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WATER AND WASTEWATER CAPITAL INFRASTRUCTURE STATUS UPDATE REPORT

The Environmental Services Committee recommends:

- 1. Receipt of presentation by Daniel Kostopoulos, Director, Capital Planning and Delivery, Environmental Services; and**
- 2. Adoption of the recommendation contained in the following report dated December 16, 2011, from the Commissioner of Environmental Services.**

1. RECOMMENDATION

It is recommended that:

1. The Regional Clerk circulate this report to the Clerks of the local municipalities.

2. PURPOSE

This report updates Council on the status of key water and wastewater infrastructure projects required to meet system demands identified as triggers for release of additional capacity and approvals under the *Planning Act*.

3. BACKGROUND

Capacity assigned to local municipalities serviced by York Durham Sewage System totaling 1,078,328 people to facilitate growth to the end of 2013

In 2003, delays with key infrastructure projects were impacting the Region's ability to allocate sewage capacity to local municipalities. Between 2003 and 2005, staff completed extensive investigations to determine the allowable increase in servicing capacity in the York Durham Sewage System triggered by completion of planned infrastructure projects. Council, at its meeting on June 23, 2005, granted the release of additional servicing capacity to accommodate up to 970,000 people within the York Durham Sewage System and Peel diversion service areas, subject to completion of a number of trigger projects including Duffin Creek Water Pollution Control Plant Stage 3 Liquid Process Expansion. This capacity assignment was intended to facilitate growth to the end of 2010.

In 2007, it was recognized that the completion date of Southeast Collector Trunk Sewer will be at least two years later than the Duffin Creek Water Pollution Control Plant Stage 3 Liquid Process Expansion, which was on schedule for completion in 2010. To bridge the capacity gap, three flow control gates were proposed in strategic locations in the York Durham Sewage System to attenuate peak flows and provide interim capacity needed to service growth between 2011 and 2012. Council, at its meeting on November 15, 2007 and December 18, 2008, assigned a combined additional capacity of 72,000 people to local municipalities. The flow control gates were subsequently installed in 2010.

On February 18, 2010, Council assigned an additional capacity assignment of 36,328 people. This assignment is intended to facilitate growth to the end of 2013, and together with previous assignments will permit a total serviced population up to 1,078,328 within the York Durham Sewage System and Peel diversion service areas.

In most communities outside the York Durham Sewage System service area the Region is either in the process of completing or has completed major water and wastewater system upgrades. Upon completion of works identified in Table 2 of this report, a total servicing capacity of over 75,000 people exists in Schomberg, Mount Albert, Nobleton, Kleinburg Keswick and Ballantrae.

The last update to Council on trigger projects was provided on September 22, 2011. The next update is scheduled for May 2012.

4. ANALYSIS AND OPTIONS

Capacity triggers allow the Region to ensure occupancy of new homes timed to coincide with available water and wastewater services

Monitoring the progress of trigger projects assists the Region in better controlling two key steps in the planning approvals process:

- Pre-sale of homes
- Final plan approvals

Capacity trigger control is required to avoid premature occupancy of new dwellings in advance of required availability of municipal water and wastewater services.

In general, pre-sales of homes are only permitted if the required infrastructure is expected to be in place within one year and final plan approvals are granted if the required infrastructure is expected to be in place within six months. At the discretion of the local municipality, high-density development may move to final approval within eighteen months of completion of required infrastructure and complex high-rise developments within thirty six months of completion of required infrastructure.

Projects identified to service assigned capacity of 1,078,328 people in the York Durham Sewage System service area to facilitate growth to the end of 2013

Most trigger projects required to service up to 1,078,328 people in the York Durham Sewage System service area have been completed. Remaining projects include:

- Queensville/Holland Landing/Sharon York Durham Sewage System connection
- Queensville Elevated Tank No. 1

Queensville/Holland Landing/Sharon servicing strategy contingent on execution of amended Agreement

Both the Queensville/Holland Landing/Sharon York Durham Sewage System connection and Queensville water storage tank No. 1 contracts were tendered and closed in December 2010. Given that the tendered project cost is significantly higher than the original budget, on June 23, 2011, Council adopted the recommendations of the Finance and Administration Committee report of June 9, 2011 to cancel the current procurement process for the York Durham Sewage System connection and proceed with negotiating the terms of a prepaid development charge amending agreement with revised principles. Delivery of Queensville/Holland Landing/Sharon York Durham Sewage System connection is currently being updated based on a revised delivery approach pending execution of the amended agreement currently under negotiation. Award of Queensville water storage tank No. 1 is subject to execution of the amended agreement.

Major projects required to service growth beyond 1,078,328 people for the ten-year period from 2012 to 2021 include:

- Southeast Collector Trunk Sewer
- Duffin Creek Water Pollution Control Plant Stages 1 and 2 Upgrades
- Duffin Creek Water Pollution Control Plant outfall
- Upper York Sewage Solutions
- Toronto East Water Supply
- West Richmond Hill Pumping Station
- West Vaughan Sewage Servicing
- Leslie Street Pumping Station Upgrades
- Primary Trunk Sewer

KEY PROJECT STATUS HIGHLIGHTS – YORK DURHAM SEWAGE SYSTEM SERVICE AREA

Most Trigger projects associated with 1,078,328 people capacity assignment to service growth up to 2013 completed or near completion

Except for Queensville/Holland Landing/Sharon servicing projects, all remaining projects required to service up to 1,078,328 people in the York Durham Sewage System service area are completed. Of the 1,078,328 people capacity assigned by Council, capacity for 1,042,000 was assigned prior to February 2010. With trigger conditions met for assignments prior to February 2010, the Region advised local municipalities that final plan approval can proceed for all service areas with the exception of Queensville/Holland Landing/Sharon.

The February 2010 capacity assignment of 36,328 people was conditional upon Ministry of the Environment approval of the Southeast Collector Trunk Sewer Individual Environmental Assessment and commitments of local municipalities to partner with the Region to implement local and regional inflow and infiltration reduction and water conservation and efficiency programs. With both conditions met for the 36,328 persons capacity assigned for 2013, the Region advised local municipalities that issuance of building permits for all high-rise units can proceed. Subject to Southeast Collector Trunk Sewer completion date, June 2012 is the projected date for permitting pre-sales for low-rise residential units.

The status of remaining projects required to service 1,078,328 people are summarized below and in *Attachment 1*. Project locations are illustrated in *Attachment 3*.

Leslie Street Watermain was commissioned

The Leslie Street watermain from Wellington Street to Ivsbridge Avenue/Kingdale Road is required to service the Aurora East pressure district including lands east of Leslie Street in Aurora with a small portion in Newmarket immediately north of the Aurora/Newmarket municipal boundary. Construction of the watermain was completed in November 2011 and is now commissioned. This project will be removed from the list in the next status report update.

Key infrastructure projects identified for servicing beyond 1,078,328 people for the 10 year period of 2012-2021

Status of key projects required to service beyond 1,078,328 people is summarized below and in *Attachment 2*. Project locations are illustrated in *Attachment 3*.

