

Master Plans for  
Urban Water Infrastructure in  
The City of Vaughan

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**City-Wide Water & Wastewater  
Master Plan Class EA**

**APPENDIX J  
Public & Agency Communications**

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JUNE 2014

**The Municipal Infrastructure Group Ltd.**  
8800 Dufferin Street, Suite 2000  
Vaughan ON CA L4K 5X6  
tel 905.738.5700 fax 905.738.0065



In association with:  
**Fabian Papa & Partners Inc.**  
216 Chrislea Road, Suite 501  
Woodbridge ON CA L4L 8S5  
tel 905.264.2420 fax 905.264.2441



Prepared on behalf of:

**The City of Vaughan  
Development/Transportation  
Engineering Department**  
2141 Major Mackenzie Drive  
Vaughan, ON L6A 1T1  
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## **Notice of Commencement**





## NOTICE OF STUDY COMMENCEMENT

### MASTER PLANS FOR URBAN WATER INFRASTRUCTURE IN VAUGHAN

The City of Vaughan is conducting studies to direct the ongoing development of the City's urban water infrastructure systems that support our communities. These systems include water distribution, wastewater collection and storm water management.

These studies are following the Municipal Servicing Master Plan Class Environmental Assessment (MPCEA) process and will support the City's new Official Plan which was adopted by Council in September 2010. The studies will consider the vision for Vaughan to the year 2031 with sustainability as a key underlying theme.

#### MASTER PLAN CLASS ENVIRONMENTAL ASSESSMENT PROCESS

The City has awarded contracts for the following Master Plan studies to be undertaken concurrently:

- City-Wide Storm Drainage/Storm Water Management Master Plan (Cole Engineering Group Limited); and
- City-Wide Water/Wastewater Master Plan (The Municipal Infrastructure Group Ltd. and Fabian Papa & Partners Inc.).

The MPCEA process includes public and review agency consultation, an assessment of the problem and opportunities (Phase 1), evaluation of alternative solutions, assessment of potential effects on the environment, and identification of reasonable measures to mitigate the adverse effects. The preferred solution(s) will be determined based on engineering requirements, environmental considerations, public input and information gathered during the studies (Phase 2). Subsequent Municipal Class Environmental Assessment work will be required at a later time for the ultimate implementation of the preferred solutions.

#### CONSULTATION

A key component of the MPCEA studies will be consultation with interested stakeholders (public, landowners and regulatory agencies). Opportunities to provide input to the planning and design process will be provided throughout the studies. This Notice of Study Commencement is being issued to notify the public of the studies and invite comment. To further facilitate public input, two Public Information Centres (PICs) will be held as part of the studies. The first PIC will present the alternative servicing strategies and receive public input prior to evaluating the alternatives. The notices of the PICs will be published in local newspapers with details of the location and time. At the completion of the MPCEA process, a comprehensive Municipal Servicing Master Plan will be filed for public review.

In addition, a website dedicated to these studies has been established ([www.vaughaninfrastructure.ca](http://www.vaughaninfrastructure.ca)). The Study Team is interested in receiving any comments or input that you may have about the studies. Material will be maintained on file for use during the studies and may be included in study documentation. Should you have any questions or comments, require further information, or wish to be added to the study mailing list, please visit the project website which includes detailed contact information specific to each of the studies. The contact information for the City's Project Manager is as follows:

**Michael Frieri**, C.E.T., Manager of Engineering Planning & Studies  
Development/Transportation Engineering Department  
2141 Major Mackenzie Drive, Vaughan, ON L6A 1T1  
Tel: 905-832-8585 Ext. 8729 Fax: 905-832-6145  
E-Mail: [michael.frieri@vaughaninfrastructure.ca](mailto:michael.frieri@vaughaninfrastructure.ca)

Please note that information related to these studies will be collected in accordance with the *Freedom of Information and Protection of Privacy Act*. With the exception of personal information, all comments received will become part of the public record and may be included in study documentation prepared for public review. Thank you for your interest in these studies.

**ANDREW PEARCE**, Director of Development/ Transportation Engineering, City of Vaughan

*This Notice issued September 14, 2011*



## Kevin Brown

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**From:** Moretti, Michelle (MAH) [Michelle.Moretti@ontario.ca]  
**Sent:** Thursday, September 29, 2011 10:57 AM  
**To:** michael.frieri@vaughaninfrastructure.ca  
**Subject:** City-Wide Urban Water Infrastructure Master Plan EA

Hello Michael,

Thank you for your notice of September 15<sup>th</sup> regarding the above noted EA. By Copy of this email, I am requesting to be maintained on the mailing list and to be notified of any updates. My contact information is provided below.

Thanks,  
Michelle

*Michelle Moretti, MCIP, RPP*

Planner  
Municipal Services Office - Central Ontario  
Ministry of Municipal Affairs and Housing  
777 Bay St, 2nd Floor  
Toronto, ON. M5G 2E5

Tel: (416) 585-6554  
Fax: (416) 585-6882



 **TORONTO AND REGION**  
**Conservation**  
*for The Living City*

October 13, 2011

CFN 46411  
Xref CFN 46410

**BY MAIL AND EMAIL** (Michael.frieri@vaughaninfrastructure.ca)

Mr. Michael Frieri, C.E.T.  
Manager of Engineering Planning and Studies  
Development/Transportation Engineering Department  
City of Vaughan  
2141 Major Mackenzie Drive  
Vaughan, Ontario  
L6A 1T1

Dear Mr. Frieri:

**Re: Response to Notice of Study Commencement  
City-Wide Water/Wastewater Master Plan  
Humber and Don River Watersheds; City of Vaughan; Regional Municipality of  
York**

Toronto and Region Conservation Authority (TRCA) staff received the Notice of Commencement for the above noted Environmental Assessment (EA) on September 20, 2011. It is our understanding that this undertaking involves a city wide master plan study for water/wastewater for the City of Vaughan.

**TRCA Areas of Interest**

Staff has identified the following Areas of Interest within the study area:

**Regulated Areas**

- Regulation Limit
- Crest of Slope
- Meander Belt
- Regulatory Flood Plain
- Wetlands
- Watercourses

- Renewable Energy
- Sustainable Communities
- Sustainable Technologies
- Living City Trails
- Special Policy Areas
- Terrestrial Natural Heritage Strategy
- Terrestrial Species and Habitat

**TRCA Program and Policy Areas**

- Aquatic Species and Habitat
- Aquifers and Hydrogeological Features
- Archaeological and Heritage Resources
- Conservation Land (TRCA property)
- Environmentally Significant Areas
- Habitat Implementation Plans
- Living City Programs:

**Provincial Program Areas**

- Areas of Natural and Scientific Interest
- Asian Long-horned Beetle Regulated Area
- Greenbelt
- Oak Ridges Moraine
- Provincially Significant Wetlands
- Wellhead Protection Area

Member of Conservation Ontario



Upon request, digital mapping and program information for the Areas of Interest will be sent under separate cover. Please ensure that the status, potential impacts and opportunities for enhancement related to these Areas of Interest are documented and assessed through a review of background material, technical study, field assessment and detailed evaluation, as appropriate.

### **Selection of Alternatives**

In consideration of TRCA's *Valley and Stream Corridor Management Program*, Ontario Regulation 166/06, and TRCA's other programs and policies, staff requires that the preferred alternative meets the following criteria:

1. Prevents the risk associated with flooding, erosion or slope instability.
2. Protects and rehabilitates existing landforms, features and functions.
3. Provides for aquatic, terrestrial and human access.
4. Minimizes water/energy consumption and pollution.
5. Addresses TRCA property and heritage resource concerns.

TRCA staff recommends that a summary of detailed design commitments be included in the EA as a Pre-design Brief. This summary should include, but not be limited to:

- a. An aerial photo indicating the study area, regulated area, existing conditions and preferred solution/design;
- b. Text indicating the preferred alternative solution/design;
- c. A Reference list of alternative solutions and designs considered;
- d. A synopsis of all TRCA requirements and technical commitments.

It is intended that the proponent and their consultants, as well as TRCA, would use the Pre-design Brief during the preliminary stages of detailed design. In the Pre-design Brief, commitments made during the EA would be clearly articulated in order to facilitate a 90 % detailed design submission to TRCA for all required permits. TRCA staff would then be able to review the required studies, reports or plans; and confirm any additional study requirements or revisions to the submitted materials. Ideally, the completion of the Pre-Design Brief will result in a more timely and streamlined permit approval process in the future.

### **TRCA Review**

I understand that Carolyn Woodland, Director, Planning and Development, June Little, Manager Development, Planning and Regulation and Sameer Dhalla, Senior Manager, Water Resources attended a Technical Steering Committee meeting on September 27, 2011. Further to a subsequent discussion with Carolyn Woodland I have been approved as the project manager for the file. As such, I will ensure that they continue to be directly involved in each stage of the review. Please note that the above mentioned staff will continue to participate on the Technical Steering Committee. In addition, please add TRCA's Don Watershed Specialist Adele Freeman and Humber Watershed Specialist Gary Wilkins to the project mailing list to receive any public information updates.

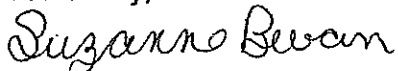
A copy of the TRCA Environmental Assessment Review Program Service Delivery Standards, and a summary chart is enclosed for your reference. We recommend you refer to these submission standards during the study to facilitate TRCA review. Please provide the following submissions to expedite TRCA review.

- Notices of public meetings and display material and handouts
- Four hard copies of the Phases 1 and 2 Report or four hard copies of the Draft EA Document, and
- One hard copy and one digital copy of the Final EA Document.

In accordance with TRCA's Administrative Fee Schedule for Environmental Assessment and Regulatory Review Services, the fee for reviewing this Master Plan is \$10,400. Upon receipt of the Environmental Assessment review fee, staff will forward the relevant background information and data.

Should you have any questions, please contact me at extension 5759 or by email at [sbevan@trca.on.ca](mailto:sbevan@trca.on.ca).

Yours truly,



Suzanne Bevan  
Senior Planner, Environmental Assessment Planning  
Planning and Development

Encl.: TRCA Areas of Interest Summary Table  
Service Delivery Standards - Recommended TRCA Contact Points

**BY EMAIL**

City of Vaughan: Tony Artuso ([Tony.Artuso@vaughan.ca](mailto:Tony.Artuso@vaughan.ca))  
Consultant: Fabian Papa, The Municipal Infrastructure Group Ltd. and Fabian Papa & Partners Inc. ([swmmp@vaughaninfrastructure.ca](mailto:swmmp@vaughaninfrastructure.ca))

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TRCA:  
Adele Freeman, Don Watershed Specialist  
Gary Wilkins, Humber Watershed Specialist  
Carolyn Woodland, Director, Planning and Development  
Beth Williston, Senior Manager, Environmental Assessments  
June Little, Manager, Development, Planning and Regulation  
Sameer Dhalla, Senior Manager, Water Resources

EA Requirements

Document and assess the status, potential impacts and opportunities for enhancement that relate to the following Areas of Interest through a review of background material, technical study, field assessment and detailed evaluation, as appropriate. Make reference to the applicable Program and Policy documents. Include in the EA Document appendices any minutes, structure summary sheets for watercourses or wetlands, or other material collected through meetings with TRCA staff. Natural features may need to be confirmed on site by TRCA staff.

Area of Interest / Data Availability	Program and Policy Concerns
<b>TRCA REGULATED AREAS</b>	
<p>Regulation Limit <i>GIS data available</i></p>	<p>In accordance with Ontario Regulation 166/06 (Development, Interference with Wetlands and Alterations to Shorelines and Watercourses), a permit is required from the TRCA prior to any development (e.g. construction) if, in the opinion of TRCA, the control of flooding, erosion, dynamic beaches or pollution or the conservation of land may be affected. The Regulation Limit defines the greater of the natural hazards associated with Ontario Regulation 166/06 (listed below).</p> <p>NOTE: The Regulation Limit provides a geographical screening tool for determining if Ontario Regulation 166/06 will apply to a given proposal. Through site assessment or other investigation, it may be determined that areas outside of the defined Regulation Limit require permits under Ontario Regulation 166/06. In these instances, it is the text of the regulation that will prevail; modifications to the regulation line may be required.</p> <p>Any development within the Regulation Limit must comply with the applicable sections of TRCA's <i>Valley and Stream Corridor Management Program</i>.</p>
<p>Crest of Slope</p>	<p>Valley and stream corridors are dynamic systems that provide important natural functions and linkages for the physical, chemical and biological processes of wildlife, watercourses, and other natural features. The Crest of Slope identifies the physical limit of these corridors; however, due to ecological sensitivities, development restrictions typically extend beyond the actual Crest of Slope.</p>
<p>Meander Belt</p>	<p>Channel migration has a significant impact on infrastructure, structures and property located near river systems. Determining channel stability is important to ensure that damage from erosion, down-cutting or other natural channel processes is avoided. TRCA may require a meander belt delineation study or fluvial geomorphology analysis to confirm that any development does not conflict with natural channel processes.</p>
<p>Regulatory Flood Plain <i>Engineered maps may be available</i></p>	<p>The Regulatory Flood Plain is the approved standard used in a particular watershed to define the limit of the flood plain for regulatory purposes. Within TRCA's jurisdiction, the Regulatory Flood Plain is based on the greater of the regional storm, Hurricane Hazel, and the 100 year flood. Any development or alterations to existing structures within the Regulatory Flood Plain may introduce risk to life or property, and may not be compatible with existing natural features. TRCA's framework for Flood Plain Management is the <i>Valley and Stream Corridor Management Program</i>. TRCA may require a flood study or hydraulic update to confirm that there will be no impacts to the storage or conveyance of flood waters.</p>
<p>Wetlands</p>	<p>Wetlands are sensitive natural habitats that play an important role in numerous physical, chemical and biological processes, including storm water control, natural habitat and water quality improvement. Most wetlands are designated by the Ministry of Natural Resources as Provincially Significant or Locally Significant. Other wetlands have also been identified on a site specific basis by TRCA. All of these are regulated under Ontario Regulation 166/06. TRCA may require an environmental study or site confirmation of wetlands locations.</p>
<p>Watercourses <i>Partial GIS data available</i></p>	<p>Typically, watercourses are associated with aquatic species and habitat. Any alteration or interference to a watercourse (e.g. straightening, diverting, realigning, altering baseflow) has the potential to impact fish communities, but may also affect the Regulatory Flood Plain, erosion or other natural channel processes. TRCA may require an environmental study or site confirmation of watercourse locations.</p>



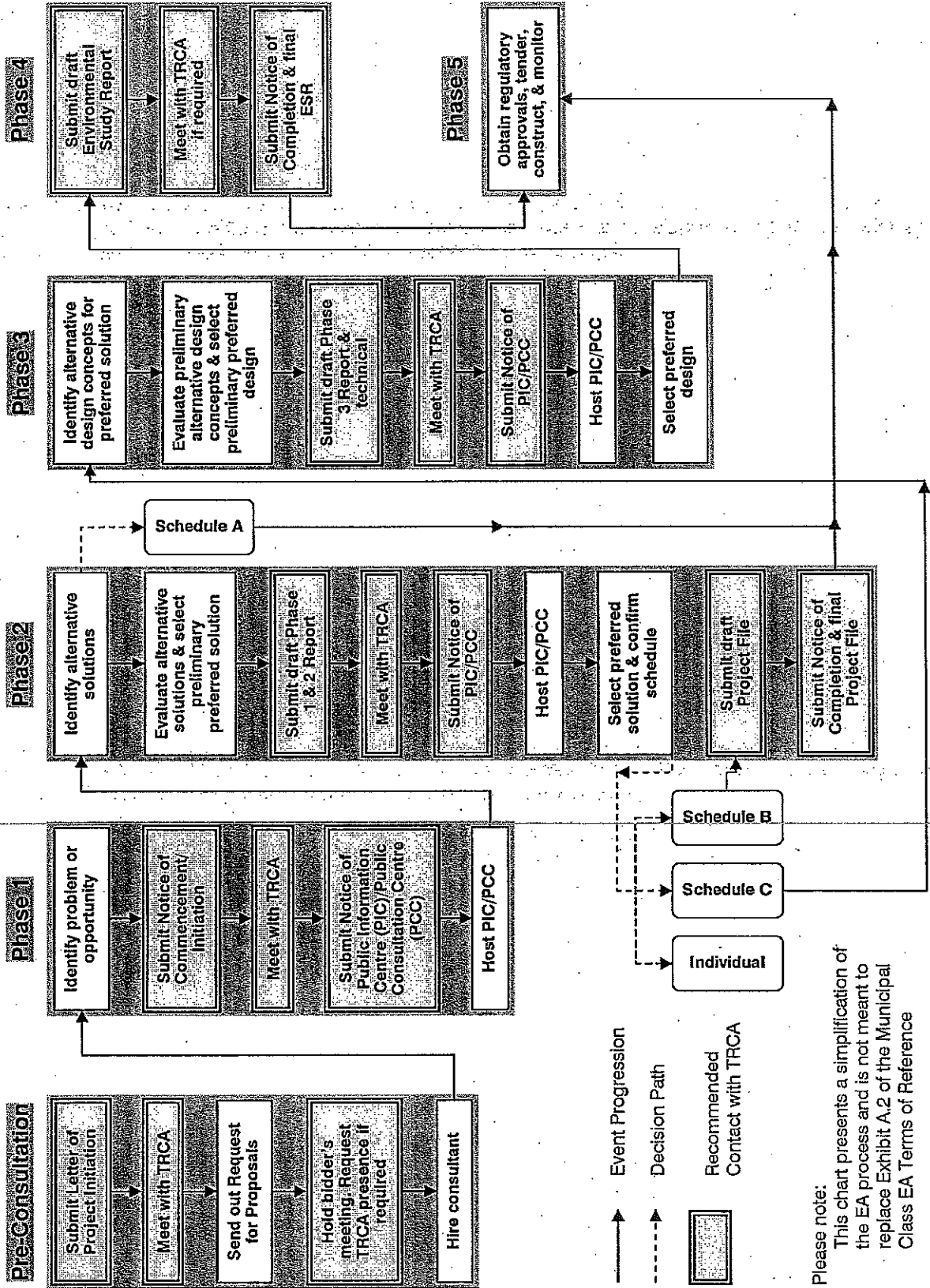
**TRCA PROGRAM AND POLICY AREAS**

Note: Additional program and policy information may be available at [www.trca.on.ca](http://www.trca.on.ca), or by request.

<p>Aquatic Species and Habitat</p> <p><b>GIS data available</b></p>	<p>Under the <i>Fisheries Act</i>, the Harmful Alteration, Disruption or Destruction (HADD) of fish habitat is prohibited, unless authorized by Fisheries and Oceans Canada (DFO). TRCA reviews projects under the <i>Fisheries Act</i> based on our Level III Agreement with DFO to ensure that any potential impacts to fish habitat are appropriately mitigated, or that adequate compensation is provided where a HADD is unavoidable. Alternatives should be designed with appropriate mitigation measures to avoid a HADD. If a HADD is unavoidable, a suitable compensation plan must be developed, and Authorization from DFO will be required.</p> <p>TRCA may require a quantification and assessment of existing conditions and proposed changes to fish habitat and communities to confirm impacts to these resources.</p>
<p>Aquifers and Hydrogeological Features</p>	<p>The extraction and discharge of groundwater has the potential to negatively impact surrounding natural features. Even small amounts of groundwater extraction may reduce contributions to groundwater dependent features such as wetlands, springs, or fish spawning habitat. In addition, the discharge of groundwater must be controlled to avoid impacts to watercourses and fish habitat from erosion, sedimentation and water quality concerns.</p> <p>TRCA may require geotechnical or hydrogeological investigations to confirm dewatering and discharge requirements, and to identify appropriate mitigation measures with respect to potential impacts to natural features (i.e., wetlands, watercourses, natural features and aquatic habitat).</p>
<p>Archaeological and Heritage Resources</p>	<p>TRCA watershed strategies include recommendations for the management of archaeological and heritage resources in accordance with Ministry of Culture and Municipal standards. Preserve and protect archaeological resources where possible.</p> <p>TRCA may require a Stage 1, 2, 3, or 4 archaeological assessment to confirm impacts to these resources. Note that an archaeological investigation by TRCA's archaeological staff must precede any disturbance to TRCA property, at the cost of the proponent. Scheduling will be subject to weather, seasonal programs and other field work.</p>
<p>Conservation Land (TRCA Property)</p> <p><b>GIS data available</b></p>	<p>If TRCA property is needed for the implementation of the preferred alternative, permission and approval from TRCA and the Minister of Natural Resources are required. The design must demonstrate that TRCA program and policy objectives are met. Formal approval typically takes 12 to 18 months from the completion of the EA document. As noted above, an archaeological investigation by TRCA's archaeological staff must precede any disturbance to TRCA property.</p> <p>Applicable programs and strategies for works on TRCA property may include: <i>TRCA Strategy for Public Use of Authority Lands</i>, <i>TRCA Greenspace Strategy</i>, <i>Archaeological Resource Management Procedures: Guidelines</i>, master plans for specific conservation lands, watershed strategies, or other programs or policies referenced in this document.</p>
<p>Environmentally Significant Areas</p>	<p>Environmentally Significant Areas have been identified by TRCA based on a set of ecological criteria regarding the function, significance and rarity of the features or species found in the area.</p>
<p>Habitat Implementation Plans</p>	<p>TRCA staff has identified management opportunities for habitat restoration and enhancement on TRCA property and some privately owned lands. The Habitat Implementation Plans target priority sites to improve natural form and function based on targets in the watershed strategies.</p> <p>Detailed plans have been developed or implemented for certain sites, while other locations have been identified for future work. Consultation with TRCA should take place to ensure that impacts to priority areas are avoided, or that opportunities to implement restoration plans are identified.</p>
<p>Living City Programs</p>	<p>The Living City is a vision adopted by TRCA for a new kind of community, where human settlement can flourish forever as part of nature's beauty and diversity. The key objectives of the Living City are: healthy rivers and shorelines; regional biodiversity; sustainable communities; and business</p>

	<p>excellence.</p> <p>Programs associated with TRCA's Living City include: trails enhancement, renewable energy, sustainable communities, and the <i>Sustainable Technologies Evaluation Program (STEP)</i>.</p>
<p>Special Policy Areas <b>GIS data available</b></p>	<p>Developed areas that have historically existed within a flood plain may be designated as Special Policy Areas (SPA) as permitted under the 2005 <i>Provincial Policy Statement</i>. Policies for development and land use in these areas address the social, economic and cultural factors that support the continuation of the community. SPAs allow development and land uses that would not otherwise be permitted by the provincial policies on flood plain management.</p>
<p>Terrestrial Natural Heritage System Strategy <b>GIS data available</b></p>	<p>TRCA has identified the need to improve both the quality and quantity of terrestrial habitat. TRCA's <i>Terrestrial Natural Heritage System Strategy</i> sets measurable targets for attaining a healthier natural system by creating an expanded and targeted land base. It includes strategic directions for stewardship and securement of the land base, a land use policy framework to help achieve the target system, and other implementation mechanisms.</p>
<p>Terrestrial Species and Habitat <b>GIS data available</b></p>	<p>The terrestrial system includes landscape features, vegetation communities and flora and fauna species. Terrestrial species and habitat should be assessed based on their conservation status according to sensitivity to disturbance and specialized ecological needs, as well as rarity.</p> <p>TRCA may require a site assessment and terrestrial inventory to confirm impacts to these resources. TRCA's <i>Terrestrial Natural Heritage Strategy</i> may be applicable to any work that impacts terrestrial species and habitat. In addition, relevant legislation (e.g. <i>Migratory Bird Convention Act</i>, <i>Species at Risk Act</i>) should be applied.</p>
<p><b>PROVINCIAL AND FEDERAL PROGRAM AREAS</b></p>	
<p>Areas of Natural and Scientific Interest</p>	<p>Areas of Natural and Scientific Interest are designated areas of land and water containing natural landscapes or features identified as having values in the life or earth sciences related to protection, scientific study or education. Contact the Ministry of Natural Resources for more details.</p>
<p>Asian Long-Horned Beetle Regulated Area</p>	<p>The Canadian Food Inspection Agency (CFIA) has established a regulated area in parts of Toronto and Vaughan to prevent the spread of the Asian Long-Horned Beetle. The <i>Asian Long-horned Beetle Infested Place Order</i> prohibits the movement of any tree materials out of or through the regulated area unless authorized by a Movement Certificate issued by the CFIA.</p>
<p>Greenbelt</p>	<p>The Greenbelt consists of approximately 728,000 hectares of environmentally sensitive land and agricultural land in the Golden Horseshoe. The <i>Greenbelt Plan</i> identifies limits to urbanization to provide permanent protection to the agricultural land base and the ecological features and functions occurring within this landscape. Contact the Ministry of Municipal Affairs and Housing for more details. Alternatives must conform with Section 4.2 of the <i>Greenbelt Plan</i>.</p>
<p>Oak Ridges Moraine</p>	<p>The Oak Ridges Moraine is an environmentally sensitive, geological landform in south central Ontario, covering 190,000 hectares. The <i>Oak Ridges Moraine Conservation Plan</i> provides land use and resource management direction for the land and water within the Moraine. Contact the Ministry of Municipal Affairs and Housing for more details. Alternatives must conform with Section 41 of the <i>Oak Ridges Moraine Conservation Plan</i>.</p>
<p>Provincially Significant Wetlands</p>	<p>Provincially Significant Wetlands are identified by the Ministry of Natural Resources (MNR) according to a provincial evaluation guide that considers soil composition, hydrology and plant species. The 2005 <i>Provincial Policy Statement</i> states that development and site alteration shall not be permitted in these areas. Contact MNR for more details.</p>
<p>Wellhead Protection Area</p>	<p>Wellhead Protection Areas (WHPAs) represent potentially vulnerable zones where land use changes or infrastructure installations may affect the quality or quantity of water in the associated municipal groundwater supply well. Therefore, hydrogeologists for the Regional Municipalities of Peel, York and Durham have requested that any information on any projects within WHPAs be referred to them for their review. Similarly, TRCA's hydrogeologists require notification so that information can be incorporated into TRCA's Assessment Report.</p>

# Service Delivery Standards Recommended TRCA Contact Points in the Municipal Class EA Planning & Design Process



Please note:  
This chart presents a simplification of the EA process and is not meant to replace Exhibit A.2 of the Municipal Class EA Terms of Reference



## Kevin Brown

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**From:** Zirger, Rosi (MTC) [Rosi.Zirger@ontario.ca]  
**Sent:** Monday, November 07, 2011 4:10 PM  
**To:** Michael.Frieri@VaughanInfrastructure.ca  
**Cc:** SWMMP@VaughanInfrastructure.ca; WWWMP@VaughanInfrastructure.ca  
**Subject:** Master Plans for Urban Water / Waterwater Infrastructure in Vaughan  
**Attachments:** BuiltHeritage-CHL-Checklist-MTC-Nov2010.pdf; Screening for Impacts to Built Heritage and Cultural Heritage Landscapes-MTC July 2011.pdf

**Project: Master Plans for Urban Water / Waterwater Infrastructure in Vaughan**  
**Location: City of Vaughan, Region of York**  
**MTC File: 19EA070**

To: Michael Frieri, Manager of Engineering Planning & Studies, City of Vaughan  
Edward Graham, Cole Engineering Group Limited  
Fabian Papa, The Municipal Infrastructure Group Ltd and Fabian Papa & Partners Inc.

The Ministry of Tourism and Culture (MTC) has received a Notice of Study Commencement and Information Package for the project mentioned above. As part of the Class Environmental Assessment process, the MTC has an interest in the conservation of cultural heritage resources including:

- archaeological resources,
- built heritage resources, and
- cultural heritage landscapes.

MTC would, therefore, be interested in remaining on the circulation list and being informed of the project as it proceeds through the EA process. We ask that you update your contact list to send future notices to **Rosi Zirger A/Heritage Planner at the address below.**

Could you kindly advise whether archaeological assessments and cultural heritage assessments (built heritage and culture heritage landscapes) are being undertaken as part of these environmental assessments? For your information and reference, I have attached our Ministry's standard checklists for identifying potential heritage resources within the study area.

### **Archaeology**

Attached is MTC's Criteria for Evaluating Archaeological Potential, which identifies characteristics of the property that indicate whether archaeological resources might be present and/or impacted. The completed checklist will assist MTC to determine whether an archaeological assessment by an archaeologist licensed under the Ontario Heritage Act will be necessary for this project.

### **Built Heritage and Cultural Heritage Landscape**

In addition, in order to determine the existing cultural conditions, known and potential built heritage resources and cultural heritage landscapes should be identified. I have also attached our Ministry's standard checklist for identifying potential heritage resources within the study area. It is suggested that, you contact the Heritage Planner to determine if there are any properties that have been listed or designated by the municipality under the *Ontario Heritage Act*. Contacting the municipal heritage committee, municipal heritage planner or any relevant community heritage organizations will help you in completing this checklist. Local knowledge plays an important role in the identification of heritage resources, and information gathered at early public meetings may also inform some sections of the checklist.

The completed checklist will to used by MTC to further advise on any cultural heritage assessment work that may be advisable in the circumstances.

Best regards,

**Rosi Zirger**

A/Heritage Planner | Central and Southeast

Ministry of Tourism and Culture | Culture Services Unit  
Tel. 416.314.7159 | Fax 416.314.7175  
[rosi.zirger@ontario.ca](mailto:rosi.zirger@ontario.ca)

**Ministry of Tourism and Culture**

Programs and Services Branch  
Culture Services Unit  
401 Bay Street, 17th Floor  
Toronto, Ontario M7A 0A7

### Screening for Impacts to Built Heritage and Cultural Heritage Landscapes

This checklist is intended to help proponents determine whether their project could affect known or potential cultural heritage resources. The completed checklist should be returned to the appropriate Heritage Planner or Heritage Advisor at the Ministry of Tourism and Culture.

Step 1 – Screening for Recognized Cultural Heritage Value			
YES	NO	Unknown	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1. Is the subject property designated or adjacent* to a property designated under the <i>Ontario Heritage Act</i> ?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2. Is the subject property listed on the municipal heritage register or a provincial register/list? (e.g. Ontario Heritage Bridge List)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3. Is the subject property within or adjacent to a Heritage Conservation District?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4. Does the subject property have an Ontario Heritage Trust easement or is it adjacent to such a property?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5. Is there a provincial or federal plaque on or near the subject property?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6. Is the subject property a National Historic Site?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7. Is the subject property recognized or valued by an Aboriginal community?
Step 2 – Screening Potential Resources			
YES	NO	Unknown	<b>Built heritage resources</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1. Does the subject property or an adjacent property contain any buildings or structures <b>over forty years old<sup>†</sup></b> that are:
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	▪ Residential structures (e.g. house, apartment building, shanty or trap line shelter)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	▪ Farm buildings (e.g. barns, outbuildings, silos, windmills)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	▪ Industrial, commercial or institutional buildings (e.g. a factory, school, etc.)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	▪ Engineering works (e.g. bridges, water or communications towers, roads, water/sewer systems, dams, earthworks, etc.)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	▪ Monuments or Landmark Features (e.g. cairns, statues, obelisks, fountains, reflecting pools, retaining walls, boundary or claim markers, etc.)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2. Is the subject property or an adjacent property associated with a known architect or builder?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3. Is the subject property or an adjacent property associated with a person or event of historic interest?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4. When the municipal heritage planner was contacted regarding potential cultural heritage value of the subject property, did they express interest or concern?
YES	NO	Unknown	<b>Cultural heritage landscapes</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5. Does the subject property contain landscape features such as:
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	▪ Burial sites and/or cemeteries
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	▪ Parks or gardens
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	▪ Quarries, mining, industrial or farming operations
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	▪ Canals
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	▪ Prominent natural features that could have special value to people (such as waterfalls, rocky outcrops, large specimen trees, caves, etc.)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	▪ Evidence of other human-made alterations to the natural landscape (such as trails, boundary or way-finding markers, mounds, earthworks, cultivation, non-native species, etc.)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6. Is the subject property within a Canadian Heritage River watershed?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7. Is the subject property near the Rideau Canal Corridor UNESCO World Heritage Site?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8. Is there any evidence from documentary sources (e.g., local histories, a local recognition program, research studies, previous heritage impact assessment reports, etc.) or local knowledge or Aboriginal oral history, associating the subject property/ area with historic events, activities or persons?

**Note:**

If the answer is "yes" to any question in Step 1, proceed to Step 3.

The following resources can assist in answering questions in Step 1:

**Municipal Clerk or Planning Department** – Information on properties designated under the Ontario Heritage Act (individual properties or Heritage Conservation Districts) and properties listed on a Municipal Heritage register.

**Ontario Heritage Trust** – Contact the OHT directly regarding easement properties. A list of OHT plaques can be found on the website: [Ontario Heritage Trust](#)

**Parks Canada** – A list of National Historic Sites can be found on the website: [Parks Canada](#)

**Ministry of Tourism and Culture** – The Ontario Heritage Properties Database includes close to 8000 identified heritage properties. Note while this database is a valuable resource, it has not been updated since 2005, and therefore is not comprehensive or exhaustive. [Ontario Heritage Properties Database](#)

**Local or Provincial archives**

**Local heritage organizations**, such as the municipal heritage committee, historical society, local branch of the Architectural Conservancy of Ontario, etc.

Consideration should also be given to obtaining oral evidence of CHR's. For example, in many Aboriginal communities, an important means of maintaining knowledge of cultural heritage resources is through oral tradition.

If the answer is "yes" to any question in Step 2, an evaluation of cultural heritage value is required. If cultural heritage resources are identified, proceed to Step 3.

If the answer to any question in Step 1 or to questions 2-4, 6-8 in Step 2, is "unknown", further research is required.

If the answer is "yes" to any of the questions in Step 3, a heritage impact assessment is required.

If uncertainty exists at any point, the services of a qualified person should be retained to assist in completing this checklist. All cultural heritage evaluation reports and heritage impact assessment reports must be prepared by a qualified person. Qualified persons means individuals (professional engineers, architects, archaeologists, etc.) having relevant, recent experience in the identification and conservation of cultural heritage resources. Appropriate evaluation involves gathering and recording information about the property sufficient to understand and substantiate its heritage value; determining cultural heritage value or interest based on the advice of qualified persons and with appropriate community input. If the property meets the criteria in Ontario Regulation 9/06 under the Ontario Heritage Act, it is a cultural heritage resource.

† The 40 year old threshold is an indicator of potential when conducting a preliminary survey for identification of cultural heritage resources. While the presence of a built feature that is 40 or more years old does not automatically signify cultural heritage value, it does make it more likely that the property could have cultural heritage value or interest. Similarly, if all the built features on a property are less than 40 years old, this does not automatically mean the property has no cultural heritage value. Note that age is not a criterion for designation under the *Ontario Heritage Act*.

