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WATER AND WASTEWATER CAPACITY ASSIGNMENT TO SUPPORT APPROVED GROWTH

The Environmental Services Committee recommends:

- 1. Receipt of the presentation by Daniel Kostopoulos, Director, Capital Planning and Delivery and Heather Konefat, Director, Community Planning; and**
- 2. Adoption of the recommendations contained in the following report dated March 21, 2012, from the Commissioner of Environmental Services and the Commissioner of Transportation and Community Planning with Recommendation 2 amended to read as follows:**
 - 2. Staff report back to Council in 2013 with recommendations regarding assignment of additional servicing capacity with the objective of maintaining a minimum 4-year supply to each local municipality as well as a water and wastewater capacity assignment strategy to support intensification in Centres and Corridors.**

1. RECOMMENDATIONS

It is recommended that:

1. Post-2013 water and wastewater servicing capacity for 38,355 people be confirmed for local municipalities as outlined in *Attachment 1*, including:
 - a) capacity for an additional 20,655 people for new growth within the York Durham Sewage System service area
 - b) capacity for an additional 17,700 people for new growth within the areas serviced by stand-alone systemssubject to localized infrastructure triggers set out in *Attachments 2 and 3*.
2. Staff report back to Council in 2013 with recommendations regarding assignment of additional servicing capacity with the objective of maintaining a minimum 4-year supply to each local municipality.
3. The Clerk circulate this report to the Clerks of the local municipalities.

2. PURPOSE

This report provides an overview of the strategy for post-2013 assignment of water and wastewater capacity and recommends current capacity assignments of 20,655 people to local municipalities serviced by York Durham Sewage System, and 17,700 people for areas serviced by stand-alone systems.

3. BACKGROUND

Capacity assignments to service planned growth have been provided consistently to local municipalities to maintain 3+ year supply

Since 2005, the Region has assigned servicing capacity to local municipalities and consistently targeted a minimum 3-year supply. At the same time, Council established key infrastructure triggers, ensuring pre-sales of homes does not occur prior to there being certainty of water/wastewater servicing capacity. Reports are regularly brought to Council to provide an update on the status of these key infrastructure trigger projects that are required to service approved growth. Development approvals have proceeded in accordance with Official Plans, focusing on the priorities of intensification, growth in Centres and Corridors, community completion and sustainable development.

Council adopted principles to ensure a balanced approach to achieve growth within a sustainable infrastructure delivery model

On April 22, 2010, Council adopted the following “Principles for Providing Future Infrastructure”, which provides the basis for servicing capacity assignment:

- Infrastructure triggers and thresholds be set at both Regional and Local levels to reflect capacity requirements
- Phasing and staging plans be prepared for all new communities and infrastructure needs be identified to support each phase or stage
- Implementation be at block plan/community level with appropriate planning tools
- Supply of 3-7 years of servicing capacity be maintained for each local municipality based on forecasts (consistent with the Provincial Policy Statement, 2005)
- Provide for appropriate infrastructure to support managed intensification in keeping with Regional Official Plan targets, as well as greenfield development
- Regular monitoring and assessment
- More efficient use of infrastructure through inflow and infiltration reduction and higher standards for buildings that reduce water use

\$1.8 billion infrastructure investment provides at least three-years of growth capacity prior to completion of the new Southeast Collector Sewer

Over the past five years, Council has approved \$1.8 billion for the delivery of water and wastewater infrastructure projects to support and maintain a 3-7 year supply of servicing capacity.

Annual capacity assignment to local municipalities from 2011 to 2013 was 35,564 people for the York Durham Sewage System service area, which is higher than the recent 5 year average annual growth rate of approximately 26,000 people. This provides enough Region-wide capacity to meet the 2016 Regional Official Plan forecast. However, each municipality's multi-year supply varies depending upon the rate at which development is built. Supplying capacity above forecast provides flexibility in the planning and development approvals process for local municipalities to grow their communities. This approach enables some local municipalities to accommodate growth faster than forecast (realized mainly in Vaughan and Markham).

The Region's ability to fund capital infrastructure projects depends on Region-wide development charge revenues keeping pace with capital expenditures

Development charge revenues are directly dependent upon the volume of building permits issued by local municipalities. Region-wide development charge revenues during the five year period of 2007-2011 were lower than forecasted.

Delivery of Regional water and wastewater infrastructure currently provides servicing capacity for growth of over 113,000 persons and meets Region-wide 2016 Official Plan growth forecast

The York Durham Sewage System, including the diversion to Peel, provides wastewater servicing for approximately 95% of York Region residents. The remaining 5% of the Region is serviced by separate stand-alone systems located in Keswick, Sutton, Nobleton, Schomberg, Ballantrae, Kleinburg and Mount Albert.

In the past five years, approximately \$1.8 billion has been invested in the timely delivery of water and wastewater infrastructure expansion across the Region, including cost shared projects with Toronto and Peel. For example, \$586 million was invested in upgrading the Duffin Creek Water Pollution Control Plant and was successfully commissioned on schedule in 2010. This large investment provides increased treatment capacity to service new growth in York Region.

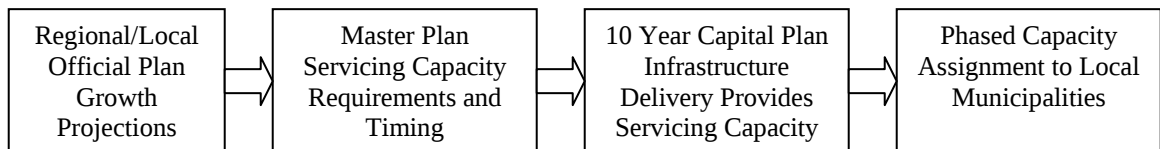
The Region has invested \$220 million in the past five years, to expand water and wastewater infrastructure in several communities serviced through stand-alone systems across York Region, including Nobleton, Kleinburg, Mt. Albert, Schomberg and Keswick. Currently there is an assigned and un-built person capacity of over 13,000 in

the stand-alone systems, which will be expanded further by 17,700 person capacity with completion of capital projects in 2013 as shown in *Attachment 1*.

The Region's ability to continue sustainably funding capital works requires a balance between capacity assignment, capital delivery, and most importantly, financial viability. The Region's Capital Plan is based on expending its limited financial resources to deliver servicing capacity where it is needed most. Recovery of this financial investment is underpinned by the efforts of local municipalities to implement and enforce "use it or redistribute it" allocation policies.

The linkage between Official Plans, infrastructure delivery and capacity assignment processes is outlined in Figure 1 below. There are a number of steps, from the Regional Official Plan through to the development of Master Plans, Capital Plans, and ultimately, the assignment of servicing capacity that is made available through delivery of capital projects.

