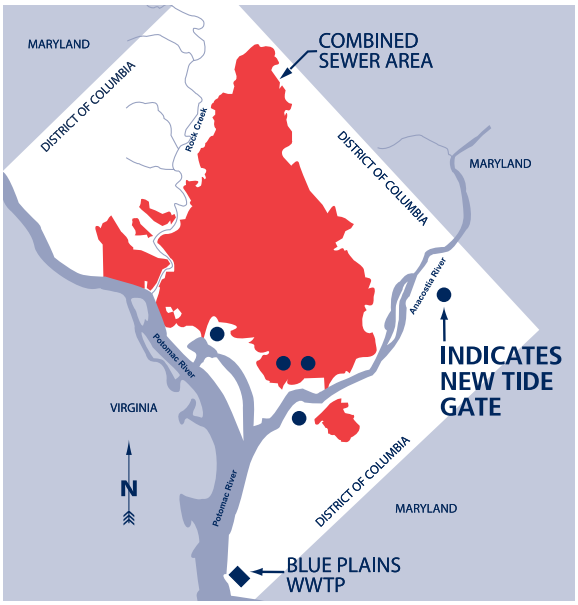
CSO update
DC WATER AND SEWER AUTHORITY
NOVEMBER 2003

YOUR BIANNUAL REPORT ON COMBINED SEWER OVERFLOW ACTIVITIES

# Tide Gate Upgrade Completed

WASA has completed the upgrade of five tide gates in the sewer system. Tide gates are devices that prevent river water from entering the sewer system, which can occur during high tides and river flooding. River water that enters the sewer system takes up capacity in sewer pipes and also must be treated at our wastewater treatment plant at Blue Plains. The new tide gates are made of a rubber-like material and are expected to provide much better performance than older designs. The new tide gates are projected to remove about 3.5 million gallons of river water per day that would otherwise enter the sewer system.




## Upcoming WASA Community Meeting

You can keep DC's waterways free of trash, waste and debris. Learn how on November 17th at 6:30 pm at the Northeast Branch Library, 330 7th Street, NE at Maryland Avenue, NE.

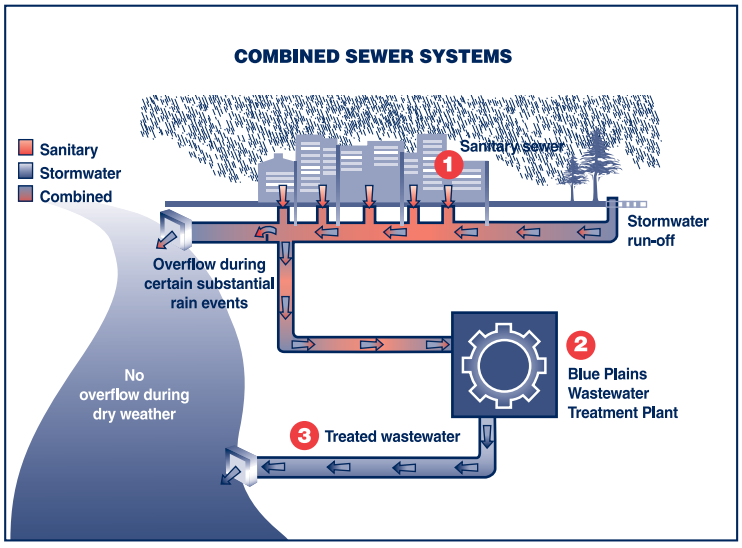
# Background on Your Combined Sewer System

## What Is a Combined Sewer?

Many older cities in the United States are served by combined sewers. A combined sewer carries both sewage and runoff from storms in a single pipe. Modern practice is to build two pipes in the street – one for storm water runoff, and one for wastewater from homes and businesses. No new combined sewers have been built in the District since the early 1900s. Combined sewers are located mostly in the older developed areas of the District.

## What Is a Combined Sewer Overflow?

During dry weather, sewage from homes and businesses is conveyed (step 1, shown at right) to the District's Wastewater Treatment Plant at Blue Plains, where the wastewater is treated (step 2) to remove pollutants before being discharged (step 3) to the Potomac River. During certain rainfall conditions, the capacity of a combined sewer may be exceeded. When this occurs, the excess flow, a mixture of sewage and storm water runoff, is discharged to the Anacostia River, Potomac River, Rock Creek and tributary waters. If these flows were not released to local waterways, there would be widespread street flooding and basement back-ups. There are a total of 53 CSO sewer outfalls in the system. *(cont.)*