Step 3 – Screening for Potential Impacts		
<b>YES</b>	<b>NO</b>	<b>Will the proposed undertaking/project involve or result in any of the following potential impacts to the subject property or an adjacent* property?</b>
<input type="checkbox"/>	<input type="checkbox"/>	<b>Destruction, removal or relocation</b> of any, or part of any, heritage attribute or feature.
<input type="checkbox"/>	<input type="checkbox"/>	<b>Alteration</b> (which means a change in any manner and includes restoration, renovation, repair or disturbance).
<input type="checkbox"/>	<input type="checkbox"/>	<b>Shadows</b> created that alter the appearance of a heritage attribute or change the exposure or visibility of a natural feature or plantings, such as a garden.
<input type="checkbox"/>	<input type="checkbox"/>	<b>Isolation</b> of a heritage attribute from its surrounding environment, context or a significant relationship.
<input type="checkbox"/>	<input type="checkbox"/>	<b>Direct or indirect obstruction</b> of significant views or vistas from, within, or to a built or natural heritage feature.
<input type="checkbox"/>	<input type="checkbox"/>	<b>A change in land use</b> such as rezoning a battlefield from open space to residential use, allowing new development or site alteration to fill in the formerly open spaces.
<input type="checkbox"/>	<input type="checkbox"/>	<b>Soil disturbance</b> such as a change in grade, or an alteration of the drainage pattern, or excavation, etc.

\* For the purposes of evaluating potential impacts of development and site alteration "adjacent" means: contiguous properties as well as properties that are separated from a heritage property by narrow strip of land used as a public or private road, highway, street, lane, trail, right-of way, walkway, green space, park, and/or easement or as otherwise defined in the municipal official plan.



“Archaeological potential” is a term used to describe the likelihood that a property contains archaeological resources. This checklist is intended to assist non-specialists screening for the archaeological potential of a property where site alteration is proposed.

Note: for projects seeking a Renewable Energy Approval under Ontario Regulation 359/09, the Ministry of Tourism and Culture has developed a separate checklist to address the requirements of that regulation.

Project Name
Project Location
Proponent Name
Proponent Contact Information

Known Archaeological Sites	Yes	Unknown	No
1. Known archaeological sites within 300 m of property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Known Archaeological Sites	Yes	Unknown	No
2. Body of water within 300 m of property If yes, what kind of water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a) Primary water source (lake, river, large creek, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Secondary water source (stream, spring, marsh, swamp, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Past water source (beach ridge, river bed, relic creek, ancient shoreline, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Topographical features on property (knolls, drumlins, eskers, or plateaus)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Pockets of sandy soil (50 m <sup>2</sup> or larger) in a clay or rocky area on property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Distinctive land formations on property (mounds, caverns, waterfalls, peninsulas, etc)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Cultural Features	Yes	Unknown	No
6. Known burial site or cemetery on or adjacent to the property (cemetery is registered with the Cemeteries Regulation Unit)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Food or scarce resource harvest areas on property (traditional fishing locations, agricultural/berry extraction areas, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Indications of early Euro-Canadian settlement within 300 m of property (monuments, cemeteries, structures, etc)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Early historic transportation routes within 100 m of property (historic road, trail, portage, rail corridor, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Property-specific Information	Yes	Unknown	No
10. Property is designated and/or listed under the <i>Ontario Heritage Act</i> (municipal register and lands described in Reg. 875 of the <i>Ontario Heritage Act</i> )	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Local knowledge of archaeological potential of property (from aboriginal communities, heritage organisations, municipal heritage committees, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Recent deep ground disturbance <sup>†</sup> (post-1960, widespread and deep land alterations)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<sup>†</sup> Archaeological potential can be determined not to be present for either the entire property or a part(s) of it when the area under consideration has been subject to widespread and deep land alterations that have severely damaged the integrity of any archaeological resources. Deep disturbance may include quarrying or major underground infrastructure development. Activities such as agricultural cultivation, gardening, minor grading and landscaping are not necessarily considered deep disturbance. Alterations can be considered to be extensive or widespread when they have affected a large area, usually defined as the majority of a property.

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**Scoring the results:**

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If **Yes** to any of **1, 2a, 2b, 2c, 6, 10, or 11** → high archaeological potential – assessment is required

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If **Yes** to **two or more** of **3, 4, 5, 7, 8, or 9** → high archaeological potential – assessment is required

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If **Yes** to **12** or **No** to all of **1 - 10** → **low** archaeological potential – assessment is not required

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If 3 or more **Unknown** → an archaeological assessment is required (see note below)

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<sup>†</sup> **Note:** If information requested in this checklist is unknown, a consultant archaeologist licensed under the *Ontario Heritage Act* should be retained to carry out at least a Stage 1 archaeological assessment to further explore the archaeological potential of the property and to prepare a report on the results of that assessment. The Ministry of Tourism and Culture reviews all such reports prepared by consultant archaeologists against the ministry's Standards and Guidelines for Consultant Archaeologists. Once the ministry is satisfied that, based on the available information, the report has been prepared in accordance with those guidelines, the ministry issues an acceptance letter to the consultant archaeologist and places the report into its registry where it is available for public inspection.





## **Technical Advisory Committee 1**



## TECHNICAL ADVISORY COMMITTEE MEETING #1

### CITY OF VAUGHAN CITY-WIDE URBAN WATER INFRASTRUCTURE MASTER PLANS

TUESDAY SEPTEMBER 27, 2011  
2:30 PM to 4:30 PM



## Other Related Studies

Within the City of Vaughan, there are a number of completed and ongoing studies that were reviewed and referenced as part of these Master Plan. A summary of those studies is provided below.



### Vaughan Official Plan

The New Official Plan was completed and adopted by City Council in September 2010, a component of the City's Consolidated Growth Management Strategy to a planning horizon of 2031. The new Official Plan updates the City's community planning policies in a manner consistent with the principles of sustainability.



### Places to Grow

The Provincial 2006 Growth Plan for the Greater Golden Horseshoe forecasts 416,600 people, and 266,100 jobs within the City of Vaughan by 2031. This will be achieved through a combination of expansion to the existing urban boundary and also through intensification within existing built-up areas.

The Places to Grow Act and the Growth Plan provided the basis for the updates to the Official Plan.



### Greenbelt Plan

The Greenbelt Plan was established in 2005 under the Greenbelt Act. The City of Vaughan includes lands that are part of the Greenbelt. The Greenbelt Plan acknowledges the need to maintain existing infrastructure to serve existing land uses and the need for additional infrastructure to support future growth. All new infrastructure that will be within the Greenbelt must comply with specific policies prior to implementation.

### Green Directions Vaughan

Green Directions Vaughan is the City's Community Sustainability and Environmental Master Plan (CSEMP). It influences virtually all aspects of the City's operational and regulatory activities, including the growth management strategy. The plan establishes the principles of sustainability to be used in the development of other plans and master plans to achieve a healthy natural environment, vibrant communities and a strong economy.



### Vaughan Transportation Master Plan

The Transportation Master Plan will define the road and public transit infrastructure, and other initiatives, which are needed to accommodate the population and employment growth that will result from the implementation of the Growth Management strategy.

### Black Creek Optimization Study

The overall goal of the Black Creek Optimization Study is to address the ongoing flooding, water quality and channel erosion issues that have been identified within that Study Area.

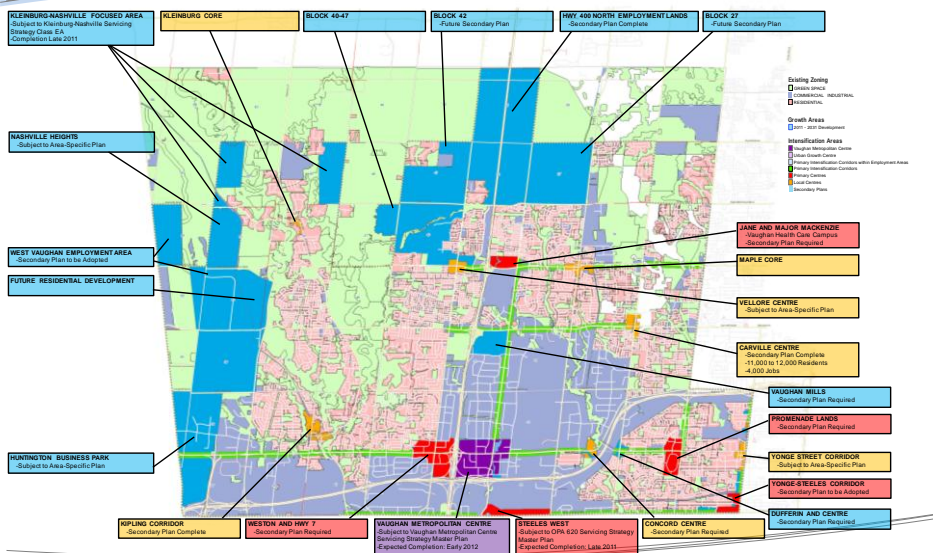


### York Water/Wastewater Master Plan

In November 2009, York Region updated their Water and Wastewater Master Plan. As the Region supplies water to the City and collects and treats the City's wastewater, the recommendations of the Water/Wastewater Master Plan need to be compared with those of the Region's Master Plan to ensure consistency.



## Existing Zoning and Proposed Development



## Study Objectives

### Water/Wastewater Master Plan

The Water and Wastewater Master Plan will optimize the efficiency of the City's current infrastructure, and identify where and how additional capacity may be provided to address the needs of new development areas, as well as redevelopment and intensification within the built boundary.

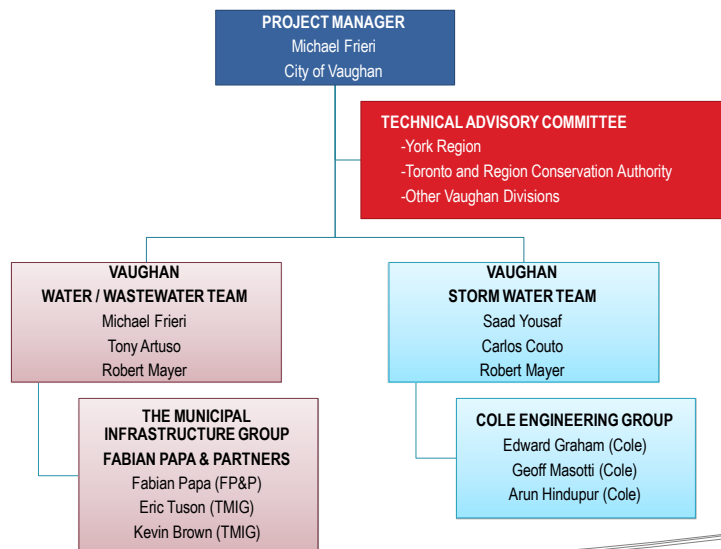
The ability of the City's existing water and wastewater distribution/collection systems to service growth will ultimately rely on the capacities of the Region of York's major trunk water and sewer systems.

### Storm Drainage / Storm Water Management Master Plan

The Storm Water Management/Drainage Master Plan will evaluate the effectiveness of the existing storm water management infrastructure within the City of Vaughan with an additional focus on the Rainbow Creek Watershed to identify where and how these infrastructure needs may change to address new development areas outside of the current urban boundary, and development intensification within the built boundary.

The study will evaluate the use of alternative SWM practices for effective treatment of storm water from source, conveyance, and end of pipe controls to promote protection of the natural environmental systems.





- The Study Teams are looking for feedback from the Technical Advisory Committee that might provide the following:
  - Opportunities to INTEGRATE potential Water, Wastewater, and Storm Water Management solutions with projects, policies, and initiatives currently being considered by your respective organizations or divisions.
  - Specific projects, policies, initiatives or conditions which might CONSTRAIN or LIMIT the applicability of certain locations with respect to providing Water, Wastewater, or Storm Water Management solutions.
- For this initial round of feedback, we would appreciate if comments to the Study Teams could be provided by October 31, 2011.
  - Water/Wastewater Master Plan: [WWWMP@VaughanInfrastructure.ca](mailto:WWWMP@VaughanInfrastructure.ca)
  - Storm Drainage / Storm Water Management Master Plan: [SWMMP@VaughanInfrastructure.ca](mailto:SWMMP@VaughanInfrastructure.ca)

**Water/Wastewater Master Plan**

**Michael Frieri, C.E.T.**  
 Manager of Engineering Planning & Studies  
 Development/Transportation Engineering Department  
 City of Vaughan  
 2141 Major Mackenzie Drive  
 Vaughan, ON L6A 1T1  
 Tel: 905-832-8585 Ext. 8729  
 Fax: 905-832-6145

**Fabian Papa, M.A.Sc., M.B.A., P.Eng.**  
 Project Manager  
**Fabian Papa & Partners Inc.**  
 216 Christie Road, Suite 501  
 Woodbridge, ON L4L 9S5  
 Tel: 905-264-2420 Ext. 410  
 Fax: 905-264-2441

**Eric Tuson, P.Eng.**  
 Assistant Project Manager  
**The Municipal Infrastructure Group Ltd.**  
 8800 Dufferin Street, Suite 200  
 Vaughan, ON L4K 0C5  
 Tel: 905-738-5400 Ext. 253  
 Fax: 905-738-0065

[WWWMP@VaughanInfrastructure.ca](mailto:WWWMP@VaughanInfrastructure.ca)

**Storm Drainage / Storm Water Management Master Plan**

**Saad Yousaf, P.Eng.**  
 Storm Drainage Engineer  
 Engineering Planning & Studies  
 City of Vaughan  
 2141 Major Mackenzie Drive  
 Vaughan, ON L6A 1T1  
 Tel: 905-832-8585 Ext 8251  
 Fax: 905-832-6145

**Edward Graham, M.A.Sc., P.Eng.**  
 Project Manager  
**Cole Engineering Group Ltd.**  
 70 Valleywood Drive  
 Markham, ON L3R 4T5  
 Tel: 905-940-6161  
 Fax: 905-940-2064

**Geoff Masotti, P.Eng.**  
 Assistant Project Manager  
**Cole Engineering Group Ltd.**  
 70 Valleywood Drive  
 Markham, ON L3R 4T5  
 Tel: 905-940-6161  
 Fax: 905-940-2064

[SWMMP@VaughanInfrastructure.ca](mailto:SWMMP@VaughanInfrastructure.ca)

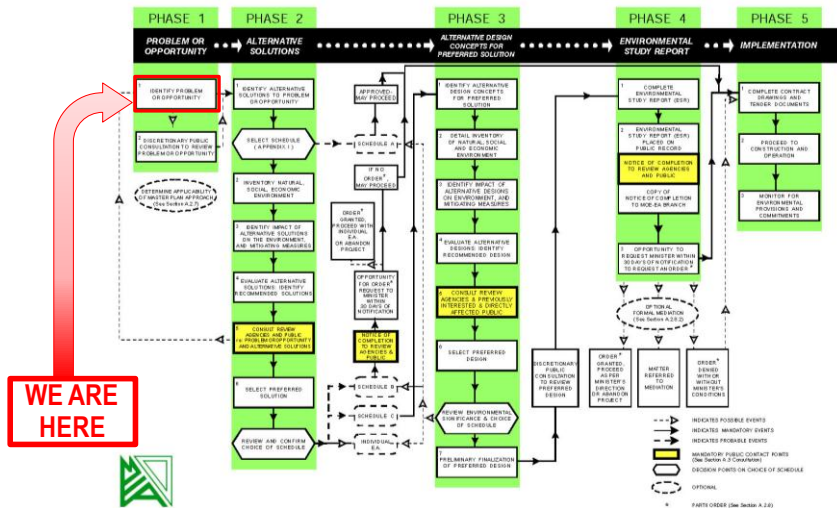
Or, visit the Project Website at

[www.VaughanInfrastructure.ca](http://www.VaughanInfrastructure.ca)



Overview of the Class Environmental Assessment Process

NOTE: This flow chart is to be read in conjunction with Part A of the Municipal Class EA



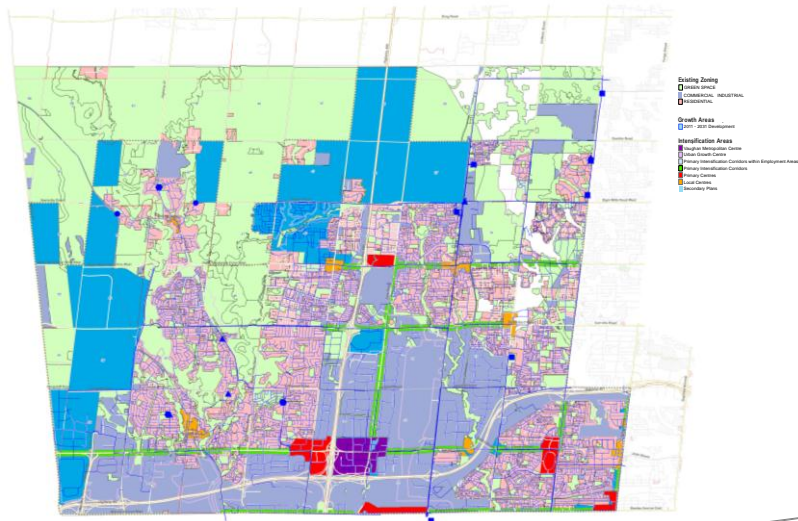
### Project Schedule

	Sept 2011	Oct	Nov	Dec	Jan 2012	Feb	March	April	May	June	July
Notice of Commencement	◆										
Identify problem or opportunity	■										
Public Information Centre #1		◆									
Evaluate Alternative Solutions			■	■	■	■					
Identify Recommended Solution						■	■				
Public Information Centre #2							◆				
Prepare Final Report and Agency Review								■	■	■	
Notice of Completion										◆	
30 Day Review											■

Legend: ◆ ■ Completed Milestone/Task ◆ ■ Future Milestone/Task



### Existing Water System



### 2009 – 2011

- Decommission Kleinburg Well # 2 and # 3
- Proposed Kleinburg Pumping Station (Highway 27, north of Nashville Road)
- Upgrade South Maple PD7 Pumping Station

### 2012 – 2016

- Proposed PD5 Reservoir (Kirby Rd and Huntington Rd) with Feedermain
- Decommission East Woodbridge Pumping Station
- Proposed Vaughan PD7 Reservoir (Jane St and King Vaughan Rd) with Feedermain



### 2017 – 2021

- Decommission East Woodbridge Elevated Tank (Langstaff Rd and Ainsley Grove)
- Upgrade South Maple PD8 Pumping Station
- Proposed Vaughan PD9 Pumping Station (Keele St and Kirby Rd) with Feedermain

### 2022 – 2026

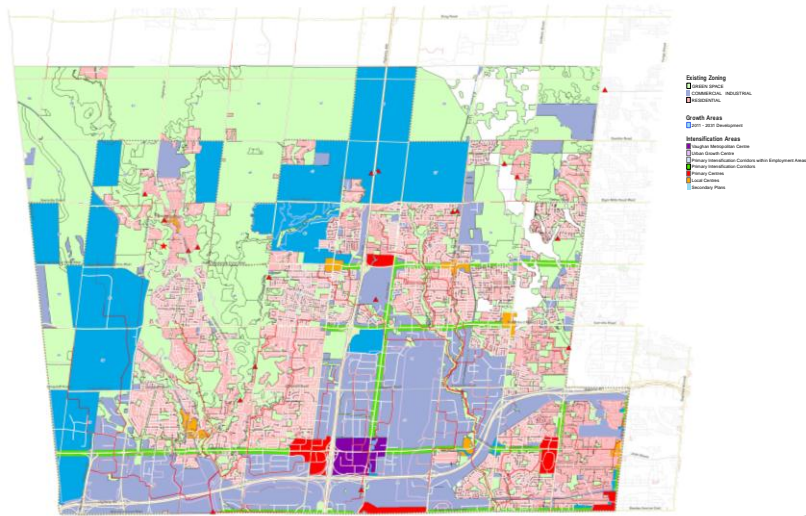
- Proposed PD6 Reservoir (in Nobleton) with Regional Watermain along Huntington Rd and Nashville Rd
- Proposed Vaughan PD8 Reservoir (Keele St and King Vaughan Rd) with Feedermain
- Proposed Vaughan PD9 Elevated Tank (Keele St and King Vaughan Rd)

### 2031 – 2051

- Proposed Vaughan PD8 Pumping Station (Jane St and Teston Rd)



## Existing Wastewater System



## Planned Regional Wastewater Projects

### By 2016

- Kleinburg WPCP expansion to 2.8 ML/d. Future expansion beyond 2.8 ML/d subject to EA
- North West Vaughan Collector
- West Rainbow Creek Trunk Sewer

### By 2031

- North East Vaughan Collector
- Jane-Rutherford Trunk Sewer Upgrade

### Problem/Background

Like many towns and cities throughout Ontario, the City of Vaughan has recently adopted a new City-Wide Official Plan. In Vaughan, the New Official Plan is part of an overall Growth Management Strategy, initiated by Council, that will "shape the future of the City and guide its continued transformation into a vibrant, beautiful and sustainable City".

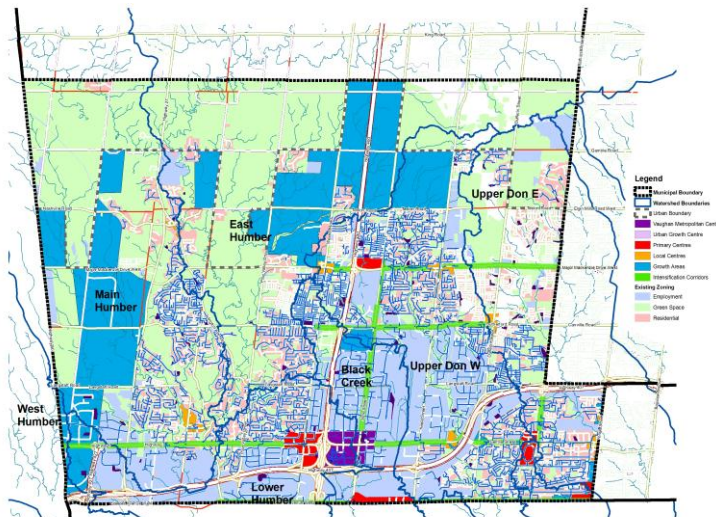
The New Official Plan was completed and adopted by City Council in September 2010, and as such the City is now interested in undertaking a City-Wide Water/Wastewater Master Plan Environmental Assessment Study (MPEA) to complement the New Official Plan and to establish the water and wastewater infrastructure required to support the build-out of the New Official Plan.

**The Water and Wastewater Master Plan will identify alternative infrastructure planning and implementation strategies and select the preferred alternative to meet the City's growth needs,** premised upon a time horizon of 2031. Servicing scenarios beyond 2031 will also be considered to efficiently plan for municipal infrastructure requirements in anticipation of full urbanization and build-out of remaining white belt lands throughout the City.

This Water and Wastewater Master Plan is to be co-ordinated and integrated with the Region of York's Water/Wastewater Master Plan Update (2009) as well as the City's principles of sustainability as established in the Community Sustainability and Environmental Master Plan (CSEMP) called Green Directions Vaughan.

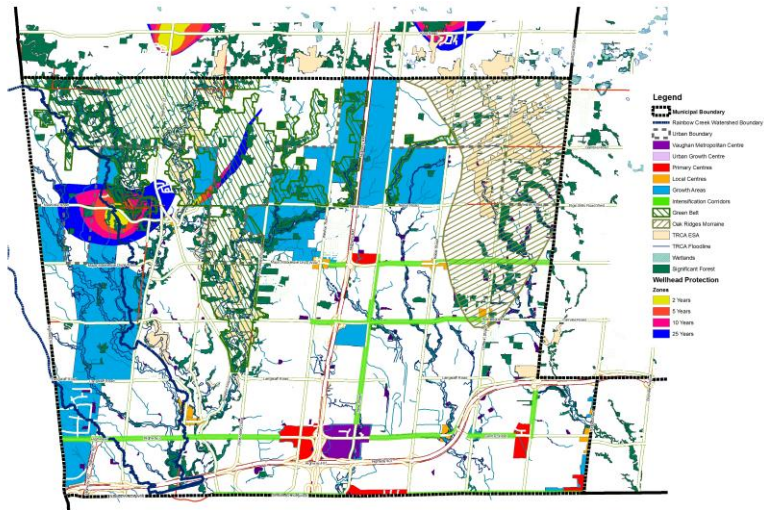
### Opportunity

This project also presents the opportunity to re-assess the City's design criteria and **explore opportunities to maximize the utilization of existing water and wastewater infrastructure.**

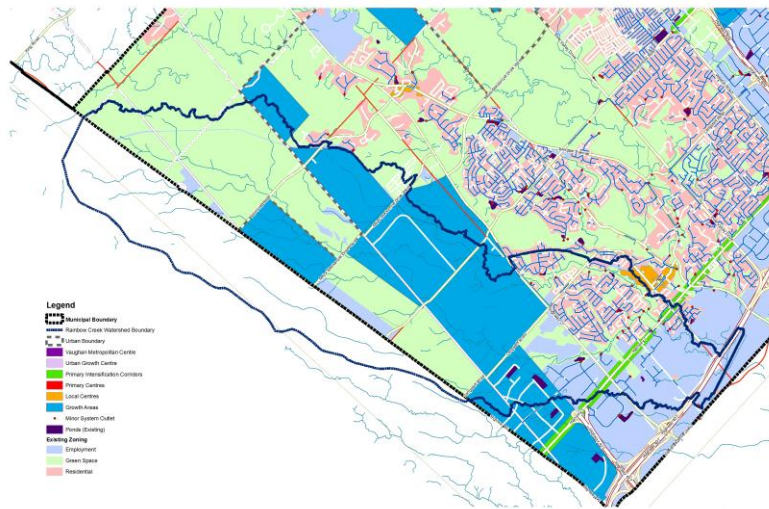




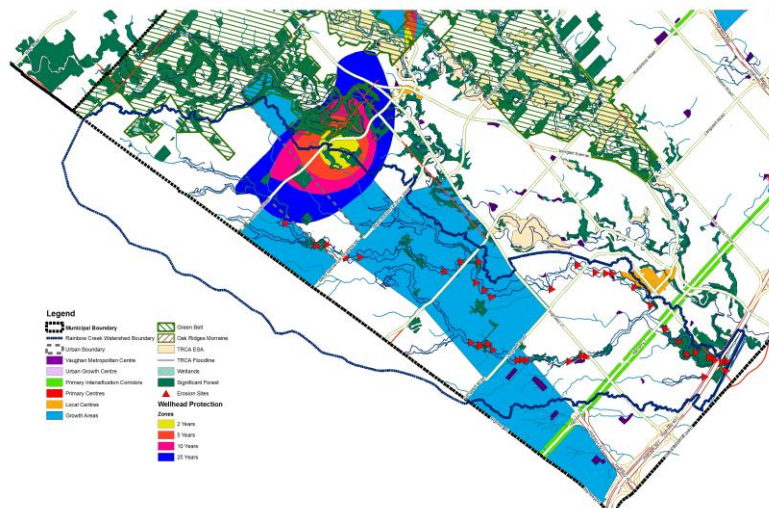
### Natural Hazard Areas and Constraints



### Rainbow Creek Watershed



## Existing Natural Hazard Areas – Rainbow Creek Watershed



## Storm Water Problem/Opportunity Statements

### Problem/Background

In September of 2010 Vaughan Council adopted the new City-Wide Official Plan, a component of the Vaughan Consolidated Growth Management Strategy – 2031. The Official Plan represents an update to the City's community planning policies in a manner consistent with the principles of sustainability. The City is now proceeding with the preparation of a City-Wide Storm Drainage/Storm Water Management (SWM) Master Plan Class Environmental Assessment Study (MPCEA) to complement the new Official Plan and direct the required storm water management infrastructure improvements to support the build-out of the new Official Plan.

As part of the overall SWM MPCEA, the City is also undertaking an update study to the Rainbow Creek Master Plan. The Toronto and Region Conservation Authority (TRCA) has been working with the City of Vaughan to rehabilitate and enhance the environmental conditions in deteriorated streams in urbanized areas including Rainbow Creek watershed. The City is committed to developing and implementing a regeneration plan for the Rainbow Creek watershed.

### Opportunity

This project presents the opportunity to prepare a storm water management planning and guidance document to support and direct development in compliance with the City of Vaughan's Official Plan and policies of the Toronto Region Conservation Authority to improve and determine the best management practices for storm water management as well as to support future intensification as mandated by the Province of Ontario.

The update to Rainbow Creek Master Plan study presents the opportunity for regeneration that will not only improve the environmental conditions within the creek and valley system but will provide reasonable protection against accelerated erosion rates and flooding while protecting municipal infrastructure and property.



- What policies/initiatives do you have in place/underway which might impact upon the identification of alternatives for these studies?
- The Project Teams will establish evaluation criteria with consideration for the natural, social, and economic environment of the study area, as well as the technical criteria.
- Based on the evaluation criteria, the Project Teams will identify and evaluate alternative solutions, resulting in recommended solutions for the water, sanitary, and storm water servicing. Your input will be considered in the evaluation of the alternative solutions.
- The preferred alternatives will be presented at the second Public Information Centre in Spring 2012.
- The next Technical Advisory Committee Meeting will be held about one month before PIC#2.



PROGRESS MEETING #:	TAC Meeting #1	DATE:	September 27, 2011
PROJECT NAME:	WWW & SWM Master Plan EAs	TIME:	2:30 - 4:30 pm
LOCATION:	City of Vaughan - Committee Rm 244	PROJECT #:	W11-259
PURPOSE:	Technical Advisory		

**PRESENT:**

Michael Frieri, City of Vaughan (City), (MF);  
 Saad Yousaf, City of Vaughan (SY);  
 Robert Mayer, City of Vaughan (RMA);  
 Tony Artuso, City of Vaughan (TA);  
 Carlos Couto, City of Vaughan (CC);  
 Jeff Silcox-Childs, City of Vaughan (JSC);  
 Rob Meek, City of Vaughan (RM);  
 Vince Masacchio, City of Vaughan (VM);  
 Melanie Morris, City of Vaughan (MM);  
 Marjie Fraser, City of Vaughan (MFR);  
 Stephen Fung, York Region (Region), (SF);  
 Sameer Dhalla, Toronto and Region Conservation (TRCA), (SD);  
 June Little, Toronto and Region Conservation (JL);  
 Carolyn Woodland, Toronto and Region Conservation (CW);  
 Fabian Papa, Fabian Papa and Associates, (FP&P) (FP);  
 Kevin Brown, The Municipal Infrastructure Group, (TMIG) (KB);  
 Edward Graham, Cole Engineering Group, (CEG) (EG);  
 Geoff Masotti, Cole Engineering Group (GM);  
 Arun Hindupur, Cole Engineering Group (AH).

**REGRETS:**

Paul Jankowski, City of Vaughan;  
 Andrew Pearce, City of Vaughan;  
 Brian Anthony, City of Vaughan;  
 Jack Graziosi, City of Vaughan;  
 Grant Uyeyama, City of Vaughan;  
 Diana Birchall, City of Vaughan;  
 Paul Gardiner, City of Vaughan;  
 Daniel Kostopoulos, York Region;  
 Brett Bloxam, York Region;  
 Deborah Martin-Downs, TRCA;  
 Eric Tuscon, TMIG.

ITEM	DESCRIPTION	ACTION BY
1.	<p><b>Introduction from City:</b></p> <ul style="list-style-type: none"> <li>MF provided an introduction to the members to the first Technical Advisory Committee meeting. MF outlined that there are currently two master plans that are being undertaken: Water / Wastewater Master Plan and the Storm Water Management Master Plan. Both Studies are referred to as "Urban Water Infrastructure" studies. The work associated with both studies will follow the City's Growth Management Strategy as outlined in the City's Official Plan (OP) which was endorsed by Council in 2010. The studies will consider growth in the City to the year 2031 and beyond. Input from the TAC members would be greatly appreciated.</li> </ul>	INFO

**PLEASE NOTE:** If your records of this meeting do not agree with this document, or if there are any omissions, please advise the writer at once, otherwise the contents of this document shall be assumed accurate and correct.



