



Sewage Right-to-Know

2024 Annual Report

January 1, 2023, through December 31, 2023

DRAFT



Flooding in West Hartford

Sanitary Sewer Overflows (SSOs)

SSOs are releases from separate sanitary sewers which can be caused by sewer blockages, line breaks, sewer defects that allow stormwater and groundwater to overload the system, power failures, improper sewer design, and vandalism.

Combined Sewer Overflows (CSOs)

CSOs are discharges from combined sewer systems that were designed 100+ years ago to convey sewage and stormwater in the same pipes. When higher intensity storms overload the carrying capacity of the pipes, CSOs allow excess flows to discharge to nearby streams to prevent back-ups of raw sewage into homes, reduce the potential for street flooding, and protect pipes and treatment systems from damage.



Combined Sewer Overflow signage located in Bridgeport

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Executive Summary

Beginning on February 1, 2022 and annually thereafter, [Public Act 21-42](#) (AN ACT CONCERNING REVISIONS TO THE SEWAGE SPILL RIGHT-TO-KNOW STATUTE) requires DEEP to post an annual report that includes a summary of sewage spills [which include Combined Sewer Overflows (CSOs), Sanitary Sewer Overflows (SSOs), and permitted sewage bypasses¹] that occurred within each municipality, a summary of sewage spills that reached named or identified water bodies, a summary of the total volume of each category of sewage spill and any enforcement actions taken by the department related to such sewage spills.

Sewage Right to Know Background

In 2012, [Public Act 2012-11](#) entitled “An Act Concerning the Public’s Right to Know of a Sewage Spill” was passed requiring DEEP to post the locations of CSOs and SSOs in the state, including relevant information associated with reasonable public health, safety or environmental concerns and public safety precautions that should be taken.

In 2018, [Public Act 2018-97](#) entitled “An Act Concerning the Sewage Spill Right-to-Know Act and Expanding Continuing Education Programs for Wastewater Operators” added a definition for an electronic report, required operators of a sewage treatment plant or collection system to submit electronic reports no later than two hours after becoming aware of any sewage spill, added language to require all reporting under RCSA §22a-430-3 to be submitted as an electronic report, and added enforcement under CGS §22a-438. Additionally, and significantly, this Act required the operator of a sewage treatment plant or collection system to notify the chief elected official (CEO) of the municipality where a sewage spill exceeding or expecting to exceed 5,000-gallons occurred, no later than two-hours of becoming aware of the spill. Such CEO was then required to inform the public and downstream public officials, as appropriate, and as soon as practicable.

In 2021, [Public Act 2021-42](#) entitled “An Act Concerning Revisions to the Sewage Spill Right-to-Know Statute” added language to better clarify that what types of sewage spills must be reported, including permitted sewage bypasses. This Act removed the 5,000-gallon reporting threshold and replaced it with the requirement to report any sewage spill or permitted bypass reaching water or may come into contact with the general public. Also, the CEO and local public health director of the municipality where such a spill or permitted bypass occurred, as well as the CEO and local health director of any municipality that may be potentially impacted downstream, must be notified by the operator of a sewage treatment plant or collection system. Such CEO(s) and local health director(s) must then inform the public of any sewage spill or permitted bypass that has the potential to impact public health, safety or the environment. This Act also required reporters (i.e., operators of a sewage treatment plant or collection system) to provide daily updates for any spill that lasts more than one

¹ Bypasses of untreated or partially treated sewage at wastewater treatment facilities permitted under the National Pollutant Discharge Elimination System (NPDES) program and caused by weather related high flow events. These bypasses exist to preserve the biology in a wastewater treatment facility and prevent damage/shutdown of a facility.

day. Finally, DEEP was required to implement a real-time public notification system for sewage spills and publish an annual report.

DEEP Actions to Comply

On December 1, 2021, DEEP's new cloud-based system and associated [CT DEEP Performance Dashboard](#), meeting the expanded reporting requirements of Public Act 21-42, went live. The new system allows reporters to report sewage spills, make corrections, and provide data updates (for example, to discharge volumes after a sewage spill has ended), thus allowing for more accurate data. The new Dashboard also allows for analytics and widgets to improve public transparency and data accessibility for SSOs and CSOs and associated data.

To meet its real-time notification requirement, DEEP has created and is using a Twitter account called "CT Sewer Overflows" ([@CTSewageSpills](#)) through which DEEP disseminates reports of sewage spills in the state. DEEP is currently manually updating the Twitter account and continues to work with its vendor to automate the system so that reports submitted to the electronic system will be immediately relayed to the Twitter account for posting.

