Office of the Commissioner
Public Works
Memorandum
FOR INFORMATION

To:	Committee of the Whole
Meeting Date:	April 10, 2025
From:	Laura McDowell Commissioner of Public Works
Re:	**2024 Drinking Water Systems Council Memo**

Drinking Water Systems memo summarizes 2024 drinking water compliance

This annual regulatory memo informs Council of York Region's drinking water compliance and capacity performance in the 2024 calendar year, as required by Ontario Regulation 170/03: Drinking Water Systems (the Regulation) made under the *Safe Drinking Water Act, 2002*, S.O. 2002, c. 32 (the Act). The memo also provides companion information to the 2024 Integrated Management System Memo for Water, Wastewater, and Waste Management, on this same agenda. Other drinking water reports and data, including annual drinking water quality reports and interactive water quality data highlights, are available at York.ca/drinkingwater, York.ca/opendata or upon request.

The Act imposes a standard of care on Municipal Council members to oversee municipal drinking water systems with the level of care and diligence that a reasonably prudent person would be expected to exercise in a similar situation. Council's decisions protect communities by ensuring financial sustainability, asset management, risk mitigation and continual improvement of the Region's drinking water systems so that the systems continue to meet current and future demands.

2024 compliance and capacity highlights:

- Drinking water quality test results complied with the Act, including compliant resolution of any water test results reported as adverse water quality events, as listed in Appendix A. There were no risks to public health due to any reported adverse water quality events
- Sampling, routine operations and alterations to drinking water systems complied with the Act and conditions in Drinking Water System operating approvals
- Inspections by the Ministry of the Environment, Conservation and Parks (Ministry) confirmed York Region's regulatory compliance, with an inspection score of 100%
- Drinking water systems operated within permitted volume and capacity limits with one exception and occasional brief instantaneous peak flow exceedances

All drinking water inspections completed in 2024 received a perfect score

Thirteen out of thirteen Ministry inspections completed on Regional drinking water systems in the 2024 calendar year received 100% compliance scores. Inspections for the other two systems were completed in early 2025, prior to the end of the Ministry's fiscal year, March 31, 2025. The Georgina Drinking Water System inspection received a non-compliance which did not affect the inspection score or cause a public health risk. Between August 12th and 28th, brief analyzer readings for filter turbidity triggered alarms and either self-corrected or were able to be corrected remotely instead of onsite by evaluating the data and taking appropriate actions for each occurrence. Instead of having alarms at the regulatory limit, which has regulated alarm response requirements, the Region maintains conservative turbidity alarm setpoints almost 7 times below the regulatory limit. Following detailed discussions with the Ministry on the interpretation of requirements for on-site alarm response and logbook documentation, York Region requested and received regulatory relief to prevent future turbidity alarms that are well below set regulatory limits being identified as non-compliant. There were no risks to public health or water treatment effectiveness due to the turbidity alarms.

Drinking water systems quantity and flow rate capacity were compliant in 2024 with one brief exception

To help Council assess the capability of the drinking water systems to meet existing and planned uses, a summary of 2024 drinking water volumes is visualized in Appendix B, including monthly average and maximum daily flows compared to system-specific limits.

In 2024, the Region's drinking water systems operated within their maximum daily withdrawal limits. 16 of 42 production wells experienced temporary periods of flow rates that exceeded the maximum per minute pumping rates outlined in their Permits to Take Water. Flow exceedances are generally due to operational requirements, such as flow testing, or equipment fluctuations. These exceedances were small in total volume and ranged from one to 158 minutes in duration. No negative impacts or complaints from other water users from these minor exceedances were observed.

All drinking water systems continue to meet water quality and quantity needs of the community. They operated within their daily permitted water volume and capacity limits with one brief exception. On June 19th, 2024, total flow from all Nobleton wells combined exceeded the daily water taking limit by 141m³ (approximately 3% of the daily limit). Staff promptly corrected a flow monitoring equipment malfunction.

Through the day-to-day actions of highly skilled and professional staff, York Region continues to maintain compliance with:

- The *Safe Drinking Water Act, 2002* and its regulations
- Terms and conditions of the Region's Permits to Take Water and supply agreements with City of Toronto and Peel Region

- Permitted Intra-Basin Transfer volumes for water taken from (and returned to) Lake Ontario for communities in the Lake Huron watershed

This memo does not have a financial component or financial implications.

For more information on this memo, please contact David Szeptycki, Director of Sustainability, Communication and Innovation at 1-877-464-9675 ext. 75723, or Richard Walker, Director of Water and Wastewater at 1-877-464-9675 ext. 75311. Accessible formats or communication supports are available upon request.

Laura McDowell, P.Eng
Commissioner of Public Works

Erin Mahoney
Chief Administrative Officer

March 24, 2025
#16344452

Appendix A – Adverse Water Quality Events
Appendix B – Drinking Water Systems Performance Summary

2024 SUMMARY OF ADVERSE WATER QUALITY EVENTS AND CORRECTIVE ACTIONS

Adverse water quality events were reported and had corrective actions which complied with the Ontario Regulation 170/03: Drinking Water Systems, made under the *Safe Drinking Water Act, 2002,* S.O. 2002, c. 32 S.O. 2002, c. 32. The Ministry of Environment, Conservation and Parks and the York Region Medical Officer of Health were satisfied with corrective actions taken for all events in the summary below and had no further direction. There were no risks to public health due to any reported adverse water quality events.

Ansnorveldt Drinking Water System

There were no adverse water quality events for this drinking water system.

Aurora Sub-System (York Drinking Water System)

Incident Description	Date	Test Result	Corrective Action
Combined Chlorine Residual > 4.0 mg/L (Regulatory Relief Sites)	January 13	3.92 mg/L	Operator attended site, facility restored to normal operation. Compliant grab sample taken.
Sodium > 20.0 mg/L	April 17	20.2 mg/L	Operator attended site. Resample taken.

Ballantrae-Musselman's Lake Drinking Water System

There were no adverse water quality events for this drinking water system.

Georgina Drinking Water System

There were no adverse water quality events for this drinking water system.

Holland Landing Sub-System (York Drinking Water System)

There were no adverse water quality events for this drinking water system.

Keswick Sub-System (Georgina Drinking Water System)

There were no adverse water quality events for this drinking water system.

King City Sub-System (York Drinking Water System)

Incident Description	Date	Test Result	Corrective Action
Sodium > 20.0 mg/L	April 10	23.1 mg/L	Operator attended site. Resample taken.

Kleinburg Sub-System (York Drinking Water System)

There were no adverse water quality events for this drinking water system.

Mount Albert Drinking Water System

There were no adverse water quality events for this drinking water system.

Newmarket Sub-System (York Drinking Water System)

Incident Description	Date	Test Result	Corrective Action
Combined Chlorine Residual > 4.0 mg/L (Regulatory Relief Sites)	January 8	4.03 mg/L	Operator attended site, facility restored to normal operation. Compliant grab sample taken.

Nobleton Drinking Water System

There were no adverse water quality events for this drinking water system.

Schomberg Drinking Water System

Incident Description	Date	Test Result	Corrective Action
Combined Chlorine Residual > 4.0 mg/L (Regulatory Relief Sites)	October 2	4.04 mg/L	Operator attended site, facility restored to normal operation. Compliant grab sample taken.

Sharon/Queensville Sub-System (York Drinking Water System)

There were no adverse water quality events for this drinking water system.

Stouffville Sub-System (York Drinking Water System)

There were no adverse water quality events for this drinking water system.

York Drinking Water System: Markham, Richmond Hill, Vaughan

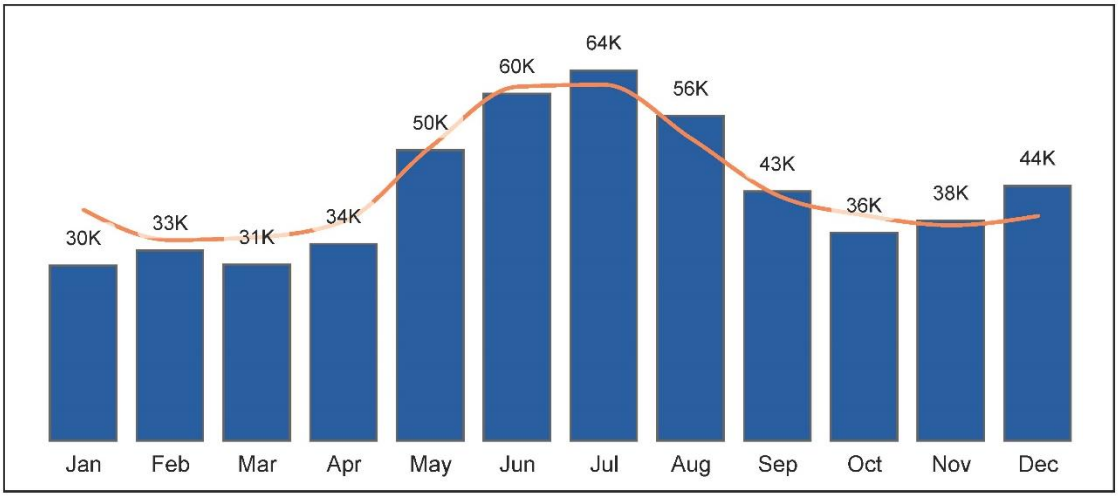
There were no adverse water quality events for this drinking water system.

