

Water and Wastewater Master Plan

Town of East Gwillimbury
COUNCIL PRESENTATION

October 8, 2019



PURPOSE OF THE PROJECT

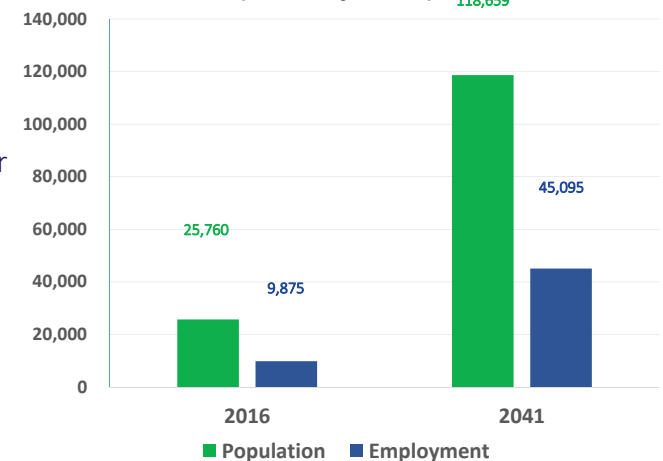
Problem Statement: The Town of East Gwillimbury is projected to experience significant population and employment growth over the next 25 years. As a result of this growth, a **safe, efficient, and reliable** source of water and wastewater services will become increasingly important and challenging. The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

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.

Growth Forecasts to the Year 2041
(2015 Projections)



MUNICIPAL CLASS EA

The East Gwillimbury Water and Wastewater Master Plan was completed using **Approach 1** of the Class EA Master Planning process. This means that the study was conducted at a broad level and resulted 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.

▶ ALTERNATIVE SERVICING STRATEGIES

1. Do Nothing

No improvements/expansions undertaken. Does not comply with Provincial and Town policy related to growth. Infrastructure will be inadequate for future development.

Policy compatibility? **No.**

Problems Statement? **No.**

2. Water Efficiency / Conservation

The Town currently has a Water Conservation strategy and further water conservation and reduction strategies would have marginal benefits. Does not address future development requirements

Policy compatibility? **Yes-Partial**

Problems Statement? **No.**

3. Limit Growth

Restrict population growth to ensure sufficient supply to accommodate future demand. Inconsistent with Provincial Growth Plan & York Region's intensification targets.

Policy compatibility? **Yes-Partial**

Problems Statement? **No.**

4. Upgrade and Expand Network

Improves existing water system to address pressure and fire flow issues and expands the system to service new developments. Also improves the wastewater system preventing surcharge and services new developments.

Policy compatibility? **Yes**

Problems Statement? **Yes.**

▶ PROJECT ALTERNATIVE 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 or archaeological importance
- Aesthetic impact on existing and proposed development
- Consistency with Land Use designations, approved Development Plans, and proposed Land Use change
- Traffic impacts during construction