Southeast Collector Trunk Sewer progressing on schedule

The Southeast Collector Trunk Sewer Individual Environmental Assessment was approved by the Ministry of the Environment on March 31, 2010, subject to numerous stringent conditions to be met within stipulated timelines. As part of the conditions to be addressed, the Southeast Collector Advisory Committee was formed and the inflow and infiltration reduction and water conservation and efficiency strategies were submitted to the Ministry of the Environment in March 2011 as required by the approval conditions.

The tender for sewer construction was awarded in July 2011 to Strabag Inc. Construction is now underway and the commissioning date for the Southeast Collector Trunk Sewer is forecast to occur in late 2014 (last reported: late 2014). Work already underway or completed include:

- Manufacturing of four tunnel boring machines is complete
- Rehabilitation, improvement and resurfacing of haul roads to move materials from the tunnel operation to a suitable site is complete
- Phase 1 of Bob Hunter Memorial Park/Rouge Park enhancements are complete and Phase 2 is underway
- Archaeological investigations for First Nation commitments are complete
- Manufacturing of the segmental liner materials for the tunnel construction is 85 per cent complete
- Property acquisition of lands required for the project is near completion
- Sewer and watermain relocation at the intersection of Valley Farm Road and Finch Avenue in Pickering is complete

Construction of Duffin Creek Stage 1 and 2 Upgrades to start in 2012

Duffin Creek Water Pollution Control Plant Stage 1 and 2 upgrade are required as a condition of a Ministry of the Environment Certificate of Approval (Air) for Duffin Creek Water Pollution Control Plant Stage 3 Expansion. The project is currently in detailed design. Since last report, pre-purchase of Raw Influent Pumps has been awarded and two pre-purchase documents have been released for Odour Control Biofilter and Electrical Substation Equipment and Emergency Power Generators. Construction is scheduled to start in 2012 with substantial performance expected in 2016 (last reported: 2016).

To comply with the Certificate of Approval (Air) Conditions, the interim report on ambient odour sampling and odour source testing conducted through the summer of 2011 will be submitted to the Ministry of the Environment in the first quarter of 2012. The Best-in-Class Technology Review to guide the odour mitigation measures for the Stage 1 and 2 Upgrades are now approved by the Ministry of the Environment. Emissions testing, ambient odour monitoring, odour dispersion modeling and updating the odour management plan continues and is scheduled for completion in 2017.

Environmental assessment for Duffin Creek Plant effluent outfall is underway

York Region and Durham Region jointly initiated a Schedule C Class Environmental Assessment study in December 2010 to identify the preferred solution for addressing limitations of the existing outfall and diffuser system at the Duffin Creek Water Pollution Control Plant. The present flow capacity limit is 520 ML/day and the preferred solution

will permit the Duffin Creek Water Pollution Control Plant to operate at a capacity of at least 630 ML/day.

A Stakeholder Advisory Committee was formed and the first public consultation meeting was held on March 9, 2011. Stakeholder Advisory Committee meetings are scheduled for the first and third quarter of 2012 and two public information forums are anticipated in 2012. The Environmental Assessment study is expected to be completed in 2013 and construction is on schedule for completion by 2016 (last reported: 2016).

Lake Simcoe Water Reclamation Centre identified as Preferred Alternative for Upper York Sewage Solutions

The Upper York Sewage Solutions project is required to accommodate planned growth within the Towns of Aurora, Newmarket and East Gwillimbury by 2031. As part of the Environmental Assessment study currently underway, the project team identified the potential development of a local treatment solution involving a “Water Reclamation Centre” with associated collection and conveyance infrastructure systems located in York Region as a sustainable and environmentally sound alternative for the Upper York Sewage Solutions project. This Water Reclamation Centre alternative, using advanced water treatment technologies, is anticipated to discharge phosphorus reduced treated water of a quality that will help to restore the receiving watercourse and provide reclaimed water for non-potable applications. This recommended alternative was officially presented to the public and other key stakeholders for input and comments on June 27 and 28, 2011 at Public Information Forums held in East Gwillimbury and Aurora. An additional public meeting was held in Georgina on November 16, 2011.

Following extensive public engagement including small group meetings, the Lake Simcoe Water Reclamation Centre plus modifications to the York Durham Sewage System between Aurora and Newmarket, was identified as the preferred alternative as detailed in the report to Council on October 20, 2011. Approval of the Individual Environmental Assessment by the Minister of the Environment is projected to occur in late 2013. Completion of the overall project is currently scheduled for late 2018 (last reported: late 2018). The completion date will be reviewed and updated once the environmental assessment is approved.

Toronto East Water Supply is moving forward

The Toronto East Water Supply project involves construction of a 1500 mm diameter watermain along Kennedy Road from the Milliken Pumping Station on 14th Avenue to Major Mackenzie Drive. The project is required to provide additional water from Toronto to Markham pressure district six to meet long-term growth demands. The work will be completed under two contracts. The first contract, open cut construction from north of Highway 7 to Major Mackenzie Drive, was awarded in January 2011 and is now under construction. The second contract, tunnel construction from Milliken Pumping Station to north of Highway 7, was tendered in December 2011 and is scheduled to start

construction in the first quarter of 2012. Commissioning of the entire watermain from Milliken Pumping Station to Major Mackenzie Drive is on schedule for completion in June 2013 (last reported: June 2013).

Environmental Assessment study for West Richmond Hill Pumping Station is now complete

West Richmond Hill Pumping Station is a new pumping facility identified in the 2009 Water and Wastewater Master Plan Update to pump water from pressure district six to pressure districts seven and eight. The new pumping station will alleviate existing capacity constraint at the Pugsley Pumping Station. The Environmental Assessment was filed on October 13, 2011 and detailed design is now underway. The project is expected to be completed in the fourth quarter of 2014 (last reported: fourth quarter of 2014).

Environmental Assessment study underway for West Vaughan Sewage Servicing

West Vaughan Sewage Servicing is a new project identified in the 2009 Water and Wastewater Master Plan Update to provide sanitary sewage capacity to service growth in the West Vaughan area (the area west of Highway 27 including Kleinburg-Nashville) up to the year 2051. Notice of study commencement was issued in March 2011 and the first public consultation meeting was held on April 27, 2011. A second public consultation centre is scheduled for the first quarter of 2012. The project is on schedule for completion in 2016 (last reported: 2016).

Leslie Street Pumping Station Upgrades to be tendered in the first quarter of 2012

The Leslie Street Pumping Station collects sewage flows from parts of Vaughan, Richmond Hill and Markham and pumps the flow to the Duffin Creek Water Pollution Control Plant. Upgrades to this facility including pump replacement, electrical and standby power improvements required to increase the station capacity to meet growth needs. Currently, the project is at detailed design stage. As a result of unanticipated changes in the design of electrical works, the project is now expected to be tendered in the first quarter of 2012 (last reported: late 2011) for substantial completion by the end of 2013 (last reported: end of 2013).