Figure 1
Approved Growth Projections linked to Phased Capacity Assignment



Based on growth over the past five years (i.e. the average annual growth rate realized through new development in each municipality between 2007 and 2011), the currently available capacity of over 100,000 persons in the York Durham Sewage System service area and 13,000 persons in stand-alone systems accommodate at least three years of growth.

Post-2013 York Durham Sewage System service capacity is contingent on completing the new Southeast Collector Sewer

The current major capacity constraint in the York Durham Sewage System service area is in the existing Southeast Collector Sewer. This capacity constraint will be addressed by completing the new Southeast Collector Sewer. Post-2013 capacity assignment is contingent on completion of this new Southeast Collector Sewer, scheduled for commissioning in late 2014.

4. ANALYSIS AND OPTIONS

There is a need to balance capacity use in a shared York Durham Sewage System amongst the eight municipalities (each at different stages of community building) with the Region's capital delivery and financial capacity

To address the shared challenge, it becomes increasingly important that the Region and local municipalities provide servicing capacity to the right place at the right time so it can be efficiently used. The proposed capacity assignment is focused on ensuring each municipality has a minimum four-year supply. An additional capacity assignment will be proposed in 2013 with the objective of achieving planning principles and maintaining a minimum four-year supply. Monitoring the various planning and building stages throughout the Region will provide the greatest opportunity to accommodate growth and recapture development charges. Table 1 illustrates the proposed planned release of capacity in the York Durham Sewage System and stand-alone systems across the Region.

Table 1
Post-2013 Water and Wastewater Servicing Capacity

	Population
York Durham Sewage System Service Area (post Southeast Collector)	20,655
Stand Alone Service Area Systems	17,700
Servicing Capacity Assignment	38,355

In accordance with current Regional and local municipal official plans, all local municipalities have committed to water conservation initiatives. Accordingly, to meet the shared objectives of the Region and the local municipalities, and to comply with Ministry of the Environment approval conditions on the new Southeast Collector, new developments serviced through this and future capacity assignments should achieve at least 10% water conservation.

The post-2013 servicing capacity assignment is targeted to ensure that each municipality has a minimum four year supply

The distribution of servicing capacity has been updated to meet the demonstrated growth in each municipality. Based on previous assignments of capacity and subsequent building activity in each local municipality, it is evident that some municipalities are currently falling below a four-year supply.

It is recommended that municipalities with less than a four-year supply be provided additional capacity assignment as shown in *Attachment 1* for a total assignment in the YDSS for 20,655 people. With the proposed assignment, all local municipalities will have adequate servicing capacity to accommodate growth to the beginning of 2016, based on growth rates from the last five years.

Additional servicing capacity will be recommended in 2013 with the objective of maintaining a minimum four year supply

Staff plan to report to Council in 2013 with recommendations for additional capacity assignment. Additional capacity will be distributed to the local municipalities to maintain the objective of achieving a minimum four-year supply of capacity. Any capacity remaining after the four-year minimum will be distributed based on the principles set out in this report, including intensification in Centres and Corridors.

Capacity use should be monitored given its direct linkage to development charge revenues

Use of water and wastewater capacity will be closely monitored collaboratively with local municipalities. Regional staff will report back to Council annually regarding progress of capacity use by local municipalities and the need for additional assignment. In anticipation of 2013 additional capacity assignment, staff will be seeking updates from all local municipalities detailing capacity use, as of December 31, 2012.

It is essential to establish key objectives to guide the phased distribution of capacity to the eight local municipalities serviced by York Durham Sewage System to maintain a sustainable balance between growth management, capital delivery and financial sustainability. It is recommended that priority be given to those municipalities with imminent capacity needs. Actual growth rates of each municipality will be closely monitored and considered in conjunction with the amount of assigned and un-built capacity in determining future distribution of additional servicing capacity. The starting point for subsequent capacity release will continue to be the growth objectives of both the Regional Official Plan and the Local Official Plans. Monitoring of capacity allocation and use will play an increasingly important role given its direct linkage to required development charge revenues.

Communities serviced by stand-alone systems have adequate capacity

Additional capacity of 16,000 people will be made available by the Keswick Water Pollution Control Plant expansion and an additional capacity of 1,700 people made available by the Nobleton Water Supply expansion in 2013, for a total of 17,700 as shown in *Attachment 1*. Combined with the 13,080 existing available capacity, a total of 30,780 person capacity will be available in communities serviced by stand-alone systems.

Local municipalities have committed to reduction of inflow and infiltration and water conservation

Efficient use of infrastructure is essential in achieving a sustainable state through reducing consumption, reducing inflow and infiltration in the sanitary system, and ensuring the servicing capacity is used in a timely manner. Key components of achieving increased efficiencies include:

- Broader application of best practices applied in some municipalities on more efficient matching of capacity assignment with development that is “shovel ready” through enforcement of “use it or redistribute it” allocation policies
- Continued reduction of inflow and infiltration through municipal and developer funded projects
- Continued reduction of water usage through sustainable development initiatives, including the establishment of new baseline standards, the review of existing sustainable development programs, and the establishment of new programs
- Continued implementation of the new sanitary sewer commissioning standards “*Sanitary Sewer System Inspection, Testing, and Acceptance Guidelines*” on all new local sewers.

Details of these components are further outlined in *Attachment 4*.

Additional capacity assignment to be recommended in 2013 should have increased emphasis on most recent municipal growth rates

The principles established in 2010 by Council are the basis for subsequent phases of capacity release. Future capacity assignments should place an increasing emphasis on intensification priorities (especially in Regional Centres and Corridors) and targeting at least a four year supply within each municipality based on actual municipal growth rates. Distribution of available capacity within the York Durham Sewage System should consider:

- The principles established in April 2010 for providing capacity
- Increasing priority of development charge recovery and capacity use by ensuring the capacity is in “the right place at the right time”
- Annual detailed monitoring that illustrates measurable steps in progress towards capacity use from development proposal to building permits
- Protecting for pre-paid development charge agreement obligations

There is an opportunity for better coordination of development information between the Region and local municipalities

Continued collaboration on development processes will ensure capacity is provided when needed and forecasted development charge revenues recovered within expected timeframes. Further sharing of data will help to better link development approval processes with efficient use of capacity. Regional staff will work with local municipal staff to establish a common base for enhanced information collection and a consistent method of tracking and reporting measurable steps in the development process including: development applications, site plans, subdivision draft and final plan approvals and building permits. This will be used as a basis for local municipalities to provide a detailed annual report to their Councils, as well as input to an annual report to Regional Council.

The Region and local municipalities have recently collaborated to build an “all pipes” sewage model. Continued information sharing of new and modified local infrastructure will provide the opportunity for more accurate hydraulic modelling of water and wastewater systems, which will maximize use of system capacity.

Maintaining the existing reserve for non-profit housing will ensure opportunities can be realized when funding is available

The Region previously set aside specific reserves for non-profit housing projects, as well as for the Holland Landing Lagoon conversion. The non-profit housing reserve has provided an opportunity for the Region to use grant funding as it became available for non-profit housing projects. The reserve and its use are outlined in *Attachment 5*. It is recommended that these reserves be maintained at existing levels.

