Sewage Right-to-Know

2022 Annual Report

January 1, 2021 through December 31, 2021

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 in order to prevent back-ups of raw sewage into homes, reduce the potential for street flooding, and protect pipes and treatment systems from damage.

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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 bypasses[1]] 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 ExpandingContinuing 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, for 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 "CTSewerOverflows" (@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 Data[2]

Weather Conditions

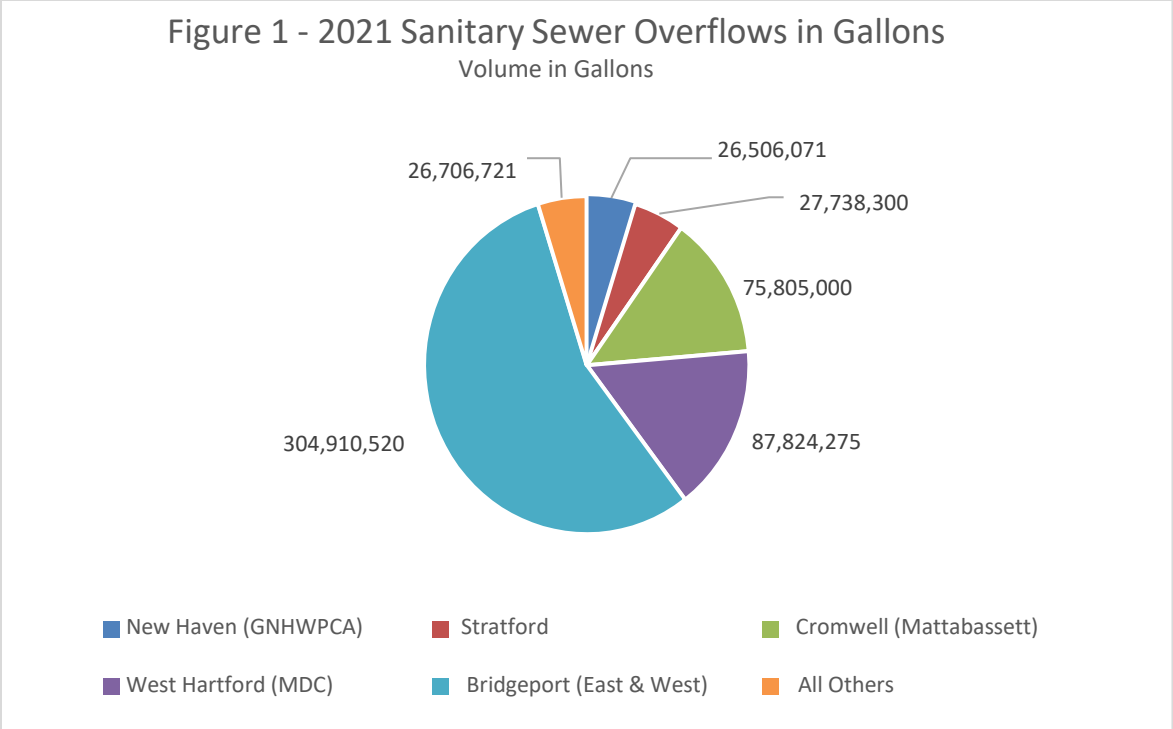
Extreme wet weather, such as we saw in 2021, can overwhelm any collection system and cause more sewage spills. An unusually wet summer included Tropical Storm Elsa in July, Tropical Storms Fred and Henri in August, and Depression Ida, and rains from Hurricane Larry in September. Weather conditions were the most significant cause of sewage spills in 2021, as identified in Figures 3 and 4 below (see *Excessive Flows – Storm Event* category).

Summary of the sewage spills by municipality

Approximately 549,490,887 gallons of raw (i.e., untreated) sewage was released during 474 known events in 2021. These include both 443 SSOs and 31 NPDES Permitted Bypasses but excludes CSOs. The top five municipalities with releases are represented in Figure 1 – 2021 Sanitary Sewer Overflows in Gallons. There were 209 *Excessive Flows – Storm Events* reported as the cause of the sewage spills.

See the SSO SUMMARY tab on the "2021 Annual Report" spread sheet for the breakdown. For more detailed information, see the individual town tabs in the "2021 SSO Event Report" and "2021 CSO Event Report" spread sheets.

