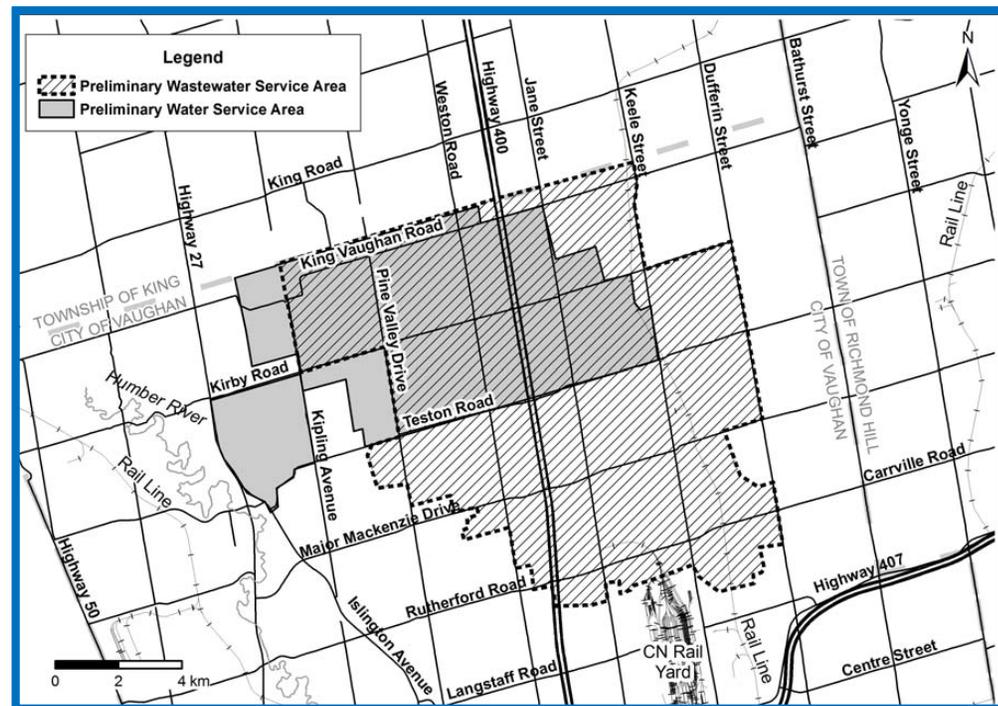


NORTHEAST VAUGHAN WATER AND WASTEWATER SERVICING PROJECT

Technical Advisory Committee Meeting # 1

December 3, 2014
2:00 p.m. to 4:30 p.m.
Maple Community Centre
Activity Room 2



Accessible formats or communication supports are available upon request.

Please contact EnvironmentalServices@york.ca or call 905-830-4444 extension 73000.

Technical Advisory Committee Meeting Outline

1. Introduction
2. Technical Advisory Committee (TAC) Terms of Reference Review
3. Project Overview
Break
4. Project Status
5. Questions / Discussion
6. Next Steps and Future Meetings

1. Introduction

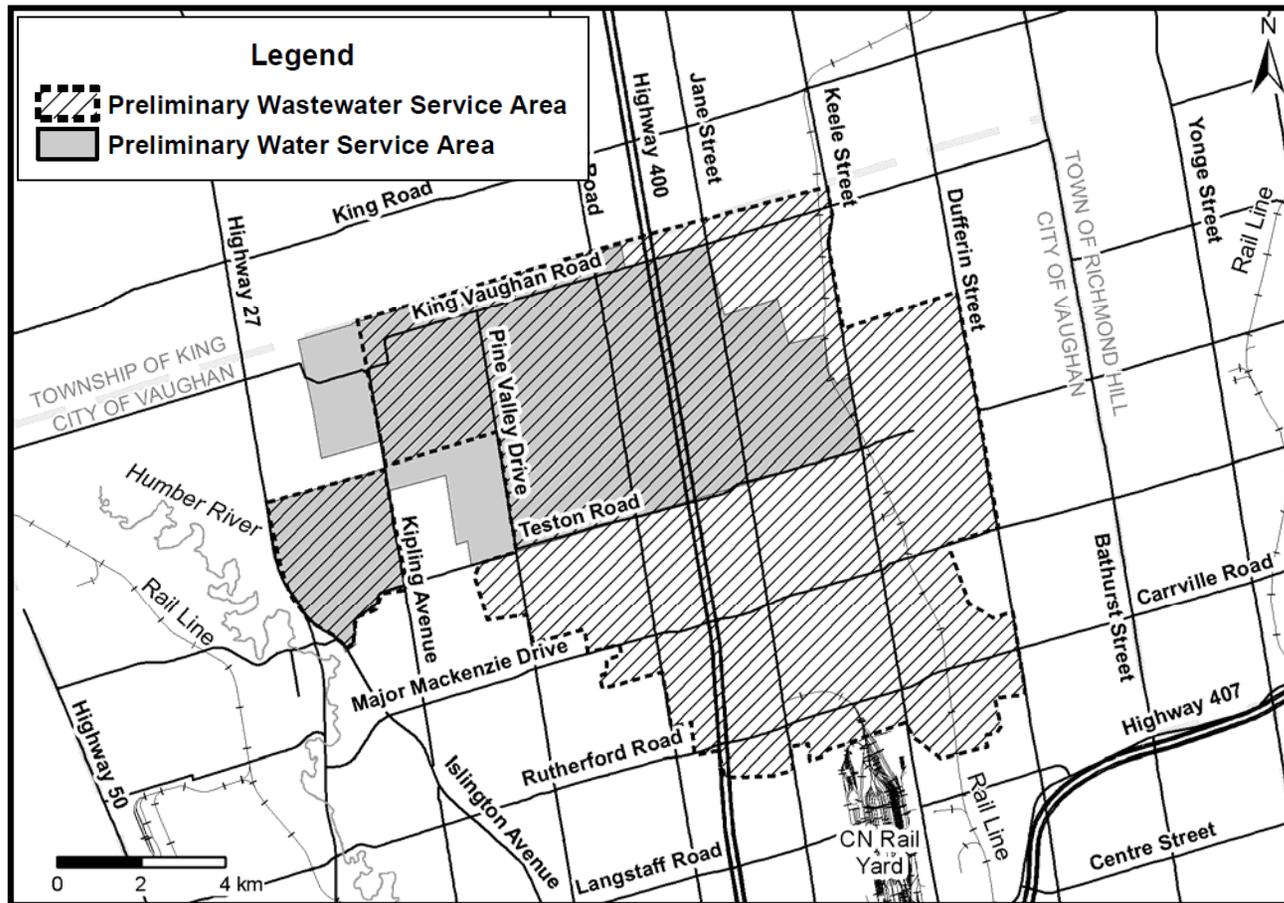
Purpose, Objectives & Introductions

Meeting Purpose:

- Introduce the project
- Review the Terms of Reference for the TAC
- Discuss project status and next steps

Project Purpose:

To identify the water and wastewater infrastructure needed to service anticipated growth in northeast Vaughan to 2051

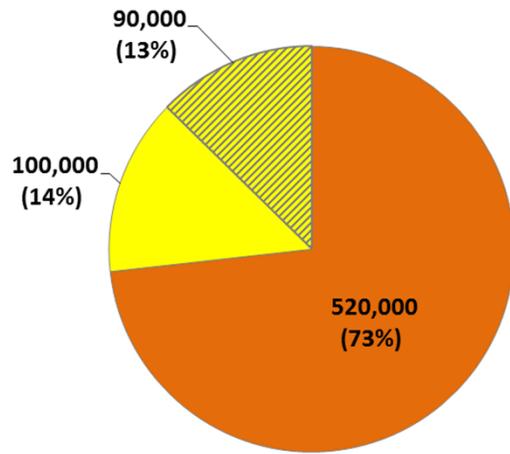


Additional Project Objectives:

- Identify project needs through effective co-ordination with the City of Vaughan and major stakeholders
- Incorporate these needs and requirements into the development and evaluation of sustainable alternative solutions
- Optimize the Region's existing water and wastewater infrastructure and systems to leverage existing capacity

Residential and Employment Population Growth to 2051

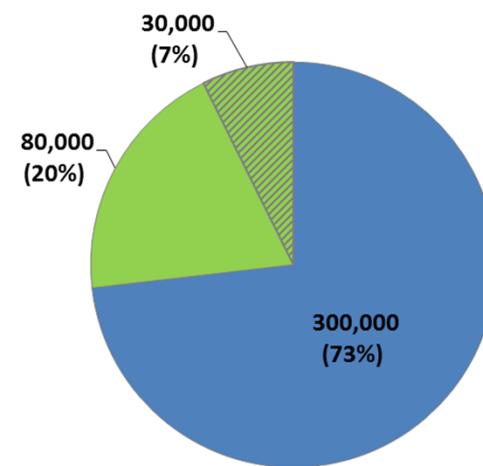
York Region Growth Projections for 2051
(Residential Population)



- Percent of Total Growth in Rest of York Region
- Percent of Total Growth in Rest of City of Vaughan
- Percent of Total Growth in Northeast Vaughan - Wastewater Servicing Area

Total Residential Growth by 2051: 710,000 people

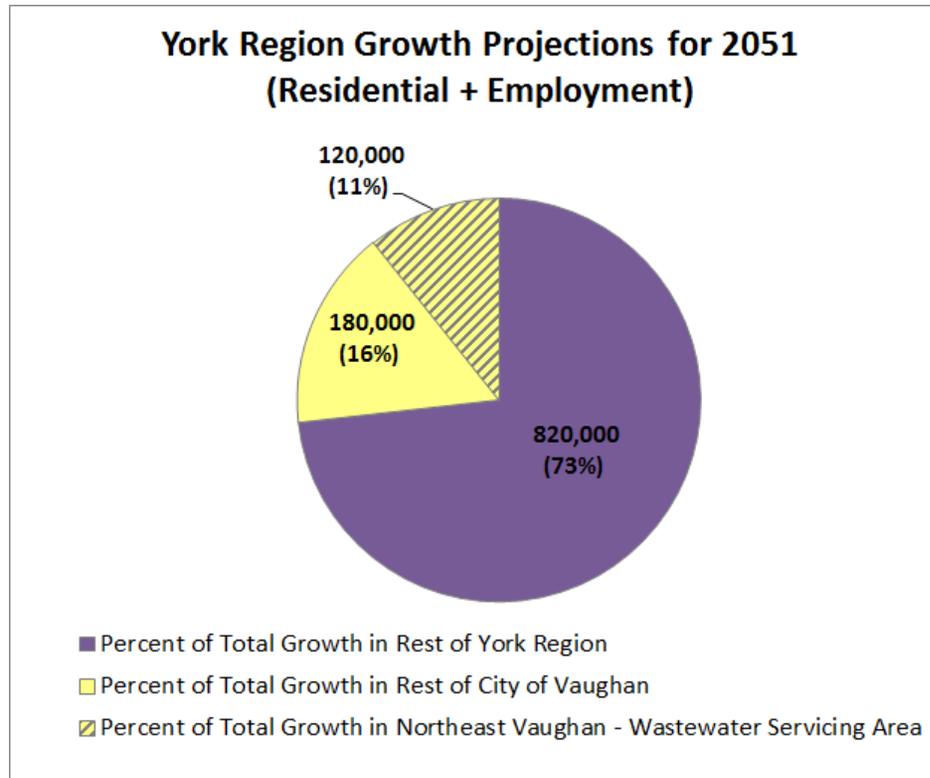
York Region Growth Projections for 2051
(Employment Population)



- Percent of Total Growth in Rest of York Region
- Percent of Total Growth in Rest of City of Vaughan
- Percent of Total Growth in Northeast Vaughan - Wastewater Servicing Area

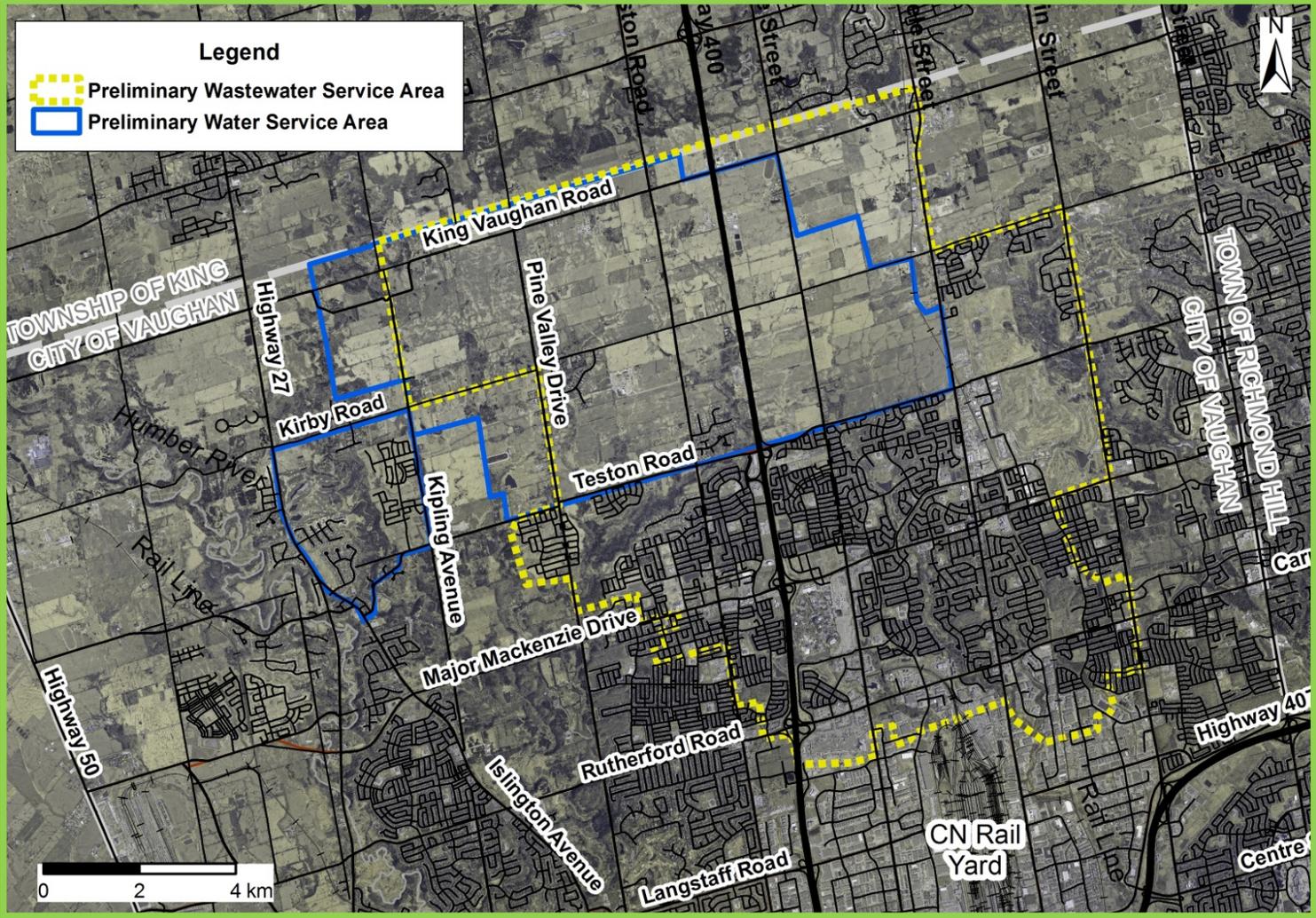
Total Employment Growth by 2051: 410,000 people

Residential and Employment Population Growth to 2051

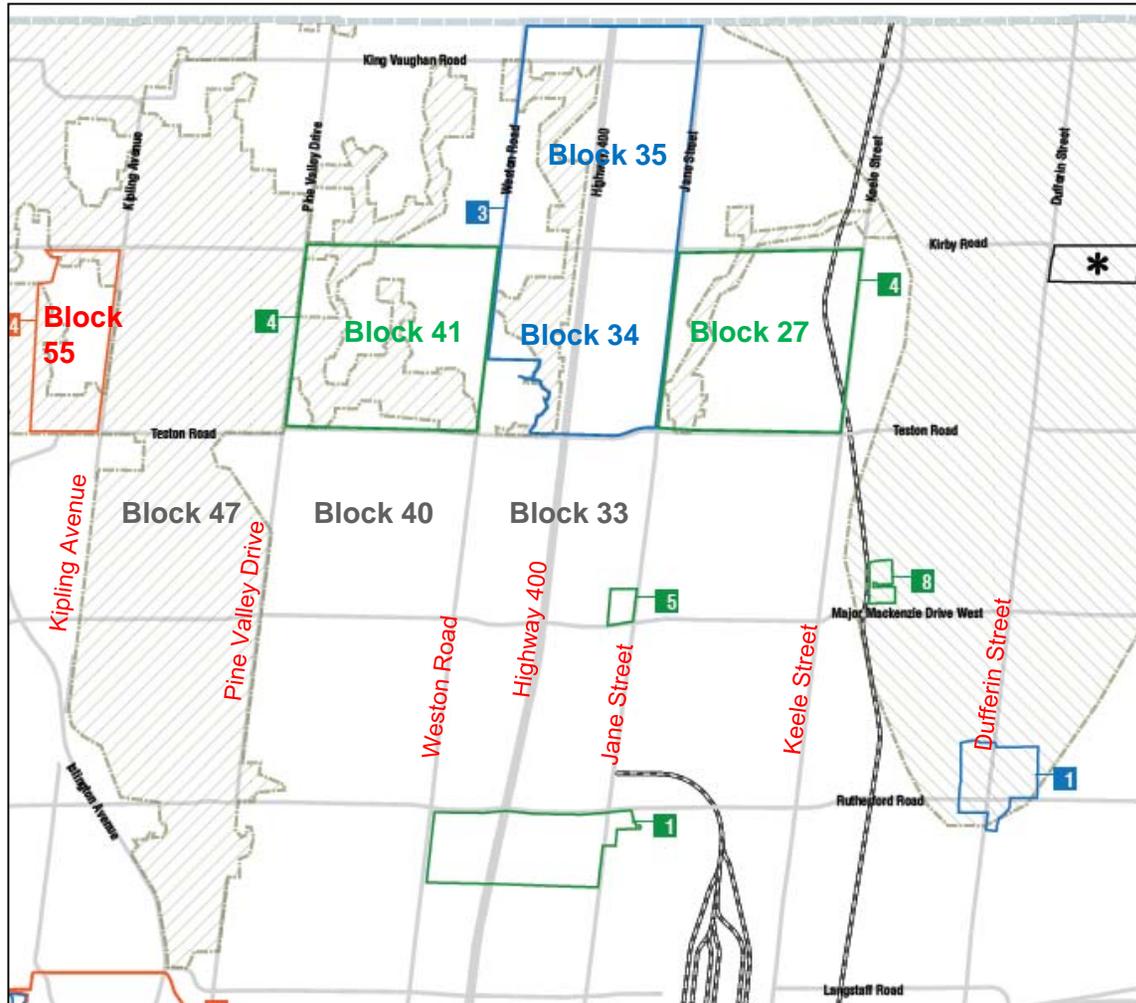


Total Population Growth by 2051: 1,120,000 people

Water & Wastewater Service Areas



Northeast Vaughan Growth



- Secondary Plan Areas - Chapter 11
 - 1 Carrville Centre Secondary Plan - 11.2
 - 2 Steeles West Secondary Plan - 11.3
 - 3 Highway 400 North Employment Lands - 11.4
 - 4 Kipling Avenue - 11.5
- Secondary Plan Areas to be Approved
 - 1 Vaughan Metropolitan Centre
 - 2 Yonge Street Corridor
 - 3 Woodbridge Focused Area
 - 4 Kleinburg-Nashville Focused Area
 - 5 West Vaughan Employment Area
- Required Secondary Plan Areas
 - 1 Vaughan Mills Centre
 - 2 Weston Road and Highway 7
 - 3 Concord Centre
 - 4 New Community Areas (Blocks 41 & 27)
 - 5 Jane Street and Major Mackenzie Drive
 - 6 Dufferin Street and Centre Street
 - 7 Promenade Mall
 - 8 Maple GO Station Area