Key infrastructure projects to support growth are underway and will address localized system constraints

After completing the Southeast Collector Sewer, the next major system capacity constraint is the Duffin Creek Water Pollution Control Plant outfall. The Environmental Assessment to address this system constraint is currently underway and any required construction work is expected to be completed by the end of 2016. The capacity assignment proposed in this report is not subject to completion of the Duffin Creek outfall.

In order to fully utilize additional capacity made available by the new Southeast Collector Sewer, the Region is undertaking a number of key projects to address localized system constraints. Development dependent on completion of these projects is subject to additional planning approval requirements, or more specifically, trigger conditions in the release of presales and final plan approval for low-rise units and building permits for high-rise units as summarized in *Attachment 2*. Setting infrastructure triggers and timing targets is consistent with the approach established in 2005 by Council.

Similarly, proposed capacity assignments described in this report for Keswick and Nobleton are subject to completion of the Keswick Water Pollution Control Plant and the Nobleton Water Supply projects. Trigger conditions in the release of presales and final plan approval are outlined in *Attachment 3*.

Link to Key Council-approved Plans

Managing capacity assignment in a sustainable manner is essential to ensure timely recovery of development charge revenues from recently completed water and wastewater capital projects. Proactive capacity management supports growth and aligns with the following 2011 to 2015 Regional Strategic Objectives:

- Continue to deliver and sustain critical infrastructure

- Continue to prioritize new capital infrastructure projects to support managed growth and optimize community benefits
- Practice sound fiscal management
- Identify and leverage capacity to complete build-out of developing communities and intensification in centres and corridors
- Continue to partner with all levels of government to facilitate delivery of environmentally-sustainable infrastructure

5. FINANCIAL IMPLICATIONS

Infrastructure investments to support approved growth are funded through collection of development charges

The Region's 10-Year Water and Wastewater Capital Plan (2012 to 2021) budgeted total expenditures of \$4.0 billion, of which over 90% of all projects are for infrastructure works to support new growth. These works are primarily funded by development charges. Capacity assignment enables growth to occur, and in turn, generates development charge revenue that is critical for funding the capital program.

To fund major infrastructure expansion over the last decade, the Region has taken on considerable debt. Currently, over 70% of Regional debt is driven by water and wastewater capital investment. To ensure that the Region can manage its debt and continue to support its capital delivery program in a sustainable manner, timely recovery of development charge revenue is paramount.

6. LOCAL MUNICIPAL IMPACT

Regional staff engaged with local municipalities on growth forecasts and objectives, capacity needs, continued inflow and infiltration reduction and water conservation efforts

During a series of consultation meetings between the Region and local municipalities over the past year, key points expressed by local municipal staff included:

- Recognition of different timeframes and process for high density developments needs to be included in the process
- Consideration should be taken with respect to absorption rates over different periods (i.e. 5 vs. 10 years) to better smooth development "highs and lows" when determining future capacity assignments
- Maintain adequate capacity to ensure subsequent capacity assignments are available to support local municipalities to plan and grow in a sustainable manner

- Limited capacity in the upper reaches of the existing York Durham Sewage System is a concern for Aurora, Newmarket and East Gwillimbury until the Upper York Sewage Solutions project is delivered (currently planned for 2018)
- Planning tools, such as holding provisions and the local servicing protocols are generally working well and the development industry has adapted to these processes

The Region and local municipalities continue to advance water conservation and inflow and infiltration strategies through effective working groups and developing of mutual goals. Building on these collaborative efforts, there is significant benefit for all ten municipalities to work in partnership to monitor capacity use and share consistent information to maximize the use of water and wastewater infrastructure.

7. CONCLUSION

Capacity assignment has been provided consistently in the past to local municipalities ensuring over a minimum 3 year supply is maintained for each municipality. This supply is in keeping with the principle of maintaining a 3-7 year serviced supply of land for housing as per Provincial Policy Statement.

To ensure the Region can manage its debt and support its capital delivery program, timely recovery of development charge revenue is paramount

In 2010, Council approved principles to ensure a balanced approach to achieving growth within a sustainable infrastructure delivery model and to guide future capacity assignments. This report recommends assignment of additional capacity for 20,655 people in the YDSS service area and for 17,700 people within the area serviced by stand-alone systems to ensure the objective of maintaining a minimum 4 year supply of servicing capacity to each local municipality. With this assignment, adequate servicing capacity is available to support growth of over 150,000 people region-wide approaching the overall Regional Official Plan forecast for 2018.

In 2013, additional servicing capacity assignment will be recommended. Distribution of this capacity will be recommended to Council in 2013, based on monitoring and the Council approved principles. Recovery of infrastructure costs through collection of development charge revenues will become increasingly important in this process.

Partnership between the Region and its local municipalities is vital for success, ensuring that resources are effectively employed to achieve these objectives.

For more information on this report, please contact Daniel Kostopoulos, Director of Capital Planning and Delivery at (905) 830-4444 Ext. 5070 or Heather Konefat, Director of Community Planning at Ext. 1501.

The Senior Management Group has reviewed this report.

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

Water and Wastewater Capacity Assignment to Support Growth

**Presentation to Environmental
Services Committee**

**Daniel Kostopoulos
and Heather Konefat**

April 11th, 2012

Water/Wastewater Servicing Capacity Assignment to Support Approved Growth

Overview

Objective is to assign new capacity to be available at the end of 2014 upon Southeast Collector completion

