternative

Water Issue #2 Preferred Alternative



The recommended projects for the Town's water distribution system to meet servicing demands to the year 2041 are highlighted in light blue in the figure above.

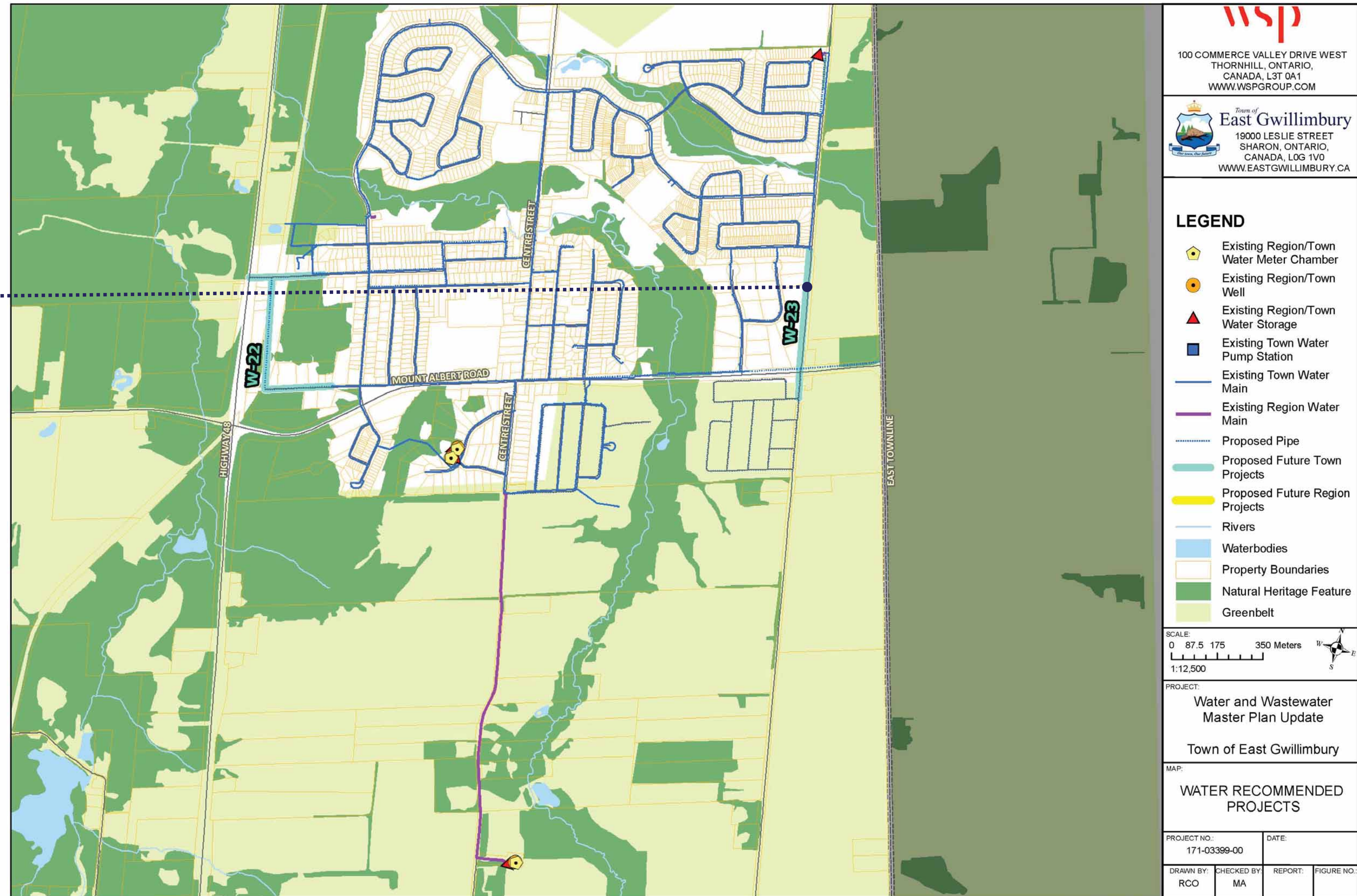


## ▶ EAST GWILLIMBURY – MOUNT ALBERT

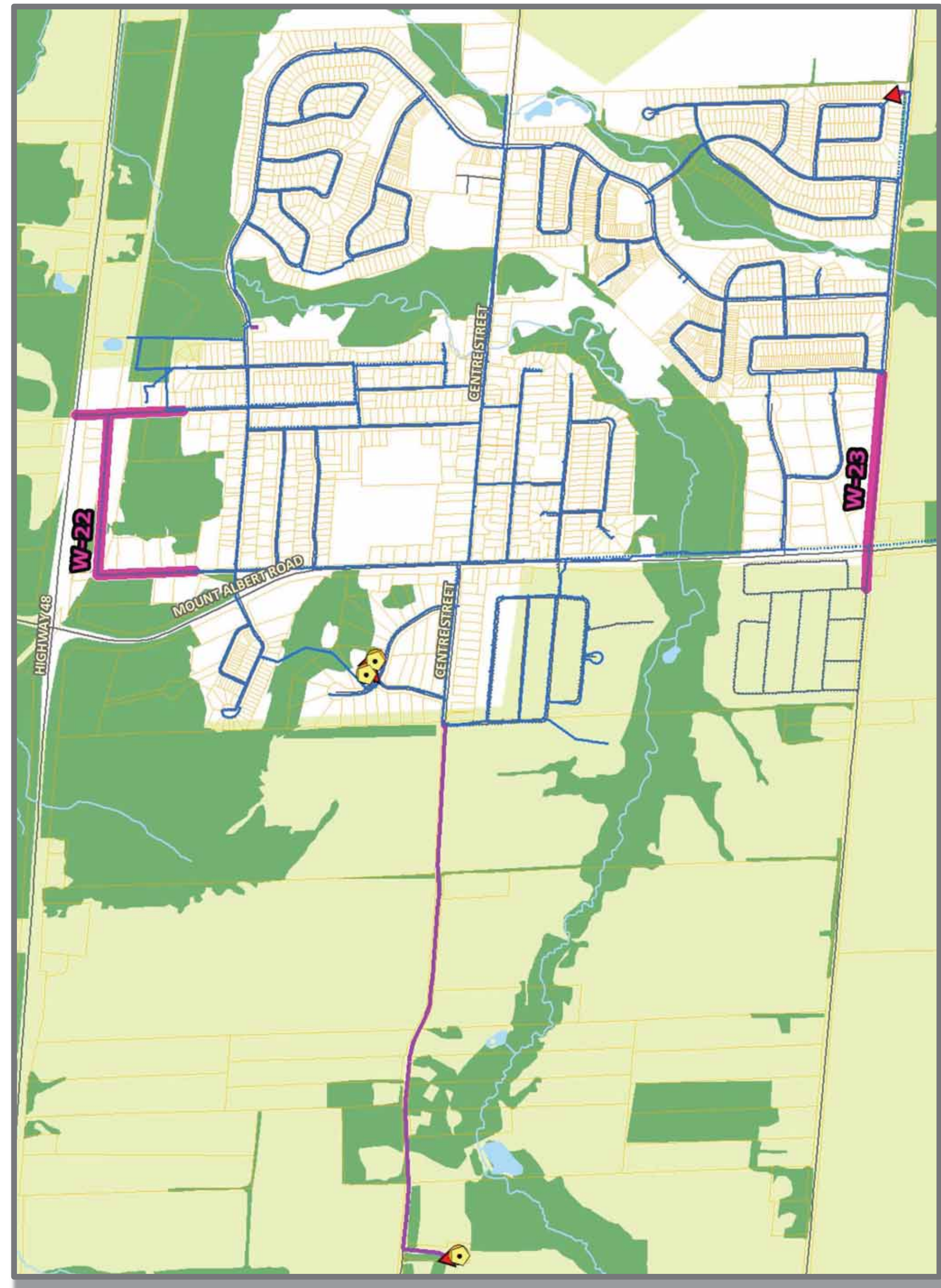
Water Issue #3  
Preferred  
Alternative