Summary of Data²

Weather Conditions

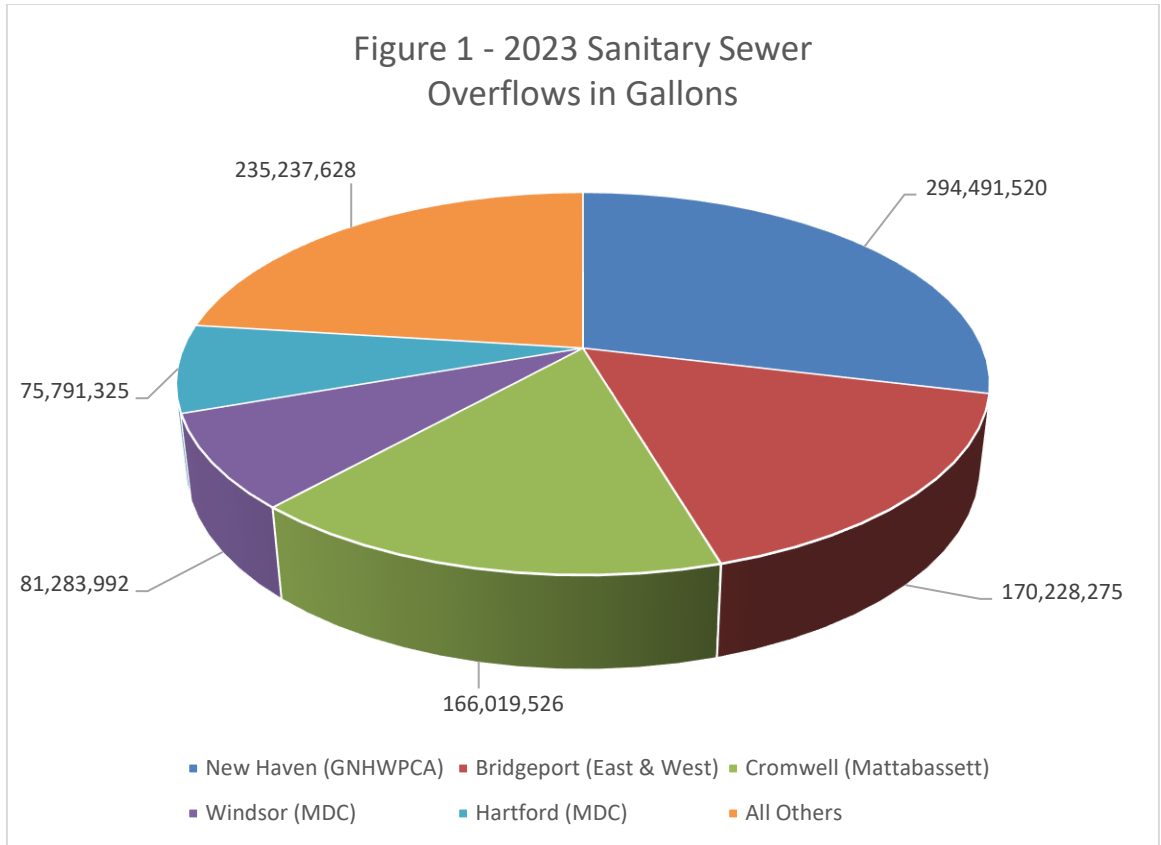
While 2023 is considered one of the top ten hottest years in history, leading to precipitation records including the wettest July in Hartford's history with nearly 14" of rain. July saw multiple days with heavy rains and storms with the CT River swelling to the highest summer levels in 50 years. August saw 2 tornadoes touch down in CT and one in September with the remnants of Hurricane Lee and Tropical Storm Ophelia. More rain in November and December but was not as severe in amounts as the summer months. Weather conditions were the most significant cause of sewage spills in 2023, as identified in Figures 3 and 4 below (see *Excessive Flows – Storm Event* category).

Summary of Sewage Spills by Municipality²

2023 was a much wetter year than 2022 with several extreme wet weather events. Approximately 1,023,052,266 gallons of raw (i.e. untreated) sewage was released during 603 known sanitary sewer overflow events in 2023. These include both 499 SSOs and 104 NPDES Permitted Bypasses but excludes CSOs. The top five municipalities with releases are represented in Figure 1 – 2023 Sanitary Sewer Overflows in Gallons. There were 357 *Excessive Flows – Storm Events* reported as the cause of the sewage spills – up from 91 reported in 2022.

See the SSO SUMMARY tab on the "[2024 Annual Report](#)" spread sheet for the breakdown. For more detailed information, see the individual town tabs in the "[2024 SSO Event Report](#)" and "[2024 CSO Event Report](#)" spread sheets.