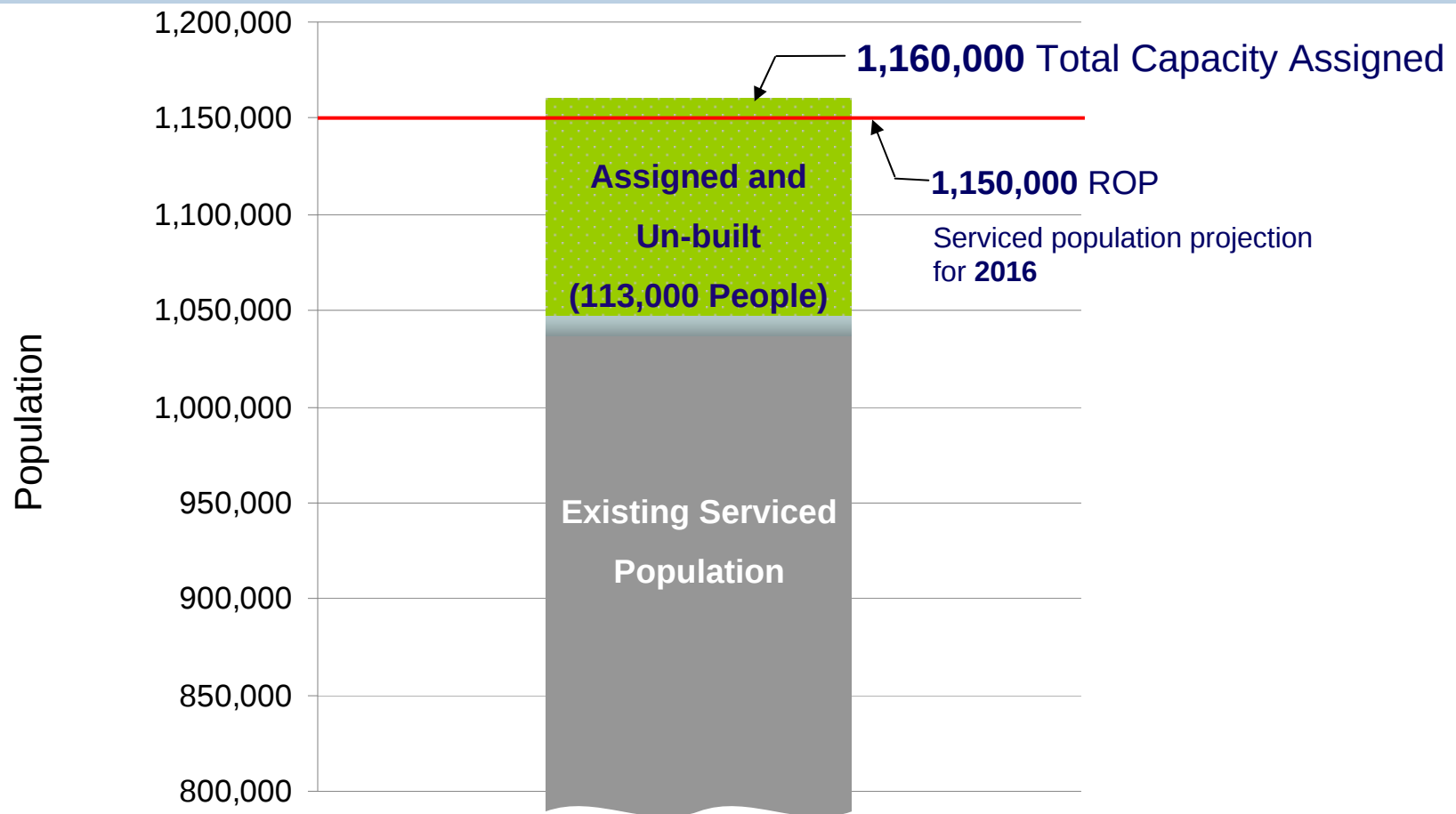
- ❑ Linkage between infrastructure investment and growth
- ❑ Rationale for new assignment of servicing capacity for each local municipality

How we assigned servicing capacity up to now

- ❑ A target of a minimum 3 year supply of capacity has consistently been maintained
- ❑ An infrastructure investment of \$1.8 billion in multiple projects has been made over last 5 years to provide this capacity
- ❑ Over last 5 years, annual assignments have exceeded actual growth:
 - ❑ 35,000 people assigned vs. 26,000 actual growth
- ❑ Current infrastructure provides for growth of over 113,000 persons Region-wide

Consultation and collaboration with local municipalities continue to be essential

Total Regional Capacity Assignment to Date (includes YDSS and Stand Alone Systems)



Existing assigned capacity achieves the Region-wide 2016 ROP growth target

Linkage Between Infrastructure and Growth

The Region's ability to fund capital infrastructure projects depends on Region-wide development charge revenues keeping pace with capital expenditures

- ❑ Region's 10-year water and wastewater capital plan has an additional \$3.6 B for infrastructure to support growth
- ❑ Region-wide development charge revenues must keep pace with capital expenditures

Timely recovery of development charges is paramount for the Region to manage its debt

