

Clause 12 in Report No. 16 of Committee of the Whole was adopted, without amendment, by the Council of The Regional Municipality of York at its meeting held on November 17, 2016.

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Environmental Services Water and Wastewater
Capital Infrastructure Status Update

Committee of the Whole recommends:

1. Receipt of the presentation by Mike Rabeau, Director, Capital Planning and Delivery, Environmental Services.
2. Adoption of the following recommendation contained in the report dated October 19, 2016 from the Commissioner of Environmental Services:
 1. The Regional Clerk circulate this report to the local municipalities.

Report dated October 19, 2016 from the Commissioner of Environmental Services now follows:

1. Recommendation

It is recommended that:

1. The Regional Clerk circulate this report to 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. This report also updates Council on critical asset management projects to sustain system service.

3. Background and Previous Council Direction

Projects supporting capacity assignment to more than 1.3 million people are complete

In September, Council approved a capacity assignment of 71,838 to local municipalities, which brings the cumulative servicing capacity assigned to support Region-wide growth to over 1.3 million people.

The only trigger project associated with the 2016 capacity assignment is the twinning of the Newmarket forcemain, which is required for the 1,500 persons capacity assigned to Town of Newmarket. The work is part of the Upper York Sewage Solutions project and is currently scheduled for completion in 2019.

Capital water and wastewater infrastructure required to support growth is reviewed and reported to Council regularly

On [May 5, 2016](#), Council received the last Water and Wastewater Capital Infrastructure Status Update report. The next Water and Wastewater Capital Infrastructure Update is scheduled for Q3 2017.

Water and wastewater infrastructure required to support growth to 2041 has been identified in the 2016 Water and Wastewater Master Plan Update

The 2016 Water and Wastewater Master Plan Update identified necessary water and wastewater infrastructure required to meet increasing demand for services as a result of growth to 2041 and beyond. The Master Plan Update was presented to Council for endorsement in June 2016 and issued for a sixty-day public review in July, which ended September 15, 2016.

The Water and Wastewater Master Plan Update was completed in conjunction with the Municipal Comprehensive Review process and will inform the 2017 Development Charge Bylaw update. Progress on implementation of infrastructure identified in the Water and Wastewater Master Plan Update will continue to be monitored on an annual basis.

4. Analysis and Implications

Environmental Services is responsible for delivering approximately 40 per cent of the Regional 10 Year Capital Plan

The 10 Year Water and Wastewater Capital Plan remains focused on delivering capacity needed to service growth within current financial limits. The capital program has over 140 active projects, which are progressing well and focus on building the trunk system, sustaining infrastructure service levels and managing system risk and resiliency. While there are many complexities associated with infrastructure planning, design and construction, the program remains on schedule to deliver on commitments made through the capacity assignment process.

The 2016 approved budget identified a 10 Year Capital Plan totalling \$2.3 billion, 38 per cent of the Regional Capital Plan. The following provides an update on key Environmental Services projects within the 10 Year Capital Plan. A project summary and a location map are included in Attachments 1 and 2, respectively.

Queensville/Holland Landing/Sharon wastewater servicing infrastructure is ready for flows

The Holland Landing, Queensville West and 2nd Concession Sewage Pumping Stations are complete and the new wastewater infrastructure is ready to accept flows from new developments in East Gwillimbury. The new Holland Landing Sewage Pumping Station is currently operational and continuing to convey the existing Holland Landing wastewater flows to the Holland Landing Lagoons.

Residential wastewater flows from new developments are expected in early 2017. To date, approximately 1,500 units have been registered by the Sharon and Queensville developments and no occupancies have occurred.

Southeast Collector Trunk Sewer has been in operation since January 2015

The new Southeast Collector Sewer commissioned in January 2015 and has been in successful operation to date. The two-year warranty for Phase 1 ends in January 2017 and Phase 2 ends in December 2017. Five-year post-construction monitoring of the Odour Control System is continuing and results from the sampling program conducted to date are in compliance and meet regulatory requirements. Detailed design for rehabilitation of the existing York Durham Sewage System between Markham and Pickering has commenced, and construction is scheduled for 2018.