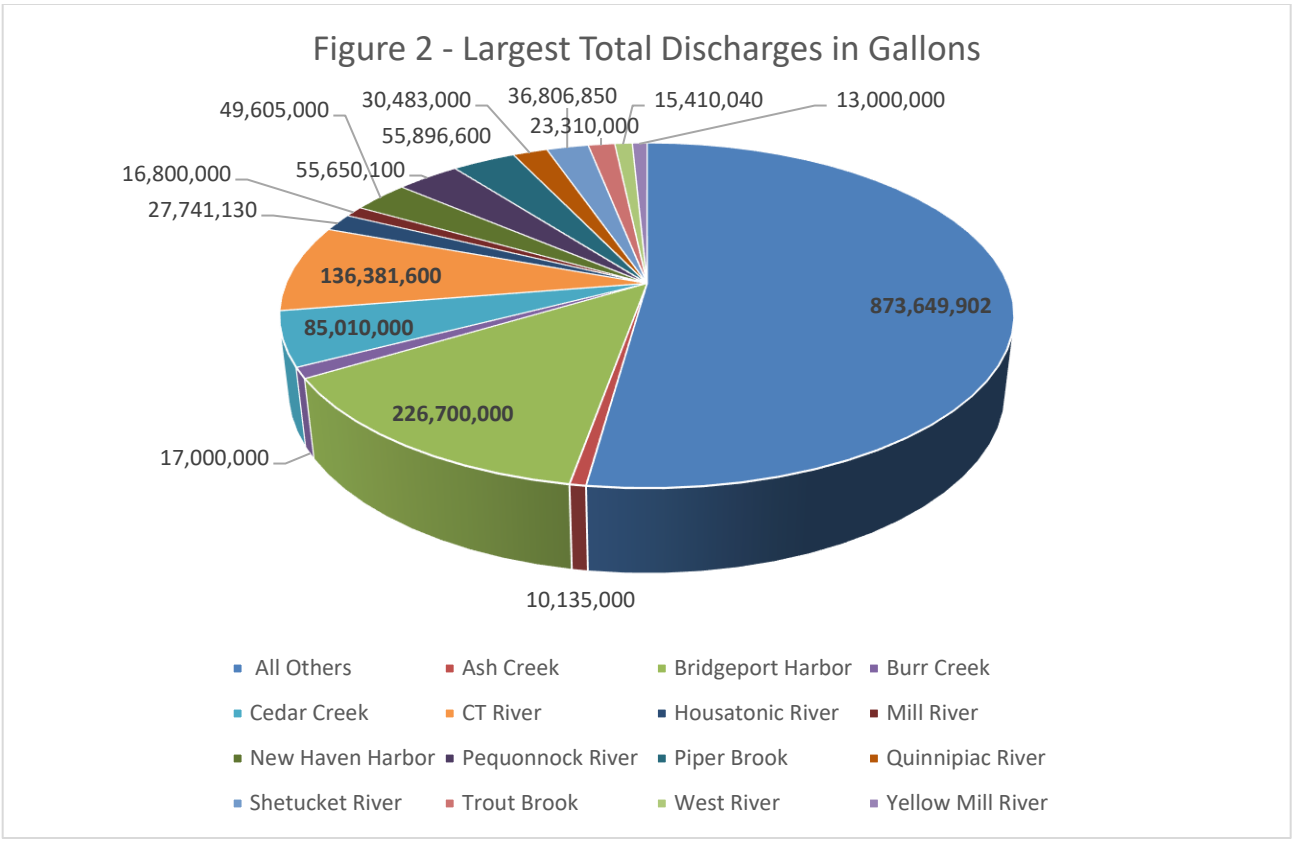
[2] Data Caveats: SRTK data is submitted by NPDES Permit representatives. SRTK reports are required to be submitted within 2 hours after discovery of a sewage spill and specific details may not be known immediately. DEEP does not review data quality, especially volume calculations performed by reporters.



Summary of sewage spills that reached named or identified water bodies.

An estimated total of 1,673,579,222 gallons of raw and partially treated sewage reached 72 named and identified waters of the state in 2021. This includes CSOs, SSOs, and NPDES Permitted Bypasses. Figure 2 represents the top 15 waterways which received the largest volume of sewage spills (approximately a total of 799,929,320 gallons). This is almost half of the total volume, leaving 873,649,902 gallons entering the other 57 named and identified waterways and an additional 18,338 gallons reaching unnamed waterways.

