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RESTORING OUR RIVERS
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DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
BIANNUAL REPORT FALL 2025

COMBINED SEWER OVERFLOW (CSO) CONTROL ACTIVITIES

CLEAN RIVERS PROJECT NEWS

Tunnel Boring Machine "Mary" Arrives in the District, Marking Major Milestone for Potomac River Tunnel Project

With excitement and pride, the August arrival of the first components of the tunnel boring machine (TBM) "Mary" in Washington, DC, signals a major step forward for the Potomac River Tunnel (PRT) Project.

Shipped from Germany by Herrenknecht, Mary made her transatlantic journey with port stops in Antwerp, Belgium, and Halifax, Nova Scotia before docking in Baltimore. Her arrival marks a major milestone in the preparations for a 2.4-mile underground journey from West Potomac Park to Georgetown.

Named after Mary Edmonson, who—alongside her sister Emily—bravely attempted to escape slavery via the Potomac River in 1848, TBM Mary will bore north through the District's hard bedrock, supporting the ground with a permanent concrete tunnel lining.

The shipment included critical components such as the 84-ton cutterhead, which spans 20.78 feet in diameter. Also arriving were the front shield, housing the 94-ton main drive powered by six motors, and other essential parts that form the 700-foot-long, 1,200-ton machine.

A total of 42 packages and 9 containers departed Antwerp Harbor in July. Mary's launch is scheduled for spring 2026, when she will begin tunneling past seven combined sewer outfall locations along the Potomac River, from West Potomac Park to the Canal Road entrance of Georgetown University. Her sister, TBM Emily, is expected to arrive later in 2026. Emily will start from the same launch site as Mary and tunnel toward Joint Base Anacostia-Bolling (JBAB), where the Potomac River Tunnel will connect with the Anacostia River Tunnel.

A fall ceremony will celebrate Mary's arrival and the beginning of her mission—a moment of engineering excellence and historical tribute, as the District continues its commitment to cleaner waterways and resilient infrastructure.

Piney Branch Tunnel Construction Starts Autumn 2025

There are 23 combined sewer system outfalls that can overflow into Rock Creek when the sewer system capacity is exceeded during large rainfall events. The largest of these outfalls, known as CSO 049, overflows into Piney Branch near the intersection of Piney Branch Parkway and 16th Street, NW. These overflows can raise bacteria levels, harm fish and wildlife, and bring trash into Piney Branch stream and Rock Creek. Combined sewers were state of the art when the sewer system was constructed by the federal government in the late 1800s and early 1900s.

DC Water will soon start construction on a large underground tunnel (Piney Branch Tunnel) that will be used to store a minimum of 4.2 million gallons of sewage and stormwater that would otherwise overflow into Piney Branch when the existing sewer system capacity is exceeded. A diversion structure will be constructed at CSO 049 to capture and convey the overflow to the tunnel. The downstream end of the tunnel will be connected to the existing sewer system near Park Road NW. Sewage and stormwater in the tunnel will be discharged into the existing sewer system when the system can manage the volume. The discharge will be transported to DC Water's Blue Plains Advanced Wastewater Treatment Plant for treatment.

Tunnel construction will begin this autumn with site preparation at the CSO 049 construction site in Rock Creek Park. This work will be followed by construction of a temporary bypass road for Piney Branch Parkway around the CSO 049 construction site. The bypass will allow traffic to continue along Piney Branch Parkway during tunnel construction. Construction of the underground facilities (diversion structure, underground tunnel and downstream connection structures) is expected to begin in 2026.

When completed, the tunnel is expected to decrease overflows by 96% in an average rainfall year, improve water quality and reduce trash for the benefit of all.

New Trails Enhance Safety Near Potomac River Tunnel Construction Sites

DC Water constructed new trail segments at two key Potomac River Tunnel project sites to ensure public safety and maintain access for pedestrians and bicyclists.

At the Capital Crescent Trail (CSO 028) site, a new shared-use path was built on the west side of the Alexandria Aqueduct. This trail guides pedestrians, cyclists, and Washington Canoe Club members around the active construction zone. Two lanes under the Aqueduct separate trail users from construction traffic, improving safety and access.

Meanwhile, at the Rock Creek Trail (CSO 022) site across from the Watergate Complex, a permanent reroute has been completed and diverts trail users away from the work zone, with a closer view of the Potomac River. The original trail adjacent to the Parkway is now closed and will be restored after tunnel construction concludes.

