

The Regional Municipality of York

Committee of the Whole
Environmental Services
September 12, 2019

Report of the Commissioner of Environmental Services,
Corporate Services and Chief Planner

2019 Water and Wastewater Capacity Assignment to Support Growth

1. Recommendations

1. Council authorize assignment of water and wastewater servicing capacity of 108,638 persons to local municipalities to support forecasted growth to the end of 2026
2. Council authorize staff to establish a reserve of 4,000 persons to support purpose-built rental housing initiatives, subject to area constraints
3. To facilitate ongoing coordination and tracking of servicing capacity, local municipal partners continue to:
 - optimize distribution of servicing through the implementation of best practices for servicing capacity management outlined in Table 1 of this report
 - confirm details of servicing allocation on a semi-annual basis
 - participate in the Regional Long Term Water Conservation Strategy and Inflow and Infiltration Reduction Strategy, including participation in incentive programs to obtain as a minimum 10% additional servicing capacity
4. The Regional Clerk circulate this report to the local municipalities

2. Summary

This report seeks Council approval to assign servicing capacity of 108,638 persons including 20,000 persons of capacity to support Centres and Corridors growth in the southern municipalities to the end of 2026. The report recommends establishing a reserve to support purpose-built rental housing initiatives. It also identifies the need for local municipalities to manage assigned capacity through the use of best practices to obtain a minimum 10% additional servicing capacity by active participation in incentive programs.

Key Points:

- Capacity assignment facilitates growth of 108,638 persons in local municipalities to 2026 including 20,000 persons to southern municipalities to support growth in centres and corridors
- The amount and distribution of this capacity assignment was determined using short-term growth forecasts confirmed by local municipalities
- Multi-year growth is aligned with existing water and wastewater infrastructure investment
- Local municipalities were consulted throughout this process to ensure transparency and consistency
- A reserve of 4,000 persons is established to support purpose-built rental housing initiatives
- Local municipalities will be required to monitor growth assigned to areas with specific limitations to ensure capacity allocation does not exceed limits of infrastructure
- Local municipalities are required to optimize distribution of servicing capacity by implementing best practices and using incentive programs to obtain a minimum of 10% additional servicing capacity

3. Background

Since 2005, a phased water and wastewater capacity assignment protocol has enabled growth to approximately 1.2 million people

Construction of water and wastewater systems is dependent on provincial approvals and is inherently complex due to regulatory requirements; these factors have led to delays in implementing specific projects outside the Region's direct control. To manage this uncertainty, capacity assignment to local municipalities is calculated as shown in Attachment 1, and based on the protocol approved by Council on [June 23, 2005](#). This protocol reflects the Provincial Growth Plan, Regional Official Plan as well as the Water and Wastewater Master Plan and has directed capacity assignments throughout the years now totaling approximately 1.2 million people. By phasing capacity, the Region and its local municipalities aspire to align with forecasted housing market demands by accommodating a minimum four to five year supply of capacity, where possible.

As of Q4 2018, cumulative servicing capacity assigned to support Region-wide growth has reached 1,197,939 persons. Further details are shown in Attachment 2.

Aurora, Newmarket and East Gwillimbury received capacity to 2023

The Region is still awaiting the Minister's approval of the Upper York Sewage Solutions project. Due to the outstanding Environmental Assessment approval by the Province, earliest project completion is 2027. To support continued growth in the Towns of Aurora, Newmarket and East Gwillimbury, on [June 28, 2018](#) Council authorized an assignment of 10,500 persons capacity enabled through completion of two interim solutions:

- modifications to the Aurora Pumping Station equalization tank
- construction of a new Henderson Pumping Station

Both of these projects are under design and further details are shown in Attachment 3. An additional capacity of 1,000 persons is reserved for Centres and Corridors in these three municipalities once the capacity provided by the interim solutions is confirmed as indicated in the June 28, 2018 Council report.

The Region remains committed to monitor system performance and investigate additional interim solutions. To assist local municipalities in managing and planning for long-term growth, staff will provide Council with a capacity monitoring report in 2021.

