



PROJECT GROUNDWORK
your pipeline to clean water

West Fork Watershed Fact Sheet

The Metropolitan Sewer District of Greater Cincinnati (MSD) is evaluating ways to reduce or eliminate sewer overflows from combined sewers in the West Fork watershed. This watershed, part of the larger Lower Mill Creek watershed, is located northwest of downtown Cincinnati to the north and south of Interstate 74.

What's the Issue?

When it rains, raw sewage – mixed with stormwater – overflows from our sewers into local rivers and streams and can also back up into basements.

The vast majority of overflows occur from combined sewers, which carry both sewage and stormwater in the same pipe. Combined sewers are typically located in the older areas of Cincinnati and Hamilton County.

When large amounts of stormwater enter combined sewers, these pipes – many built more than 100 years ago – are often filled beyond their capacity. To relieve pressure on the sewer line and prevent widespread flooding and sewage backups, combined sewers were designed to overflow directly into local waterways through outfalls known as combined sewer overflows or CSOs.

Hamilton County is among the top five locations in the nation for urban CSOs. Overflows occur as many as 105 times a year at some locations.



West Fork Creek photos (upstream of stormwater intakes and downstream after a rain event)

What's the Solution?

To resolve this public health and environmental issue, MSD has embarked on the largest public works project in the history of our community to rebuild and improve our sewer system.

Called **Project Groundwork**, this multi-year and multi-billion dollar initiative includes hundreds of sewer improvements and stormwater control projects.

Federal and state regulators, including the U.S. EPA, Ohio EPA and the Ohio River Valley Water Sanitation Commission (ORSANCO), have mandated that MSD capture, treat, or remove at least 85% of the 14 billion gallons of annual overflows from combined sewers and eliminate all overflows – about 100 million gallons annually – from sanitary only sewers.

A Three-Pronged Approach

MSD seeks to reduce or eliminate sewage overflows by using three different strategies:

Storage and conveyance: Constructing larger sewers, storage tanks and underground tunnels to convey more wastewater to treatment plants.

Treatment: Upgrading treatment plants to treat more flows or using enhanced high rate treatment (EHRT) facilities to capture, store and treat CSOs at the outfall prior to discharge into a creek or river.

Source control: Preventing or delaying stormwater and natural drainage from reaching combined sewers through a blend of gray and green technologies (e.g., sewer separation, reforestation).





West Fork Watershed in Lower Mill Creek

The West Fork watershed includes 6,117 acres within the City of Cincinnati, City of Cheviot and Green Township.

Seven Cincinnati neighborhoods are part of the watershed, including College Hill, East Westwood, Fay Apartments, Mt. Airy, Northside, South Cummingsville and Westwood.

Fifteen CSO locations within the watershed contribute about 753 million gallons of annual sewer overflow volume.

As part of Project Groundwork, a number of sewer improvement projects are planned for this watershed to control CSOs.

For more information on specific projects, please visit www.projectgroundwork.org/projects/projectlist.htm and click on your municipality or township. Within the City of Cincinnati, the projects are further divided by neighborhood.

Alternative Solutions in West Fork

MSD is currently evaluating the use of “alternative” source controls in the West Fork watershed to reduce or eliminate a number of CSOs into West Fork Creek and smaller drainageways that lead to the creek. West Fork discharges into Mill Creek.

Source control opportunities under consideration could include sewer separations (to remove stormwater from the combined sewer by constructing a dedicated stormwater sewer line), stormwater detention basins and other solutions.

Your Input

Any potential alternative solutions in the West Fork watershed are in the early evaluation stages and will require approval by the Hamilton County Commissioners and U.S. EPA.

No final decisions have been made, and we welcome your voice in the decision-making process.

Project Groundwork is your program. It’s an investment in your community for generations to come.

Focusing on Lower Mill Creek Watershed

The Lower Mill Creek watershed, which drains into the Mill Creek, contributes more than 7 billion gallons or >50% of the total overflows that occur annually from combined sewers in Hamilton County.

Under Project Groundwork, MSD must eliminate 2 billion gallons of CSOs from this watershed by 2018. The Lower Mill Creek watershed includes numerous smaller watersheds, including West Fork.

Two Different Solutions

To achieve this goal, MSD is evaluating two different solutions:

- The default solution – which uses a combination of “storage and conveyance” and “treatment” – is a deep storage tunnel (30 feet in diameter and 1.2 miles long). Excess flows are captured and stored during rain events and then discharged to an enhanced high rate treatment (EHRT) facility.
- Alternative solutions – which include “source control” projects to control stormwater in a number of subwatersheds within Lower Mill Creek.

MSD must submit its preferred solution to the U.S. EPA by December 2012.

Need More Information?

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