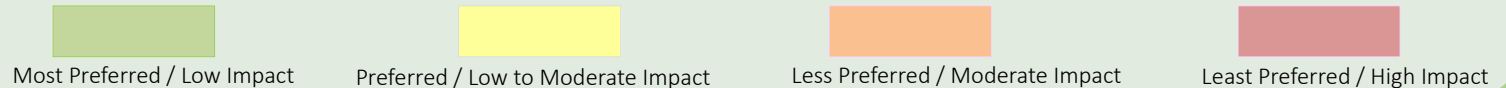
TECHNICAL

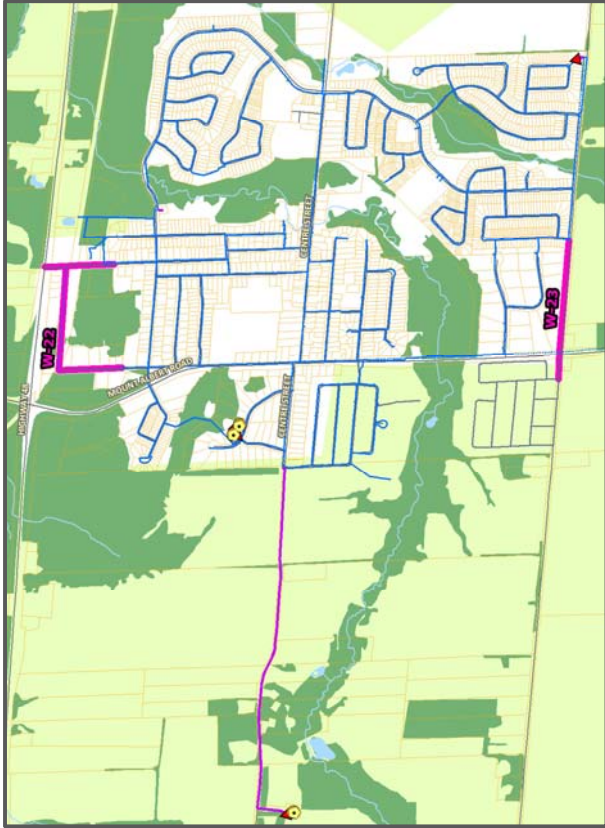
- Constructability, duration of construction and site access
- Ease of connection to existing infrastructure and ease of modifications required to existing infrastructure