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Duffin Creek Plant Stages 1 and 2 Upgrades are on schedule to meet regulatory requirements

The Duffin Creek Plant Stages 1 and 2 Upgrades include work that must be completed by 2017 as a condition of the Ministry of the Environment and Climate Change's (the Ministry) Environmental Compliance Approval for the Duffin Creek Plant Stage 3 Expansion.

Contracts listed in Table 1 constitute the bulk of work to be accomplished in the Stages 1 and 2 Upgrades project and include upgrades stipulated to be completed by December 31, 2017 in the Environmental Compliance Approval-Air.

Overall substantial performance of the final contracts of the project are expected to occur in Q4 2017 (last reported: Q4 2017) in compliance with the Environmental Compliance Approval.

Table 1
Contract Status for Duffin Creek Plant Stages 1 and 2 Upgrades

Contract / Progress	Progress Update
New Stages 1 and 2 Electrical Substation Construction and associated pre-purchase contracts for generators, switchgears and transformers (\$32 Million / 99% complete)	Construction contract and two associated pre-purchase contracts awarded 2012. Construction contract substantially performed December 2014 and now in warranty period.
Disinfection Facility Construction (\$9 Million / 99% complete)	Construction contract awarded June 2013. Substantially performed June 2, 2015 and now in warranty period.
Preliminary Treatment and Influent Pumping Station Facility construction and associated pre-purchase contracts; biofilter and sewage pumps (\$85 Million / 65% complete)	Construction contract awarded March 2014 and on schedule for Q4 2017 completion. Sewage pump pre-purchase contract awarded and pumps received. Wet well structural concrete works advanced to 95%. Site backfilling 80% complete. Head works, electrical and chemical buildings enclosed with architectural treatments well advanced. Major mechanical and electrical installations progressing well with start-up of some equipment underway.

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Contract / Progress	Progress Update
Refurbishment and Upgrade Construction contract and associated pre-purchase contract; Clarifier Bridge Mechanisms (\$29 Million / 70% complete)	Construction contract awarded June 2014. Clarifier Bridge Mechanisms pre-purchase contract awarded and on schedule with Stage 2 bridges in commissioning. Stage 2 is back online and turned over to operations staff in Q4 2015. Stage 1 pre-purchased clarifier bridge mechanisms delivered, all bridges now on site. Stage 1 rehabilitation works progressing well and on schedule.
Stage 1 and 2 Demolition and Removals contract	Pre-qualification of contractors complete and tender procurement progressing for award in Q1 2017.

Duffin Creek Plant Outfall Class Environmental Assessment
awaiting Minister's decision

York and Durham Regions completed a joint Schedule "C" Class Environmental Assessment to address limitations in the Duffin Creek Outfall on November 19, 2013. During the public review period on the Environmental Study Report, 90 Part II Order Requests were submitted to the Ministry, all of which included the general allegation that the Duffin Creek Plant was responsible for a resurgence of algae (*Cladophora*) growth, creating odour problems and loss of waterfront enjoyment. Many of the issues raised in the Part II Order Requests were outside the scope of the Class Environmental Study. Notwithstanding, the Regions retained subject matter experts and responded to all of the Part II Order issues on September 30, 2014. The Ministry has reviewed responses to the Part II Order Requests and issued an order to the Regions on April 4, 2016 to determine the feasibility of further reducing phosphorus discharges from the Duffin Creek Plant before a decision can be made on the Part II Order Requests.

Progress made on the Minister's Phosphorus Reduction Action
Plan Study

The Regions have retained a team of leading experts to review the Duffin Creek Plant treatment processes with a focus on optimizing total phosphorus removal. The Phosphorus Reduction Action Plan (PRAP) study will also consider tertiary treatment options to further reduce phosphorus loading to Lake Ontario. Various optimization strategies and tertiary treatment technologies will be compared using a range of factors including performance, capital and operating cost, and affordability.

On May 18, 2016, Durham Region Council adopted a motion from the Town of Ajax to allow Town staff and their hired experts to participate in the PRAP study.

