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WATER AND WASTEWATER INFRASTRUCTURE STATUS REPORT

The Transportation and Works Committee recommends the adoption of the recommendations contained in the following report dated June 4, 2009, from the Commissioner of Environmental Services.

1. RECOMMENDATIONS

It is recommended that:

1. Environmental Services staff provide regular updates on priority projects linked to the release of additional capacity.
2. Staff continue discussions with the local municipalities with respect to infrastructure completion dates and various planning approvals.
3. The Regional Clerk circulate this report to the Clerks of the municipalities of Vaughan, Markham, Richmond Hill, Aurora, Newmarket, East Gwillimbury, King and Whitchurch-Stouffville.

2. PURPOSE

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

3. BACKGROUND

Capacity assigned to local municipalities subject to completion of key infrastructure projects

Regional Council, at its meeting on June 23, 2005, granted release of additional servicing capacity to accommodate up to 970,000 people to local municipalities serviced by the York Durham Sewage System (YDSS). The 2005 allocation is subject to completion of certain infrastructure projects referred as triggers and is expected to meet Regional growth target to 2010.

Subsequently, Regional Council, at its meeting on November 15, 2007 and December 18, 2008, assigned a combined additional 72,000 people to local municipalities serviced by

the YDSS. The allocation is also subject to infrastructure triggers and is intended to meet the Regional growth target for 2011 and 2012.

This report is a regular update to Regional Council, with the last update on March 26, 2009. The next status report is scheduled for October 2009.

4. ANALYSIS AND OPTIONS

4.1 ALLOCATION TRIGGERS

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

Projects identified as triggers for servicing 970,000 people and an additional 72,000 people are summarized in *Attachment 1* (Tables 1 and 2). These trigger tables are used to assist the Region in better controlling two key steps in the planning approvals process: 1) Pre-sales of homes and 2) Final plan approvals. Capacity trigger control is required to avoid premature occupancies of new dwellings in advance of availability of the required 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. High-density development may move to final approval if the required infrastructure is within eighteen months at the discretion of the local municipality in accordance with the Regional policy adopted in September 2008.

4.2 KEY HIGHLIGHTS OF PROJECTS STATUS

Highlights of key priority projects and implications to planning approvals are provided in this section. Additional details of the status of these projects are provided in *Attachment 1* and the location map is provided in *Attachment 2*.

Projects required to service the 2005 allocation of 970,000 people are mostly completed

Projects required to service the 2005 allocation (see Table 1, *Attachment 1*) are mostly completed, with the exception of King City water supply, Langstaff trunk sewer and Queensville/Holland Landing/Sharon servicing. Recently completed projects include Bathurst trunk sewer and Stouffville water supply.

The King City water supply project comprising a new elevated tank and connection to the York Water System is expected to be completed in summer of 2010.

Queensville/Holland Landing/Sharon servicing project is subject to the execution of a prepaid development charge credit agreement. Execution of the agreement was delayed due to developers' financing issues. Recently, the Region has made an application to the Federal and Provincial Infrastructure Stimulus Fund. Construction completion may be advanced to March 2011 subject to securement of the stimulus fund. The Queensville water storage tank is scheduled for completion in July 2010.

As a result, allocation trigger conditions for final plan approval related to the assigned capacity of 970,000 people have been met for Vaughan, Markham, Richmond Hill, Aurora, Newmarket and Green Lane West area in East Gwillimbury. Final plan approval for King City is projected to occur in the fourth quarter of 2009 and for the Queensville, Holland Landing and Sharon will be subject to the timing of the prepaid development charge credit agreement.

Projects to service additional allocation of 72,000 people mostly expected to be completed by 2010

Projects required to service an additional 72,000 people beyond the June 2005 allocation of 970,000 people are presented in Table 2 of *Attachment 1*.

Since the last report update, Duffin Creek Water Pollution Control Plant (WPCP) remains on schedule for completion in December 2010. The two critical contracts required to provide additional capacity are the liquid treatment facility contract which is 40% completed (last reported: 30%) and preliminary treatment facility contract which is approximately 25% completed (last reported: 15%).

The YDSS flow control structure project was tendered in April 2009 and is expected to be completed by March 2010. The Leslie Street watermain from the Aurora East pumping station to just north of Mulock Drive is expected to be complete by mid 2010. The Richmond Hill second water storage facility at Bloomington Road is scheduled to be tendered in summer of 2009 for completion by December 2010.

With these projects on schedule for completion by the end of 2010, allocation trigger conditions will generally be met in December 2009 for presales and June 2010 for final plan approval, except for Queensville, Holland Landing and Sharon where additional trigger infrastructure is required, as discussed above.