- System reliability, redundancy and hydraulic performance
- Maintaining or enhancing security of supply
- Additional servicing opportunities

ECONOMIC

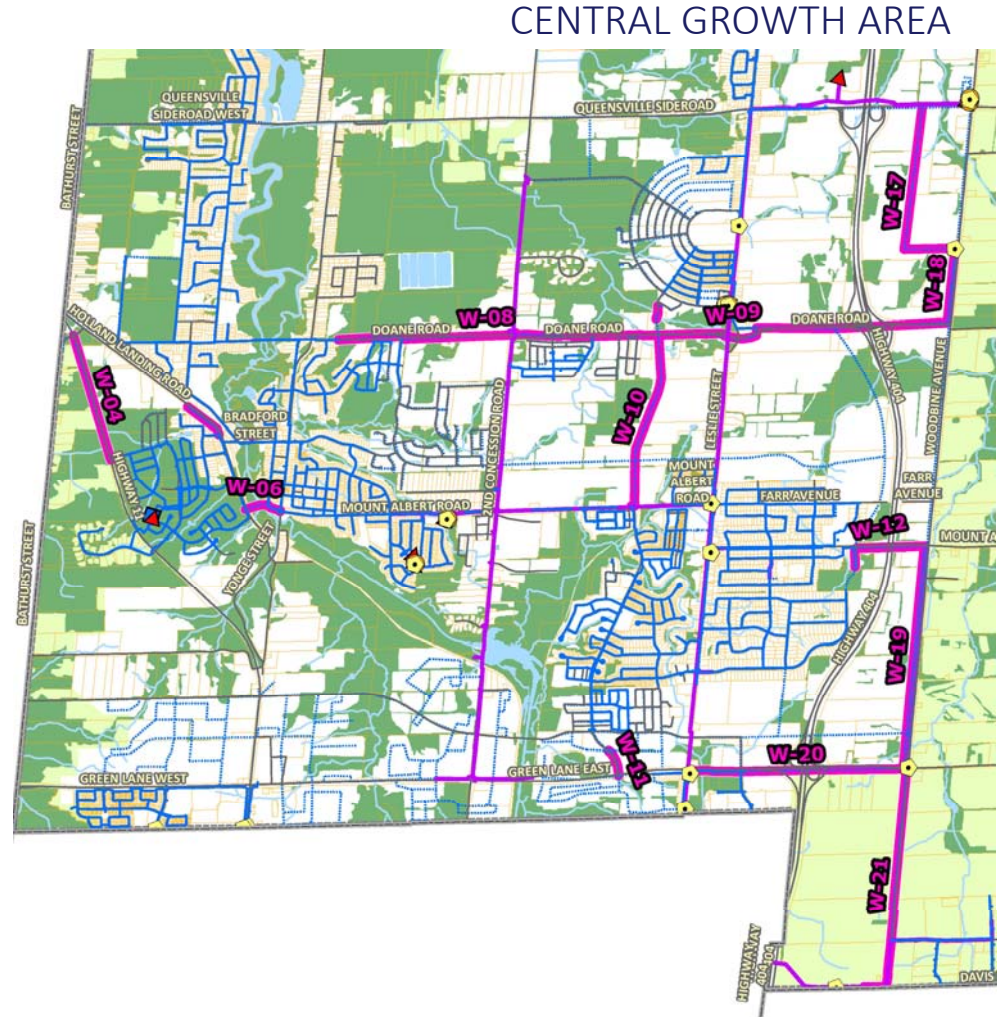
- Capital costs
- Operation costs
- Maintenance costs