Required water projects within Mount Albert are shown. For the one project where alternative options were explored (**Board 10**), the preferred alternative is labelled on this map.

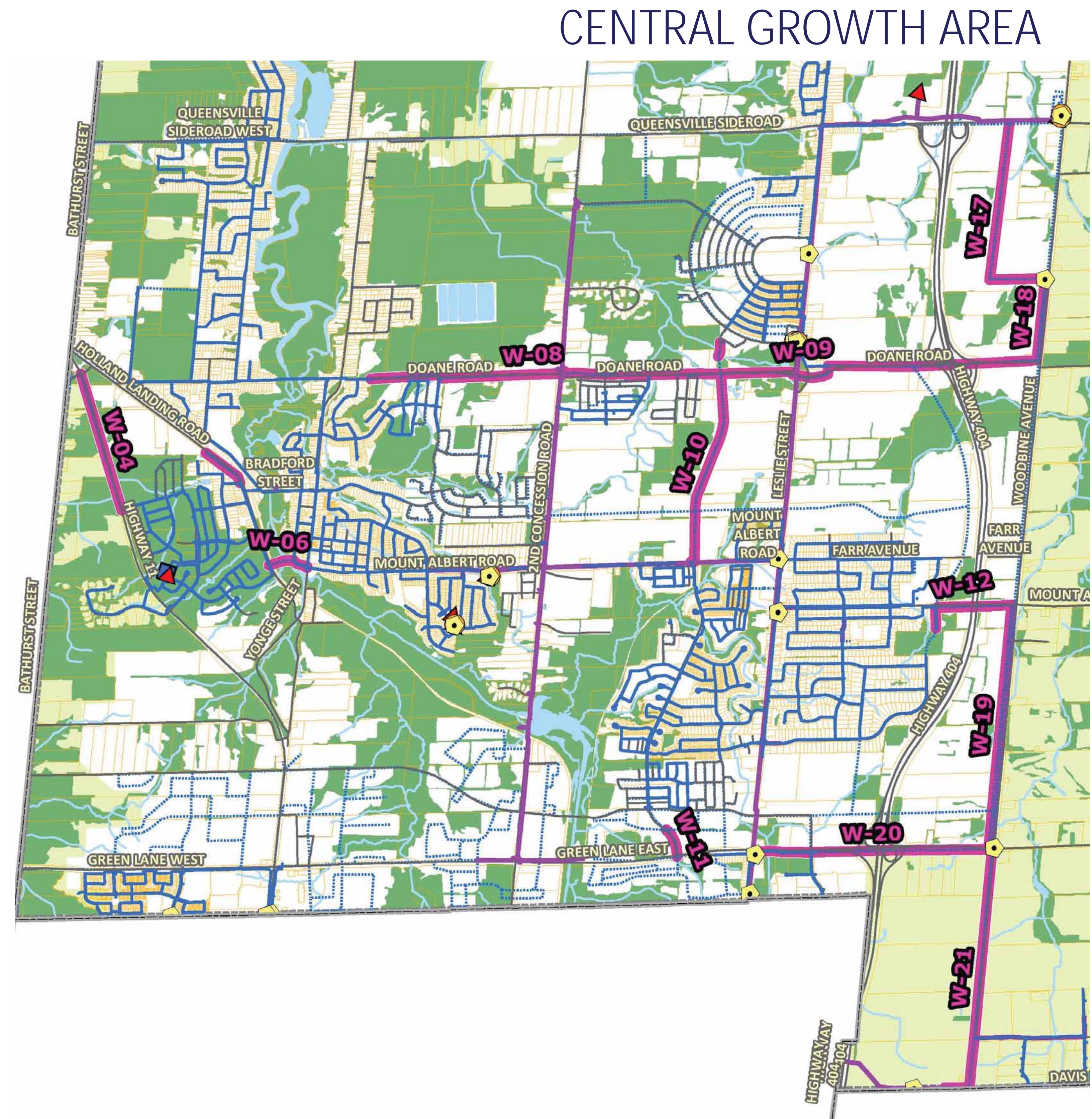
The projects can be implemented over time, when opportunities for implementation arise. Timing for implementation is recommended to coincide with the Town's other proposed projects for interrelated infrastructure such as roads, sewers and storm sewers.







MOUNT ALBERT



CENTRAL GROWTH AREA



The water projects highlighted in pink are system upgrade projects that are driven by future growth in residential and employment populations.



