



September 22, 2023

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RE: DJ# 90-5-1-1-10157 - Civil Action No. 1:15-cv-00291-CCC: Public Notification Plan

To Plaintiffs, Civil Action No. 1:15-cv-00291-CCC,

Capital Region Water (CRW) is required to submit to a list of deadlines under Paragraph V(B)(10)(f)(i) of the Modification to partial Consent Decree(MPCD) lodged February 13, 2023:

10. *i. Within 30 Days of the Effective Date, CRW shall submit a Public Notification Plan to Plaintiffs for review and comment. CRW shall simultaneously provide a copy of the Public Notification Plan to the City, which may provide input on the Plan. Any input from the City must be submitted to Plaintiffs and CRW within fourteen (14) Days of CRW's submission. The Public Notification Plan shall describe and specify how and when CRW will notify the public about CSO Events, including the design, location, and planned installation date of any signs, placards, monitors, or other public notification system that CRW must install pursuant to this Paragraph.*

Please see the enclosed PDF of the Public Notification Plan for your review.

Please contact me directly to discuss any questions or concerns you may have.

Sincerely yours,

A handwritten signature in blue ink that reads "Claire Maulhardt". The signature is written in a cursive, flowing style.

Claire Maulhardt, PLA
City Beautiful H2O Program Manager
717-216-5269

Public Notification Plan Combined Sewer Overflow Events



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Purpose

As documented in the Modification to the Partial Consent Decree¹ between the United States and PADEP v. Capital Region Water and the City of Harrisburg, specifically Paragraph V.B.10(f)i² regarding Public Notification, and the associated Nine Minimum Controls (NMC) Plan required under the Combined Sewer Overflow (CSO) Control Policy, Capital Region Water is committed to developing and implementing a Public Notification Plan (Plan) for CSO activity. **This Plan serves to describe and specify how Capital Region Water will ensure that the public receives timely information regarding the occurrence of CSO events.** Further education and awareness are intended to facilitate understanding of the operation and performance of the combined sewer system as it relates to untreated or partially treated sewage flows. This Plan has been informed by public input and is subject to further review and comment.

Background

Harrisburg's wastewater (i.e., sewer) system, owned and operated by Capital Region Water, includes both separate sanitary sewers and combined sewers. Over half of Harrisburg's sewer pipes are part of a combined sewer system, where polluted stormwater runoff and sanitary sewage are conveyed in the same pipe for treatment. During wet weather, stormwater flows can exceed system capacity, discharging the mixture into the Susquehanna River and/or Paxton Creek. A CSO event is a discharge from the combined sewer system to one of those receiving waters. Capital Region Water is committed to providing notification to the public regarding the occurrence of CSO discharge activity. The information and protocols in this Plan are intended to help the Harrisburg community understand the operation and performance of the wastewater system, specifically how and when the public will be notified about CSO events.

Regulatory/Planning Overview

Capital Region Water is committed to clean water in our local waterways. Since taking ownership and operation of the wastewater and stormwater systems in late 2013, Capital Region Water has been planning and implementing solutions to improve water quality and rehabilitate the network of pipes, sewers, and pumps (i.e., infrastructure), which was built decades ago. This investment has included nearly \$200 million in direct infrastructure spending.

¹ Modification to the Partial Consent Decree between the United States and PADEP v. Capital Region Water and the City of Harrisburg as filed in Federal District Court for the Middle District of Pennsylvania on August 25, 2023.

² According to Paragraph V.B.10(f)i, *Within 30 days of the Effective Date, CRW shall submit a Public Notification Plan to Plaintiffs for review and comment. The Public Notification Plan shall describe and specify how CRW will notify the public about CSO events, including the design, location, and planned installation date of any signs, placards, monitors, or other public notification system that CRW must install pursuant to the Paragraph.*

Our built infrastructure must work in tandem with the surrounding natural infrastructure – namely Paxton Creek and the Susquehanna River. Approximately 80 percent of the collection system was installed before 1940, meaning that most of the wastewater/stormwater infrastructure is more than 80 years old. The age of this infrastructure, coupled with decades of deferred maintenance, has resulted in several structural issues, operational deficiencies, and debris buildup.

Since 2015, Capital Region Water has been operating under a Partial Consent Decree to ensure necessary measures are taken to achieve full compliance with the federal Clean Water Act and Pennsylvania’s Clean Streams Law. This Partial Consent Decree required Capital Region Water to control discharges from the sewer system, which consists of the combined and separate sanitary sewer collection system, conveyance and treatment systems, and the municipal separate stormwater sewer system (MS4) within the City of Harrisburg.³

Capital Region Water has negotiated a material modification to the 2015 Partial Consent Decree. This Modification to the Partial Consent Decree addresses alleged violations of the Clean Water Act and Pennsylvania’s Clean Streams Law, primarily due to sewer overflows and the discharge of polluted stormwater. The modification also establishes baseline conditions for an acceptable Long-Term Control Plan to further reduce CSO discharges. The goal remains the same – improved water quality and implementation of defined compliance measures.

System Overview

Capital Region Water operates and maintains 59 CSO regulator structures located along the Front Street, Paxton Creek, Paxton Creek Relief, and Hemlock Street interceptor sewers, which ultimately direct combined wastewater (sanitary wastewater and stormwater) to the Advanced Wastewater Treatment Facility (AWTF). During dry weather conditions, the CSO regulator structures divert all the combined wastewater from the trunk sewer lines to the interceptor sewers and then to the AWTF for treatment before being discharged. During wet weather, the rate and volume of the sanitary and stormwater flow from the system of collector sewers increases significantly, and can exceed the capacity of the downstream interceptor sewers and the treatment facility. When this occurs, the CSO regulator structures (sometimes called diversion structures) divert a controlled volume of flow to the interceptor, while untreated excess combined stormwater and wastewater is discharged to receiving waters. This discharge is necessary to avoid basement and other building backups, releases from manholes, or other damage to the system that might be caused by surcharged conditions. The receiving waters are the Susquehanna River for regulator structures along the Front Street interceptor, and Paxton Creek (a tributary of the Susquehanna) for regulators along the Paxton Creek, Paxton Creek Relief, and Hemlock Street interceptors. Each regulator has a dedicated outfall, with one

³ The intent of the 2015 Partial Consent Decree was to ensure that CRW could achieve a baseline level of control necessary to implement an approved Long Term Control Plan. The plan serves as a roadmap for ongoing system improvements, moving CRW toward its goal of full compliance with state and federal clean water regulations. It has since been discovered that the system was in a worse condition than previously expected, meaning more time was necessary to provide basic maintenance and assess baseline conditions. It also means that additional projects are necessary to meet CRW’s goals.

exception in which two regulators serve a common outfall for a total of 58 permitted outfall structures within Capital Region Water's combined sewer system. In addition to the 58 permitted outfall structures, there are permitted emergency outfalls (CSO-002 and CSO-003) that activate only during a mechanical failure of the pump stations or if the station capacities are exceeded during extreme storm events.

Susquehanna River

There are 27 permitted CSO outfall structures along the Front Street Interceptor (see Figure 1). This includes CSO numbers 04-20 and CSO numbers 49-58. CSO-04 at the cross streets of Front & Vaughn is the farthest upstream outfall discharging to the Susquehanna River. CSO-20 is the farthest downstream at Front & Hanna streets. These outfalls are within a 4-mile distance, largely located in or parallel to Riverfront Park, which is located between Front Street and the Susquehanna River. The area is publicly accessible, with visitors frequently recreating between multiple outfall locations as the park is commonly used for walking, running, and biking.

Paxton Creek

There are 26 permitted CSO outfall structures along the Paxton Creek Interceptor (CSO numbers 21-34, 37-46, 48, and 59) and five (5) CSO regulator structures along the Hemlock Creek Interceptor (CSO numbers 60-64) (see also Figure 1). CSO-21 located at Cameron & Schuylkill streets is the farthest upstream outfall location and CSO-64 located at Cameron & Magnolia streets is the farthest downstream location along Paxton Creek.

The Paxton Creek corridor within the City of Harrisburg stretches about six miles with the majority of this portion of the creek highly modified. A concrete-lined channel was constructed by the City of Harrisburg circa 1914 to remedy its heavily polluted and stagnant condition, resulting from the City's rapid urban and industrial development beginning in the early 1800s. Such growth and development have caused extensive ecological degradation to Paxton Creek, and it currently suffers from Urban Stream Syndrome. Urban Stream Syndrome is typified by flash flooding, elevated concentrations of nutrients and contaminants, altered channel morphology, and reduced biotic richness, with an increased dominance of non-native species. A number of factors have limited access and recreational use in and along Paxton Creek. These outfall locations are less accessible to the public.

Emergency Outfalls

In addition to the 58 permitted CSO outfalls, there are two additional CSO outfalls at the Front Street pumping station and the Spring Creek pumping station. These are permitted emergency outfalls (CSO-002 and CSO-003) that activate only during a mechanical failure of the pump stations or if the station capacities are exceeded during large storms (see also Figure 1). There are no regulator structures associated with these outfalls, but they are included in this plan because the outfalls are inspected daily along with the regulators to identify and quantify any dry or wet weather CSO discharges.

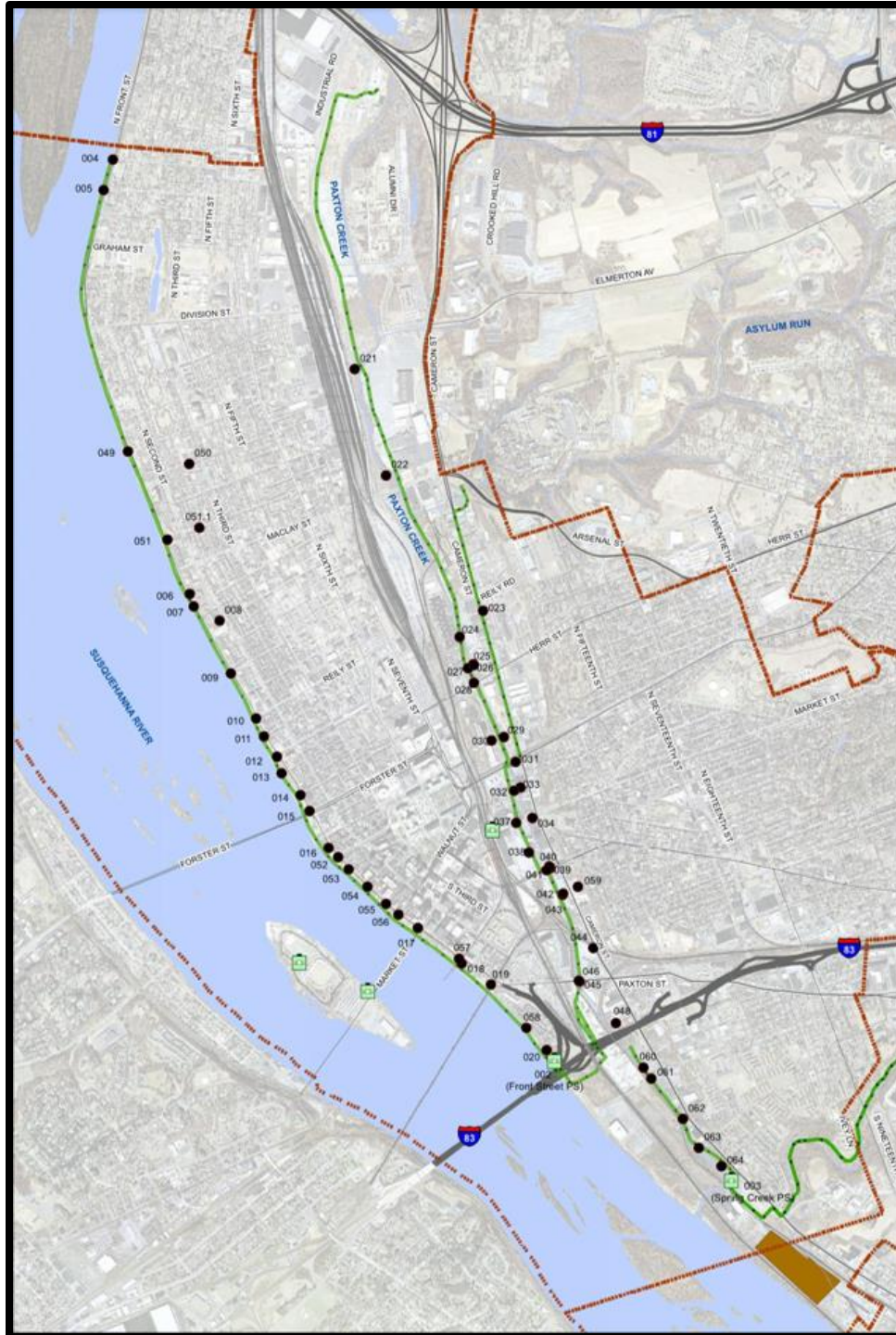


Figure 1: Map of CSO Outfall Locations by Asset Identification Number

Community Considerations

Environmental Justice

Inherent in Capital Region Water’s mission, vision, and standard operations is a commitment to environmental justice (EJ), because the communities that we serve experience a disproportionate share of environmental burdens. This is typified by lower-income communities as well as communities of color, which simultaneously lack environmental assets and access to associated improvements in their neighborhoods.