EVALUATION COLOUR RATING SYSTEM





MOUNT ALBERT



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

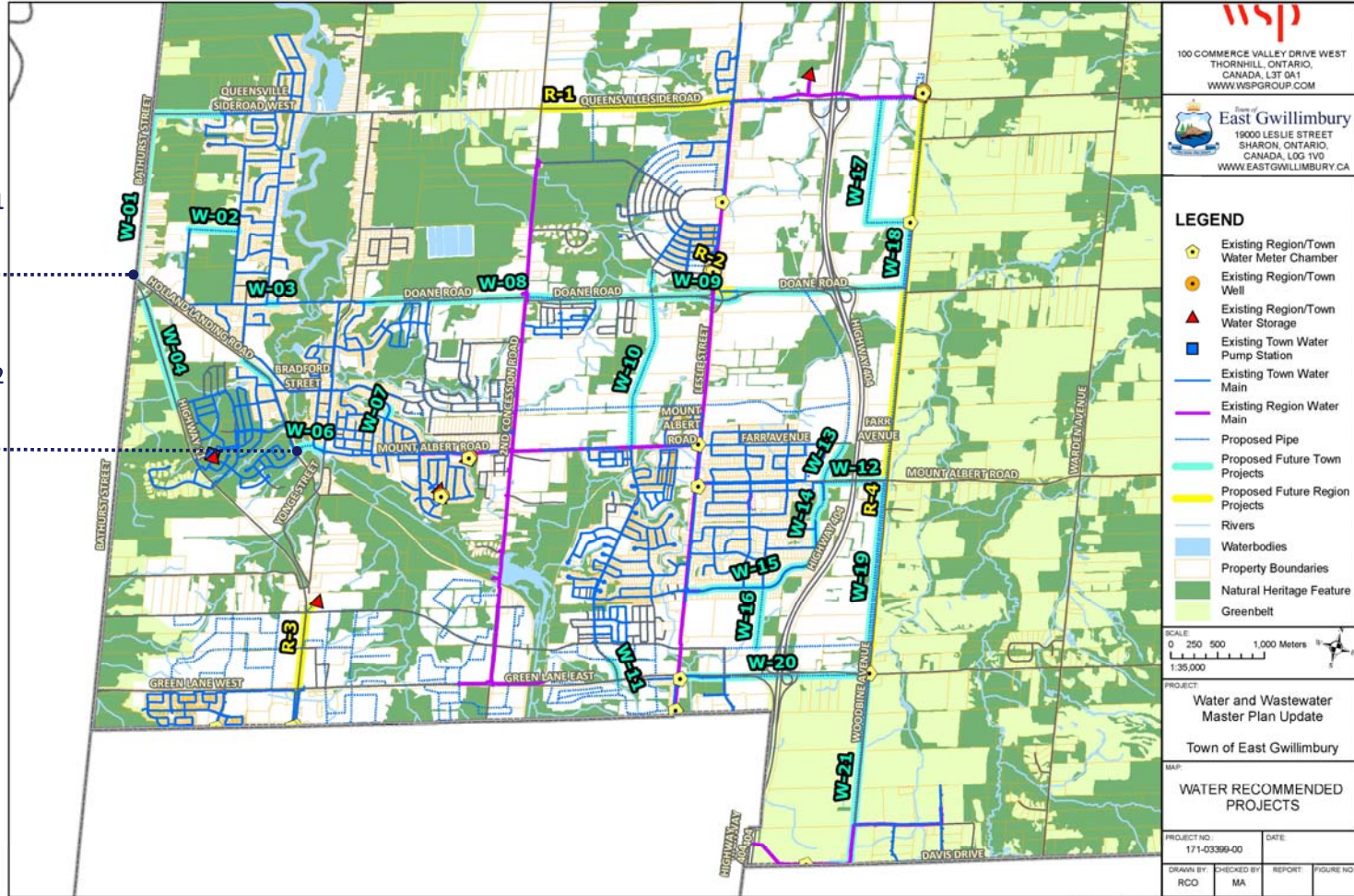
EAST GWILLIMBURY – CENTRAL GROWTH AREA

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, 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 System Improvement #1 Preferred Alternative