Environmental Assessment study for Primary Trunk Sewer to commence as early as 2012

The Primary Trunk Sewer project involves the construction of a new sewer along a yet to be determined route from the terminus of the Southeast Collector Trunk Sewer system to the Duffin Creek Water Pollution Plant in the City of Pickering. The new Primary Trunk Sewer will provide additional conveyance capacity to the existing primary trunk sewer, which is expected to be at capacity sometime between 2021 and 2026. The

Environmental Assessment study for the new Primary Trunk Sewer is expected to be initiated in late 2012 or early 2013. The project is scheduled for completion in 2021 (last reported: 2021).

Staff continue to monitor status of Peel and Toronto cost shared projects

Provision of water and wastewater services through partnerships with Toronto and Peel Region is a key component of the Region's long-term servicing strategy. A number of projects in the City of Toronto and Peel Region are currently underway to provide capacity to service growth in the Region. Regional staff conduct regular meetings with Toronto and Peel staff to discuss issues regarding supply commitments including cost-shared project delivery schedules. Based on progress of Peel and Toronto's projects, it is expected that both partner municipalities will meet their long term water supply agreement commitments to the Region.

A breakdown of the water supply sources servicing York Region for the years 2012 and 2031 is provided in Table 1.

Table 1
Water Supply Capacity to York Region

Water Supply Sources	2012		2031	
	Capacity (ML/D)	% of Supply	Capacity (ML/D)	% of Supply
York Water System				
City of Toronto	501	64%	509	49%
Peel Region	149	19%	388	38%
Yonge Street Aquifer Wells	62	8%	62	6%
Stouffville Wells	12	2%	12	1%
Georgina	30	4%	45	4%
Stand-alone Groundwater Systems (e.g. Schomberg, Nobleton, Kleinburg, Ballantrae, Mount Albert, and Ansnorveldt)	23	3%*	20	2%*
Total	777	100%	1,036	100%

* Lake based supply to Kleinburg will reduce its reliance on the groundwater system

KEY PROJECTS – COMMUNITIES OUTSIDE YORK DURHAM SEWAGE SYSTEM SERVICE AREA

Most communities outside the York Durham Sewage System completed major system upgrades

In addition to major works pertaining to the York Durham Sewage System service area, most communities outside the York Durham Sewage System service area are either in the

process of completing or have completed major water and wastewater system upgrades. A summary of major capacity upgrades in these communities is presented in Table 2.

Table 2
Major Capacity Upgrades
Communities outside York Durham Sewage System Service Area

Community	Recent Water and Wastewater Upgrades	Total Capacity in Persons after Upgrades
Schomberg	• Completion of water supply system upgrade including a well, water treatment plant and reservoir in 2010 • Completion of a new water pollution control plant in 2009	3,450 (plus 28 hectares of industrial & commercial lands)
Mount Albert	• Completion of water supply system upgrade including watermain along Centre Street and one additional well in 2010 and 2011 respectively • Completion of water pollution control plant expansion in 2005	6,000
Nobleton	• Water supply system upgrade involving an elevated tank, and an additional well are scheduled for completion in 2012 • Completion of a new water pollution control plant in 2010	6,500
Kleinburg	• Water supply system upgrade involving extension of lake base supply via Huntington Road watermain, booster pumping station and watermain along Islington Avenue are scheduled for completion in 2012 • Water pollution control plant expansion scheduled for completion in 2011	7,500
Keswick	• Water supply system upgrade including Georgina Water Treatment Plant Phase 2 Expansion, and North Keswick Elevated Tank and associated watermain along Woodbine Avenue are scheduled for completion in 2012 • Water Pollution Control Plant Phase 2 Expansion and Joe Dales Pumping Station upgrade scheduled for completion in 2012	49,000
Ballantrae	• Water supply system upgrade involving an additional well is scheduled for completion in 2012	5,600

Link to Key Council-approved Plans

Timely delivery of critical infrastructure projects identified in this report is essential to ensure that water and wastewater system capacity is available to service the targeted growth of the Regional Official Plan. By integrating the critical infrastructure project completion with timing of planning approvals, water and wastewater system expansion is prioritized to address growth need in an efficient manner thus optimizing community benefit in accordance with the goals of the 2011-2015 Strategic Plan.

5. FINANCIAL IMPLICATIONS

A summary of the costs of priority infrastructure projects in York Durham Sewage System service area is provided in Table 3. The total cost of projects included in this update is \$2.0 billion.

Table 3
Cost Estimates for Key Infrastructure Projects
York Durham Sewage System Service Area

Project	Project Cost Estimates (\$)	Related Financial and Servicing Implications
Queensville Elevated Tank No. 1	9,800,000	Of the \$9.8 million, \$1.9 million is not currently in the Development Charges Bylaw.
Queensville/Holland Landing/Sharon York Durham Sewage System Connection	150,000,000	The current project cost estimate is \$150 million. Of the \$150 million, \$79.9 million is not currently in the Development Charges Bylaw.
Leslie St. Watermain (Wellington to Ivsbridge Avenue/Kingdale Road)	13,100,000	
Toronto East Water Supply	73,170,000	
Southeast Collector	546,200,000	Southeast Collector is designated as a critical project. Delay on this project will be monitored to ensure acceptable level of service and environmental protection.
Upper York Sewage Solutions	504,000,000	
West Richmond Hill Pumping Station	34,000,000	
Duffin Creek Water Pollution Control Plant Outfall	132,000,000	Durham share estimated at \$15 million not included (amount subject to ongoing cost share negotiation with Durham Region).

Duffin Creek Water Pollution Control Plant Stages 1 and 2 Upgrades	214,000,000	Durham share estimated at \$53 million not included.
West Vaughan Sewage Servicing	159,200,000	Project currently in Environmental Assessment phase.
Project	Project Cost Estimates (\$)	Related Financial and Servicing Implications
Leslie Street Pumping Station Upgrades	28,000,000	
Primary Trunk Sewer	183,200,000	Durham share estimated at \$20 million not included (amount subject to ongoing cost share negotiation with Durham Region).
Total	\$2,046,670,000	

Table 4 provides a summary of the costs of infrastructure projects in communities outside York Durham Sewage System service area. The total cost of these works amounts to \$278 million.

Table 4
Cost Estimates for Infrastructure Projects
Communities Outside York Durham Sewage System Service Area

Project	Project Cost Estimates (\$)	Related Financial and Servicing Implications
Schomberg Water Supply System Upgrade and New Water Pollution Control Plant	31,000,000	
Mount Albert Water Supply System Upgrade and Water Pollution Control Plant Expansion	16,000,000	Water and sewage works were carried out under a Development Charge Credit Agreement.
Nobleton Water Supply System Upgrade and New Water Pollution Control Plant	35,000,000	Sewage works were carried out under a Development Charge Credit Agreement.
Kleinburg Water Supply System Upgrade and Water Pollution Control Plant Expansion	51,000,000	
Keswick Water Supply and Sewage Systems Upgrade including Expansion of Georgina Water Treatment Plant and Keswick Water Pollution Control Plant	140,000,000	
Ballantrae Water Supply System Upgrade	4,800,000	
Total	\$277,800,000	

Cost estimates shown in Tables 3 and 4 only include capital funding requirements. As part of the budget process, funding and resource requirements for operation and asset management are assessed and included in the annual Environmental Services operating budget.