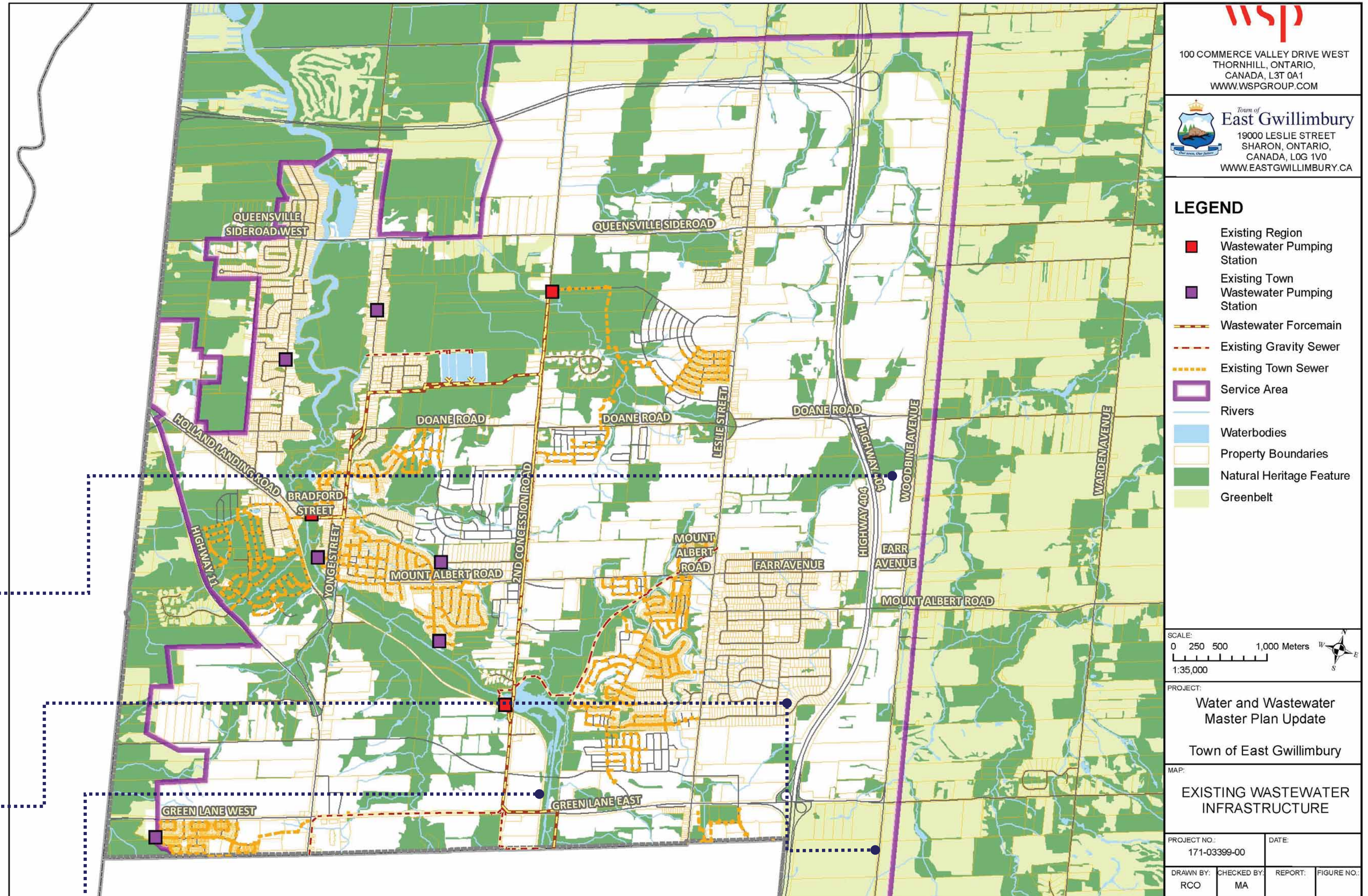
## EXISTING WASTEWATER SYSTEM – CENTRAL GROWTH AREA

Wastewater projects outlined in the Master Plan either address existing system deficiencies or are required due to growth. Within the Central Growth Area, three projects had alternative solutions which were assessed based on the criteria outlined on **Board 6**. Project alternatives are presented on **Boards 16 and 17**.

**WW Issue #1:** A final discharge location is required for the wastewater from the new pumping station proposed on Woodbine Avenue which will be servicing the Employment Lands.

**WW Issue #2:** Determination of the length of the forcemain required before discharging wastewater from the new pumping station on Bales Drive into a gravity system.

**WW Issue #3:** Final discharge location required for the gravity sewer along Green Lane servicing the Employment Lands

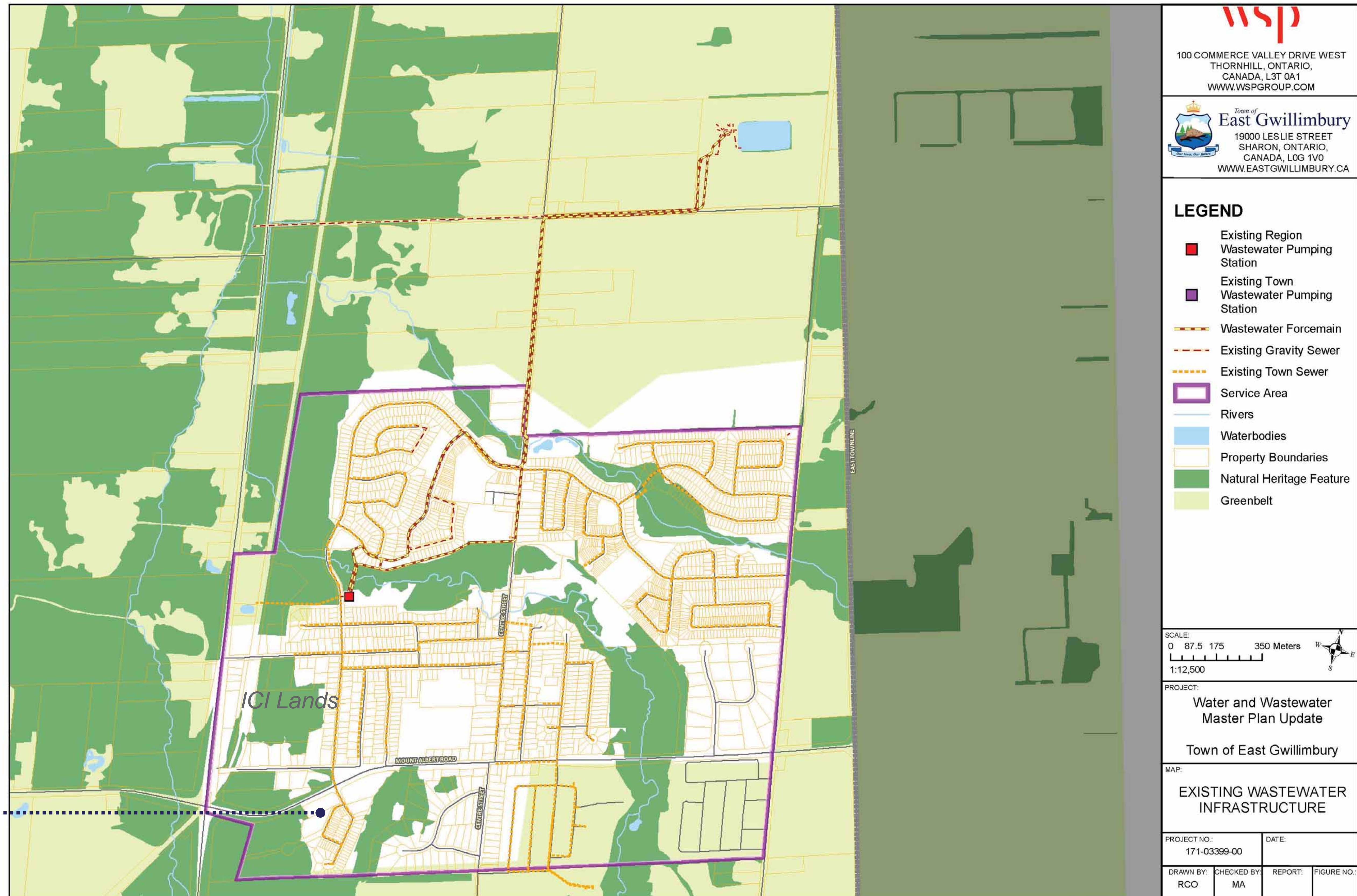




## EXISTING WASTEWATER SYSTEM – MOUNT ALBERT

The only wastewater projects required within Mount Albert were due to growth. One of the projects in Mount Albert had alternative solutions which were assessed based on the criteria outlined on **Board 6**. Project alternatives are presented on **Board 17**.