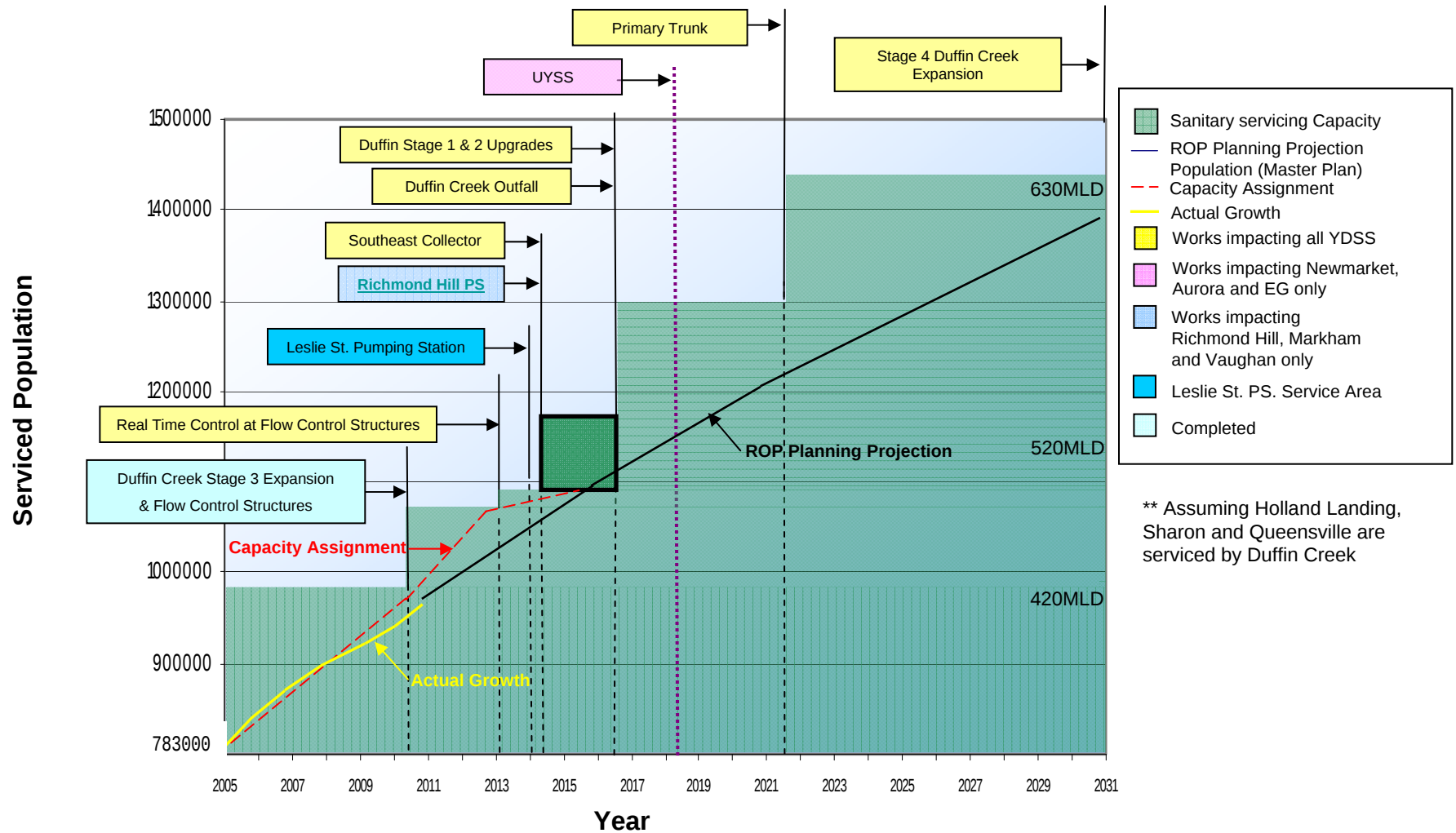
Ongoing Consultation and Collaboration

- ❑ Consultation with local municipal staff ongoing since mid 2011 – exchange of ideas and information
- ❑ Presentation to Finance and Administration Committee on April 5, 2012 – key points raised in discussion
 - ❑ Moving out of infrastructure constrained period - transition to ensure timely recovery of development charges to support capital program
 - ❑ Need to support approved planned growth including intensification
 - ❑ Municipalities have been carefully managing allocation
 - ❑ Inflow and infiltration pilot capacity commitments accommodated
 - ❑ Next year's assignment will include 2012 building activity – many municipalities on the cusp of new growth

Consistent approach to capacity assignment provides all municipalities with at least four years of supply

Key Infrastructure Capacity Triggers

YDSS Service Area**



Considerations for Moving Forward with Capacity Assignments

- ❑ Reflect Council approved Principles including:
 - ❑ Ongoing 3-7 year supply of capacity to move growth forward
 - ❑ Priority for intensification especially in Regional Centres and Corridors – where large transit investments have occurred
- ❑ Continued collaboration with local municipalities to achieve 10% water efficiency and inflow and infiltration reduction
- ❑ Monitor growth rates to ensure the capacity is in “the right place at the right time” and encourage a two-year “use it or redistribute it” approach
- ❑ Timely recovery of development charges to support water and wastewater infrastructure program

Region-wide development charge revenue needs to keep pace with capital expenditures

New Water and Wastewater Servicing Capacity: Proposed Immediate Assignment

New Water and Wastewater Servicing Capacity	
	Population
York Durham Sewage System Service Area*	20,655
Stand Alone Service Area Systems	17,700
Servicing Capacity Assignment	38,355

* Upon completion of the new Southeast Collector at the end of 2014

**Post-2013 capacity ensures a minimum four year supply
based on recent building activity in each municipality**

Proposed Capacity Assignment

Municipality	Service Area	Average Annual Growth Rate (2007-2011) (pop.)	Assigned and un-built capacity (pop.)		Post-2013 Capacity Assignment in YDSS Service Area (pop.) (A)	Capacity Assignment in Stand-alone Systems (pop.) (B)	Post-2013 Servicing Capacity (pop.) (A+B)	Years of capacity supply before/after proposed assignment (year)	
			YDSS	Stand-alone				Before	After
Aurora	Aurora	1,048	3,909		285		285	3.7	4.0
East Gwillimbury	YDSS	380	5895				As Per Agreement	>7.0	>7.0
	Mt. Albert	82		1700					
King	King City (YDSS)	164	1,705				1,700	>7.0	>7.0
	Nobleton	298				1,700			
	Schomberg			2,150					
Markham	Markham	8,201	24,603		8,200		8,200	3.0	4.0
Newmarket	Newmarket	1,366	6,423					4.7	4.7
Richmond Hill	Richmond Hill	3,587	24,964					6.9	6.9
Vaughan	YDSS	9,468	29,801		8,070		8,070		4.0
	Kleinburg			3,600					
Whitchurch-Stouffville	Stouffville (YDSS)	1,800***	3,052		4,100		4,100		4.0
	Ballantrae			830					
Georgina	Keswick	435				16,000	16,000	>7.0	>7.0
	Sutton			4,800					
	Total	26,829	100,352	13,080	20,655	17,700	38,355		

New Water and Wastewater Servicing Capacity Assignment beyond 38,355 will be recommended in 2013

- ❑ In 2013 additional capacity will be assigned to maintain a four year supply and meet growth principles
- ❑ Work collaboratively with each local municipality to monitor building activity
- ❑ Building activity in 2012 will help inform the 2013 capacity assignment

Additional servicing capacity will be recommended in 2013

Recommendations

- ❑ Post-2013 water and wastewater servicing capacity for 38,355 people be confirmed for local municipalities including:
 - ❑ Capacity for an additional 20,655 people for new growth within the York Durham Sewage System service area
 - ❑ Capacity for an additional 17,700 people for new growth within the areas serviced by stand-alone systems

Subject to localized infrastructure triggers

- ❑ Staff report back to Council in 2013 with recommendations regarding assignment of additional servicing capacity with the objective of maintaining a minimum 4-year supply to each local municipality
- ❑ The Clerk circulate report to Clerks of the local municipalities

Timely recovery of development charges is paramount for the Region to manage its debt

POST-2013 WATER AND WASTEWATER SERVICING CAPACITY ASSIGNMENT

Municipality	Service Area	Average Annual Growth Rate (2007-2011) (pop.)	Assigned and un-built capacity (pop.)		Post-2013 Capacity Assignment ☐ in YDSS Service Area (pop.) (A)	Capacity Assignment in Stand-alone Systems (pop.) (B)	Post-2013 Servicing Capacity (pop.) (A+B)	Years of capacity supply before/after proposed assignment (year)	
			YDSS	Stand-alone				Before	After
Aurora	Aurora	1,048	3,909		285		285	3.7	4.0
East Gwillimbury	YDSS	380	5895				0**	>7.0	>7.0
	Mt. Albert	82		1700					
King	King City (YDSS)	164	1,705				1,700	>7.0	>7.0
	Nobleton	298		2,150		1,700			
	Schomberg								
Markham	Markham	8,201	24,603		8,200		8,200	3.0	4.0
Newmarket	Newmarket	1,366	6,423					4.7	4.7
Richmond Hill	Richmond Hill	3,587	24,964					6.9	6.9
Vaughan	YDSS	9,468	29,801		8,070		8,070	3.1	4.0
	Kleinburg			3,600					
Whitchurch-Stouffville	Stouffville (YDSS)	1,800***	3,052		4,100		4,100	1.7	4.0
	Ballantrae			830					
Georgina	Keswick	435		4,800		16,000	16,000	>7.0	>7.0
	Sutton								
	Total	26,829	100,352	13,080	20,655	17,700	38,355		

* Subject to completion of Southeast Collector and localized infrastructure triggers.