Major projects required to service beyond the current capacity assignment include Southeast Collector and Upper York Sewage Solutions

Major projects that will provide additional capacities beyond expected growth in 2012 included Upper York Sewage Solutions (UYSS) and the Southeast Collector Sewer. Additional details on these projects are shown in Table 3 of *Attachment 1*.

Submission of the Terms of Reference for the Upper York Sewage Solutions is expected by November 2009 and the Individual Environmental Assessment (IEA) documents by December 2012. Subject to the IEA outcome and approval, the project is anticipated to be completed in 2016.

Since the last report, York Region requested a “time out” from the Ministry of the Environment on the review of the Individual Environmental Assessment (IEA) submission to consider alternatives, following a resolution passed by Region of Durham Council to relocate the proposed Odour Control Facility (OCF). Alternate sites have been identified and are being evaluated and refined. Following completion of the required consultation process on the new alternative, the current IEA submission will be amended to reflect the new location of the OCF and the outcome of the public consultation process.

In the meantime, design work is proceeding in preparation for the tunnel construction tender. Work has also proceeded on the procurement of four tunnel boring machines (TBMs). A Request for Qualification was issued in May 2009 to companies interested in supplying the segmental liner materials for the tunnel construction. A tender for tunnel material is expected to be issued later this year to allow sufficient time for the successful company to prepare a precast plant with the necessary production volume to meet the needs of the four TBMs. Preparations are also underway to call tenders over the summer of 2009 for construction of haul roads to move materials from the tunnelling operation to a suitable disposal site.

With MOE approval of the IEA expected in late 2009 and the works currently being taken for the preparation of tunnel construction, it is expected that the new Southeast Collector will be completed by the end of 2012.

At its meeting of September 27, 2007, Regional Council authorized staff to undertake a negotiation in principle with the City of Edmonton to provide construction services for the new Southeast Collector. For the past 18 months, Regional staff has had several meetings with City of Edmonton staff. While it is recognized that the City of Edmonton has the necessary expertise to undertake a portion of construction work, staff is not recommending a sole source assignment. Instead, a pre-qualification process is currently underway to short list potential contractors for this project. The City of Edmonton has indicated a desire to participate in the pre-qualification process and is seeking an amendment to the Alberta Municipal Act, which currently precludes them from engaging in construction works in Ontario.

5. FINANCIAL IMPLICATIONS

A summary of the costs of priority infrastructure projects is provided in Table 4. The total cost of infrastructure projects included in this update is equal to \$1.57 billion. Estimated expenditures for these projects, between 2009 and 2013, total \$1 billion, representing 47% of the total water and wastewater capital expenditures for the same period.

The Region's estimated share of major Toronto and Peel projects included in this report is approximately \$425 million. Estimated expenditures for these projects, between 2009 and 2013, total \$360 million, representing 16% of the total water and wastewater capital expenditures for the same period.

Table 4
Cost Estimates Key Infrastructure Projects

Project	Project Cost Estimates (\$)
Queensville Elevated Tank	\$8,600,000
Queensville/Holland Landing/Sharon Servicing	\$69,000,000
King City Water Supply	\$15,600,000
Langstaff Trunk Sewer	\$44,832,000
Stouffville Water Supply	\$7,700,000
Duffin Creek Water Pollution Control Plant*	**\$440,000,000
YDSS Flow Control*	\$4,000,000
Leslie St. Watermain (Wellington St. to Davis Dr.)	\$13,500,000
Richmond Hill 2 nd PD9 Elevated Tank	\$10,500,000
Toronto East Water Supply	\$24,000,000
Southeast Collector*	\$543,000,000
Upper York Sewage Solutions	\$390,000,000
Total	\$1,570,000,000

*Critical project: Delay on these projects will result in unacceptable risk of overflow

**Durham share not included

6. LOCAL MUNICIPAL IMPACT

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

The priority projects as well as the Toronto and Peel cost shared projects reviewed in this report are crucial to providing timely servicing capacity to the 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.

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 will be continually monitored to ensure that the risk of delay is minimized and capacity will be available as planned. Staff will continue to work closely with the local

municipalities affected by this infrastructure program to ensure that impacts to planned community growth are minimized to the extent possible considering constraints created by these projects.

7. CONCLUSION

This report provides Regional 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 the additional capacity needed to service projected growth in the Region. Continuing to monitor these projects will ensure that capacity allocation and granting of planning approvals are synchronized with the project schedules.