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The collaboration between the Regions' experts and those retained by the Town will take place over a series of meetings throughout the course of the study. The points of consensus and differences will be documented and included as part of the study. The duration of the work plan for the PRAP study will require an extension from Q1 2017 to Q1 2018 to accommodate enhanced collaboration steps with the Town of Ajax and their experts.

Sewage servicing commitments have been achieved and alternative sequence of construction has been developed for the Leslie Street Sewage Pumping Station

The Leslie Street Sewage Pumping Station collects wastewater flow from Vaughan, Richmond Hill and Markham. This facility pumps wastewater to the Duffin Creek Plant. This upgrade project has increased the station's pumping capacity to meet growth requirements and includes major electrical, Supervisory Control and Data Acquisition (SCADA) system, standby power and building envelope upgrades.

An alternative sequence of construction has been developed to address power quality issues from older equipment feeding power to new equipment that was identified during construction. The majority of equipment to complete the work is manufactured and available; however, due to the re-sequencing and staging to ensure new equipment is not damaged by poor power quality, full commissioning has been staged to rectify the issues as part of this project.

Work continues with overall construction expected to be complete in Q1 2018 (last reported: Q2 2017). The project team is working closely with the contractor to maintain work progression and find opportunities to reduce contract time.

Upper York Sewage Solutions project progressing in accordance with the approved 2016 Capital Plan

The Upper York Sewage Solutions project will provide additional servicing capacity of over 80,000 persons (40 MLD) to support growth in the Towns of Aurora, Newmarket and East Gwillimbury, and includes the following three key design elements:

- Lake Simcoe Water Reclamation Centre and associated linear conveyance infrastructure (anticipated completion 2024)
- Modifications to the existing York Durham Sewage System between the existing Newmarket, Aurora and Bogart Creek Pumping Stations (anticipated completion 2019)
- Project-specific phosphorus off-setting program (anticipated completion 2022)

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All three key design elements are progressing through key stages of detailed design in accordance with the approved 2016 Capital Plan. Completion of 90 per cent design for the Water Reclamation Centre is anticipated by the end of 2016. Modifications to the York Durham Sewage System are nearing 90 per cent design and are on track for tendering in 2017, subject to Individual Environmental Assessment approval. With advancement in the detailed design of this project, more refined cost estimates have been reflected in the 2017 capital budget. The Upper York Sewage Solutions Environmental Assessment approval process has identified further potential opportunities for the project-specific phosphorus off-setting program with implementation scheduled in 2022.

Upper York Sewage Solutions project Individual Environmental Assessment approval anticipated in fall 2016

The final Individual Environmental Assessment (IEA) report for this project was submitted to the Minister of the Environment and Climate Change for approval on July 25, 2014. With submission of the final report, the Ministry is conducting its own internal review and public consultation process in accordance with regulatory guidelines.

Individual Environmental Assessment approval is now anticipated for Q4 2016 (last reported: Q2 2016). To mitigate scheduled impacts due to potential approval timelines, once IEA approval is obtained the Region will request the Ministry to expedite environmental compliance approvals to maintain the project schedule, specifically approvals for modifications to the existing York Durham Sewage System between Newmarket, Aurora and Bogart Creek Pumping Stations.

Holland Landing Lagoons to remain in operation until future water reclamation centre is commissioned in 2024

The Lake Simcoe Protection Plan stipulates no new water resource recovery facilities in the Lake Simcoe watershed. The Environmental Compliance Approval for the Holland Landing Lagoons, including the total phosphorus cap, is to be transferred to the water reclamation centre. Subsequent to confirming acceptance of this transfer, the Minister of the Environment and Climate Change clarified that transfer of the Environmental Compliance Approval would be required from operational lagoons in Holland Landing once the future water reclamation centre is operational in 2024.

With the Holland Landing Lagoons still required to operate for another eight years, the Region initiated a maintenance program last year to remove biosolids from the lagoons to better manage capacity and odour. One lagoon cell was cleaned in 2015 and cleaning of the other large lagoon cell is currently ongoing with additional biosolids removal. Following the completion of this cleaning in November 2016, reductions in odour issues are expected. In addition, the Region will be

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investigating alternative odour management technologies and techniques to further enhance air quality at this site.