6. LOCAL MUNICIPAL IMPACT

Staff continue to work closely with municipalities affected by the infrastructure program to minimize impacts on planned community growth

Priority projects reviewed in this report are crucial to providing timely servicing capacity to municipalities serviced by the York Durham Sewage System and the York Water System. The capacity is necessary to meet growth expectations, while maintaining a desirable level of environmental and public health protection.

Additional servicing capacity for development is created through timely completion of key infrastructure projects. Release of additional capacity, as well as granting of approvals in each phase of the plan approval process, is contingent on all of these projects being completed as planned. Projects are continually monitored to ensure risk of delay is minimized and capacity will be available as planned. Staff continue to work closely with local municipalities affected by the infrastructure program to ensure impacts to planned community growth are minimized to the extent possible considering constraints created by these projects. Coordinated efforts with local municipalities continue on implementing the inflow and infiltration reduction and water conservation and efficiency programs to reduce flows to the York Durham Sewage System and thereby increase system capacity.

7. CONCLUSION

This report provides Council with a status of priority projects and their relationship to the timing of plan approvals. Projects identified in this report are essential to provide capacity needed to service projected growth in the Region. Continuing to monitor these projects will ensure that both capacity allocation and granting of planning approvals are synchronized with project delivery schedules. The majority of these projects are required to be completed before end of 2016. Total cost of infrastructure projects included in this update is \$2.3 billion, of which 21 per cent has been spent and another 56 per cent will be spent in the next five years.

For more information on this report, please contact Daniel Kostopoulos, Director, Capital Planning and Delivery, Environmental Services at (905) 830-4444 Ext. 5070.

The Senior Management Group has reviewed this report.

(The three attachments referred to in this clause are attached to this report.)



Capital Infrastructure Status Update

Daniel Kostopoulos
January 18, 2012

Overview

- ❑ What have we achieved in the last 6 months
- ❑ What will we achieve in the next 6 months
- ❑ Key Projects



What have we achieved in the last 6 months...

Achieved key milestones on water projects:

- ✓ Filed class environmental assessment for West Richmond Hill pumping station
- ✓ Tendered Kennedy Road watermain (Tunnel Contract)
- ✓ Commenced construction of Ballantrae well
- ✓ Put in service Leslie Street watermain (Wellington Street to Ivsbridge Avenue), Georgina water treatment plant expansion and Maple PD7 pump capacity upgrade

Achieved key milestones on wastewater projects:

- ✓ Commenced shaft construction on Southeast Collector
- ✓ Commenced commissioning of new dewatering building at Duffin Creek
- ✓ Identified preferred alternative for Upper York Sewage Solutions
- ✓ Put in service Kleinburg Water Pollution Control Plant expansion
- ✓ Commence construction of the first Inflow and Infiltration Reduction contract

Achieved key milestones on waste management infrastructure:

- ✓ Opened Elgin Mills community environmental centre to the public
- ✓ Commenced construction of Energy from Waste Facility

Advanced or completed over \$270 million of capital work in last six months



Environmental Services Committee / January 18, 2012

Slide 3

What we will achieve in the next 6 months...

Water

- File class environmental assessment for Aurora East elevated tank
- Tender Orchard Heights pumping station upgrade
- Commence construction of Queensville Tank #1 subject to execution of amended agreement
- Complete Markham Pressure District 6 watermain

Wastewater

- Launch TBM's & commence tunnelling on Southeast Collector
- Tender Holland Landing pumping station subject to execution of amended agreement
- Tender Leslie Street pumping station upgrade
- Complete construction of Joe Dales Pumping Station upgrade
- Submit the first Inflow and Infiltration Reduction Strategy annual report to MOE
- Commence construction of second Inflow and Infiltration Reduction contract
- Hold second public consultation centre for West Vaughan Sewage Servicing

Waste Management

- Advance construction on Durham-York Energy Centre

Over 50 construction contracts underway in 2012 with over \$3.0 billion in capital in construction



Environmental Services Committee / January 18, 2012

Slide 4

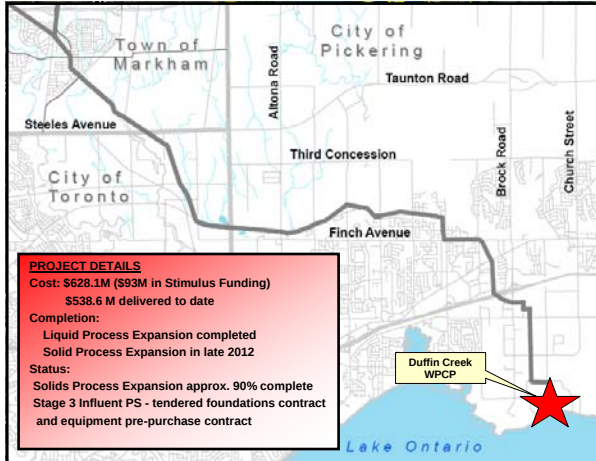
Key Water & Wastewater Capital Projects



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Slide 5

Duffin Creek Water Pollution Control Plant Stage 3 Expansion



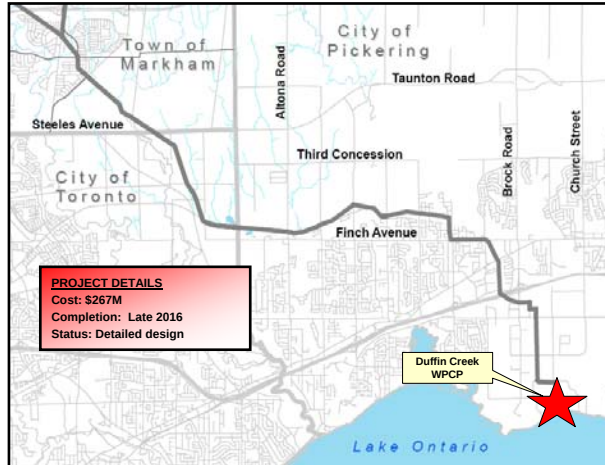
Commissioning of stage 3 solid process expansion moving forward



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Slide 6

Duffin Creek Water Pollution Control Plant Stage 1 & 2 Upgrades/Refurbishment



PROJECT DETAILS

Cost: \$267M
Completion: Late 2016
Status: Detailed design

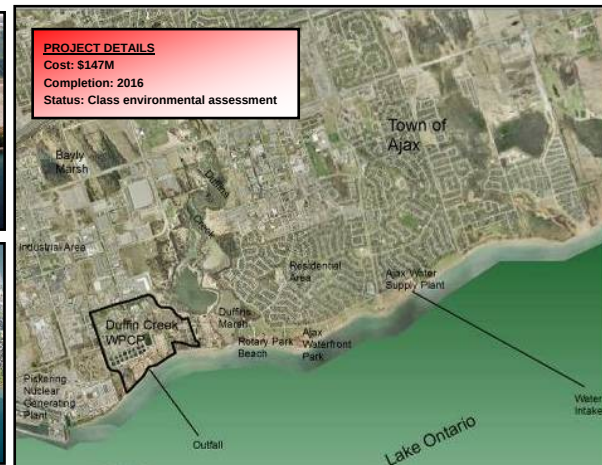
Pre-purchase of Raw Influent Pumps awarded



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Slide 7

Duffin Creek Water Pollution Control Plant Outfall



PROJECT DETAILS

Cost: \$147M
Completion: 2016
Status: Class environmental assessment

Duffin Creek WPCP Outfall Class EA expected to be completed in 2013.