(Source: City of Vaughan Official Plan 2010 -<http://www.vaughan.ca>)

Stakeholder Engagement

PROJECT TEAM

Stakeholder Advisory
Committee (SAC)

Technical Advisory
Committee (TAC)

SAC and TAC Meetings

Public Meetings, Notices

Project Webpage – york.ca

Individual Meetings

Introductions

- Project Team
- Technical Advisory Committee members

Please introduce yourself with the following four pieces of information:

1. Name
2. Organization
3. Particular interests in the project

2. Technical Advisory Committee Terms of Reference Review

Technical Advisory Committee Terms of Reference Review

- Mandate
- Membership
- Meeting organization and format
- Expectation of members
- Decision-making

TAC Mandate

1. Identify technical issues that may affect the project
2. Provide feedback and guidance to the project team
3. Review/comment on presentations, communication materials and reports
4. Serve as a liaison between the project team and authorities, agencies and the City of Vaughan

TAC Membership

Technical Advisory Committee Member	Organization
Ms. Tammy Silverstone	York Region
Ms. Lara Marchetti	York Region
Mr. Jeff McNeice	York Region
Mr. Michael Frieri	City of Vaughan
Mr. Tony Artuso	City of Vaughan
Mr. Deepak Panjwani	City of Vaughan
Ms. Suzanne Bevan	Toronto and Region Conservation Authority
Ms. Nisha Shirali	Ministry of the Environment & Climate Change
Mr. Marek Wiesek	Ministry of Transportation
Mr. Stefan Linder	Canadian National Railway Company

TAC Meeting Schedule

Meeting Number	Approximate Date	Description/Purpose
TAC Meeting No. 1	December 2014	<ul style="list-style-type: none">• Project introduction• TAC Terms of Reference• Problem/opportunity to be addressed by the Project
TAC Meeting No. 2	February 2015	<ul style="list-style-type: none">• Alternatives and recommended solutions for water and wastewater
TAC Meeting No. 3	September 2015	<ul style="list-style-type: none">• Design alternatives and recommended designs for water and wastewater
TAC Meeting No. 4	March 2016	<ul style="list-style-type: none">• Draft Project File Report review

Expectations of TAC Members

1. Attend each meeting or send a pre-registered alternate in his/her place
2. Arrive on time and stay for the duration
3. Respect each other's opportunity to be heard and the viewpoints of others
4. Review agendas and related material in advance of the meetings
5. Review meeting minutes within seven days of circulation
6. Be courteous and respectful of one another

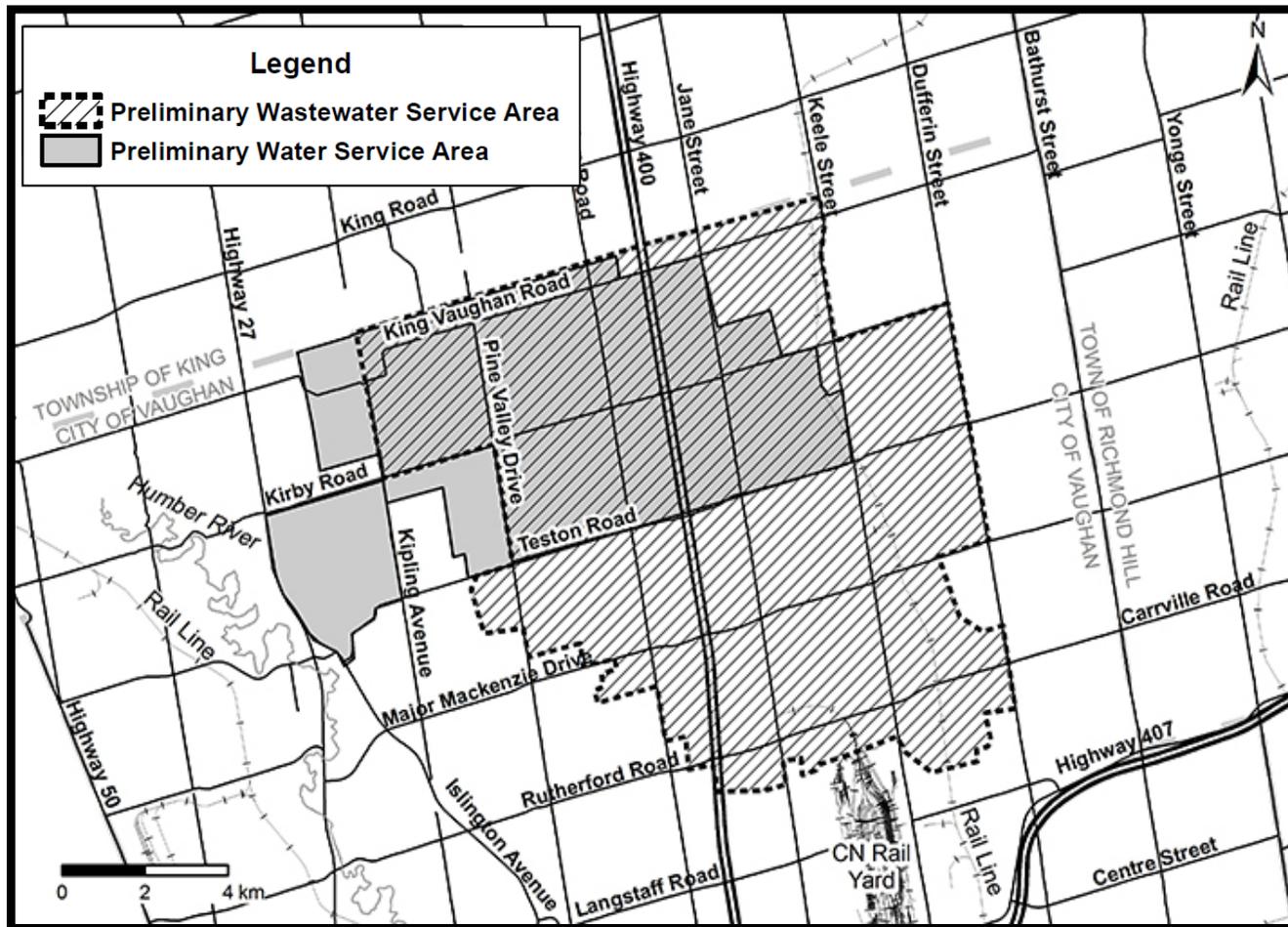
Decision-Making

- Non-voting advisory committee – makes recommendations for consideration
- Seek consensus when making recommendations
- Ensure each representative has the opportunity to be heard and has come to an understanding, not necessarily agreement, on the recommendation being put forward
- Project Team will take all recommendations into consideration as part of project decision-making

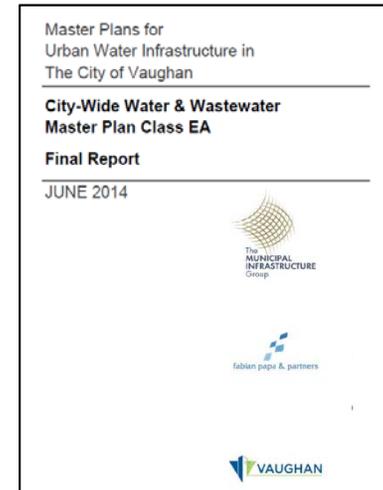
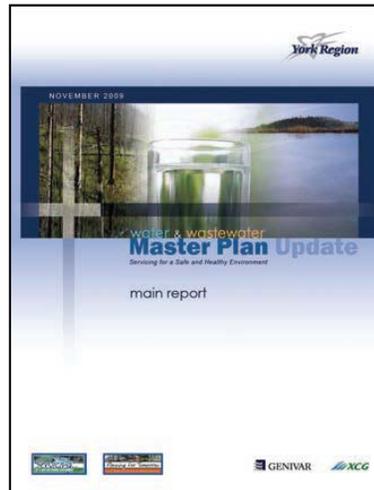
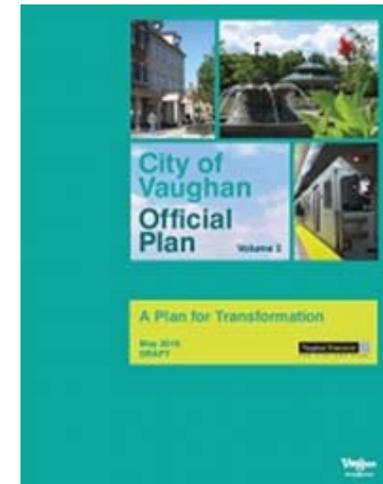
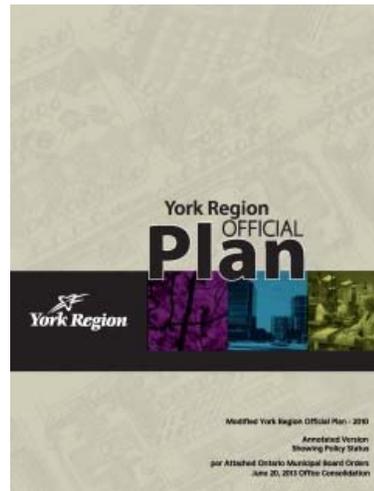
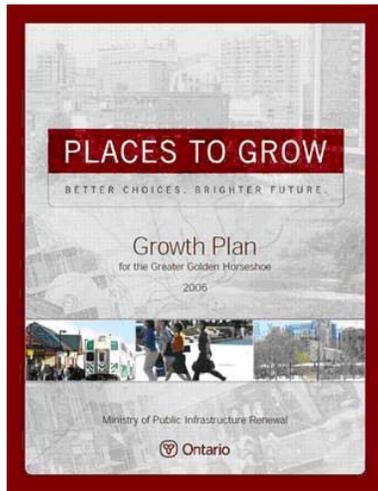
3. Project Overview

Project Purpose:

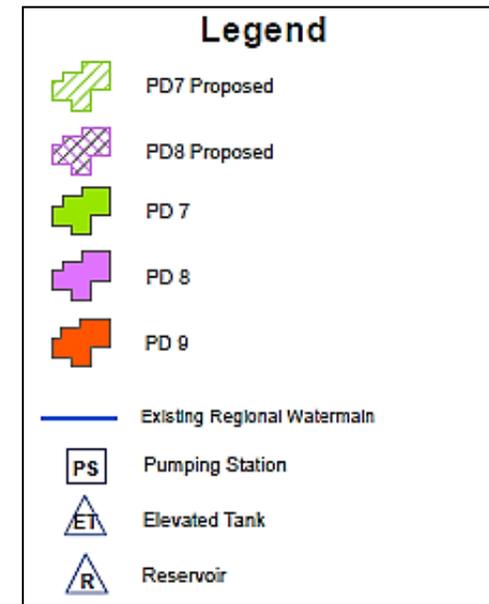
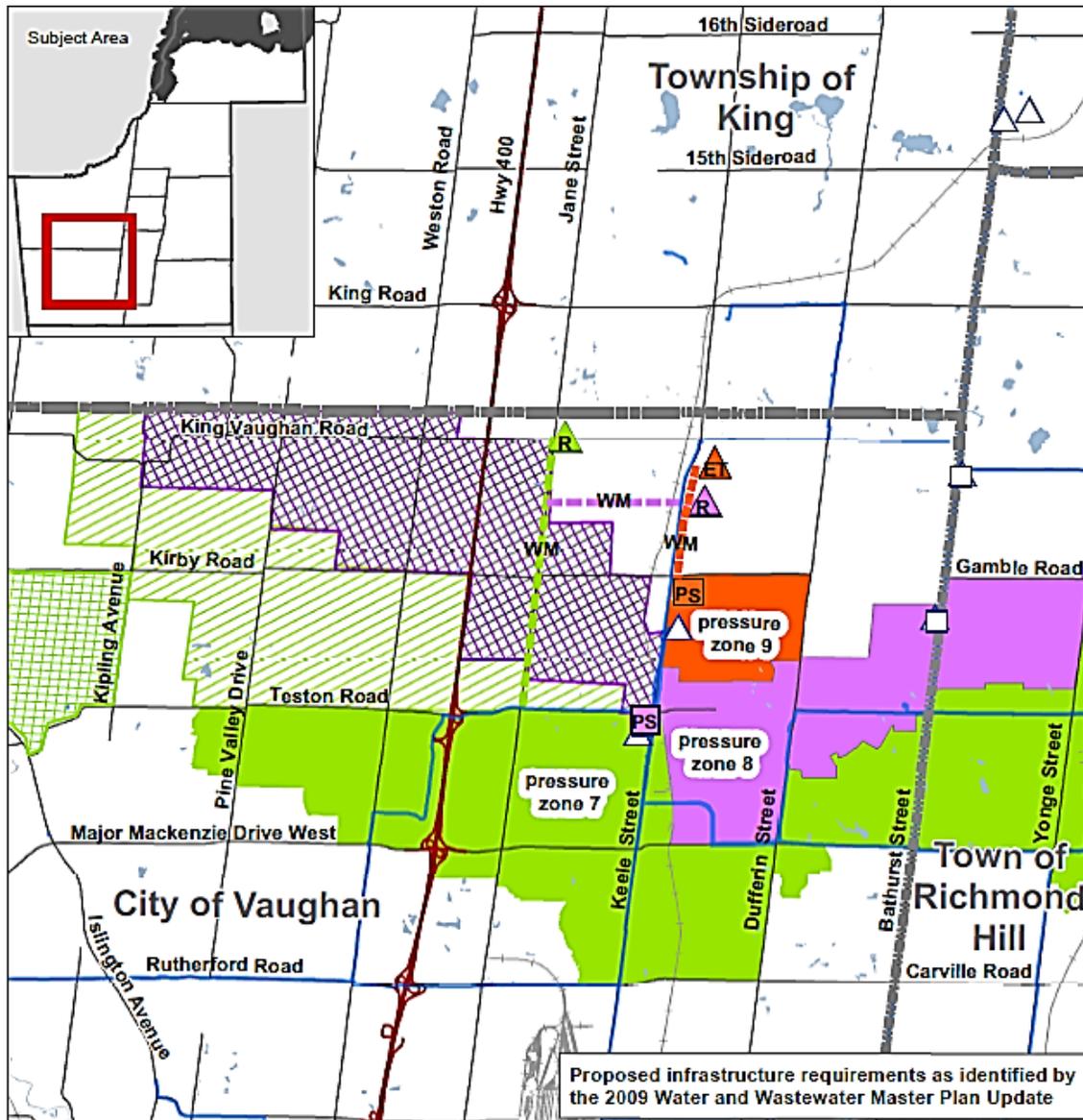
To identify the water and wastewater infrastructure needed to service anticipated growth in northeast Vaughan to 2051



