
For Information

REPORT TITLE: **2023 Water Compliance Update - Annual Summary Report**

FROM: Kealy Dedman, Commissioner of Public Works

OBJECTIVE

To present the 2023 Summary Report summarizing the overall performance of Peel Region's drinking water systems and the status of compliance with applicable regulatory requirements and industry standards under the Ontario *Safe Drinking Water Act, 2002*.

REPORT HIGHLIGHTS

- Peel Region fulfilled the scope of its drinking water responsibilities as required by Ontario drinking water legislation, and maintained compliance, with the few exceptions listed in Appendix I, all of which represent low to no risk to drinking water quality and public health.
 - Ministry of the Environment, Conservation and Parks inspection ratings of 100 per cent demonstrate Peel Region is effectively managing the drinking water systems and delivering reliable supply of safe drinking water.
 - Staff maintain customer confidence in the delivery of water services and continue to effectively identify and manage threats to drinking water quality, as summarized in Appendix II of this report.
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DISCUSSION

1. Background

Schedule 22 of Ontario Regulation 170/03 under the *Safe Drinking Water Act, 2002* requires a Summary Report to be prepared for Regional Council no later than March 31st of each year. The Summary Report outlines Peel Region's drinking water systems' regulatory performance with focus on events of non-compliance and actions taken to eliminate or mitigate the risk to public health or the natural environment.

This report supports Regional Council statutory standard of care responsibilities and decision-making authority over Peel's drinking water systems as outlined in Section 19 of the Ontario *Safe Drinking Water Act, 2002*.

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2. 2023 Compliance Reporting

a) Statement of Compliance - *Safe Drinking Water Act, 2002*

Peel Region's drinking water systems consistently complied with the requirements of the Act, apart from the incidents summarized in Appendix I of this report. These events posed low or no risk to drinking water quality and public health. Staff implemented measures to return systems to compliance and put controls in place to help prevent them from happening in the future. These findings of non-compliance identify areas for improvement and encourage actions that allow staff to measure future progress in water system performance.

b) Water System Inspections by the Ministry

Peel Region's drinking water systems are inspected by the Ministry of the Environment, Conservation and Parks (Ministry) once a year. The inspection for each drinking water system evaluates system management and operations through source-to-tap focused checks that yield findings and a score out of 100 per cent.

The Ministry inspection covers different areas of water treatment and supply, with findings grouped and weighted based on their potential impact on drinking water safety.

Peel Region's drinking water systems continued operating with excellent performance, obtaining 100 per cent rating on all systems in the Ministry inspections in 2023. This performance confirms safe, high quality and consistent supply of drinking water to our communities.

Drinking Water System Name	2023 Inspection Score	2022 Inspection Score
Caledon Village – Alton	100%	100%
Cheltenham	100%	100%
Inglewood	100%	100%
Palgrave – Caledon East	100%	100%
South Peel Distribution System	*	100%
South Peel – AP Kennedy Water Treatment Plant	*	100%
South Peel – Lorne Park Water Treatment Plant	*	100%

* the inspection was still ongoing at the time of preparation of this report

The Ministry inspections of the South Peel drinking water systems were in progress at the time of the previous Council Report of March 23, 2023. The final inspection scores for these drinking water systems for 2022 have been incorporated into this report for reference.

c) 2023 Water Quality Reports

Provincial legislation requires Owners of drinking water systems to prepare an annual water quality report and make it accessible to the public. Staff prepared the 2023 Water Quality Annual Reports and published them on Peel's website by the required date of February 28, 2024. Water Quality Reports summarize water quality monitoring and test

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results compared with Ontario Drinking Water Standards and can be found at <https://peelregion.ca/drinking-water/quality-reports.asp>

In 2023, a total of 8,097 regulatory water samples were collected and tested for the presence of bacteria, specifically *E. coli* and total coliforms. Of these samples, only eight (8), constituting less than 0.1 per cent, required additional verification testing due to initial results indicating deviations from the regulatory limits. All the confirmatory test results affirmed the safety of Peel Region's drinking water.

