

Clause No. 17 in Report No. 8 of the Committee of the Whole was adopted, without amendment, by the Council of The Regional Municipality of York at its meeting held on April 17, 2014.

17
WATER AND WASTEWATER
CAPITAL INFRASTRUCTURE STATUS UPDATE

Committee of the Whole recommends adoption of the following recommendation contained in the report dated March 5, 2014 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 and identified as triggers for release of servicing capacity and associated approvals.

3. BACKGROUND

June 2013 Council Capacity Assignment supports growth to 2017 with assignment to 1,244,671

With Regional capacity assignment of 43,371 people in June 2013, assignment to local municipalities totals 1,244,671 people, supporting growth to 2017. As part of the capacity assignment process, trigger projects to unlock capacity are identified and included in the 10 Year Capital Program.

Growth capacity assignment to 2017 still requires completion of trigger projects to unlock 82,120 person capacity. A list of trigger projects is provided in Table 1.

Table 1
 Trigger Projects required to unlock assigned capacity

Municipality	Total capacity to be unlocked by trigger projects (persons)	Trigger Project	Expected In-service date
Aurora	3,099	Southeast Collector	Q4/2014
East Gwillimbury	16,395	Southeast Collector	Q4/2014
		YDSS Connection (Holland Landing/Queensville/Sharon)	Q2/2015
King (King City)	1,385	Southeast Collector	Q4/2014
King (Nobleton)	1,700	Nobleton Water Supply	Q3/2014
Markham	24,058	Southeast Collector	Q4/2014
		Leslie Street Pumping Station	Q4/2014
		North Don Relief Sewer	Q4/2014
Newmarket	3,561	Southeast Collector	Q4/2014
Richmond Hill	7,326	Southeast Collector	Q4/2014
		Leslie Street Pumping Station	Q4/2014
		North Don Relief Sewer	Q4/2014
Vaughan	18,614	Southeast Collector	Q4/2014
		Leslie Street Pumping Station	Q4/2014
		North Don Relief Sewer	Q4/2014
Whitchurch-Stouffville (Stouffville)	5,982	Southeast Collector	Q4/2014
Total	82,120		

The last update to Council on the status of delivering key water and wastewater infrastructure projects was provided on November 14, 2013. The next update is scheduled for Fall 2014.

4. ANALYSIS AND OPTIONS

10 Year Capital Program totals \$3.2 billion including key infrastructure projects for system capacity

The 2014 approved budget identified a 10 Year Capital Program totaling \$3.2 billion, which includes critical projects to unlock capacity required to support future growth. The following provides an update on key water and wastewater projects within the 10 Year Capital Program. A project summary and location map are included in *Attachments 1 and 2*, respectively.

All contracts for Queensville/Holland Landing/Sharon sanitary sewer and water servicing are under construction

The Amended Agreement for the Queensville/Holland Landing/Sharon wastewater servicing project for the communities of Queensville, Holland Landing and Sharon was executed on March 28, 2012.

The Queensville Elevated Tank No. 1 was commissioned in December 2013 and is now in use (last reported: Q4 2013).

The Holland Landing Sewage Pumping Station, the 2nd Concession Sewage Pumping Station and the Queensville West Sewage Pumping Station are currently under construction with a scheduled commissioning/in-service date of Q2 2015 (last reported: Q2 2015).

The Holland Landing forcemains, the Green Lane forcemains, watermain and the 2nd Concession capacity linked linear works are currently under construction with a scheduled commissioning/in-service date of Q2 2015 (last reported: Q2 2015). The 2nd Concession linear works are part of the 2nd Concession Road Widening contract awarded in March 2014.

The Sharon Trunk Sewer contract has been awarded and construction will start in April 2014. This work is funded through a Prepaid Development Charge Credit Agreement with the Sharon Development Group which has been executed. Completion of this work is scheduled for Q2 2015 (last reported: Q2 2015).

A summary of the Queensville/Holland Landing/Sharon projects is shown in Table 2.

