

Subject: Protecting Ottawa's Water; Clean Water Act and Safe Drinking Water Act

File Number: ACS2023-IWS-WF-0003

Report to Environment and Climate Change Committee on 18 April 2023

**Submitted on April 5, 2023 by Marie-Geneviève (Gen) Nielsen Director, Water
Facilities and Treatment**

and

Susan Johns, Director, Asset Management, Infrastructure and Water Services

**Contact Person: Paul Montgomery, Plant Manager, Infrastructure and Water
Services 613-580-2424, ext: 23302, Paul.Montgomery@ottawa.ca**

and

**Tessa Di Iorio, Risk Management Officer/Inspector, Infrastructure and Water
Services Department 613-580-2424 x17658, tessa.diorio@ottawa.ca**

Ward: Citywide

**Objet : Protégeons l'eau d'Ottawa; Loi de 2006 sur l'eau saine et Loi de 2002 sur
la salubrité de l'eau potable**

Dossier : ACS2023-IWS-WF-0003

**Rapport au Rapport au Comité de l'environnement et du changement climatique,
le 18 avril 2023**

**Soumis le 5 avril 2023 par Marie-Geneviève (Gen) Nielsen, Directrice, Services
des installations d'adduction et de purification de l'eau**

**Susan Johns, Directrice, Gestion des actifs, Direction des infrastructures et des
services de l'eau**

**Personne ressource : Paul Montgomery, gestionnaire d'usine, Direction générale
des services d'infrastructure et d'eau, 613-580-2424, ext: 23302,
Paul.Montgomery@ottawa.ca**

et

Tessa Di Iorio, agente de la gestion des risques/inspectrice, Direction générale des services d'infrastructure et d'eau, 613-580-2424 x17658, tessa.diiorio@ottawa.ca

Quartier : À l'échelle de la ville

REPORT RECOMMENDATION(S)

That the Environment and Climate Change Committee receive this report for Information.

RECOMMANDATION(S) DU RAPPORT

Que le Comité de l'environnement et du changement climatique prenne connaissance du présent rapport.

BACKGROUND

Following the Walkerton Tragedy from May 2000, Chief Justice Dennis O'Connor launched an inquiry into the events surrounding the town's contaminated water supply. The inquiry determined that the tragedy was preventable and made a number of recommendations to prevent future occurrences. The Walkerton tragedy has made a lasting impact on the drinking water industry and, in the years since, has prompted significant legislative changes in Ontario.

Since 2000, the Province has developed a comprehensive, multi-barrier approach to ensure that all municipalities provide clean and safe drinking water to residents.

Under the *Clean Water Act (2006)* and the *Safe Drinking Water Act (2002)* several reports are provided to Council each year for information. The mandatory timing and content requirements, for these reports, are set out by the pertinent regulations and expanded on below.

DISCUSSION

The *Clean Water Act (2006)* and the *Safe Drinking Water Act (2002)* were developed by the Ontario government following the Walkerton water contamination tragedy as part of a multi-barrier approach to ensure that municipal water supplies are clean and safe for Ontario residents. Both pieces of legislation impose significant responsibilities on municipalities, as owners and operators of drinking water systems. The discussion below outlines some of the municipal responsibilities and the City programs developed

to ensure compliance with legislation.

The Clean Water Act

The [Clean Water Act \(2006\)](#) is a powerful piece of legislation that gives municipalities the authority to manage activities, on public and private properties, to protect municipal drinking water sources. The *Clean Water Act (2006)* ensures Ontario municipalities protect their drinking water supplies, through prevention and by establishing collaborative, watershed-based protection plans.

Proclaimed through the Act are four separate regulations:

- O. Reg. 231/07 - Service of Documents
- O. Reg. 284/07 - Source Protection Areas and Regions
- O. Reg. 287/07 - General
- O. Reg. 288/07 - Source Protection Committees

Through these regulations flows a partnership, with the Ministry of Environment, Conservation and Parks, Ontario Municipalities, local Conservation Authorities and Landowners, which establishes a safety net to protect municipal water sources.

