The Regional Municipality of York

Regional Council
Environmental Services
April 27, 2023

Report of the Commissioner of Public Works

2022 Drinking Water Systems Report

1. Recommendations

The Regional Clerk circulate this report to the Clerks of the local municipalities, City of Toronto, Region of Peel and the Ontario Chief Drinking Water Inspector (Ministry of the Environment, Conservation and Parks).

2. Summary

This report satisfies Council reporting requirements for water quantity, quality and compliance in Ontario Regulation 170/03: Drinking Water Systems and support Council in meeting its standard of care requirements under the *Safe Drinking Water Act, 2002* (the Act).

Key Points:

- York Region received perfect scores in the Chief Drinking Water Inspector's Annual Report Card for the Province's 2021-2022 fiscal year, with a 100% score for water samples meeting Ontario's drinking water quality standards and inspections.
- Public Works applies advanced systems monitoring, controls, and a multi-barrier approach to protect drinking water and public health.
- In 2022, York Region continued to provide high quality drinking water with over 99.99% of 17,390 laboratory analyzed samples and 40.5 million continuous monitoring analyzer readings within regulated standards. All adverse results were addressed and reported.
- In 2022, Ministry of the Environment, Conservation and Parks inspections confirmed York Region's adherence to regulatory requirements with an inspection score of 99.84%.
- Drinking water systems operated within permitted volume and capacity limits although operational requirements resulted in instantaneous peak flow exceedances for short durations.

3. Background

York Region complies with the *Safe Drinking Water Act, 2002* to protect public health by providing high quality drinking water

The Ministry of the Environment, Conservation and Parks (the Ministry) regulates municipal drinking water systems in Ontario. The Act was developed to address factors that led to the Walkerton tragedy in 2000. As a result, Ontario now has some of the safest drinking water in the world.

The Act requires municipalities to report annually on drinking water. It also imposes a standard of care upon Municipal Council members. Councillors are required to exercise the level of care and diligence regarding oversight of municipal drinking water systems that a reasonably prudent person would be expected to exercise. This includes ensuring the safety of users of municipal drinking water systems. Council protects people in their communities by ensuring financial sustainability, asset management, risk mitigation and continual improvement of the Region's drinking water systems.

This report summarizes 2022 calendar year drinking water systems information with further details as follows:

- Reported adverse water quality events and corrective actions (Appendix 1)
- Ministry inspection findings and corrective actions (Appendix 2)
- Monetary expenses for each drinking water system (Appendix 3)
- Performance data for each drinking water system (Attachment 1)

Public Works partners with Public Health, the nine local municipalities and neighbouring municipalities to provide safe drinking water

Within York Region, water is delivered through a two-tiered water system. The Region operates and maintains 15 drinking water supply systems, which provide water to all nine local municipalities. Our local municipal partners are responsible for designing, constructing, operating and maintaining their distribution systems to deliver high quality water to residents and businesses. Similarly, each local municipality is required to report on its drinking water systems annually.

Public Works and Public Health maintain a 24/7 response system to address potential water quality issues. Public Health assesses potential health impacts from reported adverse water quality test results. In 2022, no follow-up corrective actions were ordered by Public Health. Procedures are in place to ensure close alignment with Public Health, local municipalities and the Ministry to ensure effective communications while protecting public health related water quality concerns.

Multi-barrier approach to risk management protects drinking water systems and public health

A multi-barrier approach protects drinking water and promotes quality and safety, while informing preventive and corrective actions. Elements of this approach include Source Water Protection, asset management, training and licencing of operators, operational strategies, the Drinking Water Quality Management Standard, system audits, a strict Provincial Inspection and Enforcement Program, and research that anticipates and prepares the Region for future water quality and operational challenges. The 2022 Research and Innovation Update memo, on the April 13 Committee of the Whole agenda, provides more information on research activities undertaken to support the department's service delivery.

