

## Work Underway to Select Underground Tunnel Routes

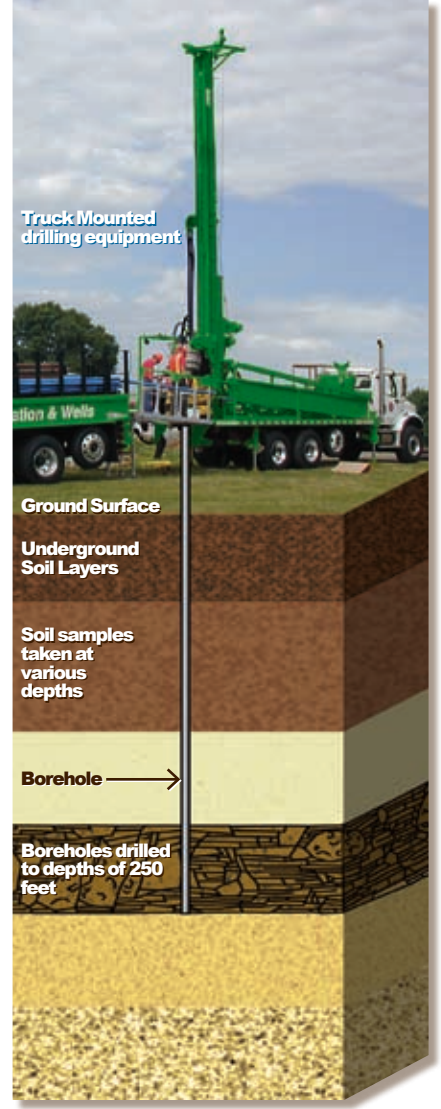
WASA engineers are sampling layers of soil around the city to determine the routes for the underground tunnels to control combined sewer overflows to the Anacostia River. All told, approximately 8 miles of tunnels, large enough for a Metro subway, will be built to hold wastewater overflows from the city's combined sewer system during rainstorms.

Because the tunnels are deep (up to 250 feet) underground, it's important to get information about the soil layers between the ground surface and the underground location of the tunnels. To determine exactly where to locate the tunnels, engineers are using several technologies to learn about the soil conditions.

Two types of soil borings are being made. One uses conventional drilling—like that for a well—to get samples at selected depths. The other is sonic drilling which uses sonic energy waves to penetrate the ground to get a profile of all the underground layers, top to bottom.

Approximately 180 borings will be drilled in public space over the next 18 months. WASA is scheduling the work to minimize inconvenience to traffic and pedestrians. Online and mail notices will be provided several weeks in advance and door hangers will be placed the week before and two days in advance of the scheduled work.

The borings are scheduled through December 2006 and are designed to help determine the route for the two-mile Anacostia River tunnel from Poplar Point north to the new Eastside wastewater pumping station near RFK stadium. The borings will be done in public spaces in the following locations:



Borings, up to eight inches in diameter, will be drilled through subsurface layers of soil and possibly through bedrock to depths up to 250 feet below ground surface.

### First Series

- Two sonic borings in Anacostia Park between the Metro Green line and the 11th Street Bridge
- One conventional boring on the northeast corner of West Virginia Avenue, NE and Mt. Olivet Road

### Second Series

- One sonic boring in the park area east of Barney Circle along the stadium access road
- One sonic boring in the park area south of the RFK Stadium parking lot
- One conventional boring at the southeast

## WASA's \$2 Billion Investment in the City's Environmental and Economic Health

One hundred and forty million dollars (\$140 million) is how much WASA and its customers will have spent by 2008 to reduce 40 percent of the combined sewer overflows (CSOs) that occur annually in the Anacostia and Potomac rivers and Rock Creek. A 30 percent reduction has already been achieved. But, it will cost an additional \$2 billion to eliminate 56 percent more of the overflows within the next 20 years. With price tags like this, the economic, health and environmental benefits of these federally mandated projects should be clearly defined for the community paying the cost.

Approximately one-third of the city is served by combined sewers that carry both sanitary and storm water runoff. During heavy rains, these pipes can fill up and start to overflow into the District's rivers. These overflows act as a safety valve to prevent back-ups of untreated wastewater into homes and business, flooding in city streets and bursting underground pipes.

### Environmental Health

The disadvantage of CSOs is that the overflow contains a combination of raw sewage and stormwater that can carry a variety of human disease-causing bacteria, preventing swim-

see **\$2 Billion Investment** inside



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SERVING THE PUBLIC • PROTECTING THE ENVIRONMENT



Controlling CSOs will reduce pollution levels in our local waterways.

## Public Invited to Discuss CSO Control Activities and Get Involved

Citizens are encouraged to participate in WASA's combined sewer overflow control (CSO) program—the plans, the cost, and the benefits to their community.