Source water protection

Drinking Water Source Protection safeguards public health from drinking water threats by raising awareness and protecting groundwater and surface water resources. Ontario's Clean Water Act requires municipalities to implement Source Protection Plans to protect existing and future sources of municipal drinking water from various threats. The City of Ottawa lies within two Source Protection Regions, each with their own locally-developed, science-based source protection plan that contain policies to protect municipal drinking water resources:

- [Mississippi-Rideau Source Protection Plan](#) (effective date January 1, 2015); contains policies related to the Intake Protection Zones for the Britannia and Lemieux Island surface water systems and the Wellhead Protection Areas for the groundwater wells at Carp, Munster, Richmond King's Park and Richmond West.
- [Raisin-South Nation Source Protection Plan](#) (effective date April 1, 2015); contains policies related to the Wellhead Protection Areas for the groundwater wells Vars and Greely - Shadow Ridge Subdivision.

Source Protection Municipal Implementation and Risk Management Official Reports are

required to be submitted to the Source Protection Authorities (Conservation Authorities) by February 1 of each calendar year, as legislated under the *Clean Water Act*. The reports are presented to the Environment and Climate Change Committee each year in February. Implementation of source protection projects and activities from 2022 were summarized in the IPD listed on February 21, 2023 of Environment and Climate Change Committee ([ACS2023-ISW-AM-0001](#)).

The City has a proactive approach to raising public awareness and managing threats to drinking water resources as part of the Source Water Protection Program, this includes developing risk management plans for existing or new activities that may be a threat to drinking water resources as well as outreach and communications to impacted residents.

Overall, the implementation of activities by the Risk Management Official as well as municipal activities is ongoing and the City is compliant with Source Protection Plan policies. Negotiation of Risk Management Plans with private landowners engaged in significant drinking water threat activities is expected to be complete by 2024.

The *Safe Drinking Water Act*

The [Safe Drinking Water Act, 2002](#) provides a legislative framework for all Ontario municipal drinking water systems, as well as some non-municipal systems. The *Safe Drinking Water Act (2002)* provides a set of province-wide regulations and standards to ensure access to safe, high quality, reliable drinking water through the control and regulation of drinking water systems, drinking water system operators and drinking water testing. In Ottawa's municipal context, a drinking water system includes all collection, treatment and storage facilities and distribution pipes usually up to customer property lines.

Proclaimed through the Safe Drinking Water Act, are several separate regulations including:

- O. Reg. 128/04 – Operator Certification
- O. Reg. 169/03 – Ontario Drinking Water Quality Standards
- O. Reg. 170/03 – Drinking Water Systems
- O. Reg. 188/07 – Municipal Drinking Water Licences
- O. Reg. 243/07 – Lead Sampling and Testing
- O. Reg. 248/03 – Laboratory and Operational Testing

The Ministry of Environment, Conservation and Parks provides oversight and ensures that the City is following all applicable regulations. The regulations require that reporting is completed within specific timelines. The Ministry also performs on-site inspections of Ottawa's systems annually.

The *Safe Drinking Water Act (2002)* – Section 19: Standard of Care

The City is entirely responsible for the operations and management of its municipal water systems. Section 19 of the *Safe Drinking Water Act (2002)* includes a Standard of Care requirement for drinking water systems owned by the municipality. Within the City of Ottawa, this means that those individuals who oversee the accredited operating authority and who exercise decision-making authority over the system are Members of Council.

Members of Council are expected to inform themselves of their responsibilities; and be diligent about their oversight responsibilities, and to rely on professional resources in decision making. Through the requirements of the Acts, staff provide timely reports which support Council's decision-making authority over the system. Staff must be fully knowledgeable of those same regulations, and must conduct work with skill, due care, accountability, and transparency.

Water system inspections and testing

Ottawa has two surface water treatment plants, which provide drinking water to approximately 950,000 residents, and are connected to Ottawa's central water distribution system. In the Ottawa villages of Carp, Munster, Richmond, Vars and Greely, six communal well supply systems provide drinking water to a total of approximately 6,700 residents.

From the above noted municipal water supply systems, the City consistently provides excellent drinking water. Ottawa tests over 100,000 water quality samples annually, for over 300 different substances, to form part of one of the most comprehensive water quality sampling programs in Canada.

Test results demonstrate that drinking water supplied from Ottawa's municipal water systems is of high quality and meets Ontario's Drinking Water Standards and Health Canada's Guidelines for Canadian Drinking Water Quality. For the last 10 years, the Ministry of Environment, Conservation and Parks has given the City's drinking water systems nearly perfect scores.

Staff also review operational performance for 35 categories of regulatory compliance to

identify and address areas for improvement. With well established risk assessment processes, ongoing continuous improvement activities and comprehensive operational plans, the City continues to maintain its accreditation as an Operating Authority through external Auditors.