In addition to testing bacteriological parameters, the quality of municipal drinking water is routinely monitored and evaluated by measuring a wide range of physical, inorganic and organic parameters that include regulated and non-regulated compounds of concern. Some parameters such as fluoride, turbidity, pH, temperature, and chlorine are tested continuously to provide real-time data for process control and monitoring. Each year Peel Region performs over 100,000 water quality tests. In 2023, all mandatory testing was performed as required by Ontario regulation. All test results met the Ontario drinking water quality standards.

Sodium is a common element found in the natural environment and as a result, it is present in drinking water sources. Peel Region's groundwater sources typically contain sodium levels that are well below the Ontario aesthetic objective of 200 milligrams per litre (mg/L) but often higher than 20 mg/L. While such concentrations do not pose a health risk for most individuals, results exceeding 20 mg/L must be reported to Peel Public Health. This reporting is aimed at informing physicians and residents on sodium-restricted diets about the sodium concentrations in municipal drinking water.

The 2023 Water Quality Reports also provide details about Peel Region's water treatment processes, water quality monitoring practices, staff competencies, and drinking water initiatives. The additional content raises awareness of service levels and helps strengthen public confidence in Peel Region's drinking water.

d) Consumer Confidence



Creating engaging and creative communication of our work through video clips and virtual messages available on our website



Bringing awareness to watermain construction projects through an online interactive map application, with subscription to project updates



Connecting customers to our work through access to online interactive community maps depicting water system repairs and resulting water service interruptions

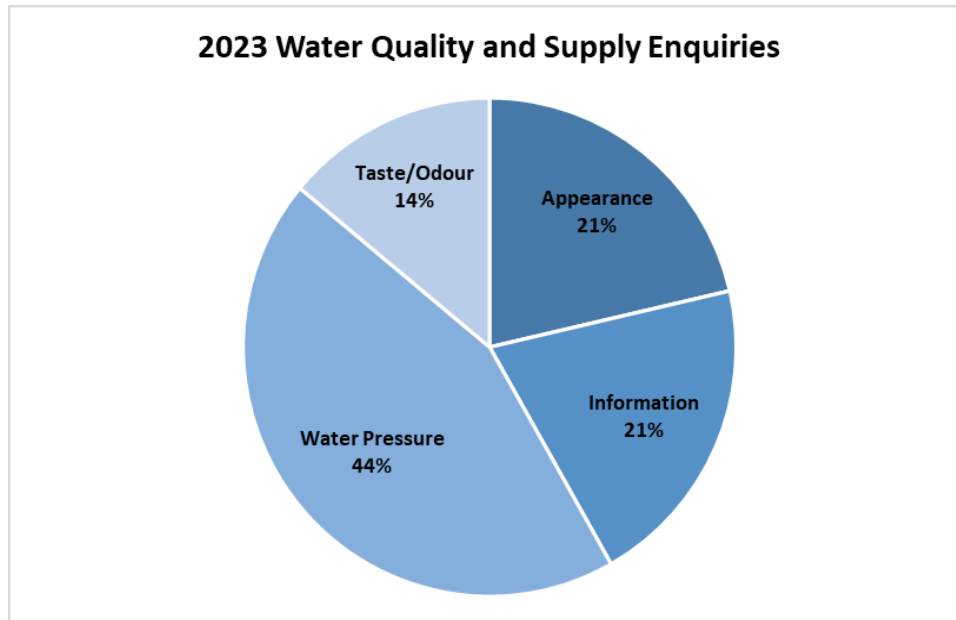


Making annual reports, a complete guide to water treatment and distribution processes, and water quality reports in a format that meets the standards for accessibility for Ontarians with disabilities

Staff strive to provide exceptional service when addressing water related complaints, responding to water pressure fluctuations or requests for water quality checks. Staff also continue to provide detailed information regarding our water and wastewater systems and new initiatives in an accessible format to raise awareness and build trust and confidence in the water and wastewater services.

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In 2023, staff responded to 1,287 enquires (representing around 0.1 per cent of the Region's population serviced) related to drinking water quality, aesthetics, and water pressure, as depicted in the chart below.



From the complaint investigations in 2023, staff observed that a significant number of customer issues were attributed to internal plumbing problems rather than concerns related to Peel Region's drinking water. Staff investigate all complaints to ensure safety of drinking water and compliance with the Ontario legislation. The Peel Region website contains useful information on common residential plumbing issues such as preventing frozen pipes, finding plumbing leaks and how to maintain plumbing after extended vacancy.