**WW Issue #4:** Wastewater discharge location required for the new pumping station servicing the Industrial Commercial and Institutional (ICI) lands in Mount Albert West

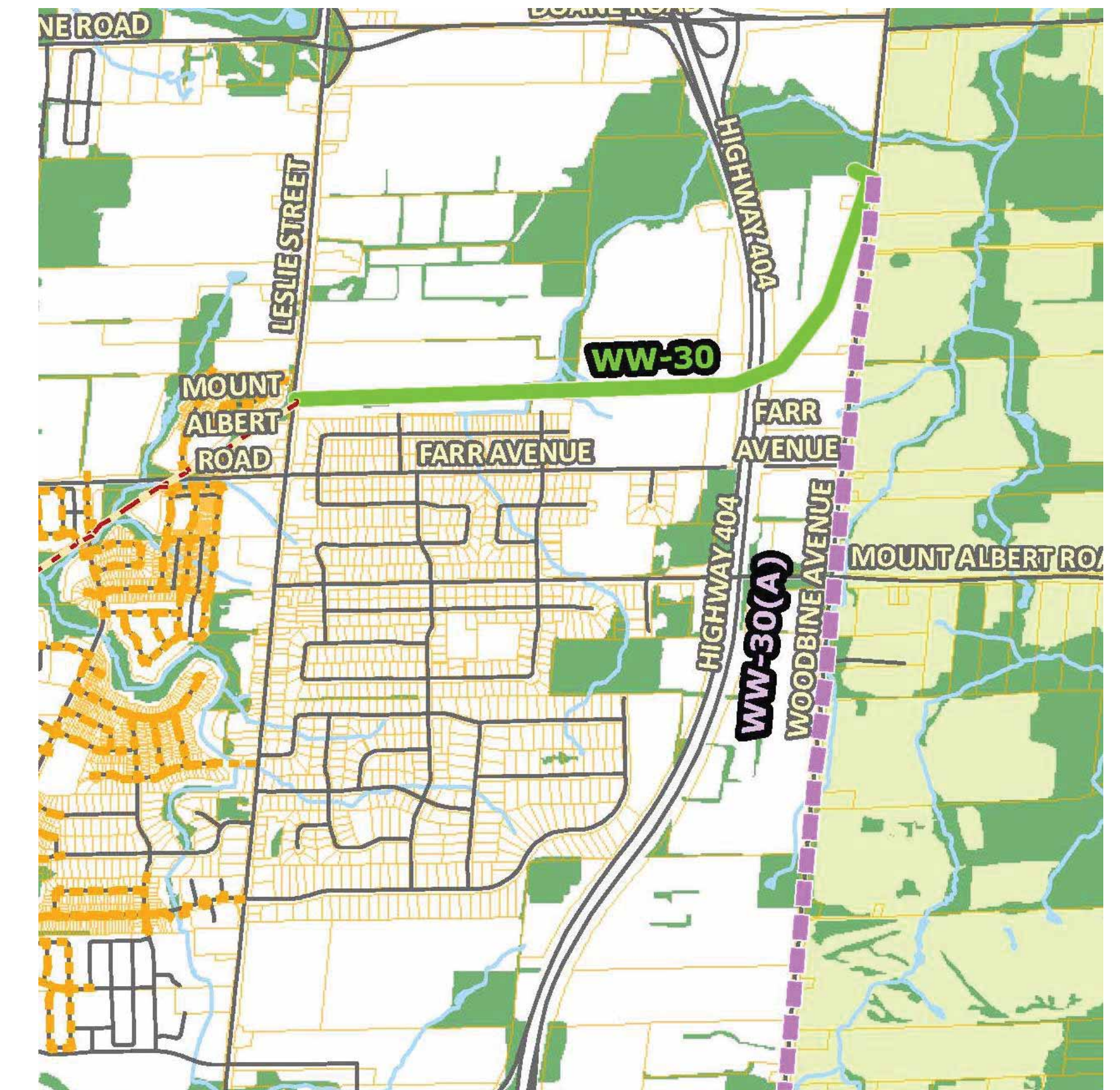




## Wastewater Issue #1 – PS-2

A new station (PS-2) is being constructed on Woodbine Avenue to service the Employment Area east of Highway 404. A final discharge location is required for the pumping station.

	Alternatives	Evaluation Criteria			
		Natural Env.	Social / Cultural	Technical	Economic
W-30	Install a forcemain directly across Highway 404 and tie into the Sharon trunk sewer. This option requires a shorter forcemain. <b>(Recommended)</b>	Yellow	Green	Yellow	Yellow
W-30 (A)	Install a forcemain south along Woodbine Avenue to Green Lane. This option requires a significantly longer forcemain.	Yellow	Orange	Orange	Red



## Wastewater Issue #2 – Bales Drive Pumping Station

A new pumping station (PS-1) is being constructed on Bales Drive to service the Employment Area east of Highway 404. The length of the forcemain from the pumping station before discharge into a gravity system needs to be determined.

	Alternatives	Evaluation Criteria			
		Natural Env.	Social / Cultural	Technical	Economic
W-26 (FM)/23 (FM)	Extend the forcemain from Garfield Wright Blvd all the way to the gravity sewer beyond the 404 on Green Lane. Forcemains have lower capital costs, but higher operational costs over time.	Yellow	Yellow	Green	Red
W-26 (FM)/23 (GS)	Extend the forcemain from Garfield Wright Blvd to Woodbine/Green Lane, and a gravity sewer along Green lane to beyond the 404.	Yellow	Yellow	Yellow	Orange
W-26 (GS)/23 (GS)	Install gravity sewers from Garfield Wright Blvd to beyond the 404 on Green Lane. Gravity sewers are installed at a greater depth and have higher capital costs, but lower operational costs over time. <b>(Recommended)</b>	Yellow	Yellow	Yellow	Green



KEY

Most Preferred	Preferred	Less Preferred	Least Preferred
----------------	-----------	----------------	-----------------

--- Forcemain-Forcemain Option  
--- Gravity-Forcemain Option  
— Gravity-Gravity Option