² Data Caveats: SRTK data is submitted by NPDES Permit representatives. SRTK reports are required to be submitted within 2 hours after discovery of a sewage spill and specific details may not be known immediately. DEEP does not review data quality, especially volume calculations performed by reporters.

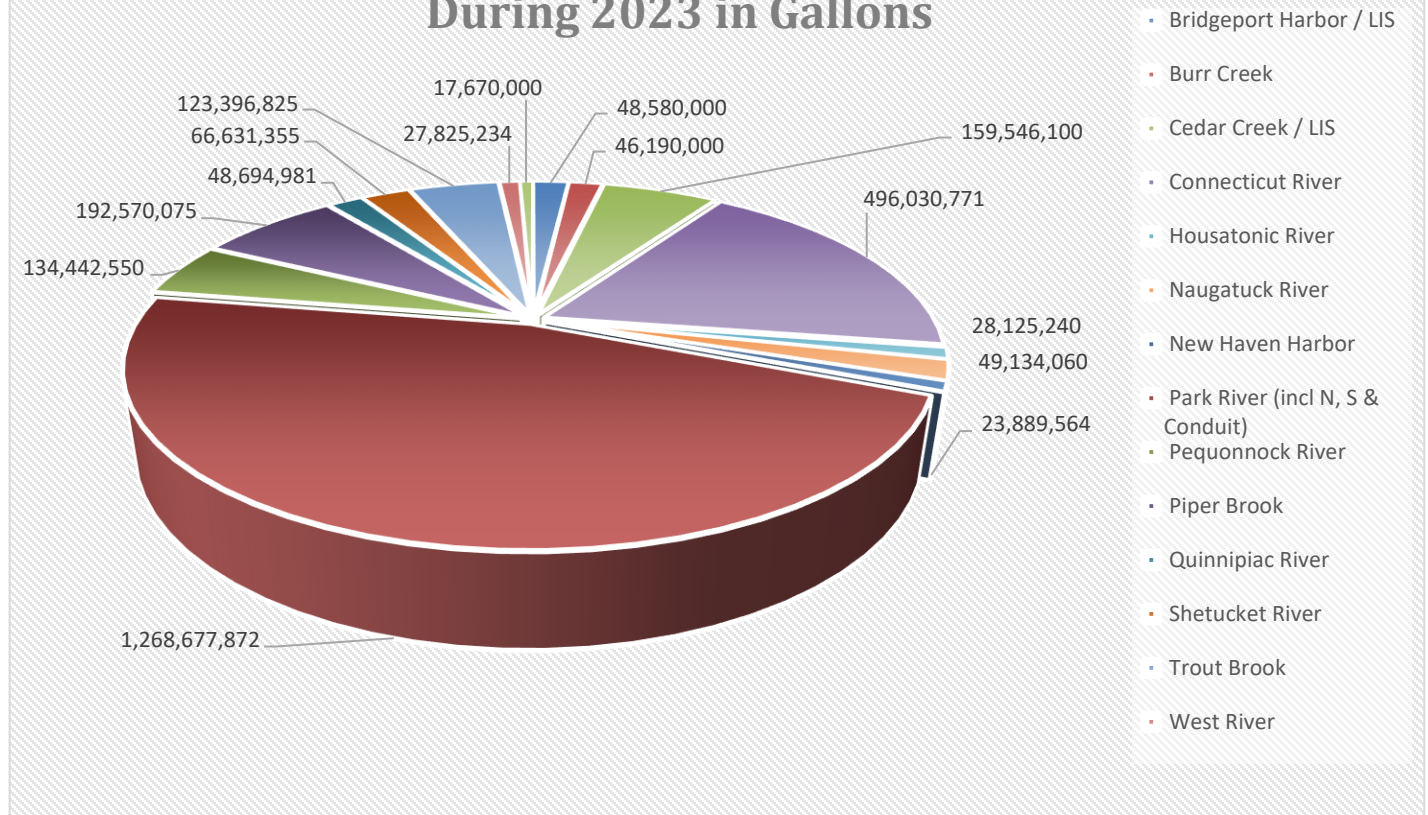


Summary of Sewage Spills That Reached Named or Identified Water Bodies.

An estimated total of 2,823,220,702 gallons of raw and partially treated sewage reached 65 named and identified waters of the state in 2023. This includes CSOs, SSOs, and NPDES Permitted Bypasses. Figure 2 represents the top 15 waterways which received the largest volume of sewage spills (an approximate total of gallons). This represents 97% of the total volume, leaving 97,785,225 gallons entering the other 49 named waterways and an additional 30,850 gallons reaching unnamed (identified) waterways for a total of 91,816,075 gallons.