In addition to customer support related to water quality, staff has also been actively responding to questions or concerns from the residents on construction of watermains and water facilities. In 2023, close to 700 queries were received regarding water related capital projects in Peel Region. To better service the customers in the future, staff promotes sign-up for electronic notices that provide information on the ongoing and upcoming work.

e) Water Management and Production

Water Taking

Water taking for municipal water supplies in Ontario is legislated through a Permit to Take Water, which sets limits on the total quantity and pumping rate of water that is allowed to be extracted from aquifers, rivers, and lakes. Peel Region holds a valid Permit to Take Water for each of its municipal wells and both water treatment plants on Lake Ontario.

Compliance with Permit to Take Water limits is continuously measured and monitored to ensure environmental protection and long-term availability of our groundwater and surface water resources for future growth.

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Water Production

Peel also measures volumes and flows of treated drinking water leaving each treatment plant using continuous flow measuring equipment, as required by each municipal drinking water licence. In 2023, Peel Region's drinking water systems treated over 209 billion litres of water. All the drinking water treated and directed to the distribution system achieved compliance with treatment facility-specific rated capacity limits.

RISK CONSIDERATIONS

An important part of responsible delivery of municipal water services is identifying threats and assessing risk. Peel Region is committed to continual improvement of its programs to ensure quality service and consistent supply of safe drinking water to its communities while protecting the natural environment.

An overview of the key risks to Peel Region's drinking water supply is presented in the table below, with more detailed information about each of these threats and control mechanisms in place made available in Appendix II of this report.

Risk Consideration	Description
Effective Management and Oversight of Drinking Water Systems	The Drinking Water Quality Management System provides a framework for ensuring sustainability of water systems and delivery of quality drinking water. Peel's water systems must have a valid municipal drinking water licence to operate. Peel's licences are due to expire in November 2024 and their renewal process has started.
Lead in Drinking Water	Lead service pipes and plumbing can leach toxins into tap water. Following the regulatory requirements, staff test drinking water twice a year in the distribution system and at private taps (inside homes and businesses). 2023 sampling results and long-term lead testing data trend presented in Appendix II demonstrate Peel Region's drinking water has consistently low levels of lead.
Water Sector Cybersecurity	Cyber attacks on water utilities are becoming more common. Staff continue to implement improvements to the water and wastewater process control and automation systems to reduce the risk.
Source Protection and Climate Change Adaptation	Peel undertakes programs and initiatives to protect our water sources from contamination and protect assets from the impacts of climate change. Through active participation in the Lake Ontario Collaborative Group and its work plan that includes regular forecasting and implementation of monitoring tools, Peel assures adequate water supply and safeguards water quality.
Contaminants of Emerging Concern	Staff keep abreast with the emergent scientific research on sources and behavior of contaminants and their potential health risks. It is important to know the prevalence of these substances in our water and potential treatment methods to reduce human exposure.
Aging Infrastructure	Peel's State of Good Repair program maintains proactive replacement or rehabilitation of aging infrastructure to avoid service interruptions and costly emergency repairs.
Backflow (of water from private plumbing into water system)	Peel's Backflow Prevention Bylaw enforcement staff work to prevent contamination from entering the municipal drinking water systems.

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BILL 112 RISKS AND IMPLICATIONS

The passing of the *Hazel McCallion Act (Peel Dissolution), 2023* on June 8, 2023, formalized a plan to dissolve the Region of Peel effective January 1, 2025. On December 13, 2023, the provincial government announced that Peel will not be dissolved, and that new legislation will be passed in 2024 to repeal or amend Bill 112. Until new legislation is passed, no implications can be determined.

CONCLUSION

In 2023, Peel Region's drinking water systems fulfilled with the requirements of Ontario drinking water legislation and operated under valid Municipal Drinking Water Licences. The 2023 Summary Report prepared for information outlines the performance of Peel Region's drinking water systems and demonstrates Peel Region is effectively managing the drinking water systems and delivering reliable supply of safe drinking water.

APPENDICES

Appendix I - 2023 Summary of Non-Compliance Events
Appendix II - Risk Considerations



Kealy Dedman, Commissioner of Public Works

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