



# Council report

<b>Meeting date:</b>	October 19, 2021
<b>Title:</b>	Durham water and wastewater treatment capacity
<b>Prepared by:</b>	Vance Czerwinski, Director of Infrastructure & Public Works
<b>Reviewed by:</b>	Laura Johnston, CAO

## Recommendation

That council receive the Durham Water and Wastewater Treatment Capacity report for information, and further

That council direct staff to include, in the 2022 budget, detailed information regarding funding the future capital investments required to meet growth needs.

## Executive summary

Given the unprecedented growth occurring in Durham, the Infrastructure and Public Works department engaged an engineering consultant to review Durham’s existing water and wastewater treatment capacity. Attached to this report is the engineer’s report detailing the water and wastewater treatment capacity assessment. The engineer’s report provides further recommendations related to capacity improvement.

## Background and discussion

West Grey has experienced a significant increase in residential development within the community of Durham. Currently, there are two residential subdivisions that West Grey is committed to for providing water and wastewater treatment services. Given there is also the new Rockwood Terrace long-term care campus that is in the planning stages and other potential subdivisions on the horizon, staff has taken a proactive approach to planning for this growth. GSS Consulting was engaged to provide a capacity assessment report.

GSS’s capacity assessment report outlines the existing capacity and provides some forecasting with respect to the demands on the water and wastewater treatment systems, taking into account the committed subdivision developments and using a projected growth rate of approximately 100 new houses per year, based on building permit data.



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## Water and Wastewater Capacity Assessment Summary

Based on the report, there is enough capacity in the water and wastewater treatment systems to accommodate the current approved residential subdivisions and the redevelopment of the Rockwood Terrace long-term care facility. To meet the needs of the extended campus of care at the Rockwood Terrace site and future development, capital upgrades are required. Future subdivision agreements can only be approved if water and wastewater capacity exists in the system.

## Unaccounted Water Usage

Veolia operational staff and public works staff continually monitor the water distribution system. This includes monitoring the volume of water that is treated every day at the water treatment plant, conducting overnight water tower and water reservoir draw down testing, and inspecting, maintaining, and monitoring any potential water leakage in the water distribution system. This ongoing work is part of maintaining the Drinking Water Quality Management System (DWQMS) that West Grey is legislated to maintain.

## Legal and legislated requirements

Planning Act

Clean Water Act

Safe Drinking Water Act

Ontario Water Resources Act

Sunvale Subdivision Agreement

Broos draft plan of approval

## Financial and resource implications

Upgrades are required to the water and wastewater treatment systems to accommodate the approved and predicted development and growth in Durham. These capital and operating cost estimates will be brought forward as part of the 2022 budget process for council's consideration and direction. The long-term capital plan and financing strategy will also be provided at that time.

## Staffing implications

With an expanding water and wastewater treatment system, there will be additional staff required to maintain and operate both systems.



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## Consultation

GSS Consulting Engineers Ltd.  
Veolia North America  
Ministry of the Environment, Conservation and Parks  
C.A.O.  
Director of Development/ Chief Building Official  
Manager of Planning and Development  
Director of Finance/Treasurer

## Alignment to strategic vision plan

Pillar: build a better future  
Goal: vibrant community  
Strategy: maintain and invest in our infrastructure

## Attachments

Durham Water and Wastewater Treatment System Assessment Report – GSS Engineering Consultants Ltd.

Durham Water and Wastewater Treatment System Assessment power point presentation GSS Engineering Consultants Ltd.

## Next steps

Staff will prepare and present detailed information regarding capital upgrades and corresponding costs and funding options in the 2022 budget presentations.

Respectfully submitted:

Vance Czerwinski, Director of Infrastructure & Public Works