Kennedy Road Watermain has been put into service

The Kennedy Road Watermain 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 supply from Toronto to Markham Pressure District 6 to meet long-term growth demands. The watermain was commissioned in summer 2016 (last reported: summer 2016) and has recently provided operational relief to assist in maintaining water storage levels during the high water demand during the unusually dry summer.

East Vaughan Pumping Station construction progressing to meet servicing requirements

The East Vaughan Pumping Station (formerly known as West Richmond Hill Pumping Station) is a new water pumping facility required 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 pumping station will provide additional water service via the East Vaughan watermains on Major Mackenzie Drive, Teston Road and Bathurst Street, currently under construction.

Construction of the pumping station started in April 2014 and approximately 95 per cent of the work is complete. All civil and mechanical works in both the disinfection building and main pumping station are complete. Finishing works, installation and testing of electrical, instrumentation and control equipment for remote monitoring are ongoing. The watermain portion is complete and commissioning of these facilities has commenced (last reported: Q3 2016).

Upgrades to Humber Sewage Pumping Station now complete

Upgrades to the overall electrical system at the Humber Sewage Pumping Station are now complete allowing for additional growth in Vaughan to continue. The remaining pump control testing, final site works, transition to a new SCADA system and testing were complete as of September 2016. Additional modifications to forcemain controls and new flow control chamber to improve operational flexibility were completed in October 2016.

Detailed Design for West Vaughan Sewage Servicing is progressing well

The 30 per cent design for the West Vaughan Sewage Servicing Project was completed in September 2016 and the 60 per cent design is underway. The Geotechnical Investigation phase was completed in July 2016, which provided

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necessary information to allow the design to proceed on schedule. Property negotiations are ongoing to acquire several properties. The West Vaughan Sewage Servicing project includes over 10 kilometres of trunk sewer to be completed in 2028 and expansion of the Humber Pumping Station to be completed in 2025.

Water and Wastewater Master Plan study informed water servicing strategy for West Vaughan

The 2016 Master Plan Study Update was recently completed and confirmed infrastructure needs to service growth in the West Vaughan service area, including Kleinburg-Nashville. The works identified include:

- Enhancement to system resiliency through additional interconnection between Pressure Districts 5 and 6 (required within five years)
- Replacement of the Kleinburg Elevated Tank and West Woodbridge Elevated Tank (required within 20 years)

This information will be used to update the water servicing strategy and optimization needs for the West Vaughan area including Kleinburg-Nashville.

Environmental field studies for Northeast Vaughan Water and Wastewater Servicing Class Environmental Assessment nearing completion

The Northeast Vaughan Water and Wastewater Servicing project is underway to provide Regional infrastructure for servicing anticipated growth in northeast Vaughan to the year 2051. The Class Environmental Assessment study is progressing and environmental field studies are nearing completion for the short-listed watermain routes, water facility sites and trunk sewer routes.

Information collected from field studies is being used to evaluate short-listed sites and routes for the new infrastructure, and recommendations for the ultimate servicing plan will be presented to the public at Public Consultation Centre #2, in Q1 2017 (last reported: Q4 2016).

Detailed design is progressing for an additional pump at the Region's Maple Pumping Station that will service some early growth in northeast Vaughan on an interim basis. Work is expected to be complete by mid-2018 (last reported: early 2018).

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Detailed design for the Richmond Hill/Langstaff Gateway Regional Centre on schedule

Detailed design for the Richmond Hill/Langstaff Gateway Regional Centre commenced in January 2016; preliminary design was completed in April; 30 per cent detailed design was completed in June; and 60 per cent detailed design is ongoing. Detailed design will be completed in Q2 2017. The Environmental Assessment recommended water and wastewater servicing solutions that fully use existing infrastructure to minimize capital costs while providing acceptable levels of service. Recommendations consisted of adding three water connection points to the existing Regional watermain and constructing new sanitary sewers to connect to the existing Regional Richmond Hill Collector sewer and a Town of Richmond Hill sewer. Commissioning remains planned for 2025 (last reported: 2025).