ITEM	DESCRIPTION	ACTION BY
5.	<p><b>Conclusion of Presentation:</b></p> <ul style="list-style-type: none"> <li>FP - Close of presentation portion of meeting and open floor for discussion.</li> <li>KB noted that PIC #1 will be held on Oct. 13 from 7 – 9 pm at the City.</li> </ul>	INFO
6.	<p><b>Round Table Discussion:</b></p> <p><b>TRCA Questions and Comments:</b></p> <ul style="list-style-type: none"> <li><i>Question 1: SD – With regards to Stormwater Management MP, the TRCA currently have many on-going initiatives such as watershed plans, Don hydrology update plan (on-going – AMEC), updated SWM criteria which may have an impact on the study. How should this be discussed?</i></li> <li>EG – Meeting with the TRCA should be set up to discuss the current work that is being undertaken.</li> <li><i>Question 2: SD – Are these studies only looking at linear infrastructure as recommendations or are other technologies such as low flow toilets, rainwater harvesting etc. being considered?</i></li> <li>FP – These studies will not go into detail regarding use of technologies on an individual homeowner scale however they will lay the groundwork for other studies to be undertaken. KB stated that existing or planned water conservation and usage reduction initiatives will be taken into consideration.</li> </ul> <p><b>TRCA Objectives:</b></p> <ul style="list-style-type: none"> <li>CW – There is much development occurring on the planning side. The TRCA wants to be seen as a facilitator of (rather than a barrier to) approvals and look toward the master plan studies to help resolve some of the issues that have been experienced with developers. The TRCA does not want to be a barrier to development.</li> <li>CW – Currently there is a lack of a City-wide comprehensive review of the water, wastewater and storm water systems. Developers will have an advantage having these studies addressing the entire City as opposed to a site by site basis. There should be a clear message regarding comprehensive master plan studies where approvals will be obtained faster with clearer direction.</li> <li>The TRCA wants to work / collaborate with the City and bring a sustainable big picture message.</li> </ul> <p><b>York Region Questions and Comments:</b></p> <ul style="list-style-type: none"> <li>SF – What is the level of detail going into the W / WW MP? The Region would like to know what content will be in the PIC as some projects might be updated / changing from what was originally stated in the York Region Water / Wastewater Master Plan (i.e. Nashville / Kleinburg – 600 mm watermain to be added to existing contract).</li> <li>Slides pertaining to projects from York Region’s W / WW MP will be removed</li> <li>SF – Master Plan studies should state that these projects are not business as usual as they are incorporating servicing strategies such as Infiltration / Inflow Reduction, Water Conservation etc.</li> <li>SF – Timing of some infrastructure work which was documented in the Regional Water and Wastewater Master Plan has changed therefore should not take word for word what has been stated and present it in the City’s W / WW Master Plan.</li> </ul>	<p>COLE</p> <p>INFO</p> <p>INFO</p> <p>CEG/TMIG/ FP&amp;P</p>

ITEM	DESCRIPTION	ACTION BY
	<ul style="list-style-type: none"> <li>• SF – Intensification on Jane St. was not captured in the Regional W / WW master plan.</li> <li>• SF – Region would like to share I / I project information as well as coordination of flow monitoring in sanitary system. This information may be useful for the wastewater master plan. Region suggest meeting with consulting teams to discuss I / I studies.</li> <li>• Region to provide City with sanitary model.</li> <li>• MF and SF are to coordinate data gaps in the model.</li> <li>• <i>Question 3: GM – Are there other invitees or interested parties who should be included in future TAC meetings? ie. Wendy Kemp (Source water protection group at York Region).</i></li> <li>• SF – invite to be sent to Jonathan Pn'g and Paul Bottonley of Region's Planning department</li> </ul> <p><b>City of Vaughan Initiatives and Comments:</b></p> <ul style="list-style-type: none"> <li>• MF – Most projects are being guided by Green Directions. May need to put more emphasis on green directions in this study. Might be worthwhile to pull out objectives from green directions for the Master Plan Studies. Presenting this may help with planning and approvals.</li> <li>• MF – Master plan studies will be updated every 5 years similar to how the Region conducts their Master Plan Studies. The level of detail required for these studies is not intended to allow for a deep consideration of specific measures and technologies related to sustainability initiatives, but will facilitate this more detailed work going forward.</li> <li>• MF – Expect many development engineers at the first PIC. Want to demonstrate that the City is working with the Region on these projects and that there are no conflicts of interest (especially in the Nashville – Kleinburg area).</li> <li>• MM – Parks department does not want service easements through parks. From a SWM perspective, they will be considered on a site by site basis. No constraints as a whole.</li> <li>• MFR – Biggest issues from an operations point of view are geese at the SWM ponds. Would like SWM ponds designed in such a way that they do not attract geese.</li> <li>• KB – Transportation Master Plan is almost complete. Population projections from Transportation Master Plan will be used for W / WW MP. City currently uses regional traffic zones.</li> <li>• MF – Any work that comes out of the W / WW Master Plan should be coordinated between City and Region.</li> </ul>	<p>INFO</p> <p>Region/City/ CEG/TMIG/ FP&amp;P</p> <p>CEG/TMIG/ FP&amp;P</p>

Next Meeting: Spring 2012  
 Minutes Recorded By: AH  
 Distribution: All attending and regrets listed above

**City of Vaughan**  
**Urban Water Infrastructure Master Plans**  
**City-Wide Water Wastewater Master Plan**  
**City-Wide Storm Drainage/Stormwater Master Plan**

**TAC Membership List**

Organization	First Name	Last Name	Position	Email	Special Notes
City of Vaughan	Michael	Frieri	Manager, Engineering Planning & Studies	<a href="mailto:michael.frieri@vaughan.ca">michael.frieri@vaughan.ca</a>	Present
	Saad	Yousaf	Storm Drainage Engineer	<a href="mailto:saad.yousaf@vaughan.ca">saad.yousaf@vaughan.ca</a>	Present
	Robert	Mayer		<a href="mailto:robert.mayer@vaughan.ca">robert.mayer@vaughan.ca</a>	Present
	Tony	Artuso		<a href="mailto:tony.artuso@vaughan.ca">tony.artuso@vaughan.ca</a>	Present
	Carlos	Couto		<a href="mailto:carlos.couto@vaughan.ca">carlos.couto@vaughan.ca</a>	Present
	Jeff	Silcox-Childs	Manager, Parks Services	<a href="mailto:jeffery.childs@vaughan.ca">jeffery.childs@vaughan.ca</a>	Present
	Rob	Meek	Manager, Environmental and Technical Services	<a href="mailto:rob.meek@vaughan.ca">rob.meek@vaughan.ca</a>	Present
	Vince	Masacchio	Manager, Capital Planning and Infrastructure	<a href="mailto:vince.masacchio@vaughan.ca">vince.masacchio@vaughan.ca</a>	Present
	Melanie	Morris	Construction Coordinator, Parks Development	<a href="mailto:melanie.morris@vaughan.ca">melanie.morris@vaughan.ca</a>	Present
	Paul	Gardiner		<a href="mailto:paul.gardiner@vaughan.ca">paul.gardiner@vaughan.ca</a>	Regrets
	Marjie	Fraser	Director, Parks and Forestry Operations	<a href="mailto:marjie.fraser@vaughan.ca">marjie.fraser@vaughan.ca</a>	Present
	Paul	Jankowski		<a href="mailto:paul.jankowski@vaughan.ca">paul.jankowski@vaughan.ca</a>	Regrets
	Andrew	Pearce	Director, Development/Transportation Engineering	<a href="mailto:andrew.pearce@vaughan.ca">andrew.pearce@vaughan.ca</a>	Regrets
	Brian	Anthony		<a href="mailto:brian.anthony@vaughan.ca">brian.anthony@vaughan.ca</a>	Regrets
	Jack	Graziosi		<a href="mailto:jack.graziosi@vaughan.ca">jack.graziosi@vaughan.ca</a>	Regrets
	Grant	Uyeyama		<a href="mailto:grant.uyeyama@vaughan.ca">grant.uyeyama@vaughan.ca</a>	Regrets
Diana	Birchall		<a href="mailto:diana.birchall@vaughan.ca">diana.birchall@vaughan.ca</a>	Regrets	
York Region	Stephen	Fung	Manager, Capital Planning and Engineering	<a href="mailto:stephen.fung@york.ca">stephen.fung@york.ca</a>	Present
	Daniel	Kostopoulos		<a href="mailto:daniel.kostopoulos@york.ca">daniel.kostopoulos@york.ca</a>	Regrets
	Brett	Bloxam		<a href="mailto:brett.bloxam@york.ca">brett.bloxam@york.ca</a>	Regrets
	Jonathan	P'ng	Manager, Water & Wastewater Planning		To be added to TAC#2
	Paul	Bottonley	York Planning		To be added to TAC#2
Toronto and Region Conservation Authority	Sameer	Dhalla	Senior Manager, Water Resources	<a href="mailto:sdhalla@trca.on.ca">sdhalla@trca.on.ca</a>	Present
	Alison	MacLennan	Water Resources Analyst	<a href="mailto:amaclennan@trca.on.ca">amaclennan@trca.on.ca</a>	To be added to TAC#2
	June	Little	Manager, P, D & R	<a href="mailto:jlittle@trca.on.ca">jlittle@trca.on.ca</a>	Present
	Carolyn	Woodland	Director, Parks and Development	<a href="mailto:cwoodland@trca.on.ca">cwoodland@trca.on.ca</a>	Present
	Dorothy	Moszynski	Environmental Resource Planner & EA Coordinator	<a href="mailto:dorothy.moszynski@ontario.ca">dorothy.moszynski@ontario.ca</a>	To be added to TAC#2
Cole Engineering Group	Edward	Graham	Project Manager	<a href="mailto:egramham@coleengineering.ca">egramham@coleengineering.ca</a>	Present
	Geoff	Masotti	Project Manager	<a href="mailto:gmasotti@coleengineering.ca">gmasotti@coleengineering.ca</a>	Present
	Arun	Hindupur	Water Resources Engineer	<a href="mailto:ahindupur@coleengineering.ca">ahindupur@coleengineering.ca</a>	Present
The Municipal Infrastructure Group (TMIG)	Eric	Tuson	Project Manager	<a href="mailto:etuson@tmig.ca">etuson@tmig.ca</a>	Regrets
	Kevin	Brown	Senior Municipal Project Engineer	<a href="mailto:kbrown@tmig.ca">kbrown@tmig.ca</a>	Present
Fabian Papa & Partners	Fabian	Papa	Project Manager	<a href="mailto:fpapa@fabianpapa.com">fpapa@fabianpapa.com</a>	Present

## **Public Information Centre 1**





## NOTICE OF PUBLIC INFORMATION CENTRE NO. 1

### MASTER PLANS FOR URBAN WATER INFRASTRUCTURE IN VAUGHAN

The City of Vaughan is conducting studies to direct the ongoing development of the City's urban water infrastructure systems that support our communities. These systems include water distribution, wastewater collection and storm water management.

These studies are following the Municipal Servicing Master Plan Class Environmental Assessment (MPCEA) process and will support the City's new Official Plan which was adopted by Council in September 2010. The studies will consider the vision for Vaughan to the year 2031 with sustainability as a key underlying theme.

#### MASTER PLAN CLASS ENVIRONMENTAL ASSESSMENT PROCESS

The City has awarded contracts for the following Master Plan studies to be undertaken concurrently:

- City-Wide Storm Drainage / Storm Water Management Master Plan (Cole Engineering Group Limited); and,
- City-Wide Water / Wastewater Master Plan (The Municipal Infrastructure Group Ltd. and Fabian Papa & Partners Inc.).

The MPCEA process includes public and review agency consultation, an assessment of the problem and opportunities (Phase 1), evaluation of alternative solutions, assessment of potential effects on the environment, and identification of reasonable measures to mitigate the adverse effects. The preferred solution(s) will be determined based on engineering requirements, environmental considerations, public input and information gathered during the studies (Phase 2). Subsequent Municipal Class Environmental Assessment work will be required at a later time for the ultimate implementation of the preferred solutions.

#### PUBLIC INFORMATION CENTRE DETAILS

A joint public information centre (PIC) has been scheduled to present the process that is being employed for the studies, and to identify the existing conditions, needs, and justification. The PIC will provide stakeholders with an opportunity to review and comment on the study information.

Public comment obtained at the PIC will be incorporated into the next phase of the study, which is the selection of the preferred solutions for water servicing, wastewater servicing, and stormwater management. The PIC has been scheduled for:

**Date:** Thursday, October 13, 2011  
**Time:** 7:00 p.m. to 9:00 p.m.  
**Location:** Vaughan City Hall  
Multi-Purpose Room, Level 100  
**Address:** 2141 Major Mackenzie Drive, Vaughan, ON L6A 1T1

Following the PIC, the material presented at the meeting will be posted on the City of Vaughan's Infrastructure Planning website at [www.VaughanInfrastructure.ca](http://www.VaughanInfrastructure.ca). For further information, please contact:

Michael Frieri, C.E.T., Manager of Engineering Planning & Studies  
Development / Transportation Engineering Department  
2141 Major Mackenzie Drive, Vaughan, ON L6A 1T1  
Tel: 905-832-8585 Ext. 8729 / Fax: 905-832-6145  
E-Mail: [Michael.Frieri@VaughanInfrastructure.ca](mailto:Michael.Frieri@VaughanInfrastructure.ca)

Please note that information related to these studies will be collected in accordance with the *Freedom of Information and Protection of Privacy Act*. With the exception of personal information, all comments received will become part of the public record and may be included in study documentation prepared for public review. Thank you for your interest in these studies.

**ANDREW PEARCE, Director of Development/ Transportation Engineering, City of Vaughan**

*This Notice issued September 29, 2011*

**MASTER PLANS FOR URBAN WATER INFRASTRUCTURE IN VAUGHAN**

In 2007, Council approved the Terms of Reference for the new Vaughan (City-Wide) Official Plan, a component of the City's Consolidated Growth Management Strategy to a planning horizon of 2031. The new Official Plan updates the City's community planning policies in a manner consistent with the principles of sustainability. Now that the framework for continued urban growth to 2031 is unfolding through the new Official Plan, it is appropriate for the City to undertake the preparation of City-wide urban water infrastructure master plan studies. Two concurrent master plan studies are required, one for water and wastewater infrastructure and one for storm drainage and storm water management.

Both master plan studies are being conducted in accordance with the Master Plan process as outlined in the Municipal Engineers Association Municipal Class Environmental Assessment (MPCEA) document (October 2000, as amended in 2007). The MPCEA process includes public and review agency consultation, an assessment of the problem and opportunities, evaluation of alternative solutions, assessment of potential effects on the environment, and identification of reasonable measures to mitigate any adverse effects. The preferred solution(s) will be determined based on engineering requirements, environmental considerations, public input and information gathered during the studies.

**STUDY AREA AND TIMING**

The Urban Water Infrastructure Master Plan study areas will generally encompass the entire City of Vaughan and will be premised upon a planning horizon of 2031 (consistent with the new Official Plan). Servicing scenarios beyond 2031 will also be considered to efficiently plan for municipal infrastructure requirements in anticipation of full build-out throughout the City.

**STUDY OBJECTIVES**

The Water and Wastewater Master Plan will optimize the efficiency of the City's current infrastructure, and identify where and how additional capacity may be provided to address the needs of new development areas outside of the current urban boundary, and redevelopment and intensification within the built boundary. The capacity of the City's existing water and wastewater distribution/collection systems will ultimately rely on the capacities of the Region of York's major trunk water and sewer systems.

The Storm Water Management/Drainage Master Plan will evaluate the effectiveness of the existing stormwater management infrastructure within the City of Vaughan with an additional focus on the Rainbow Creek Subwatershed to identify where and how these infrastructure needs may change to address new development areas outside of the current urban boundary, and development intensification within the built boundary. The study will evaluate the use of alternative SWM practices for effective treatment of stormwater from source, conveyance, and end of pipe controls to promote protection of the natural environmental systems.

**PUBLIC AND AGENCY PARTICIPATION**

The public consultation process will involve all individuals and interest groups having a stake in the City's Urban Water Infrastructure Master Plans including, local residents, ratepayer groups, the business community, the development community, public agencies and other special interest groups. A Technical Advisory Committee has also been established to represent interests for specific areas and to provide ongoing input throughout the process.

The first Public Information Centre will be held on Thursday, October 13, 2011. See notice of Public Information Centre (PIC) #1 for additional details.

Comments should be returned in writing. Please address your comments to:

**Michael Frieri**, C.E.T., Manager of Engineering Planning & Studies  
Development/Transportation Engineering Department  
2141 Major Mackenzie Drive, Vaughan, ON L6A 1T1  
Tel: 905-832-8585 Ext. 8729 Fax: 905-832-6145  
E-Mail: [Michael.Frieri@VaughanInfrastructure.ca](mailto:Michael.Frieri@VaughanInfrastructure.ca)

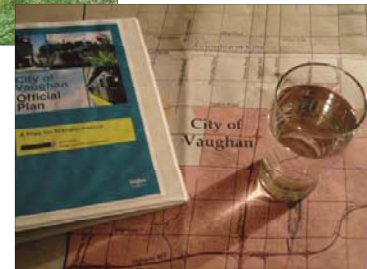
Comments will be maintained for reference throughout the project and will become part of the public record. Under the Freedom of Information and Protection of Privacy Act and the Environmental Assessment Act, unless otherwise stated in the submission, any personal information such as name, address, telephone number and property location included in a submission will become part of the public record files for this matter and will be released, if requested, to any person.

## PUBLIC INFORMATION CENTRE No. 1

### CITY OF VAUGHAN CITY-WIDE URBAN WATER INFRASTRUCTURE MASTER PLANS Water/Wastewater Master Plan Storm Drainage / Storm Water Management Master Plan

THURSDAY OCTOBER 13, 2011  
7:00 p.m. to 9:00 p.m.

- Please sign in on the sheet provided. Then feel free to walk around and view the displays.
- The purpose of this Public Information Centre (PIC) is to introduce you to the projects, inform you of the progress to date, and obtain your comments on the project.
- The major elements presented today are:
  - Overview of the Class Environmental Assessment Process
  - Background Information
  - Study Objectives
  - Problem /Opportunity Statements
- If you have any questions, our representatives will be pleased to discuss the project with you.
- The Study Teams are interested in receiving any comments that you may have about the Studies.
- Should you have any questions or comments, require further information, or wish to be added to the study mailing lists, please contact one of the Study Team members.



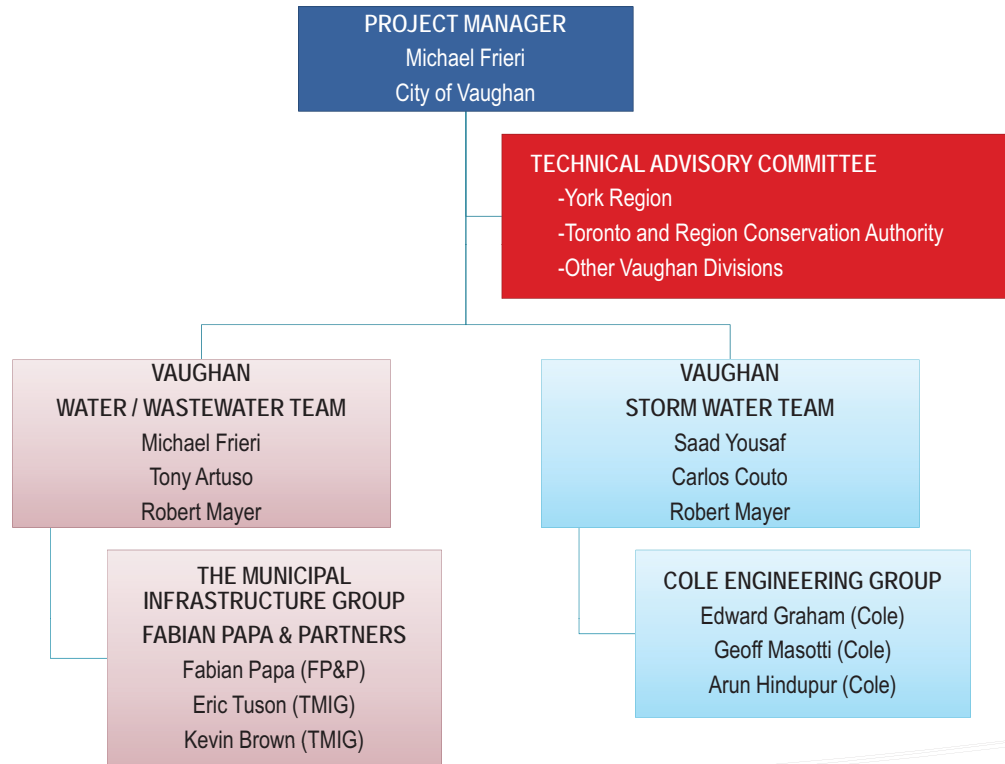
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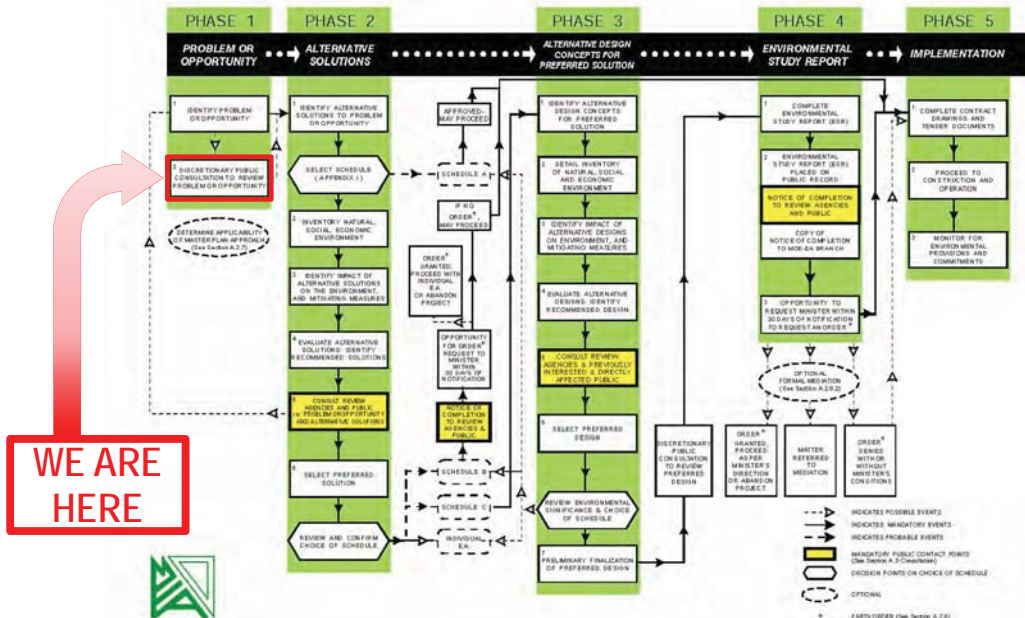


Overview of the Class Environmental Assessment Process

Master Plan Class EA

The Studies are being conducted in accordance with the Master Plan process as outlined in the *Municipal Engineers Association Municipal Class Environmental Assessment* document (October 2000, as amended in 2007).

**NOTE:** This flow chart is to be read in conjunction with Part A of the *Municipal Class EA*





Within the City of Vaughan, there are a number of completed and ongoing studies that were reviewed and referenced as part of these Master Plans. A summary of those studies is provided below.



### Vaughan Official Plan

The New Official Plan was completed and adopted by City Council in September 2010, a component of the City's Consolidated Growth Management Strategy to a planning horizon of 2031. The new Official Plan updates the City's community planning policies in a manner consistent with the principles of sustainability.



### Places to Grow

The Provincial 2006 Growth Plan for the Greater Golden Horseshoe forecasts that the population within York Region will grow to 1,500,000 by 2031 and that the number of jobs will increase to 780,000. Within Vaughan specifically, this translates to a **2031 population of 417,000** (growth of 168,000 over 2006 population), and **261,000 jobs** (increase of 102,000).

This will be achieved through a combination of expansion to the existing urban boundary and also through intensification within existing built-up areas. The Places to Grow Act and the Growth Plan provided the basis for the updates to the Official Plan.



### Greenbelt Plan

The Greenbelt Plan was established in 2005 under the Greenbelt Act. The City of Vaughan includes lands that are part of the Greenbelt. The Greenbelt Plan acknowledges the need to maintain existing infrastructure to serve existing land uses and the need for additional infrastructure to support future growth. All new infrastructure that will be within the Greenbelt must comply with specific policies prior to implementation.

### Green Directions Vaughan

Green Directions Vaughan is the City's Community Sustainability and Environmental Master Plan (CSEMP). It influences virtually all aspects of the City's operational and regulatory activities, including the growth management strategy. The plan establishes the principles of sustainability to be used in the development of other plans and master plans to achieve a healthy natural environment, vibrant communities and a strong economy.



### Vaughan Transportation Master Plan

The Transportation Master Plan will define the road and public transit infrastructure, and other initiatives, which are needed to accommodate the population and employment growth that will result from the implementation of the Growth Management strategy.

### Black Creek Optimization Study

The overall goal of the Black Creek Optimization Study is to address the ongoing flooding, water quality and channel erosion issues that have been identified within that Study Area.



### York Water/Wastewater Master Plan

In November 2009, York Region updated their Water and Wastewater Master Plan. As the Region supplies water to the City and collects and treats the City's wastewater, the recommendations of the Water/Wastewater Master Plan need to be compared with those of the Region's Master Plan to ensure consistency.



## Community Sustainability and Environmental Master Plan

Green Directions Vaughan was designed to establish the principles of **sustainability** in Vaughan, and will be considered through these Master Plans to help achieve a healthy natural environment, vibrant communities and a strong economy. Green Directions provides two distinct functions:

1. it creates a series of sustainability action plans to guide the City's operational and regulatory functions; and
2. it acts as the City's first Integrated Community Sustainability Plan.

### There are six key goals outlined in the plan:

- |  |  |
|--|--|
| <ol style="list-style-type: none"> <li>1 To significantly reduce our use of natural resources and the amount of waste we generate</li> <li>2 To ensure sustainable development and redevelopment</li> <li>3 To ensure that Vaughan is a City that is easy to get around with a low environmental impact</li> </ol> | <ol style="list-style-type: none"> <li>4 To create a vibrant community where citizens, businesses and visitors thrive</li> <li>5 To be leaders in advocacy and education on sustainability issues</li> <li>6 To ensure a supportive system for the implementation of Green Directions</li> </ol> |
|--|--|

The **Water/Wastewater Master Plan** and the **Storm Drainage / Storm Water Management Master Plan** will both strive to achieve the goals of Green Directions through:

- ongoing consultation with the Region, TRCA, the Development Community, and the General Public; and,
- consideration of established and emerging technologies to achieve waste reduction and sustainability goals.



## Water/Wastewater Master Plan

The Water and Wastewater Master Plan will optimize the efficiency of the City's current infrastructure, and identify where and how additional capacity may be provided to address the needs of new development areas, as well as redevelopment and intensification within the built boundary.

The ability of the City's existing water and wastewater distribution/collection systems to service growth will ultimately rely on the capacities of the Region of York's major trunk water and sewer systems.

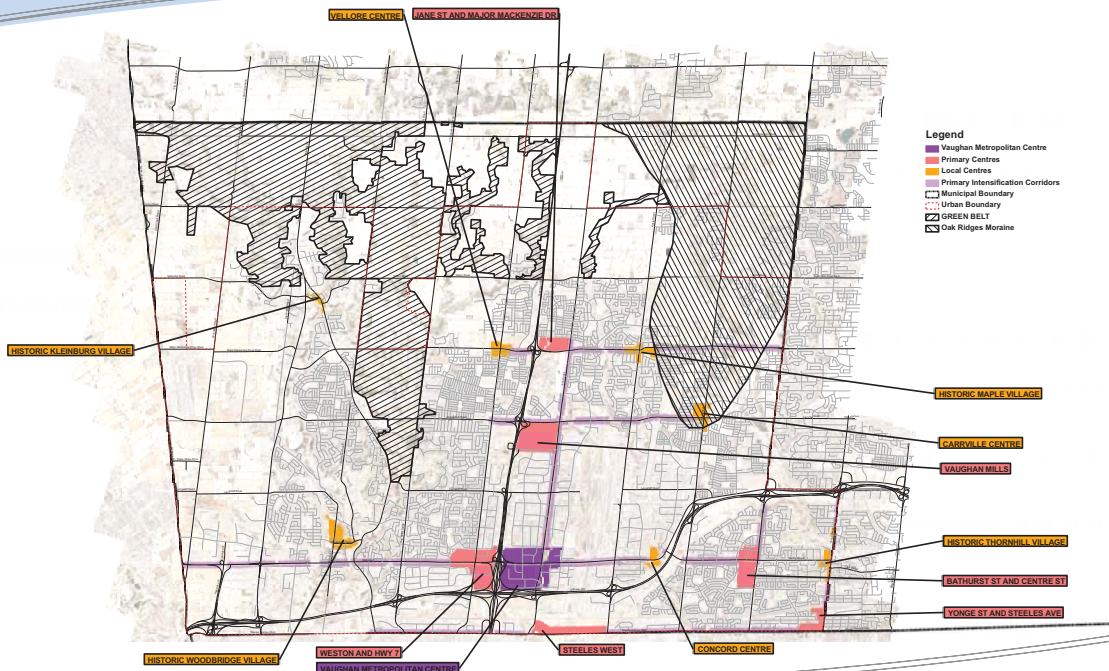
## Storm Drainage / Storm Water Management Master Plan

The Storm Drainage / Storm Water Management Master Plan will evaluate the effectiveness of the existing storm water management infrastructure within the City of Vaughan with an additional focus on the Rainbow Creek Watershed to identify where and how these infrastructure needs may change to address new development areas outside of the current urban boundary, and redevelopment and intensification within the built boundary.

The study will evaluate the use of alternative SWM practices for effective treatment of storm water from source, conveyance, and end of pipe controls to promote protection of the natural environmental systems.

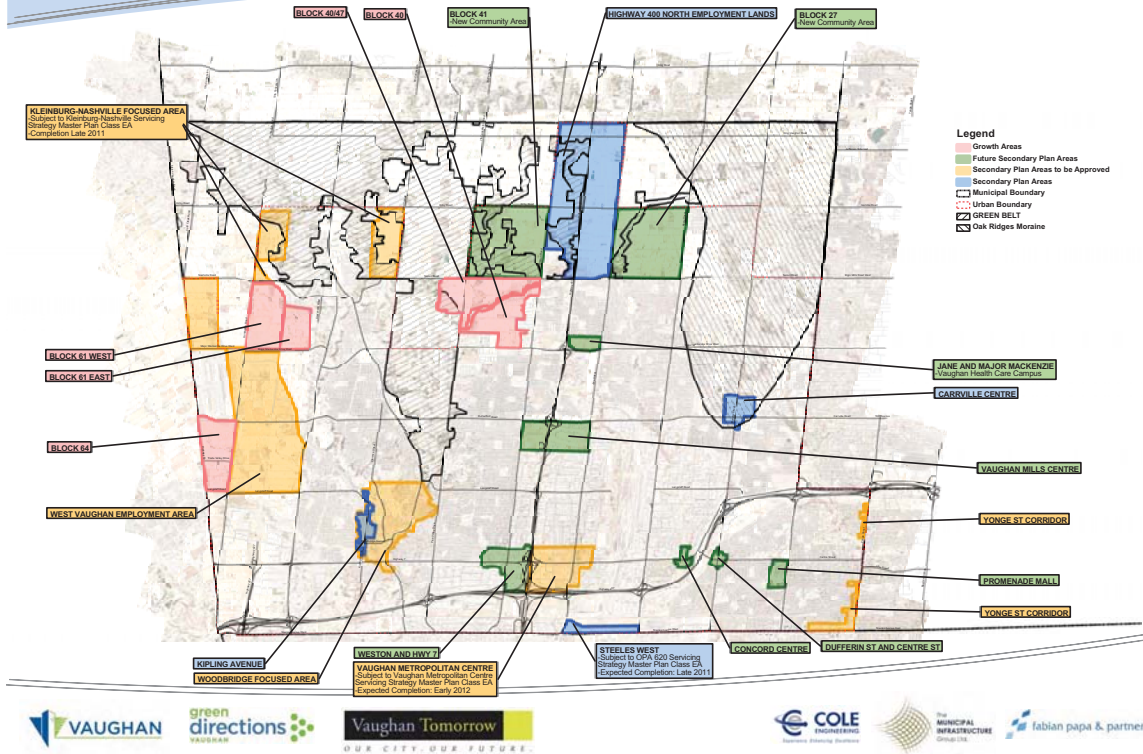


## Intensification Areas

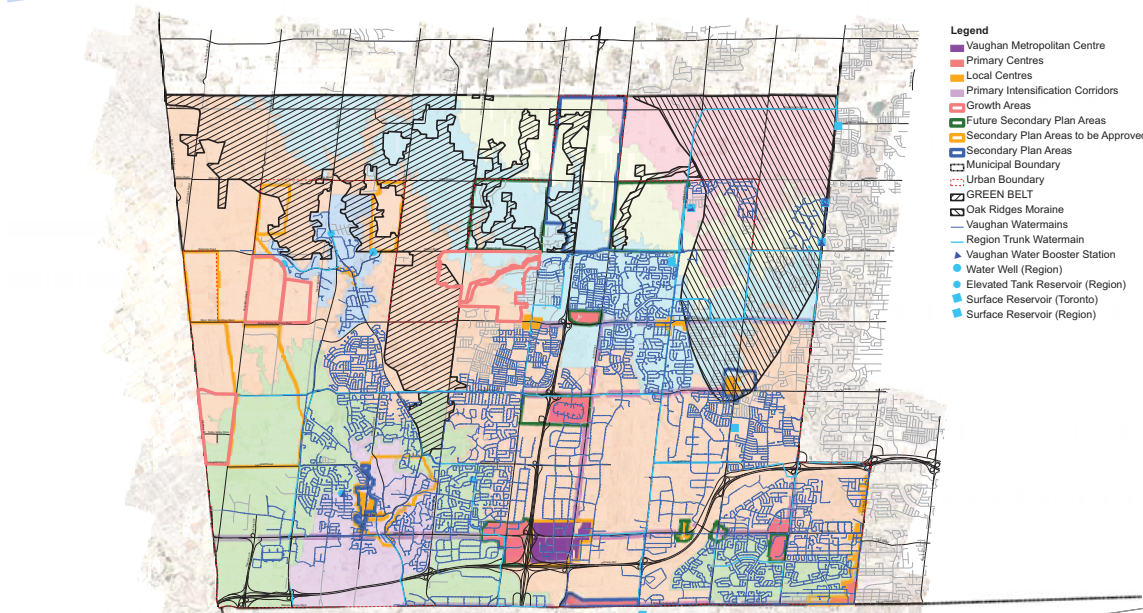


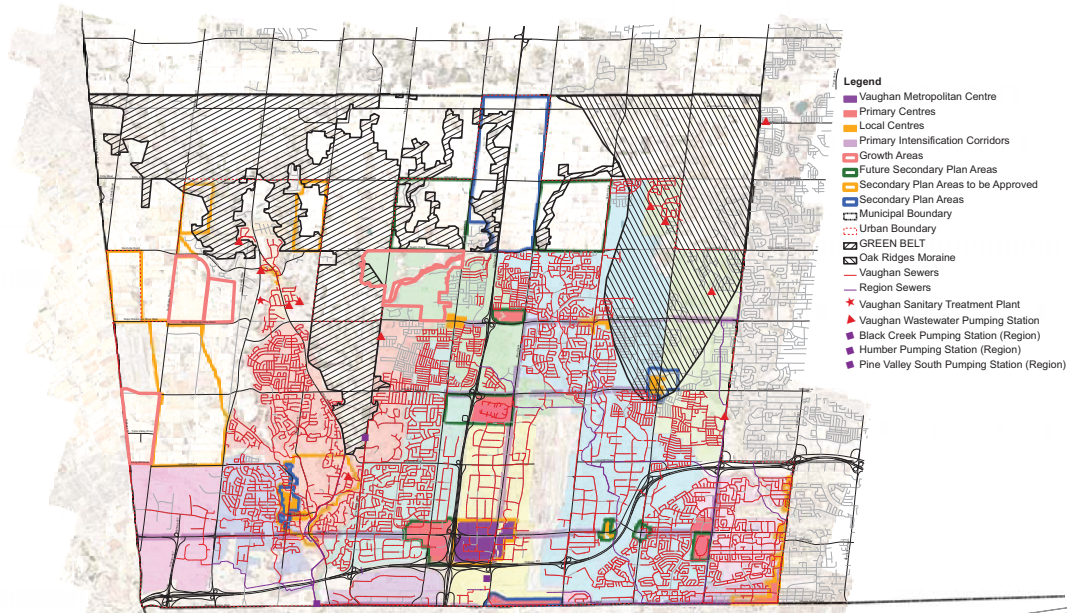


## Secondary Plan Areas



## Existing Water System





### Problem/Background

Like many towns and cities throughout Ontario, the City of Vaughan has recently adopted a new City-Wide Official Plan. In Vaughan, the New Official Plan is part of an overall Growth Management Strategy, initiated by Council, that will “shape the future of the City and guide its continued transformation into a vibrant, beautiful and sustainable City”.

The New Official Plan was completed and adopted by City Council in September 2010, and as such the City is now interested in undertaking a City-Wide Water/Wastewater Master Plan Environmental Assessment Study (MPEA) to complement the New Official Plan and to establish the water and wastewater infrastructure required to support the build-out of the New Official Plan.

**The Water and Wastewater Master Plan will identify alternative infrastructure planning and implementation strategies and select the preferred alternative to meet the City’s growth needs, premised upon a time horizon of 2031. Servicing scenarios beyond 2031 will also be considered to efficiently plan for municipal infrastructure requirements in anticipation of full urbanization and build-out of remaining white belt lands throughout the City.**

This Water and Wastewater Master Plan is to be co-ordinated and integrated with the Region of York’s Water/Wastewater Master Plan Update (2009) as well as the City’s principles of sustainability as established in the Community Sustainability and Environmental Master Plan (CSEMP) called Green Directions Vaughan.