The median income of households within the City of Harrisburg is less than \$45,000 with nearly 30 percent of residents experiencing poverty.⁴ Utilizing the U.S. EPA’s EJScreen tool, Harrisburg’s EJ scores can be reviewed in comparison to state and national environmental indicators. Harrisburg experiences elevated EJ concerns, including socioeconomic indicators, that trend higher than state and national averages. Harrisburg’s EJScreen Report is included as Appendix A.

Using various definitions and indicators, the communities served by the combined sewer system, including associated outfalls, are historically considered minority and low-income. The majority of Harrisburg lies within PA DEP’s Environmental Justice tracker (see Figure 2) with many of the 2015 census tracts identified as an “EJA” or Environmental Justice Area. Take, for example, the farthest north and south or upstream and downstream census tracts along the Paxton Creek corridor in Harrisburg. The northernmost upstream census tract, tract 211 in Dauphin County, reports a poverty rate of 32 percent and a minority population of 91 percent. The southernmost or downstream census tract (at the confluence with the Susquehanna River), census tract 214, reports a 55 percent poverty rate and a minority population of 91 percent.⁵

⁴ U.S. Census Bureau QuickFacts: Harrisburg city, Pennsylvania – <https://www.census.gov/quickfacts/harrisburgcitypennsylvania>

⁵ Capital Region Water acknowledges that the Shapiro Administration is seeking to adopt an updated Environmental Justice (EJ) Policy, which is expected to be implemented in 2024. Additionally, PA DEP is improving its mapping tool to better identify EJ areas in Pennsylvania with an expanded list of environmental, health, and socioeconomic indicators. Under the current Environmental Justice Public Participation Policy, PA DEP defines an EJ Area as any census tract where 20 percent or more individuals live at or below the federal poverty line, and/or 30 percent or more of the population identifies as non-white minority, based on U.S. Census Bureau data and federal guidelines for poverty. There is not a universally accepted definition of an Environmental Justice area.

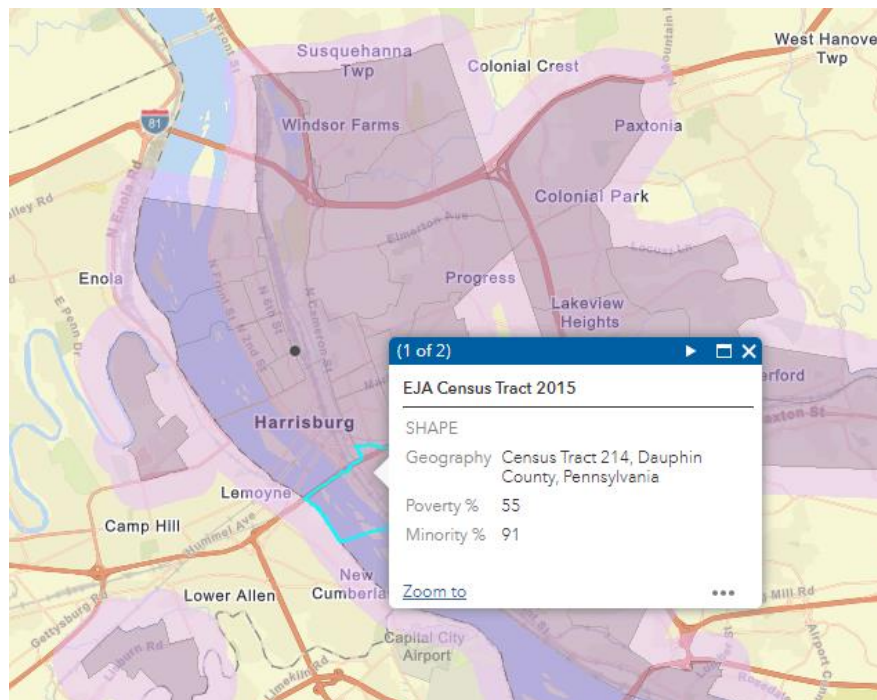
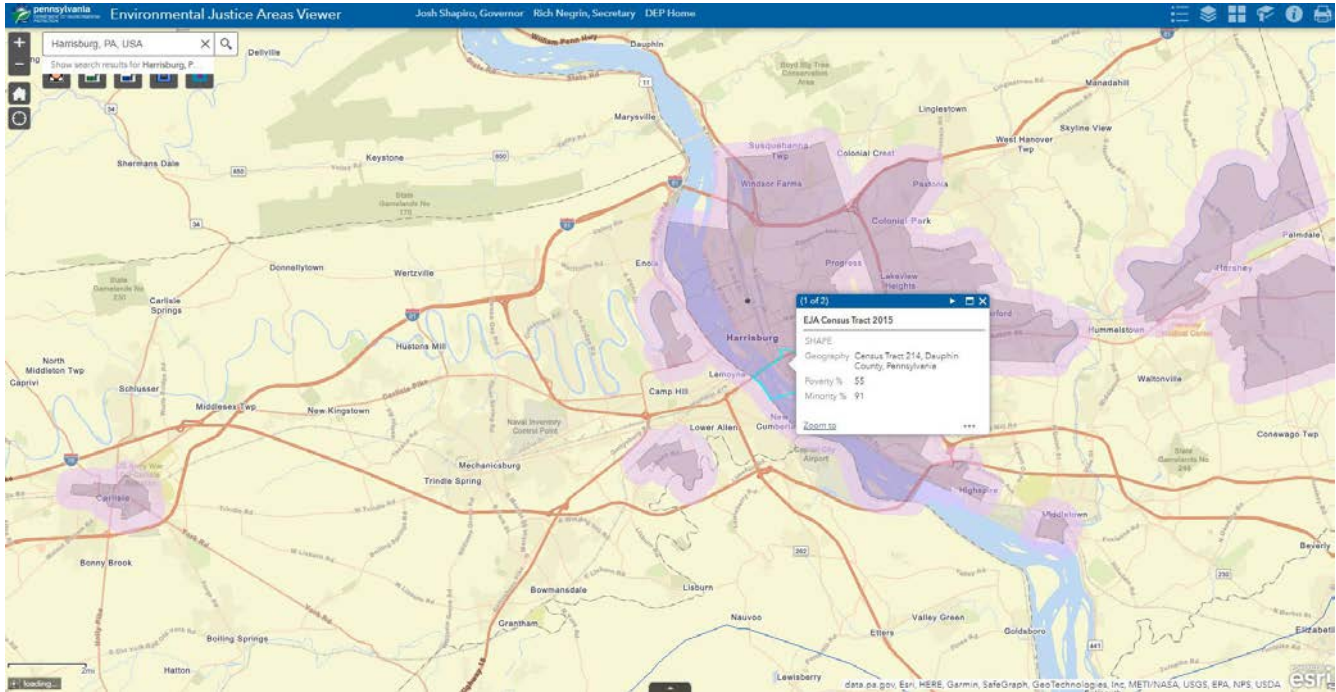


Figure 2: PA DEP Environmental Justice Viewer for Harrisburg, PA

Public Participation

Capital Region Water remains committed to ensuring that all communities we serve have the same protection from environmental and health hazards and equal access to the associated decision-making and public participation processes. This is evident from our collective work since our inception in 2013. Capital Region Water routinely and intentionally engages the community through regular programming, outreach, events, and communications. Staff convenes a team of Community Ambassadors to meet monthly and provide guidance to the larger organization. Community Ambassadors are neighborhood residents who serve as voices for their communities. With experience, insight, and connection, Ambassadors as well as other stakeholders assist in determining how to best utilize resources and address community concerns.

Upon submission of this Public Notification Plan,⁶ Capital Region Water commits to consideration of any written comments and/or input received. A copy of the Plan shall be made publicly available on Capital Region Water's website.

Combined Sewer System & Combined Sewer Overflow Signage

As required in the Modification to the Partial Consent Decree, specifically Paragraph V.B.10(f)ii and Paragraph V.B.10(f)iii,⁷ Capital Region Water is committed to installing and continually maintaining signs at each CSO outfall location notifying the public of the outfall location and providing direction to avoid contact with water during and following wet weather, as well as appropriate contact information. Minimum sign elements include: 1) warning and/or notice language alerting the public to avoid contact with waters during and following wet weather/rainfall events; 2) bilingual language content and universally accepted symbols; 3) Capital Region Water branding, including contact information; and 4) detail to learn more and/or report discharge.

In 2015, Capital Region Water staff visited and inventoried signage at each CSO outfall and public access points along the east shore of the Susquehanna River. This inventory has been documented in the annual NMC Plan and updated with each subsequent version of the NMC Plan to reflect recent inventory. A community participation process also aided in the development of a signage implementation plan to gather input on a

⁶ According to Paragraph V.B.10(f)i, *Within 30 Days of the Effective Date, CRW shall submit a Public Notification Plan to Plaintiffs for review and comment. CRW shall simultaneously provide a copy of the Public Notification Plan to the City, which may provide input on the Plan. Any input from the City must be submitted to Plaintiffs and CRW within fourteen (14) Days of CRW's submission.*

⁷ According to Paragraph V.B.10(f)ii, *CRW shall install and continuously maintain signs or placards at each CSO outfall that notify and alert the public to avoid contact with waters near or downstream of discharging CSO outfalls, in accordance with the Public Notification Plan. Signs or placards shall, at a minimum, be installed within ten (10) feet of each CSO Outfall point, and shall be made from durable weatherproof material. Signs or placards shall be visible to the unaided eye from both land and water at each CSO Outfall. Furthermore, Paragraph V.B.10(f)iii states, CRW shall also install warning signs, in accordance with the Public Notification Plan, at public stream access points (e.g., boat launches, beaches) that notify and alert the public to avoid recreational contact with waters during or just after any wet weather event.*

comprehensive approach to signage development and installation. Community input influenced the subsequent design and installation of signage in 2016 and 2017.

A documented signage inspection was completed in 2021 to inform an updated signage implementation strategy. In 2022, Capital Region Water started updating and standardizing signage as catalogued in the organization's maintenance management system (i.e., Cityworks). In addition to three-digit asset identification tags identifying each outfall number, various placards and signs are represented at each outfall throughout Capital Region Water's service territory. Variation in signage is necessary to accommodate various configurations of overflow locations, outfall structures, pedestrian access, visibility (from both land and water), and associated physical barriers. Capital Region Water also acknowledges that the 27 CSO regulator structures discharging to the Susquehanna River are located within a public park, lending consideration to public access as well as park aesthetics.

In addition to the standard three-digit asset identification placard, there are five sign types available to notify and/or educate the public about CSO activity. By ensuring consistency in signage, residents and recreators can begin to recognize and anticipate overflow areas. Capital Region Water's objective is to alert the public to the potential health and environmental impacts of CSOs and raise public consciousness concerning the effect of CSO discharges on the receiving water bodies (i.e., Paxton Creek and Susquehanna River). Included below (Figures 3 - 7) are the five sign templates installed at and nearby each of the outfall locations.