Sutton Water Resource Recovery Facility operating at less than 60 per cent capacity

The existing Sutton Water Resource Recovery Facility was commissioned in 2003 with an original design capacity to service 7,500 people. An Environmental Assessment for plant expansion to service 13,500 people was completed in 2010. The detailed design is anticipated to start in 2028 and construction completed in 2033. In the interim period, an equalization tank will be constructed by 2018 to provide an operational improvement.

As reported in the last status update in November 2015, the Region will consider bringing the facility's expansion into the 10 Year Capital Plan when flow reaches 70 per cent of plant capacity, subject to funding availability and Council approval at that time. Flow records from 2013 through 2015 indicate that the plant is operating at 55 per cent of its total capacity.

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 City of Toronto and Peel Region is a key component of the Region's long-term servicing strategy. York Region staff conducts regular meetings with City of Toronto and Peel Region staff to discuss issues regarding supply and servicing commitments, including cost-shared project delivery schedules.

Three water projects and two wastewater projects in Peel Region, and four water projects in City of Toronto are currently underway to provide capacity to service growth in York Region, including five in construction. Both Peel Region and City of Toronto are on track to meet their long-term water supply agreement commitments to York Region.

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The last contract related to the Etobicoke Creek Trunk Sewer project, the installation of a trunk sewer under a runway at Lester B. Pearson International Airport, was substantially completed in June 2016. Peel Region is also on track to meet its long-term wastewater servicing agreement commitment to York Region.

Hanlan Feedermain projects are scheduled to be commissioned by Q4 2017

In 2009, Peel Region 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 the Hanlan Pumping Station.

York Region has secured 331 MLD in supply and transmission capacity from Peel Region. Based on preliminary results of the Water and Wastewater Master Plan Update, water supply from Peel Region combined with water supply from City of Toronto services growth to year 2041 and beyond.

Three separate contracts were released to complete Hanlan Feedermain. Contract No. 2 (open cut) was completed in early 2016. Contract No. 1 (tunnelling) and Contract No. 3 (open cut/tunnelling) are in construction and scheduled to achieve substantial performance in Q2 2017 (last reported: Q2 2017). Full commissioning of the entire Hanlan Feedermain is scheduled in late 2017.

Construction commenced on standby power upgrades to
Ellesmere Pumping Station

In May 2016, construction commenced on the Toronto cost-shared project to add nine megawatts of standby power generators at Ellesmere Pumping Station located at Ellesmere Road and Nielson Road in Scarborough. This pumping station is a key east-end water transmission feed from City of Toronto to York Region, transferring water from the Horgan Water Treatment Plant at Lake Ontario to the Milliken Pumping Station at 14th Avenue and Kennedy Road in Markham. Ellesmere Pumping Station is the only facility in this link that does not currently have standby power capability. Commissioning is scheduled for Q4 2018.

These projects support the goals of the Strategic Plan and the
Regional Official Plan

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

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benefit is being optimized in accordance with the goals of the *2015-2019 Strategic Plan* under the objectives:

- Optimizing critical infrastructure systems capacity
- Encouraging growth along Regional Centres and Corridors

5. Financial Considerations

\$2.3 billion capital infrastructure works in the 2016 Environmental Services Budget for next 10 years

The 2016 Environmental Services Budget and 10 Year Capital Plan includes \$2.3 billion in water, wastewater, waste management, forestry and energy projects. Of the total \$2.3 billion of capital works in the proposed program, approximately \$1.3 billion is for growth in the water and wastewater program, \$1 billion for rehabilitation and replacement in the water and wastewater program and \$65 million for waste management, forestry and energy projects.

The 2016 Multi-year Capital Spending Authority for Environmental Services infrastructure projects is \$969 million. Additional Capital Spending Authority will be requested annually through the budget process as projects progress and specific requirements are established.

Growth capital work is debt financed with debt repaid through development charges, and asset management work is paid through rate. Waste management, forestry and energy are primarily paid through tax levy revenues. As part of the budget process, associated funding and resource requirements for operations and asset management of expanded and complex infrastructure systems are areas of focus informing financial implications of servicing growth. A summary of infrastructure project costs, based on the 2016 approved budget is provided in Table 2. Costs are subject to change based on project progression in the 2017 proposed budget.