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Slide 8

Southeast Collector Trunk Sewer



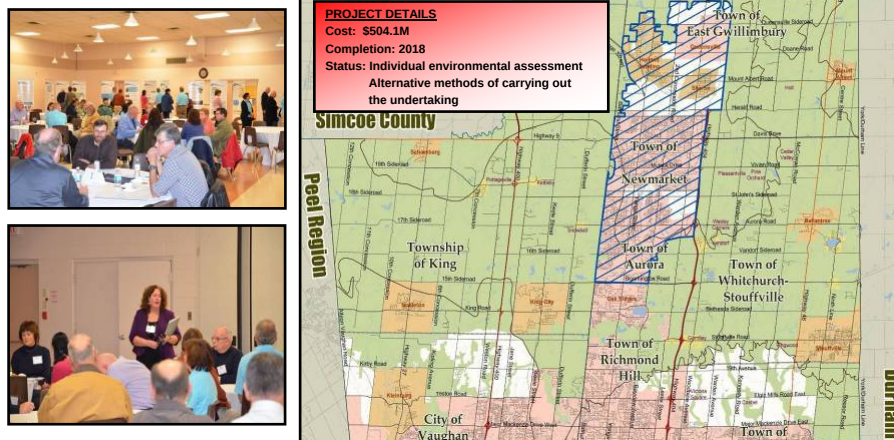
Construction commenced on tunnel contract (Strabag)



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Upper York Sewage Solutions



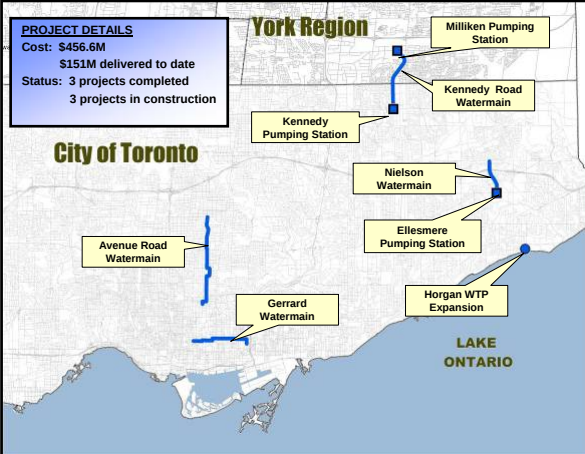
Preferred Alternative – Water Reclamation Centre and YDSS Improvements
 Council workshop – January 19 2012



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Slide 10

Toronto Cost Shared Works



6 active projects – delivery on track to meet required water servicing capacity



Environmental Services Committee / January 18, 2012

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Peel Cost Shared Works



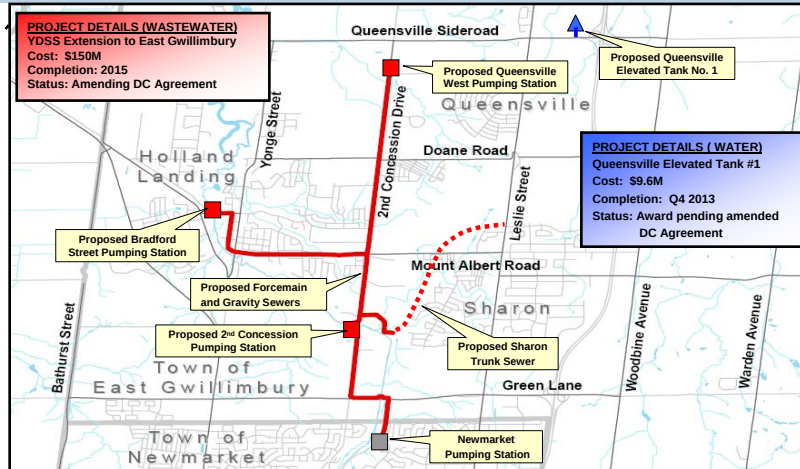
Sixteen active projects – delivery on track to meet required servicing capacity



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Slide 12

Queensville/Holland Landing/Sharon Servicing



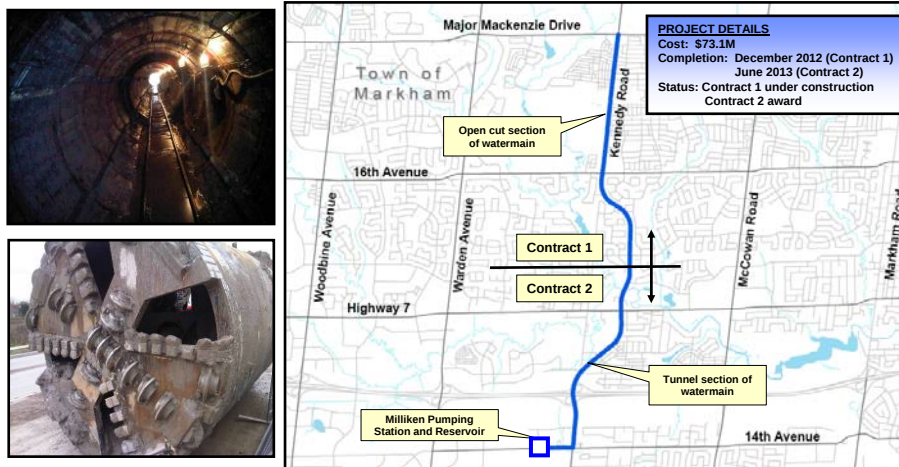
Detailed design of revised contract packages initiated – Anticipated release of tenders Q2 2012 pending execution of Amending DC Agreement



Environmental Services Committee / January 18, 2012

Slide 13

Kennedy Road Watermain – Markham



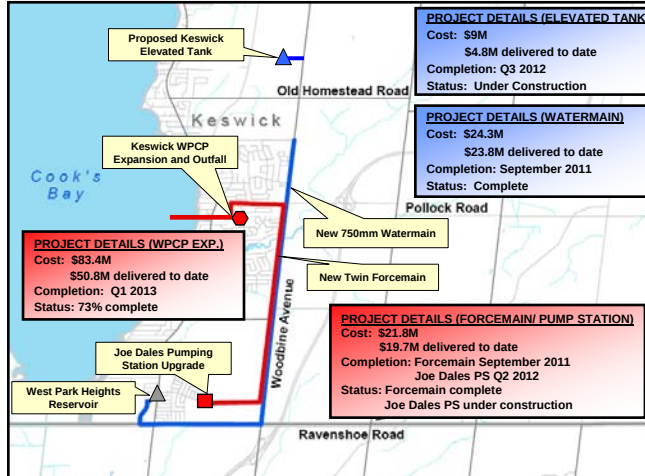
Open cut section under construction, contract award of Tunnel section underway