Accommodating York Region Growth

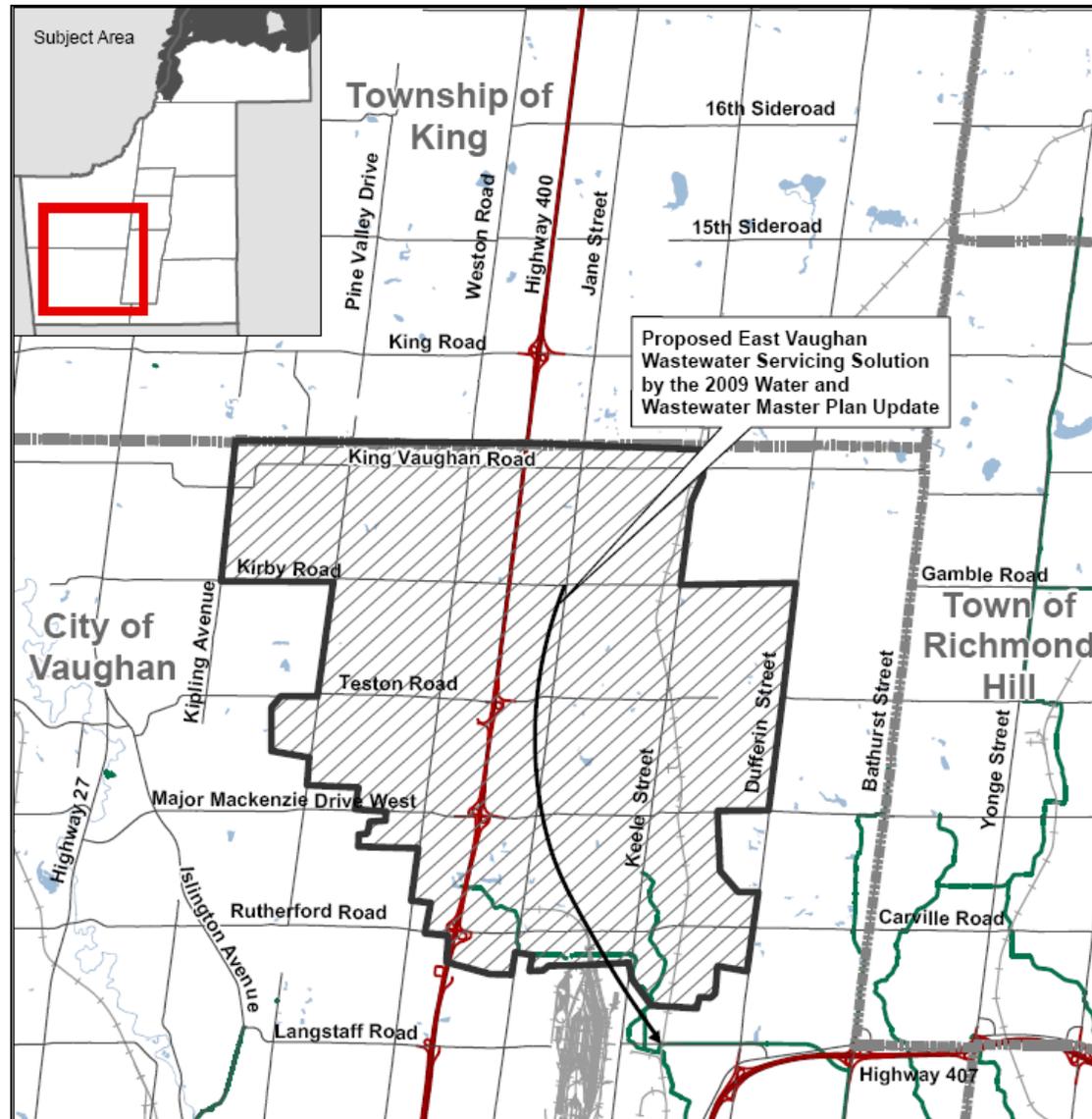


2009 Master Plan Update – Water

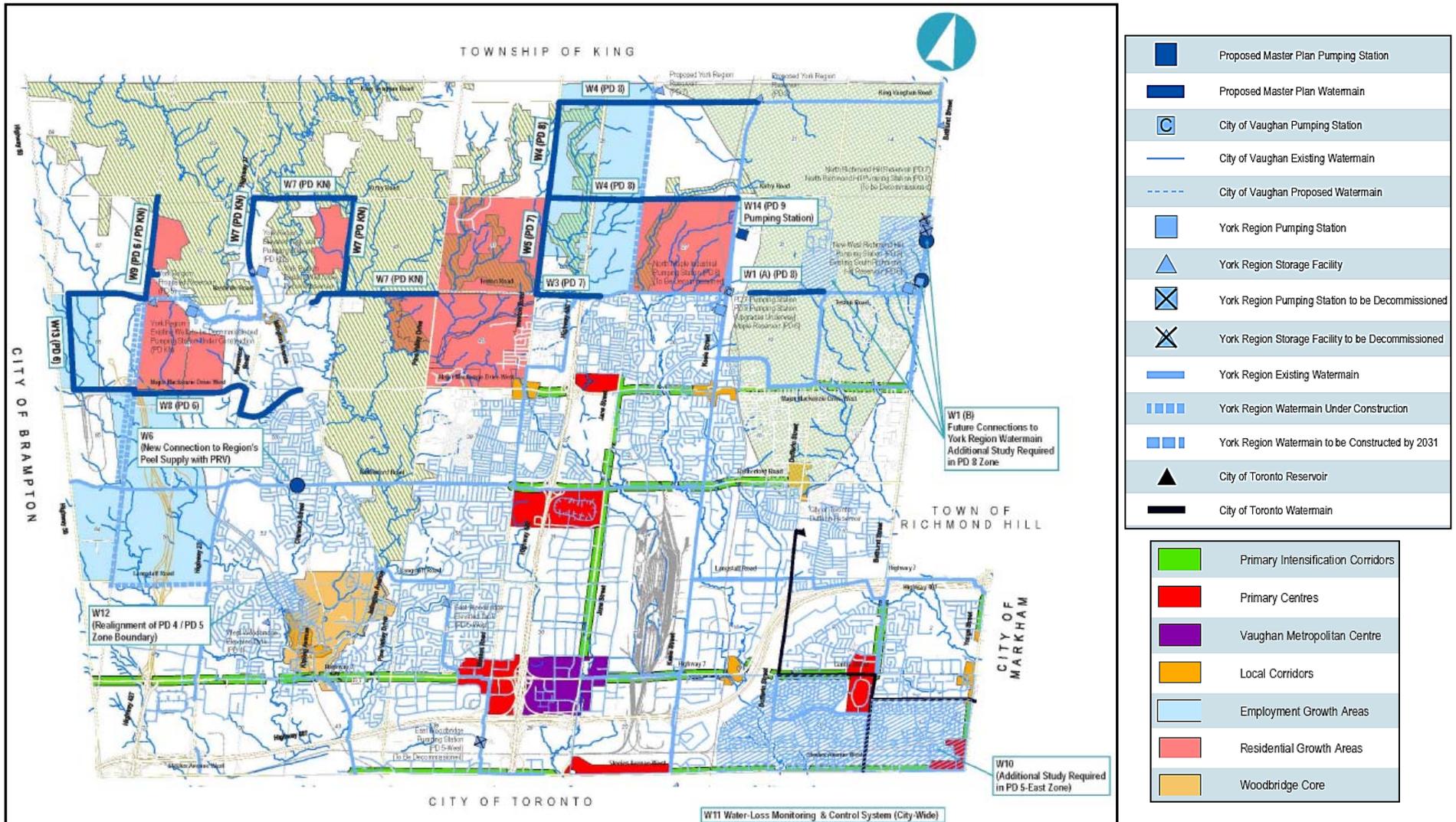


Proposed infrastructure requirements as identified by the 2009 Water and Wastewater Master Plan Update

2009 Master Plan Update – Wastewater

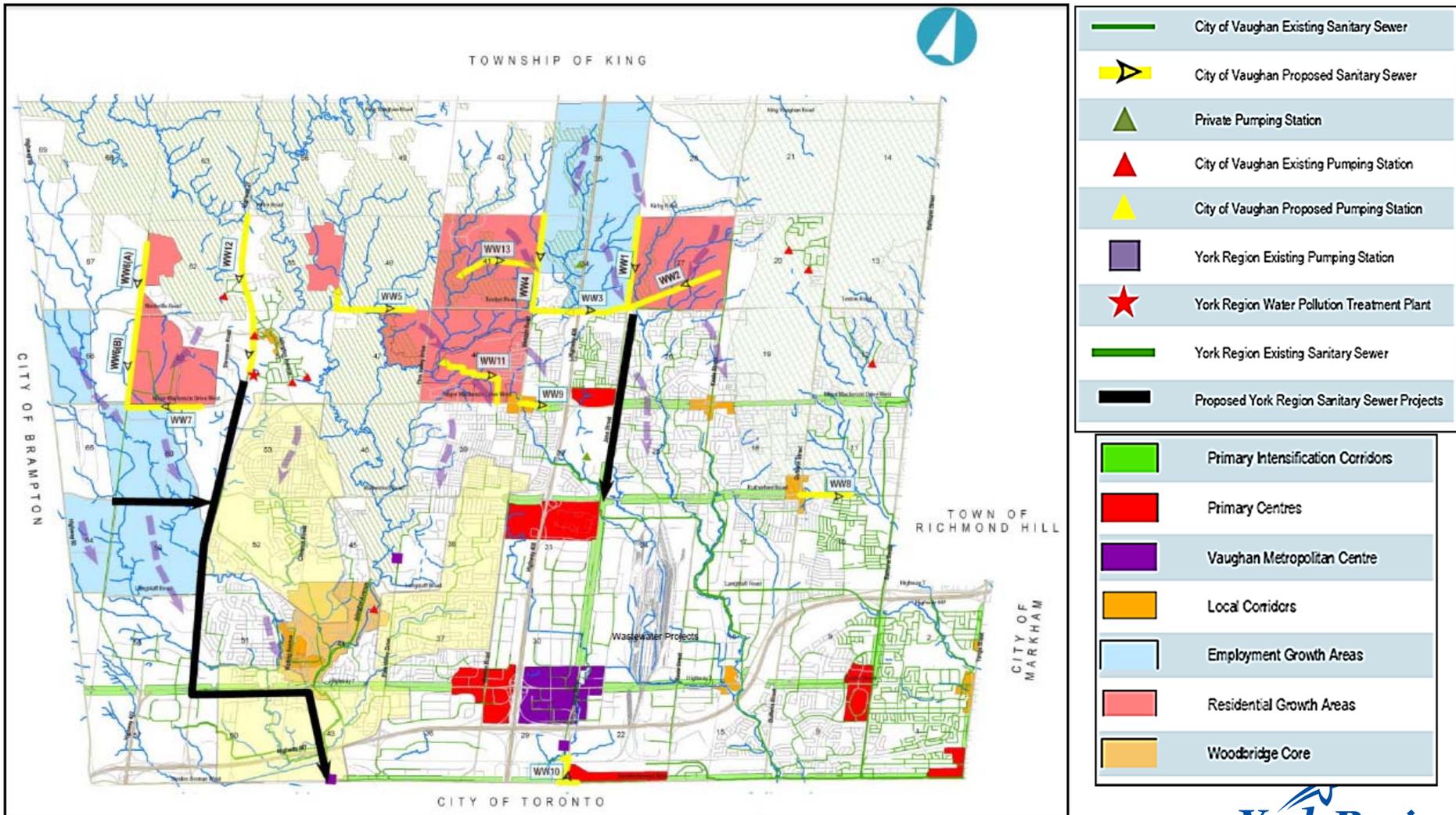


City of Vaughan Master Plan - Water



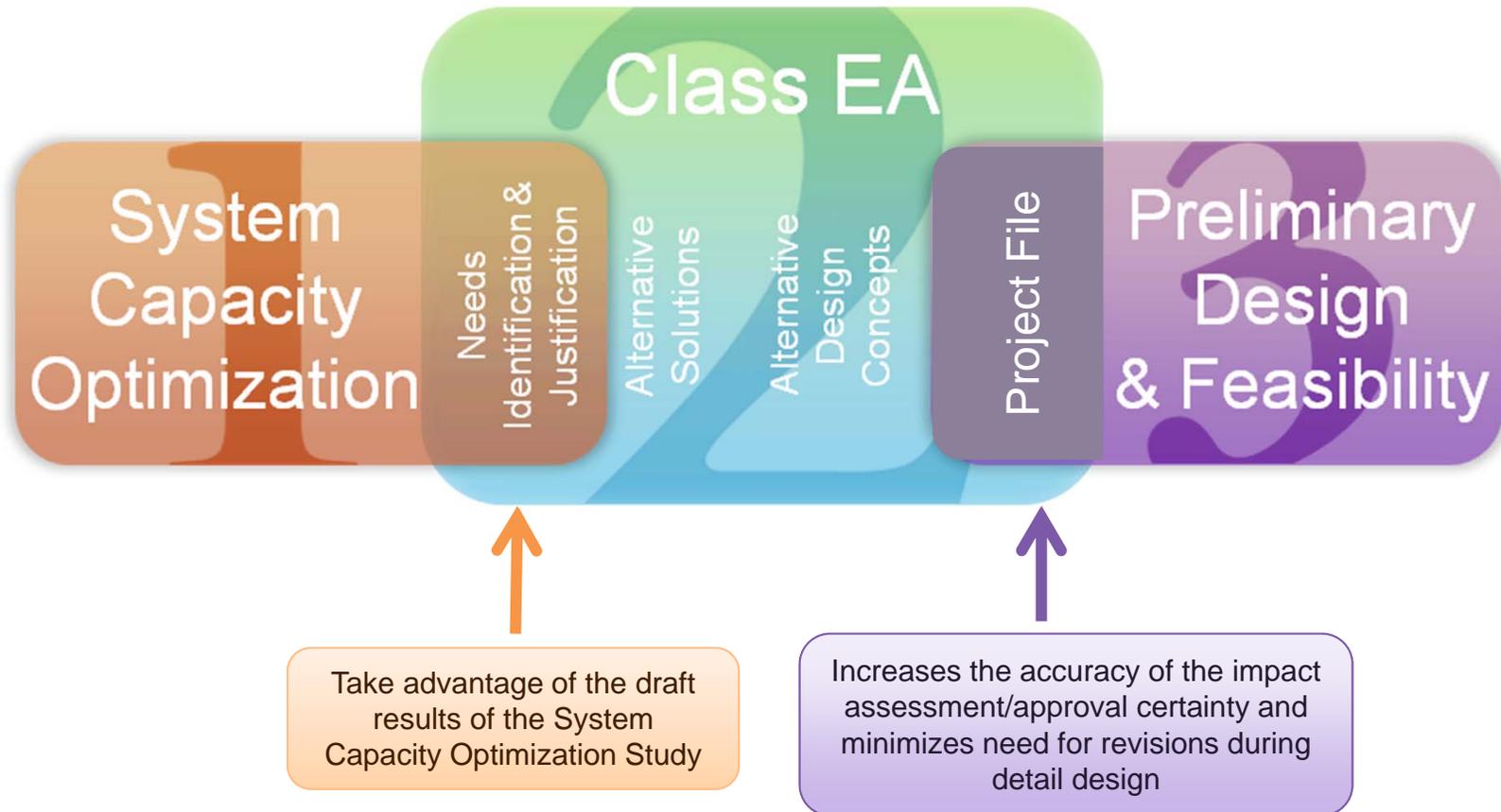
(Source: City-Wide Water and Wastewater Master Plan: <http://www.vaughan.ca>)

City of Vaughan Master Plan- Wastewater



(Source: City-Wide Water and Wastewater Master Plan: <http://www.vaughan.ca>)