### Opportunity

This project also presents the opportunity to re-assess the City’s design criteria and **explore opportunities to maximize the utilization of existing water and wastewater infrastructure.**





**Problem/Background**

In September of 2010 Vaughan Council adopted the new City-Wide Official Plan, a component of the Vaughan Consolidated Growth Management Strategy – 2031. The Official Plan represents an update to the City's community planning policies in a manner consistent with the principles of sustainability. The City is now proceeding with the preparation of a City-Wide Storm Drainage/Storm Water Management (SWM) Master Plan Class Environmental Assessment Study (MPCEA) to complement the new Official Plan and direct the required storm water management infrastructure improvements to support the build-out of the new Official Plan.

As part of the overall SWM MPCEA, the City is also undertaking an update study to the Rainbow Creek Master Plan. The Toronto and Region Conservation Authority (TRCA) has been working with the City of Vaughan to rehabilitate and enhance the environmental conditions in deteriorated streams in urbanized areas including Rainbow Creek watershed. The City is committed to developing and implementing a regeneration plan for the Rainbow Creek watershed.

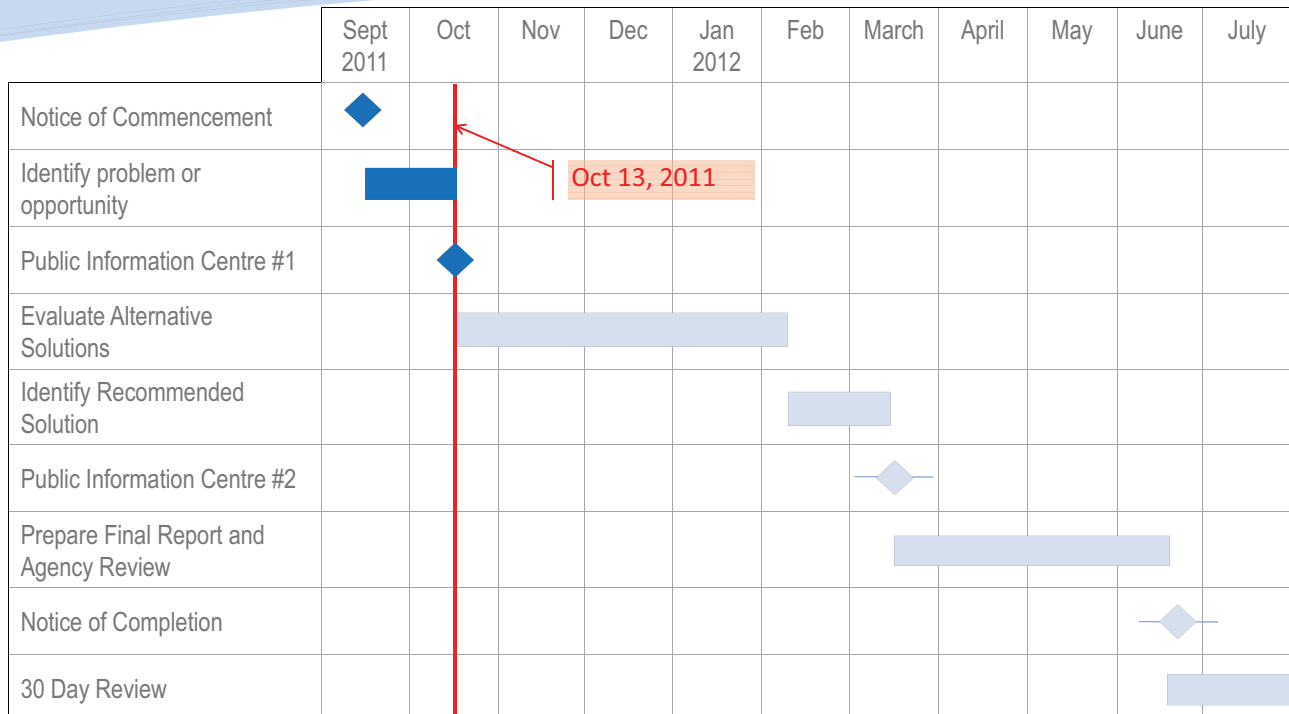
**Opportunity**

This project presents the opportunity to prepare a storm water management planning and guidance document to support and direct development in compliance with the City of Vaughan's Official Plan and policies of the Toronto Region Conservation Authority to improve and determine the best management practices for storm water management as well as to support future intensification as mandated by the Province of Ontario.

The update to Rainbow Creek Master Plan study presents the opportunity for regeneration that will not only improve the environmental conditions within the creek and valley system but will provide reasonable protection against accelerated erosion rates and flooding while protecting municipal infrastructure and property.



**Project Schedule**



Legend: ◆ ■ Completed Milestone/Task ◆ ■ Future Milestone/Task



- Comments from this Public Information Centre will be considered along with those received from review agencies. Please provide your comments on a comment sheet and place it in the Comment Box, or send it to us by fax, e-mail or mail by October 31, 2011.
- The Project Team will establish evaluation criteria with consideration for the natural, social, and economical environment of the study area, as well as the technical criteria.
- Based on the evaluation criteria, the Project Team will identify and evaluate alternative solutions, resulting in recommended solutions for the water, sanitary, and storm water servicing. The preferred alternative will be presented at the second Public Information Centre in Spring 2012.



#### Water/Wastewater Master Plan

**Michael Frieri, C.E.T.**  
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Development/Transportation Engineering Department  
**City of Vaughan**  
2141 Major Mackenzie Drive  
Vaughan, ON L6A 1T1  
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**Fabian Papa, M.A.Sc., M.B.A., P.Eng.**  
Project Manager  
**Fabian Papa & Partners Inc.**  
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#### Storm Drainage / Storm Water Management Master Plan

**Saad Yousaf, P.Eng.**  
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Engineering Planning & Studies  
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**Edward Graham, M.A.Sc., P.Eng.**  
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Or, visit the Project Website at

[www.VaughanInfrastructure.ca](http://www.VaughanInfrastructure.ca)



# REGISTRATION SHEET

Public Information Centre #1 – Master Plans for Urban Water Infrastructure in Vaughan  
Municipal Class Environmental Assessment

Thursday October 13, 2011 – City of Vaughan

Name (Please Print)	Address/E-mail	Phone Number
1. Elliot [Redacted]	PRIVATE INFORMATION REMOVED FROM THE PUBLIC REVIEW DOCUMENT	
2. MILAD [Redacted]		
3. SAM [Redacted]		
* 4. Abeer [Redacted]		
5. Avon [Redacted]		
6. SHAFIAT [Redacted]		
7. David [Redacted]		
8. Marco [Redacted]		
9. Mario [Redacted]		
10. FRANK [Redacted]		

## REGISTRATION SHEET

Public Information Centre #1 – Carruthers Creek Flood Management and Analysis  
Municipal Class Environmental Assessment

Thursday December 9, 2010 – Town of Ajax Council Chambers

Name (Please Print)	Address/E-mail	Phone Number
11. <i>ANDREW</i> [REDACTED]	PRIVATE INFORMATION REMOVED FROM THE PUBLIC REVIEW DOCUMENT	
12. <i>Jack</i> [REDACTED]		
13. <i>HAROLD</i> [REDACTED]		
14. <i>Matt</i> [REDACTED]		
15. <i>Rosemarie</i> [REDACTED]		
16. <i>Stephen</i> [REDACTED]		
17.		
18.		
19.		
20.		

225

## Fabian Papa

---

**From:** Lau, Peter <Peter.Lau@snclavalin.com>  
**Sent:** Thursday, July 26, 2012 1:44 PM  
**To:** fpapa@fabianpapa.com; Michael.Frieri@VaughanInfrastructure.ca  
**Cc:** Upjohn, Ian; Wallace, Craig; Law, Albert; Yang, Mary; Glass, Heather (MTO)  
**Subject:** RE: Notice of PIC #2 - Vaughan - Master Plans for Urban WaterInfrastructure

**Importance:** High

Fabian and Michael:

We have reviewed the City-Wide Water/Wastewater Master Plan for PIC #1 on Oct. 13, 2011 and the Master Plans for Urban Water Infrastructure in Vaughan for PIC # 2 on June 27, 2012 from the Vaughan Infrastructure web site.

The existing installation (water, wastewater and storm water) as shown on the City-Wide Water/Wastewater Master Plan for PIC #1 will not affect our detail design of the proposed Hwy 400 widening from Major Mackenzie Dr. to King Rd. for the Ministry of Transportation (MTO). We will have the design package completed in late September/early October this year.

From the Master Plans for Urban Water Infrastructure for PIC # 2, the following improvement alternatives may have implications/impacts to the proposed Hwy 400 widening from Major Mackenzie Dr. to King Road, depending on the exact location of the proposed improvement:

- Water Servicing Alternative ID W3 (PD7) along Teston Road which crosses Hwy 400;
- Water Servicing Alternative ID W4 (PD8) along Kirby Road and along King-Vaughan Road which crosses Hwy 400 separately; and
- Sanitary Servicing Alternative ID WW3 – Teston Sub-Trunk Sanitary Sewer and SPS along Teston Road which crosses Hwy 400;

Should you have more details on the above improvements, you should forward it to Ms. Heather Glass, the MTO Project Manager for the proposed Hwy 400 widening from Major Mackenzie Dr. to King Rd., for her review and comments.

If you have any questions, please do not hesitate to contact us.

Regards

**Peter Lau, P. Eng.**  
SR PROJECT MANAGER

Tel.: 416 252 5315 x 2033

**SNC-Lavalin Inc.**  
195 The West Mall  
Toronto | Ontario | Canada | M9C 5K1



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**From:** Lau, Peter  
**Sent:** July 13, 2012 1:08 PM  
**To:** Upjohn, Ian  
**Subject:** FW: Notice of PIC #2 - Vaughan - Master Plans for Urban WaterInfrastructure

FYI

---

**From:** Yang, Mary  
**Sent:** July 13, 2012 11:28 AM  
**To:** Lau, Peter; Law, Albert  
**Subject:** FW: Notice of PIC #2 - Vaughan - Master Plans for Urban WaterInfrastructure

FYI.

The following link has informations regarding the City of Vaughan's water infrastructure plan.

Mary

---

**From:** Fabian Papa [mailto:fpapa@fabianpapa.com]  
**Sent:** July 13, 2012 10:27 AM  
**To:** Yang, Mary  
**Cc:** 'Kevin Brown'  
**Subject:** RE: Notice of PIC #2 - Vaughan - Master Plans for Urban WaterInfrastructure

Dear Mary:

We are part of the project team working on the City-Wide Water and Wastewater Master Plan for the City of Vaughan.

This is to follow up on your e-mail to Michael Frieri of June 12<sup>th</sup> to Michael Frieri of the City (copied below). The second Public Information Centre was held on June 27<sup>th</sup> and the materials from that event are available for your review at the following URL: <http://www.vaughaninfrastructure.ca/www-notices.html>. This will give you an indication of where the project is in the process and the projects that have been identified.

Please note that comments are requested to be returned by 27 July 2012 such that the project team can consider them in subsequently preparing the project report.

Kind regards,

**Fabian Papa** M.A.Sc., M.B.A., P.Eng.  
PEO Designated Consulting Engineer | Adjunct Professor, University of Toronto  
C: +1 416 565 0158 | E: fpapa@fabianpapa.com



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Please visit us at [www.fabianpapa.com](http://www.fabianpapa.com)

---

**From:** Yang, Mary [<mailto:Mary.Yang@snclavalin.com>]  
**Sent:** Tuesday, June 12, 2012 5:17 PM  
**To:** [Michael.Frieri@VaughanInfrastructure.ca](mailto:Michael.Frieri@VaughanInfrastructure.ca)  
**Cc:** Law, Albert; Upjohn, Ian; Wallace, Craig; Lau, Peter  
**Subject:** RE: Notice of PIC #2 - Vaughan - Master Plans for Urban WaterInfrastructure  
**Importance:** High

Good afternoon Michael,

SNC-Lavalin Inc. is retained by MTO for detail design services on the Highway 400 widening contract (from Major MacKenzie Drive to King Road).

We have received notification for PIC #2 - Vaughan - Master Plans for Urban Water Infrastructure from Cassandra Leal below.

Part our proposed Highway 400 widening work falls within City of Vaughan, with proposed constructions on King-Vaughan Road and Kirby Road in the vicinity of Highway 400..

Could you kindly provide us the City's Water Infrastructure Master Plan for us decide if there will be any implications on MTO's Highway 400 widening project or vice versa?

Thanks,

**Mary Yang**

*Engineering-In-Training*

Tel.: 416-252-5315 x 5420  
Fax: 416-231-5356

**SNC-Lavalin Inc.**  
195 The West Mall  
Toronto | Ontario | Canada | M9C 5K1



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**From:** Lau, Peter  
**Sent:** June 12, 2012 4:26 PM  
**To:** Yang, Mary  
**Cc:** Law, Albert; Upjohn, Ian; Wallace, Craig  
**Subject:** FW: Notice of PIC #2 - Vaughan - Master Plans for Urban WaterInfrastructure  
**Importance:** High

Mary:

Can you please check with Cassandra of the City of Vaughan to find out where can we find their Master Plan so that we can see if it had any implication of the projects that we are working on?

Thank you.

Peter Lau

---

**From:** Cassandra Leal [<mailto:cleal@tmig.ca>]  
**Sent:** June 12, 2012 3:40 PM  
**To:** Cassandra Leal  
**Subject:** Notice of PIC #2 - Vaughan - Master Plans for Urban WaterInfrastructure

Good Afternoon,

Please find attached Notice of Public Information Centre No. 2.

Thank you,  
Cassandra

Cassandra Leal  
engineer-in-training

TMIG | THE MUNICIPAL INFRASTRUCTURE GROUP LTD  
8800 Dufferin Street, Suite 200 | Vaughan, Ontario, Canada L4K 0C5 | office 905.738.5700 ext 264 | fax 905.738.0065

EXPERIENCE | EFFICIENCY | COMMITMENT

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## **Technical Advisory Committee 2**



## TECHNICAL ADVISORY COMMITTEE MEETING #2

### MASTER PLANS FOR URBAN WATER INFRASTRUCTURE IN VAUGHAN

WEDNESDAY JUNE 6, 2012  
1:30 PM to 3:30 PM



## Other Related Studies

Within the City of Vaughan, there are a number of completed and ongoing studies that were reviewed and referenced as part of these Master Plan. A summary of those studies is provided below.



### Vaughan Official Plan

The New Official Plan was completed and adopted by City Council in September 2010, a component of the City's Consolidated Growth Management Strategy to a planning horizon of 2031. The new Official Plan updates the City's community planning policies in a manner consistent with the principles of sustainability.



### Places to Grow

The Provincial 2006 Growth Plan for the Greater Golden Horseshoe forecasts 416,600 people, and 266,100 jobs within the City of Vaughan by 2031. This will be achieved through a combination of expansion to the existing urban boundary and also through intensification within existing built-up areas.

The Places to Grow Act and the Growth Plan provided the basis for the updates to the Official Plan.



### Greenbelt Plan

The Greenbelt Plan was established in 2005 under the Greenbelt Act. The City of Vaughan includes lands that are part of the Greenbelt. The Greenbelt Plan acknowledges the need to maintain existing infrastructure to serve existing land uses and the need for additional infrastructure to support future growth. All new infrastructure that will be within the Greenbelt must comply with specific policies prior to implementation.

### Green Directions Vaughan

Green Directions Vaughan is the City's Community Sustainability and Environmental Master Plan (CSEMP). It influences virtually all aspects of the City's operational and regulatory activities, including the growth management strategy. The plan establishes the principles of sustainability to be used in the development of other plans and master plans to achieve a healthy natural environment, vibrant communities and a strong economy.



### Vaughan Transportation Master Plan

The Transportation Master Plan will define the road and public transit infrastructure, and other initiatives, which are needed to accommodate the population and employment growth that will result from the implementation of the Growth Management strategy.

### Black Creek Optimization Study

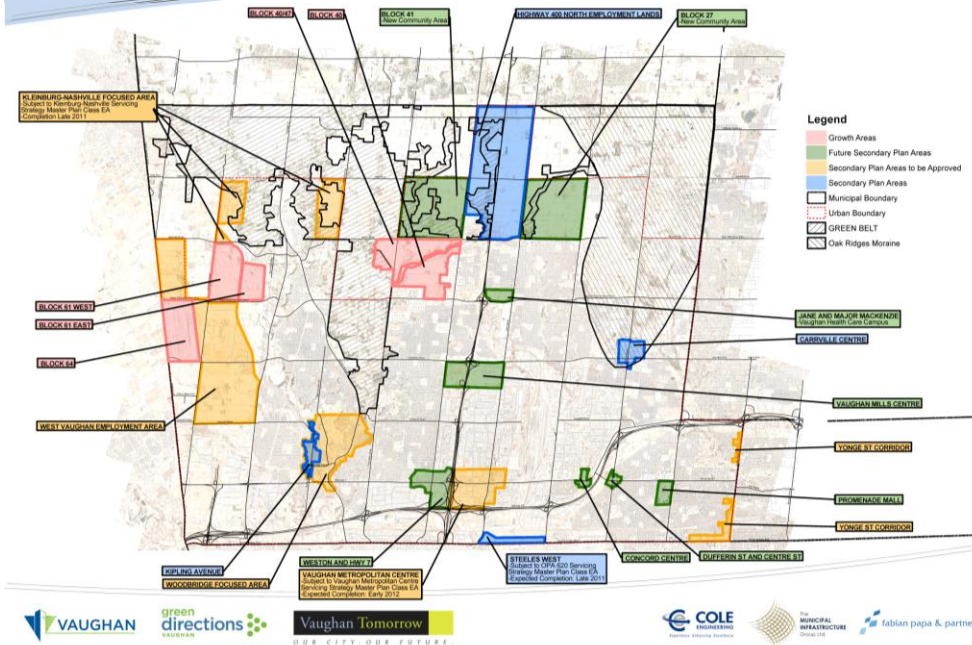
The overall goal of the Black Creek Optimization Study is to address the ongoing flooding, water quality and channel erosion issues that have been identified within that Study Area.



### York Water/Wastewater Master Plan

In November 2009, York Region updated their Water and Wastewater Master Plan. As the Region supplies water to the City and collects and treats the City's wastewater, the recommendations of the Water/Wastewater Master Plan need to be compared with those of the Region's Master Plan to ensure consistency.





### Water/Wastewater Master Plan

The Water and Wastewater Master Plan will optimize the efficiency of the City's current infrastructure, and identify where and how additional capacity may be provided to address the needs of new development areas, as well as redevelopment and intensification within the built boundary.

The ability of the City's existing water and wastewater distribution/collection systems to service growth will ultimately rely on the capacities of the Region of York's major trunk water and sewer systems.

### Storm Drainage / Storm Water Management Master Plan

The Storm Water Management/Drainage Master Plan will evaluate the effectiveness of the existing storm water management infrastructure within the City of Vaughan with an additional focus on the Rainbow Creek Watershed to identify where and how these infrastructure needs may change to address new development areas outside of the current urban boundary, and development intensification within the built boundary.

The study will evaluate the use of alternative SWM practices for effective treatment of storm water from source, conveyance, and end of pipe controls to promote protection of the natural environmental systems.

- The Study Teams are looking for feedback from the Technical Advisory Committee that might provide the following:
  - Opportunities to INTEGRATE potential Water, Wastewater, and Storm Water Management solutions with projects, policies, and initiatives currently being considered by your respective organizations or divisions.
  - Specific projects, policies, initiatives or conditions which might CONSTRAIN or LIMIT the applicability of certain locations with respect to providing Water, Wastewater, or Storm Water Management solutions.
- For this initial round of feedback, we would appreciate if comments to the Study Teams could be provided by June 13<sup>th</sup> for consideration prior to PIC #2, or by June 29<sup>th</sup> for inclusion in the ESR.
  - Water/Wastewater Master Plan: [WWWMP@VaughanInfrastructure.ca](mailto:WWWMP@VaughanInfrastructure.ca)
  - Storm Drainage / Storm Water Management Master Plan: [SWMMP@VaughanInfrastructure.ca](mailto:SWMMP@VaughanInfrastructure.ca)



Vaughan Tomorrow



#### Water/Wastewater Master Plan

**Michael Frieri, C.E.T.**  
Manager of Engineering Planning & Studies  
Development/Transportation Engineering Department  
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Project Manager  
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#### Storm Drainage / Storm Water Management Master Plan

**Saad Yousaf, P.Eng., PMP**  
Storm Drainage Engineer  
Engineering Planning & Studies  
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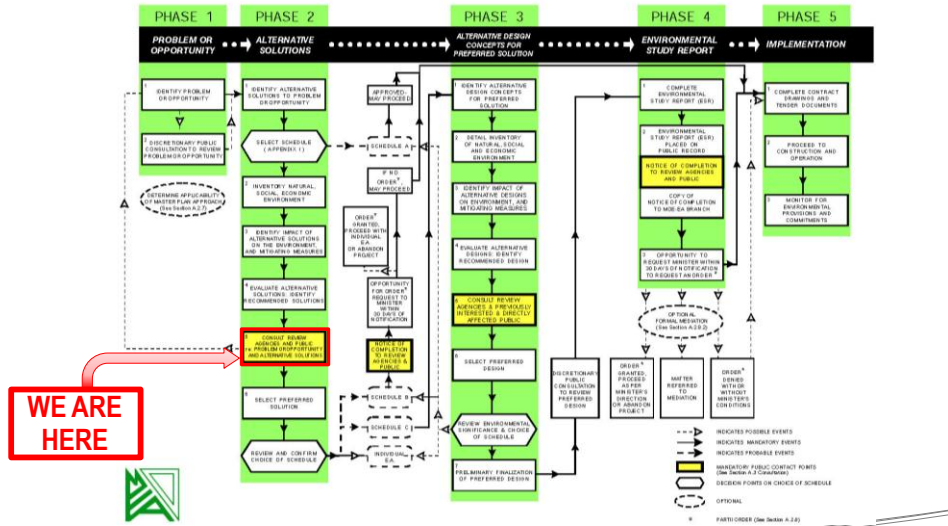


Vaughan Tomorrow



## Overview of the Class Environmental Assessment Process

**NOTE:** This flow chart is to be read in conjunction with Part A of the Municipal Class EA



## Project Schedule

	Sep 2011	Oct	Nov	Dec	Jan 2012	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Commencement		◆													
Identify problem or opportunity		■	■	■	■	■	■	■	■	■	■	■	■	■	■
PIC #1			◆												
Evaluate Alternative Solutions			■	■	■	■	■	■	■	■	■	■	■	■	■
Recommended Solution									■	■	■	■	■	■	■
PIC #2										◆					
Prepare Final Report and Agency Review											■	■	■	■	■
Notice of Completion													◆		
30 Day Review														■	■

Legend: ◆ Completed Milestone/Task    ■ Completed Milestone/Task    ◇ Future Milestone/Task    □ Future Milestone/Task



## Population Growth Summary

- City of Vaughan Population is expected to increase from 250,000 to 415,000 by 2031.
- City of Vaughan Employment is expected to increase from 160,000 to 265,000 by 2031.

Growth Type	Units	Population	Jobs
<b>Existing (2006)</b>		<b>249,300</b>	<b>162,200</b>
Infill	3,400	8,500	27,403
Vaughan Metropolitan Centre	12,000	25,000	11,500
Major Centres	20,148	41,450	12,218
Local Centres	11,057	23,503	4,959
Intensification Corridors	5,278	10,582	3,194
Greenfield Development	36,130	90,675	53,411
<b>GRAND TOTAL (2031)</b>		<b>486,745</b>	<b>274,915</b>
		<b>117% of Official Plan Projection</b>	<b>104% of Official Plan Projection</b>

## Revised Water/Wastewater System Design Criteria

- Revisions based on following resources: York Region Water & Wastewater Master Plan Update – Unit Rates (May 2008), Vaughan City-Wide Water Audit (July 2011), other sources
- Consideration for future revision as additional information becomes available, results of water conservation efforts and connecting Kleinburg to York Water System and YDSS.
- Selected criteria (r = residential; e = employment):

	Current	York Unit Rates Report	New Criteria	Change
<b>YORK WATER SYSTEM</b>				
Average Day Demand	450 Lpcd	274(r) & 279(e) Lpcd	300 Lpcd (r+e)	-33%
Maximum Day Peaking Factor	2.0	1.8	1.8	
<b>KLEINBURG WATER SYSTEM</b>				
Average Day Demand	450 Lpcd	347(r) & 317(e) Lpcd	347(r) & 317(e) Lpcd	-23%
Maximum Day Peaking Factor	2.0	2.5	2.5	
<b>YDSS SANITARY SYSTEM</b>				
Generation Rate	450 Lpcd	364(r) & 369(e) Lpcd	364(r) & 369(e) Lpcd	-19%
Peak Infiltration Allowance	0.23 L/s/ha	0.26 L/s/ha	0.26 L/s/ha	+13%
<b>KLEINBURG SANITARY SYSTEM</b>				
Generation Rate	450 Lpcd	437(r) & 407(e) Lpcd	450 Lpcd (r+e)	0%
Peak Infiltration Allowance	0.23 L/s/ha	0.23 L/s/ha	0.23 L/s/ha	0%

**TECHNICAL MERIT**

- **Functionality** – Ability to meet demands and integrate with existing infrastructure
- **Constructability** – Ease of construction, length of routes, construction methods and crossings

**NATURAL**

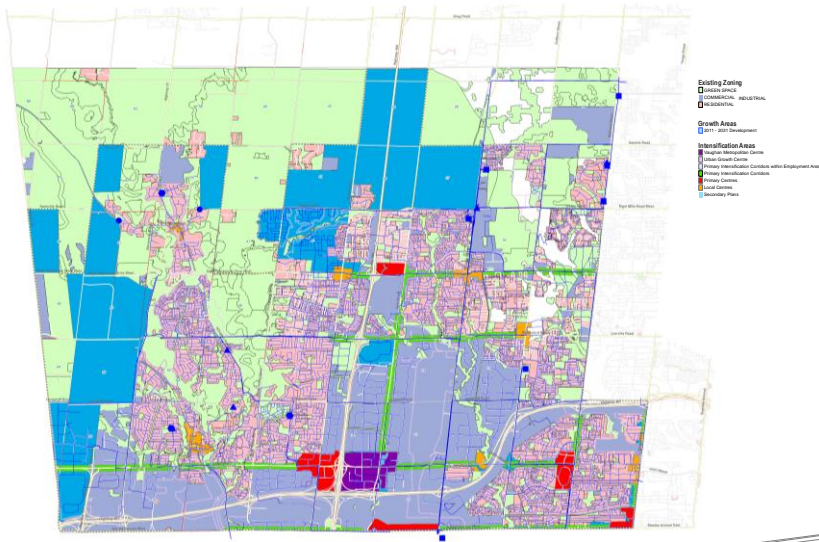
- **Impact on Natural Environment**
  - Need for Greenbelt/ORM crossings or on-Greenbelt/on-ORM construction
  - Impact on terrestrial and aquatic environments

**SOCIO-ECONOMIC**

- **Cultural Environmental Impact** – Cultural heritage impact & disruption to surrounding area
- **Transportation Impact** – Impact on traffic patterns, road closures/detours, public transit disruption
- **Residential and Business Impact**
  - Proximity of work to residences, businesses & institutions, public safety and perception

**FINANCIAL**

- **25-Year Life Cycle Cost** – Capital, Operations & Maintenance Costs



**Alternative 1 - Do Nothing**

- Although it is expected that the existing water distribution system is generally expected to provide adequate levels of performance for existing service areas during the time horizon under consideration, it does not allow for the expansion of the urban boundary as envisioned in the City's Official Plan.

**Alternative 2 – Limit Community Growth**

- Similarly, inconsistent with the Official Plan and the Province's direction for population growth distribution.

**Alternative 3 – Water Conservation**

- While the effects of water conservation are accounted for through the revisions in the design criteria, it will not in and of itself support the expansion of the urban boundary without other major supporting infrastructure.

**Alternative 4 – Build New Treatment/Distribution Systems**

- The implementation of new water source/supply and distribution systems.

**Alternative 5 – Expand & Enhance Existing Water Distribution System**

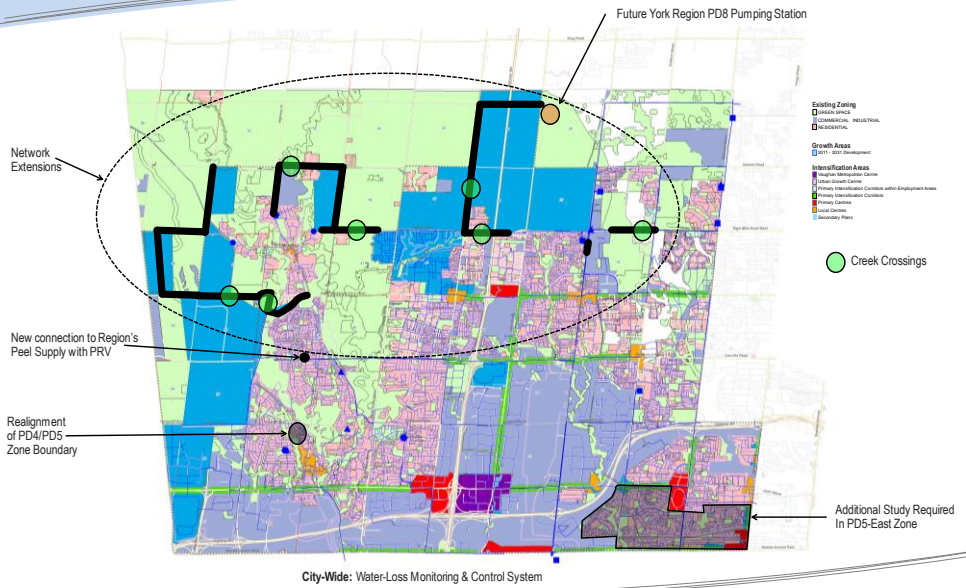
- This alternative supports expansion of the urban boundary and further strengthens and improves the operation of the existing system to support intensification growth.



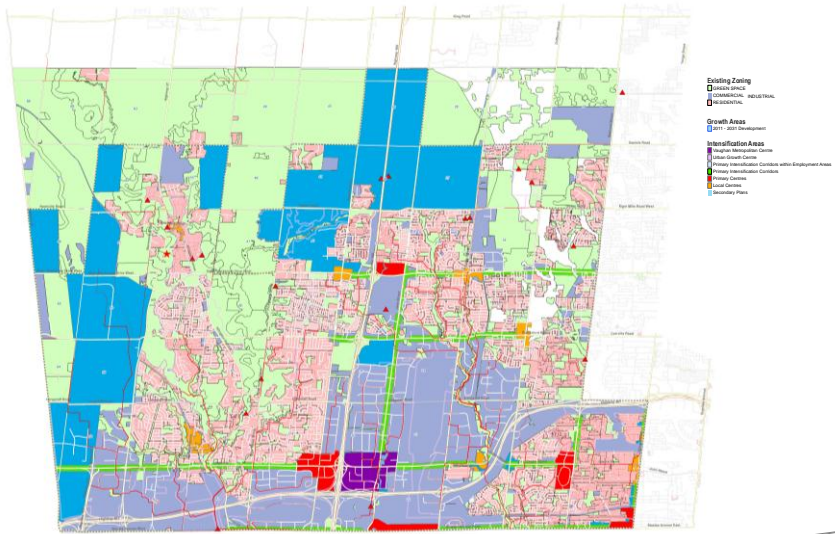
Evaluation Criteria	Alternative 1 Do Nothing	Alternative 2 Limit Community Growth	Alternative 3 Water Conservation	Alternative 4 Build New Water Systems	Alternative 5 Expand & Enhance Existing Water Distribution System
Technical Merit					
Natural					
Socio-Economic					
Financial					
Overall					



## Water Servicing Preferred Alternative



## Existing Wastewater System



**Alternative 1 - Do Nothing**

- Although it is expected that the existing wastewater collection system is generally expected to provide adequate levels of performance for existing service areas during the time horizon under consideration, it does not allow for the expansion of the urban boundary as envisioned in the City's Official Plan.

**Alternative 2 – Limit Community Growth**

- Similarly, inconsistent with the Official Plan and the Province's direction for population growth distribution.

**Alternative 3 – Water Conservation**

- While the effects of water conservation are accounted for through the revisions in the design criteria, it will not in and of itself support the expansion of the urban boundary without other major supporting infrastructure.

**Alternative 4 – Build New Collection/Treatment Systems**

- The implementation of new wastewater collection and disposal systems.

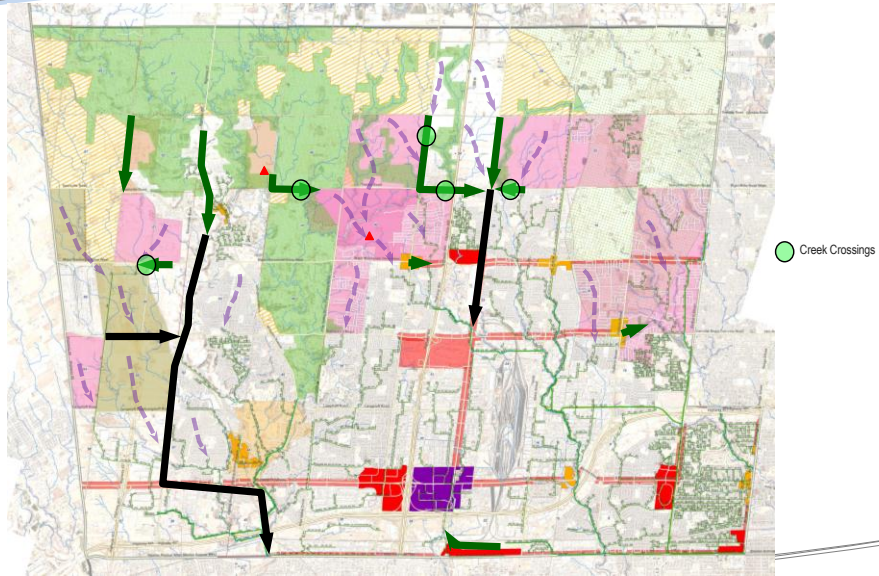
**Alternative 5 – Expand & Enhance Existing Wastewater Collection System**

- This alternative supports expansion of the urban boundary and further strengthens and improves the operation of the existing system to support intensification growth.