** Additional capacity of 10,500 persons (in addition to existing assignment of 5,895 persons to date) is required to reserve for Development Charge Credit Agreement for Holland Landing/Queensville/Sharon for a total of 5,465 units

*** Based on proposed growth of 600 units each year

☐ Average annual growth rate based on recent 5-year building permits issued (2007 – 2011)

YDSS Capacity Assignment Trigger Table (Beyond 2013 Capacity Assignment for 20,655 People)

Municipality	Project Name / Trigger Conditions	Description	Current Status	Expected Completion Date	Anticipated Presales Timing	Anticipated Registration Timing
All municipalities serviced by YDSS	New Southeast Collector Sewer	New collector sewer to twin existing Southeast Collector	Construction	Q4 2014	Q1 2014	Q3 2014
Vaughan Markham Richmond Hill (PD7, 8 and 9 Service Areas only)	New West Richmond Hill Water Pumping Station	New pumping station near Bathurst Street and Elgin Mills Road to pump water from PD6 to PD7 and PD8	Detailed Design	Q4 2014	Q1 2014	Q3 2014
Vaughan Markham Richmond Hill (Leslie St. Pumping Station Service Area only)**	Leslie Street Pumping Station Upgrades	Upgrades include pump replacement, electrical and standby power improvements	Detailed Design	Q4 2013	Q1 2014	Q3 2014
Aurora Newmarket East Gwillimbury	Upper York Sewage Solutions****	Sanitary servicing solution to accommodate growth in Holland Landing, Queensville, Sharon and parts of Aurora and Newmarket	Individual EA	2018	Q1 2018	Q3 2018
Vaughan (Humber Pumping Station Service Area)***	West Vaughan Sewage Servicing	Sanitary servicing solution to accommodate growth in West Vaughan area	EA	Q4 2016	Q1 2016	Q3 2016

* Building permits for complex high rise is anticipated to occur 36 months and other high density developments to occur 18 months prior to expected project completion date, subject to certainty of project progress

**Development in North Don and Pomona Creek sewershed including Richmond Hill Centre and Langstaff Gateway requires additional infrastructure to be identified by future environmental assessment

***No more than 3,000 persons capacity can be used in this post 2013 capacity assignment in the Humber Pumping Station Sewershed , prior to completion of West Vaughan Sewage Servicing

****Proposed assignment of 285 persons to Aurora is not subject to completion of Upper York Sewage Solutions

Trigger projects required to fully utilize phased capacity assignment

In order to fully utilize the additional capacity to be made available by the new Southeast Collector Sewer, the Region is undertaking a number of key projects to address local system constraints. Development dependent on completion of these projects is subject to additional planning approval requirements, or more specifically, trigger conditions for release of presales and final plan approval for low-rise units and building permits for high-rise units as summarized below.

Leslie Street Sewage Pumping Station Upgrade to be completed in 2013

The Leslie Street Sewage Pumping Station Upgrade, currently in the detailed design stage, is scheduled for completion in late 2013. As the projected commissioning date is earlier than that of the Southeast Collector Sewer, it is not expected that this project will be the controlling trigger for release of presales and building permits for this phase of capacity assignment. Progress of this project will be monitored to ensure that no developments dependent on this project will be permitted to proceed without the completion of this project. Area serviced by this pumping station is shown in this Attachment.

New West Richmond Hill Water Pumping Station to be completed in 2014

The new West Richmond Hill Water Pumping Station is required to address Pressure District 7 (PD7) system constraint. As Pressure Districts 8 and 9 depend on water conveyed from PD7, all three pressure districts in Richmond Hill, City of Vaughan and Town of Markham are dependent on this project. Notice of completion for the environmental assessment study was issued in October 2011 and the new pumping station is scheduled to be commissioned in late 2014.

In conjunction with addressing the PD7 system constraint, the Region has also completed or is in the progress of completing other related projects that will mitigate this system constraint including:

- Completion of the South Maple PD7 pumping station upgrade in 2011
- PD8 Jefferson Sideroad reservoir piping improvement works as part of the Bathurst watermain project scheduled for completion in late 2011
- Replacement of existing pumps in the PD7 Pugsley pumping station, scheduled for completion in 2013

Other planned initiatives include conversion of lands currently serviced by the PD7 system in the Major Mackenzie Street and Leslie Street area in Town of Richmond Hill to the PD6 system to save pumping costs as well as to mitigate increased water demand in the PD7 area. Regional staff are in discussions with Town of Richmond Hill staff on this matter.

Completion of the above works provides some interim capacity to be shared among City of Vaughan, Town of Richmond Hill and Town of Markham prior to commissioning the new West Richmond Hill Water Pumping Station in 2014. To ensure the most optimized and efficient sharing of this interim capacity amongst these three municipalities, further consultation will be undertaken with them to confirm timing of potential developments in these pressure districts.

Annual phasing plans and development approval updates will also be submitted by these municipalities for assessment of capacity requirements by the Region.

The area serviced by this pumping station is shown in this Attachment.

West Vaughan Sewage Servicing to be completed in 2016

The West Vaughan service area comprises areas serviced by the Humber pumping station and the Kleinburg water pollution control plant. The long term sewage servicing solution for these lands is the subject of the West Vaughan Sewage Solutions environmental assessment currently underway. Commissioning of the West Vaughan Sewage Solutions work is planned in 2016.

Of the total proposed assignment of 8,070 persons capacity to City of Vaughan, 3,000 persons capacity can be used in the Humber Pumping Station sewershed, prior to the completion of West Vaughan Sewage Servicing project. At its meeting dated June 23, 2011 Regional Council approved the Huntington Landowners Trustee Inc.'s proposal to undertake and fund inflow and infiltration work that will provide additional servicing capacity in the Humber pumping station sewershed service area.

The Kleinburg water pollution control plant expansion was completed in 2011. As a result, the wastewater servicing capacity for the Kleinburg-Nashville community serviced by the water pollution control plant is increased to 7,500 people, providing approximately 3,600 persons capacity for growth as shown in Council Attachment 1.