York Region's Source Water Protection Program prevents contamination of Ontario's drinking water

York Region's Source Water Protection Program identifies, mitigates, and reports current and future threats to drinking water sources as required by the *Clean Water Act, 2006*. Focus areas include:

- Using policies in the Regional Official Plan to require proposed developments in vulnerable areas to plan carefully, ensuring safety of drinking water supply, including completing proactive monitoring and mitigation activities
- Collaborating with businesses to implement Risk Management Plans to protect drinking water sources using incentive programs and inspecting for compliance
- Working with the Province, local and neighbouring municipalities, and Conservation Authorities to align plans to ensure effective and successful protection of all sources of drinking water.

In 2023, Public Works staff will assess impacts of the *More Homes Built Faster Act, 2022* on implementing the Source Water Protection Program. Currently program efforts are documented and reported to the Province, as required by the *Clean Water Act, 2006*.

York Region delivers provincially-mandated training, providing staff with required knowledge to sustain high-performing water systems

York Region delivers a fulsome training program complete with relevant virtual and in-person training. This program is tailored to ensure operators receive required provincially-standardized education and that on-the-job training translates regulatory requirements into operational practice. Training equips staff to manage drinking water systems competently and efficiently, in compliance with licence requirements and best practices.

Drinking Water Quality Management Standards help drive improvement

The Region adheres to a statutory quality management standard that protects public health through consistent practices for operating water systems, and by proactively identifying and

mitigating risks. The standard helps to identify opportunities to improve processes and procedures. The 2022 Integrated Management System Update Report, also on this agenda, provides more information.

Annual provincial inspections assess compliance

York Region facilities are inspected annually by the Ministry to confirm compliance with regulations, licenses, permits and Ministry procedures. Staff maintain a positive working relationship with regulators to identify and mitigate risks in our watersheds and systems.

Region's data practices support operational oversight, public access and transparency

York Region's data management practices continue to evolve in terms of producing information and insights. Online instruments and comprehensive sampling generate billions of data points every year about the performance of our drinking water systems. Automated tools flag any data points that exceed regulated limits and prompt staff to follow up. Empowering staff with the right digital tools, technology and training allows them to gain insights into the data, which supports the Region's industry-leading drinking water operations.

An interactive report at york.ca/drinkingwater provides an effective way to learn about the Region's drinking water systems. The complete dataset may also be downloaded from york.ca/opendata. Easy to access data supports Council's Strategic Plan Objective to improve customer experience by leveraging digital transformation.

4. Analysis

WATER QUALITY

Over 99.99% of 2022 laboratory samples met regulatory limits exemplifying York Region's safe high-quality drinking water

Our comprehensive sampling program includes regulatory, in-house and research samples in response to operational needs and regulatory changes. In 2022, the York-Durham Environmental Laboratory performed 17,390 water quality tests for York Region's drinking water systems. One single test result from Georgina Water Treatment Plant detected total coliform bacteria; however, resample results and ongoing weekly sampling tests confirmed effective disinfection and no coliform bacteria present. Over 99.99% of all samples collected and analyzed by the laboratory in 2022 were within regulated limits and standards.

There were two sodium results that were slightly above the reporting threshold of 20 mg/L, prompting notification to York Region's Medical Officer of Health and the Ministry. The threshold for sodium is not a compliance limit or regulated standard; it ensures that residents on sodium restricted diets have information about sodium levels in their drinking water.

Sodium is found naturally in surface and groundwater, as it is present in most rocks and soils across Southern Ontario.

Table 1 summarizes laboratory analyzed water quality test results reported as adverse water quality events in 2022. The laboratory initiates a notification process when sample analysis indicates a parameter requires reporting. Staff responded to each adverse test result, and performed and reported on all corrective actions. There were no risks to public health because of these adverse events.

Appendix 1 summarizes all reported adverse water quality events.