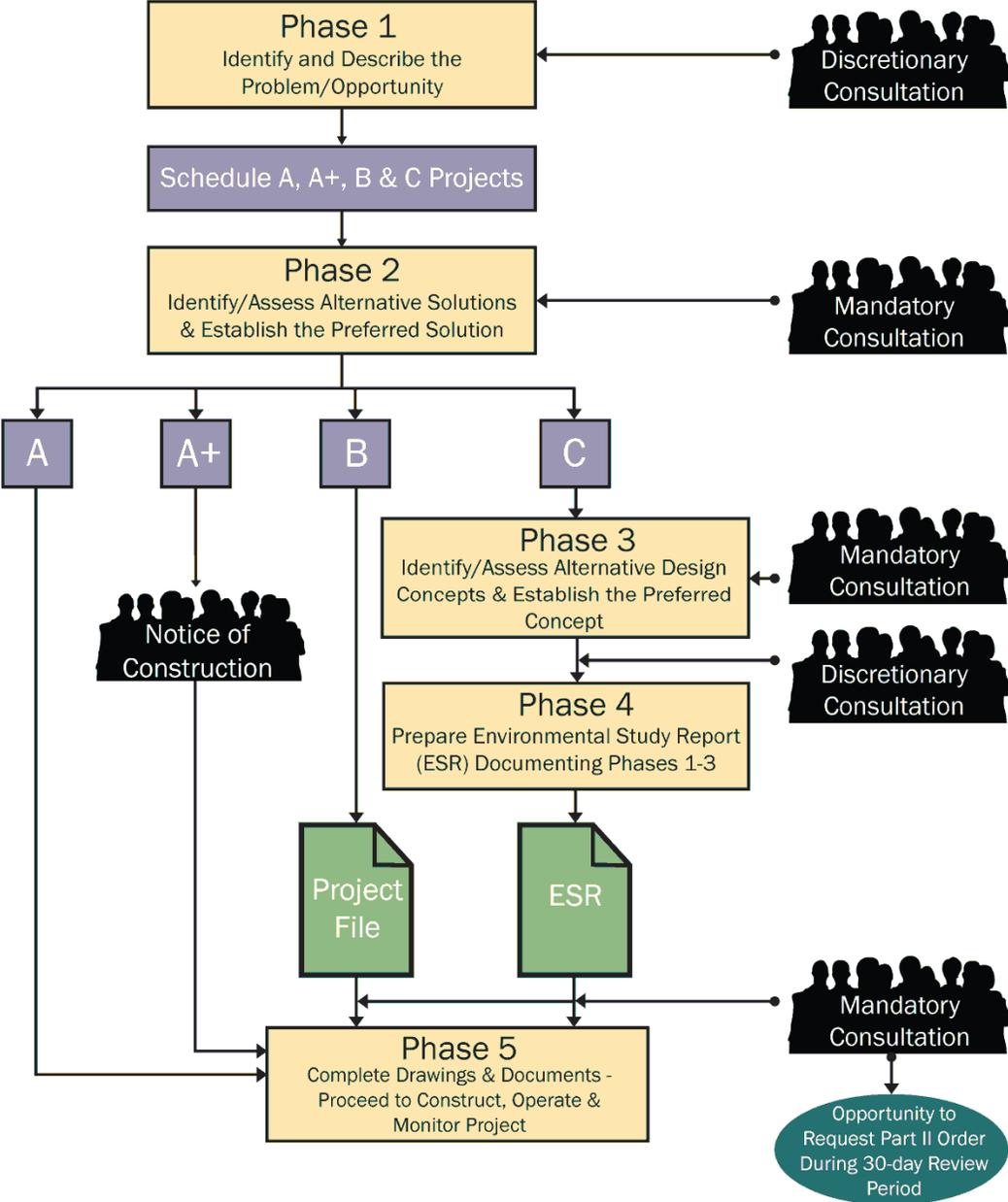
Overall Project Approach



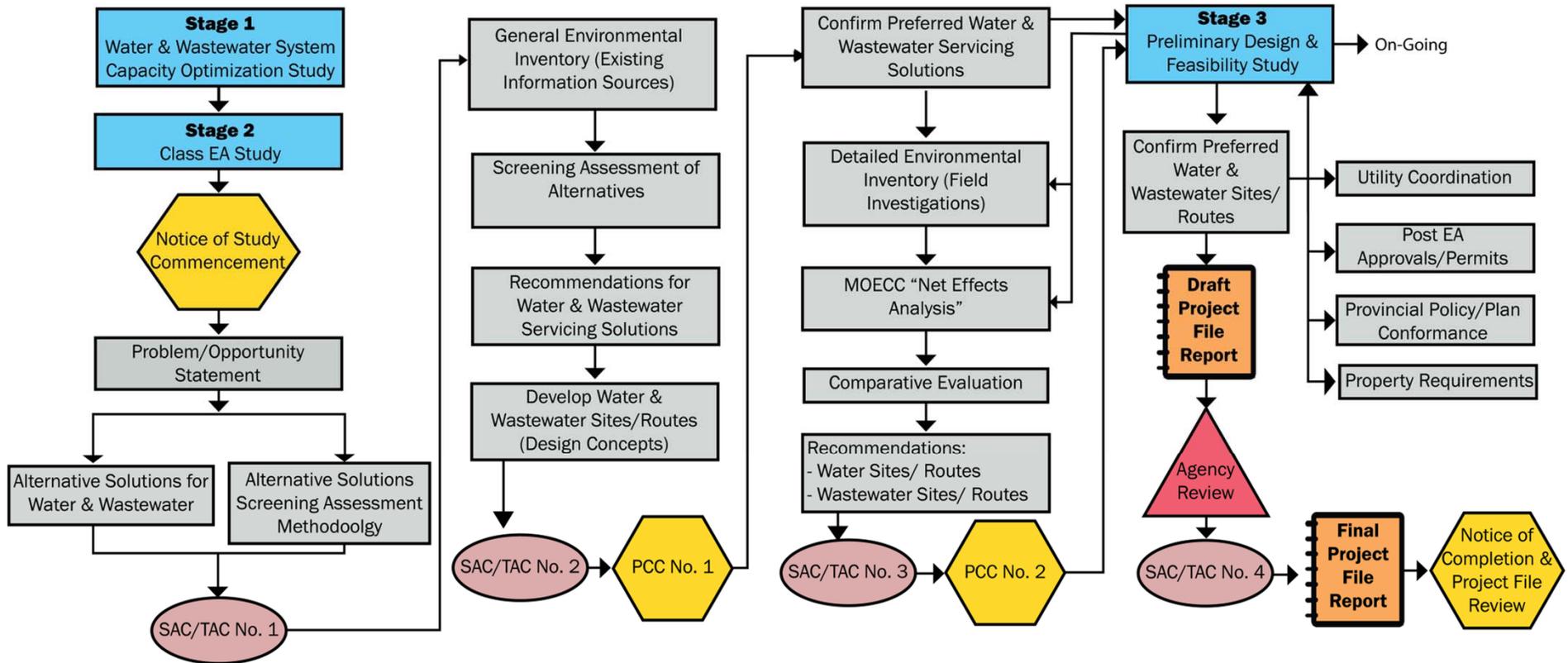
Project Stages and Schedule

PROJECT STAGES AND MILESTONES	MILESTONE DATES
<u>Stage 1:</u> Water and Wastewater System Capacity Optimization Study	Jan to Dec 2014
<u>Stage 2:</u> Class EA Study Public Consultation Centre #1 Public Consultation Centre #2	Jun 2014 to Mar 2016 Feb 2015 Sep 2015
<u>Stage 3:</u> Preliminary Design and Feasibility Study	May 2015 to Apr 2016

Municipal Class EA Process

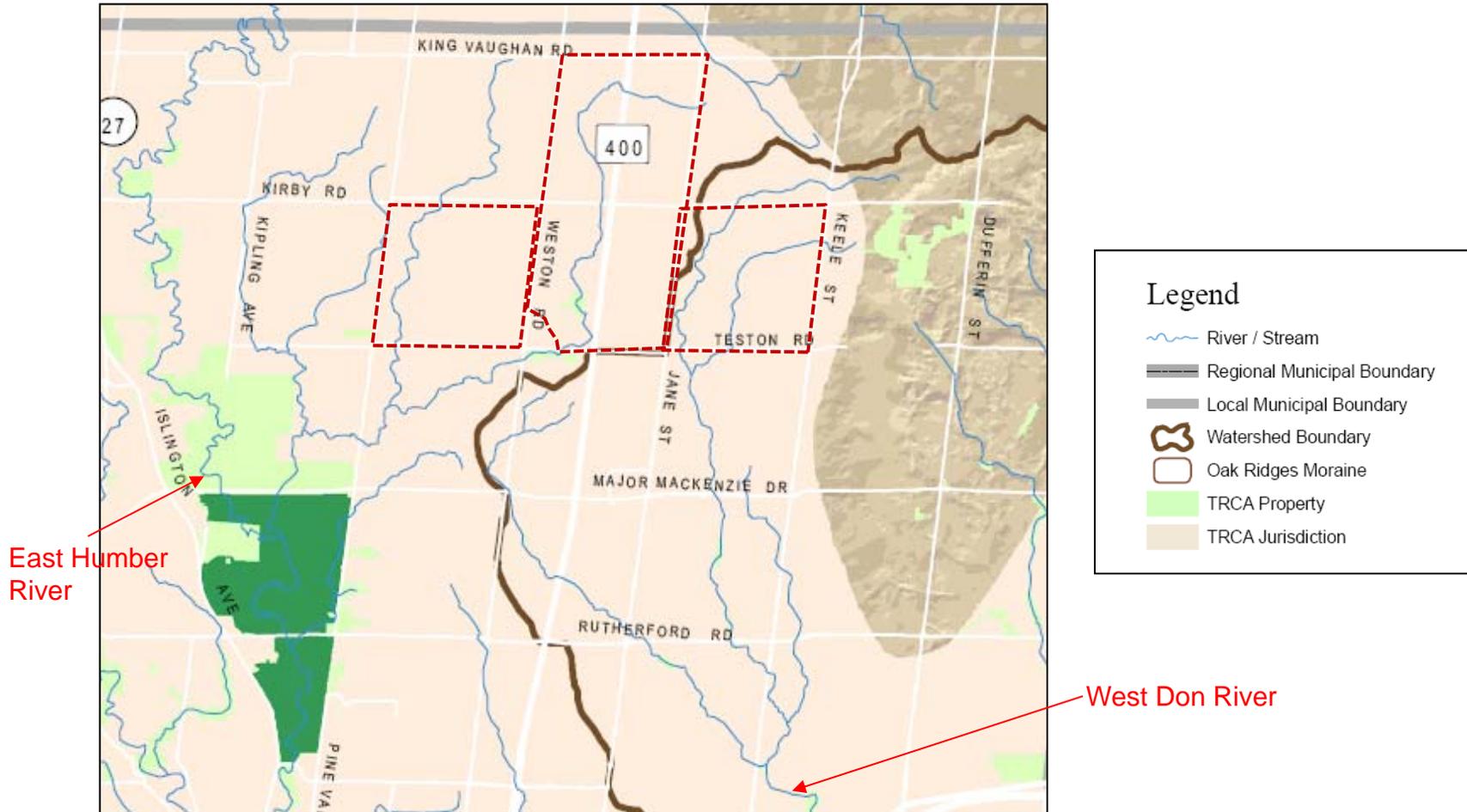


Project Road Map



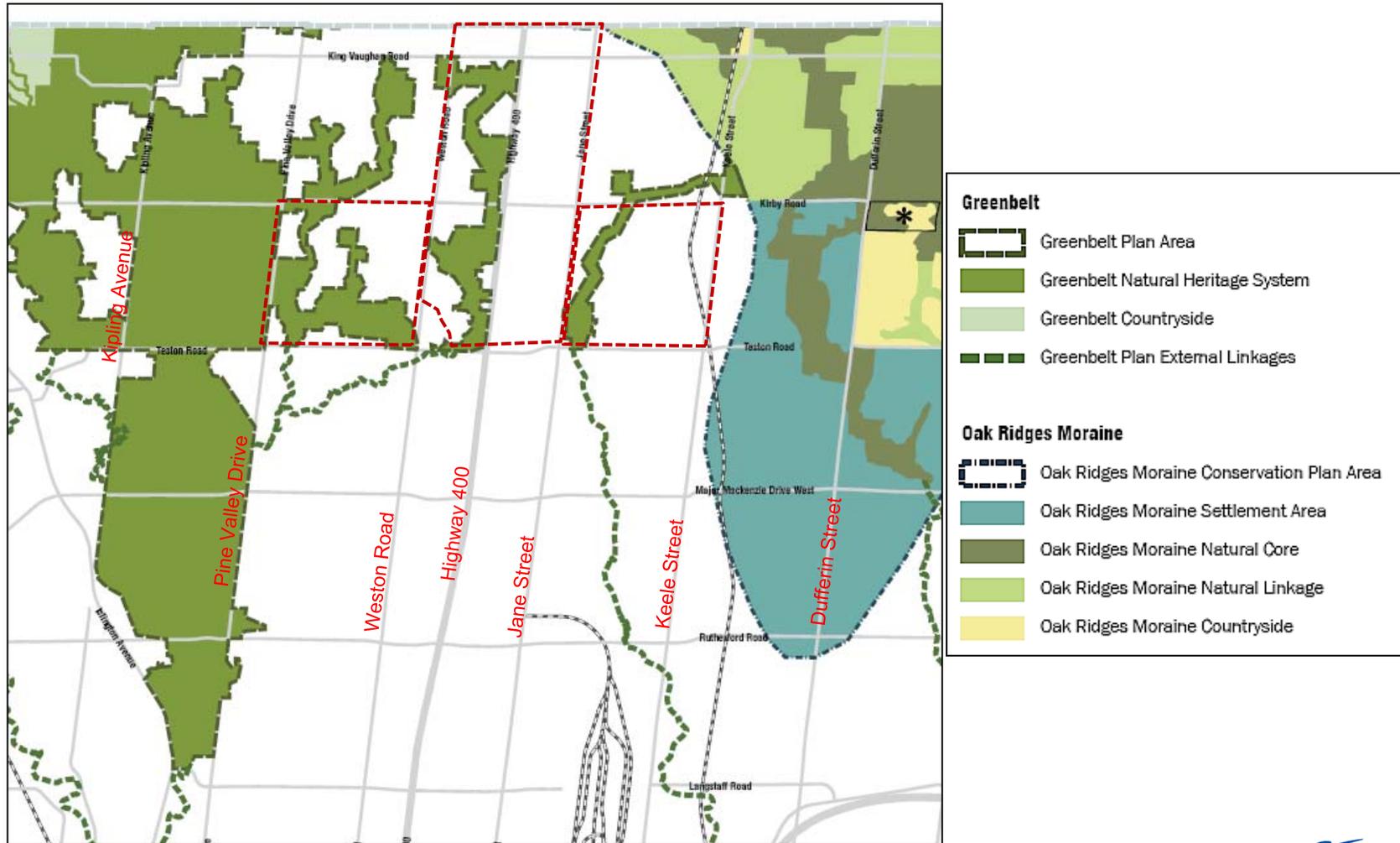
Study Area Characteristics

East Humber River and West Don River



(Source: Toronto and Region Conservation Authority Website: www.trca.on.ca)

Greenbelt and Oak Ridges Moraine



(Source: City of Vaughan Official Plan 2010: <http://www.vaughan.ca>)

TransCanada Pipelines



(Source: City of Vaughan Official Plan 2010: <http://www.vaughan.ca>)