2024 PERFORMANCE DATA SUMMARIES FOR YORK REGION'S DRINKING WATER SYSTEMS (DWS)

2024 Water Capacity Summary
Ansnorveldt DWS

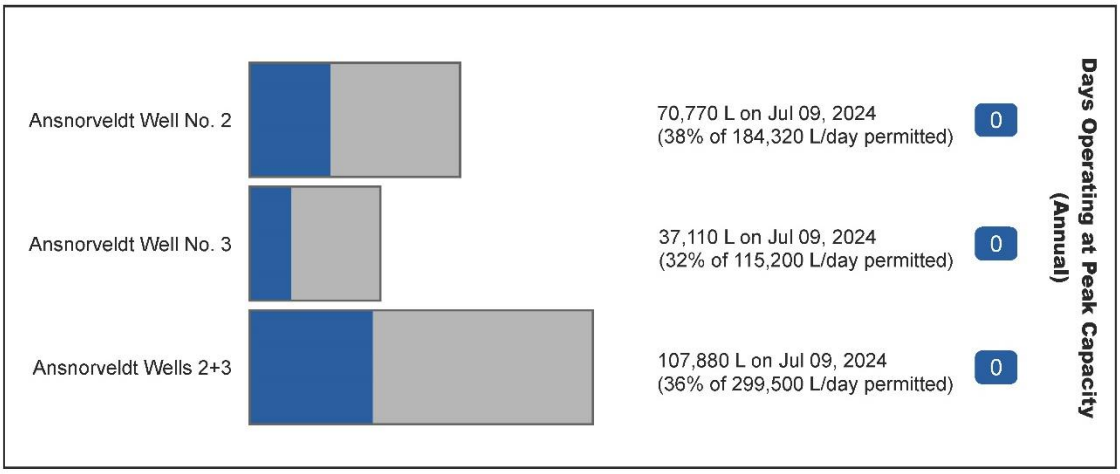
System Monthly Average Flow

The following chart shows the average flow of water produced (treated) in litres per day (L/day) each month in the Ansnorveldt DWS compared to the 5 year historical average (orange line).



Permitted and Actual Maximum Daily Volumes

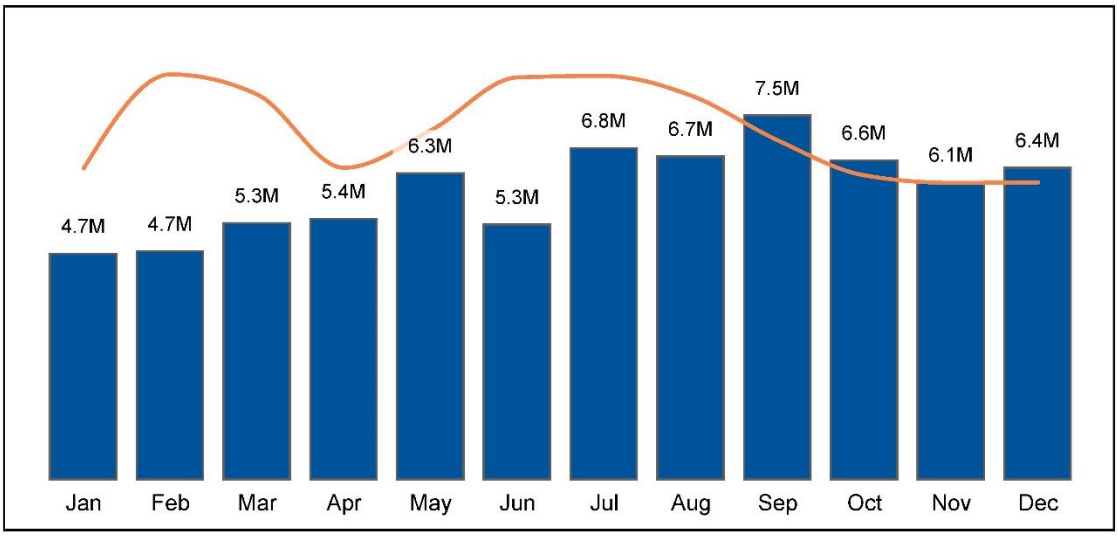
The following chart shows the maximum volume of water in a single day from each water supply facility (blue bar) compared to the maximum permitted by the Ministry of the Environment, Conservation and Parks (grey bar). Also shown to the right is the number of days where the water supply facilities were operating at peak capacity (greater than 80% of the permitted volume).



2024 Water Capacity Summary
Aurora DWS

System Monthly Average Flow

The following chart shows the average flow of water produced (treated) in litres per day (L/day) each month in the Aurora DWS compared to the 5 year historical average (orange line).



Permitted and Actual Maximum Daily Volumes

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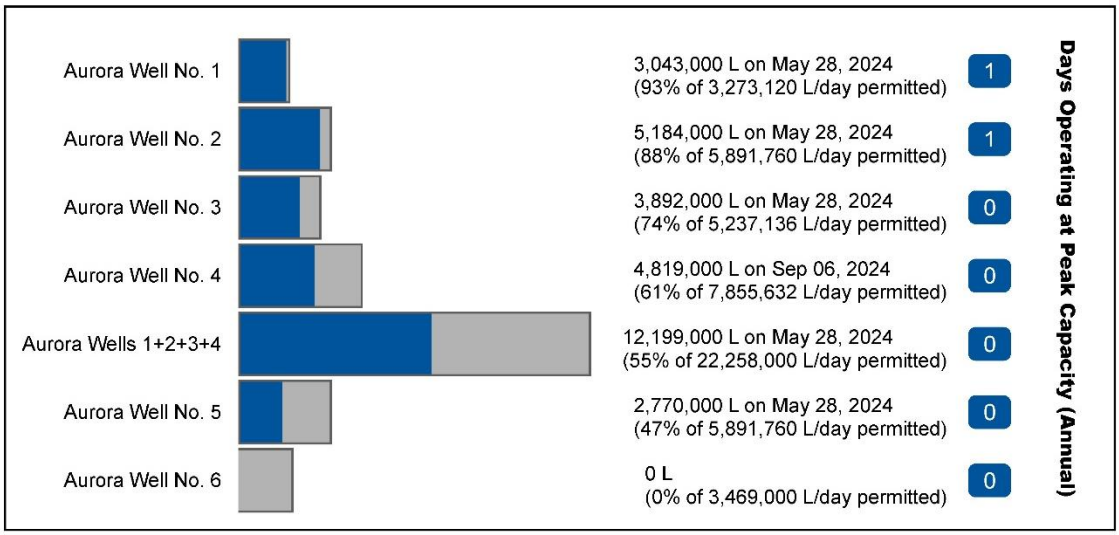
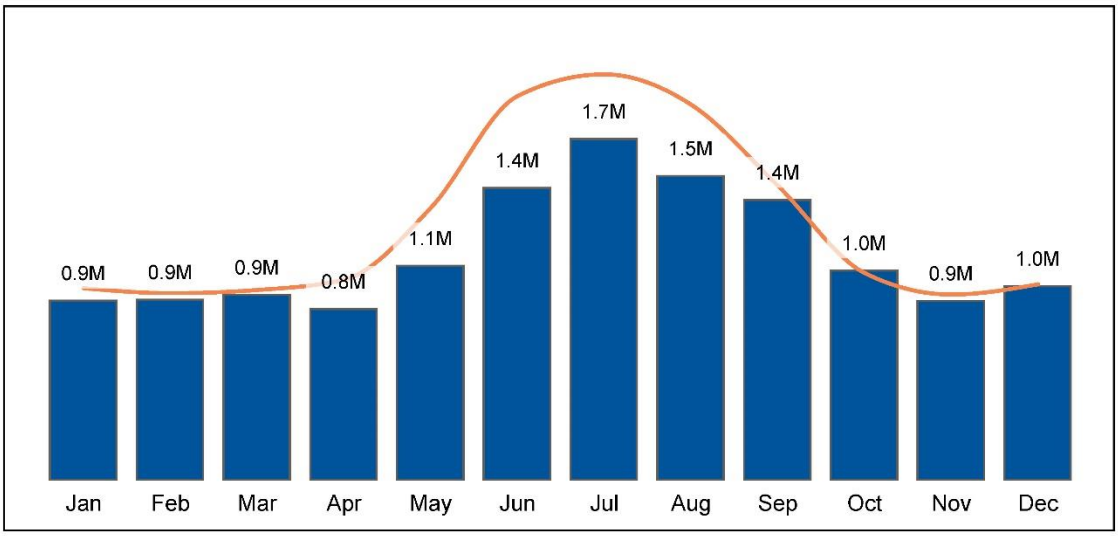