Trail users are encouraged to stay alert, follow signage, and share the path respectively

DC Water Works to Construct Important Slope Stabilization Project

DC Water will stabilize the slope along Canal Road NW near Georgetown University. This work is important to keep the area safe and to prepare for a bigger project—the Potomac River Tunnel—which will help reduce combined sewer overflows into the Potomac River.

Work began in September 2025 and is expected to finish by February 2026. Crews are removing vegetation and loose material, installing about 725 steel dowel anchors and mesh, and will later revegetate the slope before reopening the sidewalk.

Impacts during construction:

- Close the sidewalk
- Remove trees and vegetation
- Remove loose materials from the slope (called scaling)
- Drill and grout steel dowels into the slope
- Hydroseed the slope
- Lay the mesh on the slope
- Replant trees at the top
- Reopen the sidewalk when it's safe

About 14,500 vehicles use Canal Road weekdays between 6:00 a.m. and 7:00 p.m. DC Water worked closely with DDOT, the National Park Service, Georgetown University, Metro, and others to develop a construction approach to keep traffic moving as smoothly as possible.

Traffic: Canal Road will stay open in both directions most of the time, but there may be occasional lane closures during off-peak hours.

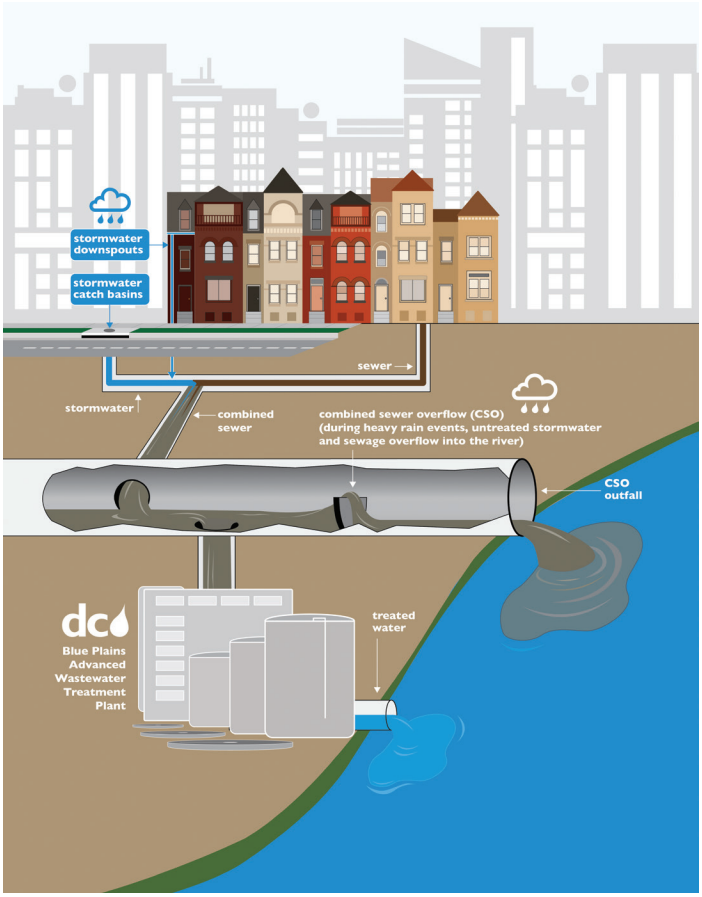
Sidewalk: The north sidewalk will be closed for safety. Pedestrians and cyclists will be detoured. An ADA-accessible shuttle will be available for those who need it.

More information including Pedestrian and Bicycle Detours and Shuttle Service is available at **dcwater.com/slope**.

FAQs About the Combined Sewer System

What is a Combined Sewer?

A combined sewer is a single pipe that carries both sanitary wastewater and stormwater runoff. Most older cities in the United States are served by combined sewers. In the District, the combined sewer system was designed and built by the U.S. Army Corps of Engineers. Modern practice is to build two pipes in the street—one for stormwater runoff, and one for wastewater from homes and businesses.



What is a CSO and why does it occur?