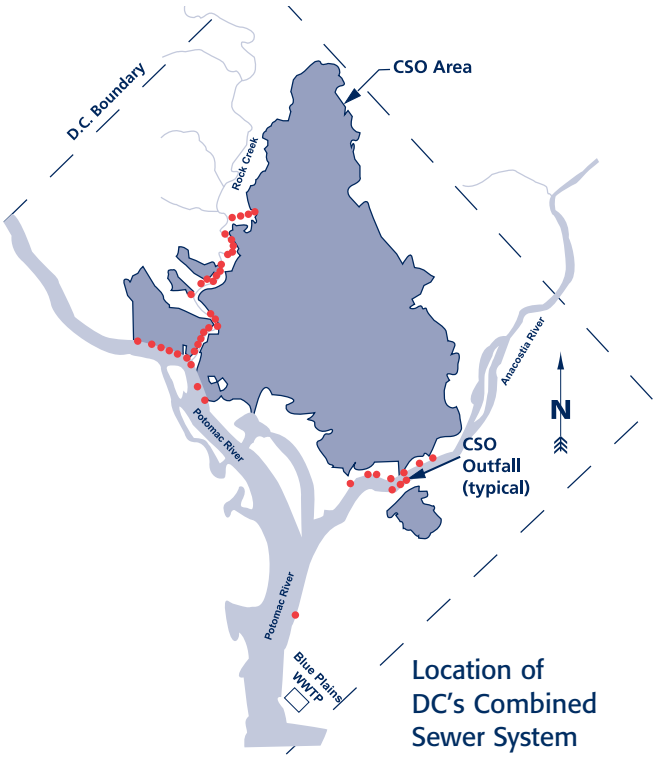
# More Background on Your Combined Sewer System

## How Can CSOs Affect the Environment and Human Health?

CSOs can adversely affect the quality of our receiving waters by contributing to low dissolved oxygen and high bacteria levels. Discharges may also be dangerous to the public due to the high flow of water that may exit these sewer outfalls and the potentially harmful substances that may also be present. The public is advised to stay away from any sewer pipe discharge. For small rainfalls, the effects of CSOs on the receiving waters typically last less than 24 hours. For larger rainfalls, greater than one inch of rain, the effects of CSO on water quality can last up to three days.


## Where Are the CSO Locations?

There are 10 CSO locations on the Potomac River, 15 CSO locations on the Anacostia River, and 28 CSO locations along Rock Creek and its tributaries. The location of each outfall is shown on the map below. WASA has also posted a sign at each CSO outfall, similar to what is shown above. These overflows are permitted by WASA's discharge permit from EPA.




Location of DC's Combined Sewer System

## You Can Help!

Don't litter or use catch basins as trash receptacles or to dispose of leaves. Use proper disposal methods for hazardous substances such as gasoline, oil and antifreeze. These simple measures can reduce the impact of CSOs and make our rivers cleaner.

## What is WASA Doing about CSOs?

WASA has proposed an aggressive plan for reducing CSOs and improving water quality called a Long Term Control Plan (LTCP). The plan calls for constructing storage tunnels to capture CSOs during rain events, providing a 98% reduction in CSO to the Anacostia River and a 96% reduction in CSO overall. The plan is currently being reviewed by EPA. Details on the plan can be found on WASA's web site.

## When Do CSOs Occur?

CSOs should only occur during wet weather. Whether an overflow occurs, and its magnitude, depend on many factors, including rainfall volume, intensity, and if it has rained in previous days. CSOs typically overflow more in wet years than dry years. In a year with average rainfall, WASA estimates that CSOs in the Anacostia and Potomac Rivers overflow about 70 to 80 times per year with associated overflow volumes of about 2,142 and 1,063 million gallons, respectively. In Rock Creek, CSOs are predicted to overflow about 30 times per average year with an overflow volume of about 40 million gallons per average year.

## What Is a Dry Weather Overflow?

The sanitary flow collected in the combined sewer during dry weather is routed to the Blue Plains Wastewater Treatment Plant through facilities called regulators. During wet weather, the regulators are designed to let the excess flow (or CSO) discharge directly to a river or creek. During dry weather conditions, sanitary wastewater in the combined sewer system should not be discharged to receiving waters.

However, regulators can become blocked by debris, trash or other materials. When this occurs, the regulator's functions can be impaired and can result in overflows. These are called Dry Weather Overflows (DWOs). WASA has an intensive maintenance and inspection program to prevent DWOs from occurring. When a DWO does occur, WASA corrects it and takes the necessary measures to prevent its reoccurrence. If you see a CSO outfall discharging during dry weather, call DCWASA at 202-612-3400.

## More Information?

You can learn more about CSOs by visiting WASA's web site, www.dcwasa.com, or by contacting Mohsin Siddique at 202-727-2634.

For general WASA information, call 202-787-2000.

DCWASA

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