Reporting requirements

Under the *Clean Water Act* and the *Safe Drinking Water Act*, several reports must be provided to Council and/or to the public each year. A brief description of these reports is provided below:

- Source Protection Annual Update – In accordance with the *Clean Water Act*, this report is provided to the local Source Protection Authorities and Ottawa City Council annually by February 1. The report details action items and progress on activities in support of the Source Water Protection Plans for the previous calendar year. The most recent update was listed as an IPD on the February 21, 2023, Environment and Climate Change Committee agenda ([ACS2023-ISW-AM-0001](#))
- Annual Reports – In accordance with the *Safe Drinking Water Act*, these water system specific reports must be made readily available to the public each year by February 28. These reports are posted on [ottawa.ca](#) and provide brief descriptions of the water systems and detailed water quality test results in comparison to Ontario Drinking Water Quality Standards.
- Municipal Drinking Water Systems Summary Report – In accordance with the *Safe Drinking Water Act*, a single report is provided to Council each year by March 31. The report details key aspects of Ottawa’s municipal drinking water systems including operational performance, water quality, flowrates, major capital projects, inspection results, regulatory requirements, and any items of non-compliance noted during the year. This year’s report will be listed as an IPD on the April 18, 2023, Environment and Climate Change Committee agenda.
- Drinking Water Quality Management System Review Report – In accordance with the *Safe Drinking Water Act* and the requirements set out in Ottawa’s own Drinking Water Quality Management System, an annual management review report is prepared which reviews 16 key aspects for the management of municipal drinking water systems. Although there are no legislated deadlines associated with this report, it is typically brought forward mid-year. Last year’s report was at the former Standing Committee on Environmental Protection,

Water and Waste Management on June 21, 2022 ([ACS 2022-IWS-WS-0004](#))

Other related legislation

There are a number of other related Ontario Acts that further strengthen Ontario source water and drinking water legislation. These include the [Environmental Protection Act](#), [Lakes and Rivers Improvement Act](#), [Nutrient Management Act](#), [Ontario Water Resources Act](#), [Public Lands Act](#), [Sustainable Water and Sewage Systems Act](#), [Environmental Assessment Act](#), [Infrastructure for Jobs and Prosperity Act](#) and the [Environmental Bill of Rights](#).

Regulations under these acts set out requirements for pollution control, protection of surface waters, management of nutrients, regulation of sewage works, permitting of ground water takings, management of public lands and forests, requirements for full cost accounting of municipal water systems, environmental assessment of major public and certain private projects, [asset management plans](#) for water systems and the notification of important environmental decisions.

Conclusion

The City of Ottawa is committed to consistently deliver high quality drinking water. Through comprehensive source water protection, robust water treatment, safe water distribution, transparent reporting and with a deep understanding of regulatory obligations, the City will continue to meet the drinking water needs of residents for now and the future.

FINANCIAL IMPLICATIONS

There are no financial implications associated with this report.

LEGAL IMPLICATIONS

There are no legal impediments to receiving the information contained in this report

COMMENTS BY THE WARD COUNCILLOR(S)

This is a City-wide report.

ADVISORY COMMITTEE(S) COMMENTS

No Advisory Committees were consulted in the preparation of this information report.

CONSULTATION

This report is administrative in nature therefore no consultation was required.

ACCESSIBILITY IMPACTS

There are no accessibility implications associated with this report.

ASSET MANAGEMENT IMPLICATIONS

This report is for information and there are no direct asset management implications.

ENVIRONMENTAL IMPLICATIONS

There are no environmental implications associated with this report.

INDIGENOUS GENDER AND EQUITY IMPLICATIONS

There are no indigenous, gender or equity implications associated with this report

RISK MANAGEMENT IMPLICATIONS

Any risks associated have been identified and explained in the report.

RURAL IMPLICATIONS

There are no rural implications associated with this report.

TERM OF COUNCIL PRIORITIES

Under the 2019-2022 Term of Council Priorities includes the Environmental Stewardship Pillar. The City of Ottawa implements protective measures to maintain the quality of Ottawa's drinking water sources at the provincially mandated standard. The City maintains an excellent water quality index rating.

DISPOSITION

The Infrastructure and Water Services Department will continue to comply with all legislative requirements under the *Clean Water Act* and the *Safe Drinking Water Act*. This includes providing Ottawa City Council and the public with the Source Protection annual update, Annual Reports, Municipal Drinking Water Systems Summary Report, and Drinking Water Quality Management System Review Report.