Figure 3: 9" x 6" Warning Placard
(Posted at each outfall)



Figure 4: 18" x 24" Warning Notice
(deployed along Paxton Creek at 24 locations)



Figure 5: 18" x 24" Public Notice
(deployed along Susquehanna River at 6 locations)

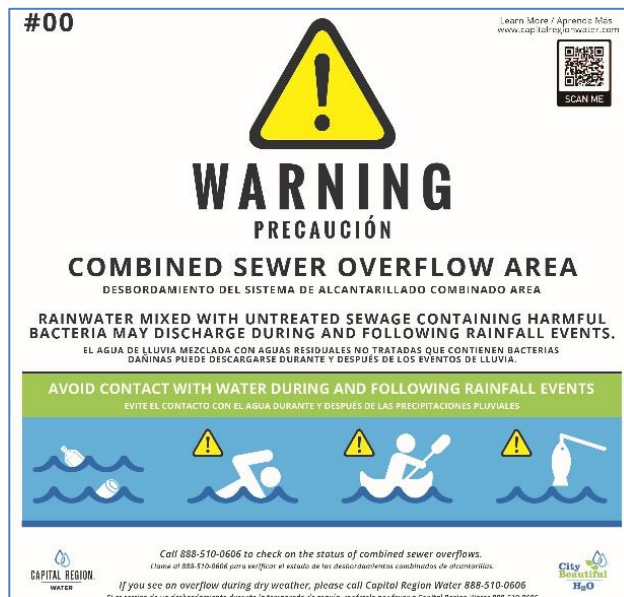


Figure 6: 36" x 36" Warning Sign
(deployed along both Susquehanna River & Paxton Creek at 13 locations)

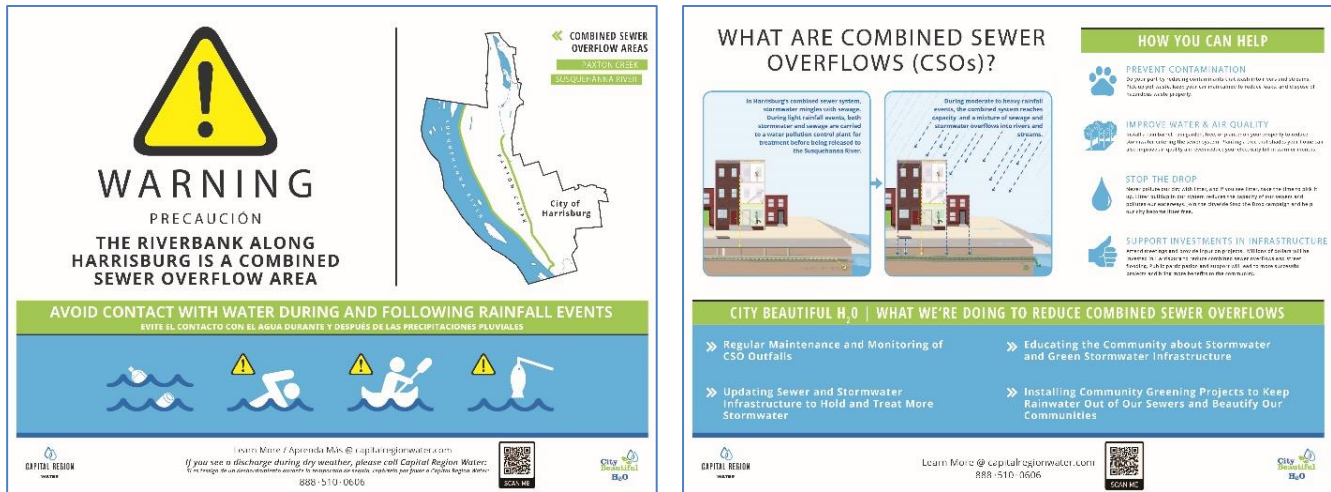


Figure 7: 60” x 36” Educational Sign
(2 - 30” x 36” individual signs posted side-by-side at 4 locations along the Susquehanna River)

Each sign template provides warning and/or notice of combined sewer overflow activity and caution to avoid contact with water during and following rainfall events. Spanish language content as well as information to contact Capital Region Water is included. Signage also includes a QR code, a two-dimensional or matrix barcode, containing data that directs a user to a website or application by use of a smart phone or other electronic device. In this case, the user will be directed to Capital Region Water’s website at www.capitalregionwater.com for further information on CSOs and related activity. Users can cross-reference the CSO asset ID with data on an interactive map to learn more about relevant CSO activity within a 48-hour period. Figure 8 below includes a screenshot of the CSO information map and website landing page.

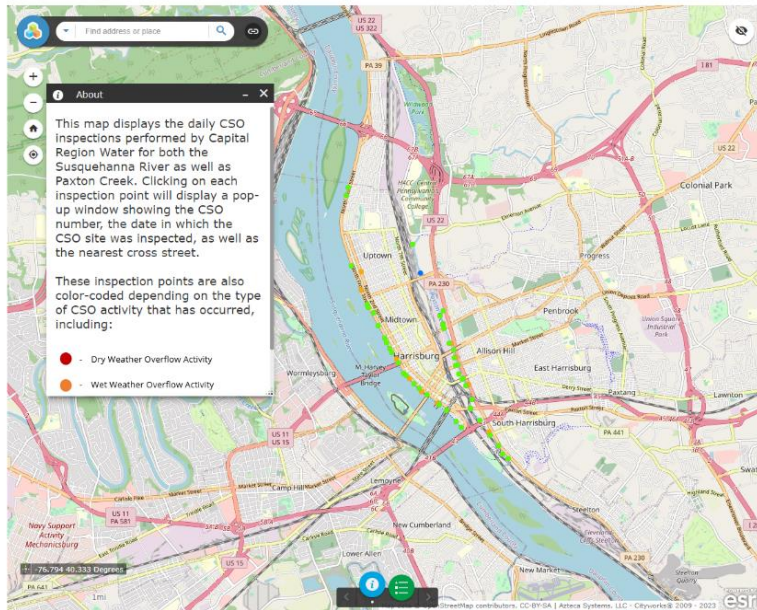


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Combined Sewer Overflow Status



Check the map for updates on combined sewer overflow (CSO) activity occurring before swimming, wading, fishing, or boating near a CSO warning sign. Each site indicates a specific CSO within Capital Region Water's service territory.

Warning Code	Warning Description
● Dry Weather Overflow	CSO at this location discharged in stable conditions. Not caused by a weather event.
● Wet Weather Overflow	CSO at this location discharged during a weather event. (Rainfall or snowmelt)
● No Overflow	CSO at this location has not discharged.
● Inflow	CSO at this location has water entering the outfall.

Report a Problem

By reporting problems you see, you can help us to identify larger issues that need attention.

[Submit An Issue >](#)

Contact Customer Service

If you need support related to your service, please use our customer support area.

[Contact Form >](#)

Updates & Alerts

Sign up for our emergency alert system to get the most up-to-date emergency info.

[Sign Up Here >](#)

Figure 8: CSO Information Map and CRW Website Landing Page

An outfall identification number placard and warning placard will be maintained at each CSO outfall and within ten (10) feet of the outfall location. Each of the 60 permitted CSO outfalls (58 standard outfalls and the two emergency outfalls) will have additional signage installed and maintained. The following table (Table 1) documents the signage inventory by outfall and location. Any currently outstanding signage will be installed by December 31, 2023. As part of the CSO inspection and maintenance program, all outfall signs will be inspected annually. An annual signage inspection as documented through Capital Region Water's existing maintenance management system (i.e., Cityworks) will be completed each year, with subsequent updates provided in the Semi-Annual Reports on Consent Decree Implementation. This annual inspection will ensure that signs are both present and legible. This information will serve to inform an annual review and subsequent recommendation and implementation schedule to replace and/or enhance signage. Outfall locations with missing and/or damaged signs will be scheduled for replacement and/or repair within 90 days by way of a documented work order system.

CSO Outfall Signage Strategy				
CSO Outfall ID	Receiving Waters	Location	Number of Signs	Sign Description
2 (Emergency Outfall)	Susquehanna River	Front Street Pump Station/Dock Street Boat Launch	2	9x6 Warning Placard; 60x36 Educational Sign
3 (Emergency Outfall)	Paxton Creek	Spring Creek Pump Station	2	9x6 Warning Placard; 36x36 Warning Sign
4	Susquehanna River	Front & Vaughn	2	9x6 Warning Placard; 36x36 Warning Sign
5	Susquehanna River	Front & Lewis	3	9x6 Warning Placard; (2) 36x36 Warning Sign
6	Susquehanna River	Front & Geiger	3	9x6 Warning Placard; 36x36 Warning Sign; 18x24 Public Notice
7	Susquehanna River	Front & Peffer	2	9x6 Warning Placard; 36x36 Warning Sign
8	Susquehanna River	Front & Muench	2	9x6 Warning Placard; 36x36 Warning Sign
9	Susquehanna River	Front & Hamilton	2	9x6 Warning Placard; 18x24 Public Notice
10	Susquehanna River	Front & Rely	2	9x6 Warning Placard; 18x24 Public Notice
11	Susquehanna River	Front & Calder	1	9x6 Warning Placard
12	Susquehanna River	Front & Verbeke	1	9x6 Warning Placard
13	Susquehanna River	Front & Cumberland	3	9x6 Warning Placard; 36x36 Warning Sign; 60x36 Educational Sign
14	Susquehanna River	Front & Boas	1	9x6 Warning Placard
15	Susquehanna River	Front & Forster	2	9x6 Warning Placard; 60x36 Educational Sign
16	Susquehanna River	Front & Liberty	1	9x6 Warning Placard
17	Susquehanna River	Front & Market	3	9x6 Warning Placard; 36x36 Warning Sign; 60x36 Educational Sign
18	Susquehanna River	Front & Mulberry	2	9x6 Warning Placard; 18x24 Public Notice
19	Susquehanna River	Front & Paxton	2	9x6 Warning Placard; 36x36 Warning Sign
20	Susquehanna River	Front & Hanna	1	9x6 Warning Placard
21	Paxton Creek	Cameron & Schuykill	1	9x6 Warning Placard
22	Paxton Creek	Cameron & Forrest	2	9x6 Warning Placard; 18x24 Warning Notice
23	Paxton Creek	Cameron & Calder	2	9x6 Warning Placard; 18x24 Warning Notice
24	Paxton Creek	Hill Chamber T.R.W.	2	9x6 Warning Placard; 18x24 Warning Notice
25	Paxton Creek	N. Cameron & Cumberland	2	9x6 Warning Placard; 18x24 Warning Notice
26	Paxton Creek	S. Cameron & Cumberland	2	9x6 Warning Placard; 18x24 Warning Notice
27	Paxton Creek	9th & Cumberland	2	9x6 Warning Placard; 18x24 Warning Notice
28	Paxton Creek	9th & Herr	1	9x6 Warning Placard
29	Paxton Creek	E. Cameron & North	2	9x6 Warning Placard; 18x24 Warning Notice
30	Paxton Creek	W. Cameron & North	2	9x6 Warning Placard; 18x24 Warning Notice
31	Paxton Creek	Cameron & State	2	9x6 Warning Placard; 18x24 Warning Notice
32	Paxton Creek	W. Cameron & Walnut	1	9x6 Warning Placard
33	Paxton Creek	E. Cameron & Walnut	1	9x6 Warning Placard
34	Paxton Creek	S. Market & Cameron	1	9x6 Warning Placard
37	Paxton Creek	10th & Market	1	9x6 Warning Placard
38	Paxton Creek	10th & Chestnut	2	9x6 Warning Placard; 18x24 Warning Notice
39	Paxton Creek	S. Mulberry & Cameron	2	9x6 Warning Placard; 18x24 Warning Notice
40	Paxton Creek	N. Mulberry & Cameron	2	9x6 Warning Placard; 18x24 Warning Notice
41	Paxton Creek	W. Mulberry & Cameron	2	9x6 Warning Placard; 18x24 Warning Notice
42	Paxton Creek	N. Kittatinny & Cameron	2	9x6 Warning Placard; 18x24 Warning Notice
43	Paxton Creek	S. Kittatinny & Cameron	2	9x6 Warning Placard; 18x24 Warning Notice
44	Paxton Creek	Cameron & Berryhill	2	9x6 Warning Placard; 18x24 Warning Notice
45	Paxton Creek	S. Paxton Street	2	9x6 Warning Placard; 18x24 Warning Notice
46	Paxton Creek	N. Paxton Street	2	9x6 Warning Placard; 18x24 Warning Notice
48	Paxton Creek	10th & Shannon	2	9x6 Warning Placard; 18x24 Warning Notice
49	Susquehanna River	Front & Schuykill	1	9x6 Warning Placard
50	Susquehanna River	Front & Seneca	2	9x6 Warning Placard; 36x36 Warning Sign
51	Susquehanna River	Woodbine & Front	1	9x6 Warning Placard
52	Susquehanna River	Front & State	1	9x6 Warning Placard
53	Susquehanna River	Front & South	2	9x6 Warning Placard; 18x24 Public Notice
54	Susquehanna River	Front & Pine	1	9x6 Warning Placard
55	Susquehanna River	Front & Locust	2	9x6 Warning Placard; 18x24 Public Notice
56	Susquehanna River	Front & Walnut	1	9x6 Warning Placard
57	Susquehanna River	Cherry & Mulberry	1	9x6 Warning Placard
58	Susquehanna River	Front & Tuscarora	2	9x6 Warning Placard; 36x36 Warning Sign
59	Paxton Creek	E. Kittatinny & Cameron	2	9x6 Warning Placard; 18x24 Warning Notice
60	Paxton Creek	Salmon Street	2	9x6 Warning Placard; 18x24 Warning Notice
61	Paxton Creek	10th & Sycamore	1	9x6 Warning Placard
62	Paxton Creek	Shanois Street	2	9x6 Warning Placard; 18x24 Warning Notice
63	Paxton Creek	Cameron & Hanover	3	9x6 Warning Placard; 36x36 Warning Sign; 18x24 Warning Notice
64	Paxton Creek	Cameron & Magnolia	2	9x6 Warning Placard; 18x24 Warning Notice

