

# CLEAN WATER FOR LIFE

## Wet Weather Management Plan



Michael B. Coleman,  
Mayor

*For many decades, untreated wastewater from the Columbus sewer system has overflowed into our waterways during periods of heavy rain. When these sewers were built many years ago, overflows were considered to be a best engineering practice, which was long before current environmental regulations. Today, there is a better way. The Department of Public Utilities invites you to learn more about how we are building a better, healthier, and greener Columbus.*

# City of Columbus, Ohio



## Why do we need a need a Wet Weather Management Plan?



Much of the Columbus sewer system is old, with some of it built over 100 years ago. This system, while normally adequate in dry weather, lacks the proper capacity for many rain events in central Ohio. As a result, untreated wastewater often discharges into area rivers. These are known as Combined Sewer Overflows (CSOs) and Sanitary Sewer Overflows (SSOs). Combined sewers carry both rainwater and wastewater in a single pipe and were designed to overflow when flow exceeds capacity. Sanitary sewers, while not designed to carry stormwater, often take in excess water that can seep in through cracks and from outdated downspout connections. Sometimes the lack of wet weather capacity also leads to sewer backups in residents' basements.

To address the problem, Columbus entered into consent agreements with the state of Ohio in 2002 and 2004. A Wet Weather Management Plan was developed and delivered to the Ohio Environmental Protection Agency in 2005.

Under this plan, which is part of the Project Clean Rivers initiative, various sewer improvements are being designed and constructed. Overflows at the most active CSO near Whittier Street will be significantly reduced by 2010. Three deep-tunnel sewers are planned, one along Alum Creek and another along the Olentangy River. The scale of the projects is massive -- and expensive. An affordability analysis was conducted to determine the community's ability to pay for the improvements. To spread out the cost and construction, a 40-year schedule was proposed.

## How will this plan affect sewer rates?

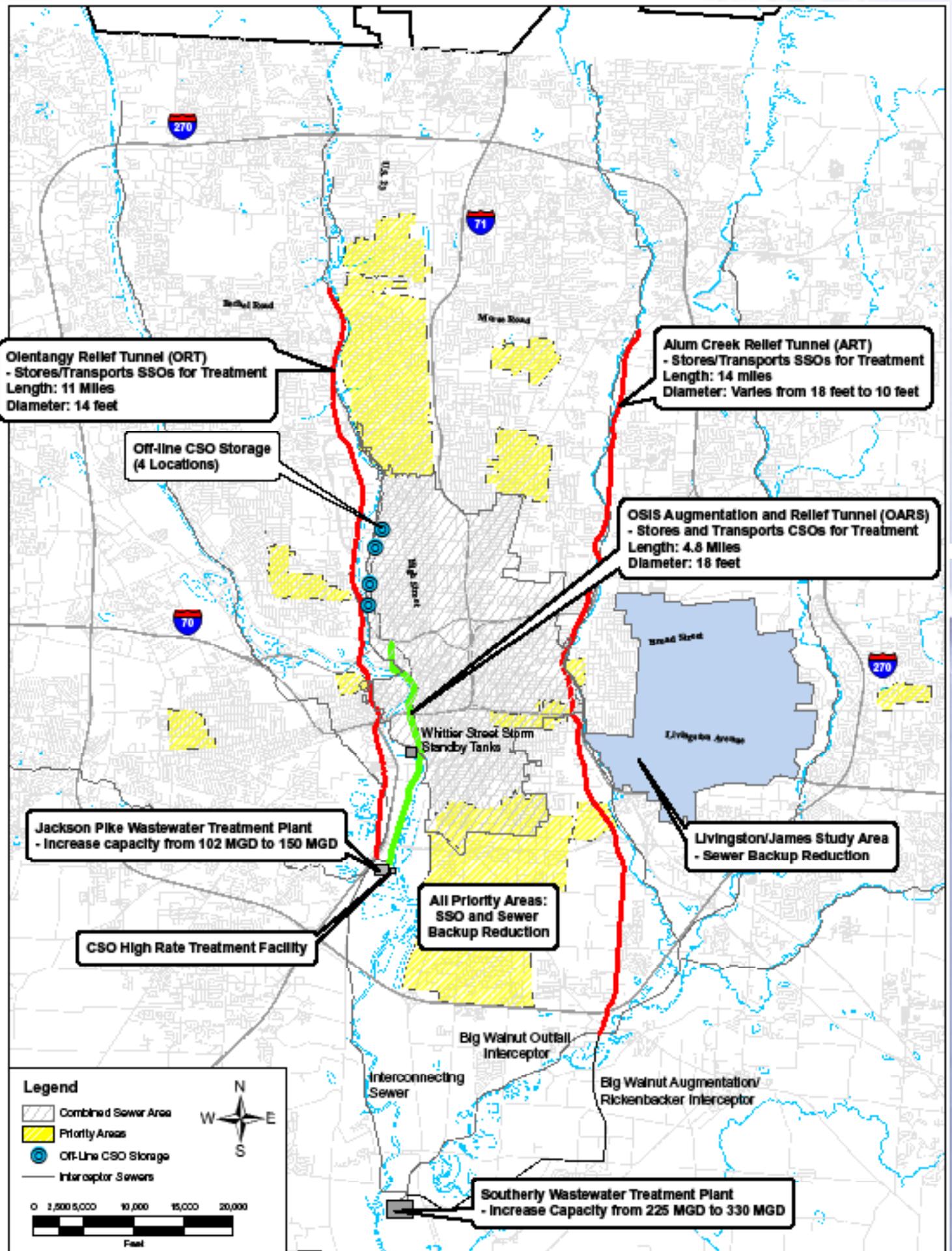
Unless federal assistance becomes available, as was the case in the past to comply with state and federal regulations, annual sewer rate increases may be necessary for the foreseeable future. The need for increases will be reviewed annually and will vary based on the debt incurred at that time.