2024 Water Capacity Summary
Ballantrae/Musselman's Lake DWS

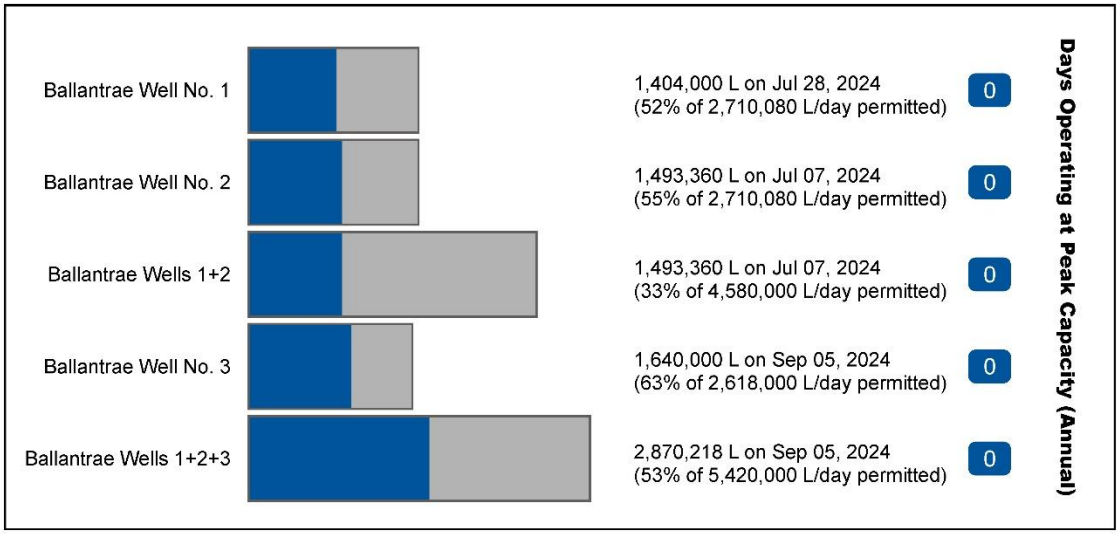
System Monthly Average Flow

The following chart shows the average flow of water produced (treated) in litres per day (L/day) each month in the Ballantrae/Musselman's Lake DWS compared to the 5 year historical average (orange line).



Permitted and Actual Maximum Daily Volumes

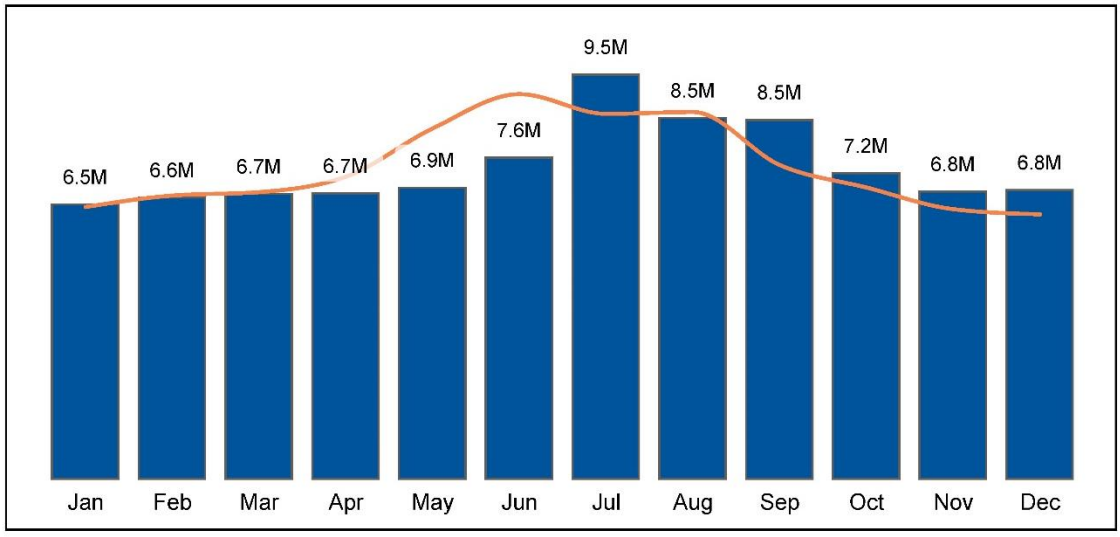
The following chart shows the maximum volume of water in a single day from each water supply facility (blue bar) compared to the maximum permitted by the Ministry of the Environment, Conservation and Parks (grey bar). Also shown to the right is the number of days where the water supply facilities were operating at peak capacity (greater than 80% of the permitted volume).



2024 Water Capacity Summary
Georgina DWS

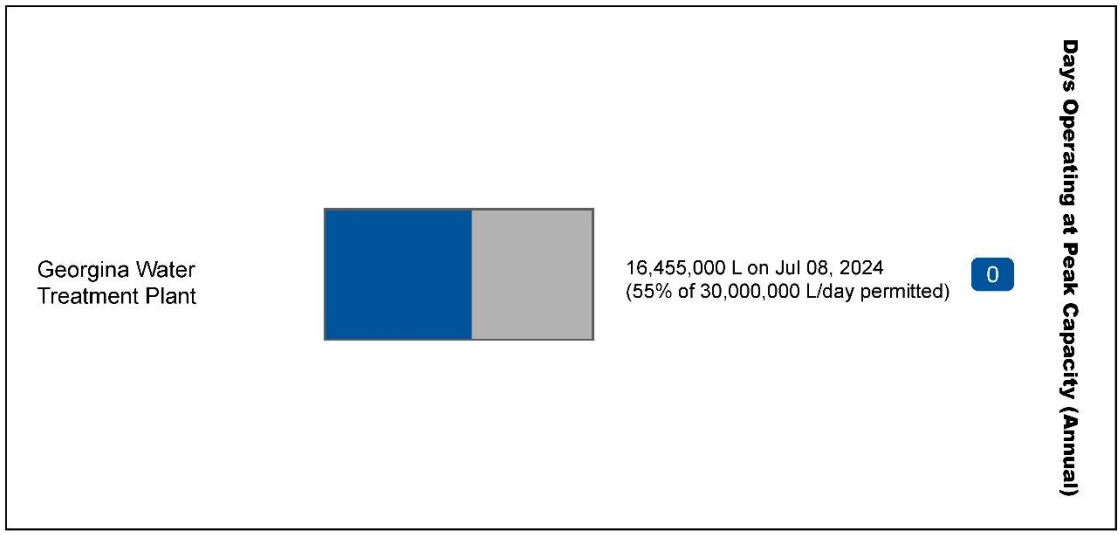
System Monthly Average Flow

The following chart shows the average flow of water produced (treated) in litres per day (L/day) each month in the Georgina DWS compared to the 5 year historical average (orange line).



Permitted and Actual Maximum Daily Volumes

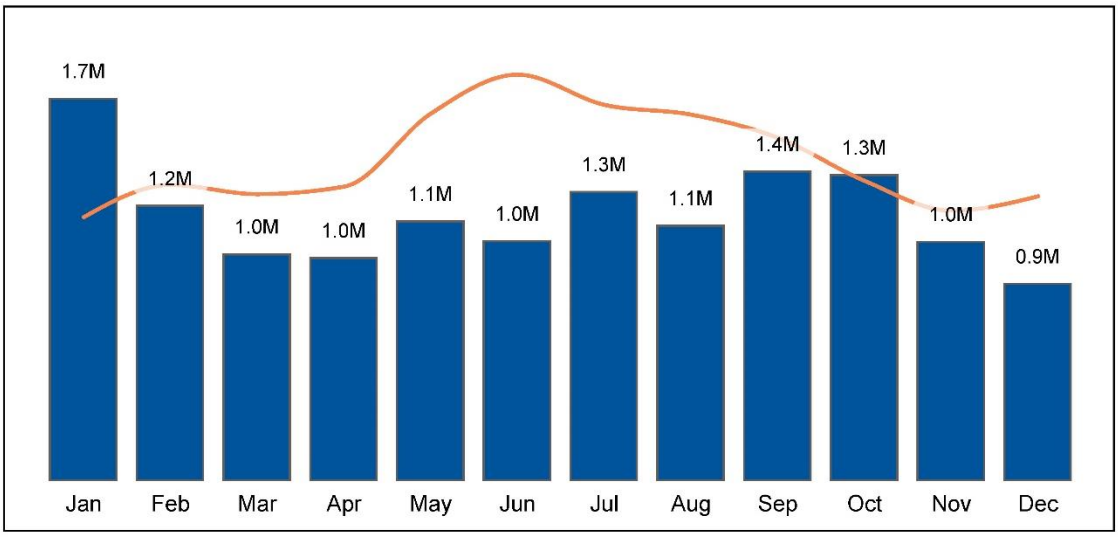
The following chart shows the maximum volume of water in a single day from each water supply facility (blue bar) compared to the maximum permitted by the Ministry of the Environment, Conservation and Parks (grey bar). Also shown to the right is the number of days where the water supply facilities were operating at peak capacity (greater than 80% of the permitted volume).