Table 1: CSO Outfall Signage Inventory by Location

Public Notification Signage maps for the Susquehanna River and Paxton Creek are included, respectively, as Appendix B and Appendix C. The maps indicate the location of CSO outfalls to the receiving waters and the posted and/or proposed signs, including sign type and description. Because certain CSO outfall locations are very close together, residents and recreators on land and in water are often at or near multiple regulator structures and outfall locations at the same time. The geospatial display provides further information and context surrounding the Paxton Creek and Susquehanna River corridors.

Notification Protocol

Daily CSO Regulator Inspection

Inspections of the CSO regulator structures are completed daily by CRW staff to check and verify that they are operating properly, identify whether a combined sewer overflow has occurred since the last inspection, identify whether river intrusion has entered into the interceptor system since the last inspection, identify and correct operational problems, and identify and schedule required maintenance.

To identify combined sewer overflows that may have occurred between the daily inspections, CRW utilizes overflow detection devices (ODDs). The ODDs consist of small wooden blocks positioned on the weirs and tethered to the chamber walls. Movement of an ODD is indicative of a possible combined sewer overflow. For CSO regulator structures in which the weir is not easily visible from the manhole, the ODDs are positioned on a platform in the diversion chamber, which is mounted at the same height as the weir crest.

CSO regulator structures are inspected once per day, seven days per week. Daily inspections typically begin around 07:00 AM and are typically completed within four hours. Additional inspection time may be required during high flows within the sewers or receiving waters, during inclement weather, or when problems have been identified during inspections. On rare occasions, an executive decision may be made by the Field Operations Supervisor to forego individual CSO regulator structure inspections due to an emergency resulting in staff limitations (e.g., a dry weather overflow at another CSO regulator structure) or during severe flooding when overflows can be reasonably assumed. Further description of this daily activity can be found in the current version of Capital Region Water's Operation and Maintenance Manual for the Collection and Conveyance System.

Daily CSO regulator inspection activity is documented in Cityworks. Recorded information includes confirmation that the inspection was completed; start/stop times, duration, and volume of any CSOs; ODD codes; backflow codes; and information regarding the staff members who performed the inspections. Any required maintenance identified during inspections is noted.

CSO Monitoring/Activation

As required in the Modification to the Partial Consent Decree, specifically Paragraph V.B.10(f)iv,⁸ Capital Region Water is committed to installing monitors that include real-time alert/notification systems at ten (10) selected locations. ADS ECHO monitors will be installed at the selected sites. This is an ultrasonic-based monitor, which includes a real-time alert/notification system. A similar ADS monitor was installed and tested as part of the 2016 CSO Activation Monitoring Pilot (CAMP) Study, which was found to perform well for monitoring CSO activity. To measure CSO activity, the ultrasonic monitors will be installed near the diversion chamber rim of each selected CSO regulator (i.e., the chamber where the diversion weir is located). The elevation of the water surfaces in the diversion chambers will be measured by the meter, and given the known diversion weir elevations, overflows will be determined to occur whenever the elevations of the water surfaces exceed the diversion weir elevations.

The following criteria were considered for selecting the CSO activity monitoring sites:

- **Geographic distribution** – To create a network for public notification, the sites should cover both the Susquehanna River and Paxton Creek, and be roughly evenly spaced apart (i.e., to avoid selecting CSO regulators with outfalls adjacent to each other).
- **Overflow frequency** – To be able to reliably notify the public when a CSO is occurring within the CRW system, those CSO regulators with the highest annual overflow frequencies are included; additionally, to achieve an accurate representation of the entire system, CSO regulators with moderate overflow frequencies are also included.
- **Overflow volume** – Given that large volume overflows can have a greater impact on water quality, CSO regulators with particularly large annual overflow volumes are included.

The following CSO regulators have been selected for CSO activity monitoring:

CSO Regulator	Water Body	CSO Regulator	Water Body
CSO-004	Susquehanna	CSO-024	Paxton Creek
CSO-051	Susquehanna	CSO-031	Paxton Creek
CSO-010	Susquehanna	CSO-042	Paxton Creek
CSO-054	Susquehanna	CSO-048	Paxton Creek
CSO-020	Susquehanna	CSO-061	Paxton Creek

⁸ According to Paragraph V.B.10(f)iv, *To aid in notifying the public of CSO activity, CRW shall install monitors that include real-time alert/notification systems at 10 selected locations, in accordance with the Public Notification Plan. The monitors will be installed at CSO regulator locations near the diversion chamber rim of each selected CSO regulator (i.e., the chamber where the diversion weir is located). The elevation of the water surfaces in the diversion chambers will be measured by the meter, and given the known diversion weir elevations, the public and the City will be notified of possible CSO overflows whenever the elevations of the water surfaces exceed the diversion weir elevations.*

Within 180 days of submission of the Public Notification Plan, Capital Region Water will procure and install the ADS ECHO monitors. Note that the list of selected CSO regulators may need to be modified if it is determined during field installations that a particular site is not suitable for the monitoring technology. If this occurs, a replacement site will be selected using the same criteria previously defined. Within 12 months of submission of the Public Notification Plan, the selected CSO regulators and associated data will be integrated into the publicly available CSO Status Map and Website Landing Page as described above and represented in Figure 8 and Figure 9, providing the public with information and notification of possible CSO overflows whenever the elevations of the water surfaces exceed the diversion weir elevations.

Issuance of Public Notification

As required in the Modification to the Partial Consent Decree, specifically Paragraph V.B.10(f)v,⁹ Capital Region Water is committed developing written procedures and providing the public and the City with information concerning CSO discharges and their impacts on water quality. Discharges from CSO outfalls consist, or likely consist, of untreated sewage containing harmful bacteria. The public is advised to avoid contact with impacted receiving waters during and following rainfall events.

Website and Mapping Notification

Initial and supplemental notification will be provided through Capital Region Water's website. As presented above, a link on the website displays a map showing daily CSO activation status using a color-coded system. If a user clicks on any CSO icon on the map, an informational window provides information about the CSO location and recent inspection date. The color coding represents the type of CSO activity that has occurred. Figure 9 below is a screenshot of the map taken from the website.

Access to the map and additional information regarding CSOs can be found at Capital Region Water's website or by way of the direct link provided here: <https://capitalregionwater.com/resources/cso/>.

⁹ According to Paragraph V.B.10(f)v, *CRW shall develop written procedures and provide the public and the City with information concerning CSO discharge occurrences and their impacts on water quality in the Receiving Water(s) in accordance with the Public Notification Plan. Furthermore, Paragraph V.B.10(f)ix states, CRW shall consider implementation of email and/or text message public notification systems for CSO, DWO, and Unauthorized Release events.*

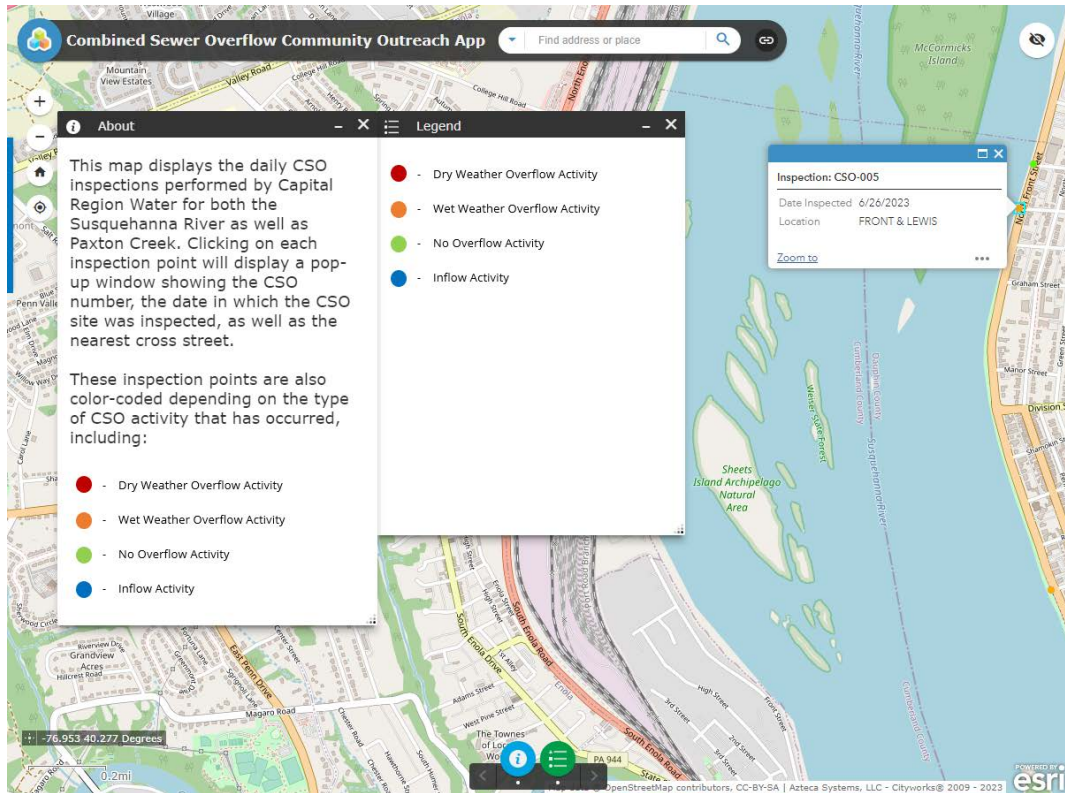


Figure 9: CSO Information Map with Sample Information

Audio and Subscription Notification

Capital Region Water utilizes the Everbridge emergency notification system (a critical event management system) to notify customers and subscribers about potential water concerns and critical service updates. In an emergency, an alert message or notification can be sent via telephone, text message, or email. The Everbridge system also provides for an audio bulletin board feature which enables an audience (e.g., customer, resident, recreator, etc.) to retrieve an audio message at their convenience.

Capital Region Water provides notifications that can be retrieved by calling the Customer Service Center anytime at 888-510-0606 to listen for the prompt and hear the message. This notification is utilized daily to provide an update/alert on CSO activity immediately following the daily CSO inspections completed by the Field Operations team. The audio information provides a summary of CSO activity within the last 24 hours. There are seven possible scenarios which represent potential CSO activity within the combined sewer system and impact on receiving waters. This includes the following potential system scenarios for CSO activity:

- 1) No CSO Observed – No CSO activity has been observed within the last 24 hours.
- 2) Single Active CSO Observed – A single active CSO event has been observed.