The affordability analysis found that sewer rates could reach, at some point over the 40-year span, as much as 2.6 times the 2005 average quarterly rate of \$72. It's important to keep in mind that Columbus sewer rates were lower than many communities as we developed this plan. Mechanisms are built into the plan to cause the schedule to be reviewed if rates exceed predefined levels that could be unacceptably detrimental to our community. To help our low-income residents, a discount program for sewer and water customers was implemented in 2006 for qualifying residents. In addition, income-eligible seniors can apply for a reduction in water service charges. One simple way to control your sewer costs is to conserve your water usage since the charges are based on consumption. For more information, call 311, 645-3111 or visit [www.utilities.columbus.gov](http://www.utilities.columbus.gov).

## What Is the Wet Weather Management Plan (WWMP)?

### Planned improvements to the Columbus sewer system include:

- An estimated \$2.5 billion dollar investment in capital improvements to address wet weather sewer capacity and additional treatment needs. These projects will be in addition to sewer improvements previously planned, such as the ongoing rehabilitation of older sewers in Columbus neighborhoods. Total investment over the 40-year period was estimated at \$5.4 billion in 2005 dollars.
- Addressing sanitary sewer overflows by constructing two 14-foot-diameter deep-sewer tunnels totaling 25 miles. The Olentangy Relief Tunnel (ORT) will run along the Olentangy River from approximately Frank to Bethel Roads. The second tunnel, the Alum Creek Relief Tunnel (ART), will be constructed on the east side near Alum Creek, from approximately I-270 to Morse Road (see map at right).
- Addressing combined sewer overflows with a new sewer to be built from the city's Arena District to the Jackson Pike Wastewater Treatment Plant. A new high-rate treatment facility near the Jackson Pike plant will treat those flows.
- Maximizing wastewater treatment plant capacity. To treat additional flows, treatment facilities at the Jackson Pike and Southerly plants will need to expand. Improvements will safely increase treatment capacity at both plants by nearly 50 percent by 2010, expanding from 330 to 480 million gallons per day (MGD).
- Twelve "Priority Areas" have been identified to receive additional attention to solve localized sewer issues (see next page). These neighborhoods have overflows and backups which will not be entirely solved by the new tunnels.



## Plan Benefits

- Improved water quality through a reduction of pollution: an estimated 1.4 billion gallons of annual overflow reduction after the plan is completed.
- Significant reductions of overflows by 2010.
- Over 85 percent of the average annual reduction will occur in the first 20 years.
- The combined sewer overflows will be substantially reduced by 2010 and by more than 99 percent by 2025. The older combined sewer system serving the downtown and surrounding areas is currently responsible for more than 90 percent of the bacteria in the Scioto River in an average year.
- Improved customer service through a reduction of basement backups in Columbus homes and businesses.
- Increased wastewater treatment plant capacity.
- The local economy is expected to benefit from the work.

## Priority Areas

- Castle-Williams
- Plum Ridge
- Winslow
- Sullivant Avenue
- Preston Road
- Northwest Alum Creek (Weldon-Lakeview)
- Miller-Kelton
- Barthman-Parsons
- W. Fifth Avenue
- Clintonville-Whetstone Area
- Cleveland-Ferris

The Livingston/James area was studied and improvements also will be made in that area.

### Estimated Capital Costs (2005 dollars)

Tunnels & Pump Station	\$1.48 Billion
CSO Solutions	\$.491 Billion
Priority Areas & Other Improvements	\$.157 Billion
Treatment Plant Improvements	\$.319 Billion
<b>Total Wet Weather Program</b>	<b>\$2.45 Billion</b>
Other Projects	\$2.99 Billion
<b>Total Sewer Capital Budget (40 years)</b>	<b>\$5.44 Billion</b>

## Project Dry Basement

While the sewer improvement projects are progressing, residents do not have to wait for relief from basement backups. The Project Dry Basement program, launched by Mayor Coleman in 2004, provides for a backflow prevention device to be installed in qualifying single or two-family homes. You must report any basement backups to 311 or 645-3111 to determine if your home is eligible.

The Wet Weather Management Plan will clean up pollution in our waterways and reduce basement backups, making Columbus neighborhoods healthier places to live. The improvements will help fulfill Mayor Coleman's vision of making Columbus the best place to live, work and raise a family.



Department of Public Utilities  
 Tatyana Arsh, P.E., Director  
 910 Dublin Road  
 Columbus, Ohio 43215  
 614-645-3111