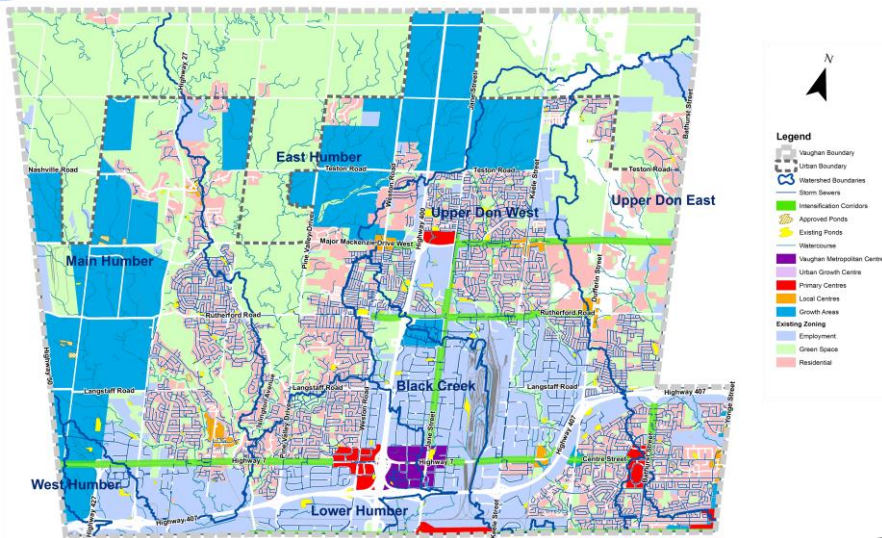
Evaluation Criteria	Alternative 1 Do Nothing	Alternative 2 Limit Community Growth	Alternative 3 Water Conservation	Alternative 4 Build New Water Systems	Alternative 5 Expand & Enhance Existing Water Distribution System
Technical Merit					
Natural					
Socio-Economic					
Financial					
Overall					

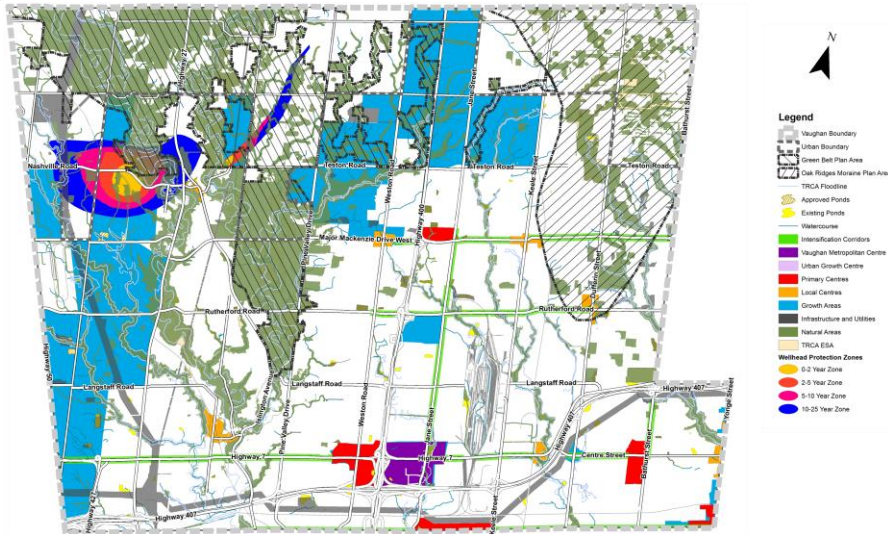


## Wastewater Servicing Preferred Alternative



## Existing Storm Water Management Infrastructure





- Revisions based on following resources: Existing City of Vaughan SWM Design Criteria, DRAFT TRCA SWM Criteria (April 2012), other sources
- Updates to Rainbow Creek Subwatershed Criteria are based on the DRAFT Humber River Watershed model provide by the TRCA;
- Criteria Considerations:
  - Quantity: Receiving Natural System (i.e. Humber River);  
Receiving City Infrastructure;  
Existing SWM Infrastructure and Controls
  - Quality: MOE Enhanced Level Treatment  
MNR Requirements under the ESA;
  - W / B: Existing Soils  
Proposed Development Form
  - Erosion: Receiving Natural System (i.e. Humber River)  
Updated Erosion Analysis for Rainbow Creek

### TECHNICAL MERIT

- **Functionality** – Ability to meet current SWM objectives (i.e. quantity, quality, water balance, erosion controls)
- **Feasibility** – Ability to reasonably implement, suitability to conditions and proposed development form

### NATURAL

- **Impact on Natural Environment**
  - Impact on terrestrial and aquatic habitats
  - Impacts to species at risk

### SOCIO-ECONOMIC

- **Social / Cultural Environmental Impact** – Cultural heritage impact & disruption to surrounding area

### FINANCIAL

- **Capitol Cost Considerations** – Construction costs, ability to reduce number of SWM Ponds
- **Operations and Maintenance** – Annual costs incurred over the expected infrastructure lifecycle



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- Evaluation for feasibility of Source and Conveyance Controls;
  - Lot Level Controls (i.e. on-site storage options)
  - Infiltration Opportunities (i.e. infiltration galleries)
  - Conveyance Controls (i.e. swales)
  - End of Pipe (i.e. ponds)
- Considerations given to proposed land use (i.e. employment uses offer greater opportunities for source controls, water re-use, etc.)
- Considerations given to hydrologic soil types (i.e. Type C and D soils not recommended for infiltration based solutions)
- Considerations given to available lands (i.e. greenfield development provides adequate space for end of pipe controls)

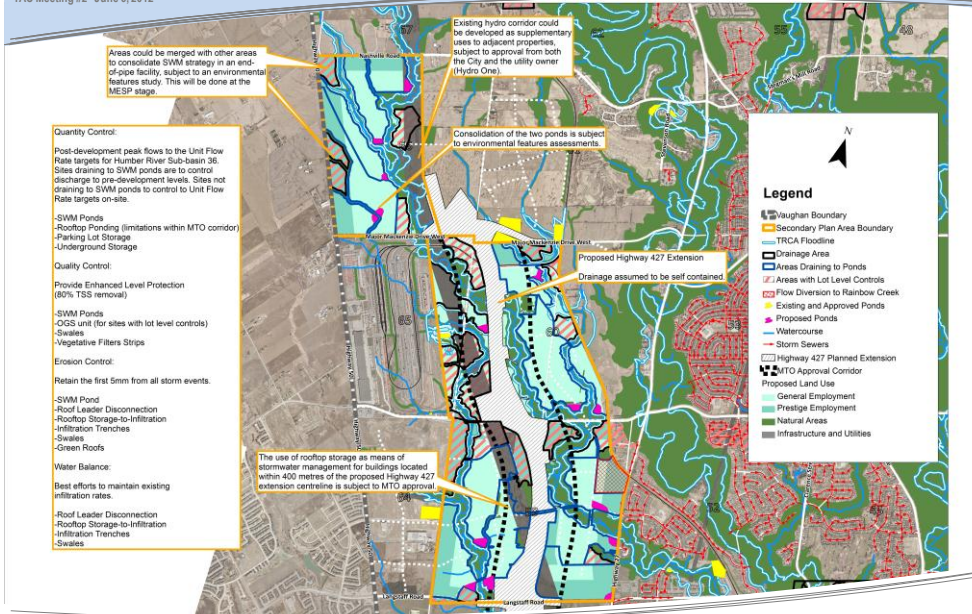


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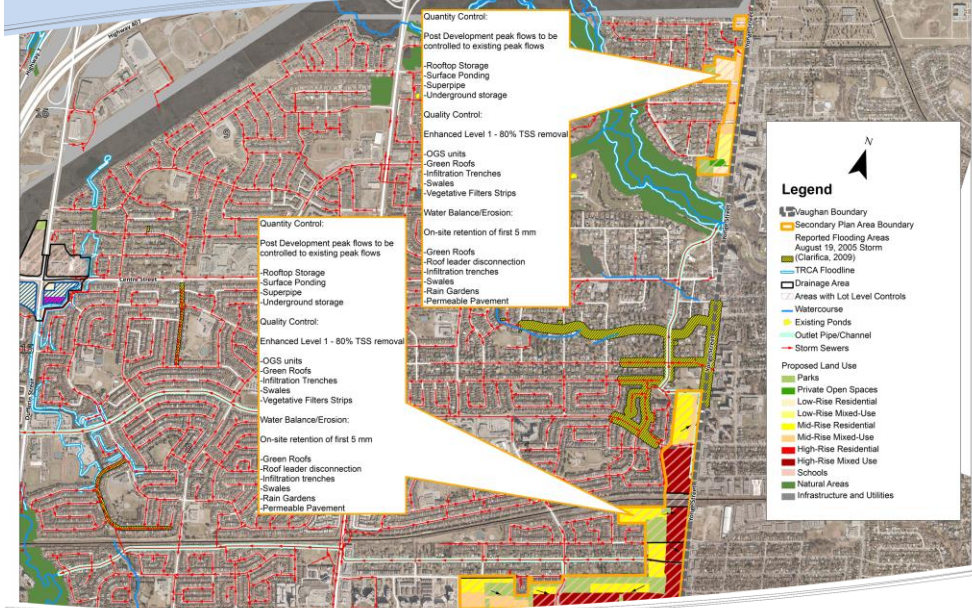




## West Vaughan Employment Area



## Example SWM Plan – Yonge-Steeles Secondary Plan Area



### Quantity

- Control to Unit Flow Rates (Humber and Don Watersheds)
- Maintain existing drainage patterns as much as possible
- Quantity control to be provided by SWM facilities and/or lot level controls where appropriate

### Quality

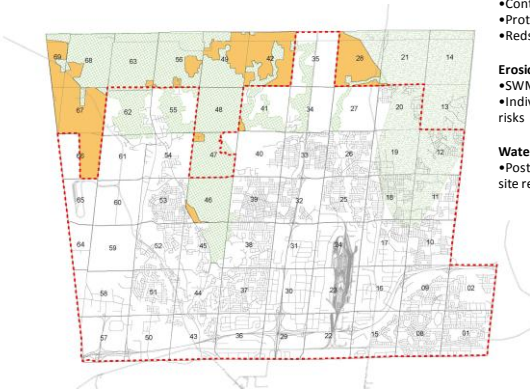
- Control to Enhanced Level 1 – 80% TSS Removal
- Protection of Aquatic Habitat
- Redside Dace: At least 7 mg/l of dissolved oxygen and 24 °C

### Erosion

- SWM Facilities – minimum of 24 hours drawdown time for 25 mm event
- Individual erosion analysis required to determine downstream erosion risks

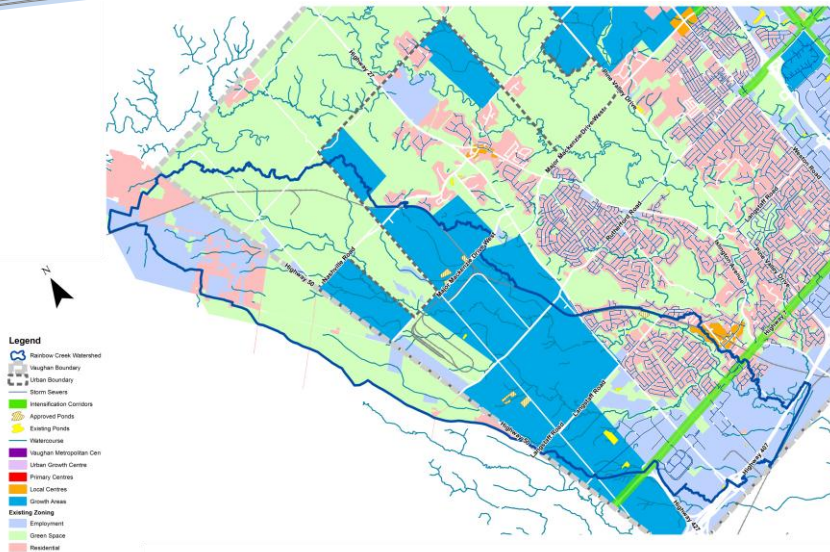
### Water Balance

- Post development water budget to match existing water budget or on-site retention of 5 mm, whichever is greater



### Legend

- Green Belt
- Future Growth Area (2051)
- 2031 Urban Boundary



- Legend**
- Rainbow Creek Watershed
  - Vaughan Boundary
  - Urban Boundary
  - Storm Sewers
  - Interlockers Concrete
  - Approved Ponds
  - Existing Ponds
  - Watercourse
  - Vaughan Interceptor Can
  - Urban Growth Centre
  - Primary Centres
  - Local Centres
  - Growth Areas
  - Existing Zoning
  - Employment
  - Green Space
  - Residential

### Methodology and Sources of Data

- Model Updated using DRAFT Humber River Model provided by the TRCA
- Considered 3 scenarios (Approved, 2031, and 2051)
- Estimated land uses and built form in both Vaughan and Caledon
- Prepared Quantity Control options for 2 – 100 year events and Regional (Hazel)
- Continuous Erosion Analysis

### Preliminary Results / Recommendations

- Quantity: Control Post development flows to Unit Flow rates for Humber sub-basin 36 (unit flow rates)
- Flood: No Regional Flow Controls recommended
- Quality: Provide Enhanced Level control as per MOE 2003 manual (minimum)  
Redside Dace habitat require improved sediment removal and temperature mitigation
- Erosion Retain First 5mm of Run-off on Site
  - Use of water reuse systems, infiltration, etc. in employment areas

- What issues do you see in relation to the preferred alternatives?
- Is there any additional information that is or has become available recently which should be considered?
- The preferred alternatives will be presented at the second Public Information Centre on Tuesday June 19<sup>th</sup>, 2012.



## Memorandum

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Date: **06 June 2012**

From: **Fabian Papa**, Fabian Papa & Partners Inc.  
**Kevin Brown**, The Municipal Infrastructure Group

To: **TAC | Technical Advisory Committee**

Re: **Water & Wastewater Projects | Master Plans for Urban Water Infrastructure in Vaughan**

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This memorandum is intended to supplement the presentation materials provided as part of Meeting #2 of the Technical Advisory Committee (TAC) for this project. It provides additional detail with respect to the specific projects that have been identified as a result of the master planning work conducted to date.

### **WATER**

#### **W1 – Teston Road PD8 Watermain**

This project is required to help balance the supply in the currently split PD8 zones in order to satisfy the anticipated 2031 conditions. The Region of York appears to be planning for the construction of Teston Road between Rodinea Road and Dufferin Street, being the same stretch of road where this watermain is required. Accordingly, it may be appropriate to coordinate efforts with the Region such that the watermain and road are constructed at the same time. This assumes that the Region does not undertake this work as part of its infrastructure development program.

#### **W2 – Keele Street PD7 Watermain Twinning**

The existing 450 mm diameter watermain from the Region of York PD7 pumping station at the southwest corner of Keele Street and Teston Road to Drummond Drive effectively acts as a single feed for this northerly portion of the pressure district and, under anticipated 2031 conditions, would experience significant losses resulting in sub-standard pressures in the northerly part of the zone. This project contemplates the addition of a new 750 mm diameter watermain alongside the existing 450 mm diameter main, however, hydraulically equivalent solutions may be explored at a later stage. Alternatively, the possibility of creating a loop to the PD7 system along Teston Road, may be explored at a later stage.

#### **W3 – Teston Road PD7 Watermain**

There is currently a 750 mm watermain reduced to a 600 mm diameter watermain along Teston Road from a point east of Highway 400 to Weston Road from an existing 900 mm diameter main. In order to resolve anticipated low pressure concerns under 2031 demand conditions in Blocks 40 and 47, and with the addition of Block 55 to the proposed urban boundary, this project contemplates the increase of this watermain capacity through its twinning with a 900 mm diameter pipe. This will also support future development in Blocks 34 & 41.

#### **W4 – Block 35 PD8 Watermain**

This block is anticipated to be largely within the PD8 service area and Region of York infrastructure is expected to be available from Jane Street. This project contemplates the trunk water supply within the Block including the servicing required on the west side of Highway 400 for which there is not anticipated to be any Region infrastructure available.

#### **W5 – Weston Road PD7 Watermain**

This project contemplates the implementation of a trunk PD7 watermain along Weston Road to provide service to Blocks 34 West and 41 as they develop.

#### **W6 – Forest Fountain Drive PD6 Connection**

Block 53 (Woodbridge Expansion Area, WEA) and, soon, the southern part of Kleinburg are largely supplied by relatively long 500 mm diameter Region of York watermains located on Rutherford Road between the area east of Pine

Valley Drive and Islington Avenue. Under significant demand conditions, this stretch of pipe is anticipated to suffer from significant head losses resulting in sub-standard pressures in the northerly part of the WEA and southern Kleinburg. This project contemplates the connection of the existing 400 mm diameter watermain on Forest Fountain Drive to the 1800 mm diameter Region of York pipe (Peel Feedermain), including pressure reducing valves, in order to resolve this situation.

#### **W7 – Block 55 PD-KN Watermain Servicing**

This project contemplates the installation of a 600 mm diameter PD-KN watermain along Teston Road from Pine Valley Drive to Kipling Avenue (including PRV from PD7 system), and 400 mm diameter watermain along Kipling Avenue, Kirby Road and Highway 27 to the existing water tower, as well as the extension of a 200 mm diameter watermain from Stegman's Mill Road (including PRV and/or PSV).

#### **W8 – Major Mackenzie Drive PD6 Watermain**

This project contemplates the installation of 400 mm diameter watermain along Major Mackenzie Drive from Huntington Road to Islington Avenue, including an intermediate stretch along Highway 27 adjoining the westerly and easterly legs of Major Mackenzie Drive in this area.

#### **W9 – Huntington Road PD6 Watermain**

This project contemplates the installation of a watermain extending north along Huntington Road from its intersection with Nashville Road in order to service the lands on the east side within Block 62, as well as the interconnection of this piping with the existing watermain at the end of Mizuno Crescent.

#### **W10 – PD5-East**

This pressure district is known to experience low pressures under existing conditions and matters are expected to be exacerbated as demands increase into the future. At this time, there is no clear indication of major infrastructure works which can bolster service this already urbanized area and any solutions will likely take the form of local optimizations such as zone realignments, connections from the PD6 network and pipe upgrades. Additional study and pressure monitoring is required to determine the specific modifications required to improve this service area.

#### **W11 – Water Loss Monitoring & Control System**

Vaughan has recently witnessed concerning increases in the level of non-revenue water (NRW) and, as the existing infrastructure continues to age and deteriorate, coupled with the increasing cost of bulk water, it is apparent that a more sophisticated system to monitor and control system operation is appropriate in order to manage this situation going forward. This project considers the implementation of a water loss monitoring and control system which will support growth by minimizing the amount of water lost through leakage as infrastructure ages as well as to serve in assisting the City to manage the flows of water within its system. Similarly, the details of the requirements for such a system will be the subject of further study and will require the installation of flow meters, pressure and flow control valves, telemetry and data collection and decision support information technology infrastructure.

#### **W12 – Realignment of PD4/PD5 Zone Boundary on Kipling Avenue**

It is recommended that additional pressure monitoring be undertaken to confirm the need and timing of a realignment of the PD4/PD5 zone boundary in the area of Kipling Avenue from Gordon Avenue to Vaughan Mills Road. These houses are currently situated in PD4 and, as a result of their relatively high elevations, may be susceptible to sub-standard pressures under peak loading conditions (i.e., 2031 demands using current design criteria). The realignment of the zone boundary is anticipated to involve adjustments to existing valve settings.

#### **W13 – Block 66 West PD6 Watermain**

This project is required for the development of lands located in Block 66 West of the West Vaughan Employment Zone and includes a looped 400 mm watermain system along Nashville Road and Major Mackenzie Drive which derive water from connection points to the Region of York's 750 mm diameter PD6 watermain along Huntington Road. These connection points are expected to require pressure reducing valves to limit pressures to appropriate levels. The loop will be completed with a north-south pipe located within a future roadway in Block 66 West from which supply to additional elements of the local distribution system will be derived.

## **WASTEWATER**

### **WW1 – Jane Street Trunk Sanitary Sewer**

This project contemplates the construction of the trunk gravity sewer necessary to service the future development blocks, draining to Jane-Rutherford Collector. It is our understanding that the project will more appropriately be assessed and constructed by the Region of York.

### **WW2 – Block 27 Sub-Trunk Sanitary Sewer**

This project contemplates the construction of the sub-trunk gravity sewers necessary to service Block 27 and drain it to the Jane Street Trunk Sanitary Sewer (Item WW1).

### **WW3 – Block 35 East Sub-Trunk Sanitary Sewer**

This project contemplates the construction of the sub-trunk gravity sewers necessary to service Block 35 East and drain it to the Jane Street Trunk Sanitary Sewer (Item WW1).

### **WW4 – Weston & Teston Road Trunk Sanitary Sewer**

This project contemplates the construction of a trunk gravity sewer to service the future development of Blocks 34 West, 35 West and 41. Due to the limited capacity of sanitary infrastructure to the south, flows from these development areas will be directed to the Jane Street Trunk Sanitary Sewer (Item WW1).

### **WW5 – Block 55 Sanitary Servicing**

This project contemplates the construction of the pumping station and forcemain necessary to service this development block.

### **WW6 – Huntington Road Sub-Trunk Sanitary Sewer**

This project contemplates the construction of the sub-trunk gravity sewer on Huntington Road to service development to the north of Nashville Road and to drain to infrastructure available within Block 61 West.

### **WW7 – Major Mackenzie Drive Sub-Trunk Sanitary Sewer**

This project contemplates the installation of a sub-trunk sewer to convey flows to the York Region trunk sewer on Huntington Road to collect flows from development in Block 61.

### **WW8 – Carrville Centre Sanitary Sewer**

This sewer is required to collect and convey flows from the development of the Carville Centre located in the vicinity of the intersection of Rutherford Road and Dufferin Street to the collection system available in Block 10.

### **WW9 – Vellore Centre Sanitary Sewer**

This sewer is required to collect and convey flows from the development of the Vellore Centre located in the vicinity of Major Mackenzie Drive and Weston Road to the collection system available in Block 32 West.

### **WW10 – South Jane Street Sanitary Sewer Upgrades**

This project contemplates the construction of a new sewer along Steeles Avenue West and along Jane Street as well as the upsizing of a portion of the existing Jane Street sanitary sewer to convey flows to the Black Creek SPS.

### **WW11 – Pine Valley North SPS/Forcemain**

This project contemplates the construction of a pumping station and forcemain necessary to service developments in Blocks 40, 41W, 47 & 55.

### **WW12 – Highway 27 Sanitary Sewer**

This project contemplates the construction of a new sewer to service ongoing development in North Kleinburg.



**CITY WIDE WATER/WASTEWATER MASTER PLAN (2012)**  
**Preliminary Cost Estimates for City Wide Development Charge Items**  
W1 - Teston Road PD8 Watermain  
1,700 metres of 400 mm diameter PVC watermain

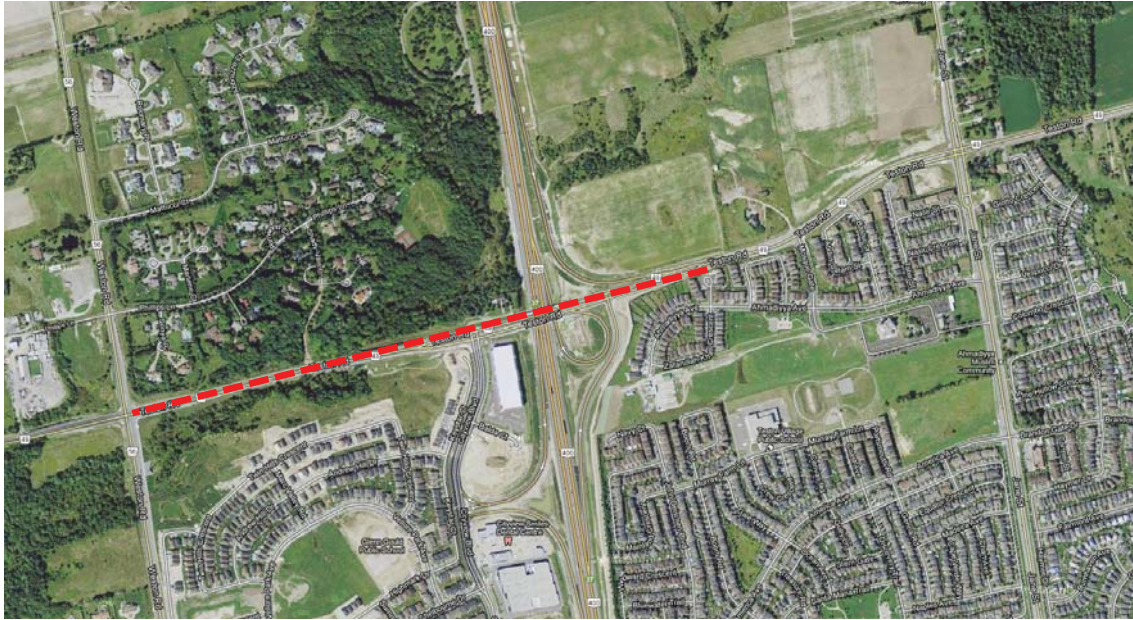


**CITY WIDE WATER/WASTEWATER MASTER PLAN (2012)**  
**Preliminary Cost Estimates for City Wide Development Charge Items**  
W2 - Keele Street PD7 Watermain Twinning  
700 m of 750 mm Dia. CPP





**CITY WIDE WATER/WASTEWATER MASTER PLAN (2012)**  
**Preliminary Cost Estimates for City Wide Development Charge Items**  
W3 - Teston Road PD7 Watermain Twinning / Hwy 400 Crossing  
1,400 m of 900 mm Dia. CPP



**CITY WIDE WATER/WASTEWATER MASTER PLAN (2012)**  
**Preliminary Cost Estimates for City Wide Development Charge Items**  
W4 - Block 35 PD8 Watermain  
4,000 m of 500 mm Dia. CPP

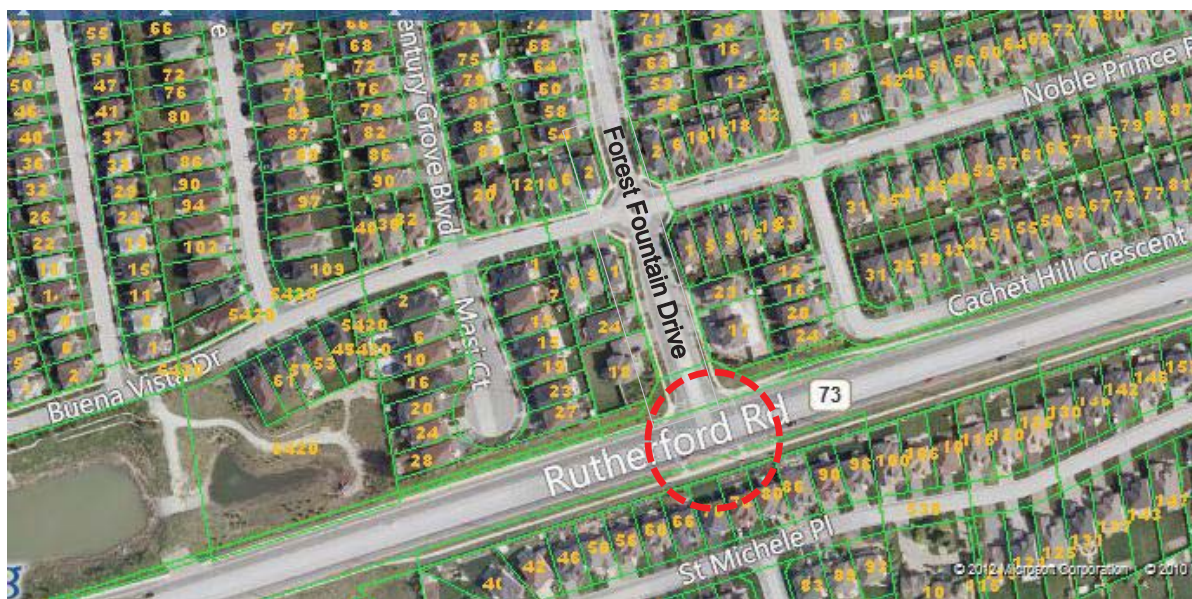




**CITY WIDE WATER/WASTEWATER MASTER PLAN (2012)**  
**Preliminary Cost Estimates for City Wide Development Charge Items**  
W5 - Weston Road PD7 Watermain  
2,000 m of 400 mm Dia. PVC

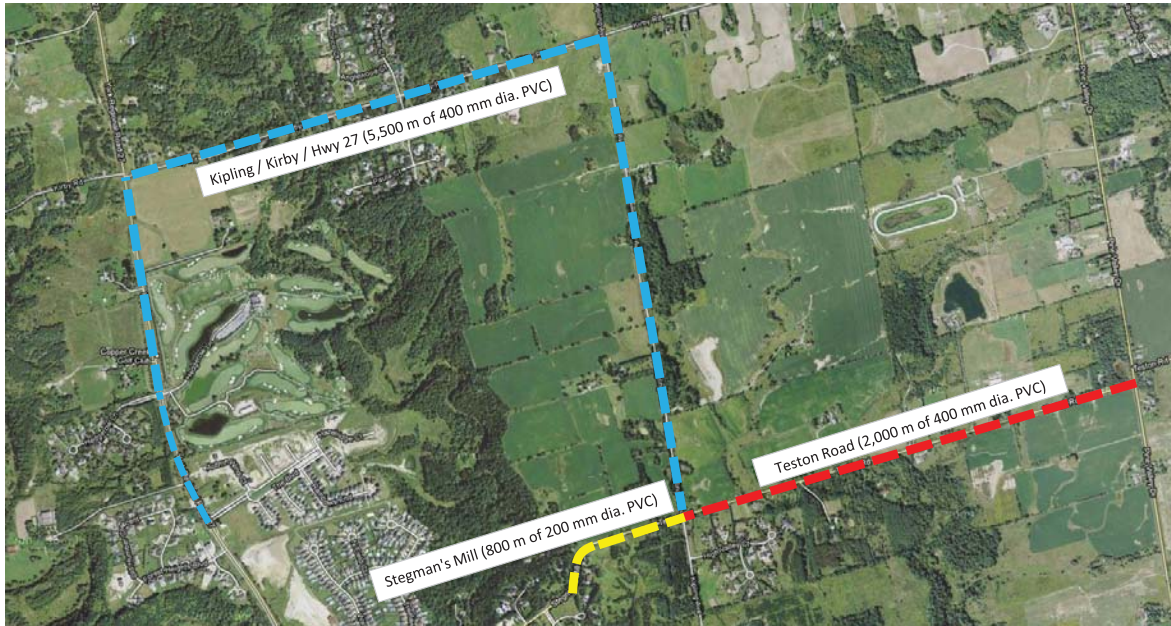


**CITY WIDE WATER/WASTEWATER MASTER PLAN (2012)**  
**Preliminary Cost Estimates for City Wide Development Charge Items**  
W6 - Forest Fountain Drive PD6 Watermain Connection  
400 mm Dia. PVC connection with PRV to 1800 mm Dia. CPP

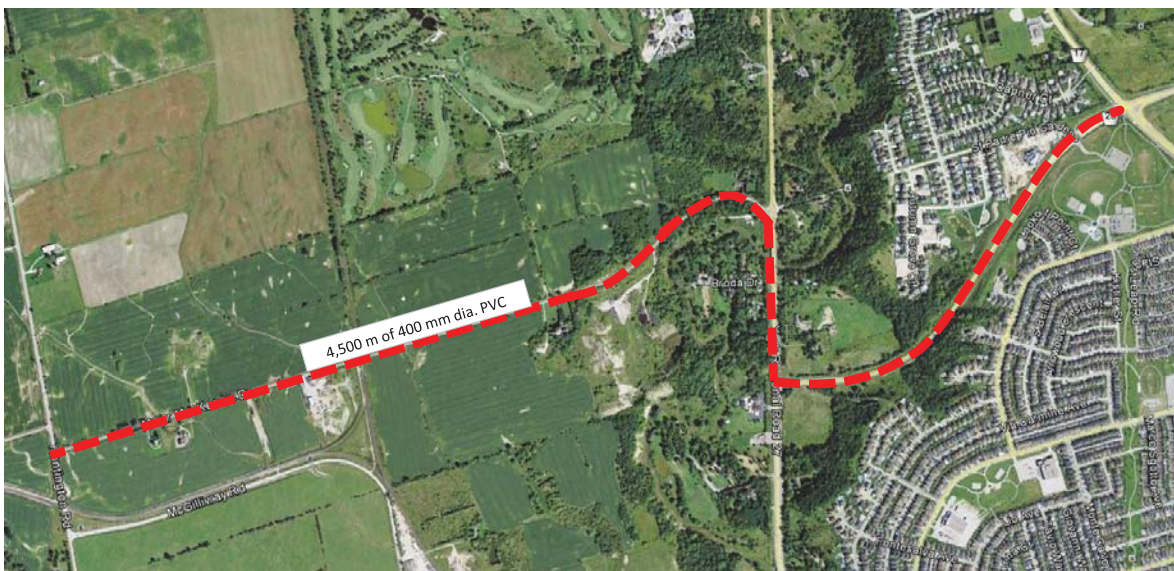




**CITY WIDE WATER/WASTEWATER MASTER PLAN (2012)**  
**Preliminary Cost Estimates for City Wide Development Charge Items**  
W7 - Block 55 PD-KN Watermain Servicing  
200 mm Dia. and 400 mm Dia. PVC Watermain

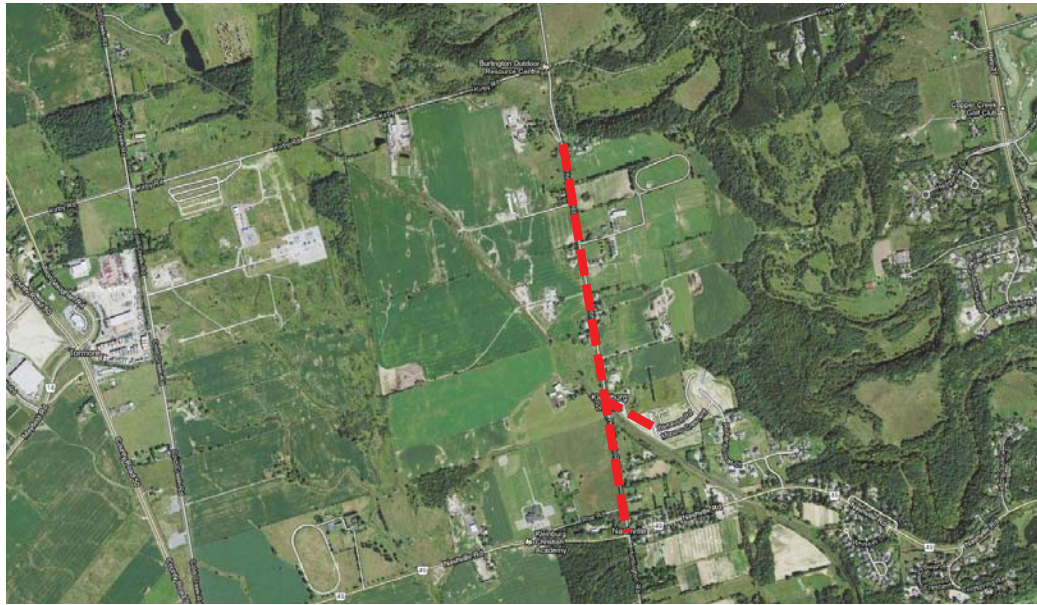


**CITY WIDE WATER/WASTEWATER MASTER PLAN (2012)**  
**Preliminary Cost Estimates for City Wide Development Charge Items**  
W8 - Major Mackenzie Drive PD6 Watermain (Revision 1)  
400 mm Dia. PVC Watermain