- 3) Single Non-Active CSO Observed – A single CSO event has been observed within the last 24 hours but is not active.
- 4) Multiple Active CSOs Observed – Two or more active CSO events have been observed.
- 5) Multiple Non-Active CSOs Observed – Two or more CSO events have been observed within the past 24 hours but are not active.
- 6) Active and Non-Active CSOs Observed – CSO event activity has been observed within the last 24 hours; there is a combination of active and non-active CSO activity.
- 7) Dry Weather Overflow/Unauthorized Release – CSO activity observed that cannot be attributed to a precipitation event.

Each of the above scenarios requires public notification and has an associated message template that can be updated and posted as an audio notification. Appendix D includes the seven notification templates, and an associated example, utilized by Capital Region Water. Each notification message includes the following content/information:

- Date/time of recent CSO system inspection/observation;
- Status of observed CSO event activity;
- Description of discharge or overflow locations(s), and outfall number(s) (as applicable; would not apply if no activity);
- Impacted receiving waters (as applicable; would not apply if no activity); and
- Precautionary language to avoid contact with waterways and/or further direction (as applicable; would not apply if no activity).

In addition to the current audio notifications and consistent with the Modification to the Partial Consent Decree, specifically Paragraph V.B.10(f)ix,¹⁰ Capital Region Water is implementing a subscription notification option utilizing Everbridge, the automated messaging system. This allows a user to opt-in to receiving direct text messages or email alerts regarding CSO activity. Any interested user would create a portal profile and then select the option to subscribe to receive updates and/or alerts when a CSO has been observed. Similar to the audio bulletin board notification, subscription notifications will correspond to the daily CSO inspections completed by the Field Operations team and reflect the information available through the audio bulletin feature. Subscription alerts will not be utilized if overflow activity has not been observed (i.e., no CSO observed). Subscription alerts shall reflect the following potential system scenarios for CSO activity:

- 1) Single Active CSO Observed – A single active CSO event has been observed.
- 2) Single Non-Active CSO Observed – A single CSO event has been observed within the last 24 hours but is not active.
- 3) Multiple Active CSOs Observed – Two or more active CSO events have been observed.

¹⁰ According to Paragraph V.B.10(f)ix, *CRW shall consider implementation of email and/or text message public notification systems for CSO, DWO, and Unauthorized Release events.*

- 4) Multiple Non-Active CSOs Observed – Two or more CSO events have been observed within the past 24 hours but are not active.
- 5) Active and Non-Active CSOs Observed – CSO event activity has been observed within the last 24 hours; there is a combination of active and non-active CSO activity.
- 6) Dry Weather Overflow/Unauthorized Release – CSO activity observed that cannot be attributed to a precipitation event.

Capital Region Water is committed to maintaining the audio bulletin board notification feature and providing for subscription notifications within 12 months of submission of the Public Notification Plan. This 12-month schedule provides adequate time for system setup/implementation, staff training, and an associated outreach campaign.

Educational Outreach & Public Engagement

As required in the Modification to the Partial Consent Decree, specifically Paragraph V.B.10(f)vi-vii,¹¹ Capital Region Water is committed to ensuring that the public and any potentially affected stakeholder has access to information regarding a combined sewer system and impact of CSO discharge (both occurrences and impact on receiving waters) as well as information on how to learn more, receive notification, and provide comment to Capital Region Water.

Educational Information

Capital Region Water utilizes various methods of communication with the public. This includes, but is not limited to: a website, CapitalRegionWater.com, an 888-telephone number, an email mailing list, social media, bill stuffers, direct mailings, educational flyers, door hangers, event participation, earned media/press, and an Everbridge emergency notification system. An integrated outreach and education program ensures that customers and stakeholders are provided with information concerning CSO discharge occurrences and impacts on water quality in the receiving waters.

The following methods of routine outreach and communication are identified for annual use:

- Capital Region Water includes a bilingual educational insert in each hard copy mailing of the monthly bill. An e-newsletter with similar content is distributed to customers electing to receive electronic monthly bills as well as interested partners and stakeholders that have signed up to receive this monthly

¹¹ According to Paragraph V.B.10(f)vi, *CRW shall distribute CSO pamphlets for education of the general public.* Furthermore, Paragraph V.B.10(f)vii states, *CRW shall evaluate and document any CSO public education programs and the community's response to such programs and any follow-up plans addressing public education based on public response.* Paragraph V.B.10(f)viii states, *CRW shall investigate and document any public involvement including any concerns expressed, and comments or suggestions made by the public concerning CSOs, and take any corrective measures warranted.*

communication. No less than one bill insert and corresponding electronic newsletter per year shall serve to notify stakeholders about the combined sewer system and alert the public to avoid contact with water near or downstream of outfalls during and immediately after wet weather events. See Appendix E for a recent example of outreach material and bilingual messaging.

- Capital Region Water’s website (CapitalRegionWater.com and specifically [About CBH2O - Capital Region Water](#)) is maintained and enhanced to provide educational materials, information about the combined sewer system and CSO events, and regulatory and compliance documents and updates. On or before May 1 of each year, Capital Region Water will post information on its website regarding CSO activity for the previous year. This will include information from the Semi-Annual Report related to capture/discharge metrics. This information also serves to provide the public and the City information concerning CSO discharge occurrence and the impact on water quality in the receiving waters.
- Written communications such as fact sheets, pamphlets, and door hangers.
- Social media, including Facebook, Twitter, Instagram, and Nextdoor.com are continually utilized to provide education, encourage public participation, and interact with customers and stakeholders.
- Participation in community events provides critical opportunities to share information and provide educational resources.
- Meetings include both presentations and attendance at community-wide meetings, with neighborhood associations and community groups, convened meetings with Community Ambassadors, and facilitated stakeholder and town hall meetings. PowerPoint presentations, oral remarks, and educational materials are utilized during these meetings.

Publicly available information as provided by Capital Region Water is translated into Spanish or access is provided for Spanish translation to ensure English language proficiency is not a barrier to receiving information.

Capital Region Water will evaluate and document any CSO public education programs and the community’s response to such programs and any follow-up plans addressing public education based on public response. Capital Region Water will also investigate and document any public involvement including any concerns expressed, and comments or suggestions made by the public concerning CSOs, and take any corrective measures warranted. Community engagement activity, along with stakeholder interactions, are logged within the Cityworks management system. Similar to a maintenance work order, community engagement work orders capture relevant details on events, meetings, notifications, etc. designed to inform and involve the public in Capital Region Water’s work stewarding the wastewater and stormwater systems in and around Harrisburg.

Potentially Affected Stakeholders

Capital Region Water has identified the following key audiences and stakeholders which may be affected by the occurrence of CSO events:

- Customers, including tenants and multi-dwelling residents
- Recreators
- Community Groups and NGOs
 - Neighborhood Associations and Action Councils
 - Faith-based Organizations
 - Environmental NGOs
 - Community Improvement Organizations
- Volunteers
 - Board of Directors
 - Community Ambassadors: Community Ambassadors are neighborhood residents and representatives that have become leading voices and advocates in their communities. Capital Region Water works with these super volunteers on an ongoing basis. Meetings are hosted monthly to discuss matters and empower them with the education and knowledge to reach out to their own neighbors and communities. Ambassadors also serve to provide direct input to Capital Region Water on issues affecting their constituencies.
 - Event Volunteers
- Local Government Partners
 - City of Harrisburg
 - Dauphin County
 - Dauphin County Conservation District
- Elected Officials
 - City of Harrisburg Mayor and Administration
 - City Council
 - County Commissioners
 - State Representative
 - State Senator
 - Members of Congress
- Regulatory Agencies
 - PADEP
 - USEPA
 - Susquehanna River Basin Commission

This list is routinely maintained by and available through Capital Region Water’s Community Relations staff.

Public Feedback & Reporting

Within seven days of submission of this Public Notification Plan, a copy of the Plan will be made available at Capital Region Water's website for public review.

Any amended and successive versions of the Plan will be made publicly available. Subsequent implementation of this Public Notification Plan and the procedures set forth in the NMC Plan and the CSO Policy will be documented in the Semi-Annual Reports submitted under Section VII of the Consent Decree.



CAPITAL REGION™

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USEPA EJScreen Report

EJScreen Report (Version 2.11)



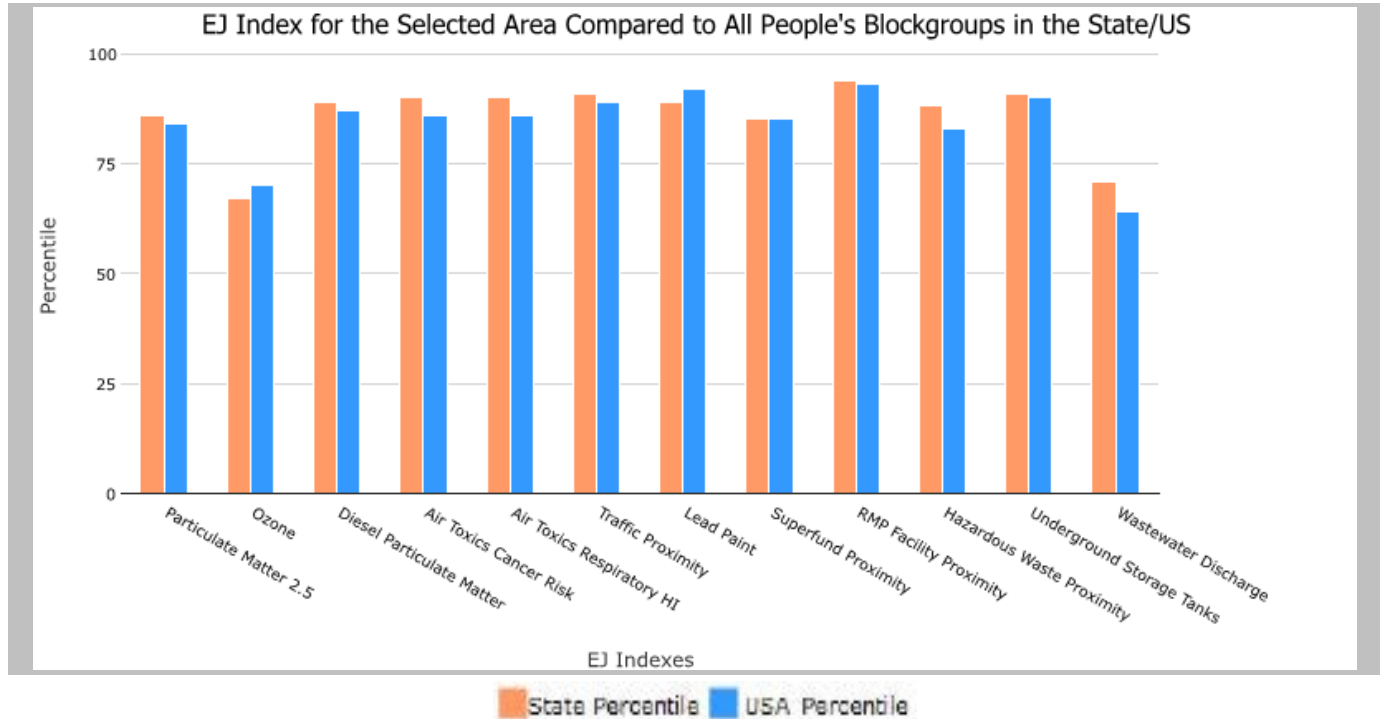
City: Harrisburg, PENNSYLVANIA, EPA Region 3

Approximate Population: 49,247

Input Area (sq. miles): 11.86

Selected Variables	State Percentile	USA Percentile
Environmental Justice Indexes		
Particulate Matter 2.5 EJ index	86	84
Ozone EJ index	67	70
Diesel Particulate Matter EJ index*	89	87
Air Toxics Cancer Risk EJ index*	90	86
Air Toxics Respiratory HI EJ index*	90	86
Traffic Proximity EJ index	91	89
Lead Paint EJ index	89	92
Superfund Proximity EJ index	85	85
RMP Facility Proximity EJ index	94	93
Hazardous Waste Proximity EJ index	88	83
Underground Storage Tanks EJ index	91	90
Wastewater Discharge EJ index	71	64

EJ Indexes - The EJ indexes help users screen for potential EJ concerns. To do this, the EJ index combines data on low income and people of color populations with a single environmental indicator.