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Table 2
Cost Estimates for Key Infrastructure Projects

Project	Estimated Total Project Cost	Remaining Estimated Cost in 10 Year Plan	Commissioning Date
Queensville/Holland Landing/Sharon York Durham Sewage System Connection	\$112.3M	\$10.5M	Commissioned
Southeast Collector Trunk Sewer	\$572.9M	\$9.9M	Commissioned
Duffin Creek Plant Stages 1 and 2 Upgrades	\$245.4M	\$114.2M	2017
Duffin Creek Plant Outfall – Diffusers	\$18.1M	\$14.2M	2021
Duffin Creek Plant Outfall – Future Expansion	\$170.0M	\$12.6M	2028*
Leslie Street Sewage Pumping Station Upgrades	\$30.9M	\$3.3M	New Pumps Commissioned
Upper York Sewage Solutions	\$625.8M	\$531.2M	2024*
Kennedy Road Watermain	\$76.1M	\$5.9M	Commissioned
East Vaughan Pumping Station	\$50.5M	\$10.6M	2016
West Vaughan Sewage Servicing	\$302.0M	\$84.4M	2028*
Northeast Vaughan Servicing	\$167.4M	\$52.6M	2028*
Richmond Hill/Langstaff Gateway Regional Centre Servicing	\$29.0M	\$27.6M	2025*
Sutton Water Resource Recovery Facility Expansion	\$40.7M	\$2.0M	2033*
City of Toronto Cost Shared Projects	\$458.3M	\$100.1M	Varies
Peel Region Water Cost Shared Projects	\$618.1M	\$66.6M	Varies
Peel Region Wastewater Cost Shared Projects	\$95.3M	\$33.7M	Varies
Estimated Total Project Cost and Remaining Budget in 10 Year Plan	\$3,612.8M	\$1,079.4M	

*Timing to be confirmed by ongoing monitoring

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Managing the longevity of existing infrastructure through comprehensive asset management

One of Environmental Services key strategic goals involves proactively managing and maintaining infrastructure to ensure short- and long-term reliability and compliance with all regulatory requirements. Accordingly, the Asset Management Program manages the life cycle of Environmental Services multi-billion dollar asset base and identifies non-growth-related projects for infrastructure rehabilitation and replacement. The Asset Management Program identifies approximately \$1 billion over the next 10 years. Some of the key projects are the Duffin Creek Incinerator Replacement, Southeast Collector Rehabilitation, Supervisory Control and Data Acquisition Communication Network Upgrades and Elevated Water Tank improvements. The Asset Management Program coupled with Waste Management, Natural Heritage and Forestry and Energy Management programs areas are a key part of the 10 Year Plan. A breakdown of estimated costs for these projects is provided in Table 3.

Table 3
Cost Estimates for Environmental Services 10 Year Capital Plan

Project	Remaining Estimated Cost in 10 Year Plan (2016 - 2025)
Key Infrastructure Projects (as detailed in Table 2)	\$1,079.4M
Other Water Growth Capital Projects	\$102.1M
Other Wastewater Growth Capital Projects	\$84.5M
Water Rehabilitation/Replacement	\$325.5M
Wastewater Rehabilitation/Replacement	\$664.9M
Waste Management	\$36.7M
Natural Heritage and Forestry	\$16.3M
Energy Management	\$12.4M
TOTAL	\$2,321.8M

Development charge collections need to increase beyond forecasts to move growth-related capital projects forward

Growth-related wastewater projects are funded by development charges. Development charge collections in 2015 were \$258.3 million. The Region's 2016 Capital Plan is predicated on the Region achieving development charge collection of \$322 million for 2016, and rising development charge collections beyond 2016. Moving projects forward in the 2016 Capital Plan would require the Region to collect significantly more development charges than forecasted over a sustained

period of time. To date, development charge collections have not exceeded the 2016 forecast. Currently, no additional project deferrals or further adjustments to existing projects have been planned.