A CSO is a combined sewer overflow. During dry weather, sewage from homes and businesses is conveyed to the District's wastewater treatment plant at Blue Plains, where the wastewater is treated to remove pollutants before being discharged to the Potomac River. During certain rainfall conditions, the capacity of a combined sewer may be exceeded. When this occurs, the excess flow, a dilute mixture of wastewater and stormwater runoff, is discharged to the Anacostia River, Potomac River, Rock Creek and tributary waters. The Federal Clean Water Act and the Environmental Protection Agency requires that communities develop a plan to address and reduce overflows. There are 48 potentially active CSO outfalls listed in DC Water's existing discharge permit from the EPA.

When do CSOs occur?

CSOs occur during wet weather and are more frequent in wet years than dry years. During years with average rainfall, combined sewers overflow into the Anacostia River about 20 times annually and the Potomac River about 77 times annually, spilling approximately 391 million gallons into the Anacostia and 677 million gallons into the Potomac. Rock Creek averages 32 CSO events and 35 million gallons of overflow a year.

Where are CSO Outfalls?

There are 10 CSO outfall locations on the Potomac River, 15 on the Anacostia River and 23 along Rock Creek and its tributaries. DC Water has posted signs for each outfall location.

What are the possible public health impacts of CSOs?

CSOs pose a danger to the public because of the rapid flow of water exiting the outfalls and the harmful substances they carry. The public is advised to stay away from any sewer pipe discharge. CSOs could affect the receiving waters for up to 24 hours during small rainstorms and for up to three days when it rains one inch or more.

What are the environmental impacts of CSOs?

CSOs can adversely affect the quality of rivers and streams by contributing to high bacterial levels and low dissolved oxygen levels, which are harmful to fish and other aquatic life.

What is a Dry Weather Overflow (DWO)?

In dry weather, sanitary wastewater normally flows to the Blue Plains Advanced Wastewater Treatment Plant through pipes with regulators. During wet weather, regulators are designed to let the excess flow discharge directly to a river or creek. If regulators become blocked by debris or trash, wastewater can also overflow during dry weather. This is called a dry weather overflow (DWO). DC Water has an extensive maintenance and inspection program to prevent DWOs from occurring. If you see a CSO outfall discharging during dry weather, call DC Water at **(202) 612-3400**.

Where can you get more information?

You can learn more by visiting DC Water's website at **dcwater.com/cleanrivers**. You may also contact DC Water's Office of Marketing and Communications at **(202) 787-2200**.

The complete text of the Long Term Control Plan for Combined Sewer Overflows can also be found on DC Water's website at **dcwater.com/FinalLTCP**.

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A Bird's-Eye View of Building a Tunnel

Although a tunnel is built underground, there are multiple above-ground sites that are needed to connect the tunnel to the existing sewer system. These sites have multiple activities and due to the need for safety, many people don't get to see what's happening within the site fence. Aerial views from planes and cameras allow a unique perspective of what's happening behind the scenes.

CSO 022 Construction Site

View of CSO 022 Construction Site and Shaft in August 2025

The CSO 022 site is located along the Rock Creek Trail at the banks of the Potomac River adjacent to Rock Creek and Potomac Parkway, west of the Watergate complex. DC Water is constructing a diversion facility that includes a diversion chamber, approach channel, drop shaft, and other structures to direct flow to the tunnel.

WPP Construction Site

The West Potomac Park site is located along the bank of the Potomac River and across Ohio Drive SW at West Potomac Park Field #7. DC Water is constructing two mining shafts where

View of West Potomac Park Construction Site in February 2025

the tunnel boring machines (TBMs) will be launched and then used to remove excavated materials and deliver concrete segments to line the tunnel. Other areas of the site support tunneling operations with material and equipment storage, electrical switchgear, staff offices and parking. DC Water is also constructing an emergency overflow structure for the tunnel at this site.

GREEN INFRASTRUCTURE PROJECT UPDATE

Last Spring DC Water began construction of its third major green infrastructure (GI) project in Rock Creek as part of the DC Clean Rivers project. Rock Creek Projects A and B were completed in 2018 and 2023, respectively. To date, Rock Creek Project C has completed 6 permeable pavement alleys controlling over 4 acres of new impervious surface. Upon completion in 2027, Rock Creek C will have installed 43 permeable alleys designed to control runoff during rain events to reduce the load on the combined sewer system. Together with the final installation of Rock Creek Project D, DC Clean Rivers green infrastructure projects will manage 92 impervious acres in the Rock Creek sewershed to reduce combined sewer overflows to the District's waterways and improve water quality.

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