Environmental Services Committee / January 18, 2012

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Keswick Servicing



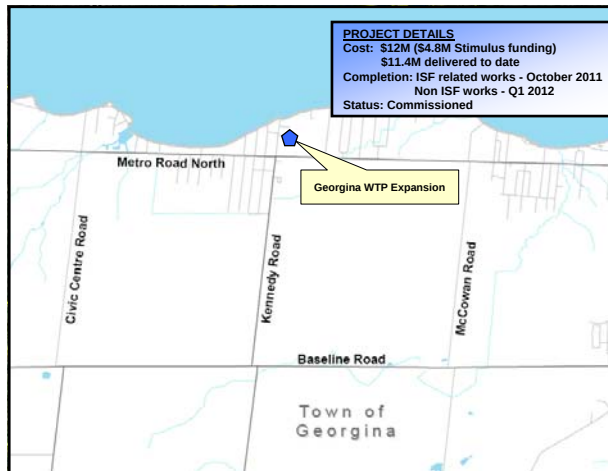
Investing over \$150M for Keswick servicing (\$128M for Water & Wastewater)



Environmental Services Committee / January 18, 2012

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Georgina Water Treatment Plant Expansion



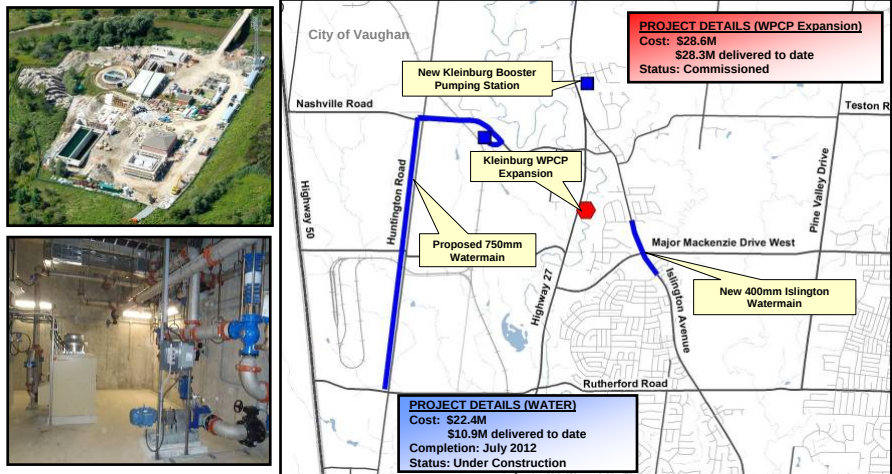
Commissioned Georgina Water Treatment Plant Expansion



Environmental Services Committee / January 18, 2012

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Kleinburg Servicing



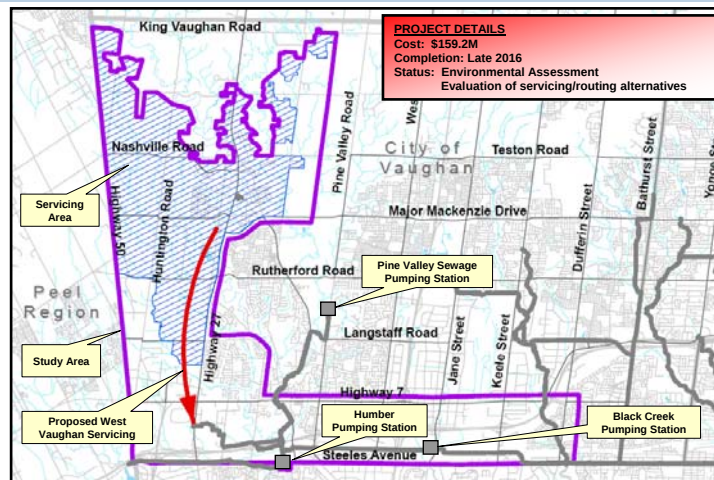
Expanded Water Pollution Control Plant commissioned



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West Vaughan Sewage Servicing



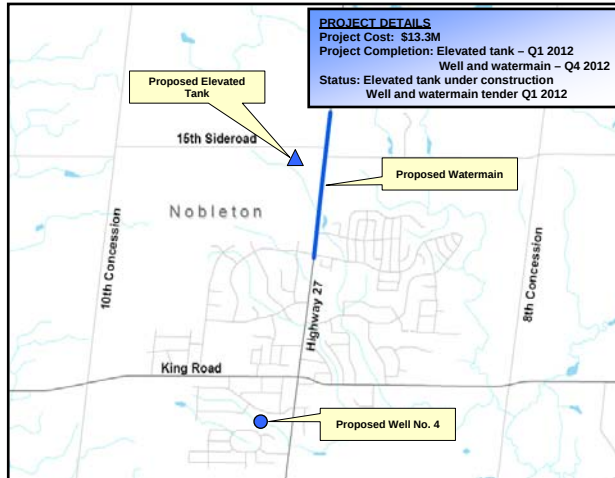
Second Public Consultation Centre scheduled for Q1 2012



Environmental Services Committee / January 18, 2012

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Nobleton Water Servicing



Construction of Nobleton Elevated Tank to be completed in Q1 2012



Environmental Services Committee / January 18, 2012

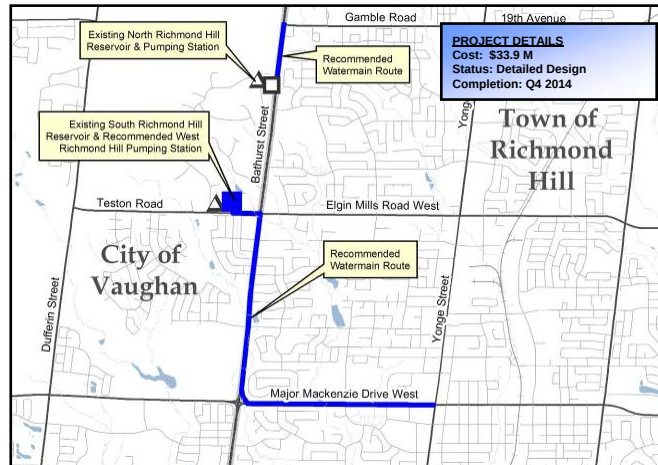
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Environmental Services Committee / January 18, 2012