See the CSO SUMMARY tab and SSO SUMMARY tab and REACHED WATER SUMMARY tab in the "[2024 Annual Report](#)" spread sheet for more detailed data.

Figure 2 - 15 Largest Water Course Discharges During 2023 in Gallons

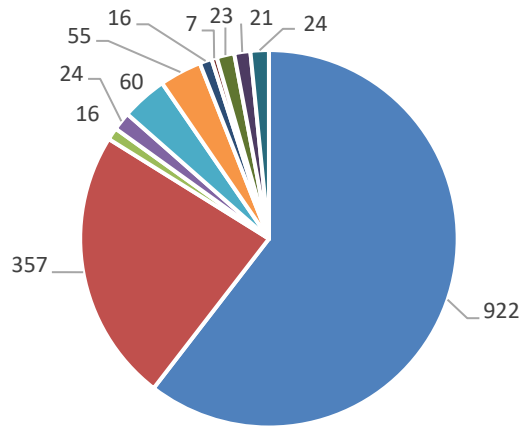


Summary of the Total Number of Events of Each Category of Sewage Spill.

Of the 499 SSOs and 104 NPDES Permitted bypasses, 319 reached waters of the State. There were 922 reported CSOs, resulting in 287 days during which raw sewage entered the waters of the state. All CSOs reached water. There were 357 *Excessive Flows – Storm Events* reported as the cause of the sewage spills which includes the 104 NPDES Permitted Bypasses. There were only 92 *Excessive Flows – Storm Events* reported in 2022 which was a dry year. Figure 3 below breaks out each category.

See the CSO SUMMARY tab and SSO SUMMARY tab in the [“2024 Annual Report”](#) spread sheet for more information.

Table 3 - Number of Bypasses by Category for 2023



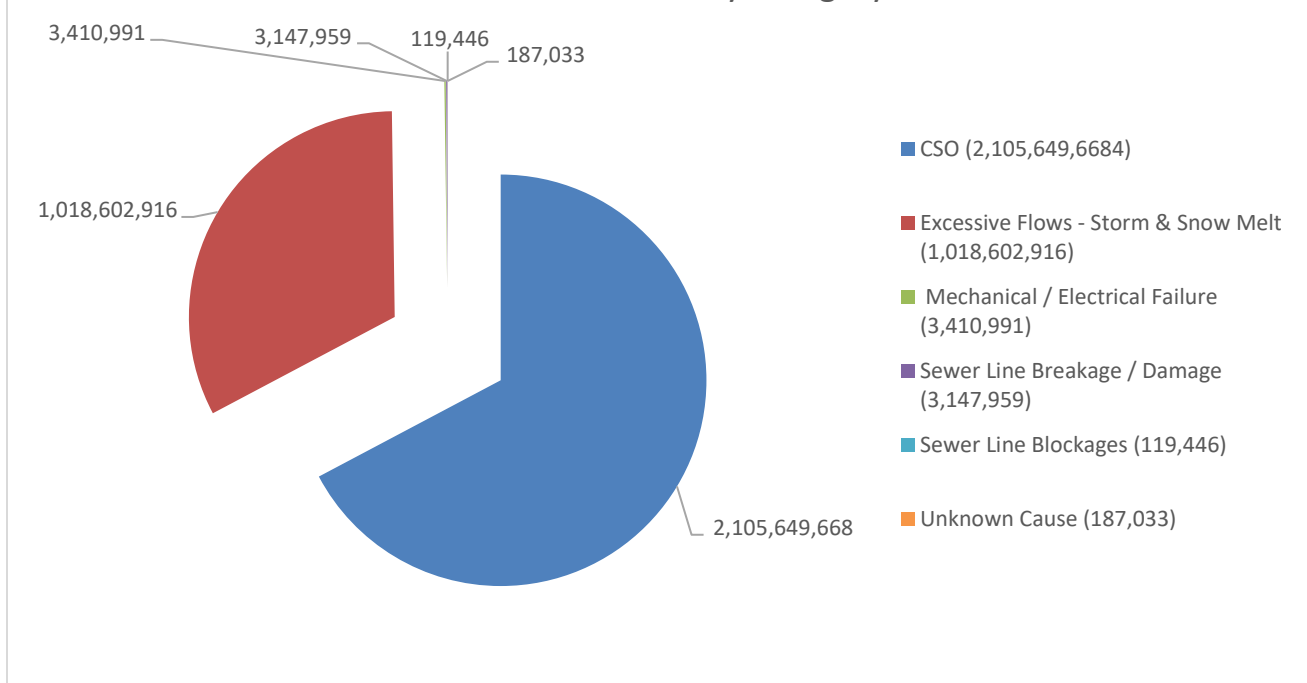
- CSO - Excessive Flows (922)
- Excessive Flows - Storm Event & Snow Melt (357)
- Electrical Equipment Failure (16)
- Mechanical Equipment Failure (24)
- Sewer Breaks / Damaged (60)
- Sewer Link Blockage - Grease (55)
- Sewer Line Blockage - Rags (16)
- Sewer Line Blockage - Roots (7)
- Sewer Line Blockage - Debris (23)
- Sewer Line Blockage - Other (21)
- Unknown Cause (24)

Summary of the Total Volume of Each Category of Sewage Spill.