6. Local Municipal Impact

York Region continues to work closely with local municipalities affected by capital works program to facilitate 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 mitigated where possible and capacity made available. Staff continues to collaborate with local municipalities to ensure impacts to planned community growth are minimized to the extent possible considering any capacity constraints created by the current implementation schedule for these projects. Reporting by local municipalities will continue to assist in monitoring system capacity. A collaborative approach with local municipalities will continue to assist with reporting on their local capacity allocation in a timely manner to both support Regional capacity assignment and ensure fiscal sustainability. A capacity assignment report was endorsed by Council in [September 2016](#).

Staff from all local municipalities and Region will continue to work together on monitoring development applications and use of servicing capacity

Reporting by local municipalities on allocation tracking provides a clear understanding of available existing capacity and timing for anticipated servicing needs for planned and approved growth. In March 2016, the Region updated the Inflow and Infiltration Reduction Strategy and the Long Term Water Conservation Strategy. Coordinated efforts with local municipalities to implement these two strategies will continue, thereby better managing system risk while continuing to increase available system capacity. These efforts are mandated by the province

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through the Southeast Collector Individual Environmental Assessment conditions of approval.

7. Conclusion

\$2.3 billion Proposed 10 Year Capital Plan includes required projects for current and future capacity assignments

This report provides Council with a status of priority projects within the 10 Year Capital Plan and its relationship to timing of servicing capacity. Continuing to monitor these projects will ensure that both capacity allocation and granting of planning approvals are synchronized with project delivery schedules. The 2016 10 Year Capital Plan includes critical projects required to provide capacity to service future growth.

The Region will continue to monitor development charge collections. Also, where appropriate, the Region will continue to look for other funding sources.

For more information on this report, please contact Mike Rabeau, Director, Capital Planning and Delivery, Environmental Services at ext. 75157.

The Senior Management Group has reviewed this report.

October 19, 2016

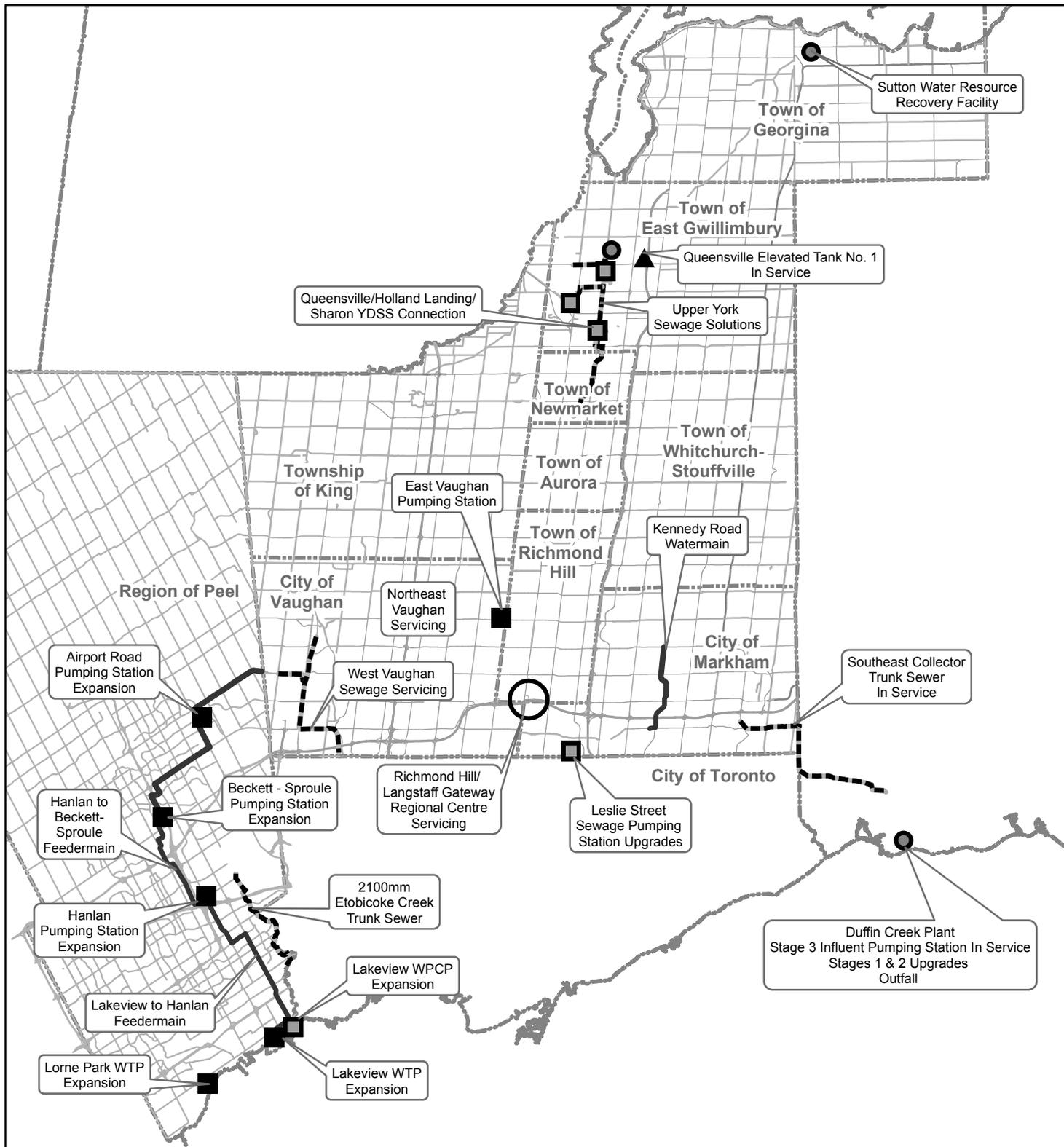
Attachments (2)