For more information on this report, please contact Daniel Kostopoulos Director, Capital Planning and Delivery, Environmental Services at extension 5070.

The Senior Management Group has reviewed this report.

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

Table 1 – Servicing Requirements by Municipality / Status of Infrastructure Trigger Projects
To Service up to 970,000 People in the YDSS System
As of June 2009

Municipality	Project Name	Description	Current Status	Expected Completion Date	Anticipated Presales Timing	Anticipated Registration Timing
East Gwillimbury (for areas requiring YDSS connection)	• Queensville/Holland Landing/Sharon Servicing	Provision of sanitary servicing through extension of the YDSS	Detailed design underway	March 2011 (subject to development charge credit agreement and infrastructure funding)	subject to development charge credit agreement and infrastructure funding	subject to development charge credit agreement and infrastructure funding
	• Queensville Elevated Tank	Construction of a 7.5 ML elevated tank	Tender (Q2-2009)	July 2010 (last reported: July 2010)		
Township of King	• King City Water Supply	King City connection to York Water System	Tender (late June 2009)	Summer 2010 (last reported: Summer 2010)	Q2-2009	Q4-2009
	• King City Elevated Tank	Construction of a 2.74 ML elevated tank	Tender (May 2009)			
Vaughan (for areas requiring Langstaff sewer)	• Langstaff Trunk Sewer	Sewer required to provide additional capacity to Vaughan	Construction underway	September 2009 (Last reported: Fall 2009)	Oct 2007	Sep 2008
Whitchurch - Stouffville	• Stouffville Water Supply	Stouffville connection main to York Water System and pumping station.	Completed	May 2009 (completed)	Feb 2008	Sep 2008

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

2) Projects completed and removed from the table since last report: Aurora EQ Tank and Bathurst Collector Sewer

Table 2 – Servicing Requirements by Municipality / Status of Infrastructure Trigger Projects

**To Service Additional Population of 72,000 beyond the June 2005 Allocation served by the YDSS
(in addition to all existing servicing requirements as outlined in the June 23, 2005
Council Report for servicing 970,000 persons)**

As of June 2009

Municipality	Project Name	Description	Current Status	Expected Completion Date	Anticipated Presales Timing	Anticipated Registration Timing
Aurora, East Gwillimbury, Markham, Newmarket, Richmond Hill, King Vaughan, Stouffville	- Duffin Creek WPCP - YDSS Flow Control Structures	Expansion to increase plant capacity to 630 ML/day subject to completion of future outfall works Attenuation of peak wastewater flows to allow additional capacity prior to completion of Southeast Collector Sewer	Construction underway Tendered (April 2009)	December 2010 (last reported: December 2010) March 2010 (last reported: December 2009)	Q4 – 2009	Q2 – 2010
Aurora (Aurora East. only)	Leslie/Wellington Street Watermain	Watermain from Aurora East pumping station on Wellington St. to Leslie St., just north of Mulock Drive	Detailed design underway. Tender (Sep 2009)	June 2010 (last reported: March 2010)	Q4 – 2009	Q2 – 2010
Richmond Hill (PD9 only)	PD9 Elevated Tank No. 2	Elevated Tank in the Richmond Hill Pressure District 9 service area	Detailed design completed. Tender (Late June 2009)	December 2010 (last reported: December 2010)	Q4 – 2009	Q2 – 2010
East Gwillimbury	Queensville/Holland Landing/Sharon Servicing	Provision of sanitary servicing through extension of the YDSS	Detailed Design	March 2011 (subject to development charge credit agreement and infrastructure funding)	subject to development charge credit agreement and infrastructure funding	subject to development charge credit agreement and infrastructure funding

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

2) Projects completed and removed from the table since last report: none

Table 3 – Status of Other Key Infrastructure Projects**As of June 2009**

Project Name	Description	Current Status	Expected Completion Date
Southeast Collector Sewer	Twinning of existing trunk sewer to provide additional capacity	Individual Environmental Assessment. Re-submission of EA documents in late June 09. Expected MOE approval in Fall 2009	December 2012 (last reported: December 2012)
Upper York Sewage Solutions	Sanitary servicing solution to accommodate growth in Holland Landing, Queensville, Sharon and parts of Aurora and Newmarket	Preparation of Terms of Reference for Individual Environmental Assessment underway, expected to be submitted in November 2009	2016
Toronto East Water Supply	Watermain along Kennedy Road from Milliken Pumping Station to Major Mackenzie Drive	Detailed Design. Tender (December 2009)	December 2010 (last reported: December 2010)