**Public Meeting Schedule**

Wednesday, November 1, 2006, 7:00-8:00 pm  
Northeast Neighborhood Library  
330 7th St., NE (at Maryland Ave., NE)

Thursday, November 2, 2006, 7:00-8:00 pm  
Petworth Neighborhood Library  
4200 Kansas Ave., NW (at Georgia Ave., NW)

Thursday, November 9, 2006, 7:00-8:00 pm  
Southeast Neighborhood Library  
403 7th St., SE (at D St., SE)

For more information, call the Office of Public Affairs at (202) 787-2200.

## 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.

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corner of 4th Street and Rhode Island Avenue, NE

### Third Series

- One sonic boring on the northeast corner of M and 2nd streets, SE
- One sonic boring on the southeast corner of 17th and H streets, NE
- One conventional boring east of R Street, NE between 3rd Street, NE and the Metro tracks

### Fourth Series

- One sonic boring at the southeast corner of E and 12th streets, SE
- One conventional boring on the northeast corner of R and 7th streets, NW

Each sonic boring is expected to be completed in about three to four days. Each conventional boring requires about eight to nine days to complete.

### \$2 Billion Investment *from page 1*

ming, and other pollutants that deplete the rivers of oxygen, making it difficult for fish and other organisms to survive.

Water quality, however, is affected by many sources other than CSOs, including stormwater runoff from commercial, industrial and agricultural sites; other upstream sources outside of the District; and in the Anacostia River, sediments on the river bottom. WASA is implementing a Long-Term Control Plan (LTCP) that will help improve the water quality in the rivers over the next 20 years. However, pollution control from other sources in the District and Maryland is necessary before the most impaired river, the Anacostia, becomes swimmable and fishable in the future.

### Economic Health

Much of the District's future development is centered along the Anacostia River, including a new Washington Nationals baseball stadium, office buildings, shopping centers, an educational nature center, and riverfront trails. The investment in the LTCP will reduce 98 percent of the polluting sewer overflows in the Anacostia, enhancing the prospect for a revitalized and

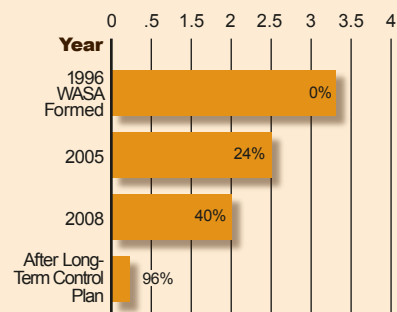
## Water Pollution Control Progress To Date

### Early Action Projects Total \$140 Million by 2008

Since its creation in 1996, WASA has reduced CSO volume by 30 percent with a variety of projects that maximize the use and effectiveness of the existing sewer system. These activities pro-

#### Combined Sewer Overflow Reductions

Average yearly CSO volume and percent reduction (billion gallons)



vide substantial CSO control, particularly for the smaller storms that occur quite frequently.

- WASA has replaced all 12 inflatable dams that provide in-system storage in the combined sewers.
- Tide gates that keep the river water from entering the system have been replaced.
- The rehabilitation and reconstruction of pumping stations is underway to increase their capacity.
- Sewers in the Anacostia and Rock Creek areas are being separated to eliminate several CSO outfalls.

By 2008, these projects will have the effect of reducing CSO volume by 40 percent (over 1996 levels).

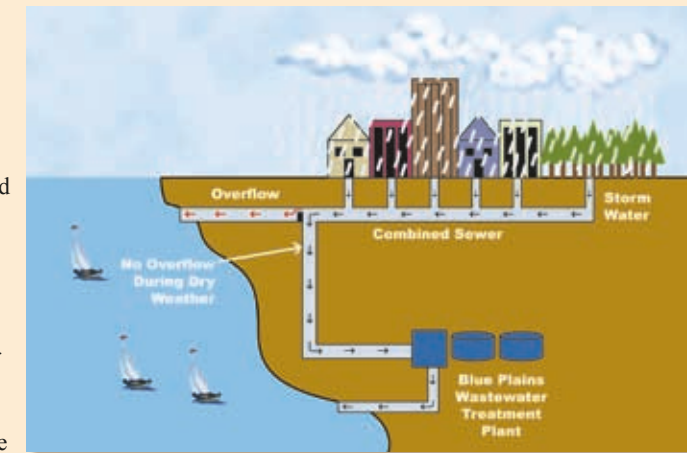
world-class riverfront. Moreover, thousands of jobs in environmental remediation, building trades, and engineering services will flow from WASA's implementation of CSO controls.

Overall, the \$2 billion program expenditure is an investment in the environment, public health, and jobs in our nation's capital.

## FAQs About The Combined Sewer System

### 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.



How the District of Columbia's combined sewer system works

### 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 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.



### 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 over-

flow 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.



WASA Skimmer Boats collect nearly 500 tons of trash and floatables—like that above—each year, primarily from the Anacostia river. The trash and debris are washed off District streets into storm drains and catch basins and from there into the rivers during rainstorms.

### Where Can I Get More Information?

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