MacMillan Rail Yard

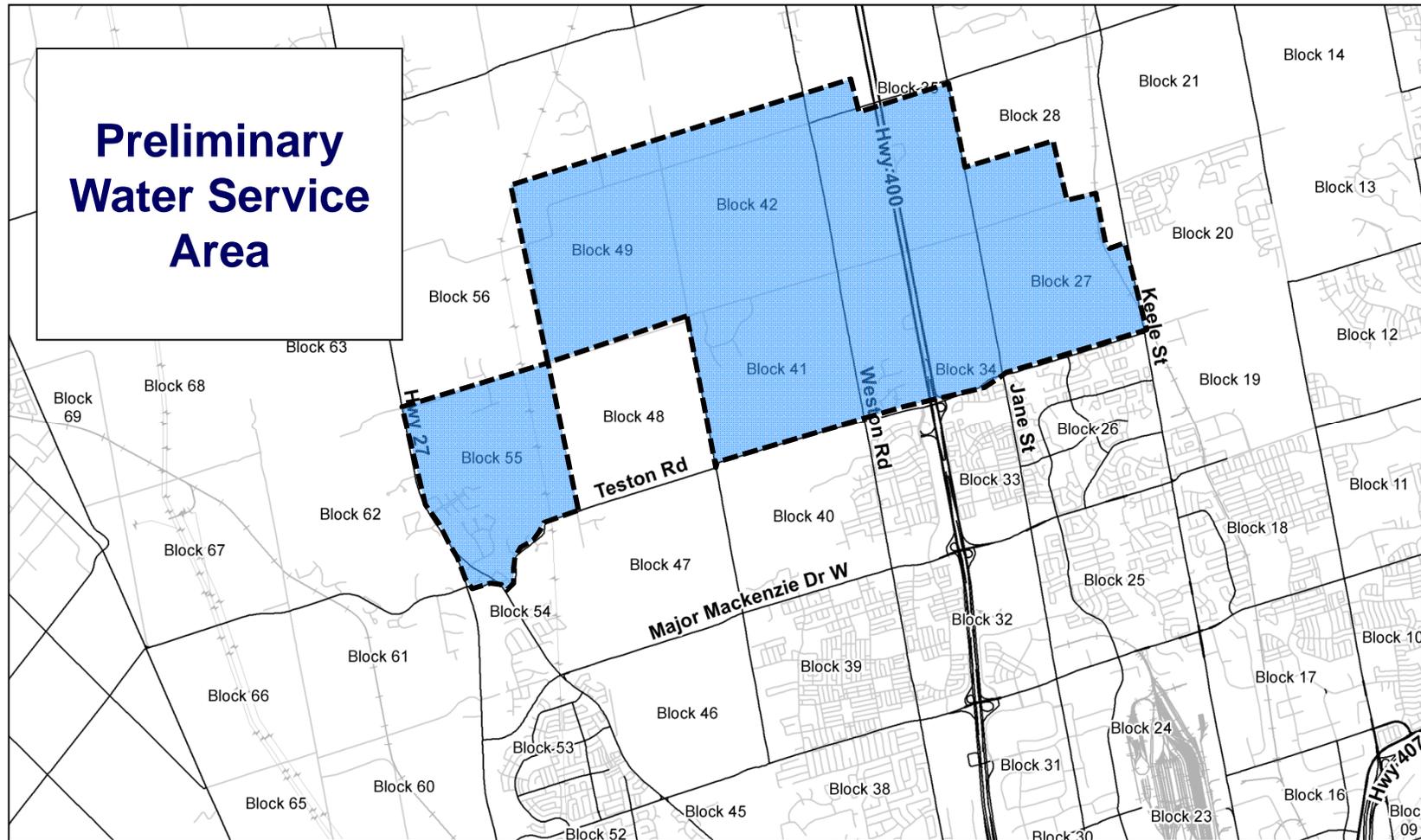


BREAK

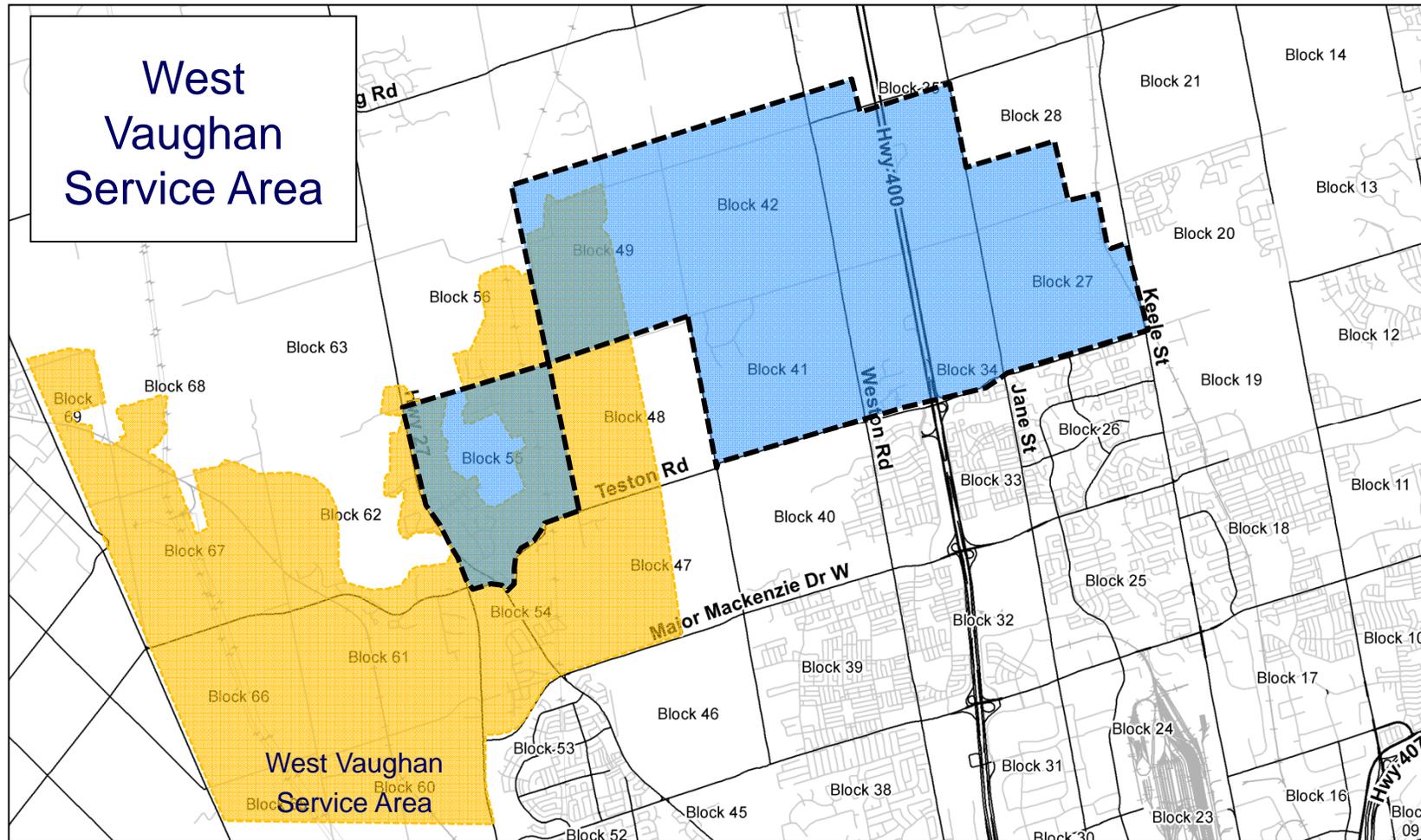
4. Project Status

Water Service Area Refinement

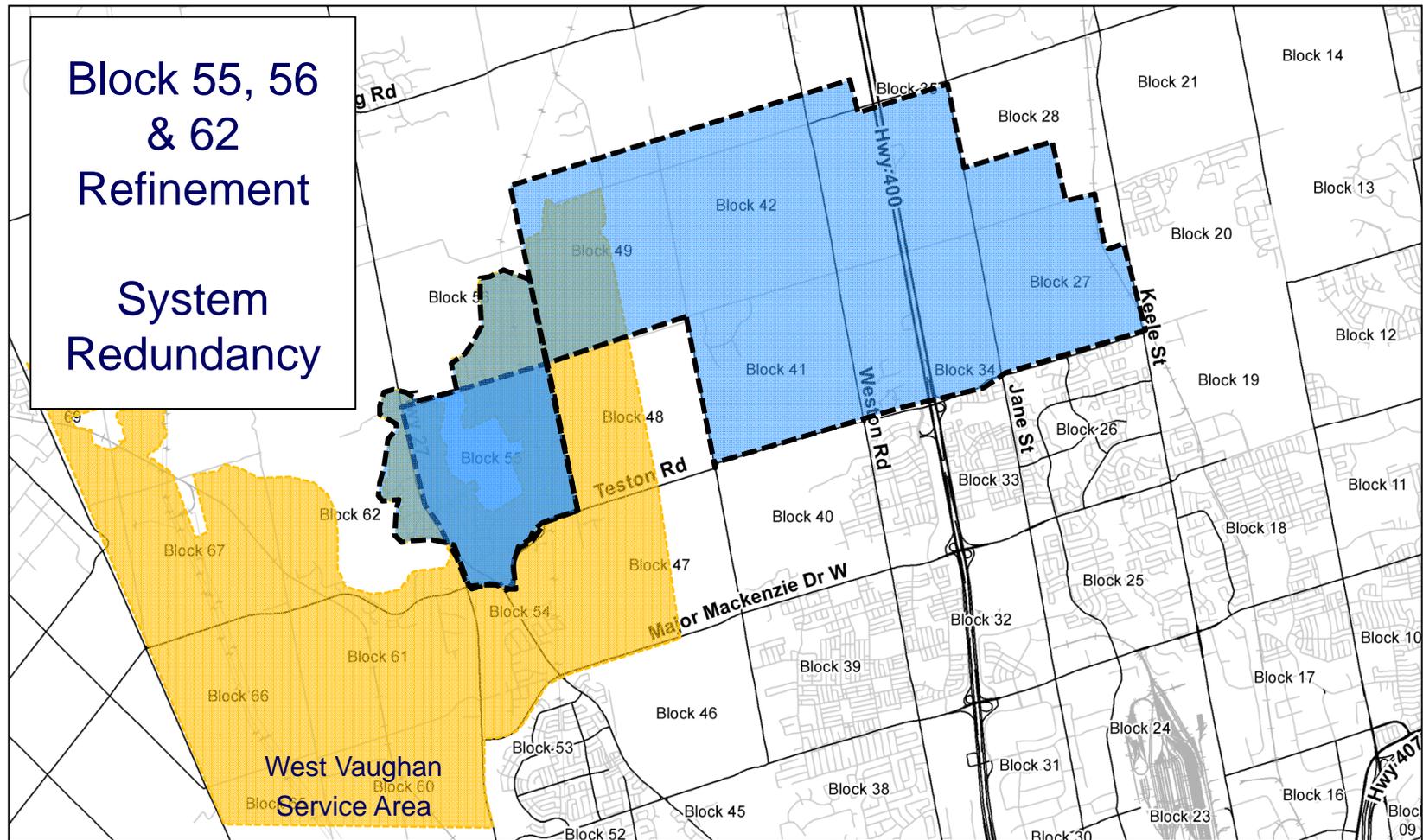
Water Service Area Refinement



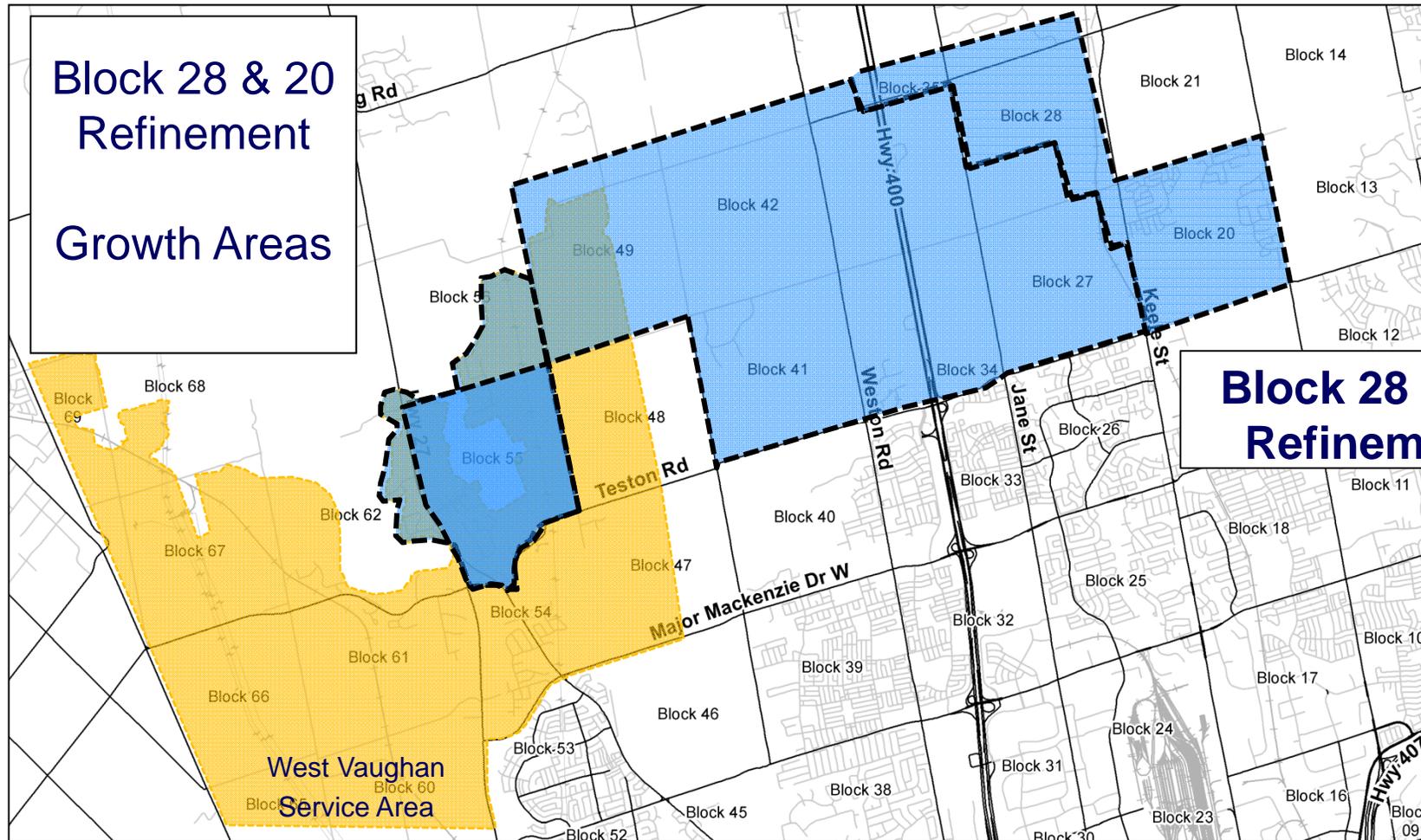
Water Service Area Refinement



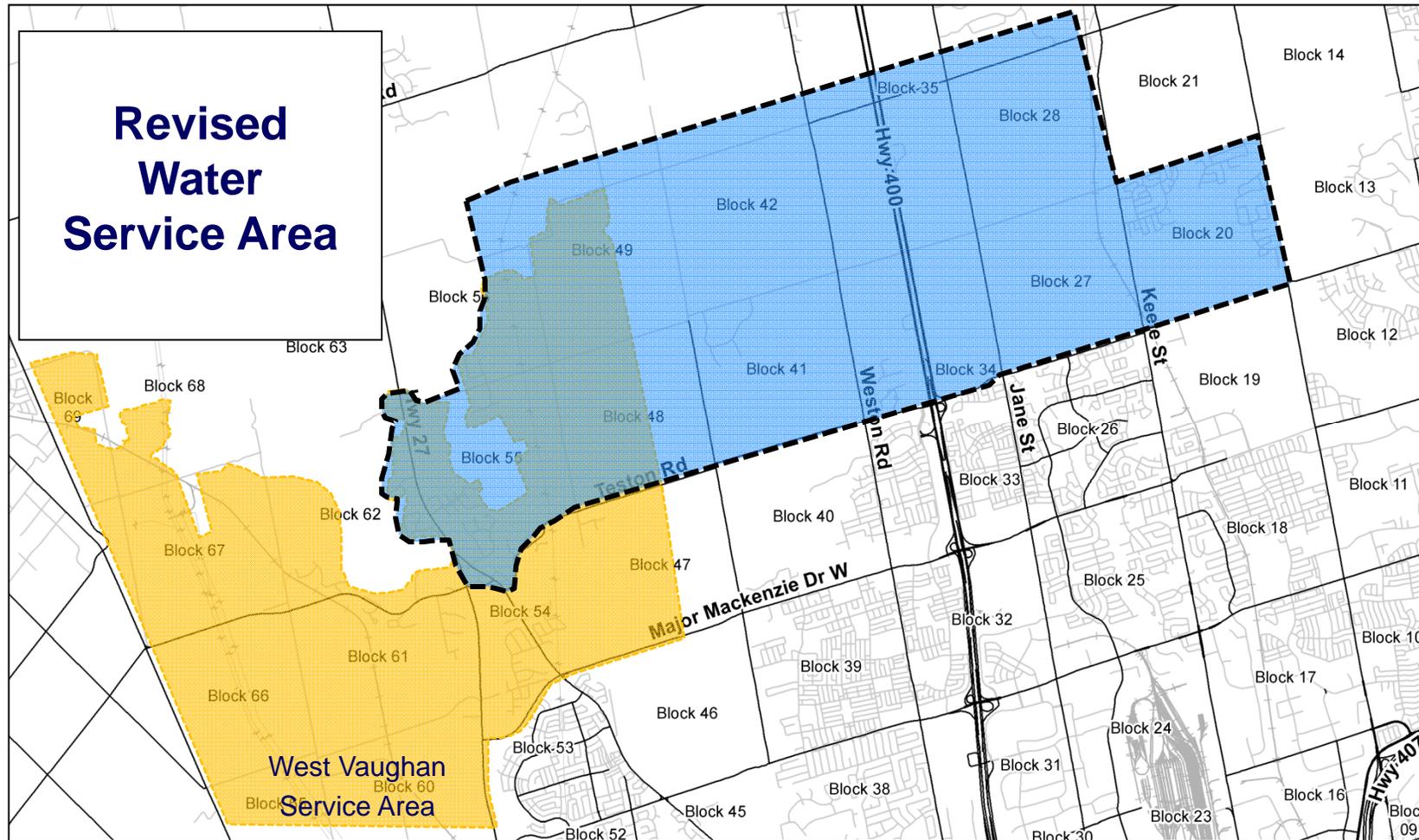
Water Service Area Refinement



Water Service Area Refinement

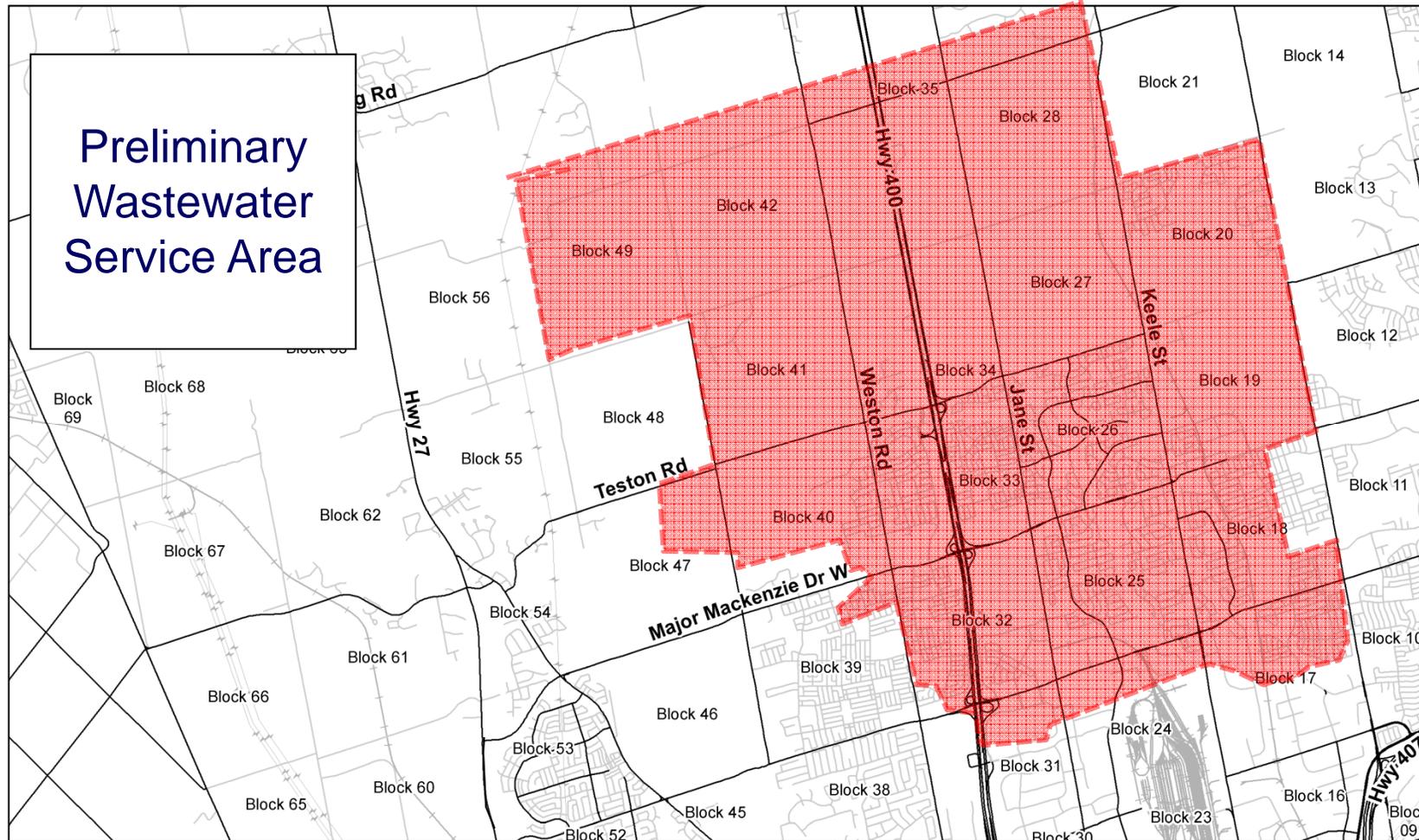


Water Service Area Refinement

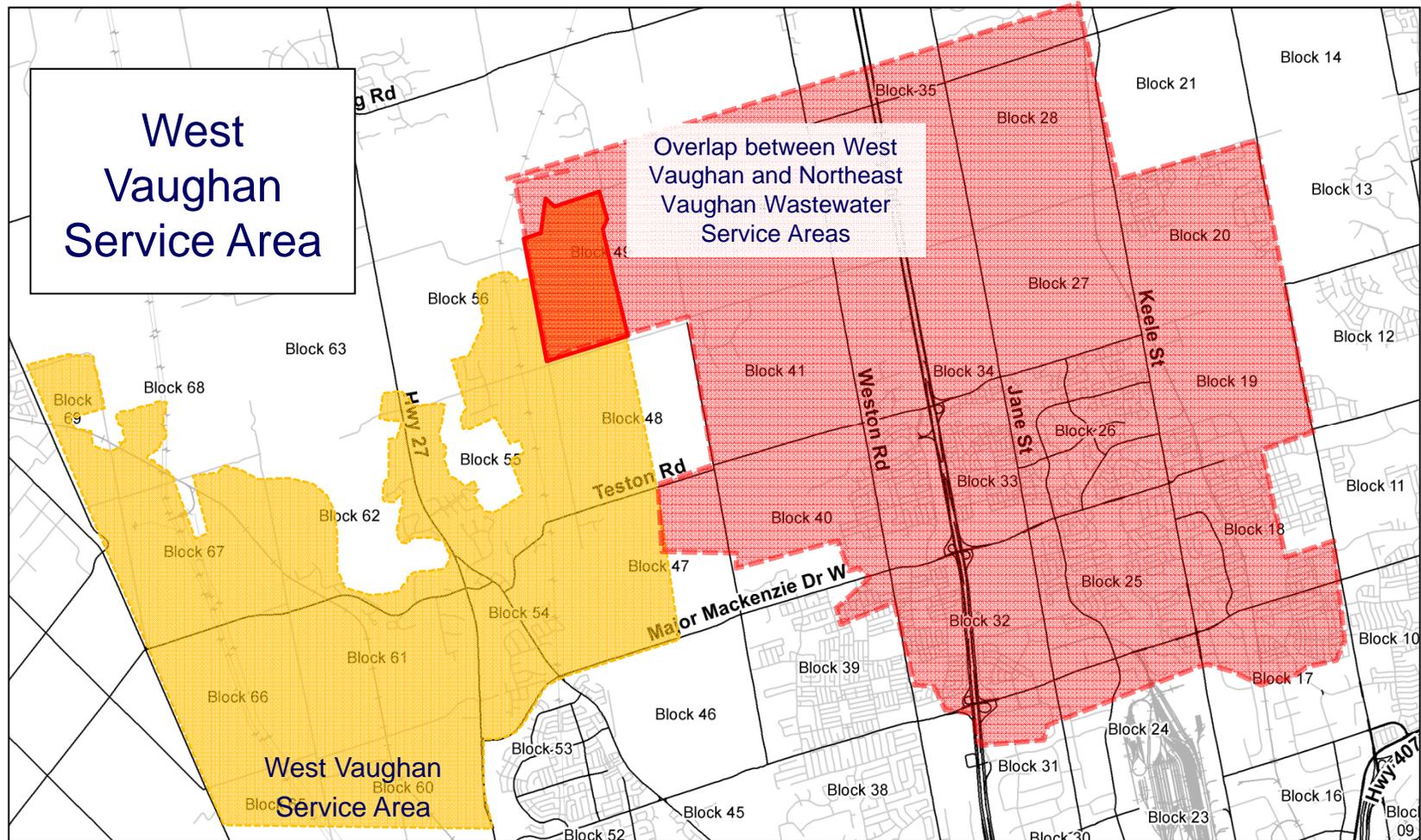


Wastewater Service Area Refinement

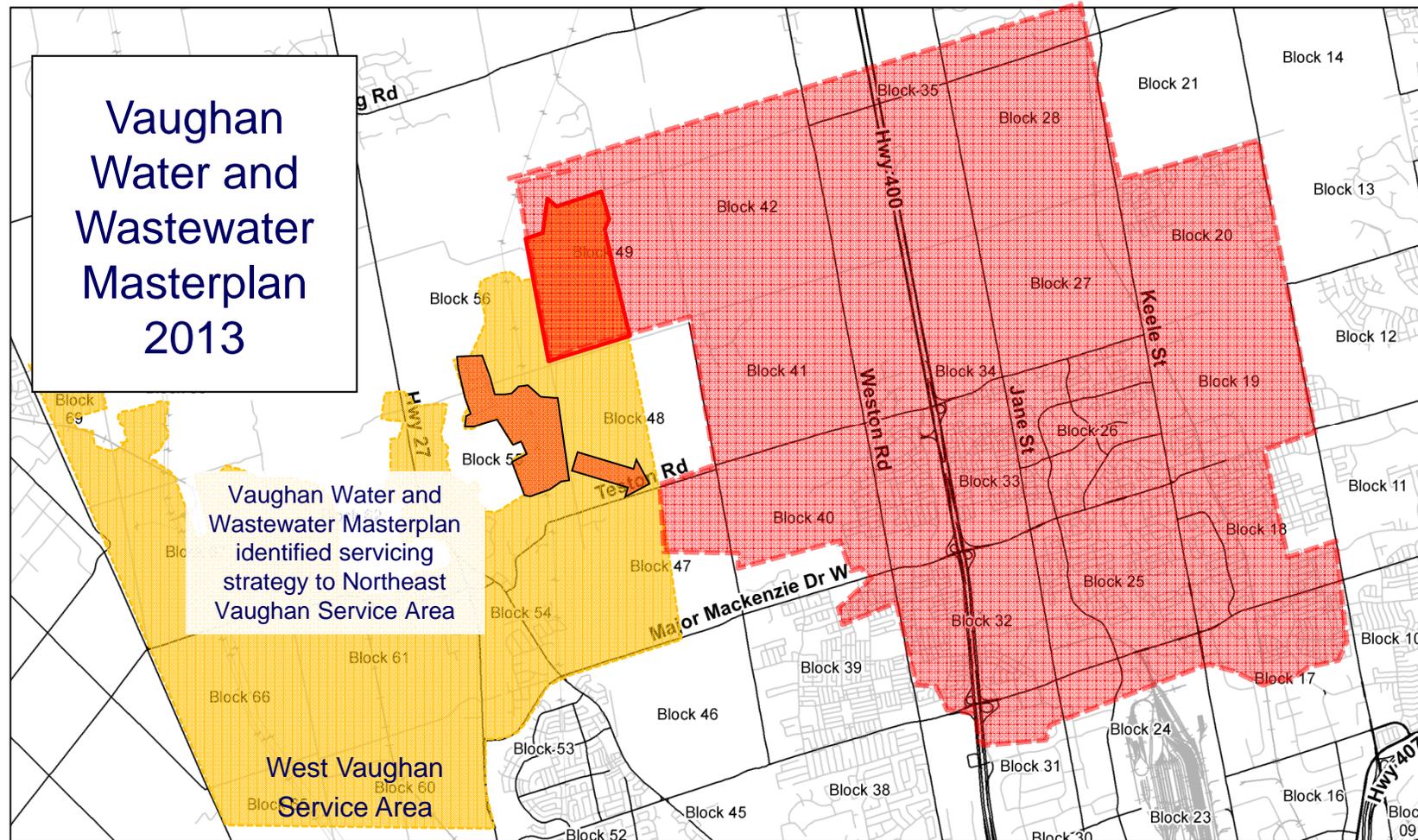
Wastewater Service Area Refinement



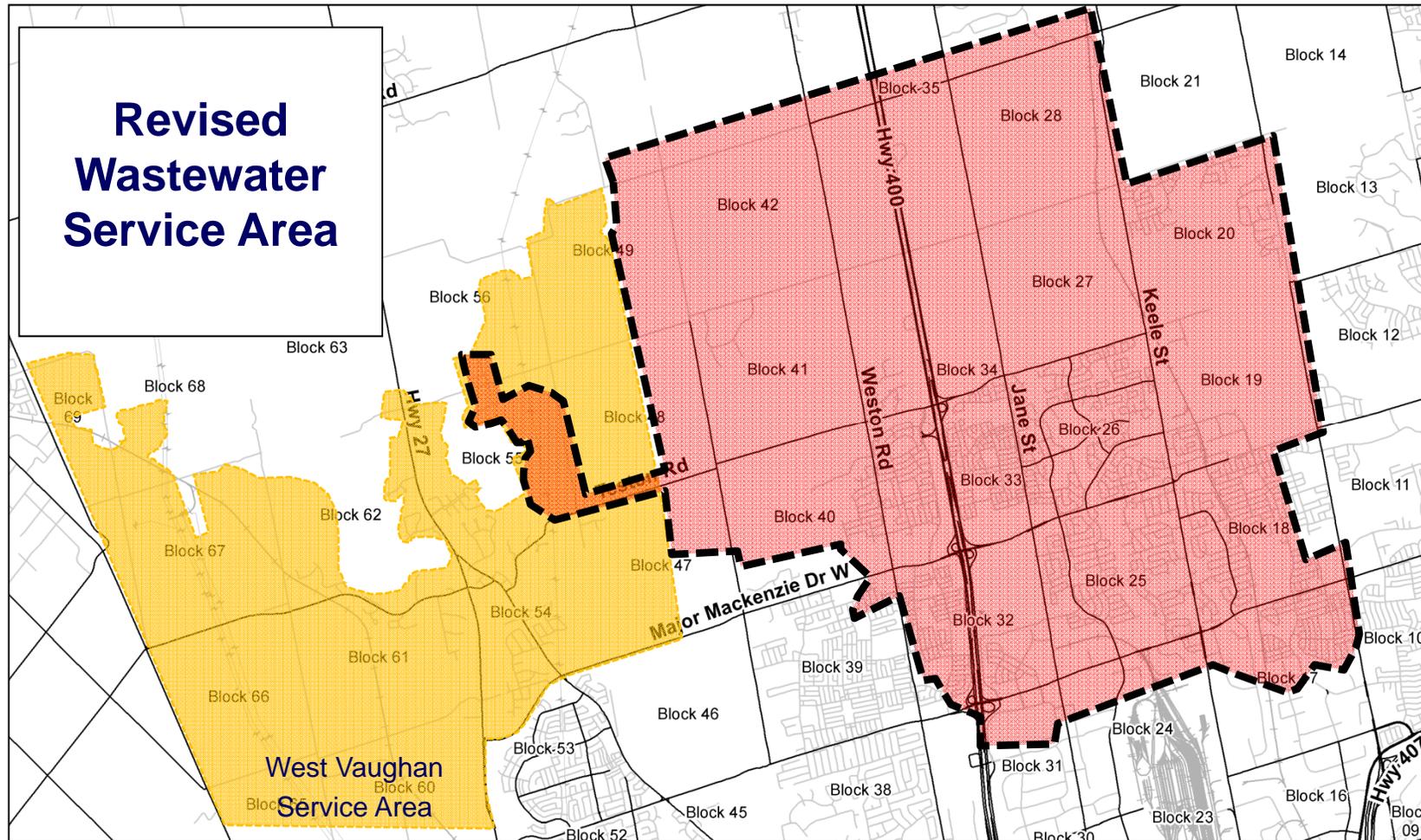
Wastewater Service Area Refinement



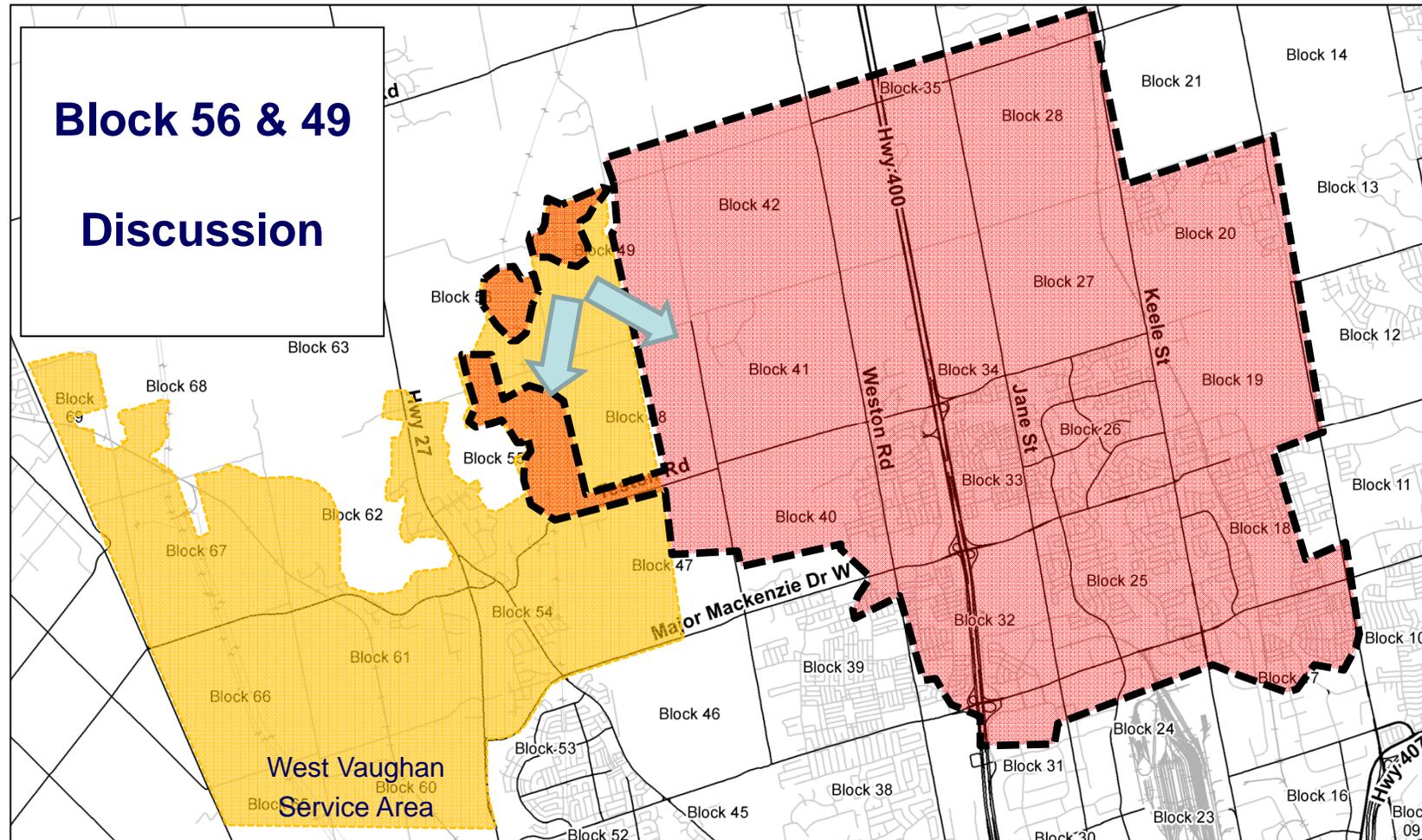
Wastewater Service Area Refinement