Water System Improvement #2 Preferred Alternative



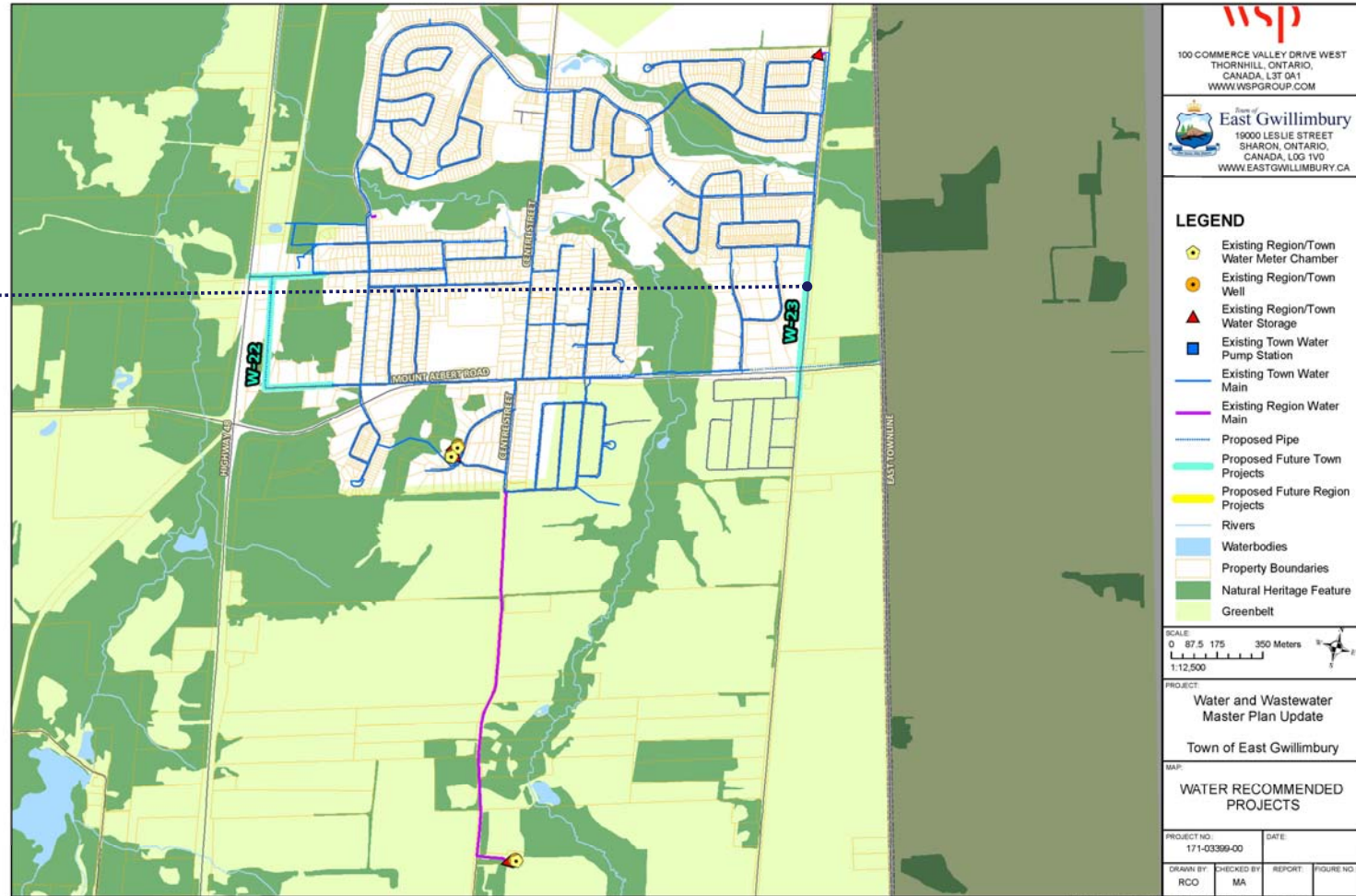
The recommended projects for the Town's water distribution system to meet servicing demands to the year 2041 are highlighted in light blue in the figure above.