Table 2
 Queensville/Holland Landing/Sharon Project Status Summary

Project	Status	Commissioning/ In-Service	Last Reported	Contractor
Queensville Elevated Tank No. 1	In Use	December 2013	Q4 2013	Landmark Structures
Holland Landing Sewage Pumping Station	Under Construction	Q2 2015	Q2 2015	Con-Drain Company
Queensville West Sewage Pumping Station	Under Construction	Q2 2015	Q2 2015	Mettko Construction
2nd Concession Sewage Pumping Station	Under Construction	Q2 2015	Q2 2015	Con-Drain Company
Holland Landing and Green Lane Forcemains	Under Construction	Q2 2015	Q2 2015	North Rock Group
Sharon Trunk Sewer	Under Construction	Q2 2015	Q2 2015	Con-Drain Company
2nd Concession Linear				
• Capacity linked Linear	Under Construction	Q2/Q3 2015*	Q2 2015	Aecon
• Non-Capacity linked Linear	Under Construction	Q4 2015	---	Aecon

**Commissioning schedule subject to road closure coordination with opening of Highway 404 extension by July 1, 2014*

Two tunnel boring machines actively mining on Southeast Collector Trunk Sewer

Construction of the Southeast Collector Trunk Sewer continues and commissioning is forecasted for December 2014 (last reported: late 2014). Work includes:

- Phases 1 - 3 of Bob Hunter Memorial Park are complete
- Reconstruction and realignment of York-Durham Line is complete
- Construction continues at all shaft and mining site compounds
- Two tunnel bores are complete. The remaining two are actively mining and over 90 per cent complete. Both are expected to be complete by the end of Q2 2014

- Construction of the Odour Control Facility, two Air Handling Facilities, a Corrosion Control Facility and the Central Duffin Collector Metering Chamber are forecasted for completion in November 2014

Commissioning for Duffin Creek Stage 3 Influent Pumping Station Q2 2014

The new Duffin Creek Stage 3 Influent Pumping Station is required to facilitate connection of the new Southeast Collector Sewer to the existing York-Durham Sewage System and to prevent surcharge conditions during Stages 1 & 2 construction and in the future. The main pumping station construction contract was awarded in December 2012 with commissioning now expected to commence in June 2014 (last reported: Q4 2013). The schedule change has resulted from work limitations experienced within the constrained footprint of the station and difficulties implementing complex construction works coupled with severe winter weather conditions at a crucial time in the project. Substantial Performance is expected in late Q2/early Q3 2014 (last reported: Q1 2014). The revised completion date is not anticipated to delay or impact timing of approved development.

Construction of Duffin Creek Stages 1 & 2 Upgrades well underway

Duffin Creek Water Pollution Control Plant Stages 1 & 2 Upgrades were stipulated as a condition of the Ministry of the Environment Certificate of Approval (Air) for the Duffin Creek Water Pollution Control Plant Stage 3 Expansion. The project is currently progressing as stated in Table 3:

Table 3
 Contract Status for Duffin Creek Plant Stages 1 & 2 Upgrades

Contracts	Last Reported Progress Update	Current Progress
New Stages 1 & 2 Electrical Substation Construction and associated pre-purchase contracts for Generators, Switchgears and Transformers	Construction contract awarded in December 2012	70% complete
Disinfection Facility Construction	Construction contract awarded June 2013	30% complete
Preliminary Treatment and Influent Pumping Station Facility construction and associated pre-purchase contracts; Bio-filter and Sewage Pumps	Construction and Bio-filter pre-purchase in detailed design phase. Sewage pump pre-purchase contract awarded and on schedule for delivery to suit construction schedule in 2016	Construction contract awarded
Refurbishment and Upgrade Construction contract	Contract tendered	Tender out for bid and contract award Q2 2014

These contracts constitute the bulk of work to be accomplished in the Stages 1 & 2 Upgrades project. It is anticipated that the balance of contracts for the Stages 1 & 2 Upgrades will be awarded in Q2 2014 with commissioning and overall substantial performance expected in late 2016 (last reported: late 2016).

Implementation of the current Odour Management Plan will continue with additional sampling and testing scheduled upon completion of the Stages 1 & 2 Upgrades projects which is anticipated in 2017 (last reported: 2017).