Table 1

Adverse Water Quality Events
Reported from Laboratory Analyzed Samples in 2022

Parameter, Drinking Water System (DWS) and Number of Occurrences	Summary of Reported Sample Results and Corrective Actions Taken
Sodium • Kleinburg DWS (1) • Nobleton DWS (1)	Sodium levels between 23.8 and 24.5 mg/L were reported at Kleinburg Elevated Tank and Nobleton Well 3. The reporting requirement for sodium is once every 57 months for results exceeding 20 mg/L. Health Canada's guideline for sodium in drinking water is an aesthetic taste objective of 200 mg/L. Operators resampled these facilities to confirm sodium levels and notified York Region's Medical Officer of Health.
Microbiological • Georgina DWS (1)	Total coliform bacteria detected in Georgina Water Treatment Plant treated water sample. Resample results and ongoing weekly sampling tests confirm effective disinfection and no coliform bacteria present.

Sampling error provided opportunity for continual improvement of sampling program

Microcystin is a toxin produced naturally by blue-green algae. Of the 17,390 laboratory samples taken in 2022, a sampling process error resulted in a failure to meet a weekly microcystin sampling requirement at the Georgina Water Treatment Plant and the Keswick Water Treatment Plant for a single week. There was no indication of a harmful algal bloom

during this period and all sample results in 2022 confirmed no detection of microcystin. A root cause analysis was conducted and corrective actions were identified to prevent reoccurrence. Corrective actions were taken, including improvements to the process for sampling and monitoring results and refresher training for operations staff.

Continuous monitoring analyzers and online equipment safeguard drinking water delivered to residents

In addition to sampling conducted by staff, 387 online analyzers continuously monitored system performance, creating 40.5 million water quality records in 2022. Online analyzers continuously monitor several water quality parameters, including chlorine residual, which is an indicator of disinfection level. Analyzers and other online equipment are calibrated regularly by trained staff.

Highly sensitive analyzers monitor water quality at all times and automatically stop water production if a concern is detected. The Region's Remote Operations Centre monitors the system 24/7, and dispatches field operators to respond to alarms or unusual trends and perform corrective actions as required. These systems and processes greatly reduce the risk of non-potable water entering the drinking water system.

Real-time monitoring system and analyzer readings showed compliance with regulatory limits for water safety parameters

Of the 40.5 million analyzer readings in 2022, staff reported five adverse water quality events. Most events self-corrected or needed minor equipment adjustments. Staff confirmed drinking water safety through on-site tests and facility operation. There was no risk to public health because of these adverse events.

Table 2 summarizes the continuously monitored analyzer readings reported as adverse water quality events in 2022. Appendix 1 summarizes all reported adverse water quality events.

Table 2

Adverse Water Quality Events
Reported from Continuous Monitoring Analyzer Readings in 2022

Parameter, Drinking Water System (DWS) and Number of Occurrences	Summary of Reported Sample Results and Corrective Actions Taken
High Chlorine Level • Aurora DWS (1) • Newmarket (1)	High chlorine residual events resulted from temporary, minor equipment or process errors. Corrective actions for high chlorine levels include collecting grab samples and verifying analyzers.
Filtration Performance • Georgina DWS (1)	Monthly filter turbidity criteria not met due to analyzer issue. Corrective actions included installing new equipment to restore analyzer readings.
Low Chlorine Level • Holland Landing DWS (1)	Low chlorine event at Holland Landing Well 2 was detected in an isolated section of watermain. Corrective actions included flushing watermain until compliant chlorine residuals were obtained.
Other • Kleinburg DWS (1)	Event at Kleinburg Elevated Tank reported as due diligence. Laboratory samples were not analyzed prior to putting facility back online after cleaning. Analyzer and grab samples confirmed required chlorine residuals. Distribution system was flushed as a precaution.

The Region has reduced adverse water quality events from continuous monitoring analyzers by 93% since 2016. This downward trend results from close collaboration with the Ministry and local municipalities to set regulatory thresholds more appropriate to the design of our systems, improving operational strategies and updating operator training.

2022 CALENDAR YEAR MINISTRY INSPECTIONS

In 2022, all but one drinking water system inspection received a perfect score

In the 2022 calendar year, there were 22 inspections completed for the Region's drinking water systems. There was one non-compliance finding; UV sensor calibration was not

consistently verified each month using methods described in the system's Municipal Drinking Water License. Corrective actions were identified and implemented to ensure full compliance, including improvements to the sensor verification process, documentation and training. Operational records and laboratory results demonstrate equipment provided effective disinfection and there was no risk to public health. Ministry staff also identified six best management practice recommendations related to record keeping and analyzer verification, which staff have implemented. Appendix 2 outlines the 2022 calendar year inspection results.