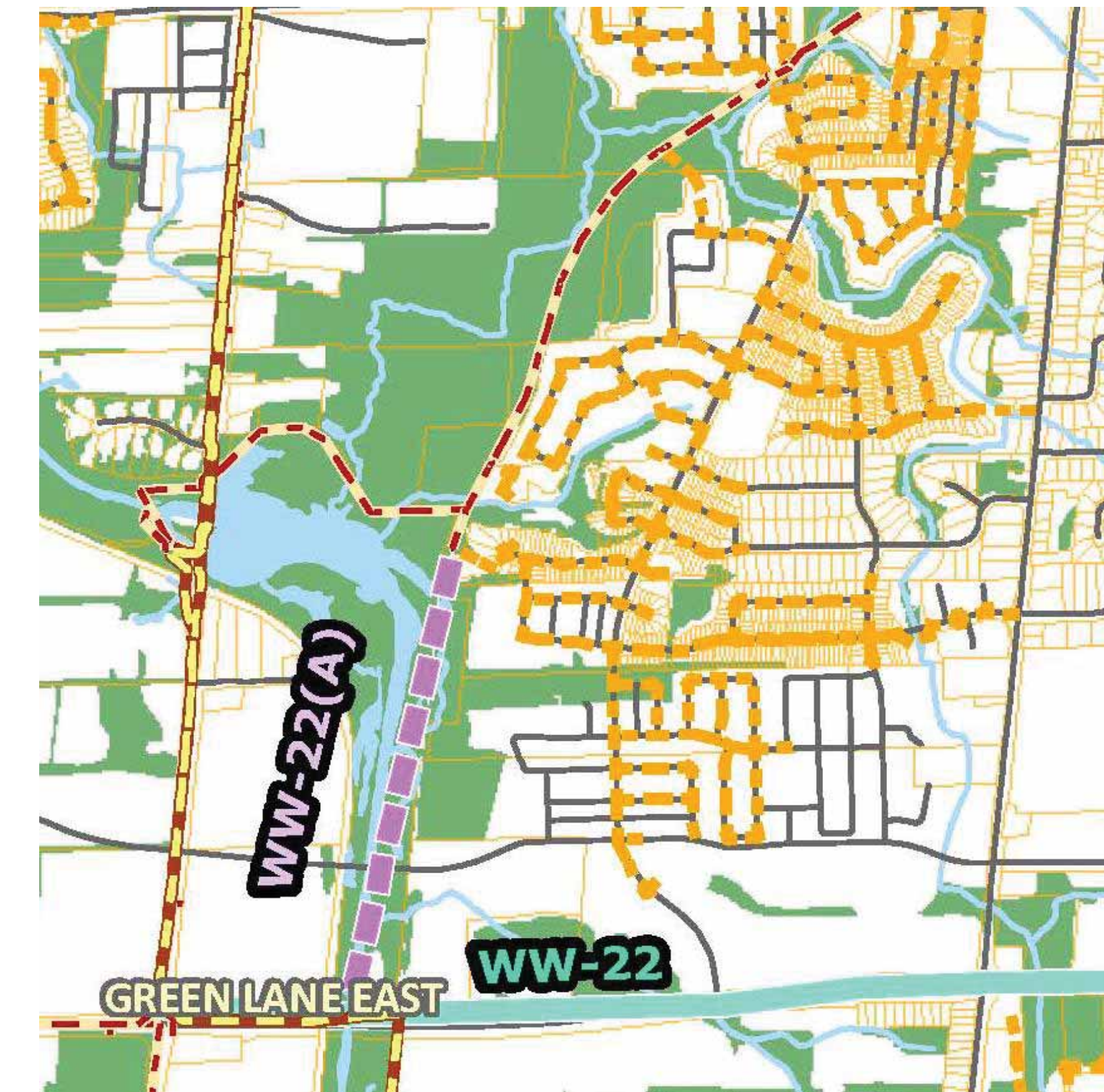


## Wastewater Issue #3 – Servicing on Green Lane

A gravity sewer is required along Green Lane to service the Employment Area east of Highway 404. There are two options to determine the location of the proposed sewer.

	Alternatives	Evaluation Criteria			
		Natural Env.	Social / Cultural	Technical	Economic
WW-22	The gravity sewer will follow the existing ROW along Green Lane and terminate at 2nd Concession Road. This option requires a shorter sewer. <b>(Recommended*)</b>				
WW-22 (A):	The gravity sewer will run north from Green Lane along the hydro corridor to connect to the Sharon sewer.				

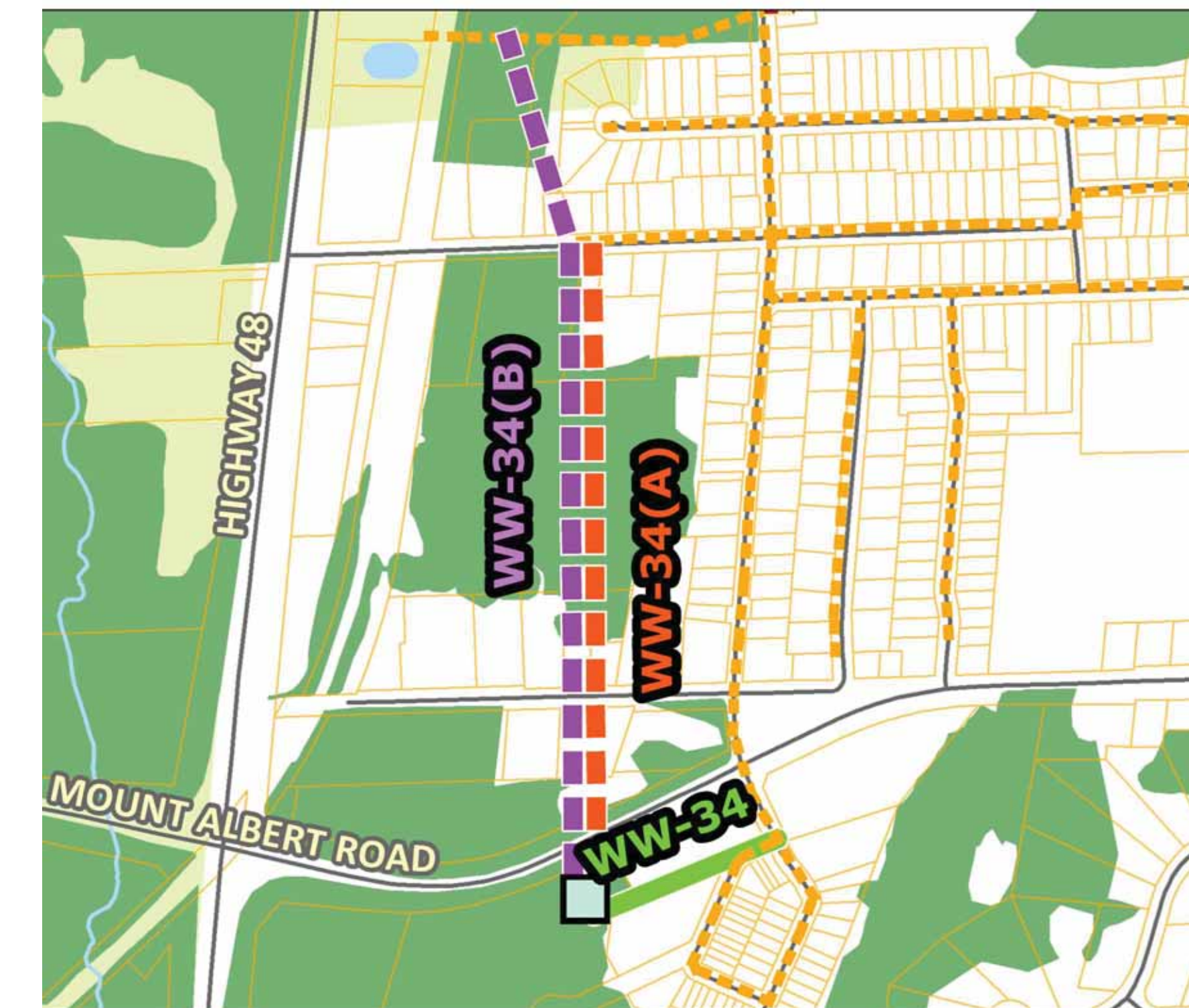
*\*Subject to Confirmation of Capacity Availability by York Region*