Environmental Assessment Study Report for Duffin Creek Water Pollution Control Plant Outfall currently under review by the Ministry of the Environment

York Region and Durham Region jointly initiated a Schedule ‘C’ Class Environmental Assessment (Schedule “C” Class EA) 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 at the plant is 520 megalitres/day (MLD) and the preferred solution will permit the Duffin Creek Water Pollution Control Plant to fully realize the new expanded plant treatment capacity of

630 MLD. The Schedule “C” Class EA Environmental Study Report has been prepared to document the EA process.

After a detailed evaluation process, the Environmental Assessment has determined the following recommended solution:

- Optimize operation of existing upgraded Duffin Water Pollution Control Plant (Stages 1, 2 and 3)
- Modify existing outfall diffuser with a variable port technology to achieve outfall hydraulic capacity to 630 MLD

The Schedule “C” Class EA Environmental Study Report was issued November 19, 2013 and was available for public review for 91 days as requested by the Town of Ajax. The review period closed on February 18, 2014. A total of 90 Part II Order requests were sent to the Minister of the Environment requesting the Minister to issue an order elevating or “bumping up” the Class EA to an Individual Environmental Assessment, the most rigorous type of environmental assessment. Staff will be working with the project team to respond to the issues raised by the Part II Order requests and in some cases will be seeking advice from subject matter experts to ensure credible responses.

As an outcome of an earlier Schedule ‘C’ Class Environmental Assessment completed in 2006 and resulting approval, the Duffin Creek Water Pollution Control Plant has very strict effluent requirements in comparison to any plants discharging to the open waters of Lake Ontario. The Duffin Creek Water Pollution Control Plant consistently and successfully achieves the required effluent quality and capped phosphorous discharge limits approved by the Ministry of the Environment as part of the expansion of the wastewater treatment works to a capacity of 630 MLD.

Studies of Lake Ontario have determined that over 80 per cent of the phosphorous loading in Lake Ontario originates “upstream” of the Lake from the Niagara River and other tributaries that discharge into Lake Ontario. Estimated contribution of phosphorous to Lake Ontario from all wastewater treatment plants on Lake Ontario is approximately 10 per cent of total loading to the lake with the remainder resulting from agricultural and urban run-off, storm sewers, atmospheric deposition and other sources. Beyond the Class Environmental Assessment, the Region will be partnering with the Toronto and Region Conservation Authority on continuing water quality sampling programs that will assess water quality in the vicinity of the outfall.

Work to install new pumps for additional pumping capacity at the Leslie Street Sewage Pumping Station is ongoing

The Leslie Street Sewage Pumping Station collects wastewater flow from areas of Vaughan, Richmond Hill, Aurora, Newmarket and Markham. The facility pumps wastewater to the Duffin Creek Water Pollution Control Plant. The upgrade project will increase station pumping capacity to meet growth requirements and includes major electrical, Supervisory Control and Data Acquisition (SCADA), standby power and

building envelope upgrades. The contract was awarded in December 2012 and construction commenced in January 2013. While the entire project is scheduled for completion by Q1 2016 (last reported: Q1 2016), increased pumping capacity will be commissioned by Q4 2014 (last reported: Q4 2014).

Draft Environmental Assessment report for Upper York Sewage Solutions made available for review and comment for the period of February 18 through March 28, 2014

The Upper York Sewage Solutions project is required to accommodate provincially approved growth within the Towns of Aurora, Newmarket and East Gwillimbury by 2031. After more than five years of extensive scientific study, environmental analysis and stakeholder/First Nations consultation, the following key preferred design elements have been established for the Upper York Sewage Solutions project:

- Proposed water reclamation centre situated on the east side of 2nd Concession approximately one kilometre north of Queensville Sideroad.
- Trunk sewer pipes on 2nd Concession and Queensville Sideroad to provide necessary conveyances to and from proposed water reclamation centre.
- Proposed water reclamation centre outfall located on the south side of Queensville Sideroad discharging into the East Holland River.
- Modifications to the existing York-Durham Sewage System between existing Newmarket, Aurora and Bogart Creek Pumping Stations, which include new trunk sewer pipes adjacent to the existing forcemain.
- Modifications to existing stormwater management sites to achieve phosphorus off-sets of 170kg/yr.

Key stakeholders include the general public, regulatory agencies and local municipalities. Consultation with First Nations was conducted in accordance with a mutually agreed-upon protocol.

In accordance with the Upper York Sewage Solutions approved Terms of Reference, the completion of the Draft Environmental Assessment Report was appropriately advertised and made available to all interested parties, including stakeholders, the government review team and First Nations for final review and comment. The formal review period ran from February 18 to March 28, 2014. All comments received are currently being reviewed and will be appropriately addressed in the final Environmental Assessment report.

Upper York Sewage Solutions moving through the Individual Environmental Assessment Process

Upper York Sewage Solutions project followed the planning process established under the *Environmental Assessment Act* for Individual Environmental Assessments. The project was conducted in two parts – a Terms of Reference (essentially a road map as to how the environmental assessment would be undertaken) and the Environmental

Assessment itself. Approval for Terms of Reference was received from the Minister of the Environment on March 11, 2010, with inclusion of an added alternative 'innovative wastewater treatment technologies' condition.