Implementing local municipal best practices tools optimizes capacity

Local municipalities have a number of planning tools to manage demand for capacity by individual developments. Key elements of these local best practices have been available since 2005 and are outlined in Table 1. Available tools are implemented differently across local municipalities and have been customized to suit specific communities. Local municipalities periodically review their best practices to ensure strategic growth priorities and effective implementation are being achieved.

This Assignment provides over 7 years of capacity going beyond the previous capacity assignments that had used a 5 year planning horizon. This ensures the optimal use of shared infrastructure while awaiting Environmental Assessment approvals required for infrastructure to support future growth. At this same time it provides adequate capacity for each municipality, certainty for development applications and opportunities for growth.

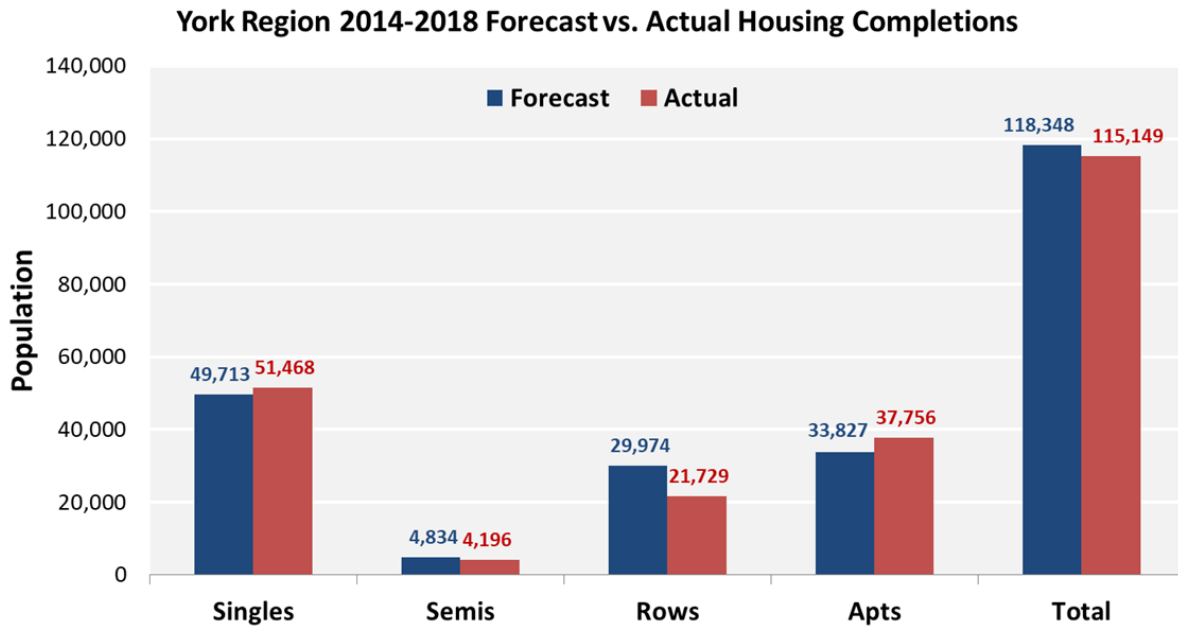
Table 1
Best Practices for Servicing Capacity Management

Monitoring	Detailed monitoring of servicing allocation to specific developments
Use it or Redistribute it	Council approved “ Use it or Redistribute it ” policies
Strategic Priorities	Determine strategic priorities that best meet growth management objectives of local municipalities and York Region
Phasing	Phasing plans for community and secondary plan areas
Criteria	Clear, transparent and consistent criteria for allocation to development applications
Planning Tools	Planning Tools including holding zone provisions, conditions of approval and agreements to ensure development is implemented once servicing is available
Linking	Linking land use planning approval process with infrastructure planning and delivery process timing

Short-term growth forecasts identify market trends informing capacity assignment to meet growth until 2026

Short-term growth forecasting is an application-based forecast used to recognize capacity needs by identifying the specific magnitude and location of near-term residential growth. This short-term forecast is prepared annually in consultation with local municipal partners. It examines approval and construction timing of active development proposals in local municipalities. As demonstrated in Figure 1, forecasted growth estimates closely align with actual housing completion data, suggesting that this method is quite a reasonable approach to estimate future capacity needs. During the period from 2014 to 2018, the Actual Housing Completions across York Region totaled 40,881 units, equivalent to 115,149 persons, and were 3% lower than the Forecasted Completions for this period.