CHIEF DRINKING WATER INSPECTOR 2021-2022 RATINGS

York Region received top scores in the Ontario Chief Drinking Water Inspector's 2021-2022 Annual Report

Ontario's Chief Drinking Water Inspector releases an annual report, which rates all regulated drinking water systems in Ontario. Reporting timelines are based on the Ministry's previous fiscal year from April 1, 2021 to March 31, 2022. York Region along with the City of Toronto and Peel Region, which supply the majority of York Region's drinking water, received high scores. Table 3 outlines the scores for Greater Toronto and Hamilton Area municipalities.

Table 3

Ministry of the Environment, Conservation and Parks
2021-2022 Chief Drinking Water Inspector's Annual Report Scores

Municipality	Inspection Rating (%)*	Water Quality Tests Meeting Standards (%)*
York Region	100.00	100.00
Halton Region	100.00	99.94
Durham Region	99.07	99.90
Peel Region	98.54	99.97
City of Toronto	98.50	99.73
Provincial Average	98.88	99.75

*Average of scores for all drinking water systems within the municipality

York Region achieved an overall inspection rating of 100% in the Chief Drinking Water Inspector's Report. Details on 2021 calendar year inspections and sample results are found in the 2021 Drinking Water Systems report to Council dated March 3, 2022.

York Region achieved an overall sample compliance rating of 100% in the Chief Drinking Water Inspector's Report for laboratory analyzed samples meeting the requirements of Ontario Regulation 169/03: Ontario Drinking Water Quality Standards. The regulation sets out standards for 151 microbiological, chemical and radiological parameters.

Historically, York Region has scored high in the Chief Drinking Water Inspector's Report, often scoring above the Provincial average, with combined inspection and test result averages ranging between 100% (2019/2020, 2020/2021, 2021/2022) and 99.17% (2017/2018) over the previous five provincial fiscal years.

WATER VOLUME AND CAPACITY

All drinking water systems operated within daily permitted water volume and capacity limits

In 2022, York Region's drinking water systems operated within their maximum daily withdrawal limits. Water withdrawal in Nobleton exceeded the daily limit on a single day in July during a pump test, however this exceedance is permitted when conducting testing on a newly installed production well. Eight of 41 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 or equipment limitations. These exceedances were small in total volume, ranged in duration from one to 64 minutes, and resulted in no negative impacts or complaints from other water users. All drinking water systems continue to meet water quality and quantity needs of the community and operate within their daily permitted water volume and capacity limits.

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 the 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

York Region continues to ensure sufficient drinking water capacity for the Region's growing population. Attachment 1 illustrates important data about the amount of drinking water in each drinking water system. This data informs decision making regarding long-term, reliable water sourcing and servicing. Maximum permitted volumes support forecasted population growth to 2051 as analyzed through the 2022 Water and Wastewater Master Plan.

5. Financial

In 2022, York Region invested $39 million to maintain and improve drinking water systems

Ontario Regulation 170/03: Drinking Water Systems requires water utility owners to “describe any major expenses incurred during the period covered by the report to install, repair or replace required equipment.”

York Region operates and maintains $2.7 billion in water assets. In 2022, York Region invested $39 million installing, repairing or replacing equipment used to treat, store and deliver safe drinking water. This investment is 1.4% of the total replacement cost and demonstrates the importance of routine maintenance to maximize asset performance and minimize costs. Public Works has budgeted $481 million for water system rehabilitation and replacement over the next 10 years, including groundwater treatment upgrades supporting the continued delivery of high quality drinking water. These rate-supported costs are funded through the Public Works water budget, as approved annually by Council. These expenses do not include day-to-day operational costs, as summarized in Appendix 3.