The Environmental Assessment completed three distinct stages: Alternatives to the Undertaking, Alternative Methods of Carrying Out the Undertaking and Impact Assessment of the Proposed Undertaking. Preliminary designs were prepared for the preferred alternative of the proposed water reclamation centre and York-Durham Sewage System modifications, and were examined through eight discipline-specific impact assessments (i.e., archaeological, agricultural, cultural heritage, land use, natural environment, noise, odour and visual). These studies relied on existing information and site-specific field investigations.

Final Environmental Assessment report scheduled to be submitted for formal Minister of the Environment approval in late May 2014

As outlined above, the Draft Environmental Assessment Report was made available for review and comment from February 18 through March 28, 2014. Once received comments have been addressed, responded to and included as appropriate in the environmental assessment document, it is anticipated the final Environmental Assessment Report will be submitted to the Minister of the Environment for approval in late May 2014. Anticipating approval, the Minister of the Environment will likely provide formal approval of the undertaking in 2015.

Upper York Sewage Solutions Project is currently scheduled for delivery by end of 2018

Subject to approval, commissioning of the Upper York Sewage Solutions project is currently scheduled for the end of 2018 (last reported: late 2018). This date will be reviewed and updated following formal approval of the Individual Environmental Assessment by the Minister of the Environment, which is anticipated to occur in 2015. The project team has released a Request for Proposal and is currently evaluating proposals for consultant services for detailed design, construction administration and site inspection services. In advance of approval, the Region is permitted to proceed with detailed design as a measure to help maintain ability to meet this schedule.

Kennedy Road Watermain tunnel contract well underway with one tunnel completed and one being actively mined

The Toronto East Water Supply project involves construction of a 1500mm 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 6 to meet long-term growth demands. Work is being completed under two contracts. On the tunnelling contract currently in construction, the south tunnel is complete and the north tunnel is actively being mined with two work

shifts on the tunnel boring machine. To date, approximately 1700 metres have been completed, representing 60 per cent of 2825 metres of tunnel to be completed under this contract. The open-cut contract is complete. Commissioning of the entire watermain from Milliken Pumping Station to Major Mackenzie Drive is expected to be completed by Q4 2014 (last reported: Q2 2014). The schedule change is due primarily to unexpected breakage and repairs to the tunnel boring machines resulting in lower-than-expected production. The revised completion date is not anticipated to delay or impact timing of approved development within the service area.

West Richmond Hill Pumping Station construction contract awarded in March 2014

The West Richmond Hill Pumping Station is a new pumping facility identified through the 2009 Water and Wastewater Master Plan Update to service lands in the northeast portion of Vaughan, portions of Richmond Hill north of Major Mackenzie Drive and the northwest portion of Markham. The Environmental Assessment was filed on October 13, 2011 and detailed design commenced in February 2012. The construction contract was tendered in October 2013 and was awarded in March 2014. The project is expected to be commissioned in Q4 2015 (last reported: Q4 2015).

Environmental Assessment for West Vaughan Sewage Servicing now complete

The Environmental Assessment for West Vaughan Sewage Servicing project, identified through the 2009 Water and Wastewater Master Plan Update to provide sanitary sewage capacity to service growth in the West Vaughan area (area west of Highway 27 including Kleinburg-Nashville) is now complete. Notice of completion for the Class Environmental Assessment was advertised in June 2013 and no comments or issues were raised during the 30-day review period.

The Environmental Assessment recommended a design concept for the preferred servicing solution to construct 14 kilometres of new Regional trunk sewer system primarily within the Region's road rights-of-way along Rutherford Road, Highway 27 and Highway 7. The servicing solution also included expanding the Humber Pumping Station from existing capacity of 1700 L/s (147 MLD) to a capacity of 2400 L/s (207 MLD). Segments of the proposed trunk sewer are described in Table 4.