2024 Water Capacity Summary
Holland Landing DWS

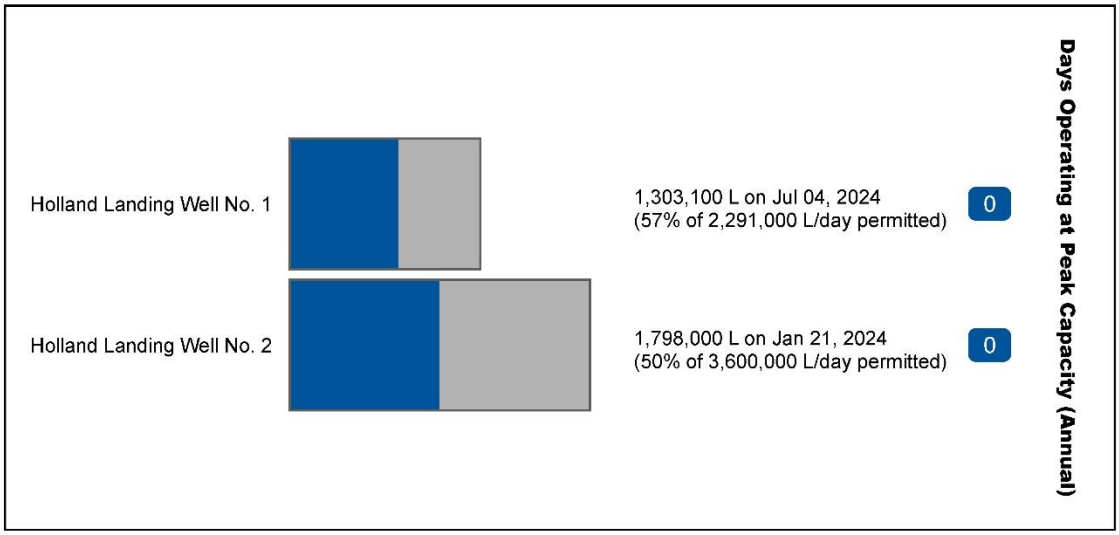
System Monthly Average Flow

The following chart shows the average flow of water produced (treated) in litres per day (L/day) each month in the Holland Landing DWS compared to the 5 year historical average (orange line).



Permitted and Actual Maximum Daily Volumes

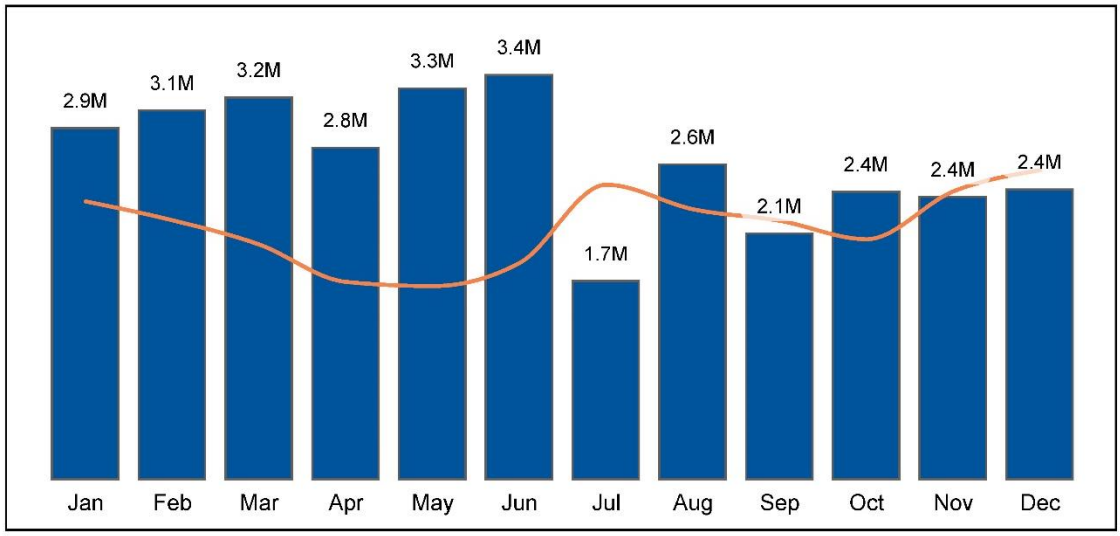
The following chart shows the maximum volume of water in a single day from each water supply facility (blue bar) compared to the maximum permitted by the Ministry of the Environment, Conservation and Parks (grey bar). Also shown to the right is the number of days where the water supply facilities were operating at peak capacity (greater than 80% of the permitted volume).



2024 Water Capacity Summary
Keswick DWS

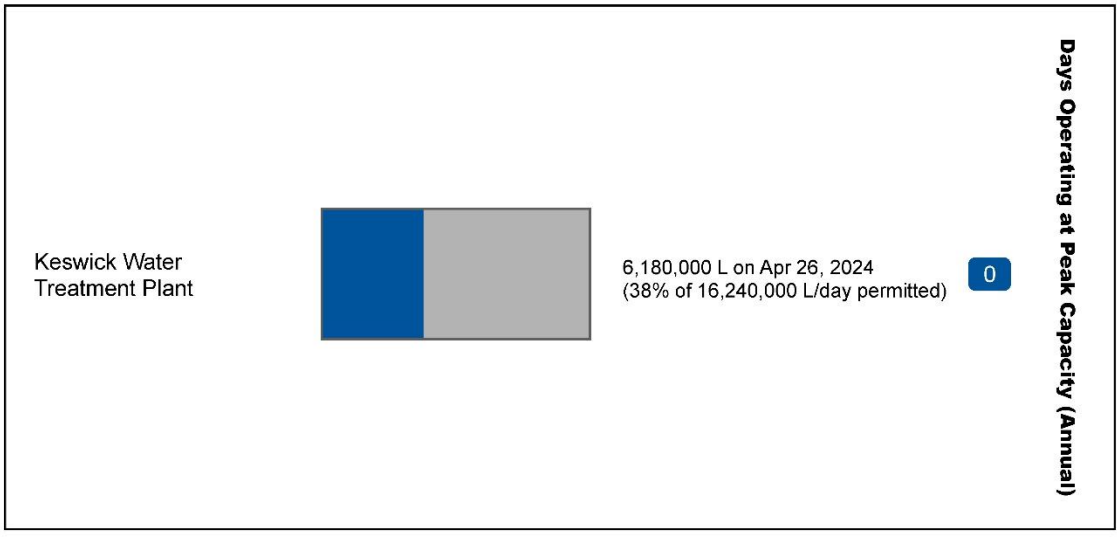
System Monthly Average Flow

The following chart shows the average flow of water produced (treated) in litres per day (L/day) each month in the Keswick DWS compared to the 5 year historical average (orange line).



Permitted and Actual Maximum Daily Volumes

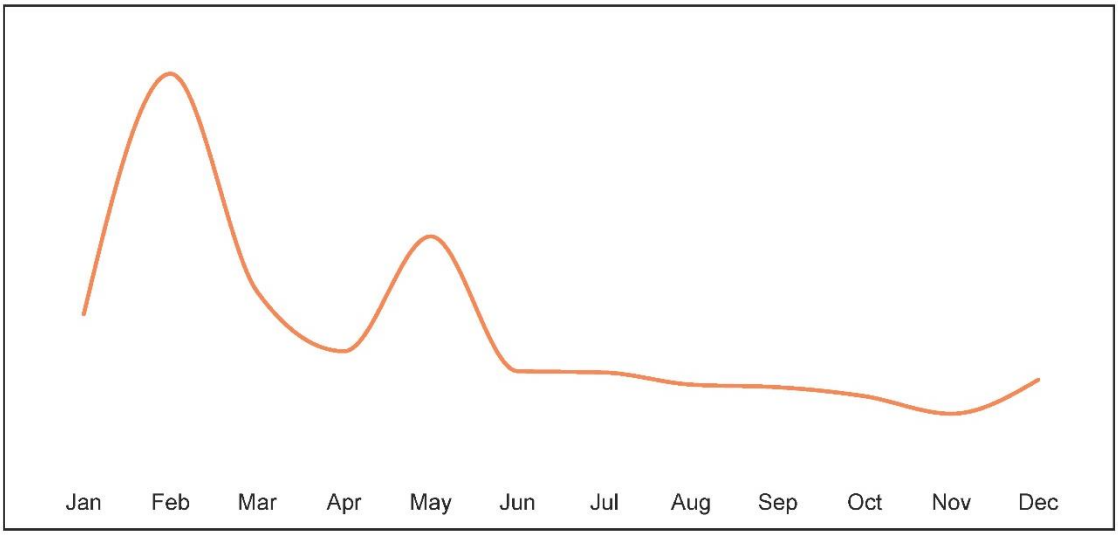
The following chart shows the maximum volume of water in a single day from each water supply facility (blue bar) compared to the maximum permitted by the Ministry of the Environment, Conservation and Parks (grey bar). Also shown to the right is the number of days where the water supply facilities were operating at peak capacity (greater than 80% of the permitted volume).