## Wastewater Issue #4 – Servicing the new ICI Lands in Mount Albert

A new sewage pumping station is required to service the South Service area designated within the Mount Albert West ICI lands. There are three options for where this pumping station can discharge to.

	Alternatives	Evaluation Criteria			
		Natural Env.	Social / Cultural	Technical	Economic
W-34	The forcemain will discharge to the residential sewer system on Don Rose Boulevard which in turn discharges to the south end of King Street. <b>(Recommended)</b> :				
W-34 (A):	A longer forcemain will run northwards and discharge to the Princess Street sewer.				
W-34 (B):	A longer forcemain will run northwards and discharge into the IGA sewer.				



KEY

Most Preferred	Preferred	Less Preferred	Least Preferred
----------------	-----------	----------------	-----------------



## EAST GWILLIMBURY – CENTRAL GROWTH AREA

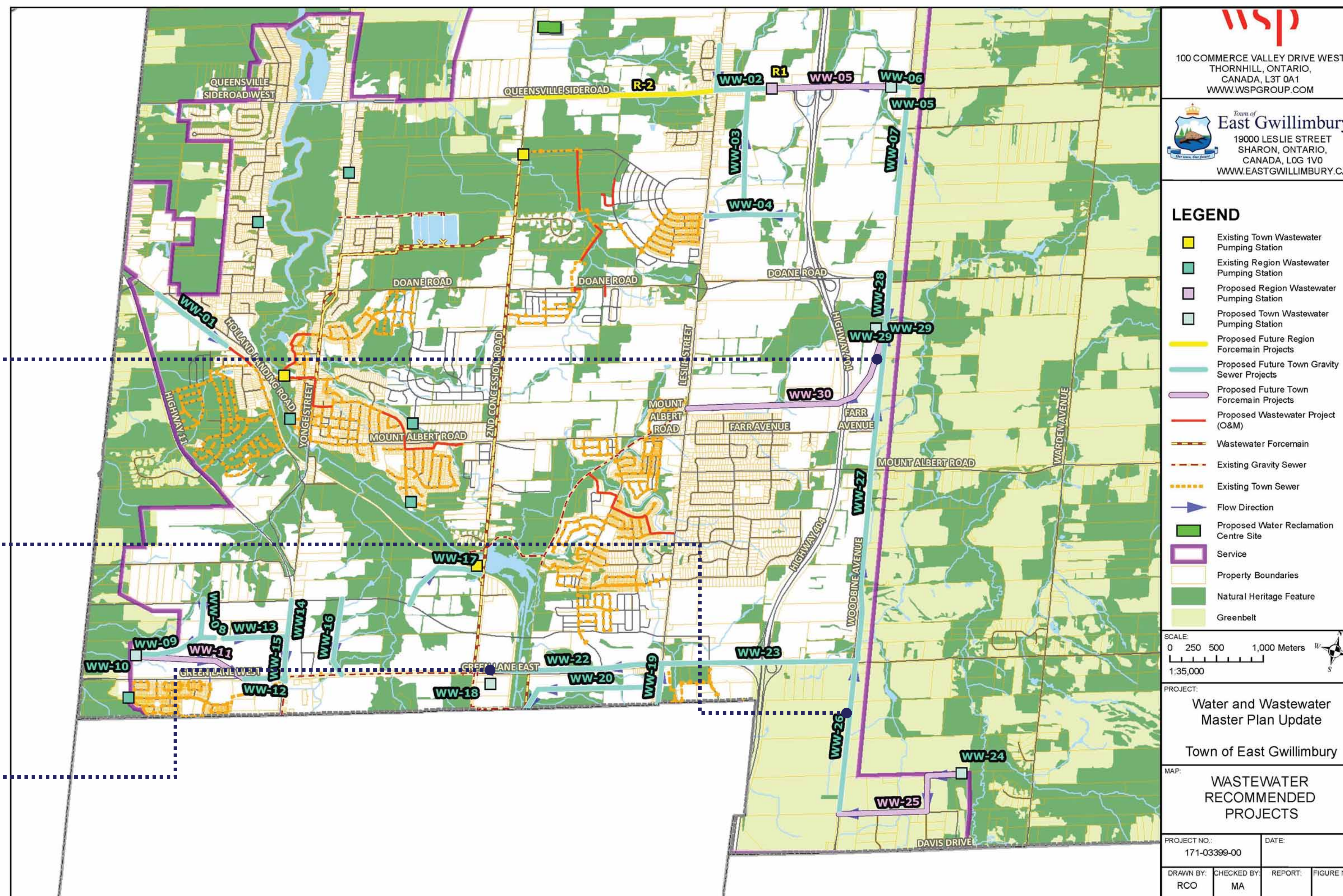
All projects recommended through this study constitute improvements to the system, and require the upgrade or expansion of the existing wastewater network. For the three projects where alternative options were explored (**Boards 17 and 17**), the preferred alternatives are labelled.

The projects can be implemented over time, when opportunities for implementation arise. Timing for implementation is recommended to coincide with the Town's other proposed projects for interrelated infrastructure such as roads, sewers and storm sewers.

WW Issue #1  
Preferred Alternative

WW Issue #2  
Preferred Alternative

WW Issue #3  
Preferred Alternative



The recommended projects for the Town's wastewater distribution system to meet servicing demands to the year 2041 are highlighted in light blue in the figure above.

