dc clean RIVERS PROJECT
RESTORING OUR RIVERS
PROTECTING OUR DISTRICT

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
BIANNUAL REPORT APRIL 2020

COMBINED SEWER OVERFLOW (CSO) CONTROL ACTIVITIES

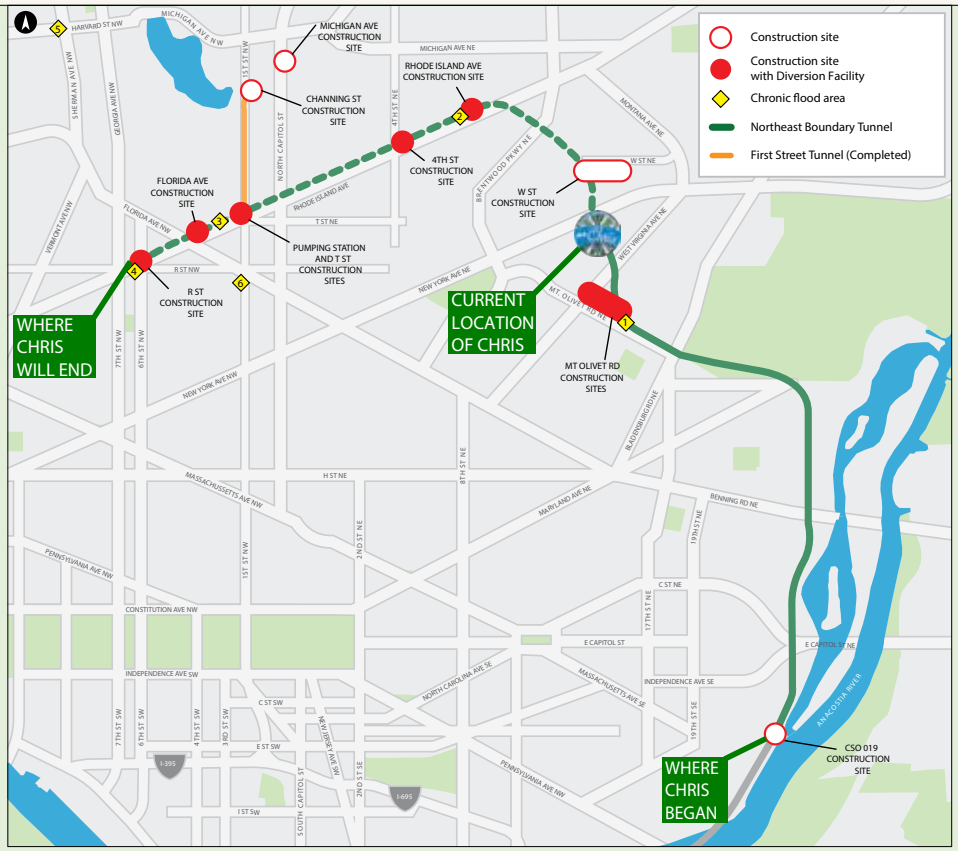
CLEAN RIVERS PROJECT NEWS

Halfway home—Northeast Boundary Tunnel will bring neighborhood flooding relief

The last piece of the Anacostia River Tunnel is heading for home. Chris, DC Water's massive tunnel boring machine (TBM) that is digging the final segment, passed the halfway mark in January. All other tunnel pieces are already in place, so when this segment is completed, the 13.1-mile Anacostia River Tunnel will extend all the way from First Street, NE south to the Blue Plains Advanced Wastewater Treatment Plant.

The tunnel boring machine is an underground factory with a rotating head that cuts into the earth in front of it. After Chris advances six feet, he stops and pushes into place a ring of precast concrete segments. Tunneling experts working in three shifts per day keep this process running continuously 24 hours a day. The completed tunnel will be 80 to 160 feet below ground and will have an inside diameter of 23 feet—larger than a Metro tunnel.

The TBM was named after DC Water's own Christopher Allen, the Assistant Director for the Clean Rivers Project who passed away in 2017. Mr. Allen had 47 years of experience in construction management, field supervision and program management of large buildings, mass transit, heavy construction projects and aviation programs. The progress to date would make Chris Allen very proud.



Chris has tunneled under the new soccer fields near RFK Stadium, Langston Golf Course, the National Arboretum and Ivy City. The five-mile journey will end at R Street NW and Rhode Island Avenue NW by summer of 2021. As the tunnel excavation advances, DC Water's contractor is constructing sewer diversion facilities and drop shafts to connect the existing sewer system to the tunnel will be greatly mitigated. Once complete in 2023, the entire Anacostia River Tunnel System will be 13.1 miles long, will capture 98 percent of sewage overflows to the Anacostia River in an average year, and will provide significant flooding relief near Mount Olivet Road NE, at the Rhode Island Metro Station area, and in the Bloomingdale, LeDroit Park and other neighborhoods. For more information on the NEBT, please visit **dcwater.com/nebt**.

DC residents play vital role in this massive project

It's 1:30 in the morning and DC resident Verlissa Taylor is heading to another day at work. But her office isn't like most —it is the site of a giant underground tunnel. Called the Northeast Boundary Tunnel (NEBT) project, it is helping clean up the Anacostia River and minimizing flooding events in certain neighborhoods. Construction runs 24/7 and Verlissa works the earliest shift, arriving at 2:30 every morning.

She conducts a symphony of trucks coming and going, loading and unloading and maneuvering through the construction site. Dump trucks haul away the material from underground that is dug out to create the tunnel. Meanwhile, flatbed trucks deliver huge concrete panels that are joined together underground to create the tunnel walls. As a hauling and receiving coordinator for joint venture Salini Impregilo, Taylor is responsible for coordinating and documenting the activities of nearly 40 trucks that pass through her station each day.