2024 Water Capacity Summary
King City DWS

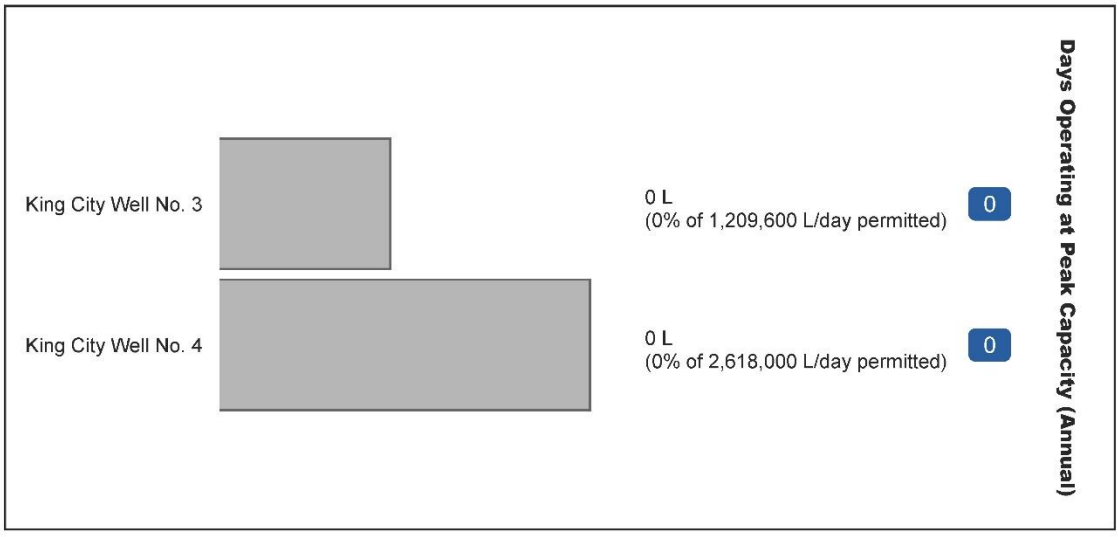
System Monthly Average Flow

The following chart shows the average flow of water withdrawn from wells to maintain standby availability in litres per day (L/day) each month in the King City DWS compared to the 5 year historical average (orange line).



Permitted and Actual Maximum Daily Volumes

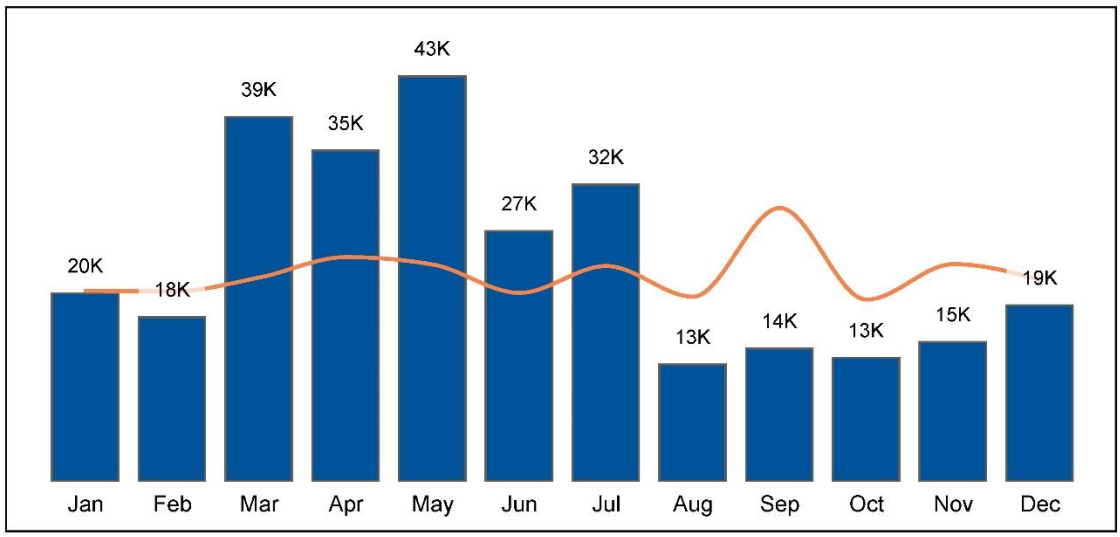
The following chart shows the maximum volume of water in a single day from each water supply facility (blue bar) compared to the maximum permitted by the Ministry of the Environment, Conservation and Parks (grey bar). Also shown to the right is the number of days where the water supply facilities were operating at peak capacity (greater than 80% of the permitted volume).



2024 Water Capacity Summary
Kleinburg DWS

System Monthly Average Flow

The following chart shows the average flow of water withdrawn from wells to maintain standby availability in litres per day (L/day) each month in the Kleinburg DWS compared to the 5 year historical average (orange line).



Permitted and Actual Maximum Daily Volumes

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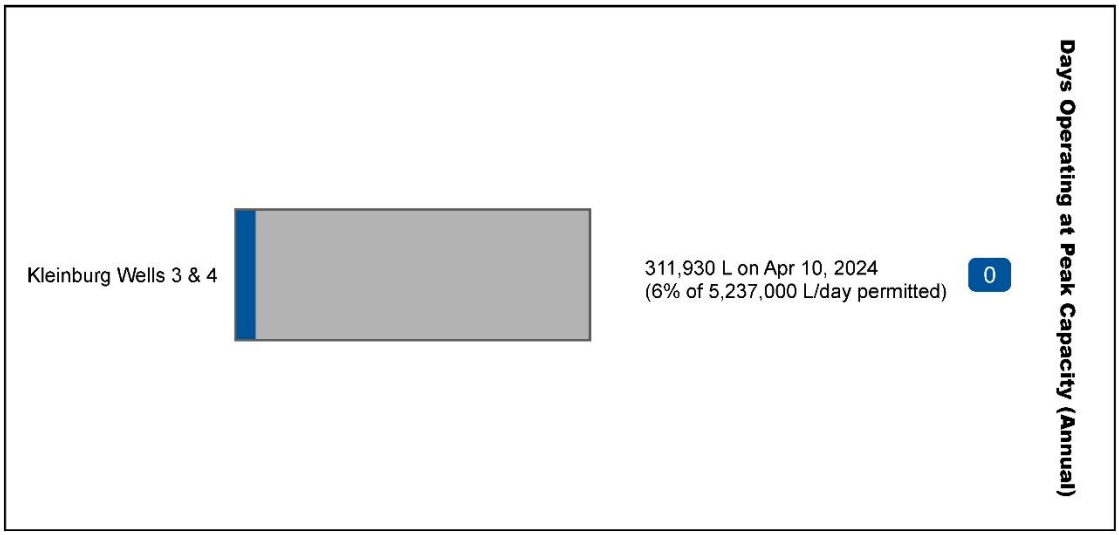
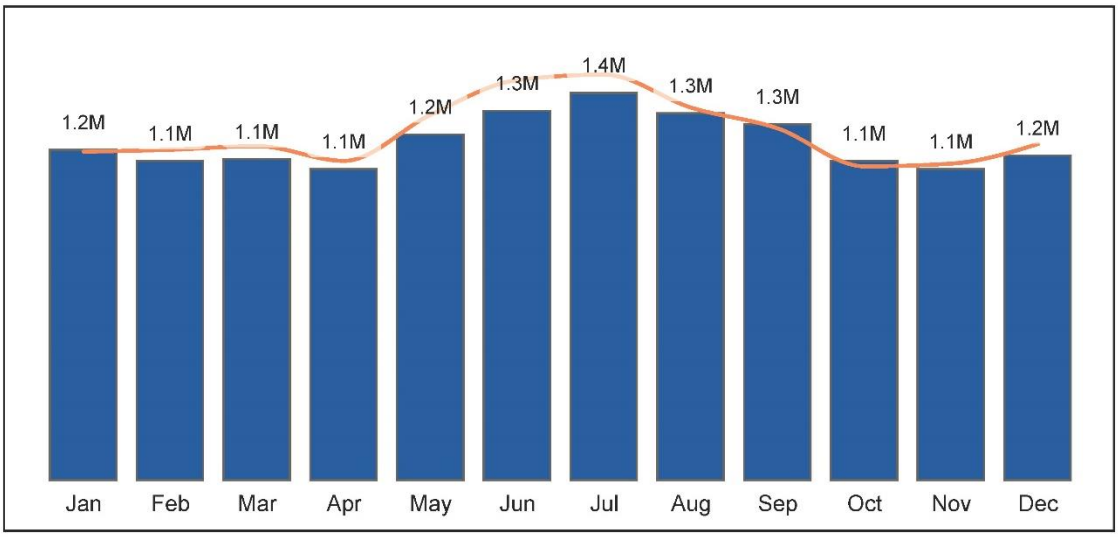


2024 Water Capacity Summary
Mount Albert DWS

System Monthly Average Flow

The following chart shows the average flow of water produced (treated) in litres per day (L/day) each month in the Mount Albert DWS compared to the 5 year historical average (orange line).