Table 4
 Proposed Trunk Sewer Segments

Sewer Segments	Length (approx. km)	Size (approx. mm)	Proposed Construction Method
Northern segment (along Highway 27 from Kleinburg WPCP to Rutherford Road)	3.3	750	Micro-tunnelling
West segment (along Rutherford Road from Huntington Road to Highway 27)	1.8	1050	Micro-tunnelling/Open-cut
Central and South segments (along Highway 27 and Highway 7 to existing Humber Pumping Station)	8.9	3000	Tunnelling with tunnel boring machines Additional measures for rock and water control as required

Final sewer route selected and Request for Proposal for Engineering Services issued

Request for Proposals from engineering firms to undertake detailed design, contract administration and site inspection services will be issued in April 2014. Now that the final recommended sewer route has been selected, the scope of work is clearly defined. Subsequent constructability analysis on route complexity, in addition to property requirements, has increased the duration required for detailed design and construction phases from that originally anticipated in the master plan. The revised schedule for completing the overall project is determined to be Q3 2020 (last reported: Q4 2018). The revised completion date is not anticipated to impact timing of approved development. The Region is currently undertaking an advanced project for electrical upgrades to the Humber Sewage Pumping Station. The Region advanced these upgrades to sufficiently increase the pumping station's servicing capacity to support growth in the interim until the West Vaughan Sewage Servicing Project is completed.

Water and wastewater servicing project is now underway to service East Vaughan

In January 2014, York Region initiated the East Vaughan Water and Wastewater Servicing project, which includes Water and Wastewater System Capacity Optimization Study, a Schedule "C" Class Environmental Assessment, Preliminary Design and a Feasibility Study. The objective of the project is to provide water and wastewater

servicing solutions to meet future growth demands in the East Vaughan area to the year 2051, as identified in the Region's November 2009 Water and Wastewater Master Plan Update. The service area for this project extends from west of Kipling Avenue to Dufferin Street and from north of King Vaughan Road to Langstaff Road. The Black Creek area is also being considered as part of the study area for the wastewater servicing component of the study. The Class Environmental Assessment is scheduled to be completed in Q1 2016 and the Preliminary Design and Feasibility Study for the Preferred Solutions are scheduled to be completed in Q3 2016. Detailed design is estimated for completion in 2018 and construction is estimated to be complete in 2021.

Yonge Street/Highway 7 Regional Centre Class Environmental Assessment underway and presently reviewing preliminary alternative routes

The Region is currently undertaking a Class Environmental Assessment study under Schedule 'B' to identify and evaluate alternatives and preferred solutions for new water and wastewater servicing requirements to accommodate planned growth in the Yonge Street/Highway 7 Regional Centre areas bordering between Town of Richmond Hill and City of Markham. The Region is planning to complete the study by end of 2014 and public consultation centres will be held in Q3 2014. Construction is anticipated to commence on these preferred solutions for both water and wastewater projects in 2019.

North Don Sanitary Relief Sewer is under construction

The North Don Sanitary Relief Sewer will divert flows from the North Don Sewer at Carville Road to the Bathurst Collector Trunk Sewer to alleviate capacity constraints in the existing North Don Sewer system and support growth in Richmond Hill, Vaughan and Markham. The project is under construction and is on schedule for a commissioning date of Q4 2014 (last reported: Q4 2014).

Key component of Region's long-term servicing strategy is 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. Six water projects and four wastewater projects in the Region of Peel, and six water projects in the City of Toronto are currently underway to provide capacity to service growth in the Region, including nine in construction. Regional staff conducts regular meetings with Toronto and Peel staff to discuss issues regarding supply commitments, including cost-shared project delivery schedules. In February 2014, the amended water supply agreement with the Region of Peel was executed, which will decrease the 2031 water supply from Peel from 388 MLD to 331 MLD. It is expected that both the Region of Peel and the City of Toronto will meet their long-term water supply agreement commitments to the Region.

Hanlan Feedermain contracts have been tendered and closed

In 2009, the Region of Peel completed a Schedule 'C' Class Environmental Assessment study to identify the preferred route for the new 2400mm diameter Hanlan Feedermain, which will extend approximately 12 kilometres north from Lakeview Water Treatment Plant to Hanlan Pumping Station. This project is required to meet future water supply needs to support growth. Contract No. 1 (tunnelling) closed on September 25, 2013 and Contract No. 2 (open cut) closed on October 16, 2013, and both are in construction. Contract No. 3 (open cut/tunnelling) closed on January 22, 2014 and construction is tentatively scheduled for Q2 2014. The project will be completed in late 2016.