*Diesel particular matter, air toxics cancer risk, and air toxics respiratory hazard index are from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. Cancer risks and hazard indices from the Air Toxics Data Update are reported to one significant figure and any additional significant figures here are due to rounding. More information on the Air Toxics Data Update can be found at: <https://www.epa.gov/haps/air-toxics-data-update>.

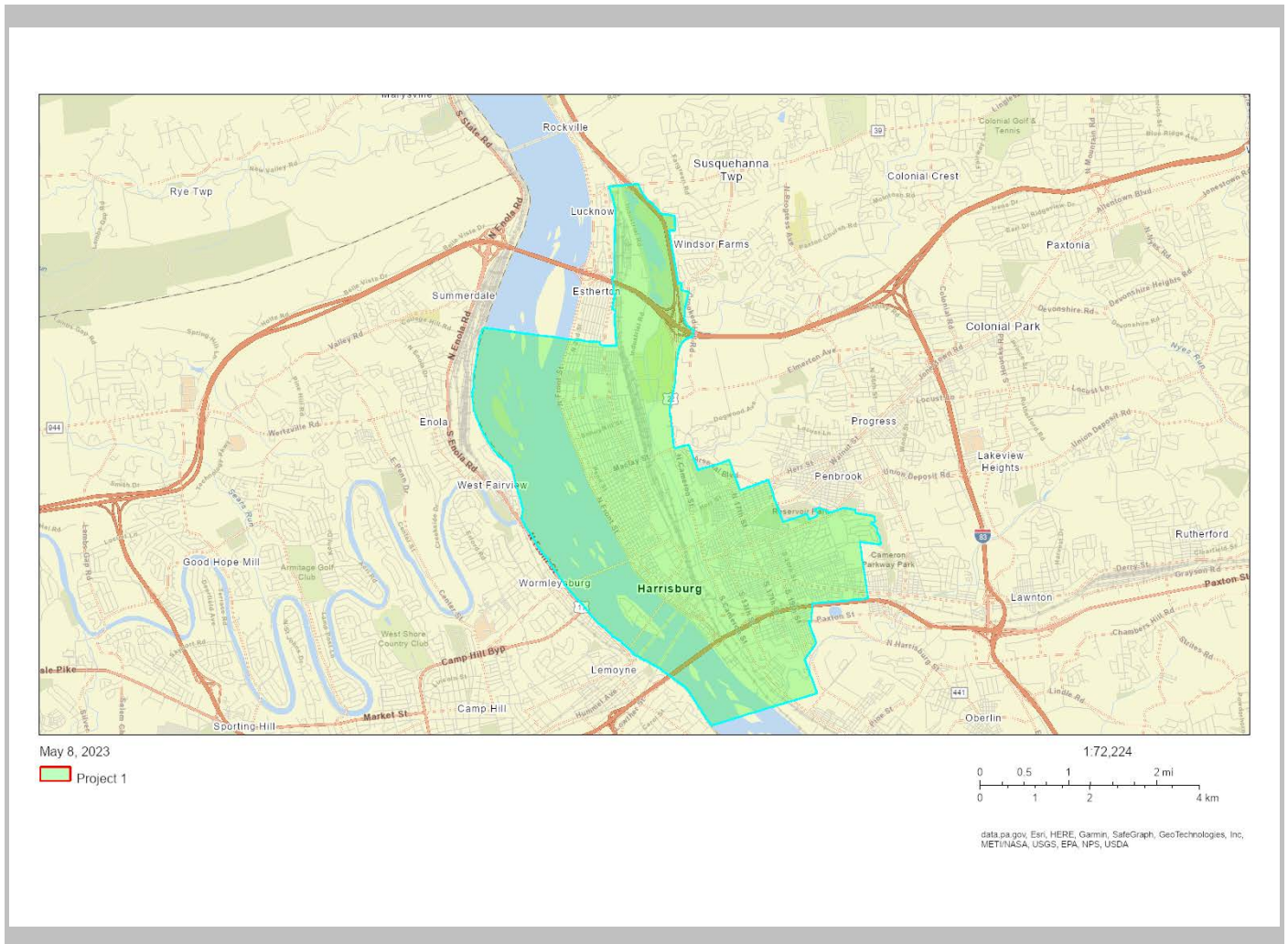
EJScreen Report (Version 2.11)



City: Harrisburg, PENNSYLVANIA, EPA Region 3

Approximate Population: 49,247

Input Area (sq. miles): 11.86



Sites reporting to EPA	
Superfund NPL	0
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	2

EJScreen Report (Version 2.11)



City: Harrisburg, PENNSYLVANIA, EPA Region 3

Approximate Population: 49,247

Input Area (sq. miles): 11.86

Selected Variables	Value	State Avg.	%ile in State	USA Avg.	%ile in USA
Pollution and Sources					
Particulate Matter 2.5 ($\mu\text{g}/\text{m}^3$)	9	8.7	55	8.67	62
Ozone (ppb)	40.3	42.1	21	42.5	33
Diesel Particulate Matter* ($\mu\text{g}/\text{m}^3$)	0.365	0.27	76	0.294	70-80th
Air Toxics Cancer Risk* (lifetime risk per million)	30	31	83	28	80-90th
Air Toxics Respiratory HI*	0.39	0.32	95	0.36	70-80th
Traffic Proximity (daily traffic count/distance to road)	1400	660	89	760	86
Lead Paint (% Pre-1960 Housing)	0.71	0.47	72	0.27	86
Superfund Proximity (site count/km distance)	0.088	0.18	48	0.13	62
RMP Facility Proximity (facility count/km distance)	2.5	0.82	92	0.77	93
Hazardous Waste Proximity (facility count/km distance)	1.5	1.5	70	2.2	65
Underground Storage Tanks (count/km ²)	7.7	3.6	84	3.9	85
Wastewater Discharge (toxicity-weighted concentration/m distance)	0.0014	77	44	12	52
Socioeconomic Indicators					
Demographic Index	63%	26%	90	35%	85
Supplemental Demographic Index	22%	13%	89	15%	83
People of Color	76%	24%	90	40%	81
Low Income	50%	28%	84	30%	80
Unemployment Rate	8%	5%	78	5%	77
Limited English Speaking Households	8%	2%	90	5%	81
Less Than High School Education	19%	9%	87	12%	78
Under Age 5	9%	5%	84	6%	80
Over Age 64	11%	18%	23	16%	32
Low Life Expectancy	24%	20%	85	20%	85

EJScreen is a screening tool for pre-decisional use only. It can help identify areas that may warrant additional consideration, analysis, or outreach. It does not provide a basis for decision-making, but it may help identify potential areas of EJ concern. Users should keep in mind that screening tools are subject to substantial uncertainty in their demographic and environmental data, particularly when looking at small geographic areas. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJScreen documentation for discussion of these issues before using reports. This screening tool does not provide data on every environmental impact and demographic factor that may be relevant to a particular location. EJScreen outputs should be supplemented with additional information and local knowledge before taking any action to address potential EJ concerns.

EJScreen Report (Version 2.11)



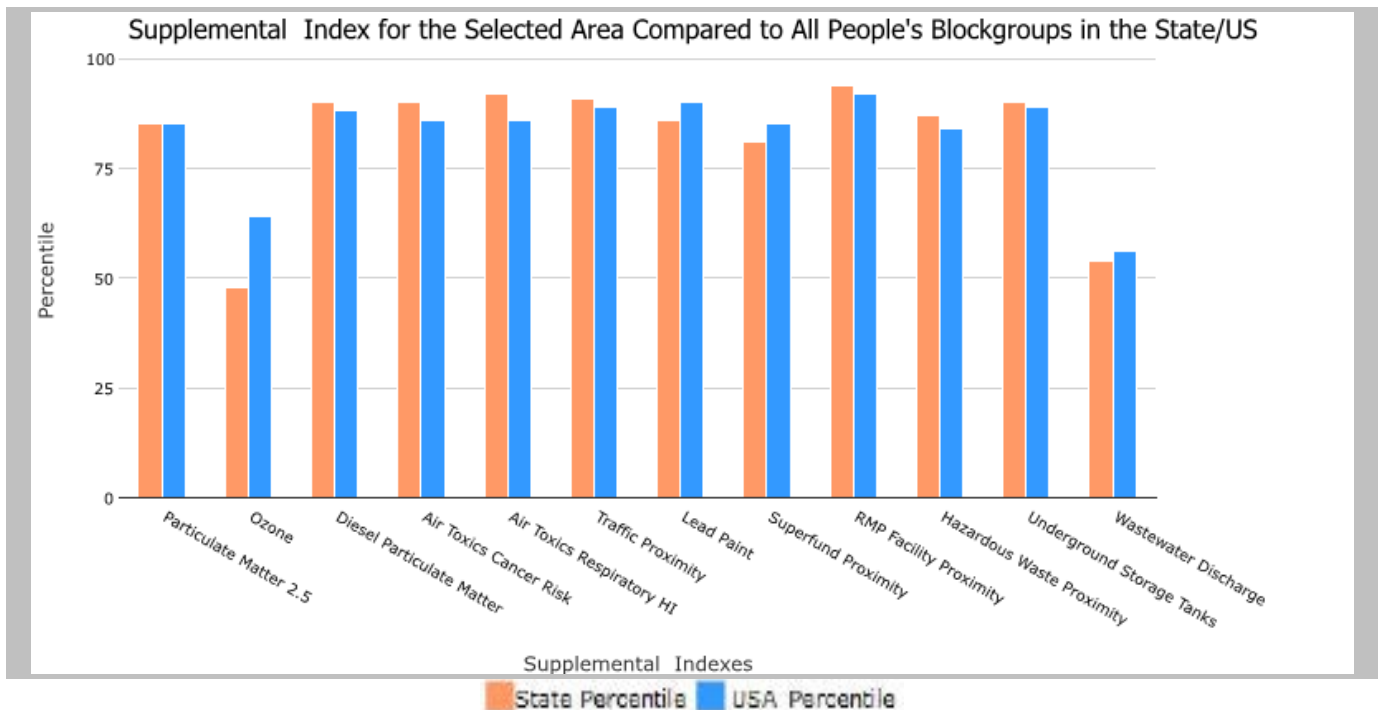
City: Harrisburg, PENNSYLVANIA, EPA Region 3

Approximate Population: 49,247

Input Area (sq. miles): 11.86

Selected Variables	State Percentile	USA Percentile
Supplemental Indexes		
Particulate Matter 2.5 Supplemental Index	85	85
Ozone Supplemental Index	48	64
Diesel Particulate Matter Supplemental Index*	90	88
Air Toxics Cancer Risk Supplemental Index*	90	86
Air Toxics Respiratory HI Supplemental Index*	92	86
Traffic Proximity Supplemental Index	91	89
Lead Paint Supplemental Index	86	90
Superfund Proximity Supplemental Index	81	85
RMP Facility Proximity Supplemental Index	94	92
Hazardous Waste Proximity Supplemental Index	87	84
Underground Storage Tanks Supplemental Index	90	89
Wastewater Discharge Supplemental Index	54	56

Supplemental Indexes - The supplemental indexes offer a different perspective on community-level vulnerability. They combine data on low-income, limited English speaking, less than high school education, unemployed, and low life expectancy populations with a single environmental indicator.



This report shows the values for environmental and demographic indicators, EJScreen indexes, and supplemental indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJScreen documentation for discussion of these issues before using reports. For additional information, see: www.epa.gov/environmentaljustice.