Upper York Sewage Solutions to be completed in 2018

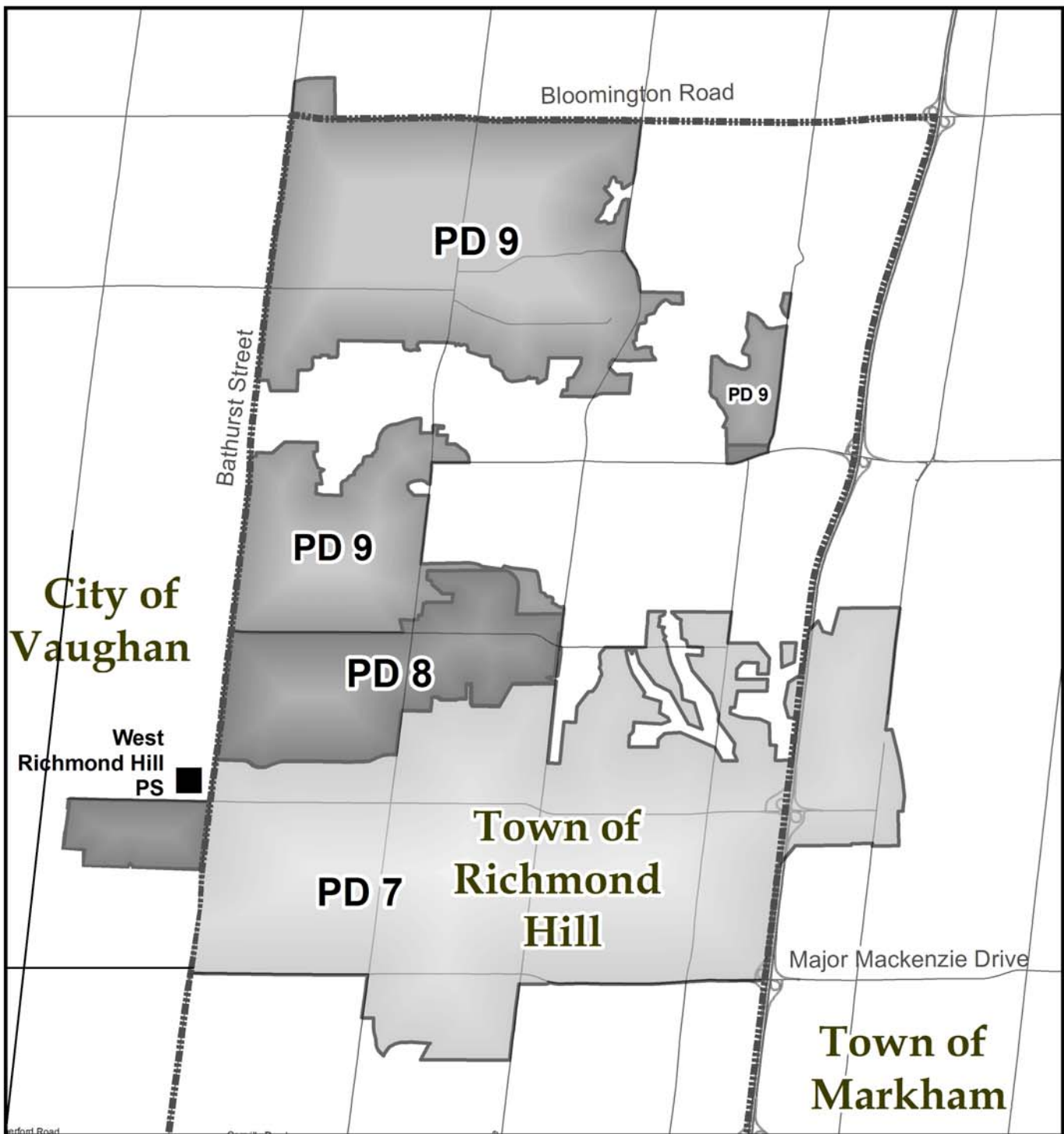
The Upper York Sewage Solutions (UYSS) IEA is currently underway to identify the preferred sewage solution to accommodate approved growth in the Towns of Aurora and Newmarket and the communities of Holland Landing, Queensville and Sharon in the Town of East Gwillimbury. Commissioning of the preferred solution is expected in 2018.

Prior to commissioning the Upper York Sewage Solutions project, there is a capacity constraint in the system servicing the three local municipalities. However, the proposed capacity assignment of 285 persons capacity to Aurora is within the limit of the system capacity and therefore is not contingent on completion of the Upper York Sewage Solutions project.

At its meeting of September 22, 2011, Regional Council approved the Aurora 2C Landowners Group Inc.'s proposal to undertake and fund inflow and infiltration work that will provide additional servicing capacity in the Town of Aurora.

In the meantime, an interim servicing solution for the three communities in East Gwillimbury can proceed to provide servicing capacity up to 5,465 units as part of an Amended Prepaid Development Charge Credit Agreement for the York Durham Sewage System Sewer Extension.

Opportunity is also available for all three municipalities to utilize the sustainability water conservation programs to provide additional capacity.