Permitted and Actual Maximum Daily Volumes

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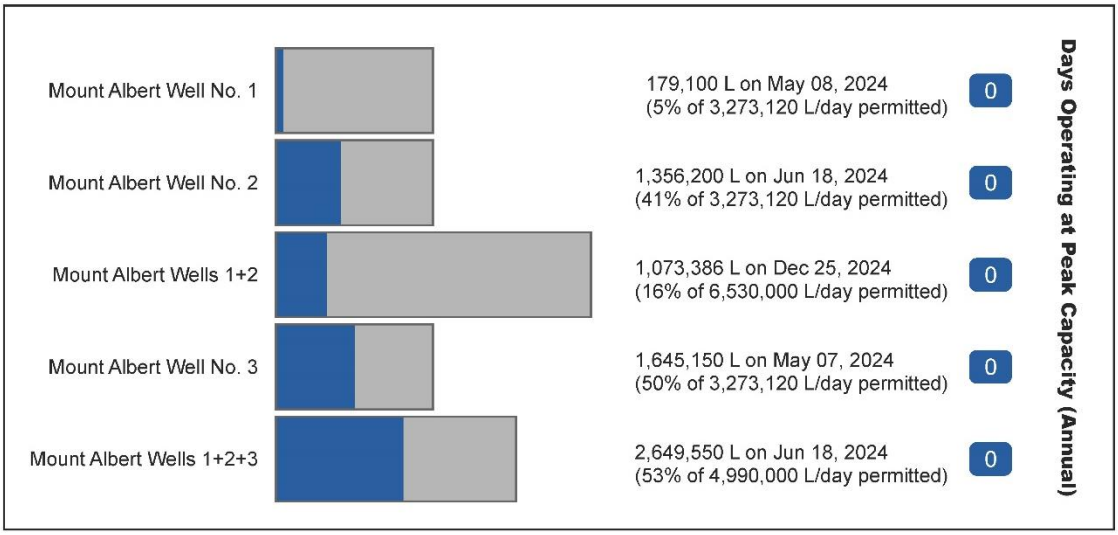
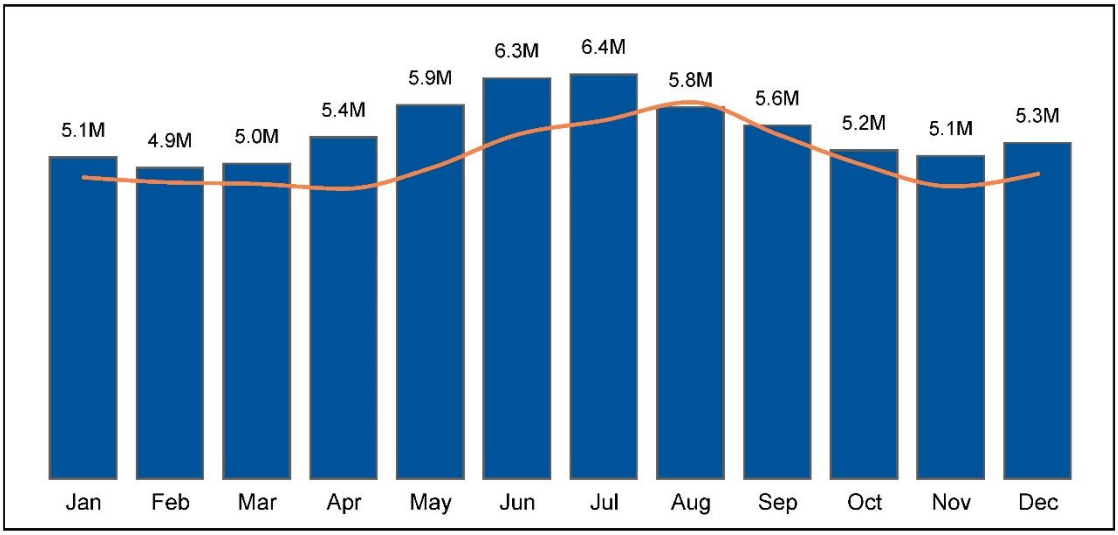


2024 Water Capacity Summary
Newmarket DWS

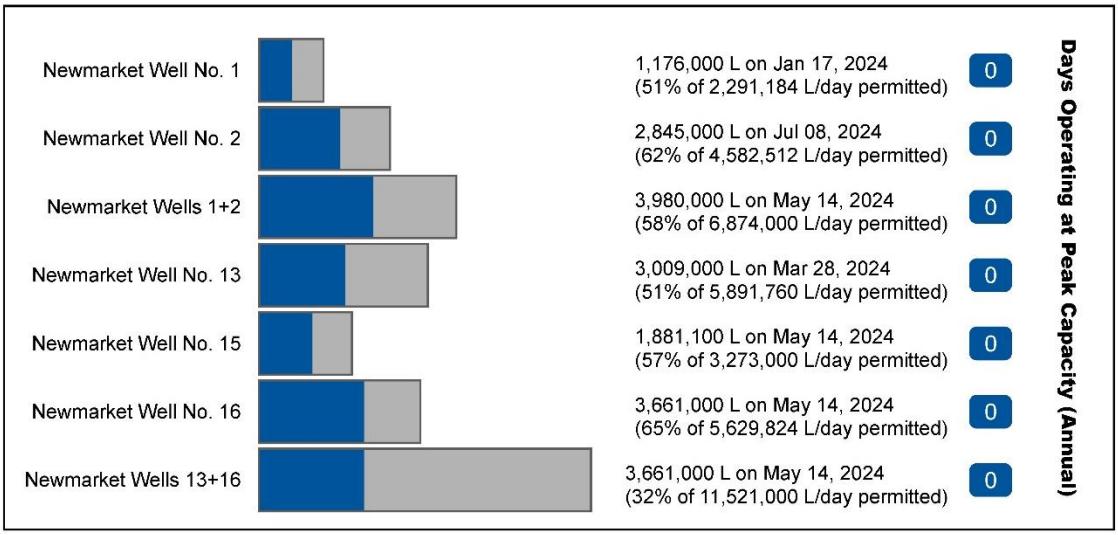
System Monthly Average Flow

The following chart shows the average flow of water produced (treated) in litres per day (L/day) each month in the Newmarket DWS compared to the 5 year historical average (orange line).



Permitted and Actual Maximum Daily Volumes

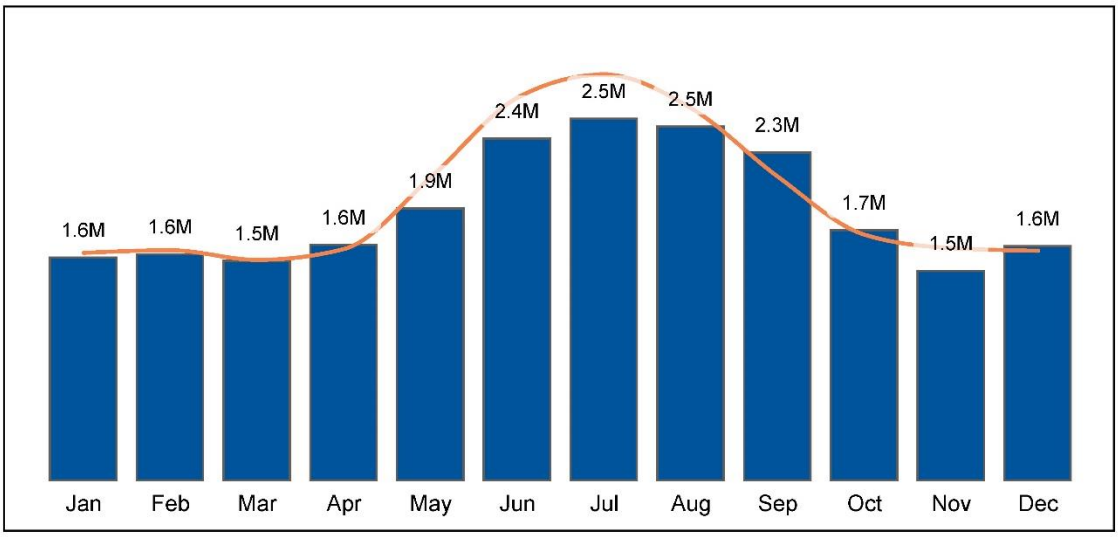
The following chart shows the maximum volume of water in a single day from each water supply facility (blue bar) compared to the maximum permitted by the Ministry of the Environment, Conservation and Parks (grey bar). Also shown to the right is the number of days where the water supply facilities were operating at peak capacity (greater than 80% of the permitted volume).



2024 Water Capacity Summary
Nobleton DWS

System Monthly Average Flow

The following chart shows the average flow of water produced (treated) in litres per day (L/day) each month in the Nobleton DWS compared to the 5 year historical average (orange line).