New Primary Trunk Sewer required to service future growth beyond 2026

The Primary Trunk Sewer project involves constructing a new sewer along a yet-to-be-determined route, from the terminus of the Southeast Collector Trunk Sewer to the Duffin Creek Water Pollution Control Plant in the City of Pickering. The new primary trunk sewer will provide additional conveyance capacity to the existing primary trunk sewer. During the 2013 budget project prioritization process, staff assessed capacity requirements and confirmed that timing for this project can be deferred without impacting planned growth or capacity assignment in York Region. The project is now scheduled for completion after 2026 (last reported: 2026) and specific timing will be re-evaluated as part of the next Water and Wastewater Master Plan Update.

York Region's Water and Wastewater Master Planning process currently underway

A master plan is a comprehensive long-range plan intended to set policy and guidelines for infrastructure planning to support approved growth under the Regional Official Plan. It is a blueprint for future infrastructure while supporting a vision that is embraced by the Region's policies, guidelines and priorities. Under the metric of Integrity, Innovation and Integration, the 2015 Water and Wastewater Master Plan Update has three key objectives:

- Optimize integration of existing and future water and wastewater systems; effectively managing water resources to 2051
- Develop a comprehensive plan to inform infrastructure investment
- Promote environmental integrity and sustainability of Regional and municipal assets

Working with the Region's nine municipal partners, expanding the modelling, creating databases that speak to one another, aligning programs and policies to achieve benefit for local and regional infrastructure, and asset management that keeps infrastructure healthy and whole – all roll into a mutually beneficial master planning process for decades into the future. This process will continue to be informed by state of the infrastructure reporting, with the next report expected in May 2014.

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 targeted growth of the Regional Official Plan. By prioritizing and integrating delivery of critical infrastructure projects with timing of planning approvals to address growth needs in an efficient manner, community benefit is being optimized in accordance with the goals of the 2011-2015 Strategic Plan to continue to deliver and sustain critical infrastructure and support focused growth along Regional centres and corridors.

5. FINANCIAL IMPLICATIONS

\$3.2 billion in capital works identified over the next ten years in the Approved 2014 Environmental Services Budget and 10 Year Capital Program

The approved 2014 Environmental Services Budget and 10 Year Capital Program includes \$3.2 billion in water, wastewater, waste management and forestry capital projects. Of the total \$3.2 billion of capital works in the capital program, \$2.1 billion or 65.6 per cent will be funded through development charges, 25.3 per cent through user rates, 7.4 per cent from other sources including other municipal servicing partners and reserves with the remaining 1.7 per cent from tax levy. Total 2014 Capital Spending Authority for Environmental Services Capital is \$1.3 billion. Additional Capital Spending Authority will be requested as projects progress and defined requirements are established. The majority of these works are debt financed with debt repaid through development charges. As part of the annual budget process, associated funding and resource requirements for operations and asset management of expanded infrastructure systems continue to be an area of focus to understand financial implications of growth.

A summary of infrastructure project costs are provided in Table 5.

Table 5
 Cost Estimates for Key Infrastructure Projects

Project	Estimated Total Project Cost	Estimated Cost in 10 Year Plan	Completion Date
Queensville/Holland Landing/Sharon York-Durham Sewage System Connection	\$150,100,000	\$115,700,000	2015
Southeast Collector Trunk Sewer	\$563,600,000	\$175,000,000	2014
Upper York Sewage Solutions	\$552,700,000	\$418,800,000	2018
Kennedy Road Watermain	\$73,700,000	\$31,400,000	2014
West Richmond Hill Pumping Station	\$48,400,000	\$45,900,000	2015
West Vaughan Sewage Servicing	\$218,200,000	\$214,800,000	2020
Leslie Street Pumping Station Upgrades	\$31,700,000	\$21,400,000	2014
East Vaughan Servicing	\$170,500,000	\$170,500,000	2021
Yonge Street/ Highway 7 Regional Centre Servicing	\$44,700,000	\$44,200,000	2020
North Don Relief Sewer	\$17,500,000	\$14,200,000	2014
Toronto Cost Shared Projects	\$424,700,000	\$94,000,000	2021
Peel Water Cost Shared Projects	\$462,300,000	\$141,800,000	2021
Peel Wastewater Cost Shared Projects	\$55,800,000	\$43,400,000	2021
Duffin Creek Water Pollution Control Plant Outfall	\$11,500,000	\$9,300,000	2015
Duffin Creek Water Pollution Control Plant Stages 1 & 2 Upgrades	\$267,000,000	\$221,200,000	2016
Subtotal	\$3,092,500,000	\$1,761,600,000	
<u>Other Capital</u>			
Other Water Growth Capital Projects		\$263,500,000	
Other Wastewater Growth Capital Projects		\$325,400,000	
Water Rehabilitation / Replacement		\$235,200,000	
Waste water Rehabilitation / Replacement		\$485,500,000	
Waste Management		\$72,600,000	
Forestry		\$21,000,000	
TOTAL Approved 2014 10 Year Capital Budget		\$3,164,800,000	

