



DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
BIANNUAL REPORT FALL 2024

**COMBINED SEWER OVERFLOW (CSO)
CONTROL ACTIVITIES**

CLEAN RIVERS PROJECT NEWS



Potomac River Tunnel Groundbreaking!



In May, DC Water hosted a groundbreaking ceremony to officially begin construction on the Potomac River Tunnel Project at West Potomac Park. The Potomac River Tunnel is the next major phase of the DC Clean Rivers Project, which is DC Water's ongoing program to improve the water

quality of the Anacostia and Potomac rivers and Rock Creek by increasing the capacity of the sewer system.

The project consists of a large-diameter deep sewer tunnel, diversion facilities, drop shafts, and support structures to capture flows from existing combined sewer overflows (CSOs) along the Potomac River and convey them to the Blue Plains Advanced Wastewater Treatment Plant. The 5.5-mile-long tunnel will be completed in 2030, providing a 93% reduction in the volume of CSOs to the Potomac River in an average year of rainfall.

The ceremony gathered key stakeholders, including Congresswoman Eleanor Holmes Norton, Ward 6 Councilmember Charles Allen, National Park Service Deputy Superintendent Sean Kennealy, Department of Energy and Environment Director Richard Jackson and other city leaders and agency partners to highlight the importance of this new project in improving the water quality and aesthetics of the Potomac River.

The 18-foot-diameter tunnel will run deep underground beneath the Georgetown waterfront, along the edge of the National Mall and East Potomac Park, past Hains Point and connect by gravity to the existing Anacostia River Tunnel. Construction will require two tunnel boring machines (TBMs). Starting from West Potomac Park, one machine will mine south through mostly soft ground, and another machine will head north to bore through rock. Work at West Potomac Park is underway to prepare for the arrival of the first TBM next year.

Piney Branch Tunnel Design and Regulatory Phase Move Forward

DC Water is in the final design and regulatory stages of its proposal to build a 4.2-million-gallon underground storage tunnel to capture sewage combined with stormwater, known as combined sewer overflow (CSO), that would otherwise overflow into Piney Branch and ultimately Rock Creek during heavy rains. The project is located in Rock Creek Park in Northwest DC. The project is the last major tunnel to be constructed as part of DC Water's Clean Rivers Project.

It is estimated that nearly 40 million gallons of CSOs currently enter Piney Branch in a year of average rainfall from CSO 049. CSO 049 is the largest of the 23 combined sewer outfalls that flow into Rock Creek. The Piney Branch Tunnel project would include construction of a diversion structure at CSO 049, to redirect sewer flows into the tunnel and eventually convey the combined sewage to DC Water's Blue Plains Advanced Wastewater Treatment Plant when the system can handle the volume. When completed, the Piney Branch Tunnel would reduce the volume of CSOs to Piney



Branch by 96% and reduce their frequency from approximately 25 events to one event in a year of average rainfall. Construction is anticipated to begin in 2025.

DC Water and the National Park Service are preparing an Environmental Assessment to comply with the National Environmental Policy Act. The Environmental Assessment analyzes potential environmental impacts from the construction of a deep underground tunnel to store combined sewage from the Piney Branch outfall, CSO 049. More information on the Piney Branch Tunnel can be found at dcwater.com/pbs.

Anacostia River Tunnel System Prevents Over 100 Million Gallons of Combined Sewer Overflow During Tropical Storm Debby



In August 2024, Tropical Storm Debby released torrential rains over the Washington, DC region for two consecutive days. Thanks to the Anacostia River Tunnel (ART) System, more than 100 million gallons of combined sewage overflow were prevented from discharging into the Anacostia River during this intense storm. The ART also played a crucial role in flood mitigation, protecting the Northeast Boundary area from potential flood damage.

Since DC Water placed the first section of the ART into operation in 2018, it has diverted more than 17 billion gallons of untreated combined sewage and stormwater, along with 11,000 tons of trash, away from the Anacostia River. This captured flow is conveyed to the Blue Plains Ad-

vanced Wastewater Treatment Plant, cleaned and treated before being released into the Potomac River.