**CITY WIDE WATER/WASTEWATER MASTER PLAN (2012)**  
**Preliminary Cost Estimates for City Wide Development Charge Items**  
W9 - Huntington Road Watermain  
2,200 m of 400 mm Dia. PVC



**CITY WIDE WATER/WASTEWATER MASTER PLAN (2012)**  
**Preliminary Cost Estimates for City Wide Development Charge Items**  
W13 - Block 66 West PD6 Watermain  
400 mm Dia. PVC Watermain





**CITY WIDE WATER/WASTEWATER MASTER PLAN (2012)**  
**Preliminary Cost Estimates for Special Area Development Charge Items**  
WW1 - Jane Street Trunk Sanitary Sewer  
5,800 m of 750 mm Diameter Concrete Sanitary Sewer



**CITY WIDE WATER/WASTEWATER MASTER PLAN (2012)**  
**Preliminary Cost Estimates for Special Area Development Charge Items**  
WW2 - Block 27 Sub-Trunk Sanitary Servicing  
2,000 m of 375 mm Diameter Conc. Sanitary Sewer

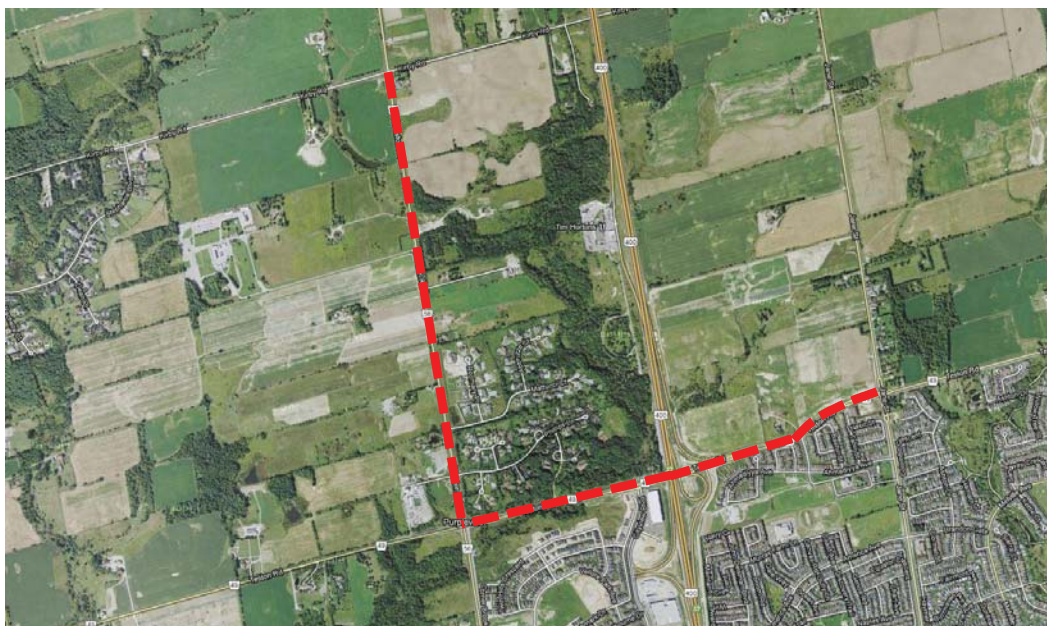




**CITY WIDE WATER/WASTEWATER MASTER PLAN (2012)**  
**Preliminary Cost Estimates for Special Area Development Charge Items**  
WW3 - Block 35 East Sanitary Sub-Trunk Servicing  
2,100 m of 375 mm Diameter Conc. Sanitary Sewer

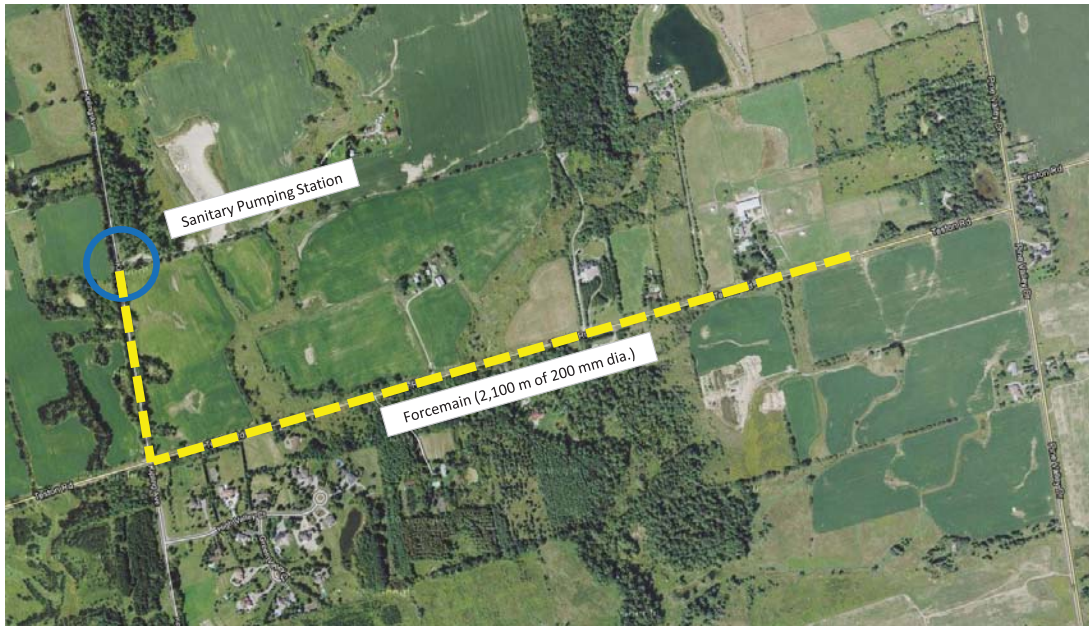


**CITY WIDE WATER/WASTEWATER MASTER PLAN (2012)**  
**Preliminary Cost Estimates for Special Area Development Charge Items**  
WW4 - Weston & Teston Road Trunk Sanitary Servicing  
4,000 m of 525 mm diameter concrete Sanitary Sewer

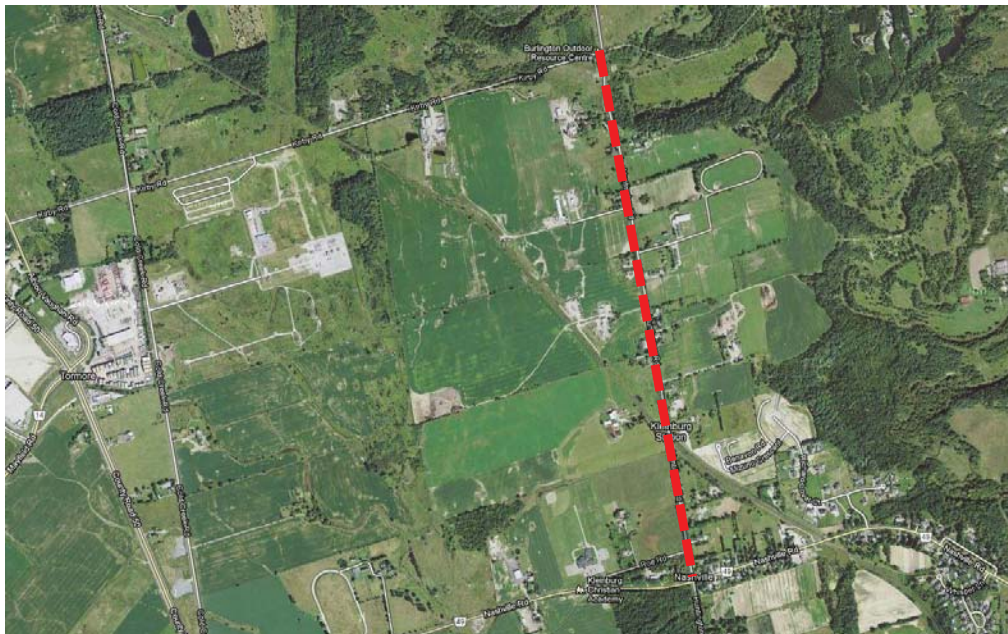




**CITY WIDE WATER/WASTEWATER MASTER PLAN (2012)**  
**Preliminary Cost Estimates for Special Area Development Charge Items**  
WW5 - Block 55 Sanitary Servicing  
Pumping Station, Sanitary Sewer and Sanitary Forcemain



**CITY WIDE WATER/WASTEWATER MASTER PLAN (2012)**  
**Preliminary Cost Estimates for Special Area Development Charge Items**  
WW6 - Huntington Road Sub-Trunk Sanitary Sewer  
2,200 m of 375 mm Diameter Concrete Sanitary Sewer





**CITY WIDE WATER/WASTEWATER MASTER PLAN (2012)**  
**Preliminary Cost Estimates for Special Area Development Charge Items**  
WW7 - Major Mackenzie Drive Sub-Trunk Sanitary Sewer  
1,500 m of 525 mm Diameter Concrete Sanitary Sewer



**CITY WIDE WATER/WASTEWATER MASTER PLAN (2012)**  
**Preliminary Cost Estimates for Special Area Development Charge Items**  
WW8 - Carrville Centre Sanitary Sewer  
1,100 m of 375 mm Diameter Concrete Sanitary Sewer





**CITY WIDE WATER/WASTEWATER MASTER PLAN (2012)**  
**Preliminary Cost Estimates for Special Area Development Charge Items**  
WW9 - Vellore Centre Sanitary Sewer  
550 m of 375 mm Diameter Concrete Sanitary Sewer

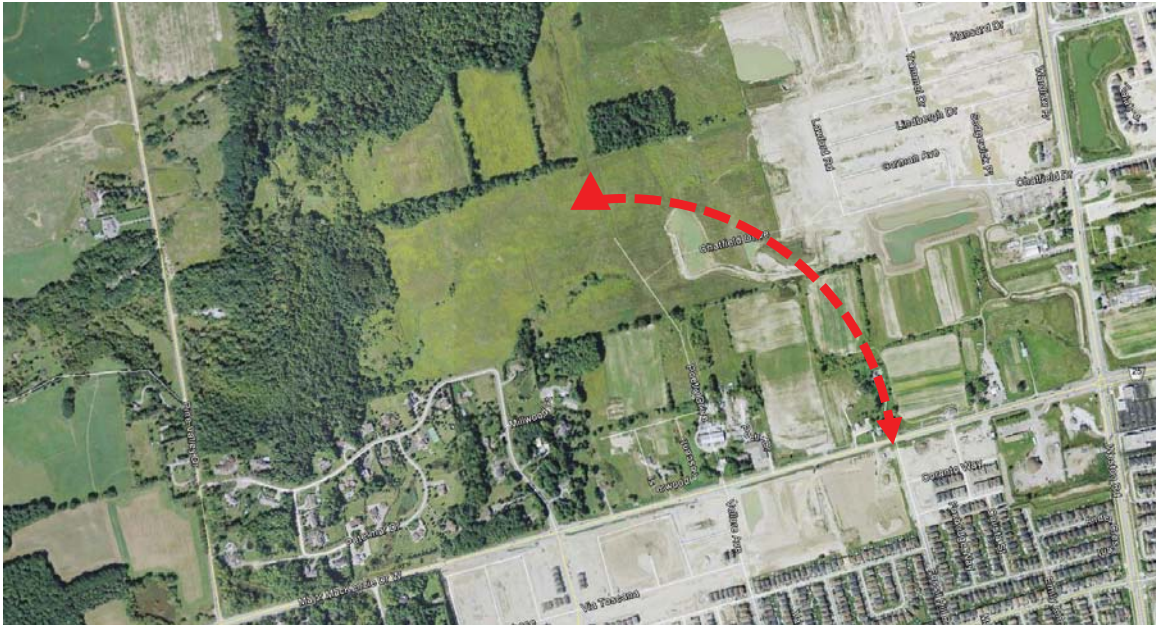


**CITY WIDE WATER/WASTEWATER MASTER PLAN (2012)**  
**Preliminary Cost Estimates for Special Area Development Charge Items**  
WW10 - South Jane Street Sanitary Sewer Upgrades  
1,400 m of 450 mm Diameter Concrete Sanitary Sewer & 200 m replacement of 375 mm with 600 mm Sanitary Sewer





**CITY WIDE WATER/WASTEWATER MASTER PLAN (2012)**  
**Preliminary Cost Estimates for Special Area Development Charge Items**  
WW11 - Pine Valley North SPS & Forcemain  
Sanitary Pumping Station and 1500 m of 400 mm Diameter Forcemain



**CITY WIDE WATER/WASTEWATER MASTER PLAN (2012)**  
**Preliminary Cost Estimates for Special Area Development Charge Items**  
WW12 - Highway 27 Sanitary Sewer  
3,000 m of 450 mm Diameter Sanitary Sewer



PROGRESS TAC Meeting #2 DATE: June 6, 2012  
 MEETING #: TIME: 2:30 - 4:30 pm  
 PROJECT NAME: WWW & SWM Master Plan EAs PROJECT #: W11-259  
 LOCATION: City of Vaughan - Committee Rm 245  
 PURPOSE: Technical Advisory

**PRESENT:**

Saad Yousaf, City of Vaughan (SY);  
 Robert Mayer, City of Vaughan (RMA);  
 Tony Artuso, City of Vaughan (TA);  
 Carlos Couto, City of Vaughan (CC);  
 Jeff Silcox-Childs, City of Vaughan (JSC);  
 Rob Meek, City of Vaughan (RM);  
 Melanie Morris, City of Vaughan (MM);  
 Paolo Masaro, City of Vaughan (PM);  
 Lina Ariza, York Region (Region), (LA);  
 Dan Hipple, Toronto and Region Conservation (TRCA), (DH);  
 June Little, Toronto and Region Conservation (JL);  
 Shahzad Khan, Toronto and Region Conservation (SK);  
 Dorothy Moszynski, MOE, (DM);  
 Fabian Papa, Fabian Papa and Associates, (FP&P) (FP);  
 Kevin Brown, The Municipal Infrastructure Group, (TMIG) (KB);  
 Geoff Masotti, Cole Engineering Group (GM);  
 Arun Hindupur, Cole Engineering Group (AH).

**REGRETS:**

Michael Frieri, City of Vaughan;  
 Vince Masacchio, City of Vaughan;  
 Paul Jankowski, City of Vaughan;  
 Andrew Pearce, City of Vaughan;  
 Grant Uyeyama, City of Vaughan;  
 Tessema Mulugeta, York Region;  
 Jonathan P'ng, York Region;  
 Carolyn Woodland, TRCA;  
 Edward Graham, Cole  
 Eric Tuscon, TMIG.

ITEM	DESCRIPTION	ACTION BY
1.	<p><b>Introduction from Consulting Team</b></p> <ul style="list-style-type: none"> <li>KB provided a brief introduction and overview of the project to provide context for those who were unable to attend the first TAC meeting. It was requested that comments from the TAC be sent to project team no later than June 20, 2012 in order to be considered for the upcoming PIC#2.</li> <li>Introduction of all TAC members and everyone was asked to sign in.</li> </ul>	

PLEASE NOTE: If your records of this meeting do not agree with this document, or if there are any omissions, please advise the writer at once, otherwise the contents of this document shall be assumed accurate and correct.

ITEM	DESCRIPTION	ACTION BY
2.	<p><b>Water / Wastewater Master Plan Study:</b></p> <ul style="list-style-type: none"> <li>• KB provided a slides relevant to the water / wastewater master plan studies;</li> <li>• Population numbers are based on 2006 census data which was the most recent data available for the project;</li> <li>• The population projections are higher than the official plan because there is the potential for more intensification in order to meet projected employment opportunities</li> <li>• The population projections from the official plan are consistent with that of the provincial population projections..</li> <li>• There will be a 30% increase in population in the intensification areas in the existing urban boundary which will be accompanied by a 20% decrease in wastewater generation based on the new generation criteria. Although there is an in increase in population, the decrease in wastewater generation suggests that there is not much new infrastructure required in the existing urban boundary</li> <li>• Alternatives 1 – Do Nothing, 2 – Limit Community Growth and 3 – Water Conservation that were considered as part of the EA process did not comply with the growth projections as outlined in the City’s official plan as such were eliminated from further analysis</li> <li>• Alternative 4 – New Water/Wastewater systems were determined to be too expensive and was therefore eliminated</li> <li>• Alternative 5 – Expand and enhance existing water and wastewater infrastructure was determined to be the preferred alternative through the EA process</li> </ul>	INFO
3.	<p><b>Stormwater (SWM) Master Plan:</b></p> <ul style="list-style-type: none"> <li>• GM spoke to the Stormwater Management Master Plan and gave overview of preferred SWM servicing strategy for growth areas.</li> <li>• With regards to the West Vaughan Employment Area and Rainbow Creek it was found that the best approach to mitigate potential erosion was to retain the first 5 mm of a storm event on-site as opposed to providing extended detention.</li> </ul>	
4.	<p><b>Conclusion of Presentation:</b></p> <ul style="list-style-type: none"> <li>• KB noted that PIC #2 will be held on June. 27 from 7 – 9 pm at the City and that comments should be received no later than June 20.</li> </ul>	
5.	<p><b>TRCA Questions and Comments:</b></p> <ul style="list-style-type: none"> <li>• <i>Question 1: – D.H. - How feasible is infiltration as part of the overall SWM servicing strategy? It appears to be considered in almost all areas but infiltration may not be possible in certain area where the soils do not permit.</i></li> <li>• GM – Infiltration will only be implemented where soils permit. Areas where infiltration may not be feasible can consider other LID measures to reduce run-off.</li> <li>• DH – The TRCA would like to see a treatment train approach when it comes to the treatment of stormwater.</li> <li>• <i>Question 2: – S.K. - How was the water balance requirement of on-site retention of the first 5 mm during a storm event modeled in PCSWM.</i></li> <li>• GM – Will have to get back to TRCA on the details of the modeling but the concept is similar to that of initial abstraction in Visual OTTHYMO where the infiltration is treated as a soil loss.</li> </ul>	

ITEM	DESCRIPTION	ACTION BY
	<p><b><i>York Region Questions and Comments:</i></b></p> <ul style="list-style-type: none"> <li>• LA – How are low pressure zones being identified?</li> <li>• FP – Low pressure zones have been identified through discussions with Public Works.</li> <li>• LA – What is the phasing for W/WW projects?</li> <li>• FP – There are certain triggers that will identify phasing requirements</li> </ul> <p><b><i>MOE Questions and Comments:</i></b></p> <ul style="list-style-type: none"> <li>• DM – Is pond monitoring being considered?</li> <li>• GM – Pond monitoring is not specifically being considered however maintenance costs have been considered when determining preferred servicing strategy.</li> </ul> <p><b><i>City of Vaughan Initiatives and Comments:</i></b></p> <ul style="list-style-type: none"> <li>• RM – There are City/Regional projects for wastewater but there only appear to be City project for water?</li> <li>• FP – Water will be connected to Regional Watermains. Generally the watermains which are proposed are 400 mm or less which are consistent with how the City size their watermains.</li> </ul>	

Next Meeting: Spring 2012  
 Minutes Recorded By: AH  
 Distribution: All attending and regrets listed above

## **Public Information Centre 2**





## NOTICE OF PUBLIC INFORMATION CENTRE NO. 2

### MASTER PLANS FOR URBAN WATER INFRASTRUCTURE IN VAUGHAN

The City of Vaughan is conducting studies to direct the ongoing development of the City's urban water infrastructure systems that support our communities. These systems include water distribution, wastewater collection and storm water management.

These studies are following the Municipal Servicing Master Plan Class Environmental Assessment (MPCEA) process and will support the City's new Official Plan which was adopted by Council in September 2010. The studies will consider the vision for Vaughan to the year 2031 with sustainability as a key underlying theme.

#### MASTER PLAN CLASS ENVIRONMENTAL ASSESSMENT PROCESS

The City has awarded contracts for the following Master Plan studies to be undertaken concurrently:

- City-Wide Storm Drainage / Storm Water Management Master Plan (Cole Engineering Group Limited); and,
- City-Wide Water / Wastewater Master Plan (The Municipal Infrastructure Group Ltd. and Fabian Papa & Partners Inc.).

The MPCEA process includes public and review agency consultation, an assessment of the problem and opportunities (Phase 1), evaluation of alternative solutions, assessment of potential effects on the environment, and identification of reasonable measures to mitigate the adverse effects. The preferred solution(s) will be determined based on engineering requirements, environmental considerations, public input and information gathered during the studies (Phase 2). Subsequent Municipal Class Environmental Assessment work will be required at a later time for the ultimate implementation of the preferred solutions.

#### PUBLIC INFORMATION CENTRE DETAILS

A second joint public information centre (PIC) has been scheduled to present the selection of the preferred solutions for water servicing, wastewater servicing, and stormwater management. The PIC will provide stakeholders with an opportunity to review and comment on the study information. The PIC has been scheduled for:

**Date:** Wednesday, June 27, 2012  
**Time:** 7:00 p.m. to 9:00 p.m.  
**Location:** Vaughan City Hall  
Multi-Purpose Room, Level 100  
**Address:** 2141 Major Mackenzie Drive, Vaughan, ON L6A 1T1

Following the PIC, the material presented at the meeting will be posted on the City of Vaughan's Infrastructure Planning website at [www.VaughanInfrastructure.ca](http://www.VaughanInfrastructure.ca). For further information, please contact:

Michael Frieri, C.E.T., Manager of Engineering Planning & Studies  
Development / Transportation Engineering Department  
2141 Major Mackenzie Drive, Vaughan, ON L6A 1T1  
Tel: 905-832-8585 Ext. 8729 / Fax: 905-832-6145  
E-Mail: [Michael.Frieri@VaughanInfrastructure.ca](mailto:Michael.Frieri@VaughanInfrastructure.ca)

Please note that information related to these studies will be collected in accordance with the *Freedom of Information and Protection of Privacy Act*. With the exception of personal information, all comments received will become part of the public record and may be included in study documentation prepared for public review. Thank you for your interest in these studies.

**ANDREW PEARCE, Director of Development/ Transportation Engineering, City of Vaughan**

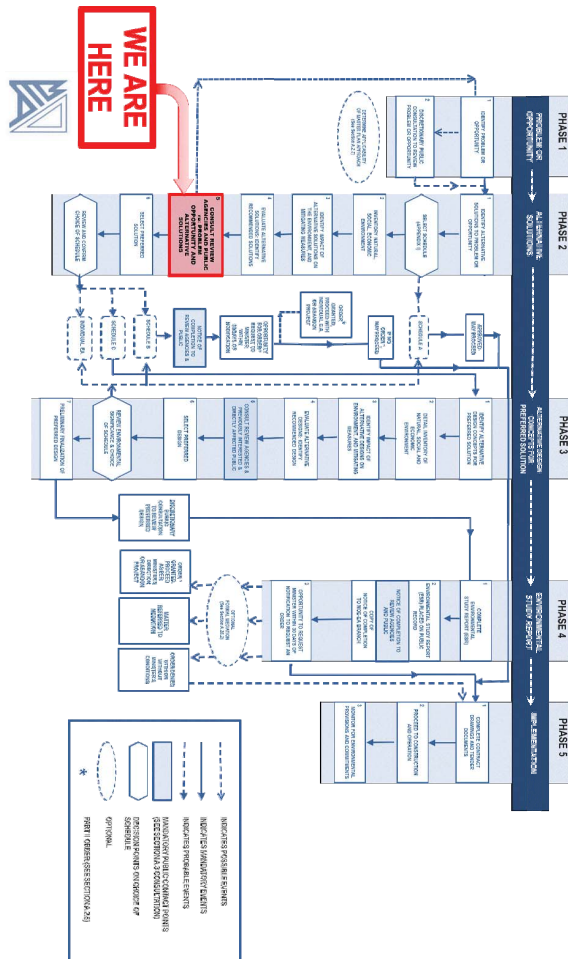
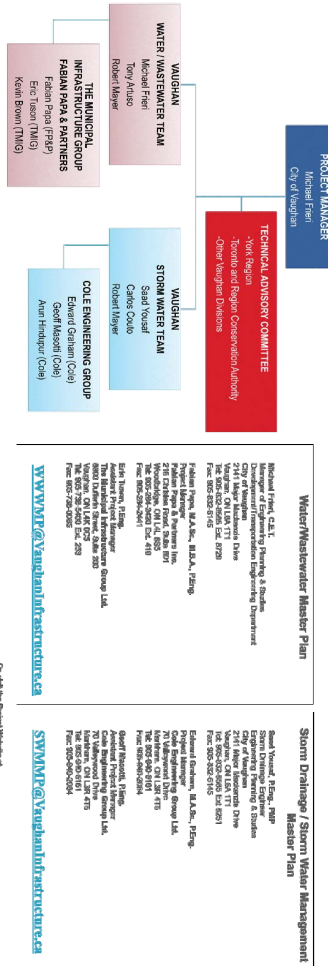
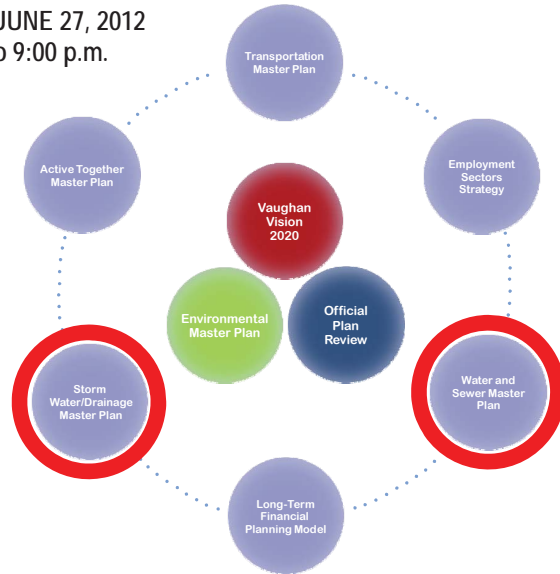
*This Notice issued June 7, 2012*

PUBLIC INFORMATION CENTRE No. 2

MASTER PLANS FOR URBAN WATER INFRASTRUCTURE IN VAUGHAN  
Water/Wastewater Master Plan  
Storm Drainage / Storm Water Management Master Plan

WEDNESDAY JUNE 27, 2012  
7:00 p.m. to 9:00 p.m.

- Please sign in on the sheet provided. Then feel free to walk around and view the displays.
- The purpose of this Public Information Centre (PIC) is to update you on the status of the projects, inform you of the preliminarily-preferred solutions, and obtain your comments on the project.
- The major elements presented today are:
  - Identification and Evaluation of Alternative Solutions;
  - Identification of the Preliminarily-Preferred Solution;
  - Identification of Specific Infrastructure Strategies and Improvements;
- If you have any questions, our representatives will be pleased to discuss the project with you.
- The Study Teams are interested in receiving any comments that you may have about the Studies.
- Should you have any questions or comments, require further information, or wish to be added to the study mailing lists, please contact one of the Study Team members.



MASTER PLANS FOR URBAN WATER INFRASTRUCTURE IN VAUGHAN  
PUBLIC INFORMATION CENTRE #2 June 27, 2012

Class EA Process & Study Team

Or call the Project Manager at  
[www.VaughanInfrastructure.ca](http://www.VaughanInfrastructure.ca)

[www.VaughanInfrastructure.ca](http://www.VaughanInfrastructure.ca)



Within the City of Vaughan, there are a number of completed and ongoing studies that were reviewed and referenced as part of these Master Plan. A summary of those studies is provided below.

**Vaughan Official Plan**

The new Official Plan was completed and adopted by City Council in September 2010, a component of the City's Consolidated Growth Management Strategy. The Official Plan updates the City's community planning policies in a manner consistent with the principles of sustainability.

**Places to Grow**

The Provincial 2006 Growth Plan for the Greater Golden Horseshoe foresees 418,000 people and 258,100 jobs within the City of Vaughan by 2031. This will be achieved through a concentration of population to allow existing urban boundaries and also through new development within the existing urban boundary.

**Greenbelt Plan**

The Greenbelt Plan was established in 2005 under the Greenbelt Act. The City of Vaughan includes lands that are part of the Greenbelt. The Greenbelt Plan sets out the vision and the strategies for managing the Greenbelt to support future growth. All new infrastructure that will be within the Greenbelt must comply with specific policies prior to implementation.

**Green Directions Vaughan**

Green Directions Vaughan is the City's Community Sustainability and Environmental Master Plan (CSEMP). It balances various aspects of management strategy. The plan establishes the principles of sustainability to be used in the development of other plans and master plans, including but not limited to: transit, water, wastewater, waste management and a strong economy.

**Vaughan Transportation Master Plan**

The Transportation Master Plan will define the road and public transit infrastructure needed to support the population and employment growth that will result from the implementation of the Growth Management Strategy.

**Black Creek Optimization Study**

The overall goal of the Black Creek Optimization Study is to address the ongoing Toronto, York Region and City of Vaughan issues that have been identified within the study area.

**York/Water/Wastewater Master Plan**

In November 2009, York Region updated their Water and Wastewater Master Plan. The plan sets out the vision and the strategies for managing the City's wastewater, the recommendations of the Water/Wastewater Master Plan need to be compared with those of the Region's Master Plan to ensure consistency.

**green directions VAUGHAN**  
**Community Sustainability and Environmental Master Plan**

Green Directions Vaughan was designed to establish the principles of sustainability in Vaughan, and will be considered through these Master Plans to help achieve a healthy natural environment, vibrant communities and a strong economy. Green Directions provides two distinct functions:

1. It creates a series of sustainability action plans to guide the City's operational and regulatory functions; and
2. It acts as the City's first Integrated Community Sustainability Plan.

**There are six key goals outlined in the plan:**

1. To significantly reduce our use of natural resources and the amount of waste we generate
2. To ensure sustainable development and redevelopment
3. To ensure that Vaughan is a City that is easy to get around with a low environmental impact
4. To create a vibrant community where citizens, businesses and visitors thrive
5. To be leaders in advocacy and education on sustainability issues
6. To ensure a supportive system for the implementation of Green Directions

The Water/Wastewater Master Plan and the Storm Drainage / Storm Water Management Master Plan will both strive to achieve the goals of Green Directions through:

- ongoing consultation with the Region, TRCA, the Development Community, and the General Public; and,
- consideration of established and emerging technologies to achieve waste reduction and sustainability goals.



Study Overviews

These Studies are – in part – driven by the Provincially-Mandated Growth Projections (as adopted in the Official Plan):

- City of Vaughan Population is expected to increase from 250,000 (in 2006) to 415,000 by 2031.
- City of Vaughan Employment is expected to increase from 160,000 (in 2006) to 265,000 by 2031.

**Water/Wastewater Master Plan**

**OBJECTIVE:**  
The Water and Wastewater Master Plan will optimize the efficiency of the City's current infrastructure, and identify where and how additional capacity may be provided to address the needs of new development areas, as well as redevelopment and intensification within the built boundary.

The ability of the City's existing water and wastewater distribution/collection systems to service growth will ultimately rely on the capacities of the Region of York's major trunk water and sewer systems.

**PROBLEM/BACKGROUND:**  
Like many towns and cities throughout Ontario, the City of Vaughan has recently adopted a new City-Wide Official Plan. In Vaughan, the New Official Plan is part of an overall Growth Management Strategy, initiated by Council, that will "shape the future of the City and guide its continued transformation into a vibrant, beautiful and sustainable City".

The New Official Plan was completed and adopted by City Council in September 2010, and as such the City is now interested in undertaking a City-Wide Water/Wastewater Master Plan Environmental Assessment Study (MPEA) to complement the New Official Plan and to establish the water and wastewater infrastructure required to support the build-out of the New Official Plan.

The Water and Wastewater Master Plan will identify alternative infrastructure planning and implementation strategies and select the preferred alternative to meet the City's growth needs, premised upon a time horizon of 2031. Servicing scenarios beyond 2031 will also be considered to efficiently plan for municipal infrastructure requirements in anticipation of full urbanization and build-out of remaining white belt lands throughout the City.

This Water and Wastewater Master Plan is to be co-ordinated and integrated with the Region of York's Water/Wastewater Master Plan Update (2009) as well as the City's principles of sustainability as established in the Community Sustainability and Environmental Master Plan (CSEMP) called Green Directions Vaughan.

**OPPORTUNITY:**  
This project also presents the opportunity to re-assess the City's design criteria and explore opportunities to maximize the utilization of existing water and wastewater infrastructure.

**Storm Drainage / Storm Water Management Master Plan**

**OBJECTIVE:**  
The Storm Drainage / Storm Water Management Master Plan will evaluate the effectiveness of the existing storm water management infrastructure within the City of Vaughan with an additional focus on the Rainbow Creek Watershed to identify where and how these infrastructure needs may change to address new development areas outside of the current urban boundary, and redevelopment and intensification within the built boundary.

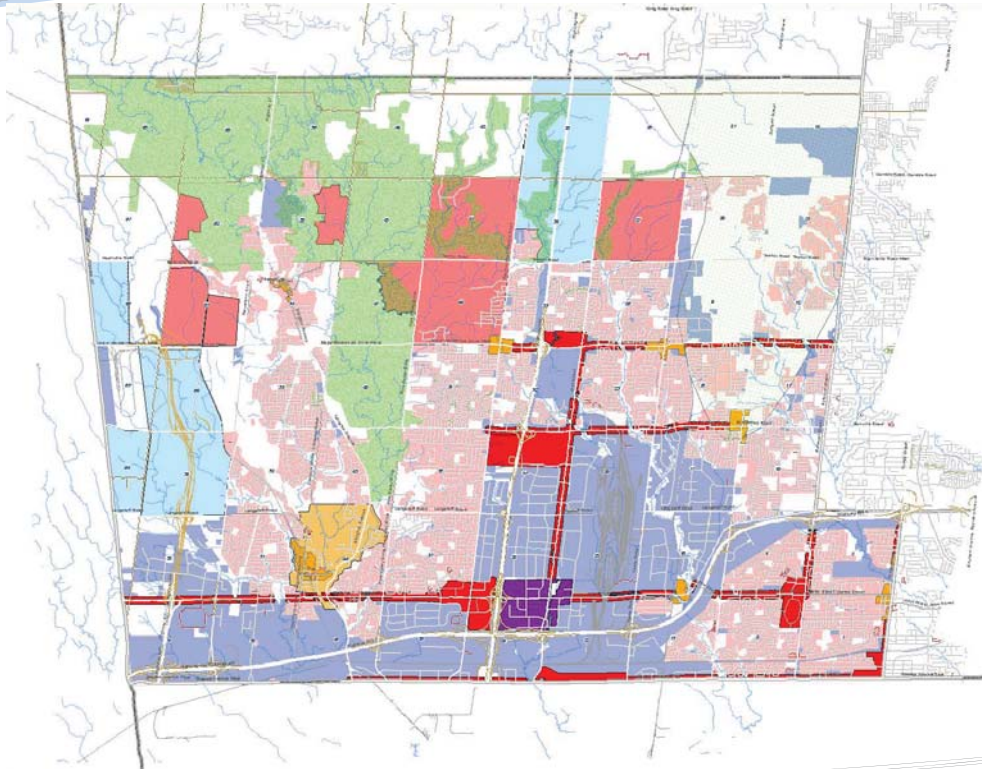
The study will evaluate the use of alternative SWM practices for effective treatment of storm water from source, conveyance, and end of pipe controls to promote protection of the natural environmental systems.