6. LOCAL MUNICIPAL IMPACT

Staff continues to work closely with municipalities affected by capital works program to minimize impacts on planned community growth

Priority projects detailed in this report are crucial to providing timely servicing capacity to municipalities. This water and wastewater capacity is necessary to meet growth expectations, while maintaining a high 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 approval process, is contingent on projects being completed as planned. Projects are continually monitored to ensure that risk of delay is minimized and capacity will be available as planned. Staff continues to collaborate with local municipalities affected by the capital works program to ensure impacts to planned community growth are minimized to the extent possible considering capacity constraints created by any delay of these projects. A collaborative approach with the local municipalities will continue to assist with reporting on their local capacity allocation in a timely manner to support Regional capacity assignment and ensure fiscal sustainability.

Reporting by local municipalities will continue to assist in monitoring system capacity

Senior works and planning staff from all local municipalities and from the Region will continue to work together on annual reporting of development applications and allocation of previously assigned servicing capacity. This information provides a clear understanding of available existing capacity and timing for anticipated servicing needs of planned and approved growth. Coordinated efforts with local municipalities will also continue on implementation of inflow and infiltration reduction and water conservation and efficiency programs to reduce flows, thereby better managing system risk while continuing to increase available system capacity.

7. CONCLUSION

\$3.2 billion 10 Year Capital Program includes required projects for current and future capacity assignments

This report provides Council with a status of priority projects within the 10 Year Capital Program and their relationship to timing of capacity availability. Continuing to monitor these projects will ensure that both capacity allocation and granting of planning approvals are synchronized with project delivery schedules. The Approved 2014 10 Year Capital Program includes critical projects required to unlock current and future capacity assignments.

For more information on this report, please contact Mike Rabeau, Director, Capital Planning and Delivery, Environmental Services at (905) 830-4444 Ext. 75157.

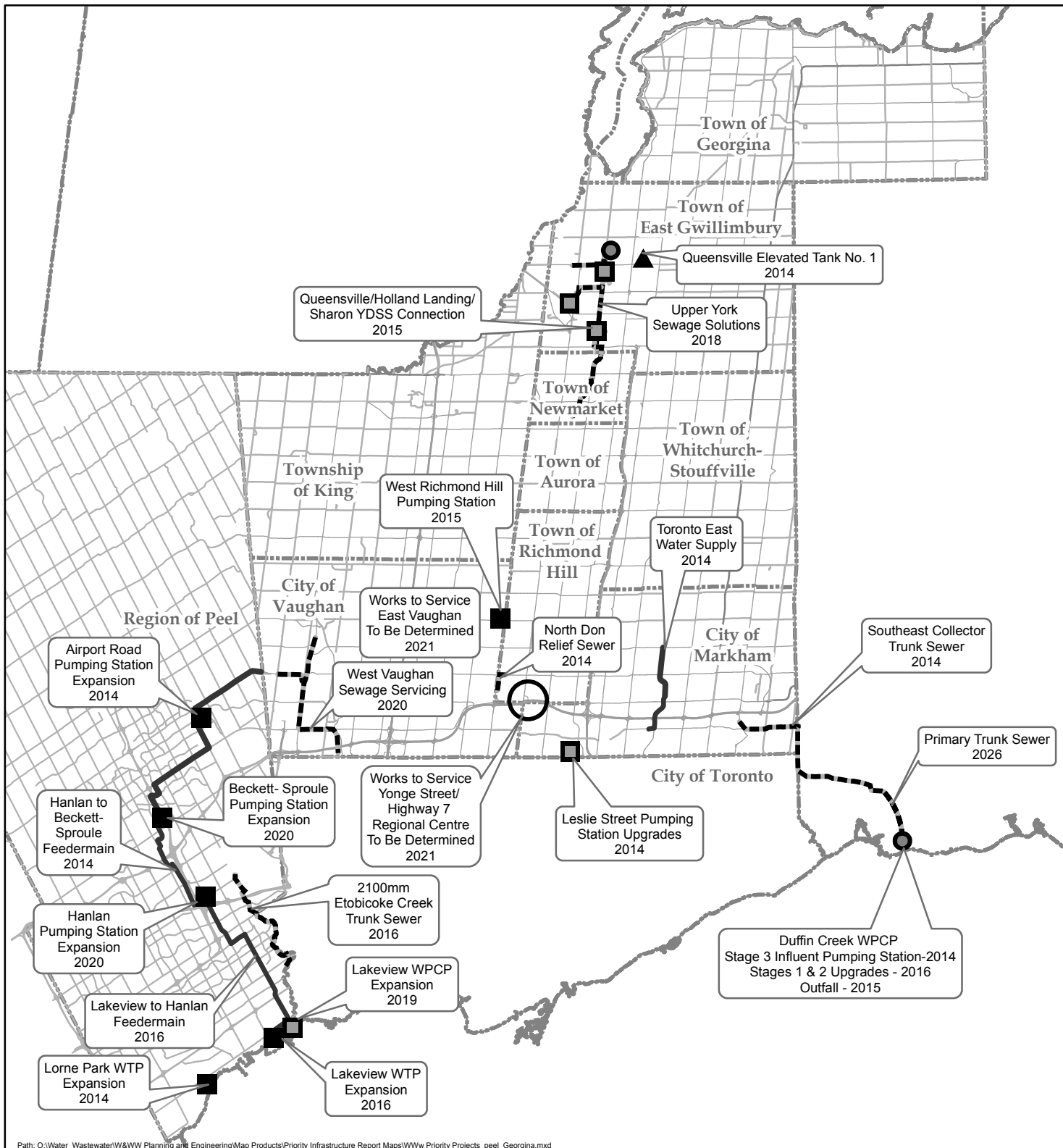
The Senior Management Group has reviewed this report.