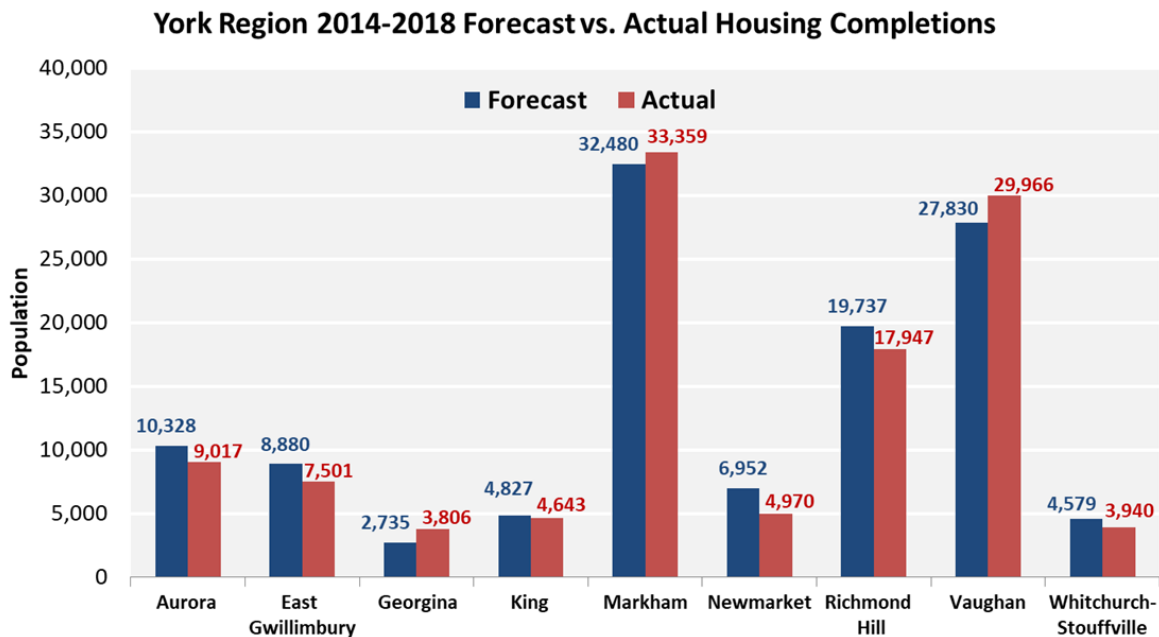
Figure 1
Forecasted and Actual Housing Completions Across York Region (2014-2018)



Source: CMHC Completions (GTA Housing Now) and York Region Short Term Forecasts

Figure 2 illustrates similar alignment between forecasted growth and actual housing completion data for all local municipalities, confirming the effectiveness of the short-term forecast in projecting near-term growth. Given the reliability of this short-term forecast it has been used to inform capacity assignment for the each local municipality to 2026 as shown in Table 2.

Figure 2
Forecasted and Actual Housing Completions by Municipality (2014-2018)



Source: CMHC Completions (GTA Housing Now) and York Region Short Term Forecasts

4. Analysis

2019 Capacity Assignment is for local municipalities serviced by the York Durham Sewage System and not constrained by major capital projects

Approximately 90% of York Region’s population is serviced by the York Durham Sewage System (YDSS), which collects wastewater from eight local municipalities (all except for the Town of Georgina). Wastewater is conveyed by the York Durham Sewage System for treatment at the Duffin Creek Plant, co-owned by York Region and Durham Region. A portion of wastewater in the western part of the City of Vaughan is conveyed to the south Peel system for treatment under a servicing agreement with Peel Region.

Assignment of water and wastewater servicing capacity of 108,638 persons supports forecasted growth to the end of 2026

The short-term forecast for York Region identified the need for 88,638 of servicing allocation to support growth to 2026. Staff recommend an additional 20,000 persons of capacity for southern municipalities beyond what was identified in short-term forecasting to support growth in centres and corridors. With the proposed total new capacity assignment of 108,638 persons, in addition to the previously approved unused capacity, the total available capacity for growth to the end of 2026 is 223,249 persons, as shown in Table 2.