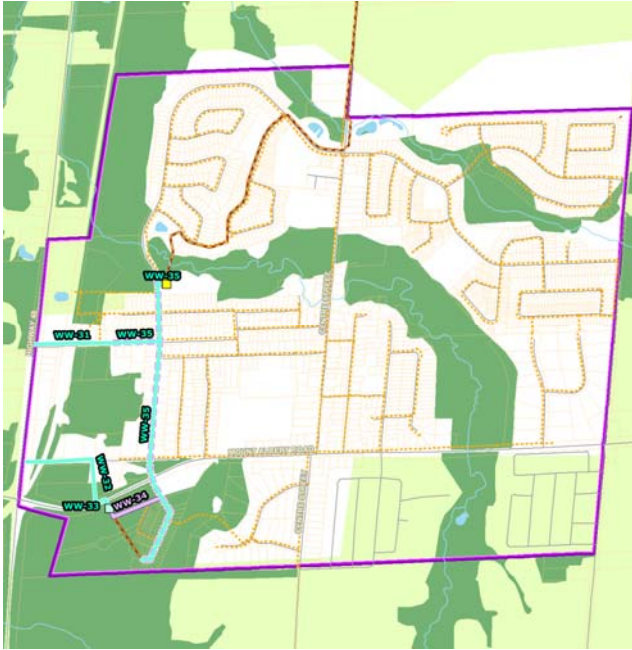
EAST GWILLIMBURY – MOUNT ALBERT

Water System Improvement #3
Preferred Alternative

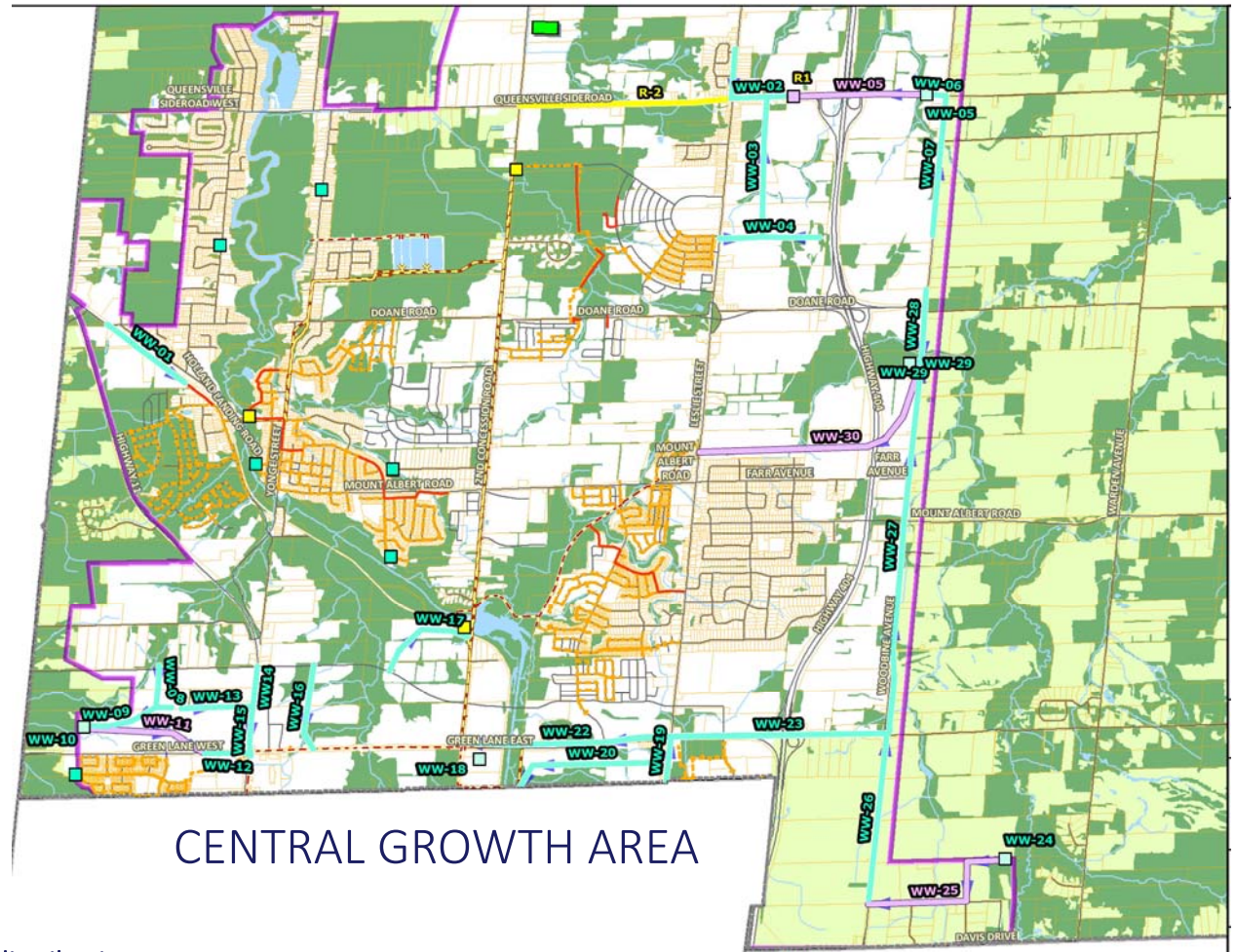
Required water projects within Mount Albert are shown. For the one project where alternative options were explored, the preferred alternative is labelled on this map.

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.





MOUNT ALBERT



CENTRAL GROWTH AREA

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

Improvement Type	Growth Related Cost	Non Growth Related Cost	Total Cost
Water Servicing	\$36,570,000	\$14,030,000	\$50,600,000
Wastewater Servicing	\$163,300,000	\$5,800,000	\$169,100,000
Totals	\$199,870,000	\$19,830,000	\$219,700,000

