Appendices

Appendix A: Improving Monitoring and Public Reporting of Sewage Overflows and Bypasses Program Project – Key Messages and FAQ

Key Messages

- Combined sewer overflows (CSOs) are a normal part of wastewater collection and play a key role in preventing urban flooding and sewer back-up into homes during heavy rain or snow melts.
- On February 25, 2025, the City launched a live interactive map with up-to-date information on CSOs at 13 sewer overflow sites.
- The new tool enhances timely reporting and increases transparency.
- The map is part of a technology upgrade project funded through a grant received under the Ontario Government's *Improving Monitoring and Public Reporting of Sewage Overflows and Bypasses Program*. Upgrades included the installation of new flow meters for more accurate measurement.
- To comply with legislation from the province, part of this grant will be used to install signage that will be posted at each CSO site in Q2 / Q3 2025. The location of each CSO site can be found on Ottawa.ca.
- City staff continue to collaborate with Ottawa Public Health and the Ministry of the Environment, Conservation and Parks (MECP) to report CSOs and ensure public health and safety.
- City staff continue to renew infrastructure in combined sewer areas to create sewer separation to minimize the occurrence of CSOs.

FAQs

Q1: What is the new signage for and what does it look like?

A. Municipalities are mandated under the Consolidated Linear Infrastructure Environmental Compliance Agreement (CLI-ECA) to install and maintain signage at each CSO overflow site. This signage is another medium used to enhance public awareness and safety in informing the public about potential discharges.
An example of the signage that will be installed at the Clegg CSO outfall is provided below:

The signage at each location will look similar to this example.

Q2: Why do combined sewer overflows (CSO) happen, and what causes them?

A: A combined sewer system (CSS) is designed to collect both stormwater runoff (from streets, sidewalks, and roofs) and sanitary wastewater (from homes, businesses, and industries) into a single pipe network. This combined sewer water is then transported and treated at the Robert O. Pickard Environmental Centre (ROPEC), the City's wastewater treatment facility.

Combined sewer systems include overflow outlets designed to prevent the network from becoming overwhelmed during significant rain fall and snow melt events. This overflow can lead to untreated water being discharged directly into nearby waterways; a situation known as a combined sewer overflow (CSO).

Q3: How does the City protect the safety of residents from the risks associated with CSO discharge?

A: The City of Ottawa takes several measures to protect residents from the risks associated with Combined Sewer Overflow (CSO) discharges:

- **Continuous Monitoring (volume / guidelines)**: The City of Ottawa continuously monitors water quality across the system to promptly detect and address any changes. Combined Sewer Overflows (CSOs) contain a mixture of stormwater and wastewater. In addition to monitoring water quality, the City closely monitors the volume of CSOs entering the waterway to ensure they remain within a safe threshold as outlined in the Provincial guideline, "Levels of Treatment for Municipal and Private Sewage Treatment Works Discharging to Surface Waters".

  The Provincial guideline mandates that during a seven-month period, all flow during dry weather plus 90% of the volume from wet weather must be captured and treated. The City exceeds this requirement by capturing and treating 99% of the volume from wet weather, ensuring higher standards of water quality and public health protection.

- **Real Time Controls:** Real time controls permit the remote activation and control of overflow equipment combined with continuous monitoring of pipe flow data to maximize the capture and treatment of wastewater flow from combined sewer systems.

- **Public Alerts**: The City issues public alerts to inform residents of overflows and water quality conditions. With the new live interactive map, residents access up-to-date information on CSOs at 13 sewer overflow sites**.**

- **Infrastructure Improvements**: The City has implemented significant infrastructure projects to reduce the frequency and impact of CSOs.

Q4: What is being done to protect the environment and reduce the occurrence of CSOs?

A: The City of Ottawa upholds its commitment to environmental protection, maintaining water quality and mitigating CSOs. You can learn more about key initiatives such as the Ottawa River Action Plan, the Water Environment Strategy, and Source Water Protection by visiting the “Protecting Ottawa's waterways section” of Ottawa.ca.

The City of Ottawa has made significant investments and implemented various measures to reduce the occurrence, duration, and volume of Combined Sewer Overflows (CSOs) during large rainfall events. In addition, investments made to reduce urban flooding also decrease the volume of water entering the combined sewer system which in turn, reduces the likelihood and impact of CSOs. Measures include:

Enhancements:

- Combined Sewage Storage Tunnel (CSST): The CSST was completed in 2020. Designed to hold up to 43,000 m³ of combined sewer and storm water, this project significantly reduced CSOs.
- Flow Monitoring and Controls: Real-time controls were implemented to ensure maximum capture of overflows before they occur. Additionally, water level, flow monitoring, and alarm devices were installed in major combined sewer overflows to continuously monitor and alert staff if an overflow occurs.
- Sewer Separation: The City is actively separating the remaining combined sewers.

Reporting

- MECP Notification: The City strengthened protocols to ensure prompt notification to the Ministry of the Environment, Conservation and Parks (MECP) Spills Action Centre in the event of an overflow.
- Public Information: An interactive map on Ottawa.ca/CSO was created to provide up-to-date information on select sewer overflow sites, ensuring timely reporting and readily available information for the public.

Enhanced Urban Flood Mitigation:

- Residential Protective Plumbing Program (RPP): The City provides residential protective plumbing incentives to residents to mitigate urban flooding.
- Wet Weather Infrastructure Management Plan: The City has developed and implemented a comprehensive plan to manage wet weather infrastructure.
- Additional Measures: Other measures to mitigate sanitary flooding and reduce pollution include sewer maintenance hole cover replacements, structure sealing, pipe and lateral lining, and catch basin, depressed driveway, flat roof and foundation disconnections.

Q5: How can residents help reduce the volume, impact and number of CSOs?

A: Residents can play a vital role in reducing the volume of runoff entering the sewer system and decreasing the likelihood and impact of Combined Sewer Overflows (CSOs) by managing runoff from their properties and taking part in the Rain Ready Ottawa Program.

Actions to divert runoff from homes, even in areas without combined sewer systems, can help minimize CSOs in areas that do have them. While areas without combined

sewer systems do not directly experience CSOs, reducing runoff can still have beneficial effects by reducing the pressure on surrounding water bodies and the overall drainage system. Some ideas include:

- Disconnect Sources of Runoff: Redirect downspouts away from paved surfaces and into gardens or rain barrels. This reduces the amount of water entering the sewer system during rainfall.
- Rain Ready Ottawa Program: Participate in the Rain Ready Ottawa program, which offers guidance and support for do-it-yourself yard improvement projects such as installing rain gardens, permeable paving, and other green infrastructure to manage stormwater on your property. Residents can learn more about the Rain Ready Program by visiting the Ottawa.ca website (Rain Ready Ottawa Program).