Capacity assigned to local municipalities is subject to local servicing limitations in some areas

In some localized service areas, while there is capacity to support further growth, additional infrastructure is required to support the full build-out of the area. Given that capacity is allocated to individual developments by local municipalities, it is important that allocation to these service areas does not exceed the available capacity. It is therefore important that local municipalities plan their allocation to reflect these specific areas in allocation tracking.

A summary of service areas with specific capacity limitations is provided in Attachment 3.

Table 2
Proposed New Capacity Assignment (In population)

Local Municipality	(A)	(B)		(C)	(B2+C)	(A+B+C)
	Unused Capacity at Year End 2018	Capacity Assignment June 2018 (B1)	Sept. 2019 (B2)	Reserve for Centres and Corridors	Total New Assignment	Total Available for Growth to Year End 2026
Aurora	4,758	4,933	0		0	9,691
East Gwillimbury	7,789 ¹	2,727	0		0	10,516
Newmarket	4,880	2,840	0		0	7,720
King (King City)	5,292	0	1,138		1,138 ²	6,430
Markham	29,185	0	24,191	6,000	30,191	59,376 ³
Richmond Hill	19,065	0	25,697	6,000	31,697	50,762 ³
Vaughan	24,081	0	36,869	8,000	44,869	68,950 ³
Whitchurch-Stouffville (Stouffville)	9,061	0	743		743	9,804
TOTAL	104,111	10,500	88,638	20,000	108,638	223,249

1. Subject to meeting the Town of East Gwillimbury Sustainable Development Incentive Program requirements
2. Availability of 1,138 persons capacity will be confirmed through an ongoing capacity assessment study of the King City Sewage Pumping Station
3. Capacity allocation in these municipalities is subject to limitations within local watersheds and sewersheds as outlined in Attachment 3

Infrastructure plan aligns with the Fiscal Strategy and supports this multi-year assignment

This capacity assignment has been developed in consideration of York Region's Fiscal Strategy, in accordance with the approved 10 Year Capital Plan, including the Upper York Sewage Solutions (UYSS) project as well as other key water and wastewater infrastructure required to service growth (e.g. West Vaughan Servicing and Northeast Vaughan Servicing). The Fiscal Strategy balances debt management with the need to continue to invest in infrastructure to service growth. Capital planning will continue to focus on aligning growth with infrastructure and avoiding undertaking capital projects prematurely. This will include taking into account the need to phase projects carefully to better match expected funding and avoid over-burdening the Region with debt. Being vigilant and improving growth forecasting accuracy also helps provide a better understanding of both overall population growth and specific areas where growth occurs.

Support for employment growth is embedded into this multi-year assignment

Although the 2019 Capacity Assignment is dedicated to residential growth, residential to employment growth at a ratio of 2:1 has been embedded into infrastructure planning and is supported through this assignment. Any high water consumption industry is required to share their water demand and flow projections with local municipalities and the Region and obtain servicing approval prior to commencing construction to ensure that capacity is available.

Rental Housing Reserve of 4,000 persons supports Rental Housing initiatives

Building on the success of the Non-Profit Housing Reserve, York Region is committed to increasing its supply of rental housing. To support and incent rental housing, this report recommends establishing a reserve of 4,000 persons for new private purpose-built rental developments, subject to available capacity. The allocation cap proposed for the reserve aligns with the targeted number of rental units proposed for a new rental housing financial incentive program to be considered by Council this fall.

The rental housing reserve would be in addition to the capacity reserve for non-profit housing. From the original Non-Profit Housing reserve of 4,969 persons, 953 persons remain available to support Non-Profit Housing projects.

Municipalities not serviced by York Durham Sewage System have adequate capacity to support community growth

Wastewater flows to standalone facilities serving the communities of Nobleton, Sutton, Keswick, Mount Albert and Schomberg range between 40-60% of plant capacity:

- Nobleton, Mount Albert and Schomberg Water Resource Recovery Facilities – Available service capacity (the difference between current flows and plant capacity) has been released to local municipalities to allow growth.