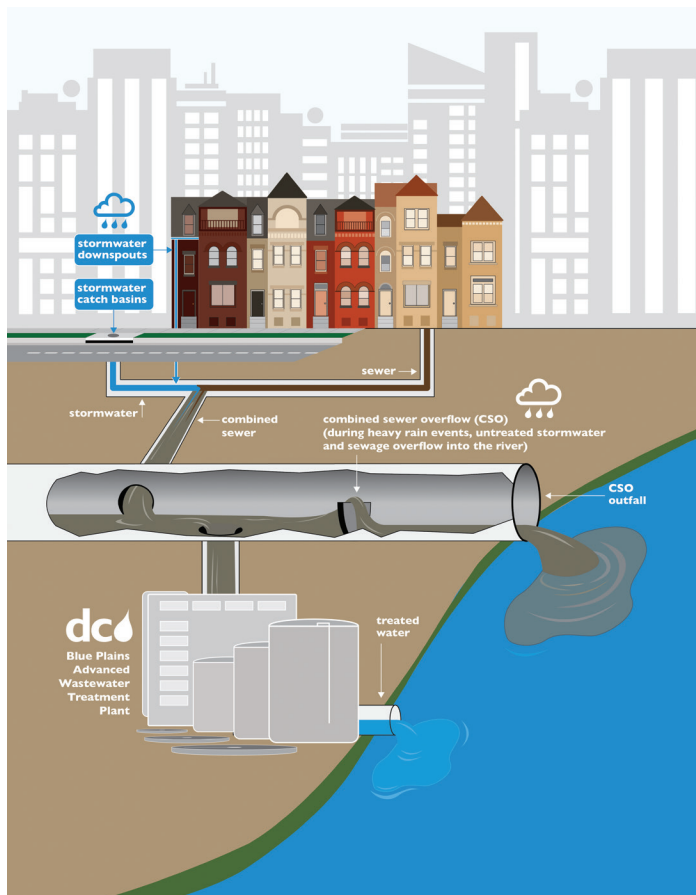
In 2023, DC Water reached a significant milestone by completing the ART, a massive infrastructure project designed to prevent 98% of combined sewer overflows into the Anacostia River in an average year. This is a major achievement in the ongoing efforts to restore the river's health and beauty. The entire Anacostia tunnel system extends approximately 12 miles beneath the city, at an average depth of 100 feet, stretching from the Shaw neighborhood to Blue Plains.

About one-third of the District is served by combined sewers. During periods of rainfall, the capacity of a combined sewer may be exceeded and the excess flow, which is a mixture of stormwater and sanitary wastes, is discharged directly to the Anacostia River, Rock Creek, or the Potomac River. The ART System is designed to capture combined sewer overflows directed to the Anacostia and reduce flooding at chronic locations in the Northeast Boundary area from storms up to a 15-year magnitude, equivalent to a 7% chance of flooding in any given year.

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. Many 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 allows CSOs, but the Environmental Protection Agency (EPA) requires communities to develop a plan to address 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, DC Water estimates that 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 may pose a danger to the public because of the rapid flow of water exiting the outfalls and the potentially harmful substances it may contain. 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 intensive 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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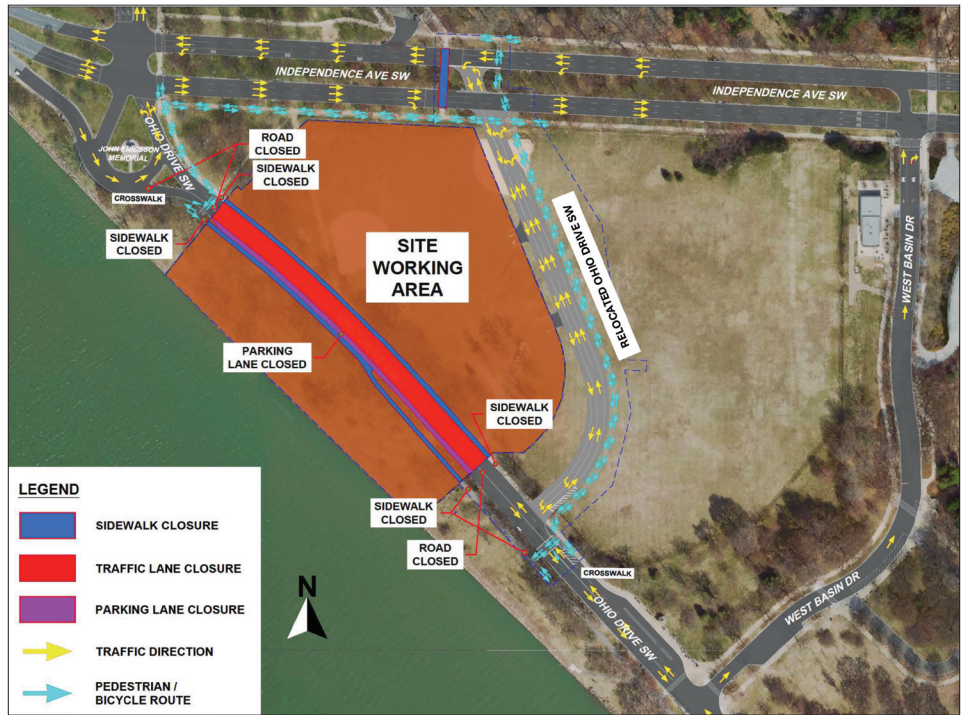
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Temporary Road Opening for the Relocated Ohio Drive

In June, DC Water closed Ohio Drive SW, between Independence Avenue and West Basin Drive, for approximately six years to complete work related to the Potomac River Tunnel Project. The closure included eastbound and westbound travel lanes, parking lanes, and the sidewalk through West Potomac Park along Ohio Drive, and between the John Ericsson Memorial and West Basin Drive.

The project includes construction of a relocated Ohio Drive to be used by the public during the tunnel construction. This relocated section of Ohio Drive will intersect Independence Avenue and includes two northbound lanes and one southbound lane as well as a



shared path for pedestrians. The relocated Ohio Drive will remain in place until the project's completion in 2030 when it will be restored to its original route.

DC Water appreciates your patience during construction of this important project to improve the Potomac River.

RELOCATED OHIO DRIVE, SW

Date: October 2024 through late 2030, weather permitting

Location: Independence Avenue, SW between Ohio Drive, SW and West Basin Drive, SW



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