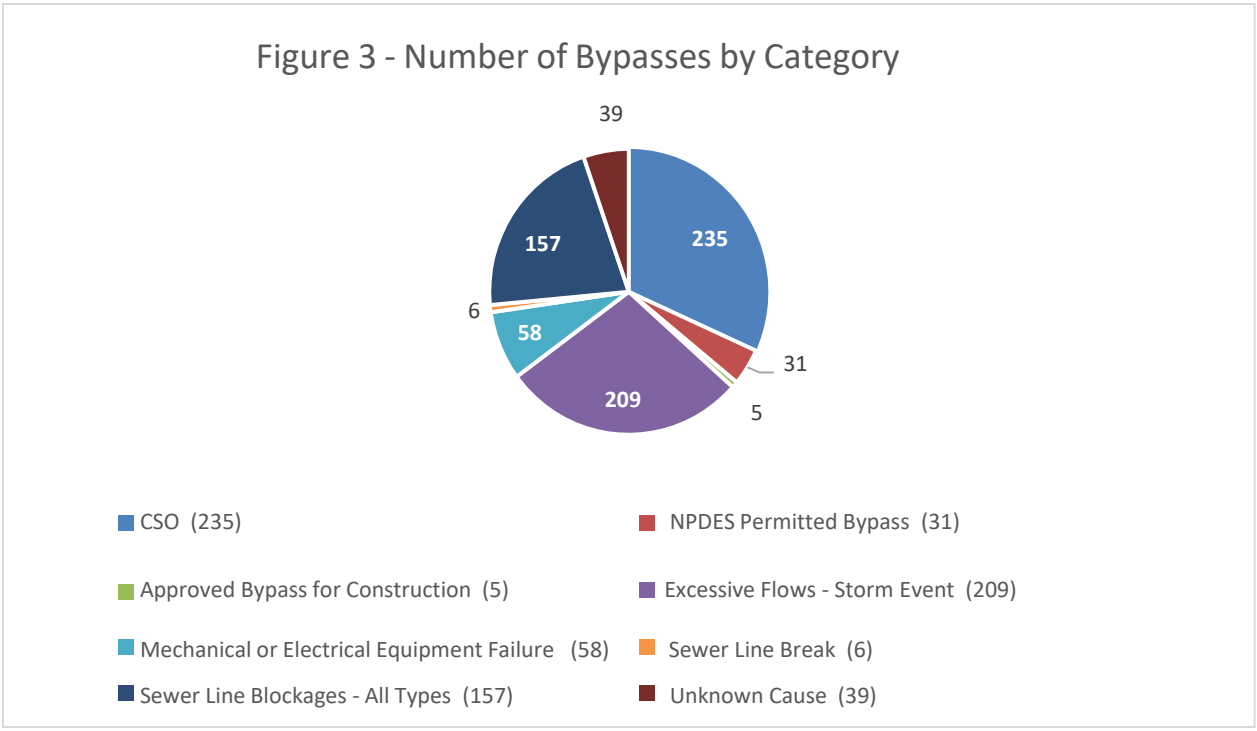
See the CSO SUMMARY tab and SSO SUMMARY tab and REACHED WATER SUMMARY tab in the "2021 Annual Report" spread sheet for more detailed data.



Summary of the total number of events of each category of sewage spill.

Of the 443 SSOs and 31 NPDES Permitted bypasses, 246 reached waters of theState. There were 758 reported CSOs, resulting in 235 days during which raw sewage entered the waters of the state. All CSOs reached water. There were 209 *Excessive Flows – Storm Events* reported as the cause of the sewage spills.

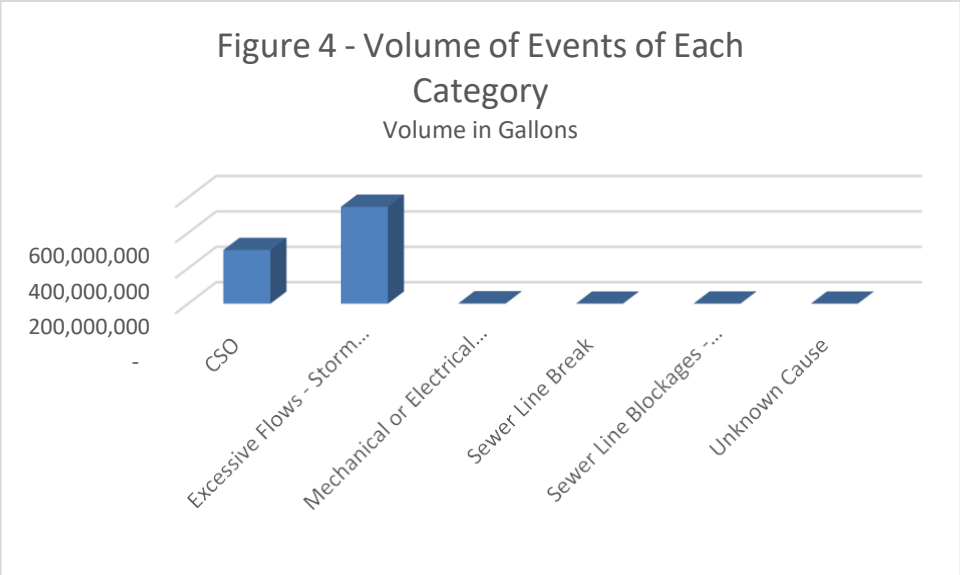
See the CSO SUMMARY tab and SSO SUMMARY tab in the "2021 Annual Report" spread sheet for more information.



Summary of the total volume of each category of sewage spill.

Figure 4 below shows how each category of sewage spill compares in gallons. CSOs represented over 303 million gallons, while *Excessive Flows – Storm Events (which caused CSOs and SSOs)* represented approximately 546,777,884 gallons of the total approximated 549,490,887 gallons released by non CSO releases (which includes all categories, other than CSOs, identified in Figures 3 &4). There were 209 *Excessive Flows – Storm Events* which were reported as the cause of the sewage spills.

See the CSO SUMMARY tab and SSO SUMMARY tab in the "2021 Annual Report" spread sheet for more information.



Summary of Enforcement

DEEP's enforcement actions are guided by its Enforcement Response Policy. DEEP has taken no specific enforcement action(s) related to sewage spills.

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.