- Keswick Water Resource Recovery Facility – Most of the facility capacity has been released to Georgina to allow for growth. York Region has reserved a small portion of facility capacity to complete some membrane performance testing to meet compliance requirements before releasing remaining capacity. Testing is scheduled for the upcoming winter months.
- Sutton Water Resource Recovery Facility – Since 2016, this facility has operated at less than 60% of its Environmental Compliance Approval rated capacity. Flow to this plant continues to be monitored, and once flow reaches 70% of capacity, consideration will be given to include facility expansion in the 10 Year Capital Plan, subject to available funding at that time.

The Region will continue to monitor capacity consumption to ensure there is adequate servicing to support approved growth in these communities. While optimization of existing facilities continues to take place, future capacity needs will be subject to policies impacting future expansion opportunities, and will have to be considered through the Municipal Comprehensive Review and the Water and Wastewater Master Plan update.

Local municipalities share capacity allocation information on a semi-annual basis to ensure available capacity is not exceeded

While the capacity allocation process is under the jurisdiction of local municipalities, it is important that cumulative allocation does not exceed the total available capacity of the service area. In some localized service areas, additional infrastructure is required to support the full build-out of the community beyond 2026 (Attachment 3). To ensure the available capacity is not exceeded, local municipalities are required to track the total number of registered units and site plan-approved units in these areas, and share this information with the Region on a semi-annual basis. Currently, this information is shared annually.

Next capacity assignment is currently scheduled for 2023 with a monitoring update in 2021

To assist local municipalities manage and plan for long-term growth, staff will provide Council with a capacity monitoring report in 2021 and a capacity assignment report in 2023. The 2023 assignment will take into consideration the adopted Official Plan growth distribution, scope of works and timing for the Water Reclamation Centre, Duffin Creek Outfall project, major infrastructure as identified in the Water and Wastewater Master Plan, unused capacity in each municipality and the Fiscal Strategy.

Servicing Incentive Programs have provided an additional capacity of 21,360 persons to local municipalities and extend infrastructure life

The Region's servicing incentive programs provide ability for local municipalities to stretch their servicing capacity while promoting sustainable residential development. Over the past few years the Region has embarked on new, innovative and sustainable approaches to meet

future growth needs. This includes water and wastewater reduction initiatives such as Water Conservation and Inflow and Infiltration strategies and incentive programs like:

- Servicing Incentive Program (SIP)
- Sustainable Development Through Leadership in Energy and Environmental Design (LEED) Incentive Program
- Sustainable Development Incentive Program (SDIP) specific to Town of East Gwillimbury
- Developer-funded Inflow and Infiltration (I & I) Reduction Program

The focus of these programs is to promote water efficiency and reduce wastewater flow from residential development. Proven reductions in inflow and infiltration and water use lead to optimized use of existing infrastructure and reduce investments needed to support growth. Collectively, these programs have provided 21,360 persons of capacity to six local municipalities (shown in Attachment 2).

All local municipalities are required to participate in inflow and infiltration reduction programs given the condition of approval for the Southeast Collector Individual Environmental Assessment, which became a regulatory requirement for York Region, in 2010. The conditions of approval require the Region to submit and implement an Inflow and Infiltration Reduction Strategy and set a reduction target of 40 million litres in a 24 hour period during a 25-year storm event by 2031. The conditions required annual reporting of work undertaken and resulting flow reductions to achieve the reduction target. This information is compiled and submitted to the Province in March of each year.

It is anticipated that each municipality could leverage these programs to obtain a minimum of 10% of additional servicing capacity. Participation in these programs will allow the Region as a whole to “infrastructure” its built capacity by servicing more population within the same existing infrastructure. While six municipalities have used these programs to date opportunity exists for these programs to be much more widely used to stretch capacity of our built infrastructure and optimize the use of our financial resources.

5. Financial

Use of capacity assignment is instrumental to development charge collection

The Region finances growth-related water and wastewater projects by issuing debt and repaying the debt from development charge revenues when future growth occurs. Over the past 10 years, \$3.0 billion has been spent on water and wastewater growth capital infrastructure to unlock servicing capacity across York Region and another \$1.1 billion is currently scheduled to be spent during the period from 2019 to 2026 to support the capacity assignment process.