**PROBLEM/BACKGROUND:**  
In September of 2010 Vaughan Council adopted the new City-Wide Official Plan, a component of the Vaughan Consolidated Growth Management Strategy – 2031. The Official Plan represents an update to the City's community planning policies in a manner consistent with the principles of sustainability. The City is now proceeding with the preparation of a City-Wide Storm Drainage/Storm Water Management (SWM) Master Plan Class Environmental Assessment Study (MPCEA) to complement the new Official Plan and direct the required storm water management infrastructure improvements to support the build-out of the new Official Plan.

As part of the overall SWM MPCEA, the City is also undertaking an update study to the Rainbow Creek Master Plan. The Toronto and Region Conservation Authority (TRCA) has been working with the City of Vaughan to rehabilitate and enhance the environmental conditions in deteriorated streams in urbanized areas including Rainbow Creek watershed. The City is committed to developing and implementing a regeneration plan for the Rainbow Creek watershed.

**OPPORTUNITY:**  
This project presents the opportunity to prepare a storm water management planning and guidance document to support and direct development in compliance with the City of Vaughan's Official Plan and policies of the Toronto and Region Conservation Authority to improve and determine the best management practices for storm water management as well as to support future intensification as mandated by the Province of Ontario.

The update to Rainbow Creek Master Plan study presents the opportunity for regeneration that will not only improve the environmental conditions within the creek and valley system but will provide reasonable protection against accelerated erosion rates and flooding while protecting municipal infrastructure and property.



- RIVERS
- OAK RIDGES MORAIN
- GREEN BELT
- Primary Intensification Corridors
- Vaughan Metropolitan Centre
- Primary Centres
- Local Centres
- Growth Areas**
- Residential
- Employment

Evaluation of Water & Wastewater Alternatives

EVALUATION CRITERIA

Technical Merit

- Functionality – Ability to meet demands and integrate with existing infrastructure
- Constructability – Ease of construction, length of routes, construction methods and crossings

Natural

- Impact on Natural Environment
  - Need for Greenbelt/ORM crossings or on-Greenbelt/on-ORM construction
  - Impact on terrestrial and aquatic environments

Socio-Economic

- Cultural Environmental Impact – Cultural heritage impact & disruption to surrounding area
- Transportation Impact – Impact on traffic patterns, road closures/detours, public transit disruption
- Residential and Business Impact
  - Proximity of work to residences, businesses & institutions, public safety and perception
  - Odour & air quality

Financial

- 25-Year Life Cycle Cost – Capital, Operations & Maintenance Costs

WATER & WASTEWATER ALTERNATIVES

Alternative 1 - Do Nothing

- Proceed with Official Plan Planning recommendations, without any material changes to the City's existing water distribution and wastewater collection infrastructure.

Alternative 2 – Limit Community Growth

- Limit growth to the extent that can be supported by the existing water and wastewater infrastructure.

Alternative 3 – Water Conservation (Water & Wastewater) and I/I Reduction (Wastewater)

- Provide for mandated growth without building new infrastructure by reducing water consumption and wastewater generation City-wide as well as reducing infiltration/inflow to the existing sanitary sewer system.

Alternative 4 – Build New Water/Wastewater Systems

- Provide for mandated growth by building new water source/supply and wastewater collection/disposal systems (i.e., independent of the existing systems).

Alternative 5 – Expand & Enhance Existing Water and Wastewater Infrastructure

- Provide for mandated growth through a combination of enhancements of the existing system or extension of the existing system into new growth areas.

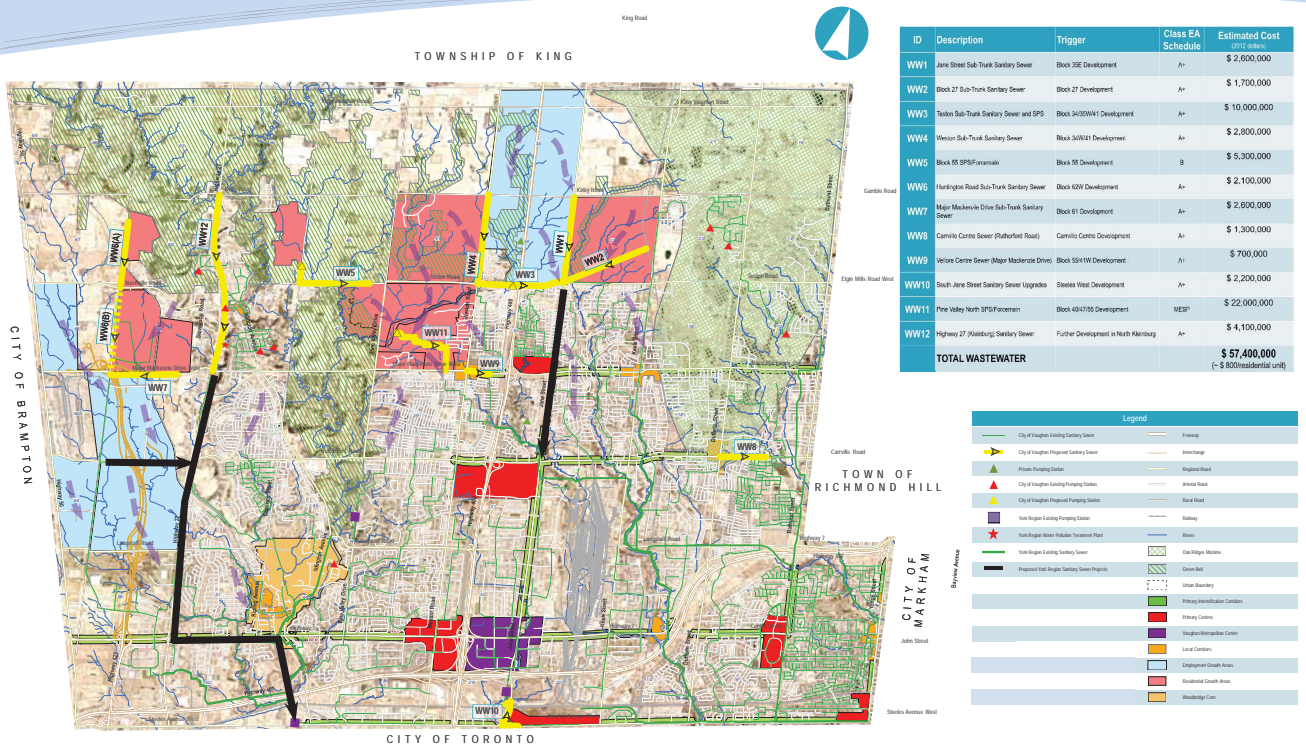
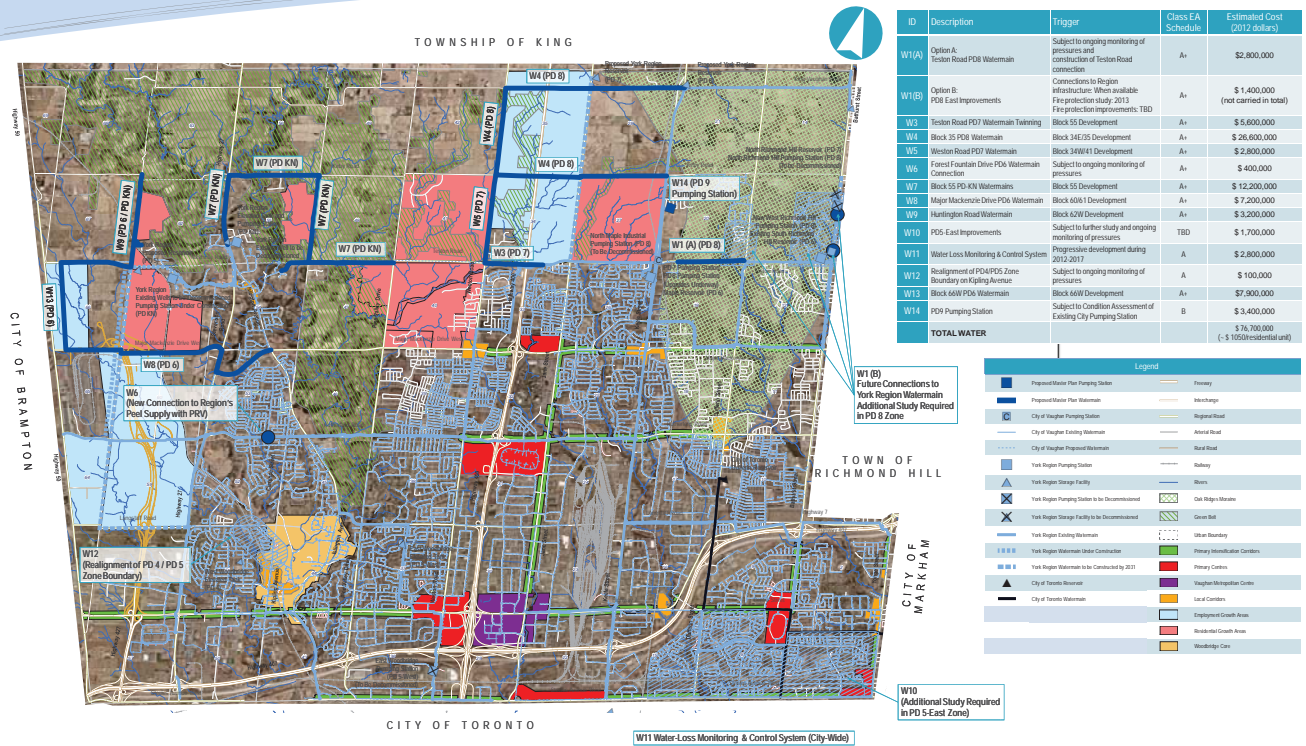
Water Alternatives Evaluation

Evaluation Criteria	Lowest Score → Highest Score				
	Alternative 1 Do Nothing	Alternative 2 Limit Community Growth	Alternative 3 Water Conservation	Alternative 4 Build New Water/Wastewater Systems	Alternative 5 Expand & Enhance Existing Water/Wastewater Systems
Technical Merit	Not Rated	Not Rated	Not Rated	High	High
Natural	High	High	High	Low	Low
Socio-Economic	High	High	High	Low	Low
Financial	High	High	High	Low	Low
Overall	Not Rated	Not Rated	Not Rated	High	High

Wastewater Alternatives Evaluation

Evaluation Criteria	Lowest Score → Highest Score				
	Alternative 1 Do Nothing	Alternative 2 Limit Community Growth	Alternative 3 Water Conservation	Alternative 4 Build New Wastewater Systems	Alternative 5 Expand & Enhance Existing Water/Wastewater Systems
Technical Merit	Not Rated	Not Rated	Not Rated	High	High
Natural	High	High	High	Low	Low
Socio-Economic	High	High	High	Low	Low
Financial	High	High	High	Low	Low
Overall	Not Rated	Not Rated	Not Rated	High	High

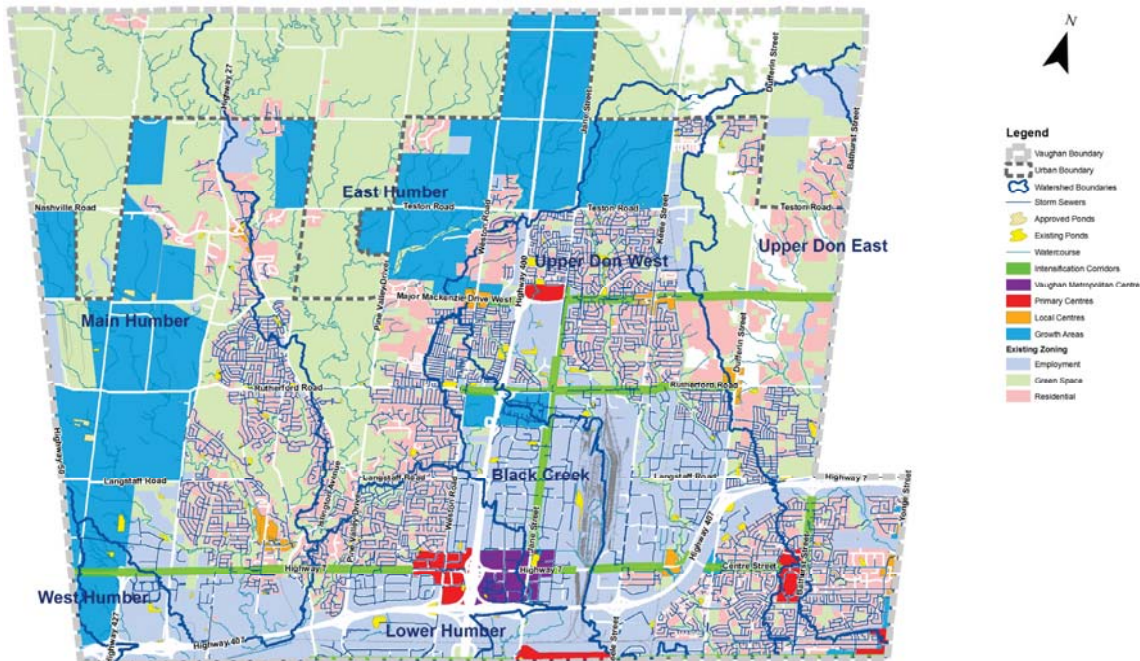


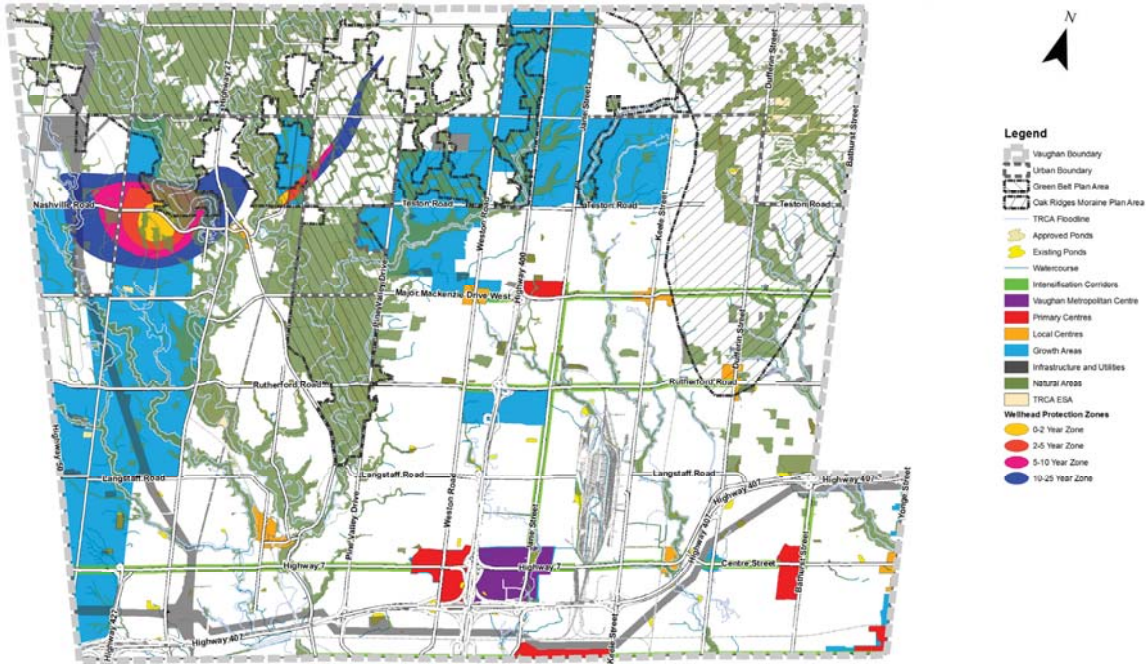




	Growth Area	Water Servicing	Wastewater Servicing
	Infill within Existing Areas	Existing Servicing	Existing Servicing
	Vaughan Metropolitan Centre	Existing Servicing	Existing Servicing
Intensification; Major Centres	Yonge and Steeles	Existing Servicing W10 - PDS-East Improvements (Subject to ongoing monitoring)	Existing Servicing
	Steeles West	Existing Servicing	WW10 - South Jane Street
	Weston and Highway 7	Existing Servicing	Existing Servicing
	Bathurst Street and Centre Street	Existing Servicing	Existing Servicing
	Vaughan Mills	Existing Servicing	Existing Servicing
Intensification; Local Centres	Jane and Major Mackenzie	Existing Servicing	Existing Servicing
	Kleinburg Core	Existing Servicing	Existing Servicing
	Woodbridge Core	Existing Servicing W12 - Realignment of PD4/PDS Zone Boundary on Kipling Avenue (Subject to ongoing monitoring)	Existing Servicing
	Maple Core	Existing Servicing	Existing Servicing
	Thornhill Core	Existing Servicing	Existing Servicing
Intensification; Corridors	Carville Centre	Existing Servicing	WW8 - Carville Centre Sewer
	Concord GO Station	Existing Servicing	Existing Servicing
	Vellore Village Core	Existing Servicing	WW9 - Vellore Centre Sewer
	Highway 7	Existing Servicing	Existing Servicing
	Centre Street	Existing Servicing W10 - PDS-East Improvements (Subject to ongoing monitoring)	Existing Servicing
	Dufferin and Centre	Existing Servicing W10 - PDS-East Improvements (Subject to ongoing monitoring)	Existing Servicing
	Major Mackenzie Drive	Existing Servicing	Existing Servicing
Rutherford Road	Existing Servicing	Existing Servicing	
Jane Street	Existing Servicing	Existing Servicing	

	Growth Area	Water Servicing	Wastewater Servicing
Greenfield	Block 20	Existing Servicing W14 - P09 Servicing (Subject to Condition Assessment)	Existing Servicing
	Block 27	Existing Servicing	WW2 - Block 27 Sub-Trunk REG-WW02 - North East Vaughan Trunk
	Block 33W	Existing Servicing	Existing Servicing
	Block 34E (Highway 400 North Employment Lands)	W5 - Weston Road P07 Watermain	WW3 - Teston Sub-Trunk REG-WW02 - North East Vaughan Trunk
	Block 34W (Highway 400 North Employment Lands)	W4 - Block 35 PD8 Watermain Only Portion along Kitty Road from Keele Street to West of Jane Street	WW3 - Teston Sub-Trunk REG-WW02 - North East Vaughan Trunk
	Block 35E (Highway 400 North Employment Lands)	W4 - Block 35 PD8 Watermain	WW1 - Jane Sub-Trunk REG-WW02 - North East Vaughan Trunk
	Block 35W (Highway 400 North Employment Lands)	W4 - Block 35 PD8 Watermain	WW3 - Teston Sub-Trunk WW4 - Weston Sub-Trunk REG-WW02 - North East Vaughan Trunk
	Blocks 40/47	Existing Services	WW11 - Pine Valley North SPS/F orccmain
	Block 41	W5 - Weston Road P07 Watermain	WW3 - Teston Sub-Trunk WW4 - Weston Sub-Trunk "Subject to limiting of development of Vellore Village Core REG-WW02 - North East Vaughan Trunk
	Block 55	W2 - Teston Road P07 Watermain W7 - Block 55 PD-KN Watermain Servicing	WW5 - Block 55 SPS/F orccmain WW11 - Pine Valley North SPS/F orccmain
	Block 59 (West Vaughan Employment Area)	Existing Servicing	Existing Servicing
	Block 60 (West Vaughan Employment Area)	Block 59 Internal Servicing W6 - Major Mackenzie Drive PD6 Watermain	REG-WW01 - West Vaughan Trunk
	Block 61	W8 - Major Mackenzie Drive PD6 Watermain	WW7 - Major Mackenzie Sub-Trunk
	Block 62W	W9 - Huntington Road Watermain	WW6 - Huntington Sub-Trunk
	Block 64	Existing Servicing	Existing Servicing
	Block 66W (West Vaughan Employment Area)	W13 - Block 66 West PD6 Watermain	REG-WW01 - West Vaughan Trunk
North Kleinburg	Existing Servicing	WW12 - Hay 27 (Kleinburg) Sewer	





Evaluation Criteria	Yonge Steeles			Woodbridge Core			West Vaughan Employment Area			Kleinburg-Nashville		
	Alternative 1: Do Nothing	Alternative 2: At Source / Conveyance Controls	Alternative 3: End of Pipe Controls	Alternative 1: Do Nothing	Alternative 2: At Source / Conveyance Controls	Alternative 3: End of Pipe Controls	Alternative 1: Do Nothing	Alternative 2: At Source / Conveyance Controls	Alternative 3: End of Pipe Controls	Alternative 1: Do Nothing	Alternative 2: At Source / Conveyance Controls	Alternative 3: End of Pipe Controls
Technical Merit	◐	●	●	○	●	●	○	●	●	○	●	●
Natural	◐	●	●	○	●	●	○	●	●	○	●	●
Social / Cultural Environment	◐	●	◐	○	●	◐	○	●	●	○	●	●
Financial	●	◐	◐	◐	◐	◐	●	◐	◐	●	◐	◐
Overall Preferred Alternative	○	●	○	○	●	○	○	●	●	○	●	●

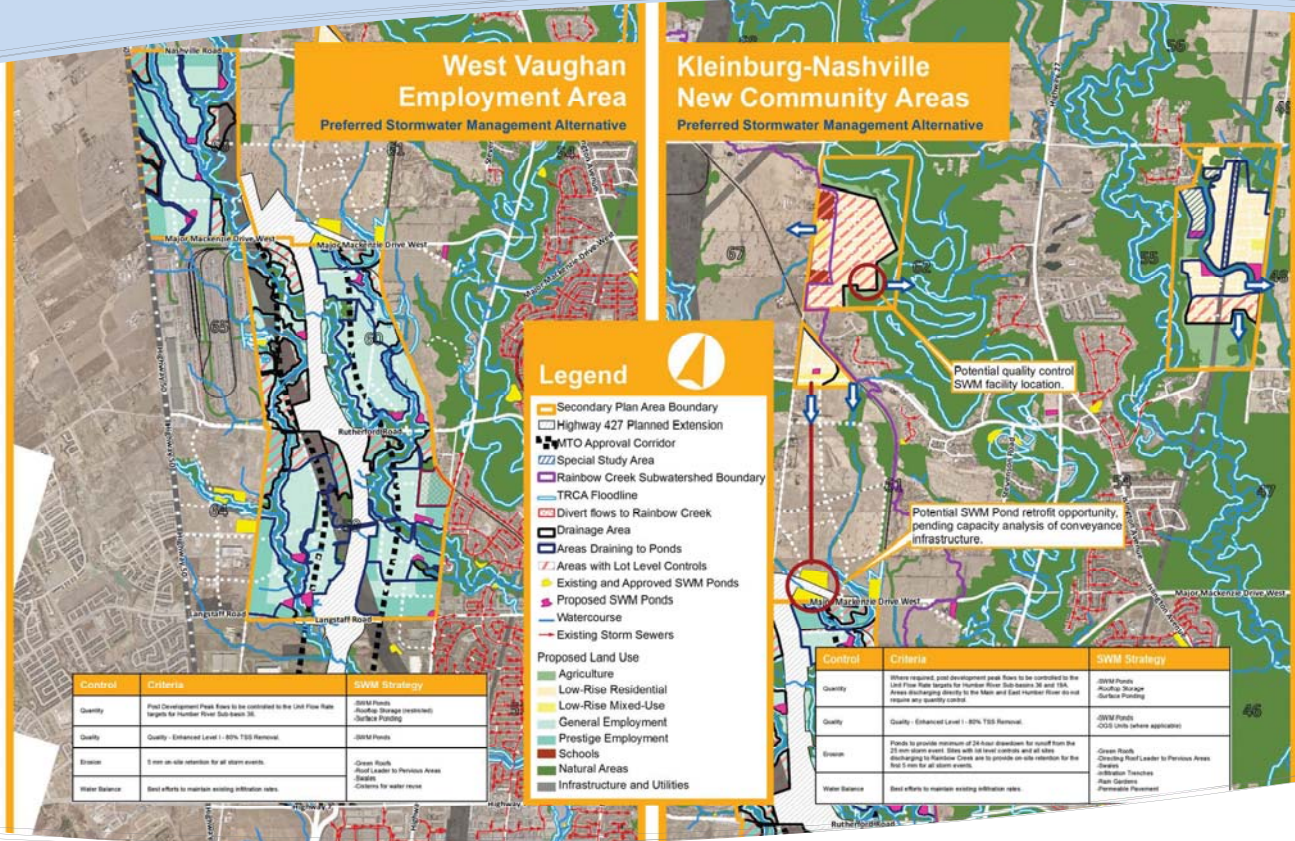
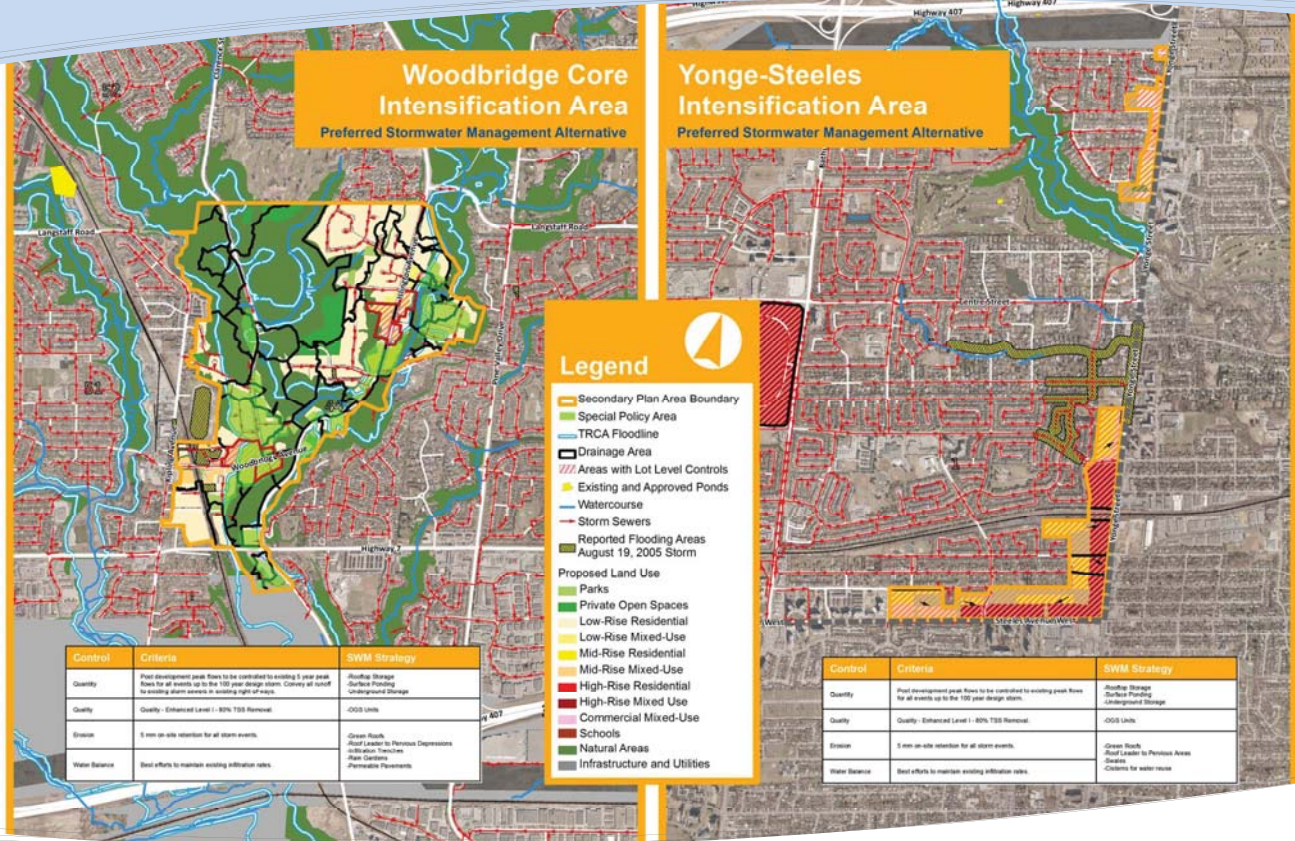
**Alternative 1: Do Nothing**  
This alternative does not require any action with regards to the implementation of stormwater management for a proposed development. The 'Do Nothing' alternative must be considered as part of the Class EA as a way of establishing baseline conditions

**Alternative 2: At Source / Conveyance / Lot Level Controls**  
This alternative involves the implementation of various "small scale" controls for water quantity, water quality, water balance and erosion control. These may include but are not limited to surface storage, roof top storage, parking lot storage, underground storage, cisterns, green roofs, infiltration trenches, rain gardens, swales, filter strips, permeable pavement and Oil / Grit Separator (OGS) units. Not all technologies/methods may be feasible in all areas.

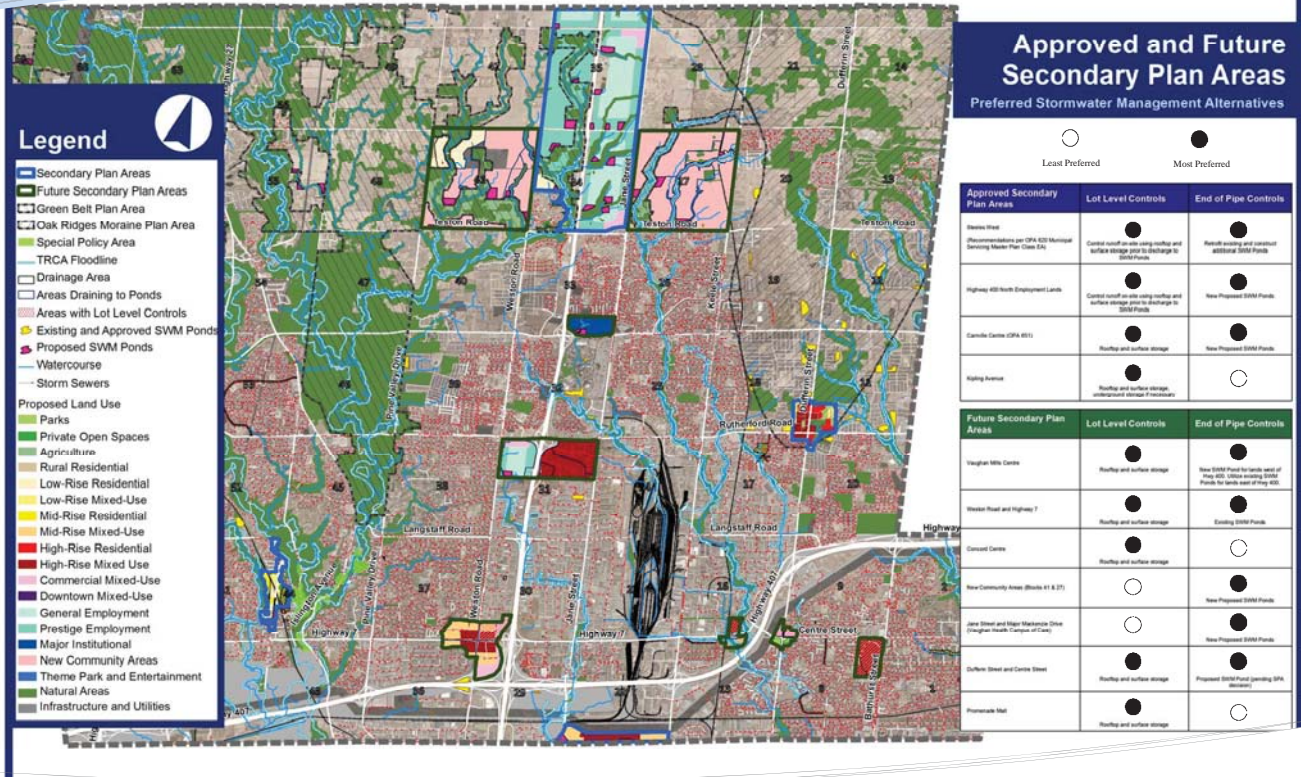
**Alternative 3: End of Pipe Controls**  
This alternative involves the implementation of stormwater management ponds or other end of pipe methods for water quantity, water quality, and erosion control.