6. Local Impact

York Region and its nine local municipalities distribute high quality drinking water collaboratively

Water quality standards are maintained through collaboration between York Region and the nine local municipalities. Although ownership and operation of the water systems is two-tiered, the Region and the local municipalities coordinate construction and operation of highly efficient and integrated systems to provide safe and uninterrupted water supply to our shared customers.

York Region and the local municipalities continue to work closely to ensure that capacity allocation and infrastructure constructed throughout the system is appropriately sized and timed to support water quality targets and minimize watermain flushing.

Staff meet quarterly, at minimum, with each local municipality to collaboratively discuss, coordinate and resolve operational issues. The ongoing partnership has resulted in numerous operational strategies to deliver high quality water to the Region’s residents.

Each local municipality is independently rated by the Ministry on its local distribution system inspections and drinking water quality test results.

7. Conclusion

York Region's drinking water systems comply with strict provincial regulations to keep drinking water safe, achieving a perfect 100% score on the Chief Drinking Water Inspector's Annual Report Card for the Province's 2021-2022 fiscal year. In 2022, over 99.99% of laboratory samples met compliance limits and a single non-compliance was identified through Ministry inspections, confirming the excellent performance of our drinking water systems. The ongoing excellence of our drinking water systems is supported through continual improvement initiatives including data and process management work.

This report satisfy Council reporting requirements in Ontario Regulation 170/03: Drinking Water Systems and support Council in meeting statutory standard of care requirements under the *Safe Drinking Water Act, 2002*. The drinking water quality and systems data, posted on york.ca/opendata and on york.ca/drinkingwater, satisfy public-facing water quality and systems information reporting requirements under the Act. It demonstrates the Region's commitment to operational excellence through continual improvement, while fulfilling our obligation to communicate performance to Council, stakeholders and the public. Council demonstrates due diligence required for decision-making under their statutory standard of care by reviewing and considering the information contained in this report when exercising decision-making authority.

For more information on this report, please contact David Szeptycki, Director of Strategy and Innovation at 1-877-464-9675 ext. 75723, or Beth Weir, Director of Operations, Maintenance and Monitoring at 1-877-464-9675 ext. 75340. Accessible formats or communication supports are available upon request.

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March 24, 2023

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Appendix 1 – 2022 Summary of Adverse Water Quality Incidents
Appendix 2 – 2022 Summary of Inspection Findings
Appendix 3 – 2022 Summary of Expenses
Attachment 1 – 2022 Performance Data Summaries

2022 SUMMARY OF ADVERSE WATER QUALITY INCIDENTS AND CORRECTIVE ACTIONS

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.

Ansnorveldt DWS

There were no adverse water quality incidents 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	Jul 19	5.00 mg/L	Operator attended site, facility restored to normal operation. Compliant grab sample taken.

Ballantrae-Musselman's Lake Drinking Water System

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

Georgina Drinking Water System

Incident Description	Date	Test Result	Corrective Action
Filter Performance	May 2	96.88 %	Filter performance monitored continuously, alarms halted flow through affected equipment. Operator attended site, facility restored to normal operation.
Presence of Total coliform	Oct 7	Presence	Operator attended site. Resample taken. Resample result non-detectable for total coliform.

Holland Landing Sub-System (York Drinking Water System)

Incident Description	Date	Test Result	Corrective Action
Combined Chlorine Residual <0.25 mg/L	Oct 4	0.22 mg/L	Operator attended site, facility restored to normal operation. Compliant grab sample taken.

Keswick Sub-System (York Drinking Water System)

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

King City Sub-System (York Drinking Water System)

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

Kleinburg Sub-System (York Drinking Water System)

Incident Description	Date	Test Result	Corrective Action
Failure to meet monitoring requirement	May 20	N/A	Reported as due diligence. Operator attended site. Facility returned to normal operation. Compliant grab sample taken.
Sodium > 20.0 mg/L	Apr 11	23.8 mg/L	Operator attended site. Resample taken.

Mount Albert Drinking Water System

There were no adverse water quality incidents 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	Jul 17	4.67 mg/L	Operator attended site, facility restored to normal operation. Compliant grab sample taken.