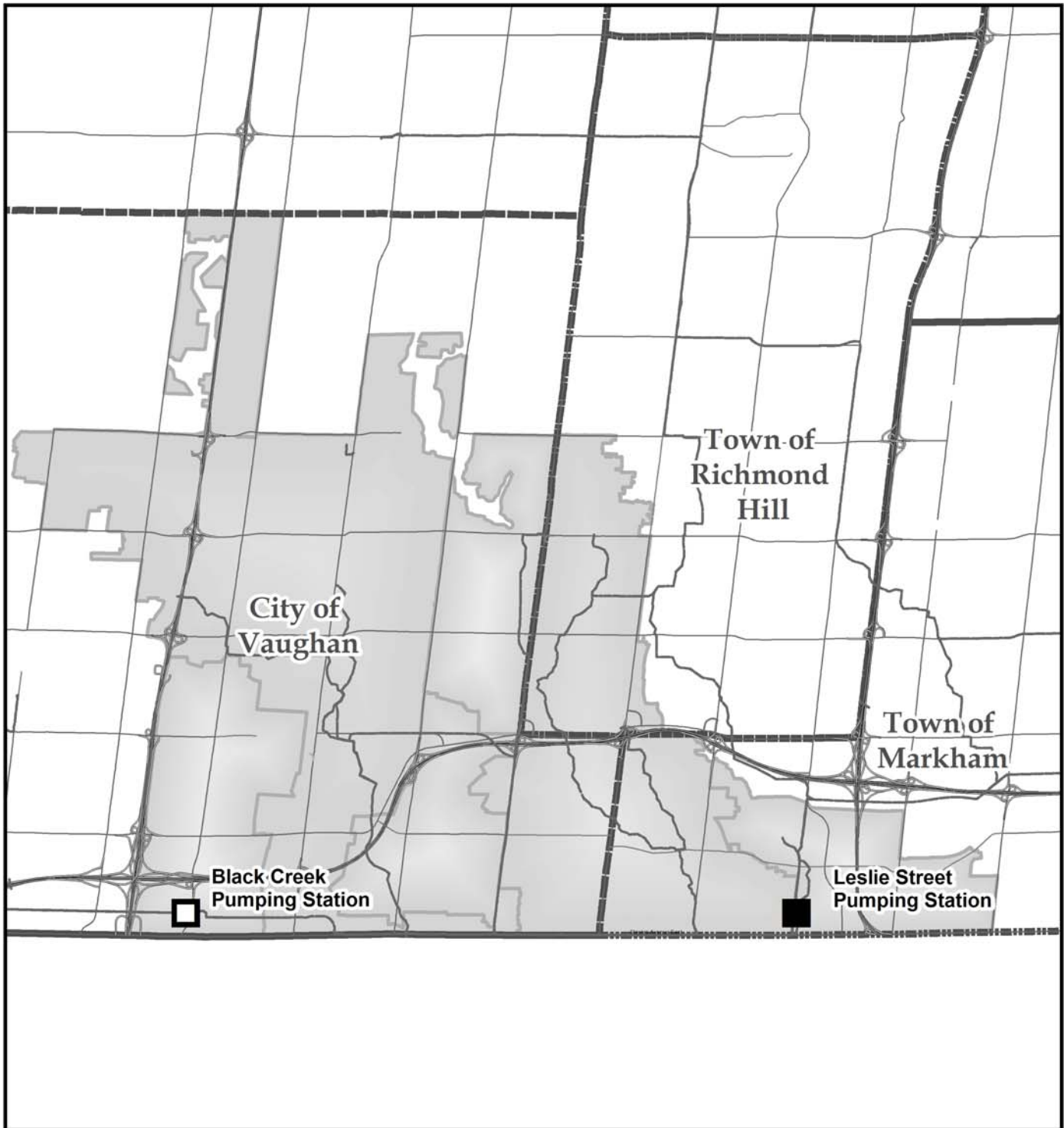
LOCATION PLAN

Service Area Requiring
West Richmond Hill
Water Pumping Station



-  PD 7 Pressure District
-  PD 8 Pressure District
-  PD 9 Pressure District

ENVIRONMENTAL SERVICES



LOCATION PLAN

Service Area Requiring Leslie Street
Sewage Pumping Station



ENVIRONMENTAL SERVICES

Stand-Alone System Assignment Trigger Table

Municipality	Community	Project Name	Description	Current Status	Expected Completion Date	Anticipated Presales Timing	Anticipated Registration Timing
King	Nobleton	Nobleton Water Supply	Augment the current water supply with a new well and a new elevated tank	Construction	Q1 - 2013	Q2 - 2012	Q4 - 2012
Georgina	Keswick	Keswick Water Pollution Control Plant Expansion	Expand Keswick Water Pollution Control Plant to provide capacity of 18,000 m ³ /day	Construction	Q1 – 2013 (8,000 people)	Q2 - 2012	Q4 - 2012
		Keswick Water Pollution Control Plant Outfall	Construct a new outfall	Detailed Design	Q4 – 2013 (4,000 people)	Q1 - 2013	Q3 - 2013
		Flow Monitoring	NA	NA	Q4 – 2015 (4,000 people)	Q4 - 2015	Q4 - 2015

* Additional requirements may apply depending on location of developments

Efficient use of Infrastructure Components

Increased efficiency in the use of infrastructure enhances, improves and moves towards a sustainable state through reducing personal demands at the source, reducing stormwater and groundwater inflow and infiltration in the sanitary system, and ensuring the servicing capacity is used in a timely manner. Components of the increased efficiencies:

1) More efficient matching of allocation assignment with development that is ready to build through enforcement of “use it or redistribute it” policies

It is essential that assigned capacity be used in a timely manner to facilitate recovery of development charge revenues required to support the Region’s aggressive capital infrastructure program. To this end, it is recommended that a uniform region-wide “*use it or redistribute it*” allocation policy be adopted and enforced by all local municipalities. Allocation to developments not used (building permit issued) within 2 years of assignment shall be redistributed by local municipalities to other developments in an effort to expedite the use of available built capacity.

2) Continued reduction of inflow and infiltration through municipal and developer funded projects and programs

While construction is now underway on the Southeast Collector Trunk Sewer, the Ministry of the Environment’s conditions of approval of the Individual Environmental Assessment must be addressed. In March 2011, the Region submitted Water Conservation and Inflow and Infiltration Reduction Strategies to Ministry of the Environment, and committed to reduce projected 2031 sewage flows to the Southeast Collector Trunk Sewer through a combination of water conservation and inflow and infiltration reduction efforts. As this long term condition extends well beyond commissioning of the new Southeast Collector, it is imperative that all future regional capacity assignments to local municipalities be conditional upon local municipalities’ continuous support to work in partnership with the Region to undertake water conservation measures and to reduce inflow and infiltration. Moving forward, all existing and future initiatives required to control and reduce inflow and infiltration in local and regional sewer systems (as outlined in the Ministry approved Inflow and Infiltration Reduction Strategy) must be implemented by local municipalities and by the Region to ensure this flow reduction target is achieved.

These initiatives include implementation of sound and funded local and Regional programs to reduce water consumption and inflow and infiltration, as well as maintaining existing water and sewer system assets. Adoption and enforcement of new regional sanitary sewer commissioning standard “*Sanitary Sewer System Inspection, Testing and*

Acceptance Guidelines” on all sewers constructed under new developments is an essential component of achieving the above noted reductions. This standard was developed by the Water and Wastewater task force with representation from the Region and local municipalities in consultation with key stakeholders, including representatives from BILD, consulting engineering, sewer contracting and pipe manufacturing industries.

Parallel with inflow and infiltration reduction works carried out solely and jointly by regional and local municipalities, Regional Council has approved four developer funded inflow and infiltration reduction pilot projects in Markham, Vaughan, Aurora and Richmond Hill. These projects provide an innovative approach to reduce inflow and infiltration without financial contribution by local municipalities or the Region. In return, the Region will advance capacity assignment to permit development to proceed as proven inflow and infiltration reductions are realized, alleviating capacity constraints in wastewater conveyance systems. To ensure the success of the program, the Region has maintained adequate water supply and wastewater treatment capacity for potential assignment to match wastewater conveyance capacities created by these pilot projects.

3) Continued reduction of water usage through sustainable development initiatives and programs

Continued reduction of water usage through sustainable development initiatives including the establishment of new baseline standards, the review of existing sustainable development programs, and the establishment of new programs is an essential part of realizing efficiency. To further advance the success of the Region’s water conservation program, it is recommended that all new developments pertaining to this post 2013 capacity assignment be subject to a minimum 10% reduction over the Ontario Building Code requirements. This is keeping with the Regional Official Plan (2010) policies established for sustainable building. This new base-line reduction of 10% will need to be established in co-ordination with the local municipalities.

The review of existing incentive programs for sustainable development for high-rise developments (Sustainable Development through LEED) and grade related developments (SHIP – Sustainable Housing Incentive Program) will be undertaken this year to update the programs and establish base-line water use reduction, for all new development, of 10%, with higher conservation levels being incented through the revised programs for those developments that achieve higher savings and broader sustainability goals such as energy efficiency.

COUNCIL ATTACHMENT 5

York Durham Sewage System - Regional Reserve Summary

Reserve Types	Reserve (population)	Reserve Utilized (population)	Reserve Remaining (population)
Holland Landing Lagoon Conversion	4,148	0	4,148
Non-Profit Housing	4,016		
Richmond Hill		270	
Markham		272	
King		81	
Non-Profit Subtotal			3,393
Total Regional Reserve			7,541