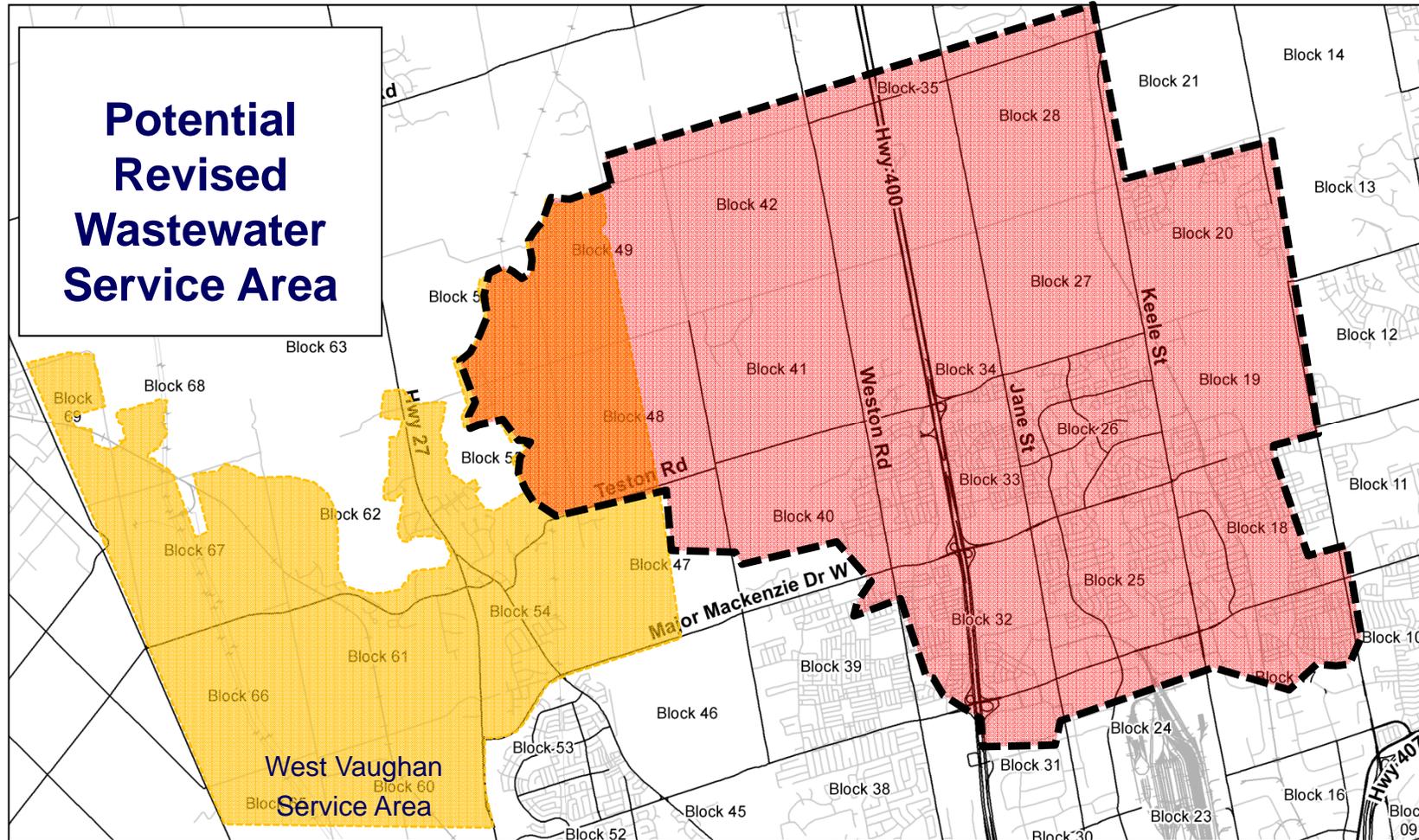
Wastewater Service Area Refinement



Wastewater Service Area Refinement

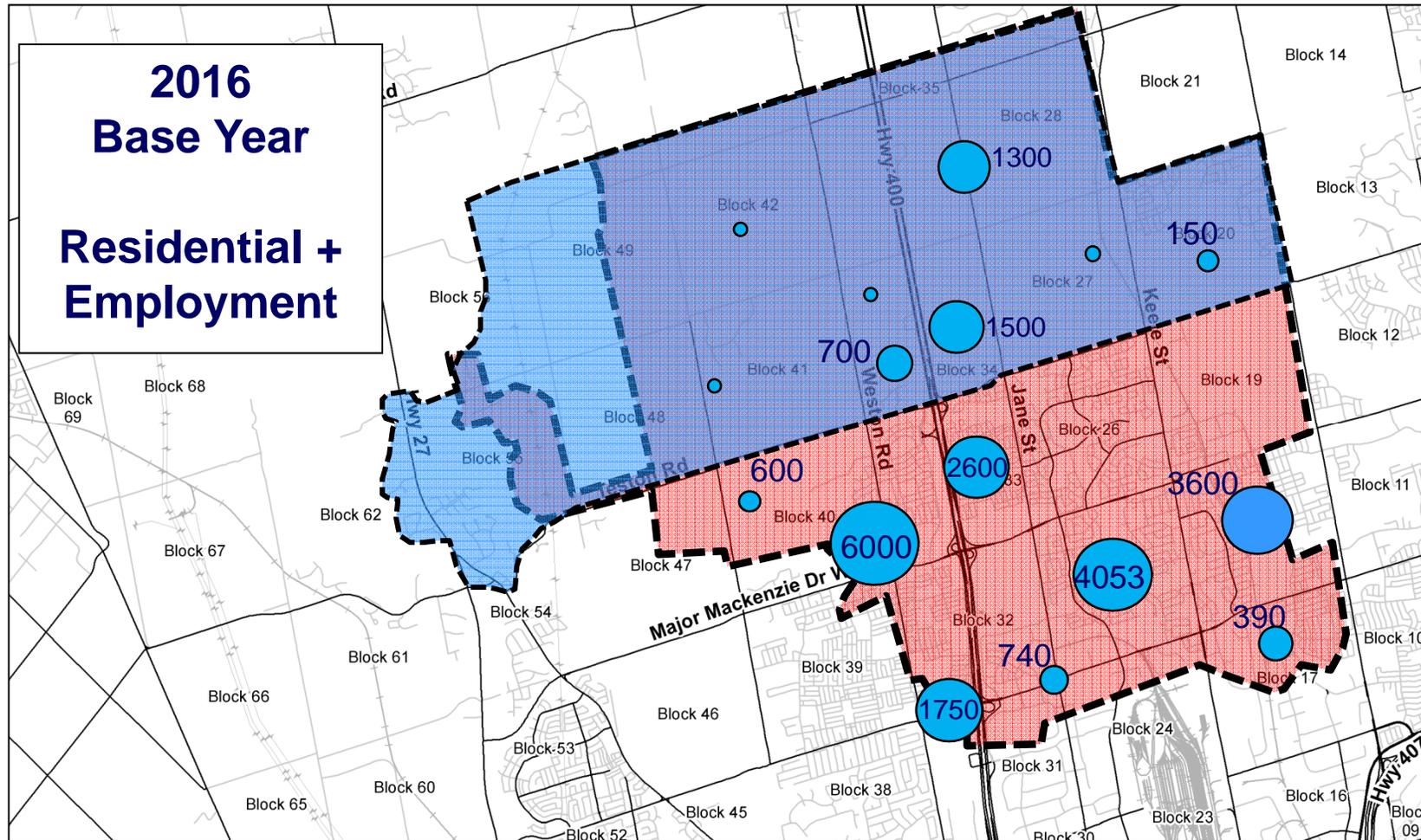


Wastewater Service Area Refinement

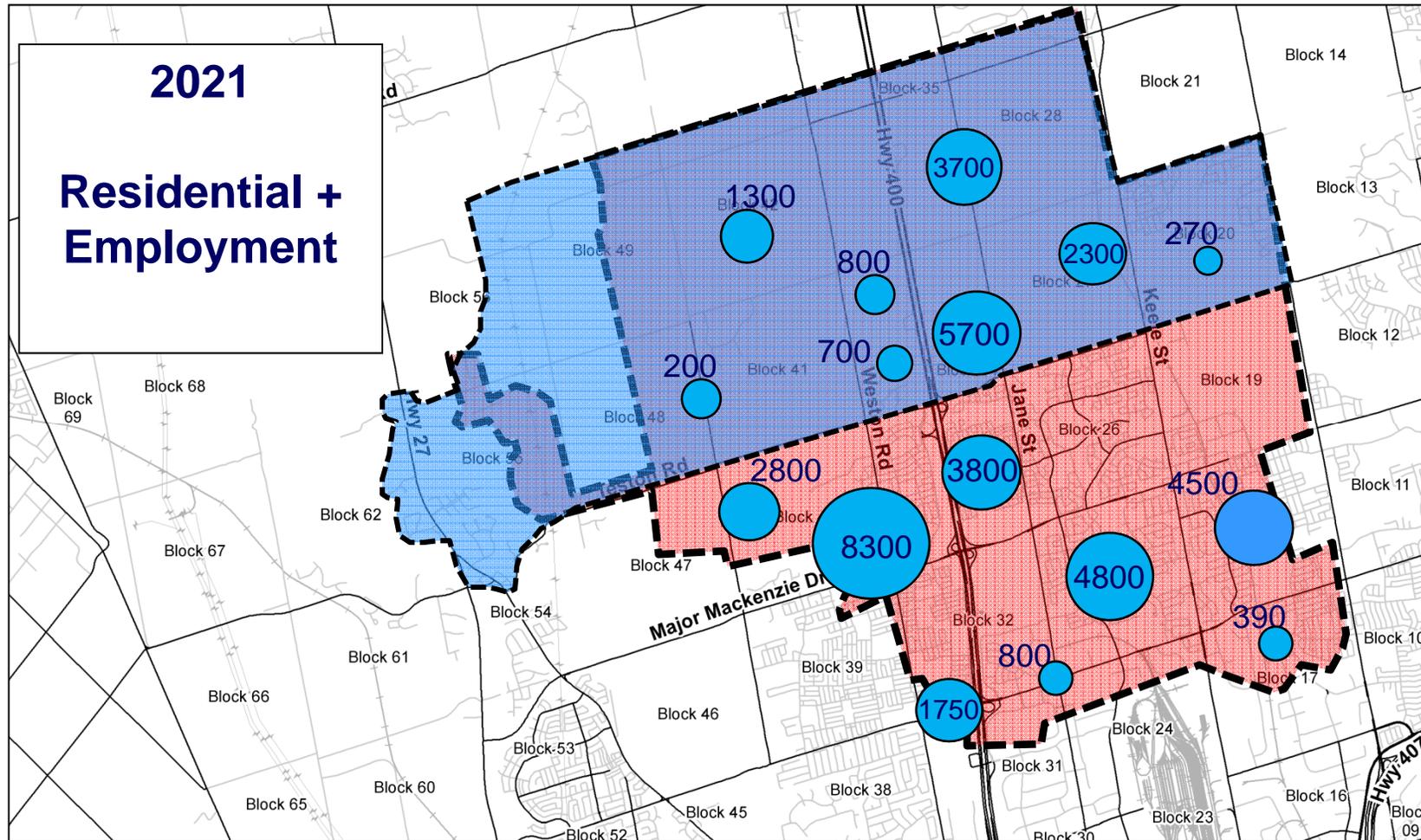


Anticipated Population By Traffic Zone

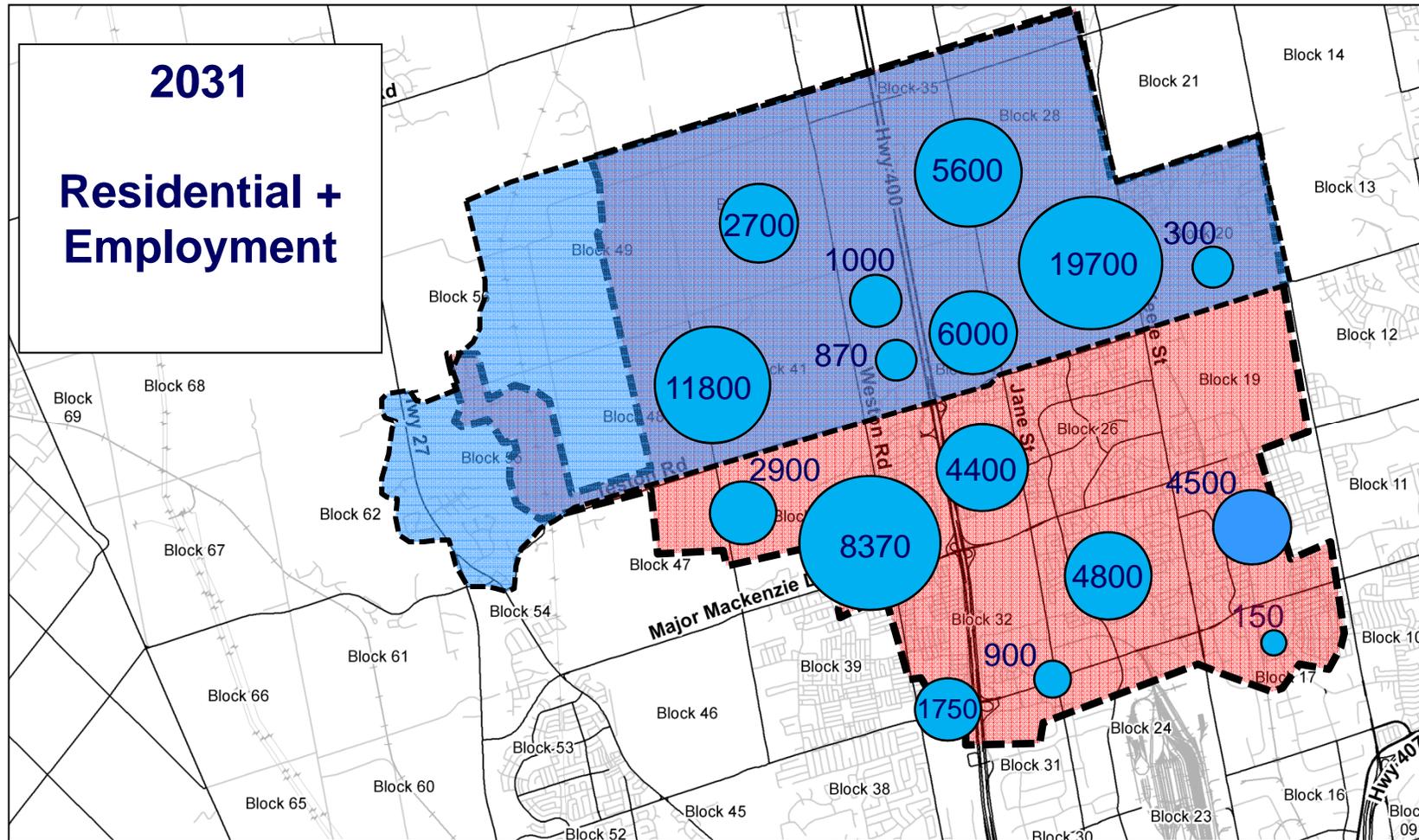
Anticipated Population by Traffic Zone



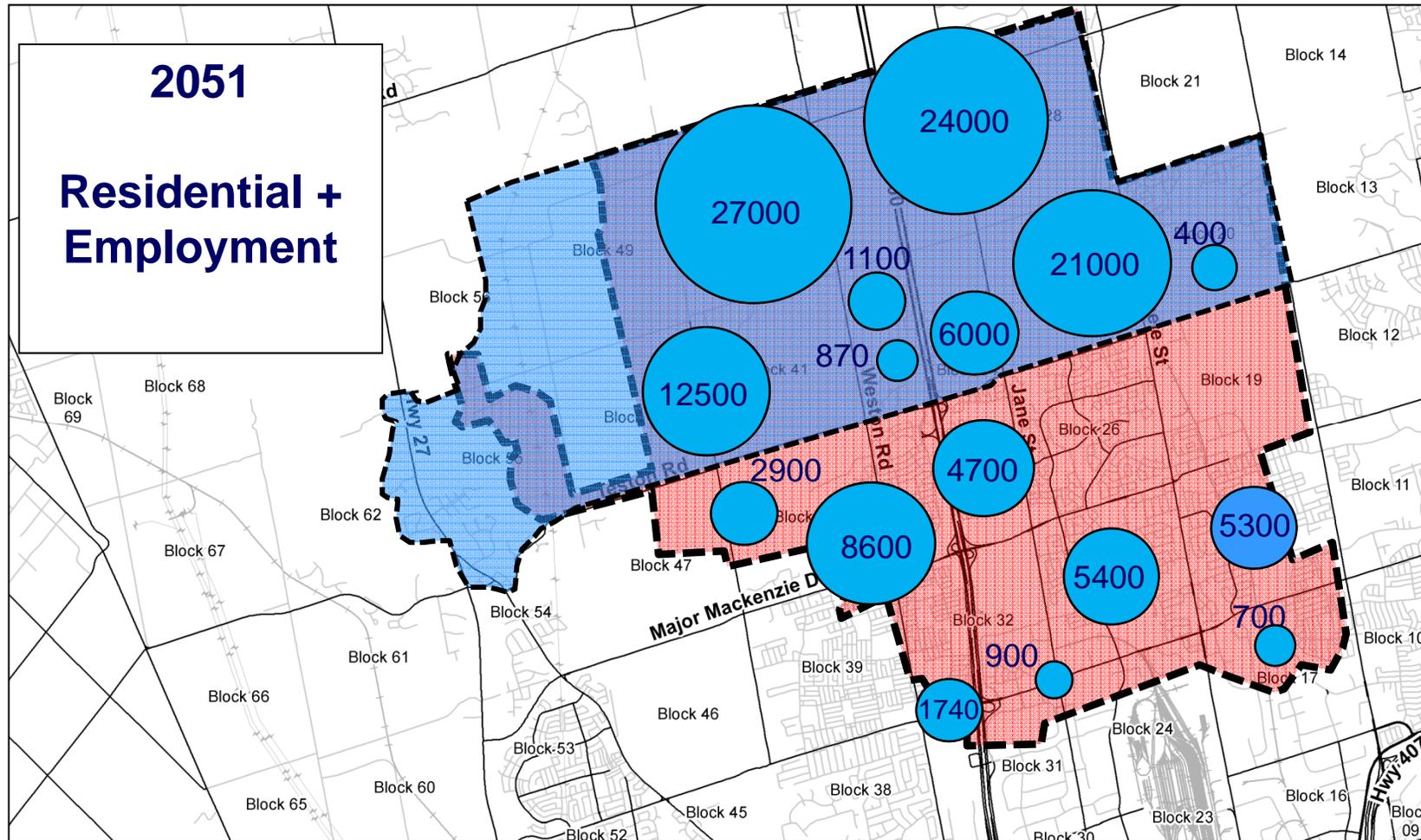
Anticipated Population by Traffic Zone



Anticipated Population by Traffic Zone



Anticipated Population by Traffic Zone



Stage 1 – Optimization Study

How can we service growth?

Optimization



Upgrades/
Enhancements



Construct New
Infrastructure



How can we service growth?

Optimization



Upgrades/ Enhancements



Construct New Infrastructure



- Water Conservation
