

DC Water Breaks Ground on CSO Control Projects

On October 12, DC Water broke ground at its Blue Plains facility on the \$2.6 billion Clean Rivers Project to control combined sewer overflows in the District. This comes after years of planning and evaluation to find the best possible solution for keeping local waterways clean and healthy.

Construction at the wastewater treatment plant starts with a shaft that will extend 135 feet underground. Eventually, the Anacostia River deep tunnel system will end there and combined sewage will be pumped up above ground for treatment. Meanwhile, DC Water is beginning other projects in the District so that the Anacostia Tunnel will be operational in 2018, reducing combined sewer overflows into the Anacostia River by 98 percent.

The map at right shows various projects along the Anacostia River Tunnel of the Clean Rivers Project. (For more information on Combined Sewer Overflows, please see FAQs on page 3)



1 Poplar Point Pumping Station

This aging sewer pumping station will be replaced. Construction is anticipated from 2015 to 2018.

2 Blue Plains portion of Anacostia Tunnel System

- Design build contract was awarded in spring of 2011.
- Completion scheduled for 2015.

3 Outfall 19 (RFK Stadium)

- Construction bids were received June 2011.
- Construction began August 2011.

4 Outfalls 15, 16 & 17

- Construction around M Street to create larger sewer chambers that will prevent CSOs from Outfalls 15, 16 and 17.
- Construction anticipated from spring 2012 to 2014.

5 Anacostia River Tunnel portion of the Anacostia Tunnel System

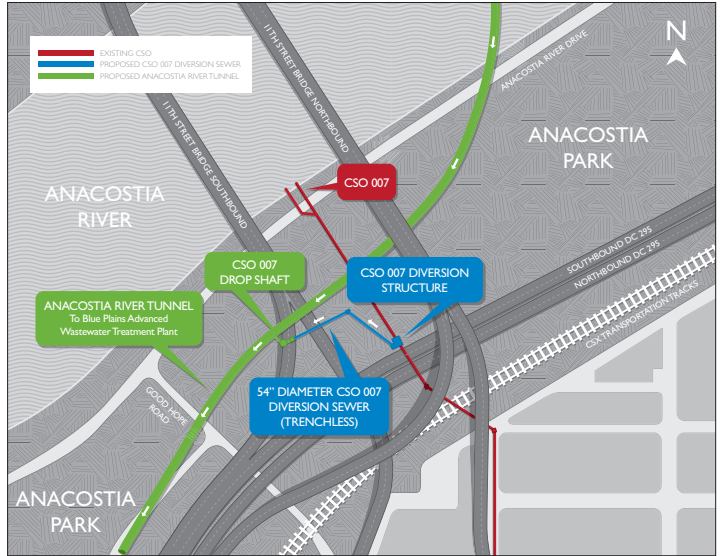
- Construction anticipated from summer 2013 to fall 2017.

Communication Brings About Coordinated Project with DDOT: 11th Street Bridge Project

When DC Water’s engineers first learned of the major 11th Street Bridge project proposed by the District Department of Transportation (DDOT), they realized that part of the Clean Rivers Project would have to be built first before the major bridge abutments and ramps were put in place. DC Water had planned future work on the adjacent combined sewer outfall 07. Since CSO diversion facilities have to be located somewhere along the Combined Sewer Overflow (CSO) pipe, there isn’t much flexibility in location. But there can be flexibility in timing.

This could have posed an enormous problem to both agencies, since DC Water’s Clean Rivers work would have disrupted the DDOT project down the line, and on the other hand, DC Water would have begun construction after bridge abutments and other massive structures were already built, making it very difficult to work around. But, communication and coordination between the two agencies brought about a solution that works for both.

After months of planning meetings, DC Water provided DDOT with design plans for the CSO



07 project construction with emphasis on the elements that need to be completed in advance of DDOT’s bridge work. These elements include a diversion structure to capture the combined sewer overflow from the outfall, a pipeline to convey the flow, a manhole and finally a pit where the new pipe goes from being below ground to above ground and is backfilled and buried until the second phase of the construction resumes in the future.

Going Green Benefits our Waterways

They might not look like hard workers, but raingardens, tree canopies, permeable pavers and other “greenworks” all work to keep rainwater from running into the combined sewer or stormwater system. The first flush of rainwater contains all the things that are on our streets and sidewalks—oil, grease, and litter, just to name a few. Green infrastructure, called Low Impact Development or LID, can soak up that first flush of rainwater, and the pollutants. Also, that reduction in rain that enters the combined sewer system can help reduce the amount of combined sewer overflows.

Replacing pavement with grass and vegetation lowers the amount of rainwater getting into the system.

Tremendous additional benefits include more natural habitat, a greener environment, a reduction in heat islands and added shade. In addition, there is potential for an increase in local green jobs.

DC Water continues to look at ways to promote green infrastructure in the Potomac and Rock

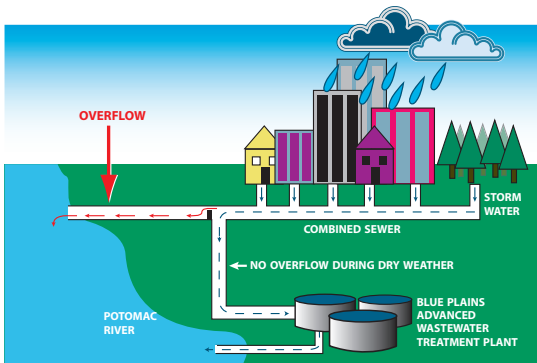


Rain barrels capture runoff from rooftops for later use around the home or garden.

... continued on page 4

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 53 CSO outfalls listed in DC Water’s existing discharge permit from the EPA.

Where are CSO Outfalls? There are 10 CSO outfall locations on the Potomac River, 15 on the Anacostia River and 28 along Rock Creek and its tributaries. DC Water has posted signs for each outfall location.

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 and Potomac rivers about 75 times annually, spilling nearly 1.5 billion gallons into the Anacostia and 850 million gallons into the Potomac. Rock Creek averages 30 CSO events and 52 million gallons of overflow a year.

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 is 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 External Affairs at (202) 787-2200.

The complete text of the Long Term Control Plan for Combined Sewer Overflows can also be found at the following public libraries: Capitol View, Mount Pleasant, Northeast, Woodridge, Southeast, Shepherd Park, Tenley-Friendship and Washington Highlands.

CLEAN RIVERS PROJECT NEWS

CONTROL ACTIVITIES
COMBINED SEWER OVERFLOW (CSO)
BIANNUAL REPORT OCTOBER 2011
DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY



Hear More about the Clean Rivers Project

The Clean Rivers Project team conducts public meetings about the projects through Advisory Neighborhood Commission meetings and by invitation. To schedule a meeting for your organization (of 10 or more people) call 202-787-2003 or email ExternalAffairs@dcwater.com.



continued from page 2 **Going Green Benefits our Waterways**

Creek sewer sheds. The goal is to reduce enough rainwater from entering the system so that DC Water can reduce the size of tunnels and shafts that are required as part of the Clean Rivers Project. After all, it's easier to plant a tree than build a tunnel.

But going green has its own set of challenges to solve. How much rainwater can you capture? What

effect will that have on CSO control? Who owns the land and will they allow greenworks to be installed? Who will maintain them? DC Water is currently evaluating sites for demonstration projects so that the Authority can tackle these challenges and identify others. Then, the Authority hopes to provide the solutions.



RECYCLED
Paper made from recycled material
FSC® C021348



District of Columbia Water and Sewer Authority
5000 Overlook Avenue, SW
Washington, DC 20032

DCWATER.COM