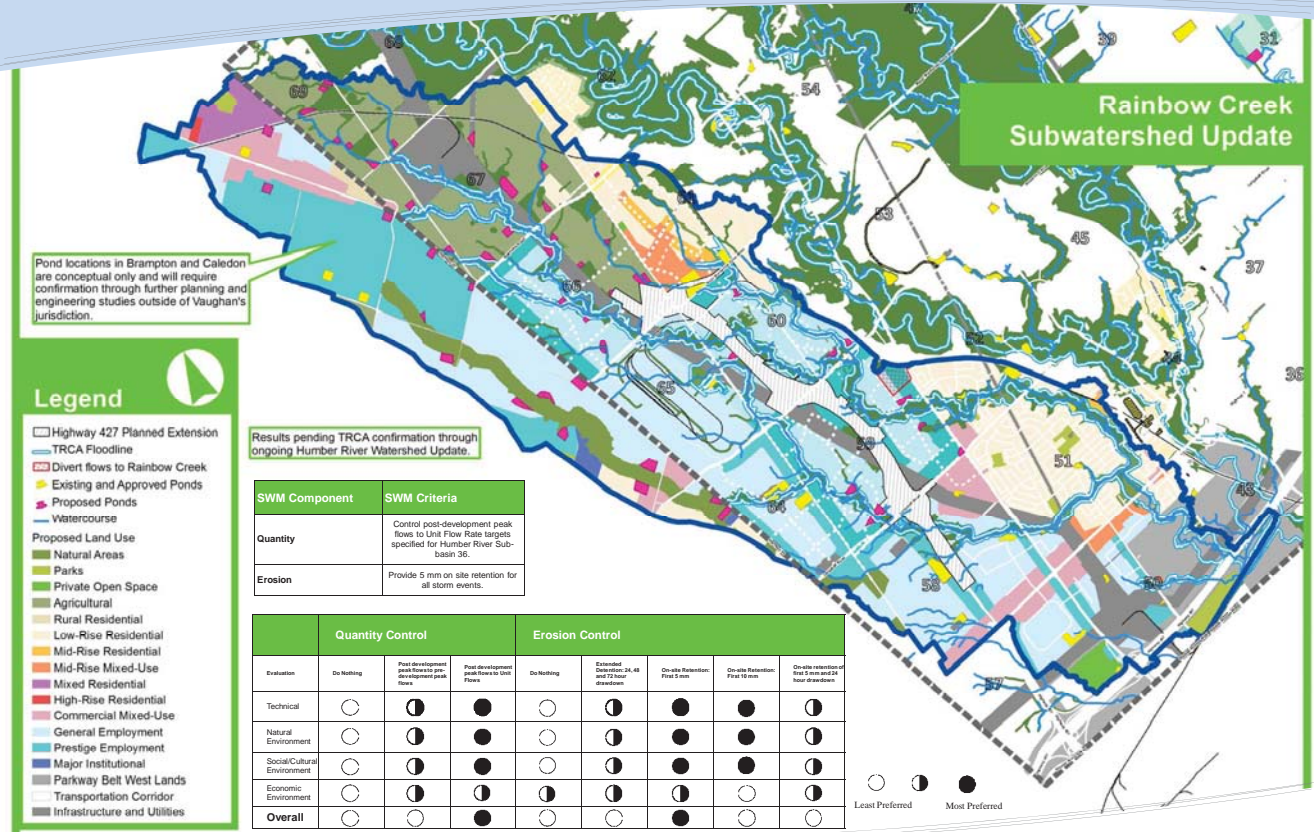




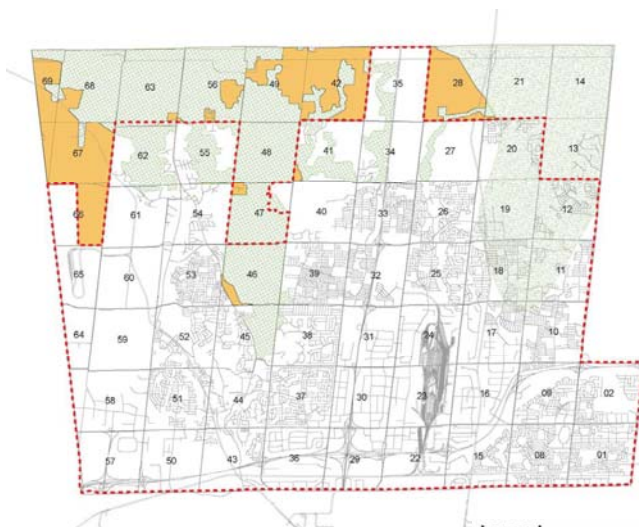








## 2051 Storm Water Management Strategy



### Quantity

- Control to Unit Flow Rates (Humber and Don Watersheds)
- Maintain existing drainage patterns as much as possible
- Quantity control to be provided by SWM facilities and/or lot level controls where appropriate

### Quality

- Control to Enhanced Level 1 – 80% TSS Removal
- Protection of Aquatic Habitat
- Redside Dace: Cannot exceed 25 mg/l of TSS above background levels and 24 °C

### Erosion

- SWM Facilities – minimum of 24 hours drawdown time for 25 mm event
- Individual erosion analysis required to determine downstream erosion risks

### Water Balance

- Post development water budget to match existing water budget or on-site retention of 5 mm, which ever is greater

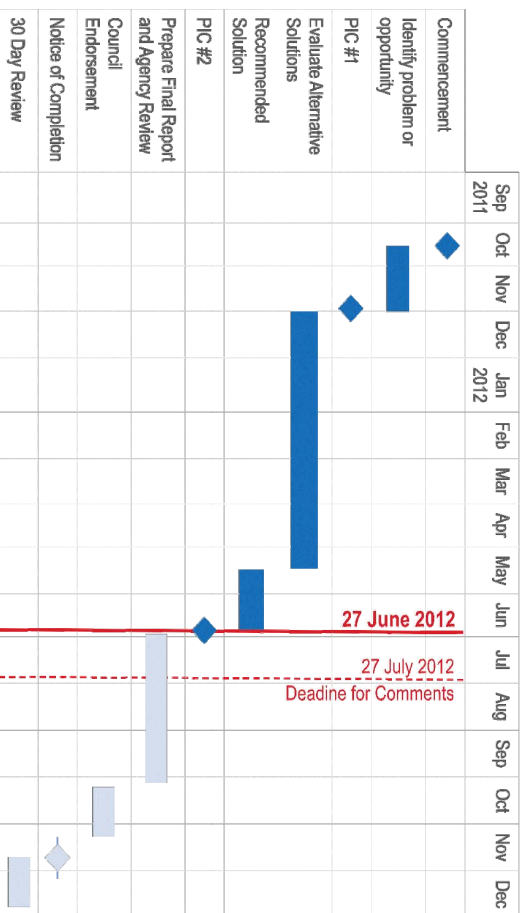
### Legend

- Green Belt
- Oak Ridges Moraine
- Future Growth Area (2051)
- 2031 Urban Boundary



## Project Schedule & Next Steps

### Project Schedule



#### Next Steps

- Comments from this Public Information Centre will be considered along with those received from review agencies. Please provide your comments on a comment sheet and place it in the Comment Box, or send it to us by July 27<sup>th</sup> 2012.
- The Project Team will Review the feedback and respond to any comments received, document the studies and finalize the Master Plans.
- The Master Plans will be prepared and filed for 30 calendar days for agency and public review.
- Review agencies and the public will be notified of the completion of the studies and locations where the Master Plans can be reviewed.
- Schedule A, Schedule A+ and Schedule B projects not requiring further study would move forward to implementation based on the identified schedule.
- Should you have any questions, please contact the City or Project Teams.



## REGISTRATION SHEET

**Public Information Centre #2 – Master Plans for Urban Water Infrastructure in Vaughan  
Municipal Class Environmental Assessment**

**Wednesday June 27, 2012 – City of Vaughan**

Name (Please Print)	Address/E-mail	Phone Number
1. <i>TONY</i> [REDACTED]	<p>PRIVATE INFORMATION REMOVED FROM THE PUBLIC REVIEW DOCUMENT</p>	
2. <i>AL</i> [REDACTED]		
3. <i>[Handwritten]</i> [REDACTED]		
4. <i>Aaron</i> [REDACTED]		
5. <i>GERRY</i> [REDACTED]		
6. <i>Peter</i> [REDACTED]		
7. <i>DARLENE</i> [REDACTED]		
8. <i>Shu</i> [REDACTED]		
9. <i>Matt</i> [REDACTED]		
10. <i>VINNIE</i> [REDACTED]		

## REGISTRATION SHEET

Public Information Centre #2 – Master Plans for Urban Water Infrastructure in Vaughan  
Municipal Class Environmental Assessment

Wednesday June 27, 2012 – City of Vaughan

Name (Please Print)	Address/E-mail	Phone Number
11. MICHAEL [REDACTED]	<p>PRIVATE INFORMATION REMOVED FROM THE PUBLIC REVIEW DOCUMENT</p>	
12. DEEPAK [REDACTED]		
13. Arshin [REDACTED]		
14. Steve [REDACTED]		
15. Hannah [REDACTED]		
16.		
17.		
18.		
19.		
20.		

062

MAIL  
PIC  
BOARD



# FAX

**To:** Geoff Masotti **From:** Vinnie Ussia  
**Fax:** 905-940-2064 **Pages:** 3 (incl cover)  
**Phone:** 905-940-6161 ext 254 **Date:** 6.28.2012  
**Re:** City Wide Storm Water Master Plan **CC:** Saad Yousaf and Edward Graham

Urgent  For Review  Please Comment  Please Reply  Please Recycle

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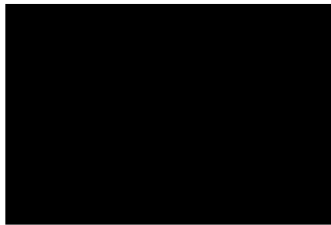
**Comments:**

Hi Geoff Masotti,

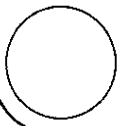
It was a pleasure meeting you the other night. Please find enclosed my comments based on our discussions.

If you have any questions, feel free to contact me at any time

Sincerely,



6.28.2012





# FAX

**To:** Edward Graham **From:** Vinnie Ussia  
**Fax:** 905-940-2064 **Pages:** 3 (incl cover)  
**Phone:** 905-940-6161 ext 373 **Date:** 6.28.2012  
**Re:** City Wide Storm Water Master Plan **CC:** Saad Yousaf and Geoff Masotti

Urgent  For Review  Please Comment  Please Reply  Please Recycle

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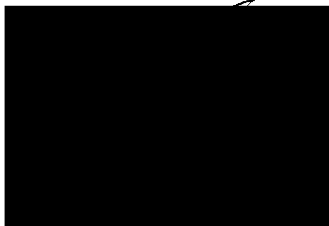
**Comments:**

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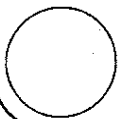
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Sincerely,



6.28.2012



# FAX

**To:** Saad Yousaf **From:** Vinnie Ussia  
**Fax:** 905-832-6145 **Pages:** 3 (incl cover)  
**Phone:** 905-832-8585 ext 8251 **Date:** 6.28.2012  
**Re:** City Wide Storm Water Master Plan **CC:** Geoff Masotti and Edward Graham

Urgent  For Review  Please Comment  Please Reply  Please Recycle

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**Comments:**

Hi Saad Yousaf,

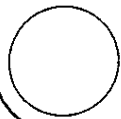
It was a pleasure meeting you the other night. Please find enclosed my comments based on our discussions.

If you have any questions, feel free to contact me at any time

Sincerely,



6.28.2012



# City-Wide Storm Water Master Plan



## COMMENT FORM



June 27 2012 – Public Information Centre #2  
City of Vaughan, 2141 Major Mackenzie Drive, Vaughan ON

PAGE 1 of 2

We are interested in hearing any comments you may have associated with this project. Thank you for clearly writing your comments in the space provided below.

PLEASE SEE PAGE 2 of 2.

This material will be maintained on file for use during the project and may be included in project documentation. Information collected will be used in accordance with the Freedom of Information and Privacy Act. With the exception of personal information, all comments will become part of the public record.

Please submit your written comments before leaving the PIC. If you require more time to comment, please mail/fax in the comment sheet by July 27, 2012 to:

**Saad Yousaf, P.Eng.**  
Storm Drainage Engineer  
Engineering Planning & Studies  
City of Vaughan  
2141 Major Mackenzie Drive  
Vaughan, ON L6A 1T1  
Tel: 905-832-8585 ext 8251  
Fax: 905-832-6145

**Edward Graham, M.A.Sc, P.Eng.**  
Project Manager  
Cole Engineering Group Ltd.  
70 Valleywood Drive  
Markham, ON L3R 4T5  
Tel: 905-940-6161 ext. 373  
Fax: 905-940-2064

**Geoff Masotti, P.Eng.**  
Assistant Project Manager  
Cole Engineering Group Ltd.  
70 Valleywood Drive  
Markham, ON L3R 4T5  
Tel: 905-940-6161 ext. 254  
Fax: 905-940-2064

**Website:** [www.VaughanInfrastructure.ca](http://www.VaughanInfrastructure.ca)  
**Email:** [SWMMP@VaughanInfrastructure.ca](mailto:SWMMP@VaughanInfrastructure.ca)

**PLEASE CLEARLY PRINT YOUR NAME AND CONTACT INFORMATION BELOW:**

(personal information will not become part of the public record)

Name  
Street  
City/Town  
Postal Code

Organization  
Telephone  
Fax  
Email

**CITY-WIDE STORM WATER MASTER PLAN**

**COMMENT FORM**

**June 27/12 – Public Information Centre #2**

Page 2 of 2

My family and I own several properties on the west side of Huntington Road, South of Kirby Road and North of Nashville Road. Cumulatively there is approximately 150 acres of land. I'm in favor of what was displayed at the June 27<sup>th</sup>, 2012 meeting but I would like the following note:


- A) The water main on Huntington Road (W9) should be sized to accommodate future growth on the west side of Huntington Road
- B) The Huntington Road sub trunk sanitary services (W W6 A&B) should also be sized to accommodate future growth on the west side of Huntington Road

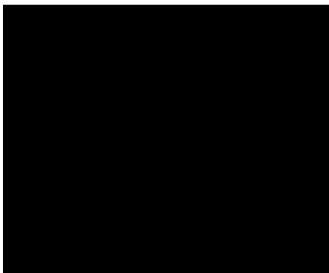
Our whole objective of comprehensive planning is to plan now for the future. If we are going to install a 450mm pipe for sanitary along Huntington Road, why not install a 600mm or larger now to accommodate future growth West of Huntington Road and similarly for the water main.

With minor increases in costs today we will save largely down the road, which is in the near future.

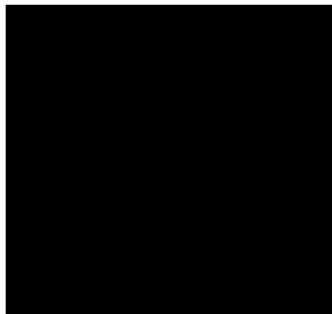
Plan properly today, saving time, money, new infrastructure plans, and future traffic disruptions to the families who will be occupying these new developments.

Please keep me informed and please respond to my comments as I am a large land owner and would like to be involved every step of the way.

If you have any questions, please do not hesitate to contact me at  or via email at



Name:  
Street:  
City:  
Postal:  
Telephone:  
Fax:  
Email:





September 21, 2012

[REDACTED]

**Subject: Vaughan Water/Wastewater Masterplan  
Comment Submitted June 28, 2012**

[REDACTED]

Thank you for your comment on the information presented at the Public Information Centre (PIC) held at the City of Vaughan on June 27, 2012.

While the Master Plan does not specifically provide for the future servicing of the City's existing Urban Boundary, the approach in evaluating the preferred solution was to ensure that the recommendations developed through the process do not prohibit future servicing of unconstrained lands beyond the Urban Boundary.

As we discussed at the PIC, the land that you referenced currently lies outside of the City's revised Urban Boundary, and the future development of the land is therefore not included in the City's current planning horizon. The Master Plan will be reviewed in five-year increments, allowing the city to update the recommended solutions based on information and knowledge available at that time.

Yours Truly,

Kevin Brown, P.Eng  
Senior Municipal Engineer

Cc: Michael Frieri (The City of Vaughan, Manager of Engineering, Planning and Studies)  
Fabian Papa (Fabian Papa & Partners Inc.)

8800 Dufferin Street, Suite 200  
Vaughan, Ontario  
Canada L4K 0C5  
Tel: 905-738-5700  
Fax: 905-738-0065  
1 888-449-4430  
www.tmig.ca







# City-Wide Water/Wastewater Master Plan



## COMMENT FORM



June 27 2012 – Public Information Centre  
City of Vaughan, 2141 Major Mackenzie Drive, Vaughan ON

We are interested in hearing any comments you may have associated with this project. Thank you for clearly writing your comments in the space provided below.

THE RESIDENTS ON SIMMONS STREET AND DiBENEDETTO LANE (HWY 27 + RUTHERFORD RD) WOULD BE INTERESTED IN UNDERSTANDING THE LIKELIHOOD OF HAVING SEWER SYSTEMS INSTALLED. THERE ARE CURRENTLY = 22 HOMES AND AN ADDITIONAL 4 EMPTY LOTS WHICH HAVE EXPRESSED INTEREST IN UNDERTAKING SUCH.

I UNDERSTAND THERE ARE TWO POSSIBLE OPTIONS TO DELIVER SEWERS TO THESE HOMES; A) CONNECTION AT SIMMONS ST. AND RUTHERFORD RD AND B) CONNECTION VIA ROYAL PARKWAY EXTENSION AS WAS PROPOSED IN EARLIER YEARS - VIA EASEMENT NEAR RAILWAY TRACK BRIDGE (SOUTH EAST CORNER).

THANK YOU FOR YOUR CONSIDERATION.

This material will be maintained on file for use during the project and may be included in project documentation. Information collected will be used in accordance with the Freedom of Information and Privacy Act. With the exception of personal information, all comments will become part of the public record.

Please submit your written comments before leaving the PIC. If you require more time to comment, please mail/fax in the comment sheet by July 27, 2012 to:

Mr. Michael Frieri, C.E.T.  
Manager of Engineering and Planning Studies  
Development/Transportation Engineering Dept.  
City of Vaughan  
2141 Major Mackenzie Drive  
Vaughan, ON L6A 1T1  
Tel: 905-832-8585 ext 8729  
Fax: 905-832-6145

Fabian Papa, M.A.Sc., M.B.A., P.Eng.  
Project Manager  
Fabian Papa & Partners Inc.  
216 Chrislea Road, Suite 501  
Woodbridge, ON L4L 8S5  
Tel: 905-264-2420 ext. 410  
Fax: 905-264-2441

Eric Tuson, P.Eng.  
Assistant Project Manager  
The Municipal Infrastructure Group Ltd.  
8800 Dufferin Street, Suite 200  
Vaughan, ON L4K 0C5  
Tel: 905-738-5700 ext. 253  
Fax: 905-738-0065

Website: [www.VaughanInfrastructure.ca](http://www.VaughanInfrastructure.ca)  
Email: [WWWMP@VaughanInfrastructure.ca](mailto:WWWMP@VaughanInfrastructure.ca)

**PLEASE CLEARLY PRINT YOUR NAME AND CONTACT INFORMATION BELOW:**

(personal information will not become part of the public record)

Name  
Street  
City/Town  
Postal Code

Organization  
Telephone  
Fax  
Email



September 21, 2012

[REDACTED]

**Subject: Vaughan Water/Wastewater Masterplan  
Comment Submitted June 28, 2012**

[REDACTED]

Thank you for your comments on the information presented at the Public Information Centre (PIC) held at the City of Vaughan on June 27, 2012.

While the Master Plan does not specifically consider servicing for the existing and potential properties Simmons Street and Di Benedetto Lane, these lands are currently within the approved urban boundary and for which full municipal services, including sanitary sewer systems, are intended.

With respect to the planning for sanitary sewer installation for these properties, this would be the subject of a more detailed study than is covered by the scope or intent of this Master Plan project. There are currently no sanitary sewers available on Rutherford Road or Highway 27 in the vicinity of these properties, although it is noted that the Region of York is in the midst of completing the West Vaughan Sanitary Service Solution which is expected to result in the design and installation of trunk sewer facilities in the area.

Yours Truly,

A handwritten signature in black ink, appearing to read "Kevin Brown".

Kevin Brown, P.Eng  
Senior Municipal Engineer

Cc: Michael Frieri (The City of Vaughan, Manager of Engineering, Planning and Studies)  
Fabian Papa (Fabian Papa & Partners Inc.)









**TACC DEVELOPMENTS**  
600 Applewood Cres. Tel: 905.760.7300  
Vaughan, Ontario Fax: 905.669.9600  
L4K 4B4 jstevenson@tacc.com

July 26, 2012

**Sent Via Email & Hand Delivered**

City of Vaughan  
2141 Major Mackenzie Drive  
Vaughan, Ontario  
L6A 1T1

Attention: Mr. Michael Frieri, C.E.T.  
Manager of Engineering Planning & Studies

Dear Mr. Frieri:

**Re: City-Wide Infrastructure Master Planning  
Wastewater Planning for the City of Vaughan**

We had the opportunity to review the information presented at the second Public Information Centre (PIC) held on Wednesday June 27, 2012. We are very concerned with the direction of this report as we believe that it is inconsistent with previous arrangements and agreements made between the landowners and the city.

TACC Developments (TACC) and its partner Fieldgate Developments (Fieldgate) own approximately 101 net hectares (250 net acres) of land within Block 41. Provisions were made by TACC and Fieldgate to oversize sanitary sewers through Blocks 32 West and 33 West to accommodate Block 41 once it develops. These oversizings were done with the consent and full knowledge of the city. These oversizing costs have been incurred by both TACC and Fieldgate for the benefit of Block 41. TACC and its partners also paid the Region of York to install a sanitary sewer from Block 33 West running along Weston Road and terminating north of Teston Road, to ensure the serviceability of Block 41. Those costs were paid with the expectation of those services being required. At the time, Bill Robertson was fully involved in these discussions and fully agreed to the plan. TACC and Fieldgate also agreed, in good faith, to accommodating the existing subdivision north of Teston Road and east of Weston Road in the overall servicing plans.

The servicing plan currently being proposed by the city vastly differs from the original intent as it relates to sanitary servicing for Block 41. The city's plan now calls for the sanitary drainage to be conveyed along Teston Road to the future North East Vaughan Collector System which would be initiated by the Region of York at some point in the future. In addition, the city noted in their recent PIC that the timing of Block 41 will be subject to the timing of development for the Vellore Village Core.

It is apparent to TACC and Fieldgate that the city is giving priority, through its servicing efforts, to intensification areas. The city is reserving the capacity for such areas and thus reducing or eliminating the capacity intended for Block 41.

City of Vaughan  
Mr. Michael Frieri, C.E.T.  
July 26, 2012

As you may be aware, the Region of York recently advised the city that all elements of residential growth needs to be planned for. There is a strong demand for low-rise residential units in the city which will see its inventory drop drastically if development of the approved urban expansion areas (including Block 41) is delayed. Simply put, the residents and future residents of this city cannot be forced to live only in high-density residential areas – they should be given an array of opportunities to suit their needs. The Provincial Policy Statement requires the city to plan for a variety of housing types which includes grade-related housing. Accordingly, a range of residential products must be made available to meet all of the needs.


In light of the information presented above, TACC and Fieldgate object to the City's Wastewater Master Plan in its current state. It is the opinion of our solicitor that we have first right to the downstream sewer capacity given the works completed and paid for to-date to accommodate Block 41 and the understanding/agreement between TACC/Fieldgate and the public authorities. If this does not occur then TACC/Fieldgate will have no option but to seek to be made whole for loss of these reasonable expectations.

We respectfully request that the city reconsider its plan as it relates to servicing Block 41, including the timing for development. We would be more than happy to meet with city staff to discuss these concerns in greater detail at your convenience.

Sincerely,

**TACC DEVELOPMENTS INC.**

Per:

  
James R. Stevenson, C.P.T., C.Tech.

SG/jrs

- c. *City of Vaughan, Attn: Mr. Clayton Harris, City Manager*
- City of Vaughan, Attn: Mr. Paul Jankowski, Commissioner of Engineering & Public Works*
- City of Vaughan, Attn: Mr. Andrew Pearce, Director of Development Engineering*
- TACC Developments Inc., Attn: Mr. Silvio DeGasperis*
- Fieldgate Developments, Attn: Mr. Jack Eisenberger and Mr. Rick Mangotich*

## Kevin Brown

---

**From:** Yang, Mary [Mary.Yang@snclavalin.com]  
**Sent:** Tuesday, June 12, 2012 5:17 PM  
**To:** Michael.Frieri@VaughanInfrastructure.ca  
**Cc:** Law, Albert; Upjohn, Ian; Wallace, Craig; Lau, Peter  
**Subject:** RE: Notice of PIC #2 - Vaughan - Master Plans for Urban WaterInfrastructure

**Importance:** High

Good afternoon Michael,

SNC-Lavalin Inc. is retained by MTO for detail design services on the Highway 400 widening contract (from Major MacKenzie Drive to King Road).

We have received notification for PIC #2 - Vaughan - Master Plans for Urban Water Infrastructure from Cassandra Leal below.

Part our proposed Highway 400 widening work falls within City of Vaughan, with proposed constructions on King-Vaughan Road and Kirby Road in the vicinity of Highway 400..

Could you kindly provide us the City's Water Infrastructure Master Plan for us decide if there will be any implications on MTO's Highway 400 widening project or vice versa?

Thanks,

**Mary Yang**

*Engineering-In-Training*

Tel.: 416-252-5315 x 5420

Fax: 416-231-5356

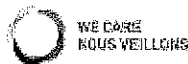
**SNC-Lavalin Inc.**

195 The West Mall

Toronto | Ontario | Canada | M9C 5K1



**SNC-LAVALIN**



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**From:** Lau, Peter  
**Sent:** June 12, 2012 4:26 PM  
**To:** Yang, Mary  
**Cc:** Law, Albert; Upjohn, Ian; Wallace, Craig  
**Subject:** FW: Notice of PIC #2 - Vaughan - Master Plans for Urban WaterInfrastructure  
**Importance:** High

Mary:

Can you please check with Cassandra of the City of Vaughan to find out where can we find their Master Plan so that we can see if it had any implication of the projects that we are working on?

Thank you.

Peter Lau

---

**From:** Cassandra Leal [<mailto:cleal@tmig.ca>]

**Sent:** June 12, 2012 3:40 PM

**To:** Cassandra Leal

**Subject:** Notice of PIC #2 - Vaughan - Master Plans for Urban WaterInfrastructure

Good Afternoon,

Please find attached Notice of Public Information Centre No. 2.

Thank you,  
Cassandra

Cassandra Leal  
engineer-in-training

TMIG | THE MUNICIPAL INFRASTRUCTURE GROUP LTD  
8800 Dufferin Street, Suite 200 | Vaughan, Ontario, Canada L4K 0C5 | office 905.738.5700 ext 264 | fax 905.738.0065

EXPERIENCE | EFFICIENCY | COMMITMENT







**Kevin Brown**

---

**From:** [REDACTED]  
**Sent:** Wednesday, June 13, 2012 3:06 PM  
**To:** Michael.Frieri@VaughanInfrastructure.ca  
**Cc:** ofra\_1414@live.ca  
**Subject:** URBAN WATER INFRASTRUCTURE IN VAUGHAN, ENVIRONMENTAL ASSESSMENT STUDY

Dear Mr. Frieri,

Please clarify whether the Master Plan studies/Public Information Centre meeting scheduled for June 27th will be addressing the affected neighborhoods located east of Dufferin Street and West of Bathurst Street? I know that water/flooding issues have affected many of us residents who live in the Thornhill area around Centre Street and some of us may be interested in attending the information sessions. The map shown in the Thornhill Liberal paper notice of June 7th does not clearly identify how far east of Dufferin Street this environmental assessment study applies to.

Sincerely,

[REDACTED]  
[REDACTED]

## Kevin Brown

---

**From:** Arun Hindupur [ahindupur@coleengineering.ca] on behalf of Vaughan SWMMP [SWMMP@coleengineering.ca]  
**Sent:** Friday, June 15, 2012 9:45 AM  
**To:** [REDACTED]  
**Cc:** michael.frieri@vaughaninfrastructure.ca; Yousaf, Saad  
**Subject:** RE: URBAN WATER INFRASTRUCTURE IN VAUGHAN, ENVIRONMENTAL ASSESSMENT STUDIY

[REDACTED]

Thank you for your email. The current urban water infrastructure studies are looking at the water, wastewater and stormwater servicing needs to support future development within the City of the Vaughan. This particular study is not focusing on the existing flooding issues in the neighborhoods located east of Dufferin Street and west of Bathurst Street.

The City is well aware of the existing flooding problems within the Thornhill Area and have conducted (and are conducting) studies to determine the causes of flooding and come up with appropriate remedial measures. The City is currently conducted a dual-drainage analysis of the specific area you are referring to. This study is not Class EA study and as such does not include public consultation at this time. However, if you would like more information regarding this project, please feel free to contact Saad Yousaf (Tel: 905-832-8585 Ext 8251, Email [saad.yousaf@vaughan.ca](mailto:saad.yousaf@vaughan.ca)) at the City who will be able to assist you with any questions you may have regarding your specific concerns.

Thanks for your involvement.

Regards,

Arun Hindupur, M.Sc., P.Eng.  
Water Resources Engineer  
Environmental Sciences & Engineering

### **Cole Engineering Group Ltd.**

70 Valleywood Drive, Markham, ON Canada L3R 4T5  
T: 905-940-6161 Ext. 303 Tor. Line: 416-987-6161  
F: 905-940-2064  
E: [ahindupur@ColeEngineering.ca](mailto:ahindupur@ColeEngineering.ca)  
[www.ColeEngineering.ca](http://www.ColeEngineering.ca)

#### CONFIDENTIALITY NOTE

This email may contain confidential information and any rights to privilege have not been waived. If you have received this transmission in error, please notify us by telephone or e-mail. Thank you.

---

**From:** [REDACTED]  
**Sent:** Wednesday, June 13, 2012 3:06 PM  
**To:** [Michael.Frieri@VaughanInfrastructure.ca](mailto:Michael.Frieri@VaughanInfrastructure.ca)  
**Cc:** [ofra\\_1414@live.ca](mailto:ofra_1414@live.ca)  
**Subject:** URBAN WATER INFRASTRUCTURE IN VAUGHAN, ENVIRONMENTAL ASSESSMENT STUDIY

Dear Mr. Frieri,

Please clarify whether the Master Plan studies/Public Information Centre meeting scheduled for June 27th will be addressing the affected neighborhoods located east of Dufferin Street and West of Bathurst Street? I know that water/flooding issues have affected many of us residents who live in the Thornhill area around Centre Street and some of us may be interested in attending the information

sessions. The map shown in the Thornhill Liberal paper notice of June 7th does not clearly identify how far east of Dufferin Street this environmental assessment study applies to.

Sincerely,

A blacked-out signature consisting of two horizontal lines.





## Kevin Brown

---

**From:** Glass, Heather (MTO) [Heather.Glass@ontario.ca]  
**Sent:** Tuesday, June 26, 2012 10:51 AM  
**To:** Michael.Frieri@VaughanInfrastructure.ca  
**Cc:** Pearce, Andrew; Stephenson, Bob (MTO); Michalek, Martin (MTO)  
**Subject:** Master Plans for Urban Water Infrastructure in Vaughan - Notice of PIC 2

Hi Michael

I received your notice of the 2<sup>nd</sup> PIC for the Master Plans for Urban Water Infrastructure in Vaughan. While I do not see the need to attend the June 27<sup>th</sup> PIC, please continue to keep MTO staff informed of the studies' progress.

Regards,

Heather

*Heather Glass, P.Eng.*

Senior Project Engineer  
Highway Engineering, York-Simcoe  
Engineering Office, Central Region  
Ministry of Transportation, Ontario  
phone: (416) 235-5521  
fax: (416) 235-3576  
email: [heather.glass@ontario.ca](mailto:heather.glass@ontario.ca)



## Kevin Brown

---

**From:** Kurtz, Sarah [skurtz@scsconsultinggroup.com]  
**Sent:** Thursday, July 12, 2012 2:45 PM  
**To:** Michael.Frieri@VaughanInfrastructure.ca  
**Subject:** June 27, 2012 Presentations for Master Plans for Urban Water Infrastructure

Good afternoon Mike, could you please provide a copy of the presentation materials from the June 27<sup>th</sup> PIC?

Thank you,  
Sarah

**Sarah Kurtz**, P. Eng.  
SCS Consulting Group Ltd.  
30 Centurian Drive, Suite 100  
Markham, ON, L3R 8B8  
Phone: (905) 475-1900 (ext. 2246)  
Fax: (905) 475-8335  
Cell: (647) 881-7900  
E-Mail: [skurtz@scsconsultinggroup.com](mailto:skurtz@scsconsultinggroup.com)  
<http://www.scsconsultinggroup.com>

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## Kevin Brown

---

**From:** Artuso, Tony [Tony.Artuso@vaughan.ca]  
**Sent:** Monday, July 16, 2012 11:09 AM  
**To:** 'Kurtz, Sarah'  
**Cc:** 'Michael.Frieri@VaughanInfrastructure.ca'  
**Subject:** RE: June 27, 2012 Presentations for Master Plans for Urban Water Infrastructure

Sarah, please navigate to the following link.

[www.vaughaninfrastructure.ca](http://www.vaughaninfrastructure.ca), Notices and Information, Public Information Centre #2, click on Master Plans for Urban Water Infrastructure in Vaughan

Thanks, Tony

---

**From:** Kurtz, Sarah [mailto:skurtz@scsconsultinggroup.com]  
**Sent:** Thursday, July 12, 2012 2:45 PM  
**To:** Michael.Frieri@VaughanInfrastructure.ca  
**Subject:** June 27, 2012 Presentations for Master Plans for Urban Water Infrastructure

Good afternoon Mike, could you please provide a copy of the presentation materials from the June 27<sup>th</sup> PIC?

Thank you,  
Sarah

**Sarah Kurtz**, P. Eng.  
SCS Consulting Group Ltd.  
30 Centurian Drive, Suite 100  
Markham, ON, L3R 8B8  
Phone: (905) 475-1900 (ext. 2246)  
Fax: (905) 475-8335  
Cell: (647) 881-7900  
E-Mail: [skurtz@scsconsultinggroup.com](mailto:skurtz@scsconsultinggroup.com)  
<http://www.scsconsultinggroup.com>

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## **Notice of Completion**



**NOTICE OF STUDY COMPLETION  
CITY-WIDE WATER AND WASTEWATER SERVICING STRATEGY MASTER PLAN**

**STUDY BACKGROUND**

The City of Vaughan has prepared a Master Plan to direct the ongoing development of the City's water and wastewater infrastructure systems that support our communities. These systems include water distribution and wastewater collection. The Master Plan will support the City's Official Plan and has considered the vision for Vaughan to the year 2031 with sustainability as a key underlying theme.

**PROCESS**

The Study has been undertaken in accordance with the requirements for Master Plans as outlined in Section A.2.7 (Approach 1 in Appendix 4) of the Municipal Engineer's Association Municipal Class Environmental Assessment document.

This involves the preparation of the Master Plan document at the conclusion of Phases 1 and 2 of the Municipal Class Environmental Assessment process where the level of investigation, consultation and documentation are sufficient to fulfill the requirements for Schedule A+ projects.

The Master Plan has defined existing problems and opportunities, considered and evaluated solutions and identified preferred water and wastewater servicing strategies to service the needs of existing residents and future population growth. The preferred servicing solution is to expand and enhance the existing water and wastewater distribution systems. The Study Report identifies 12 water and 13 wastewater system improvement projects that should be implemented to accommodate the planned growth through 2031.

Subject to comments received as a result of this notice, the City of Vaughan intends to proceed with implementation of the recommended Schedule A+ projects included in the Master Plan Study Report. Additional investigations will be carried out for any Schedule B projects at a later date.

**PUBLIC COMMENTS INVITED**

A Phase 1 and 2 Report has been prepared. The report details the problem/opportunity statement, the evaluation of alternative solutions and the preferred solutions, as well as public and agency consultation conducted during the Study. The Study Report is available for public review and comment at the following locations during regular business hours from June 2, 2014 to July 2, 2014:

**VAUGHAN CITY HALL**

2141 Major Mackenzie Drive, Level 2  
Vaughan, ON L6A 1T1

**PIERRE BERTON LIBRARY**

4921 Rutherford Road  
Vaughan, ON L4L 1A6

**BATHURST CLARK RESOURCE LIBRARY**

900 Clark Avenue West  
Vaughan, ON L4J 8C1

The Phase 1 and 2 Report and previously presented study information are also available at Vaughan's website at [www.vaughan.ca](http://www.vaughan.ca) or [www.vaughaninfrastructure.ca](http://www.vaughaninfrastructure.ca). For further information or to provide comments, please contact:

**Jennifer Cappola-Logullo, P. Eng.**  
City of Vaughan – Water/Wastewater Engineer  
Development/Transportation Engineering Department  
2141 Major Mackenzie Drive  
Vaughan, ON L6A 1T1  
905-832-8585 Ext. 8433  
[jennifer.logullo@vaughan.ca](mailto:jennifer.logullo@vaughan.ca)

Please note that information related to these studies will be collected in accordance with the *Freedom of Information and Protection of Privacy Act*. With the exception of personal information, all comments received will become part of the public record and may be included in study documentation prepared for public review. Thank you for your interest in this Study.

**ANDREW PEARCE, Director of Development/Transportation Engineering**  
*This Notice issued May 26, 2014*