- Inflow and Infiltration Reduction Programs
- Interim Sharing of Water Storage Between Service Areas
- Maximize the Capacity of Existing Infrastructure

How can we service growth?

Optimization



Upgrades/ Enhancements



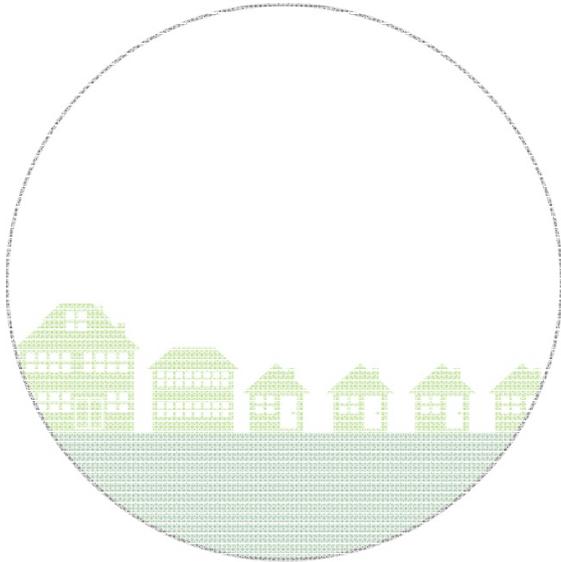
Construct New Infrastructure



- Completed computer modelling of the existing water and wastewater systems
- Identified preliminary optimization opportunities
- Currently "ground truthing" opportunities

How can we service growth?

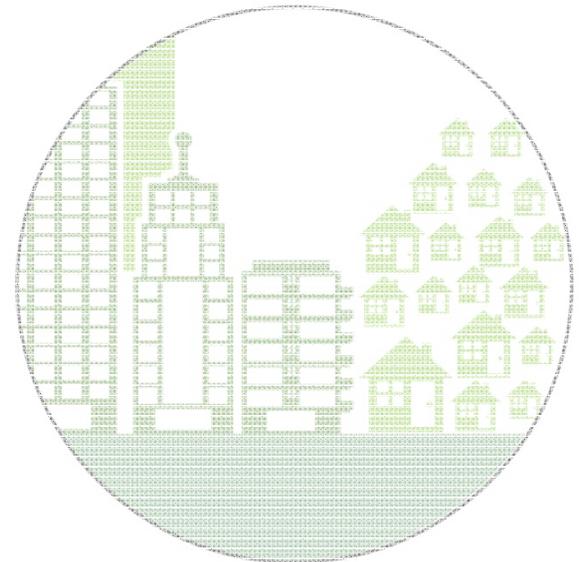
Optimization



Upgrades/
Enhancements



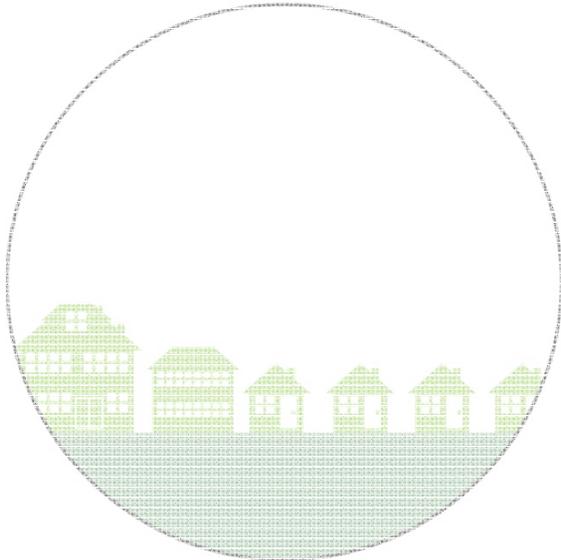
Construct New
Infrastructure



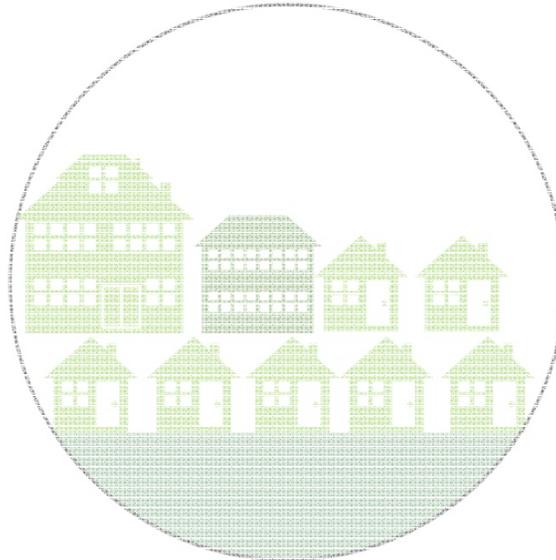
- Minor modifications of existing water and wastewater systems

How can we service growth?