Slide 20

West Richmond Hill Pumping Station



PROJECT DETAILS
Cost: \$33.9 M
Status: Detailed Design
Completion: Q4 2014

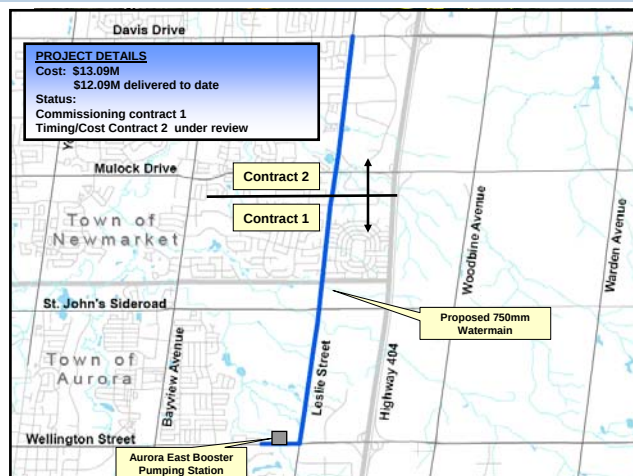
Class Environmental Assessment completed in October 2011



Environmental Services Committee / January 18, 2012

Slide 21

Leslie Street Watermain (Aurora/Newmarket)



PROJECT DETAILS
Cost: \$13.09M
\$12.09M delivered to date
Status:
Commissioning contract 1
Timing/Cost Contract 2 under review

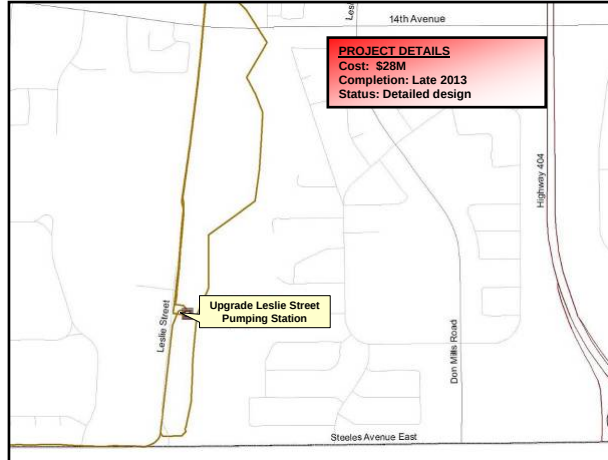
Construction of Leslie Street watermain (Contract 1) is complete



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Leslie Street Pumping Station Upgrade



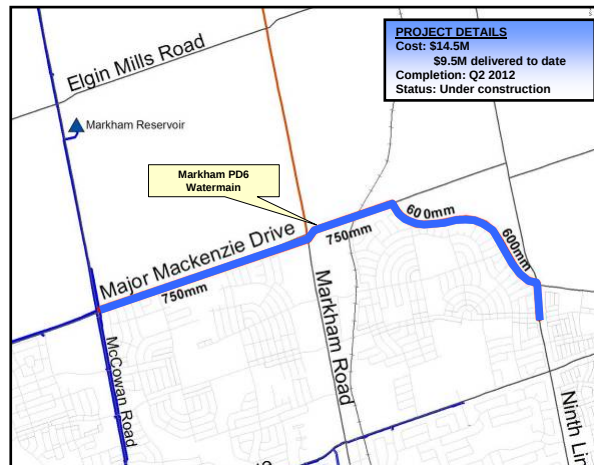
Leslie Pumping Station upgrades to be tendered in Q2 2012



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Markham PD6 Watermain



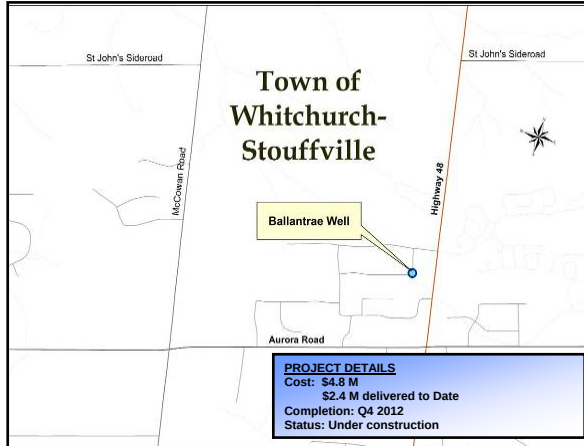
Markham PD6 watermain on track for commissioning in spring 2012



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Ballantrae Well



Construction of a new well to service Ballantrae commenced in October 2011



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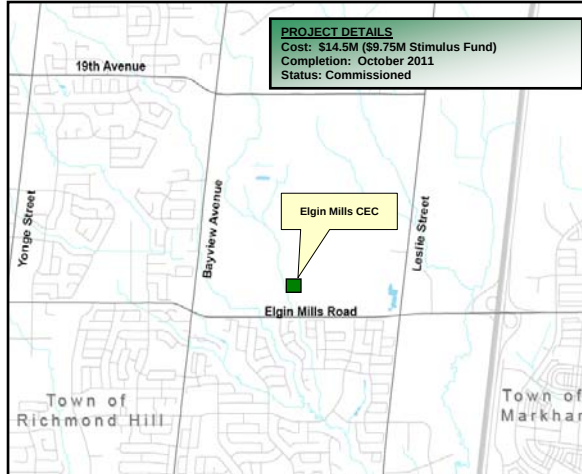
Waste Management Projects



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Elgin Mills Community Environmental Centre (CEC)



Community Environmental Centre now opened to the public



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Durham-York Energy Centre



Construction of Energy From Waste Facility started in January 2012



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Delivery of Infrastructure in a Sustainable Manner

- ❑ Deliver approximately \$0.5B in new Environmental Services Capital in 2012
- ❑ Prioritize capital projects to support growth and optimize benefit
- ❑ Leverage capacity available in existing infrastructure through investing in inflow and infrastructure reduction works
- ❑ Continue to partner with Peel, Toronto, Durham and Dufferin Cost Shared Works
- ❑ Move forward with Duffin Creek Outfall environmental assessment, construction of Southeast Collector and Duffin Creek Stage 3 solids expansion
- ❑ Move forward with Upper York Sewage Solutions Individual Environmental Assessment

Delivering infrastructure in an efficient and sustainable manner



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Questions



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Status of Infrastructure Trigger Projects & Conditions

Required To Service 1,078,328 people in the YDSS and Peel diversion service areas as of December 2011