Figure 4 below shows how each grouped category of sewage spill compares in gallons. CSOs represented approximately 2,105,649,668 gallons, while *Excessive Flows – Storm Events (which caused CSOs and SSOs)* represented approximately 1,018,602,916 gallons of the total approximated 1,025,468,345 gallons released by non CSO releases (which includes all categories, other than CSOs, identified in Figures 3 &4). There were 357 *Excessive Flows – Storm Events & Snow Melt* which were reported as the cause of the sewage spills.

See the CSO SUMMARY tab and SSO SUMMARY tab in the “[2024 Annual Report](#)” spread sheet for more information.

Table 4 - Volume of Events by Category for 2023



Summary of Enforcement

DEEP's enforcement actions are guided by its [Enforcement Response Policy](#). The City of Bridgeport, the City of Norwich, Metropolitan District Commission (MDC) and Greater New Haven WPCA (GNHWPCA) all continue to work towards the completion of their existing CSO Long-Term Control Plan (LTCP) orders.

The City of Bridgeport last updated their LTCP in 2021. The modification to the plan indicated completion of the current H Area of combined sewer separation and indicated that the proposed storage tanks would be undersized in the chosen locations. An indication that new conveyance piping in addition to wastewater treatment plant upgrades in lieu of the tanks would be a better solution. Discussions with DEEP are ongoing.

DEEP issued Consent Order COWRMU17001 to the City of Norwich (Norwich) on July 3, 2017, to update the LTCP. Norwich submitted a LTCP update in 2020 which was under DEEP review. Norwich continues to complete projects required in the LTCP.

The Metropolitan District submitted an Integrated Implementation Phase I in February 2021 as an update to the LTCP. After review, on September 19, 2022, DEEP issued Consent Order COWRMU22002 for the implementation of the first seven years of the plan with an update due in five years. DEEP issued a modified order for the Consent Order on July 24, 2023, to mitigate combined sewer overflows in the north Hartford area in response to requests from EPA, the General Assembly, residents of north Hartford and DEEP.

Greater New Haven WPCA (GNHWPCA) and DEEP entered into Consent Order COWRMU5509 dated July 1, 2009. A November 12, 2019 modification of this order covered projects to be completed by

the end of 2023. On February 2, 2023, GNHWPCA submitted a revised LTCP and it is under DEEP review. GNHWPCA continues to do work on their sanitary sewer system as required by the consent order.

DEEP issued an order to the City of Norwalk in May of 2022 due to lack of the equivalent of primary treatment on the NPDES Permitted Secondary Treatment Bypass train located at the wastewater treatment plant as required by permit and for historic and potential future bypasses at the Ann Street Siphon Emergency Overflow. Norwalk submitted their Facility Plan and Sanitary Sewer Master Plan Update in September 2023 and is under review.

DEEP issued a Notice of Violation in November 2022 to the Town of Trumbull for lack of timely reporting related to a sewage spill in Bridgeport that affected Lake Forest. Trumbull continued monitoring of Lake Forest and started design of a new force main for Old Town Road. Once a timeline for replacement was established, DEEP and Trumbull entered into Consent Order COWRMU23001 signed December C, 2023, to memorialize the schedule and close the NOV.

Clean Water Fund Assistance

Connecticut's Clean Water Fund (CWF) supports municipal wastewater infrastructure projects throughout the State and is a designated federal state revolving fund. The CWF partners with local governments to build and finance projects that improve water quality and protect public health while sustaining the State's significant natural resources. The CWF is one of the most generous programs in the United States with 100% project financing, which includes grants for a percentage of the project cost and subsidized 2% interest rate loans for the balance of the project cost. Municipal plans (such as Long-Term Control Plans or Integrated Plans) to address and eliminate CSOs and SSOs are a priority funding area for the CWF and implementation of plan actions are expected to cost billions of dollars and take decades. Connecticut municipalities, such as Hartford, New Haven, Bridgeport, and Norwich, with combined sewer systems will be prioritized for funding.