Optimization



Upgrades/
Enhancements



Construct New
Infrastructure



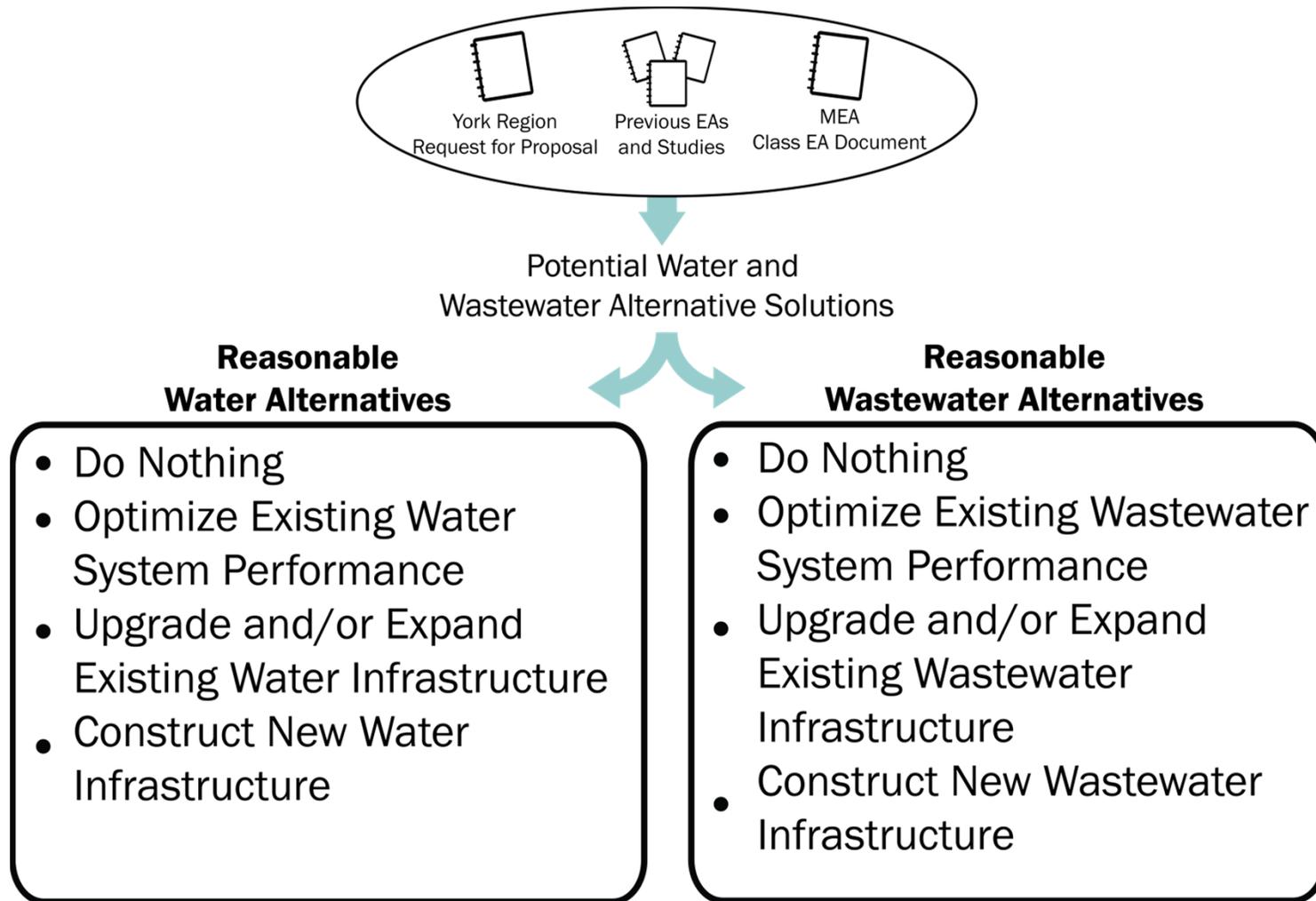
- New water distribution - watermain, pumping station and water storage
- New wastewater collection - sewer and pumping station

Stage 2 – Class EA Study

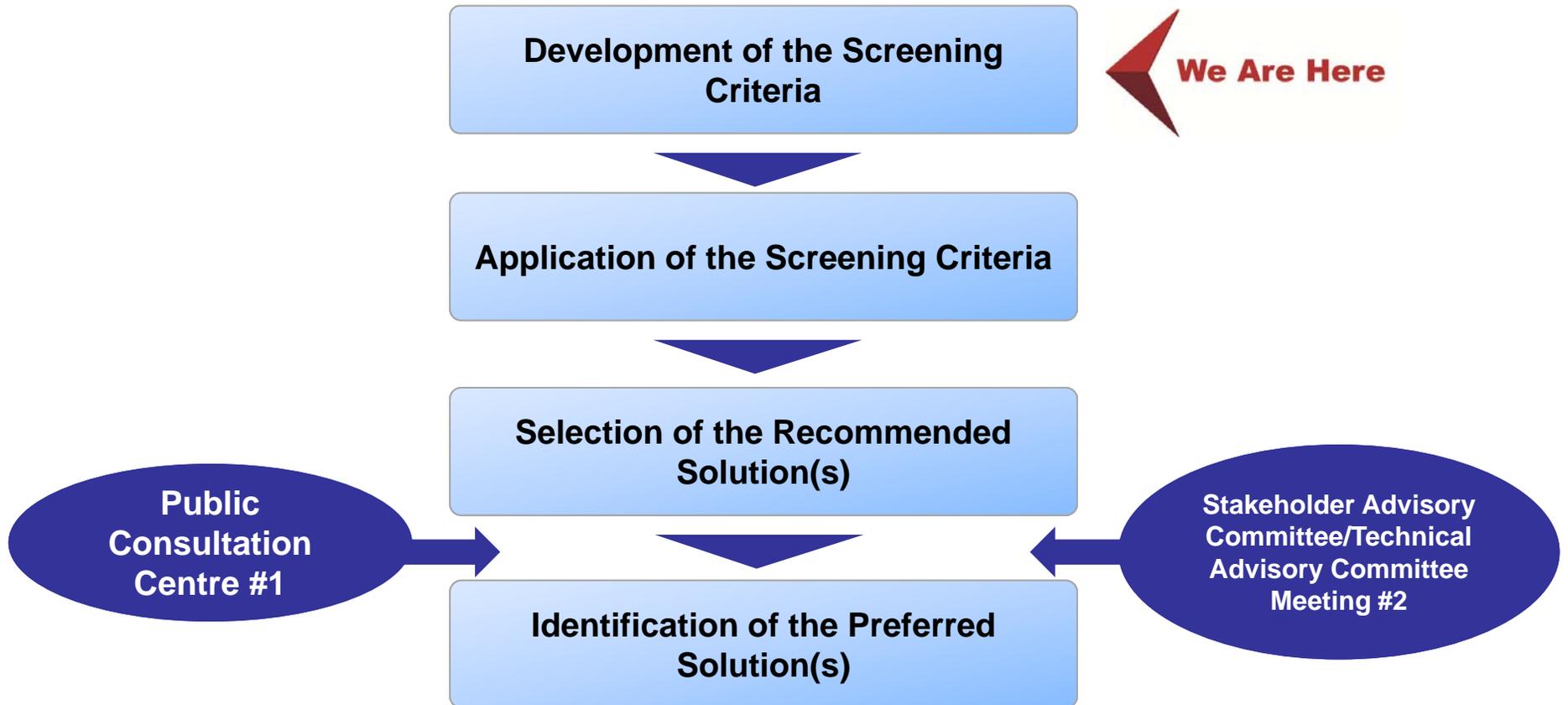
Draft Problem/Opportunity Statement

- The purpose of this project is to develop a water and wastewater solution for anticipated growth in Northeast Vaughan to the year 2051 reflecting York Region's *Sustainability Strategy* and in accordance with applicable environmental statutes. These statutes include but are not limited to the *Environmental Assessment Act*, 1990, *Oak Ridges Moraine Conservation Act*, 2001, and the *Greenbelt Act*, 2005.

Approach for Generating Alternative Solutions



Choosing a Preferred Solution

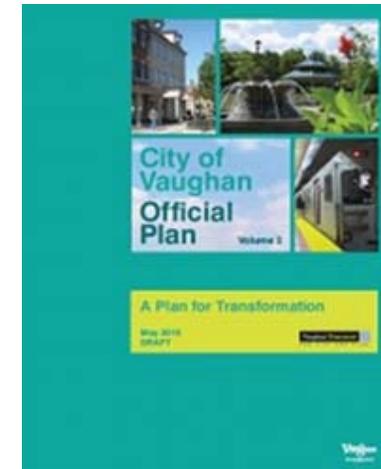
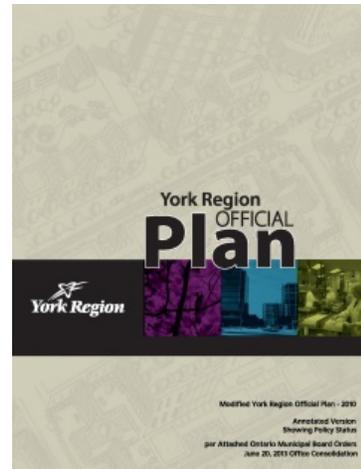
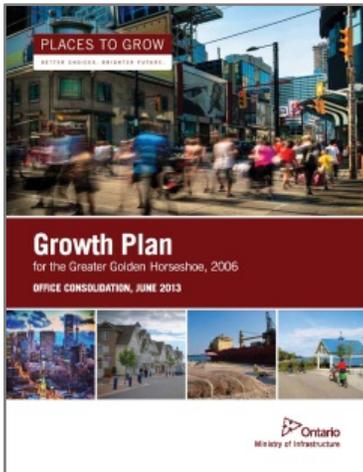


Screening Criteria

Problem / Opportunity Statement	1	Can the alternative satisfy the problem/opportunity statement?
Provincial Growth, Environmental Policies & Legislation	2	Is the alternative able to meet the purpose of the Environmental Assessment Act?
	3	Is the alternative consistent with the Provincial Policy Statement?
	4	Is the alternative consistent with the Growth Plan for the Greater Golden Horseshoe?
	5	Is the alternative consistent with the Greenbelt Plan?
	6	Is the alternative consistent with the Oak Ridges Moraine Conservation Plan?
Regional / Municipal Plans, Strategies & Programs	7	Is the alternative consistent with York Region's Official Plan?
	8	Is the alternative consistent with York Region's 2009 Water and Wastewater Master Plan Update?
	9	Is the alternative consistent with York Region's Sustainability Strategy for Water and Wastewater Servicing (2008)?
	10	Is the alternative consistent with the City of Vaughan's 2014 Water and Wastewater Master Plan?
Proven Technology / Technical Feasibility	11	Does the alternative represent proven technology?
	12	Is the alternative constructible?
Financial Viability / Ability to Implement	13	Is the alternative financially viable?
	14	Is the alternative within the ability of York Region to implement?

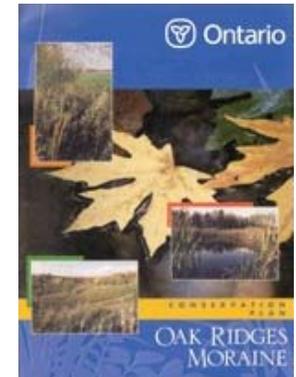
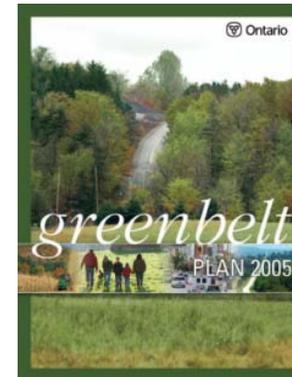
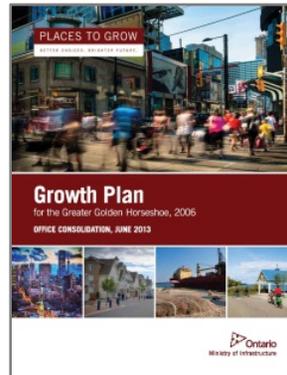
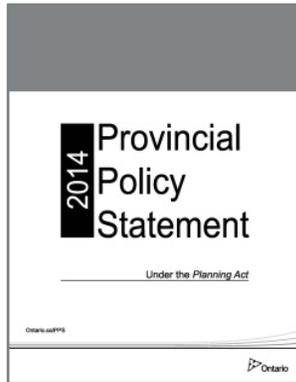
Problem/Opportunity Statement

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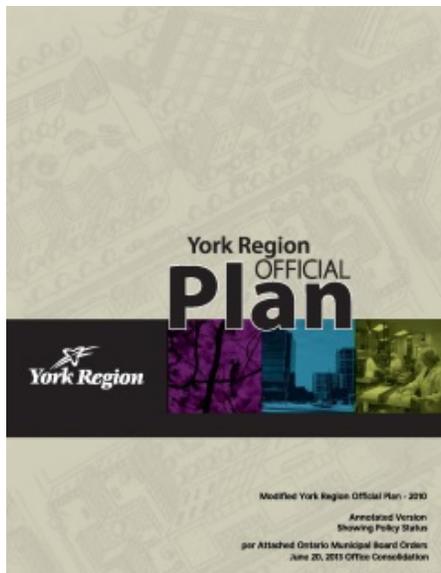
Provincial Growth, Environmental Policies & Legislation

- Environmental Assessment Act
- Provincial Policy Statement
- Growth Plan for the Greater Golden Horseshoe
- Greenbelt Plan
- Oak Ridges Moraine Conservation Plan

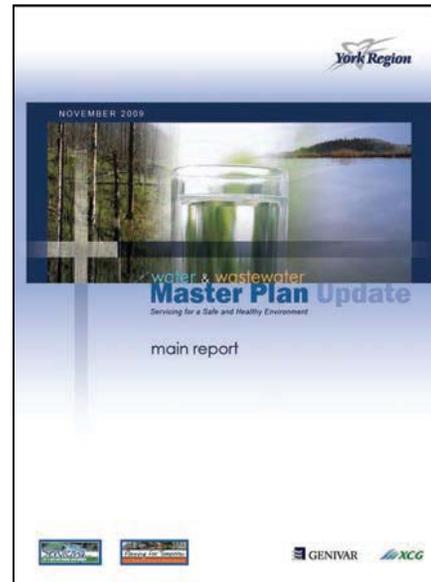


Regional/Municipal Plans, Strategies & Programs

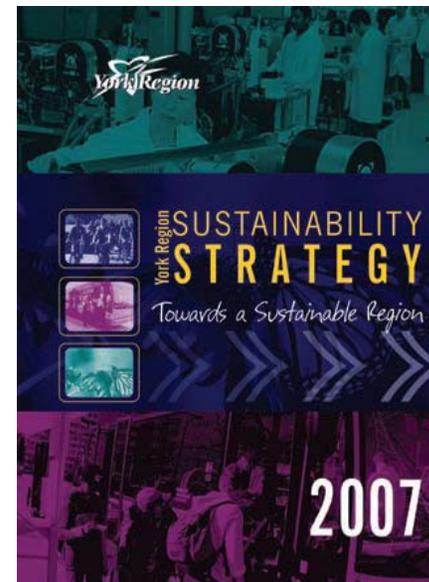
Official Plan (Adopted by York Regional Council 2009)



2009 Water & Wastewater Master Plan Update



Sustainability Strategy



City of Vaughan 2014 Water and Wastewater Master Plan



Proven Technology/Technical Feasibility

Segmental Lining Tunnel



Tunnel Boring Machine



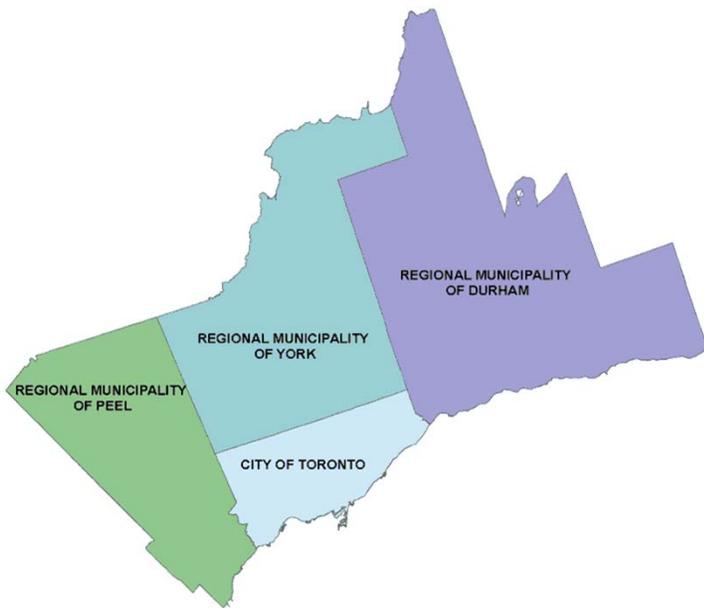
Jack & Bore Construction Method



Financial Viability/Ability to Implement

\$			
\$			
\$			
\$			
\$			

- Financial viability of the alternative based on its conceptual cost estimate



- York Region can implement on its own or through an existing jurisdictional agreement

Choosing a Recommended Water Solution(s)

Screening Criteria	Alternative Water Solutions			
	Do Nothing	Optimize Existing Water System	Upgrade/Expand Water Infrastructure	Construct New Water Infrastructure
Criteria #1: Can the alternative satisfy the problem/opportunity statement to be addressed?	Yes/No, with supporting rationale			
...
Criteria #11: Does the alternative represent proven technology	Yes/No, with supporting rationale			
<i>Summary of Results</i>	Carried forward to Alternative Design Concepts Phase or not	Carried forward to Alternative Design Concepts Phase or not	Carried forward to Alternative Design Concepts Phase or not	Carried forward to Alternative Design Concepts Phase or not

Choosing a Recommended Water Solution(s)

Screening Criteria	Alternative Water Solutions	
	Do Nothing	...
Criteria #1: Can the alternative satisfy the problem/opportunity statement to be addressed?	No Problem/ opportunity statement not addressed.	...
...
Criteria #11: Does the alternative represent proven technology	Yes No technology required.	...
<i>Summary of Results</i>	Carried forward to Alternative Design Concepts Phase or not	...

5. Additional Questions and Discussion



6. Next Steps and Future Meetings

TAC Meeting #2

- February 2015
 - Alternative water and wastewater solutions including the recommended water and wastewater solutions
- *Homework*
 - Study area considerations

Thank You!