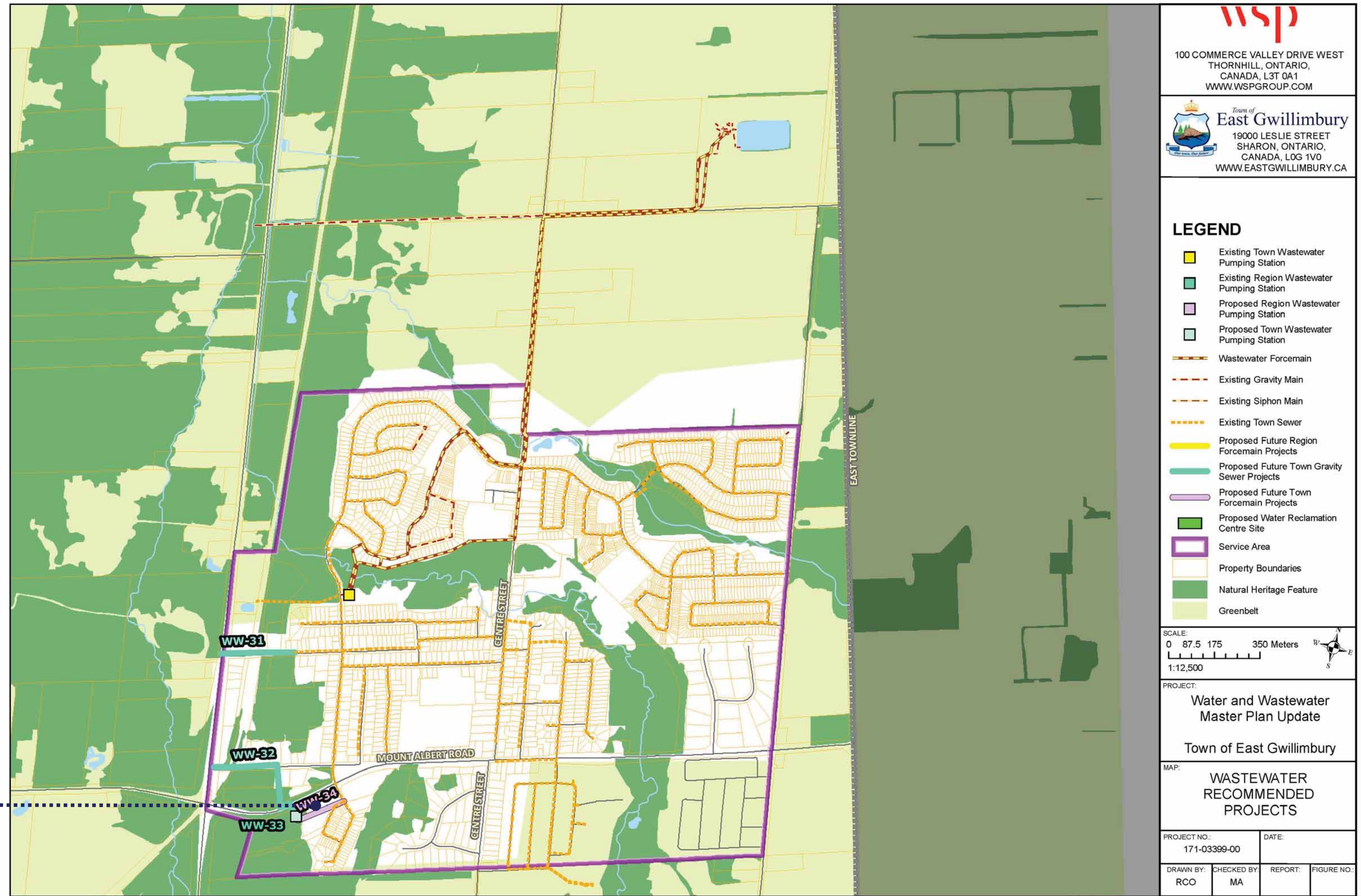


## EAST GWILLIMBURY – MOUNT ALBERT

Required wastewater projects within Mount Albert are shown. For the one project where alternative options were explored (**Board 17**), the preferred alternative is labelled on this map.

The projects can be implemented over time, when opportunities for implementation arise. Timing for implementation is recommended in to coincide with the Town's other proposed projects for interrelated infrastructure such as roads, sewers and storm sewers.