Attachments (2)

Status of Key Infrastructure Projects

Project Name	Description	Current Status	Expected Project Commissioning Date
Queensville/Holland Landing/Sharon Servicing	Elevated tank and new pumping stations and linear works	Construction	Q2 2015 (last reported 2015)
Southeast Collector Sewer	Twinning of existing trunk sewer to provide additional conveyance capacity	Construction	Late 2014 (last reported: Late 2014)
Duffin Creek Stages 1 & 2 Upgrades	Upgrade and refurbish existing Stages 1 & 2	Construction	2016 (last reported: 2016)
Duffin Creek Stage 3 Influent Pumping Station	New pumping station to convey sewage to Stage 3 Liquid Process Expansion	Construction	Q2 2014 (last reported: Q1 2014)
Duffin Creek Outfall	New outfall to address diffusion requirements and increase plant capacity to 630MLD	Class Environmental Assessment	2015 (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	Late 2018 (last reported: Late 2018)
Toronto East Water Supply	Watermain along Kennedy Road from Milliken Pumping Station to Major Mackenzie Drive	Construction	Q4 2014 (last reported: Q2 2014)
West Richmond Hill Pumping Station	New pumping station to pump water from Pressure District (PD) 6 to PD7 and PD8	Construction	Q4 2015 (last reported: Q4 2015)
West Vaughan Sewage Servicing	Sanitary servicing solution to accommodate growth in West Vaughan area	Class Environmental Assessment	Q3 2020* (last reported: Q4 2018)
Leslie Pumping Station Upgrades	Upgrades include pump replacement, electrical & standby power improvements	Construction	Q4 2014 (last reported: Q4 2014)
Primary Trunk Sewer	New sewer to provide additional conveyance capacity	Project Initiation	After 2026 (last reported: After 2026)
North Don Relief Sewer	New sewer to provide relief for existing YDSS conveyance capacity	Under construction	Q4 2014 (Last reported: Q4 2014)
Yonge Street/Highway 7 Regional Centre	Water and wastewater servicing solution to accommodate growth	Class Environmental Assessment	2021 (not previously reported)
East Vaughan Servicing	Water and wastewater servicing solution to accommodate growth in East Vaughan	Class Environmental Assessment	2021 (not previously reported)

*The Region has advanced upgrades at the Humber Sewage Pumping Station that will sufficiently increase the station's pumping capacity to support growth in the interim until West Vaughan Sewage Servicing project is complete



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LOCATION PLAN Key Infrastructure Projects

Water and Wastewater Capital Infrastructure Status
April 10, 2014



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Legend

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