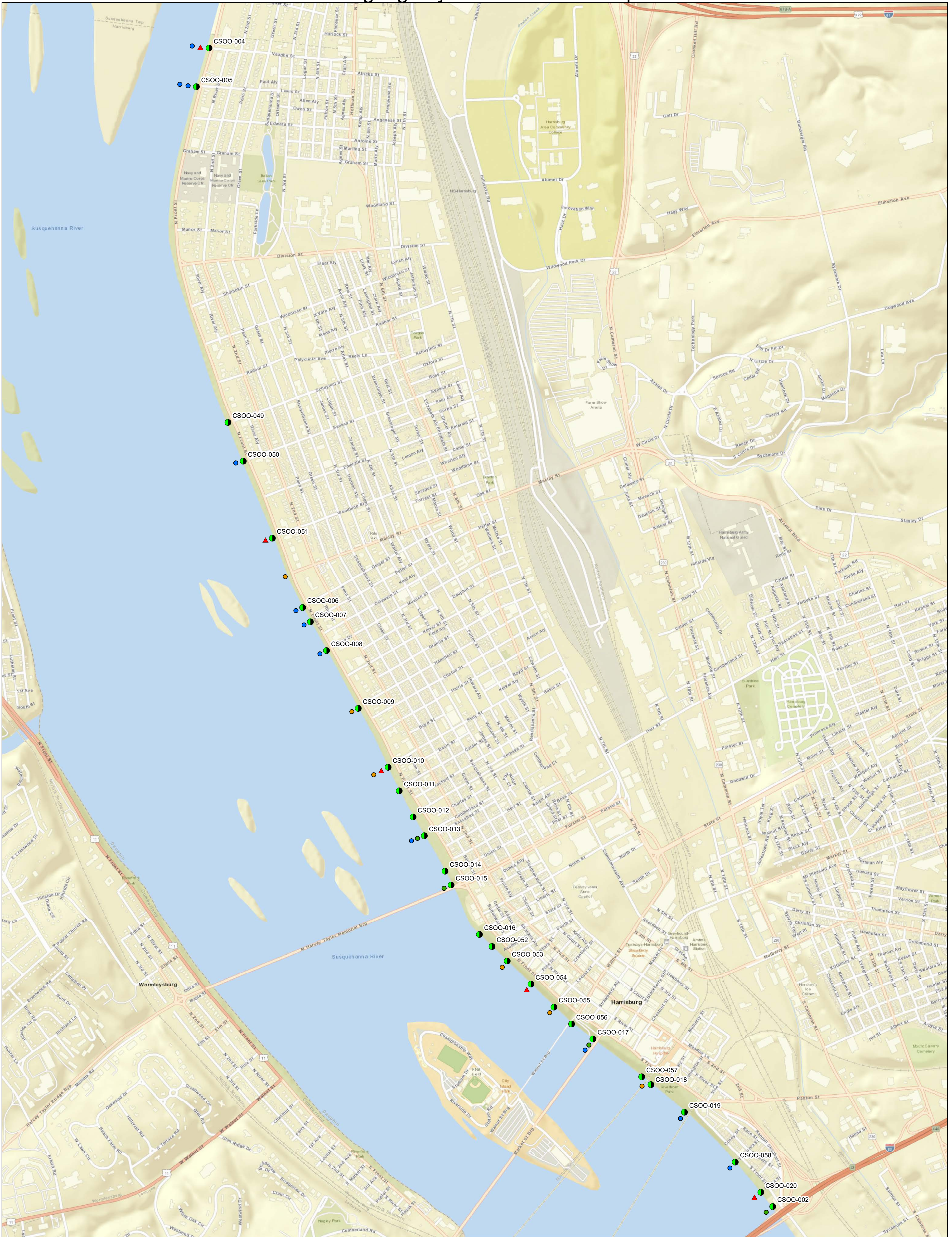


CAPITAL REGION[™]

WATER

Public Notification Signage by CSO Outfall - Susquehanna River

Public Notification Signage by CSO Outfall – Susquehanna River



Legend

- CSO Outfall
- ▲ CSO Activity Monitoring Site
- 18 x 24 Public Notice
- 36 x 36 Warning Sign
- 60 x 36 Educational Sign

A 9 x 6 Warning Placard and CSO outfall identification placard are posted at each outfall location.

Points plotted on this map do not necessarily represent the exact geographic locations of combined sewer overflow signs along Capital Region Water's system in Susquehanna River.

However, points are intended to provide clarity on the number of related signs posted along the waterway.

0 700 1,400 2,800 Feet

1 inch equals 700 feet



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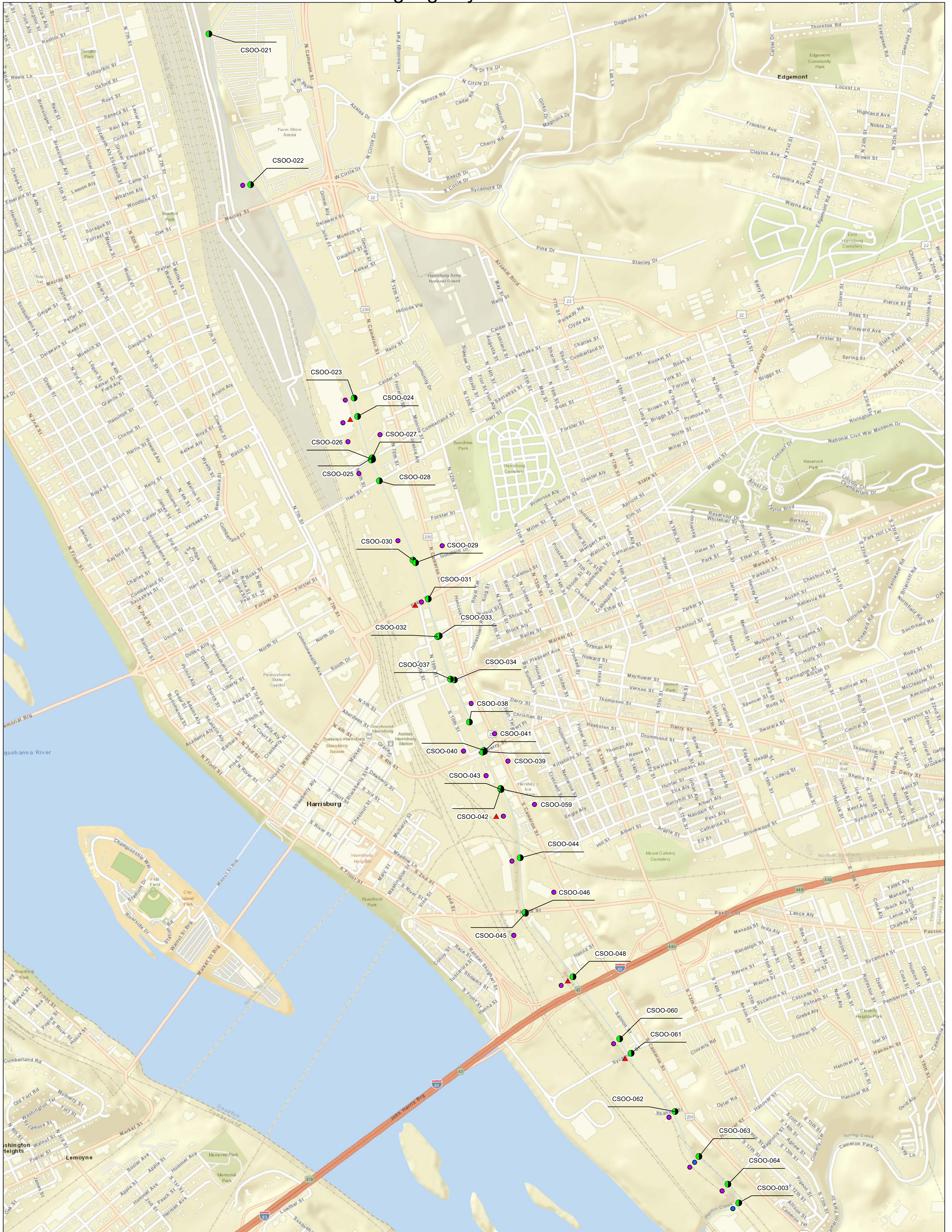


CAPITAL REGION™

WATER

Public Notification Signage by CSO Outfall - Paxton Creek

Public Notification Signage by CSO Outfall – Paxton Creek



Legend

- CSO Outfall
- ▲ CSO Activity Monitoring Site
- 18 x 24 Warning Notice
- 36 x 36 Warning Sign

A 9 x 6 Warning Placard and CSO outfall identification placard are posted at each outfall location.

Points plotted on this map do not necessarily represent the exact geographic locations of combined sewer overflow signs along Capital Region Water's system in Paxton Creek.

However, points are intended to provide clarity on the number of related signs posted along the waterway.

0 620 1,240 2,480 Feet

1 inch equals 620 feet



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CAPITAL REGION™

WATER

Public Notification Templates

Notification Templates for Everbridge:

There are seven templates available for use to ensure that the Everbridge CSO audio bulletin (i.e., hotline) is updated every day. Similar templates will be deployed for subscription notifications. Each template includes a description of its application for use as well as a completed example as it should appear for publishing. The highlighted text represents the information that must be updated.

The daily update to the Everbridge notification system is completed after the daily inspection of the CSO regulator structures.

Template language and notifications are subject to change.

1 - No CSO Observed; No CSO activity observed within the last 24 hours

Notification Template:

Thank you for your interest in Capital Region Water's Combined Sewer System.

As of **weekday, month day** at **_: _ AM**, there were no active combined sewer overflows observed within the last 24 hours. This status will not change until a combined sewer overflow is observed.

Example:

Thank you for your interest in Capital Region Water's Combined Sewer System.

*As of **Friday, May 7** at **9:30 AM**, there were no active combined sewer overflows observed within the last 24 hours. This status will not change until a combined sewer overflow is observed.*

2 - Single Active CSO Observed; A single active CSO has been observed

Notification Template:

Thank you for your interest in Capital Region Water's Combined Sewer System.

A single active combined sewer overflow was observed on **weekday, month, day** at **_: _ AM** at outfall number **4** near the cross streets of **_____ & _____** along the **waterway**.

Avoid contact with waterways when there are active combined sewer overflows.

Example:

Thank you for calling Capital Region Water's Combined Sewer Overflow hotline.

*A combined sewer overflow was observed on **Friday, May 7** at **9:30 AM** at outfall number **4** near the cross streets of **Front & Vaughn** along the **Susquehanna River**.*

Avoid contact with waterways when there are active combined sewer overflows.

3 - Single Non-Active CSO Observed; A single CSO has been observed within the last 24 hours but is not active

Notification Template:

Thank you for your interest in Capital Region Water's Combined Sewer System.

A combined sewer overflow occurred within the last 24 hours before **weekday, month, day** at **_: _ AM** at outfall number **█** near the cross streets of **█ & █** along the **waterway** but is not active.

Avoid contact with waterways when there are active combined sewer overflows.

Example:

Thank you for calling Capital Region Water's Combined Sewer Overflow hotline.

*A combined sewer overflow occurred within the last 24 hours before **Friday, May 7** at **9:30 AM** at outfall number **4** near the cross streets of **Front & Vaughn** along the **Susquehanna River** but is not active.*

Avoid contact with waterways when there are active combined sewer overflows.

4 - Multiple Active CSOs Observed; Two or more active CSOs have been observed*

Notification Template:

Thank you for your interest in Capital Region Water's Combined Sewer System.

Active combined sewer overflows were observed on **weekday, month, day** at **_: _ AM**, between outfall number **█** near the upstream cross streets of **█ & █** and outfall number **█** near the downstream cross streets of **█ & █** along the Susquehanna River. Also, at outfall numbers **█ & █** near the cross streets of **█ & █** and the cross streets **█ & █** along the Paxton Creek.

Avoid contact with waterways when there are active combined sewer overflows.

Example:

Thank you for calling Capital Region Water's combined sewer overflow hotline.

*Active combined sewer overflows were observed on **Friday, May 7** at **9:30 AM** between outfall number **4** near the upstream cross streets of **Front & Vaughn** and outfall number **17** near the downstream cross streets of **Front & Market** along the Susquehanna River. Also, at outfall **numbers 23 & 37** near the cross streets of **Cameron & Calder** and cross streets **Tenth & Market** streets along the Paxton Creek.*

Avoid contact with waterways when there are active combined sewer overflows.