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Accessible formats or communication supports are available upon request

Status of Key Infrastructure Projects

Project Name	Description	Current Status	Expected Project Commissioning Date
Queensville/Holland Landing/Sharon Servicing	Queensville Elevated Tank No. 1	In Service	
	New pumping stations and linear works	In Service	
Southeast Collector Trunk Sewer	Twinning of existing trunk sewer to provide additional conveyance capacity	In Service	
Duffin Creek Plant Stages 1 & 2 Upgrades	Upgrade and refurbish existing Stages 1 & 2	Construction	Q4 2017 (last reported: Q4 2017)
Duffin Creek Plant Outfall	EA to address diffusion requirements and increase outfall capacity to 630MLD	Class Environmental Assessment	Q1 2018 (last reported: Q1 2017)
Leslie Street Sewage Pumping Station Upgrades	Upgrades electrical and standby power improvements, and four refurbished pumps	Construction	Q1 2018 (last reported: Q2 2017)
	Two new pumps	In Service	
Upper York Sewage Solutions	Sanitary servicing solution to accommodate growth in Holland Landing, Queensville, Sharon, and parts of Aurora and Newmarket	Detailed Design	2024 (last reported: 2024)
Kennedy Road Watermain	Watermain along Kennedy Road from Milliken Pumping Station to Major Mackenzie Drive	In Service	
East Vaughan Pumping Station	New pumping station to pump water from Pressure District (PD) 6 to PD7 and PD8	In Commissioning	Q3 2016 (last reported Q3 2016)
West Vaughan Sewage Servicing	Sanitary servicing solution to accommodate growth in West Vaughan area	Detailed Design	2028 (last reported: 2028)
Northeast Vaughan Servicing	Water and wastewater servicing solution to accommodate growth in East Vaughan	Class Environmental Assessment	2028 (last reported: 2028)
Richmond Hill/Langstaff Gateway Regional Centre	Water and wastewater servicing solution to accommodate growth	Detailed Design	2025 (last reported: 2025)
Sutton Water Resource Recovery Expansion	Expansion of existing facility to accommodate growth in Sutton	Class Environmental Assessment	2033 (last reported: 2033)

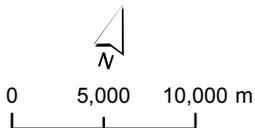


LOCATION PLAN Key Infrastructure Projects

Environmental Services Water and Wastewater
November 3, 2016

Produced by: The Regional Municipality of York
Infrastructure Asset Management Branch, Environmental Services Department April, 2016

Data Sources:
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Legend

-  Priority Water Projects
-  Priority Wastewater Projects
-  Priority Wastewater Projects
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