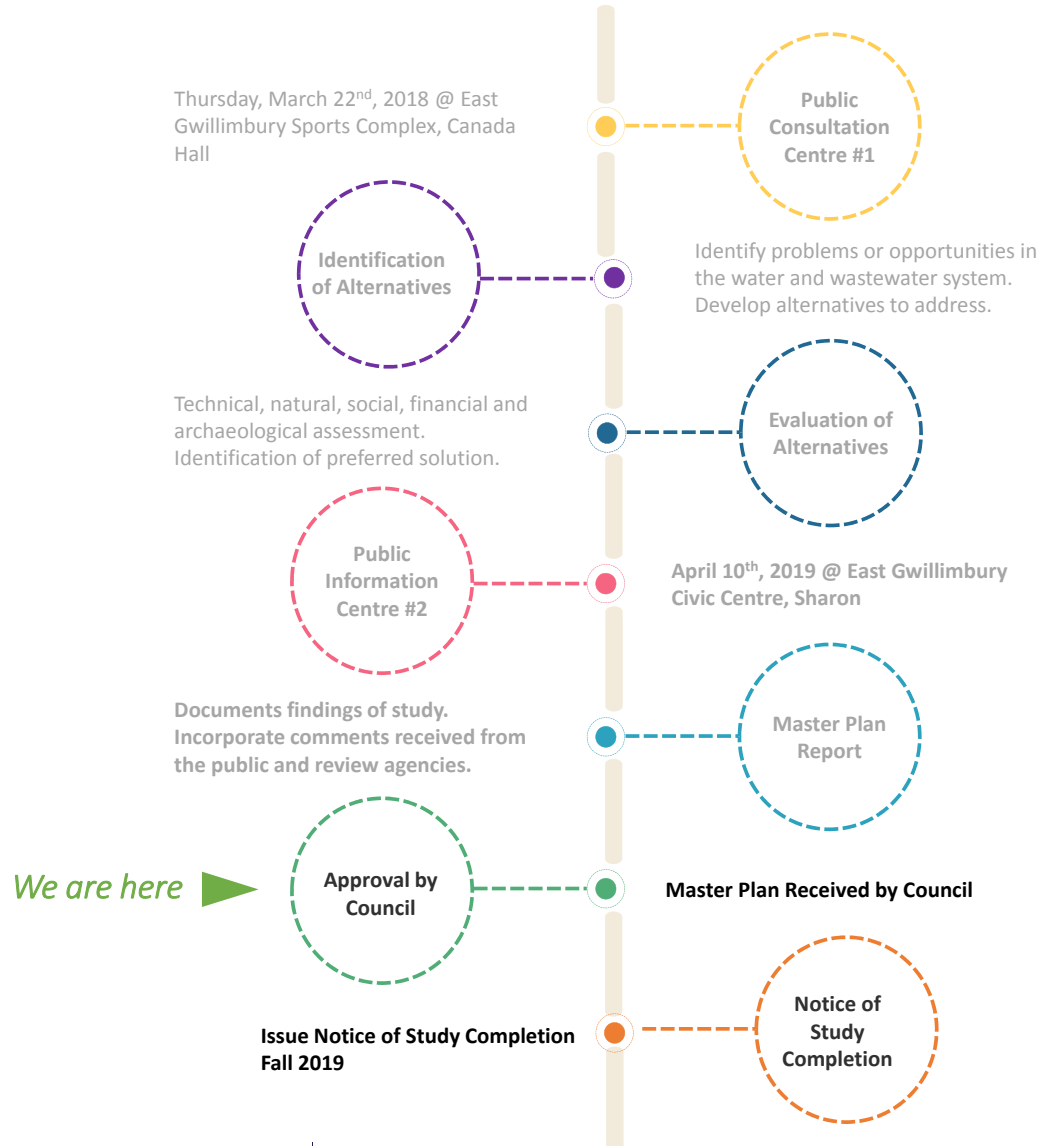
* Implementation costs incurred over time through to 2041

STAY INFORMED

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OBC Clause	Legislation	Program Start Date	Compliance Rate
(a)	LSPA	Phase 1 - January 7, 2019	100%
(b)	LSPA	Phase 2 – September 3, 2019	17%
(c)	LSPA	Phase 2 – September 3, 2019	17%
(d)	LSPA	Phase 2 – September 3, 2019	17%
(e)	CWA	Phase 1 - January 7, 2019	100%

STAY INFORMED

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