Nobleton Drinking Water System

Incident Description	Date	Test Result	Corrective Action
Sodium > 20.0 mg/L	Apr 27	24.5 mg/L	Operator attended site. Resample taken.

Schomberg Drinking Water System

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

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

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

Stouffville Sub-System (York Drinking Water System)

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

York Drinking Water System: Markham, Richmond Hill, Vaughan

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

2022 SUMMARY OF INSPECTION FINDINGS AND CORRECTIVE ACTIONS

System Name and Inspection Date	Inspection Score (%)	Summary of Findings and Corrective Actions
Municipality: **Aurora**		
Aurora DWS July 5, 2022	100	No non-compliance findings and one best management practice recommendation from this inspection: • Include names of all operators conducting sampling in chain of custody forms and logbooks to consistently and accurately reflect who is doing the work. Work management process and procedures updated to ensure records related to sampling are consistent and accurate.
Municipality: **East Gwillimbury**		
Holland Landing DWS January 10, 2022	100	No non-compliance findings or best management practice recommendations from this inspection.

System Name and Inspection Date	Inspection Score (%)	Summary of Findings and Corrective Actions
Queensville DWS February 11, 2022	100	No non-compliance findings or best management practice recommendations from this inspection.
Mount Albert DWS June 28, 2022	100	No non-compliance findings or best management practice recommendations from this inspection.
Queensville DWS October 14, 2022	100	No non-compliance findings or best management practice recommendations from this inspection.
Holland Landing DWS November 17, 2022	100	No non-compliance findings or best management practice recommendations from this inspection.

System Name and Inspection Date	Inspection Score (%)	Summary of Findings and Corrective Actions
Municipality: **Georgina**		
Georgina DWS March 21, 2022	100	No non-compliance findings and two best management practice recommendations from this inspection: • Update Drinking Water Works Permit description of works to better reflect equipment installed. Description to be updated when permit is renewed. • Update Adverse Water Quality Procedure to include corrective actions for filter effluent performance. Procedure updated and operators trained on updates.
Keswick DWS April 1, 2022	100	No non-compliance findings and three best management practice recommendations from this inspection: • Update Drinking Water Works Permit description of works to better reflect equipment installed. Description to be updated when permit is renewed. • Document date, time, location, name of sampler, and result of the grab samples taken to verify the online analyzers to demonstrate requirements are being met. Revised Electronic Logbook procedure. • Include specific regulatory relief conditions in the Municipal Drinking Water Licence for shutdown allowances regarding grab sample verification checks. Temporary relief granted until water treatment plant placed back into service.

System Name and Inspection Date	Inspection Score (%)	Summary of Findings and Corrective Actions
Keswick DWS September 8, 2022	100	No non-compliance findings or best management practice recommendations from this inspection.
Georgina DWS September 19, 2022	100	No non-compliance findings or best management practice recommendations from this inspection.
Municipality: **King**		
Schomberg DWS February 25, 2022	100	No non-compliance findings or best management practice recommendations from this inspection.
Nobleton DWS March 31, 2022	100	No non-compliance findings or best management practice recommendations from this inspection.
Ansnorveldt DWS August 8, 2022	100	No non-compliance findings or best management practice recommendations from this inspection.
Nobleton DWS September 7, 2022	100	No non-compliance findings or best management practice recommendations from this inspection.
King City DWS September 23, 2022	100	No non-compliance findings or best management practice recommendations from this inspection.

System Name and Inspection Date	Inspection Score (%)	Summary of Findings and Corrective Actions
Schomberg DWS November 21, 2022	96.42	One non-compliance findings and no best management practice recommendations from this inspection: • UV sensors were not checked and calibrated as required. Updated work management process and procedures to specify methods for checks and calibration as described in Municipal Drinking Water License.
Municipality: **Newmarket**		
Newmarket DWS February 2, 2022	100	No non-compliance findings or best management practice recommendations from this inspection.
Newmarket DWS December 2, 2022	100	No non-compliance findings or best management practice recommendations from this inspection.
Municipality: **Vaughan**		
Kleinburg DWS January 4, 2022	100	No non-compliance findings or best management practice recommendations from this inspection.
Municipality: **Whitchurch-Stouffville**		
Ballantrae DWS June 28, 2022	100	No non-compliance findings or best management practice recommendations from this inspection.
Stouffville DWS June 28, 2022	100	No non-compliance findings or best management practice recommendations from this inspection.