*** Please Note:** If CSOs have only been observed along either the Susquehanna or the Paxton Creek, any additional text may need to be deleted.

5 - Multiple Non-Active CSOs Observed; Two or more CSOs have been observed within the past 24 hours but are not active*

Notification Template:

Thank you for your interest in Capital Region Water's Combined Sewer System.

Combined sewer overflows occurred within the last 24 hours before **weekday, month, day** at **: __ AM**, between outfall number **__** near the upstream cross streets of **_____ & _____** and outfall number **__** near the downstream cross streets of **_____ & _____** along the Susquehanna River, but are not active. Also, at outfall numbers **__ & __** near the cross streets **_____ & _____** and the cross streets **_____ & _____** along the Paxton Creek, but are not active.

Avoid contact with waterways when there are active combined sewer overflows.

Example:

Thank you for calling Capital Region Water's combined sewer overflow hotline.

*Combined sewer overflows occurred within the last 24 hours before **Friday, June 4 at 8:45 AM**, between outfall number **11** near the upstream cross streets of **Front & Calder** and outfall number **14** near the downstream cross streets of **Front & Boas** along the Susquehanna River, but are not active. Also, at outfall numbers **60 & 61** near the cross streets of **Salmon & Cameron** and the cross streets **10th & Sycamore** along the **Paxton Creek**, but are not active.*

Avoid contact with waterways when there are active combined sewer overflows.

*** Please Note:** If CSOs have only been observed along either the Susquehanna or the Paxton Creek, any additional text may need to be deleted.

6 - Active and Non-Active CSOs Observed; CSOs have been observed within the last 24 hours but are not active and there is at least one active CSO

Notification Template:

Thank you for your interest in Capital Region Water's Combined Sewer System.

Combined sewer overflows occurred within the last 24 hours before **weekday, month, day** at **: __ AM**, at outfall number **__** near the cross streets of **_____ & _____** along the Susquehanna River and at outfall number **__** near **_____ & _____** streets along the Paxton Creek but are not active.

An active combined sewer overflow was observed on **weekday, month, day** at **: __ AM** at outfall number **__** near the cross streets of **_____ & _____** along the **waterway**.

Avoid contact with waterways when there are active combined sewer overflows.

Example:

Thank you for calling Capital Region Water's combined sewer overflow hotline.

*Combined sewer overflows occurred within the last 24 hours before, **Friday, June 4 at 8:45 AM**, at outfall number **13** the cross streets **Front & Cumberland** along the Susquehanna River and at outfall number **40** near **N. Mulberry & Cameron** streets along the Paxton Creek but are not active.*

*An active combined sewer overflow was observed on **Friday, June 4 at 9:30 AM**, at outfall number **28** near the cross streets of **9th & Herr** along the **Paxton Creek**.*

Avoid contact with waterways when there are active combined sewer overflows.

7 - Unauthorized Release; Dry Weather Overflow or unauthorized discharge

Notification Template:

Thank you for your interest in Capital Region Water's Combined Sewer System.

An unauthorized combined sewer discharge occurred within the last 24 hours before **weekday, month, day** at **__: __ AM** at outfall number **__** near the cross streets of **_____ & _____** along the **waterway**.

Avoid contact with waterways when there is an unauthorized sewer discharge.

Example:

Thank you for calling Capital Region Water's combined sewer overflow hotline.

*An unauthorized sewer overflow was observed on **Monday, June 7 at 9:30 AM** at outfall number **56** near the cross streets of **Front & Walnut** along the **Susquehanna River**.*

Avoid contact with waterways when there is an unauthorized sewer discharge.



What's on Tap, Monthly Newsletter for Capital Region Water, May 2023

What's on Tap

Monthly Newsletter for Capital Region Water Customers and Stakeholders



WHAT IS A COMBINED SEWER AND WHY DOES IT OVERFLOW?

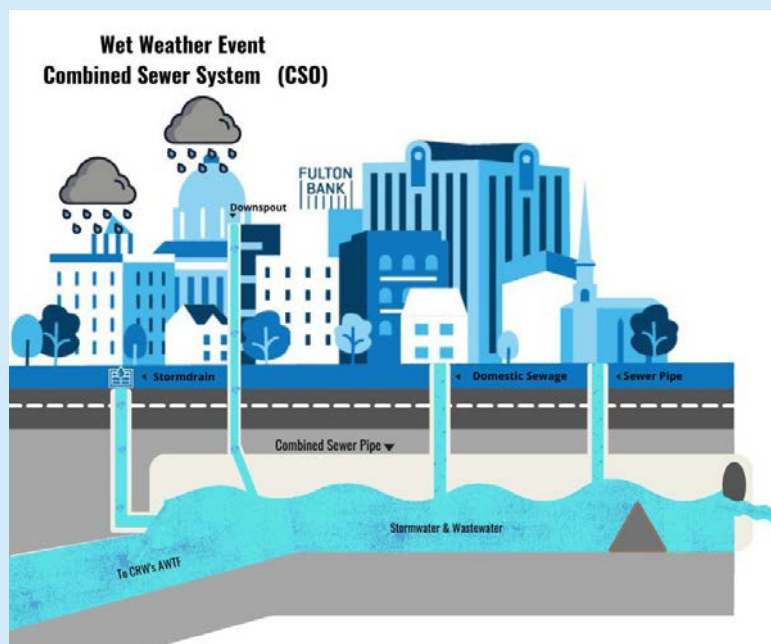
About 60 percent of Capital Region Water’s sewer system is combined, meaning it carries a combination of wastewater and stormwater in the same pipes. Under normal circumstances, that mixture is conveyed to CRW’s Advanced Wastewater Treatment Facility. However, during wet weather, the volume of stormwater flowing into inlets and drains can sometimes exceed the system’s capacity. The increased flow then triggers a combined sewer overflow, commonly called a CSO, discharging the untreated mixture of stormwater and wastewater through outfalls directly into the Susquehanna River and Paxton Creek. CRW’s system has a total of 58 outfalls.

The combined system and its outfalls predate CRW (formed in 2013) by many decades, dating back to a time when combined pipes were common in sewer design. In fact, about 800 U.S. cities have combined systems.

WHAT IS THE PROBLEM WITH COMBINED SEWERS, AND WHAT IS THE SOLUTION?

Now, we know that CSO discharge can be harmful, threatening public health and polluting local waterways, as well as those downstream. For those reasons, Capital Region Water is committed to reducing CSOs and has been making system improvements to achieve that goal. CRW also is required to capture and control CSOs by law and through a legal agreement with state and federal regulators called a Partial Consent Decree.

Earlier this year, CRW submitted an update to that agreement, planning to implement \$200 million worth of system improvements over the next decade to drastically increase CSO capture. The plan, called City Beautiful H2O, includes traditional sewer upgrades and repairs, as well as the increased implementation of green infrastructure — engineered combinations of plants and detention infrastructure that capture and slow the release of stormwater into the combined system. CRW will continue to work with state and federal regulators to meet water quality targets.



WHERE ARE THE CSO OUTFALLS?

Warning signs have been posted at CSO outfall locations along the Susquehanna River and Paxton Creek as part of a public notification strategy stipulated by CRW’s agreement with regulators. The purpose of the signs is to alert members of the public to avoid contact with water near or downstream of outfalls during and immediately after wet weather events. CRW is in the process of developing a plan to install additional signs along the river with hopes of further educating the public about CSOs.



Qué hay en Tap

Capital Region Water Boletín mensual para clientes y partes interesadas



¿QUÉ ES UNA ALCANTARILLA COMBINADA Y POR QUÉ SE DESBORDA?

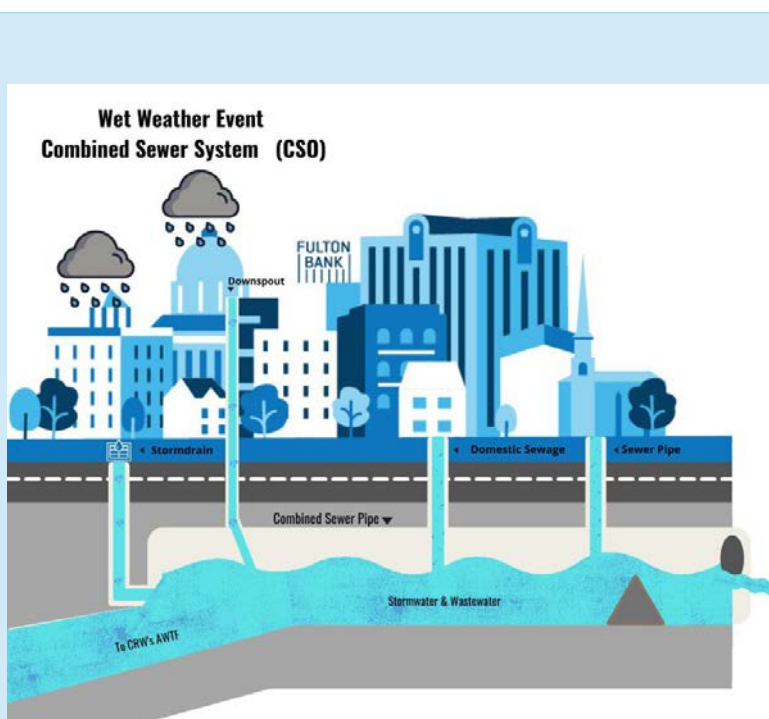
Alrededor del 60 por ciento del sistema de alcantarillado de Capital Region Water está combinado, lo que significa que transporta una combinación de aguas residuales y aguas pluviales en las mismas tuberías. En circunstancias normales, esa mezcla se transporta a la Instalación de Tratamiento de Agua Avanzada de CRW. Sin embargo, durante el clima lluvioso, el volumen de aguas pluviales que fluyen hacia las entradas y desagües a veces puede exceder la capacidad del sistema. El aumento del flujo luego desencadena un desbordamiento combinado de alcantarillado, comúnmente llamado CSO, descargando la mezcla no tratada de aguas pluviales y aguas residuales a través de los desagües directamente en el río Susquehanna y riachuelo Paxton. El sistema de CRW tiene un total de 58 desaguadero.

El sistema combinado y su desaguadero son anteriores a CRW (fundada en 2013) por muchas décadas, que se remonta a una época en que las tuberías combinadas eran comunes en el diseño de alcantarillado. De hecho, alrededor de 800 ciudades estadounidenses tienen sistemas combinados.

¿QUÉ ES EL PROBLEMA CON ALCANTARILLADO COMBINADO Y CUAL ES LA SOLUCIÓN?

Ahora, sabemos que la descarga de CSO puede ser dañina, amenazar la salud pública y contaminar las vías fluviales locales, así como el río más abajo. Por esas razones, Capital Region Water se compromete a reducir el CSO y ha estado realizando mejoramientos en el sistema para lograr ese objetivo. CRW también está obligado a capturar y controlar el CSO por ley y a través de un acuerdo legal con los reguladores estatales y federales llamado Decreto de Consentimiento Parcial (Partial Consent Decree).

A principios de este año, CRW presentó una actualización de ese acuerdo, planeando implementar mejoras del sistema por valor de \$ 200 millones durante la próxima década para aumentar drásticamente la captura de CSO. El plan, llamado City Beautiful H2O, incluye mejoras y reparaciones tradicionales de alcantarillado, así como una mayor implementación de infraestructura verde: combinaciones de ingeniería de plantas e infraestructura de detención que capturan y ralentizan la liberación de aguas pluviales en el sistema combinado. CRW continuará trabajando con los reguladores estatales y federales para cumplir con los objetivos de calidad del agua.



¿DÓNDE ESTÁN LOS DESAGÜES DEL CSO?

Se han colocado señales de advertencia en los desagües de CSO a lo largo del río Susquehanna y riachuelo Paxton como parte de una estrategia de notificación pública estipulada por el acuerdo de CRW con los reguladores. El propósito de las señales es alertar a los miembros del público para evitar el contacto con el agua cerca o aguas abajo de los desagües durante e inmediatamente después de los eventos de clima lluviosos. CRW está en el proceso de desarrollar un plan para instalar letreros adicionales a lo largo del río con la esperanza de educar aún más al público sobre el CSO.