Taylor takes great pride in helping restore the health of the Anacostia River. As a 20-year resident of the District's Carver/ Langston neighborhood, she personally benefits from the project, not just in the environmental and public health protections, but also in the jobs it has offered District residents. DC Water has a goal for contractors to hire locally – 51% of the contractor workforce should be District residents. In addition, 60% of new jobs will be staffed by local residents.

"Knowing my city will get healthier and my neighbors won't have chronic flooding makes me proud to be a part of this team," said Ms. Taylor. "I live very close to work, so it's a good job, close to home, making a difference, and that's great!" Thank you, Verlissa, for continuing to make Clean Rivers Project truly successful and making DC a better place to live and work!

DC Water assists vendors in construction area

Construction for the Clean Rivers Project brings great benefits, but also some short-term disruptions to residents, traffic and businesses. DC Water mitigates these challenges in all projects and took unprecedented steps with the Northeast Boundary Tunnel project to support businesses that are directly impacted.

A custom-designed fence wrapping with paintings from Howard University artists

In 2018, DC Water CEO David Gadis signed two of three historic Memorandums of Agreement (MOAs) with Main Street business organizations in the District. For the first time, DC Water partnered with District non-profit business groups to provide special assistance, marketing products and consulting services. More than 30 small businesses near construction sites along Rhode Island Avenue received these services.

The Main Street approach is a national program to help small businesses achieve economic vitality. The District started its local program in 2002 and now funds 24 different Main Streets. DC Water partnered with the Rhode Island Avenue Main

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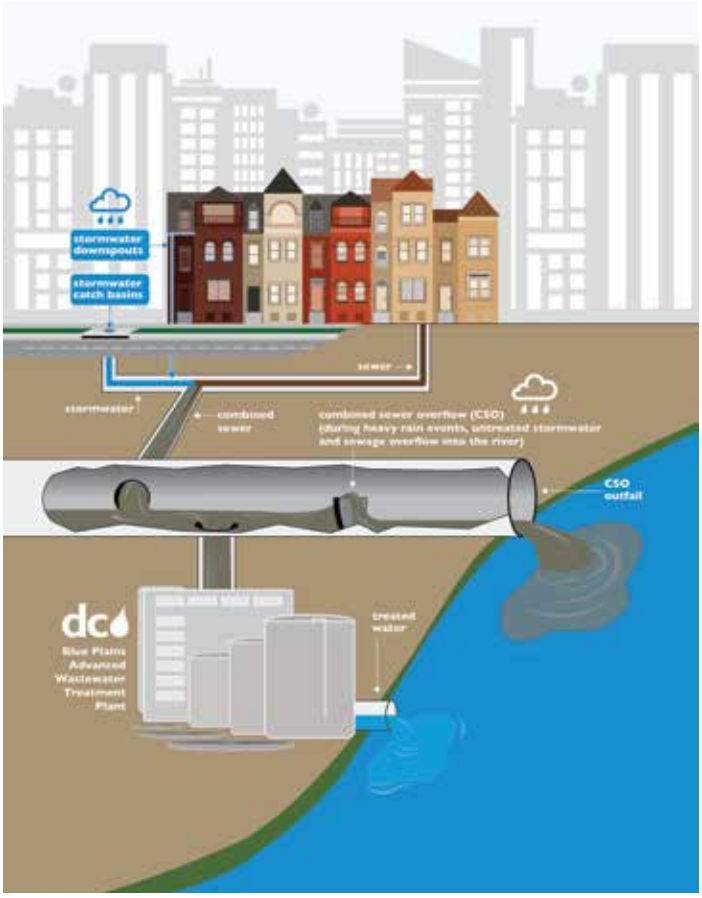
FAQs About the Combined Sewer System

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 47 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, 14 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 web site at **dcwater.com/FinalLTCP**.

YOU can help the Anacostia flourish

For more than a decade, DC Water has partnered with the Anacostia Watershed Society (AWS) to celebrate Mother Earth by cleaning up the Anacostia River. In light of the Coronavirus outbreak, river clean up events may be canceled this spring. You can still appreciate and protect the river. Research its history or learn how you can help reduce your impact on the Anacostia River.

When clean up events resume, they are another way to improve the river's health. Last year, 28 volunteers from DC Water and neighborhood residents collected more than 64 bags of trash and debris along the Anacostia Riverwalk. While planning future events is still fluid, the tentative date for the next clean up is **Saturday, October 3, 2020 from 9:00 a.m. until 12:00 p.m.** Please stay up-to-date by visiting: **anacostiaws.org**.

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Street NE, the North Capital Main Street and the Shaw Main Street during Northeast Boundary Tunnel construction.

Initial results of this DC Water-funded program have been promising, with several businesses receiving storefront improvements, new lighting, and technical assistance to refresh their marketing, branding and digital media presences.

A custom-designed construction fence wrapping known as "scrim" helps attract customers. Artists from Howard University painted water-themed artwork on fencing on Florida Avenue, NW as an attractive covering and advertisement for businesses. District of Columbia Mayor Muriel Bowser and Councilmember Kenyan McDuffie provided additional NEBT business impact assistance through legislation.

This coalition of residents, commuters and District agencies and utilities are aiding in the effort to deliver significant long-term benefits to reduce flooding and to keep sewer overflows out of the Anacostia River. Please support these businesses as we all work toward a healthier Anacostia and a healthier District.

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