System Name and Inspection Date	Inspection Score (%)	Summary of Findings and Corrective Actions
Municipality: **Markham, Richmond Hill, Vaughan**		
York DWS August 10, 2022	100	No non-compliance findings or best management practice recommendations from this inspection.

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

2022 SUMMARY OF EXPENSES TO INSTALL, REPAIR OR REPLACE REQUIRED EQUIPMENT

This summary fulfills reporting requirement under *Ontario Regulation 170/03 – Drinking Water Systems* to summarize any major expenses incurred to install, repair or replace required equipment. Operating costs are not reflected in these totals.

Drinking Water System	**Description of Monetary Expenses**	**Total**
Municipality: **Aurora**		
Aurora Drinking Water Sub-System	Standby power generator replacement, watermain replacement and rehabilitation, treatment improvements, valve chamber rehabilitation and upgrades, new well installation, facility upgrades, well rehabilitation, pump rehabilitation and replacement, general maintenance and repairs	$ 1,878,678
Municipality: **East Gwillimbury**		
Holland Landing Drinking Water Sub-System	New hydro installation, valve chamber rehabilitation and upgrades, well rehabilitation, general maintenance and repairs	$ 1,105,632
Mount Albert Drinking Water System	Valve chamber upgrades, wells rehabilitation, pump maintenance, facility upgrades, standby power generator replacement, general maintenance and repairs	$ 117,970
Sharon-Queensville Drinking Water Sub-System	Treatment improvements, valve chamber upgrades, general maintenance and repairs	$ 205,580

Drinking Water System	Description of Monetary Expenses	Total
Municipality: **King**		
Ansnorveldt Drinking Water System	General maintenance and repairs	$ 19,507
King City Drinking Water Sub-System	Treatment improvements, valve chamber upgrades, well rehabilitation, pump maintenance, general maintenance and repairs	$ 201,775
Nobleton Drinking Water System	New well installation, facility upgrades, treatment improvements, well rehabilitation, pump maintenance, general maintenance and repairs	$ 3,317,988
Schomberg Drinking Water System	Well rehabilitation, pump maintenance, general maintenance and repairs	$ 78,478
Municipality: **Newmarket**		
Newmarket Drinking Water Sub-System	Facility rehabilitation and upgrades, treatment improvements, valve chamber upgrades, facility upgrades, well rehabilitation, pump maintenance, general maintenance and repairs	$ 919,023
Municipality: **Georgina**		
Georgina Drinking Water System	Standby power generator upgrades, facility rehabilitation and upgrades, valve chamber upgrades, general maintenance and repairs	$ 2,846,904
Keswick Drinking Water Sub-System	Facility upgrades, valve chamber upgrades, general maintenance and repairs	$ 637,372

Drinking Water System	Description of Monetary Expenses	Total
Municipality: **Whitchurch-Stouffville**		
Ballantrae-Musselman's Lake Drinking Water System	Facility upgrades, treatment improvements, valve chamber upgrades, general maintenance and repairs	$ 389,745
Stouffville Drinking Water Sub-System	Treatment improvements, valve chamber upgrades, well rehabilitation, pump maintenance, facility upgrades, general maintenance and repairs	$ 300,983
Municipality: **Markham, Richmond Hill, Vaughan**		
Kleinburg Drinking Water Sub-System	Well rehabilitation, pump maintenance, general maintenance and repairs	$ 57,985
York Drinking Water System	Facility rehabilitation and upgrades, repairs, rehabilitation and upgrades on Peel feedermain and other watermains, new standby power generator installation, valve chamber upgrades, well rehabilitation, pump maintenance, new watermain installation, watermain replacement, general maintenance and repairs	$ 26,902,045
Total:		**$ 38,979,665**

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