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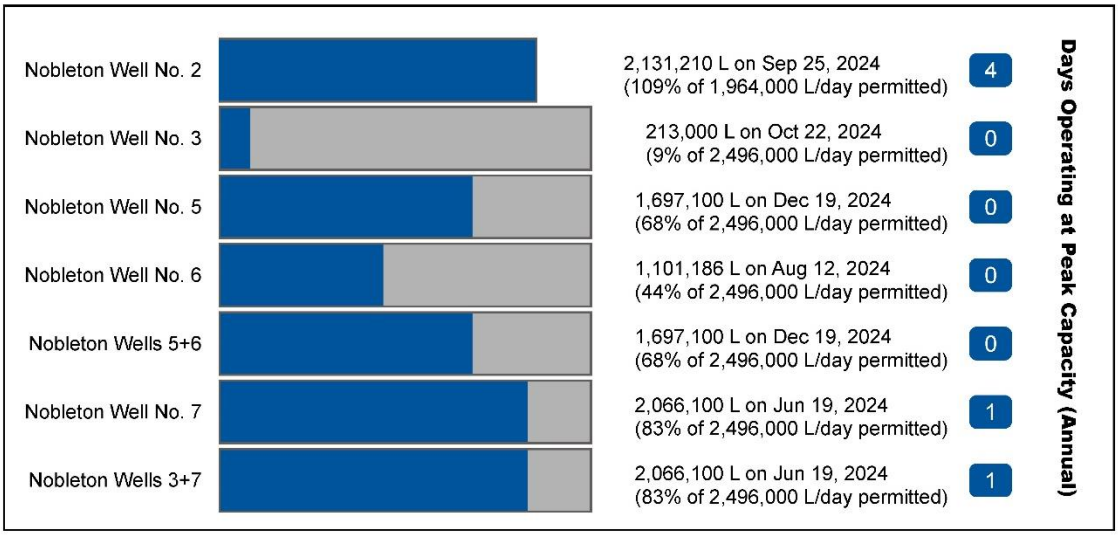
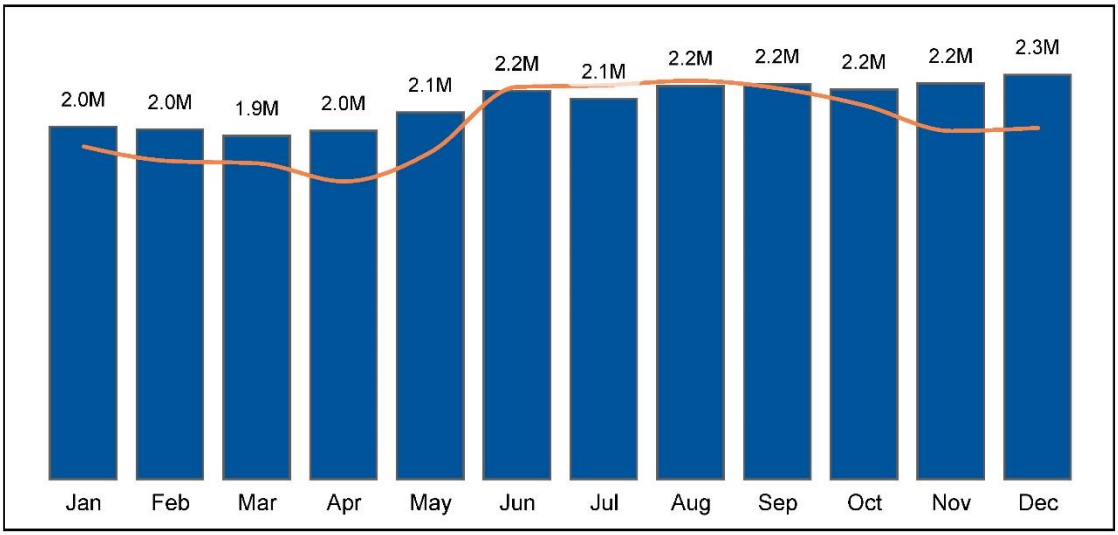


2024 Water Capacity Summary
Schomberg DWS

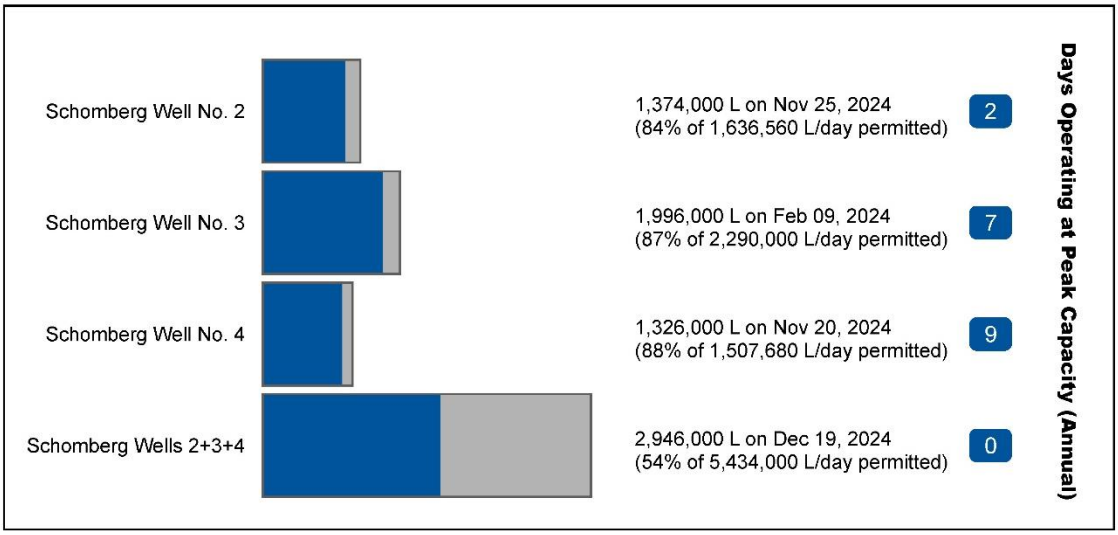
System Monthly Average Flow

The following chart shows the average flow of water produced (treated) in litres per day (L/day) each month in the Schomberg DWS compared to the 5 year historical average (orange line).



Permitted and Actual Maximum Daily Volumes

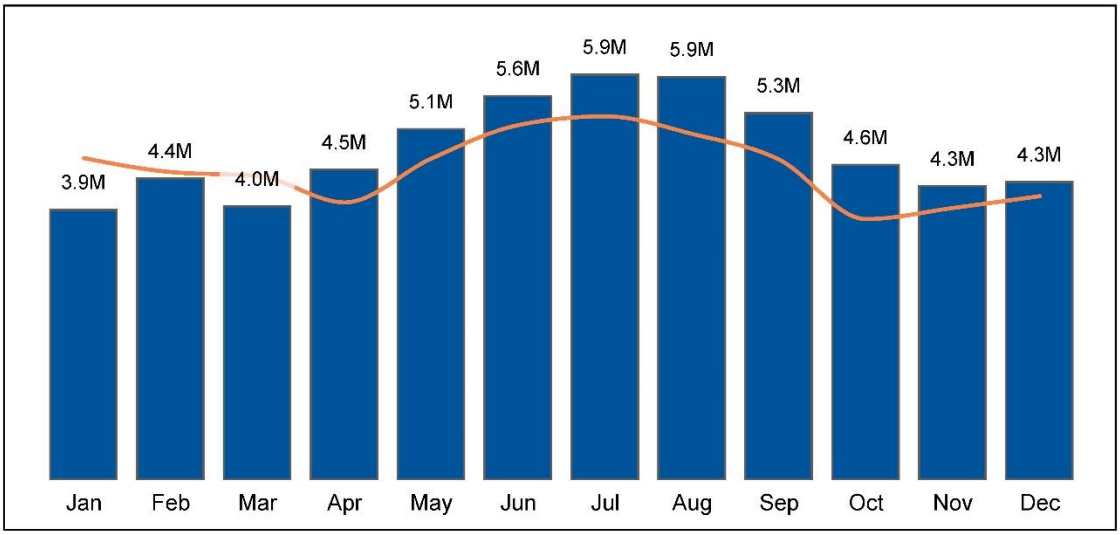
The following chart shows the maximum volume of water in a single day from each water supply facility (blue bar) compared to the maximum permitted by the Ministry of the Environment, Conservation and Parks (grey bar). Also shown to the right is the number of days where the water supply facilities were operating at peak capacity (greater than 80% of the permitted volume).



2024 Water Capacity Summary
Sharon/Queensville DWS

System Monthly Average Flow

The following chart shows the average flow of water produced (treated) in litres per day (L/day) each month in the Sharon/Queensville DWS compared to the 5 year historical average (orange line).