Municipality	Project Name / Trigger Conditions	Description	Current Status	Expected Completion Date	Anticipated Presales Timing	Anticipated Registration Timing
Aurora East Gwillimbury Markham Newmarket Richmond Hill King Vaughan Whitchurch/Stouffville	Duffin Creek WPCP (Liquid Process Expansion)	Expansion to increase plant capacity to 630 ML/day subject to completion of future outfall works	Complete	December 2010 (Liquid Process Expansion) (last reported: December 2010)	Permission for presales granted in December 2009 and June 2010 (Except EG where other infrastructure triggers are required, see below)	Permission for final plan registration granted in June and September 2010 (Except EG where other infrastructure triggers are required, see below)
Aurora, Newmarket (Aurora East pressure district only)	Leslie/Wellington Street Watermain	Watermain from Aurora East pumping station on Wellington St. to Leslie St., just north of Mulock Drive	Complete	December 2011	Permission for presales granted in December 2009	Permission for final plan registration granted in February 2011
East Gwillimbury	Queensville/Holland Landing/Sharon YDSS connection	Provision of sanitary servicing through extension of the YDSS	Agreement review	Subject to review (last reported: Subject to review)	Subject to review	Subject to review
	Queensville Elevated Tank No. 1	Construction of a 7.5 ML elevated tank	Agreement review	Subject to review (last reported: Subject to review)		
Aurora East Gwillimbury Markham Newmarket Richmond Hill King Vaughan Whitchurch/Stouffville	Regional conditions on 2013 allocation	MOE approval of the Southeast Collector Trunk Sewer IEA Commitments of local municipalities to partner with the Region on the I-I reduction program	Conditions met		June 2012* (last reported: December 2011) * Low rise residential	January 2013* (last reported: June 2012)

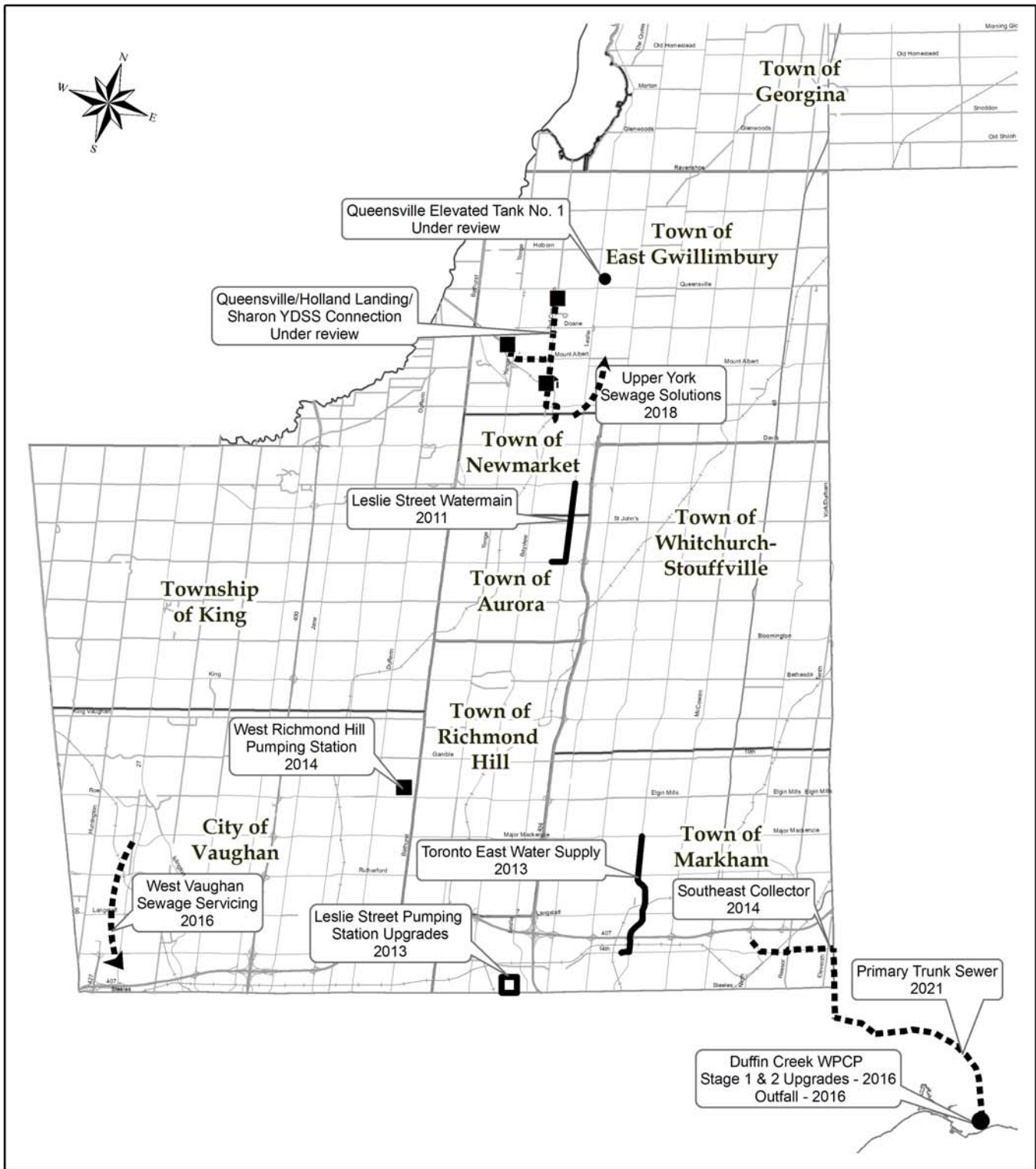
1) This data will be updated and submitted to Regional Council quarterly

2) Projects completed and removed from the table since last report: King City Water Supply and Richmond Hill Elevated Tank #2

Status of Key Infrastructure Projects

**Required within the next 10 years to service beyond 1,078,328 people
as of December 2011**

Project Name	Description	Current Status	Expected Project Completion Date
Southeast Collector Sewer	Twinning of existing trunk sewer to provide additional conveyance capacity	Construction	Late 2014 (last reported: Late 2014)
Duffin Creek Stages 1 and 2 Upgrades	Upgrade and refurbish existing Stages 1 and 2	Detailed Design	2016 (last reported: 2016)
Duffin Creek Water Pollution Control Plant Outfall	New outfall to address diffusion requirements and increase plant capacity to 630MLD	Class Environmental Assessment	2016 (last reported: 2016)
Upper York Sewage Solutions	Sanitary servicing solution to accommodate growth in Holland Landing, Queensville, Sharon and parts of Aurora and Newmarket	Individual Environmental Assessment	2018 (last reported: 2018)
Toronto East Water Supply	Watermain along Kennedy Road from Milliken Pumping Station to Major Mackenzie Drive	Open cut section - Construction Tunnel section - Tender	Q2 - 2013 (last reported: Q2 2013)
West Richmond Hill Pumping Station	New pumping station near Bathurst Street and Elgin Mills Road to pump water from Pressure District (PD) 6 to PD7 and PD8	Detailed Design	Q4 - 2014 (last reported: Q4 - 2014)
West Vaughan Sewage Servicing	Sanitary servicing solution to accommodate growth in West Vaughan area	Class Environmental Assessment	2016 (last reported: 2016)
Leslie Pumping Station Upgrades	Upgrades include pump replacement, electrical & standby power improvements	Detailed Design	Late 2013
Primary Trunk Sewer	New sewer to provide additional conveyance capacity	Project Initiation	2021



LOCATION PLAN

Key Infrastructure Projects



- Priority Water Projects & Expected Completion Date
- Priority Wastewater Projects & Expected Completion Date