The approved 10 Year Capital Plan aligns with the Fiscal Strategy. Delivery of planned projects in the Plan is contingent on development charge revenues meeting forecasts. Fiscal

sustainability is dependent on local municipalities optimizing servicing capacity by distributing it to developments that are ready to proceed to registration or construction, as development charges are paid to York Region at these stages. This 2019 Capacity Assignment supports growth to 2026, which in turn generates required development charge revenue to help fund the Region's capital infrastructure investment needs.

6. Local Impact

The 2019 Capacity Assignment is based on extensive local municipal consultation

Regional staff have presented and discussed the 2019 Capacity Assignment with local municipal Chief Administrative Officers and the Planning and Engineering Commissioners and Directors. There have been discussions with local staff directly involved with capacity allocation. Local municipal staff are aware of the Fiscal Strategy, current servicing constraints and the proposed multi-year capacity assignment provided in Table 2.

Leveraging digital solutions can provide real-time data sharing and improve servicing allocation tracking

It is essential for local municipalities to provide local municipal capacity reporting semi-annually. The Region is working to improve this process by leveraging its in-house development tracking system, YorkTrax.

The Region recently launched a servicing module that tracks servicing allocation across local municipalities. It also establishes common definitions for servicing milestones through the development approval process (e.g. proposed, committed, reserved and gone). Local municipalities have been consulted on this framework and support adopting these common definitions for servicing allocation. Servicing data will be shared on a quarterly basis with local municipalities as a dashboard starting in 2020. This will provide real-time available servicing data for each municipality. To ensure accurate servicing data, the Region requires that local municipalities continue to forward all development application information to the Region.

7. Conclusion

York Region and its local municipalities strive to leverage existing infrastructure before requiring new investment and provide for a minimum four-year supply of capacity through the multi-year capacity assignment process where possible. This approach helps to balance multi-year capacity needs amongst municipalities with capital delivery and the Regional Fiscal Strategy.

Multi-year assignment supports growth to 2026

The short-term forecast identified the need for 88,638 persons of servicing allocation to support growth to 2026. Staff recommend an additional 20,000 persons of capacity for southern municipalities beyond what was identified in short-term forecast to support growth in centres and corridors, subject to available capacity. This report recommends a total new capacity of 108,638 persons to support growth to 2026. It also establishes a new Rental Housing Reserve of 4,000 persons to support purpose-built rental housing initiatives.

“Use it or redistribute it” approaches ensure best use of assigned capacity

As part of this assignment, the Region will require local municipalities to optimize capacity assignment by implementing servicing best practices and water and wastewater sustainability strategies. Collectively, these programs have provided 21,360 persons of capacity to local municipalities. It is anticipated that each municipality could leverage these programs to obtain a minimum of 10% additional servicing capacity. Implementing the servicing best practices, including formal “use it or redistribute it” policies, better aligns growth with infrastructure to avoid triggering capital projects prematurely and over-burdening York Region with debt.

Three municipalities reliant on Upper York Sewage Solutions project received capacity to grow to 2023

Local municipalities impacted by Upper York Sewage Solutions delays received capacity to 2023 as part of the 2018 Capacity Assignment. No additional capacity can be assigned to these municipalities until the Upper York Sewage Solutions Individual Environmental Assessment is approved. Over the next few years, York Region will build the interim solutions, continue to monitor system performance and investigate additional interim solutions.

Stand-alone facilities will continue to be monitored, tested and optimized where possible

The Region will continue to monitor the capacity of standalone wastewater facilities to ensure there is adequate servicing to support approved growth in these communities. Future capacity needs for these facilities will be subject to policies impacting future expansion opportunities, and will be considered through the Municipal Comprehensive Review and the Water and Wastewater Master Plan.

Staff will provide Council with a capacity monitoring report in 2021 and a Capacity Assignment report in 2023.

For more information on this report, please contact Wendy Kemp, Acting Director, Infrastructure Asset Management, extension 75141 or Karen Whitney, Director, Community Planning and Development Services, extension 71505.

Accessible formats or communication supports are available upon request.

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Attachments (3)
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