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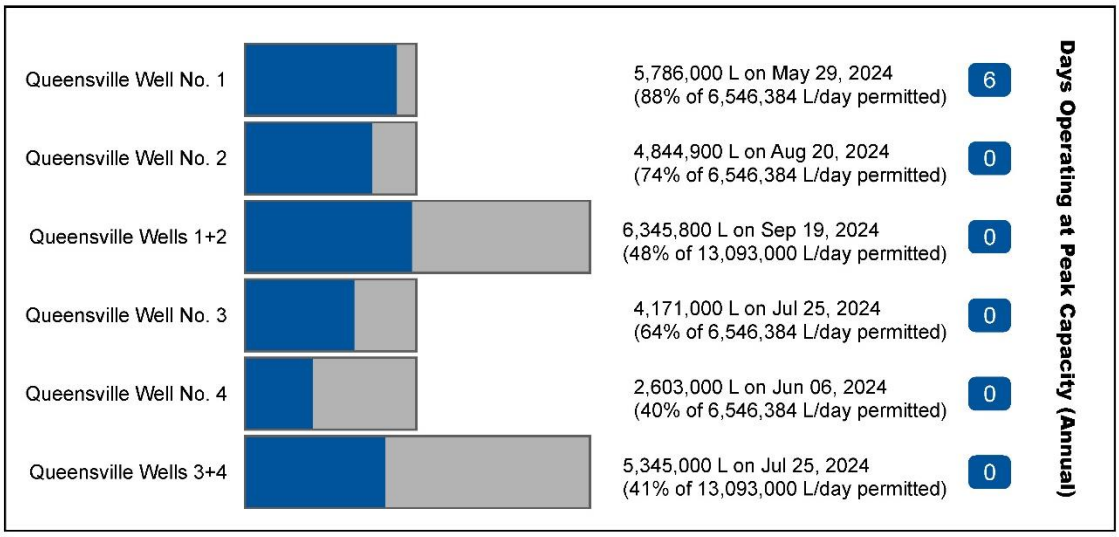
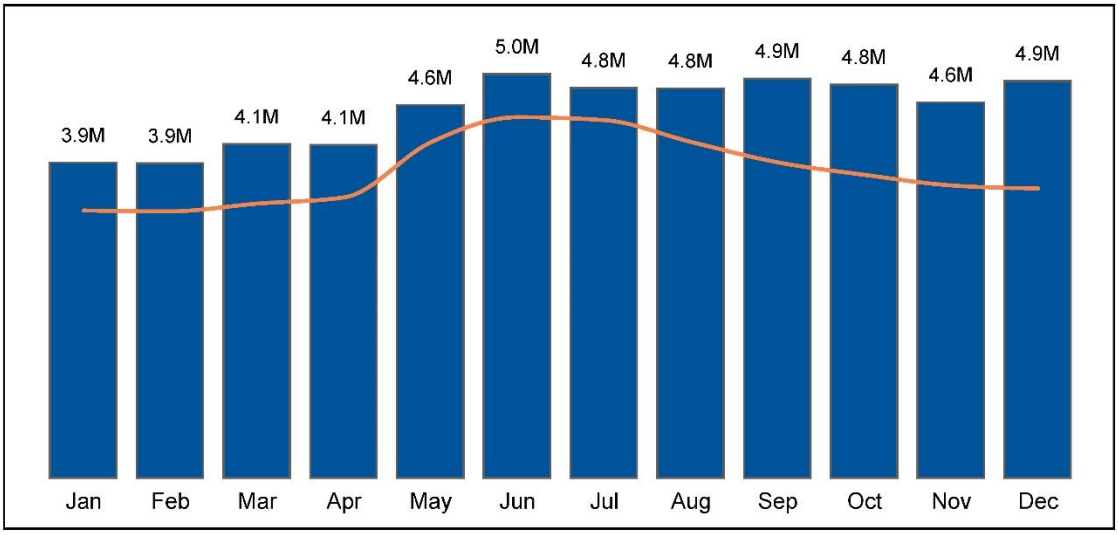


2024 Water Capacity Summary
Stouffville DWS

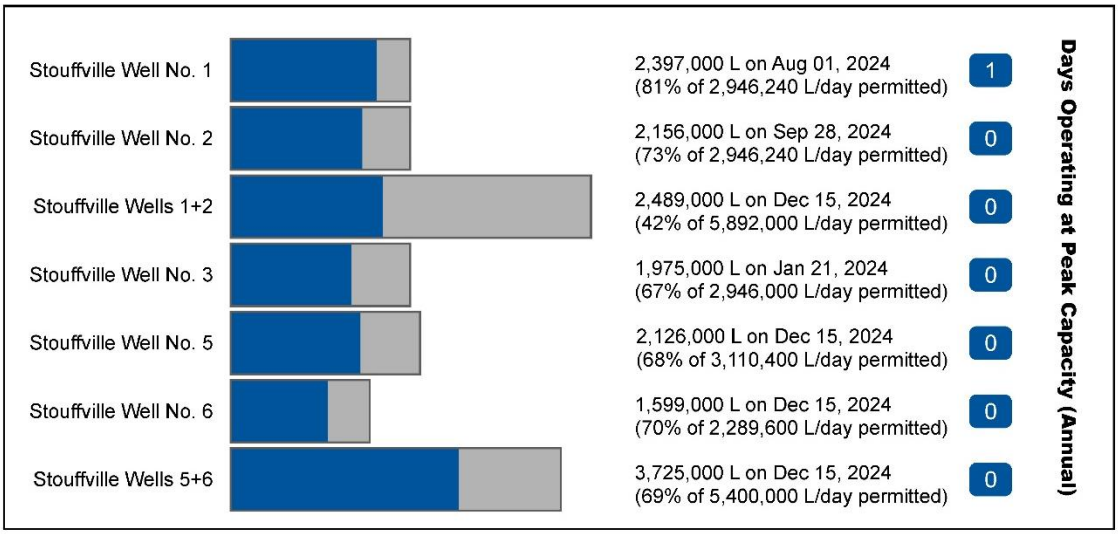
System Monthly Average Flow

The following chart shows the average flow of water produced (treated) in litres per day (L/day) each month in the Stouffville DWS compared to the 5 year historical average (orange line).



Permitted and Actual Maximum Daily Volumes

The following chart shows the maximum volume of water in a single day from each water supply facility (blue bar) compared to the maximum permitted by the Ministry of the Environment, Conservation and Parks (grey bar). Also shown to the right is the number of days where the water supply facilities were operating at peak capacity (greater than 80% of the permitted volume).

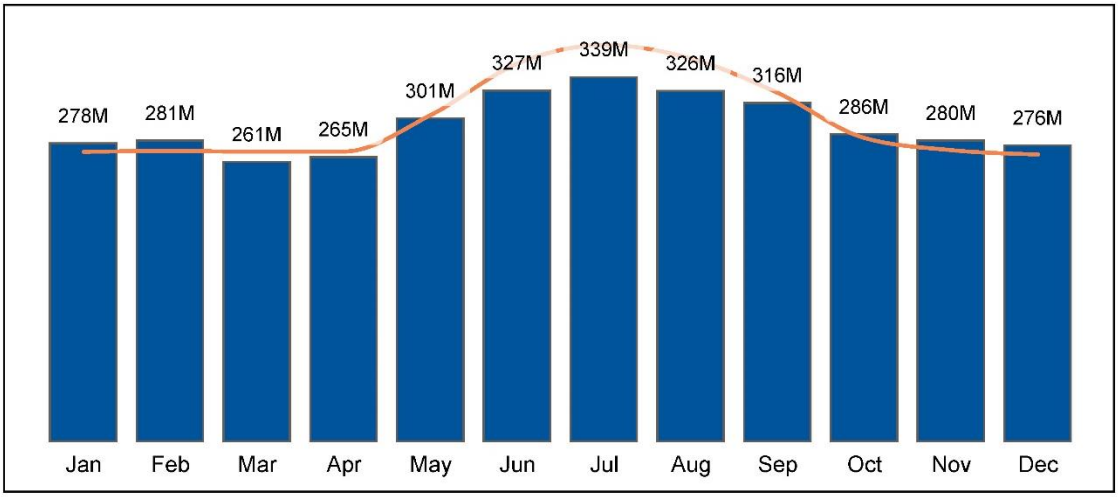


2024 Water Capacity Summary

York DWS Vaughan | Richmond Hill | Markham

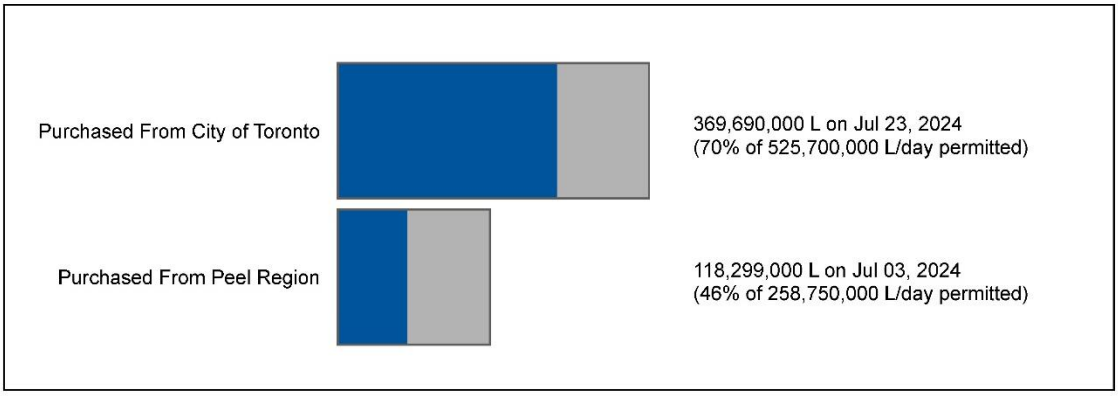
System Monthly Average Flow

The following chart shows the monthly average consumption in million litres per day of purchased Lake Ontario water compared to the 5 year historical average (orange line).



Permitted and Actual Maximum Daily Withdrawal

The City of Toronto and Peel Region supply water to York Region under water supply agreements. The following chart shows the maximum volume of water purchased from each municipality in a single day (blue bar) compared to the maximum flow permitted under the applicable water supply agreement (grey bar).



Accessible formats or communication supports are available upon request.
Contact Corporate Communications at 1-877-464-9675 ext. 71234 or
yrcorporatecommunications@york.ca