

A District of Columbia Water and Sewer Authority
COMBINED SEWER OVERFLOW (CSO)
CONTROL ACTIVITIES

Update

Biannual Report April 2007



District of Columbia

Water and Sewer

Authority



Early Phase of Water Pollution Control Projects Nearly Complete

Combined sewer overflows (CSOs) into the District's waterways have been reduced by nearly a third, as WASA nears the end of a \$140 million program to eliminate 40 percent of the overflows by 2008.

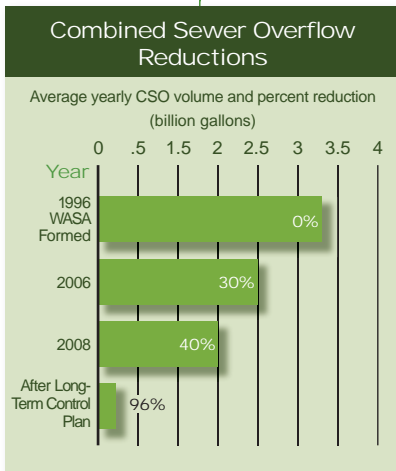
Like many older cities, a portion of the District is served by sewers, built at the end of the 19th century, that carry both sanitary sewage and stormwater in the same pipe to the wastewater treatment plant.

The system works well in dry weather; but the sewers, built at the end of the 19th century, are not large enough to hold both wastewater and stormwater during heavy rainfall. As a result, overflow outfalls are installed along the system to reduce street and basement flooding by diverting polluting CSOs directly into the Potomac and Ana-

costia rivers, Rock Creek and other tributaries. Federal water quality standards require wastewater utilities, like WASA, to substantially reduce the number of overflows.

As a result, WASA is implementing a 20-year, \$2 billion program to reduce 96 percent of these discharges.

Meanwhile, early WASA projects are having a significant impact by reducing CSOs 30 percent to date. They include: inflatable dams that catch and hold wastewater in the combined sewer system during rain storms; tide gates to keep river water from flowing into the sewer system; combined sewer separation into sanitary and storm sewers in areas to eliminate outfalls; and pumping station rehabilitation and construction to increase their flow capacity.



Soil Tests Underway for Anacostia River Projects

WASA engineers are in several District neighborhoods sampling layers of soil and measuring groundwater levels by taking soil borings at various locations in streets, sidewalks and other public spaces. These soil borings help determine the routes for huge, deep Metro-sized underground tunnels constructed to hold combined sewer overflows (CSOs) during rainstorms and decrease the amount of pollutants entering the Anacostia River.

The boring sites are located near R and 4th streets NE, Rhode Island Avenue and 5th Street NE, Anacostia Drive and 11th Street SE, and in the RFK stadium parking lot near 19th and 21st streets NE and along the southeast parking lot access road.

Truck-mounted drill rigs will typically be used to obtain these samples, and in most cases, one or two support vehicles will also be required. This work is occurring at different periods during the year. Notification of work activity is posted in the "Work Zone" section of WASA's website—www.dcwasa.com. In some areas, parking may be impacted, and notices are posted three days before work begins.

WASA wants to minimize any disruption for residents

and is meeting with Advisory Neighborhood Commissions (ANCs) to discuss the project. The work at any specific drilling location may be completed in as

little as three days or take as long as four weeks.

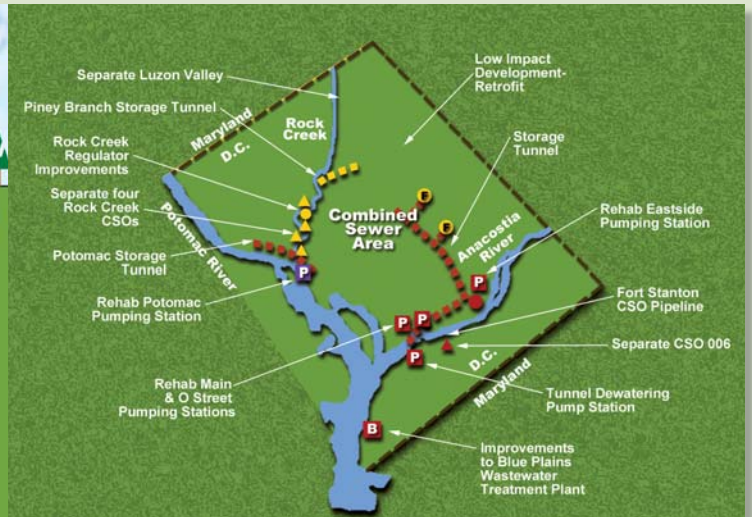


WASA has installed signs at 15 outfall locations along the Anacostia River. Truck-mounted drilling equipment will gather soil, rock and ground water information for tunnel construction. The \$2 billion combined sewer overflow (CSO) control program includes the construction of eight miles of tunnels 150 to 250 feet underground.

If you would like more information about this project, you can e-mail

csotunnels@dcwasa.com or phone 202-787-2123.

FAQs About The Combined Sewer System



(L) Shows how the District of Columbia's combined sewer system works. (R) Shows WASA's 20 Year Long-Term CSO Control Plan (LTCP) to improve water quality in the Anacostia and Potomac rivers and Rock Creek, the 20-year Long-Term CSO Control Plan includes: three deep underground storage tunnels, including side tunnels to reduce flooding; rehabilitation of existing pumping stations; and the elimination of 14 overflow outfalls. Various sections of this system will be placed in operation along the way to reduce overflows even before the entire project is completed.

What is a Combined Sewer?

A combined sewer is a single pipe that carries both sanitary wastewater and storm 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 US 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.

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 WASA'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. WASA has posted signs at each outfall location.

What is a CSO and Why Does it Occur?

A CSO is a Combined Sewer Overflow. During dry weather, sewage from homes and business 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



When do CSOs Occur?

CSOs occur during wet weather and are more frequent in wet years than dry years. During years with average rainfall, WASA 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 overflow during dry weather. This is called a Dry Weather Overflow (DWO) and WASA has an intensive maintenance and inspection program to prevent DWOs from occurring. If you see a CSO outfall discharging during dry weather, call WASA at (202) 612-3400.

What is WASA Doing About CSOs?

WASA has projects underway that will reduce CSOs by 40% by 2008. WASA also has a long-term plan for reducing CSOs even further. This plan is called the Long-Term Control Plan (LTCP) and involves constructing storage tunnels to capture CSOs during rain events. The LTCP will provide a 98% reduction in CSO to the Anacostia River, and a 96% reduction in CSO overall. The LTCP will be implemented over a 20-year period. Details on the plan can be found on WASA's Web site.

What Can You Do to Help?

Properly dispose of hazardous materials such as oil and paint and don't litter or use catch basins as trash receptacles. Trash improperly disposed in catch basins can wash into District waterways during high volume storm events—negatively impacting aquatic life, and sporting and recreation activities.

Where Can I Get More Information?

To obtain more information visit WASA's Web site at www.dcwasa.com, or contact WASA Public Affairs at (202) 787-2200.