WW Issue #4  
Preferred  
Alternative



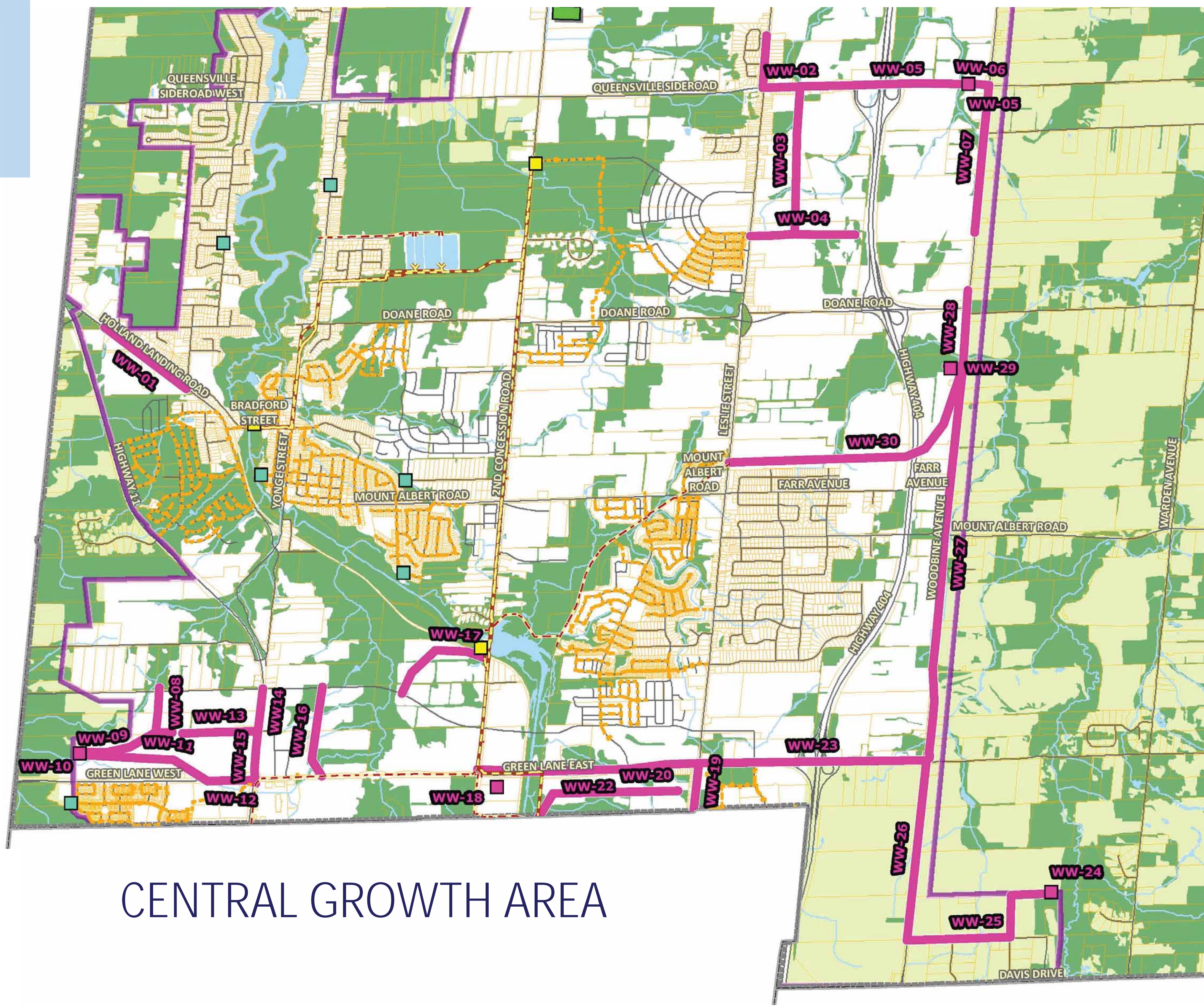
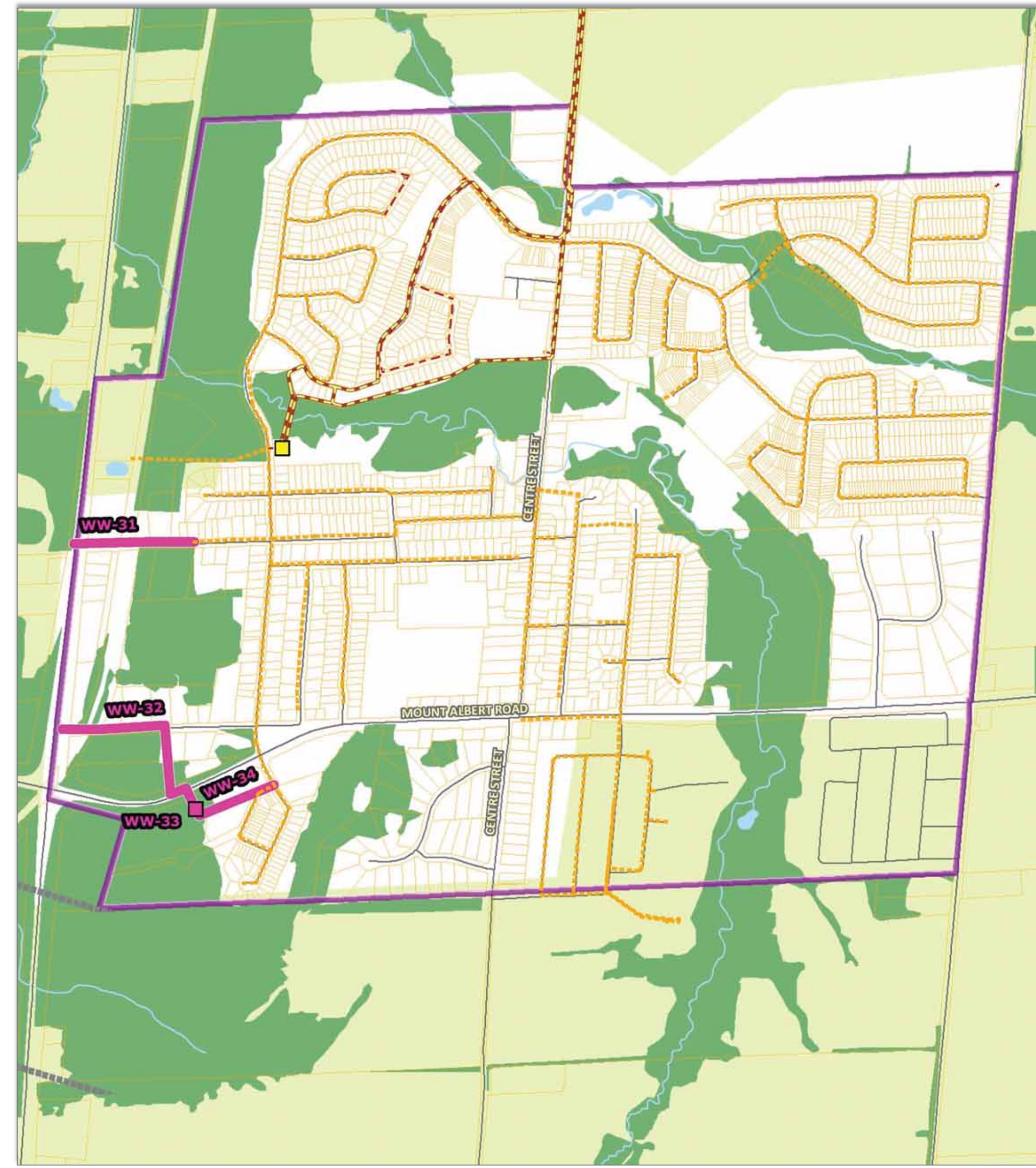
The recommended projects for the Mount Albert's wastewater distribution system to meet servicing demands to the year 2041 are highlighted in light blue in the figure.





The wastewater projects highlighted in pink are system upgrades that are driven by future population and employment growth forecasts.

## MOUNT ALBERT



## CENTRAL GROWTH AREA



## STAY INFORMED

Comments received will be included in the Final Master Plan Report which is expected to be published in Q3/Q4 of 2019. For any further inquiries please refer to:

<http://eastgwillimbury.ca/projects>

If you would like to submit your comments directly to the Study Team, please contact:

**Denny S. Boskovski, C.E.T.**  
 Asset Management and Capital  
 Project Manager  
 Town of East Gwillimbury  
 19000 Leslie Street  
 Sharon, Ontario L0G 1V0  
 Tel: 905-478-4283 ext. 3818  
 DBoskovski@eastgwillimbury.ca

**Ray Wrzala, C. Tech.**  
 Senior Engineering Technologist  
 Town of East Gwillimbury  
 19000 Leslie Street  
 Sharon, Ontario L0G 1V0  
 Tel: 905-478-4283 ext. 3852  
 RWrzala@eastgwillimbury.ca

**Mani Ruprai/Mazahir Alidina**  
 Consultant Project Manager  
 WSP Canada Inc.  
 100 Commerce Valley Drive W  
 Thornhill, Ontario L3T 0A1  
 Tel: 289-982-4021/289-982-4393  
 Mani.Ruprai@wsp.com /  
 Mazahir.Alidina@wsp.com

*We are here* 

