PROJECT GROUNDWORK
your pipeline to clean water

West Fork Project

The West Fork Project – part of the Lower Mill Creek Partial Remedy – will eliminate about 173 million gallons of combined sewer overflows (CSOs) into the West Fork Channel and Mill Creek each year and improve water quality.

Challenge in Lower Mill Creek

During rains, our combined sewer system can overflow into streams and rivers, making Cincinnati among the top five communities in the U.S. for combined sewer overflows (CSOs).

MSD is under a federal Consent Decree to reduce the overflows and has implemented a major public works initiative called "Project Groundwork" to achieve compliance and bring value to the community through this significant investment.

More than half of our 11 billion gallons in annual overflows occur in the Lower Mill Creek watershed, which covers 40,000 acres in the heart of Cincinnati.

As a result, MSD is implementing a near-term solution called the "Lower Mill Creek Partial Remedy (LMCPR)" that seeks to significantly reduce the overflows by 2018. Additional solutions will be implemented after 2018.

Lower Mill Creek Solution

MSD's Lower Mill Creek solution — which was officially approved by the U.S. EPA in May 2013 —will eliminate 1.78 billion gallons of CSOs annually into the Mill Creek.

The remedy seeks to reduce CSOs by primarily focusing on reducing the amount of stormwater entering combined sewers during heavy rains.

This approach integrates green infrastructure (e.g., stream restoration, wetlands, bioswales, raingardens and stormwater detention basins) with gray (e.g., new storm sewers) to provide cost-effective solutions with community benefits.

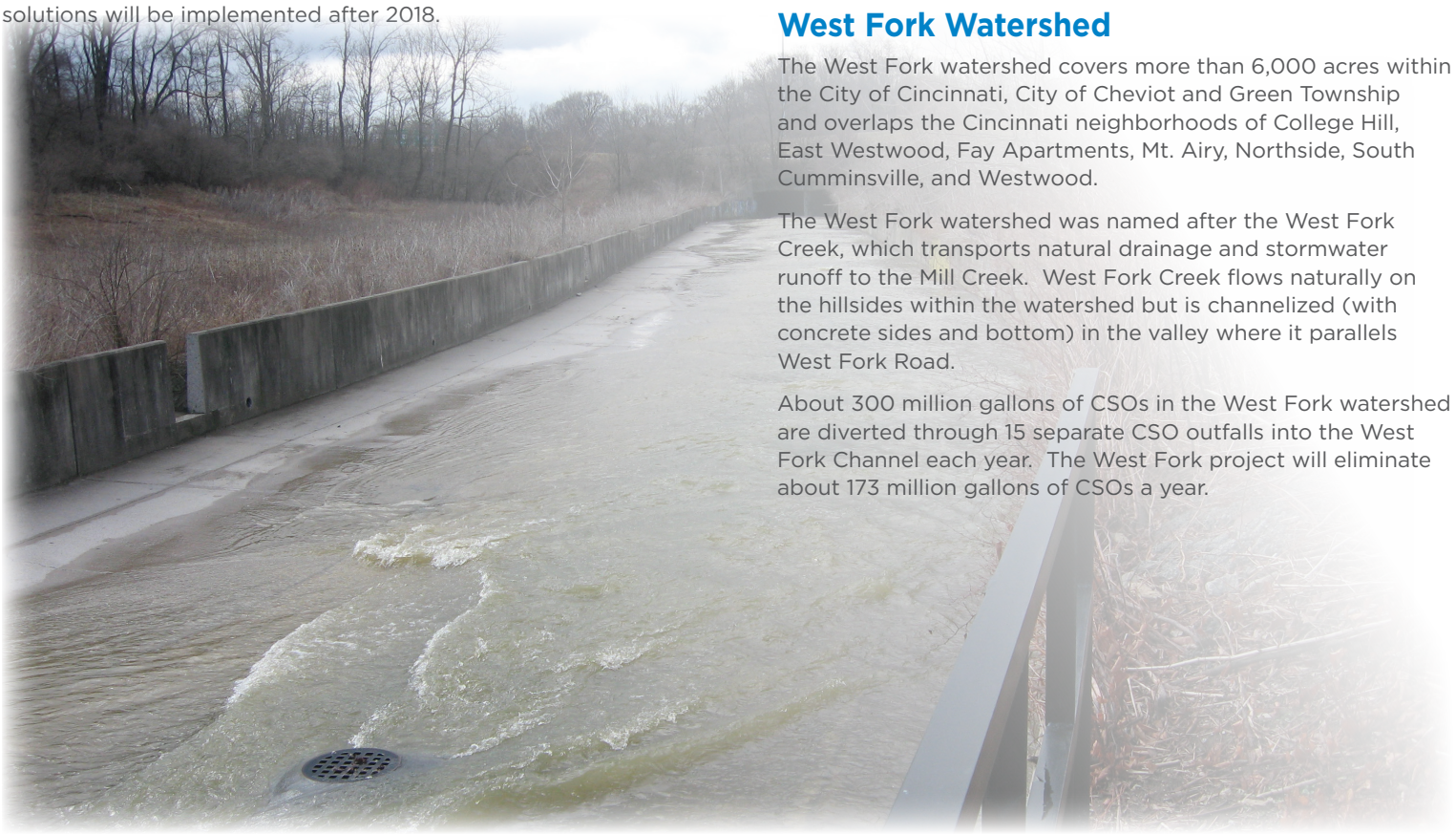
The remedy includes projects in the Lick Run, Kings Run, Bloody Run, and West Fork watersheds. Overall project costs are estimated at $244 million (in 2006 dollars).

West Fork Watershed

The West Fork watershed covers more than 6,000 acres within the City of Cincinnati, City of Cheviot and Green Township and overlaps the Cincinnati neighborhoods of College Hill, East Westwood, Fay Apartments, Mt. Airy, Northside, South Cumminsville, and Westwood.

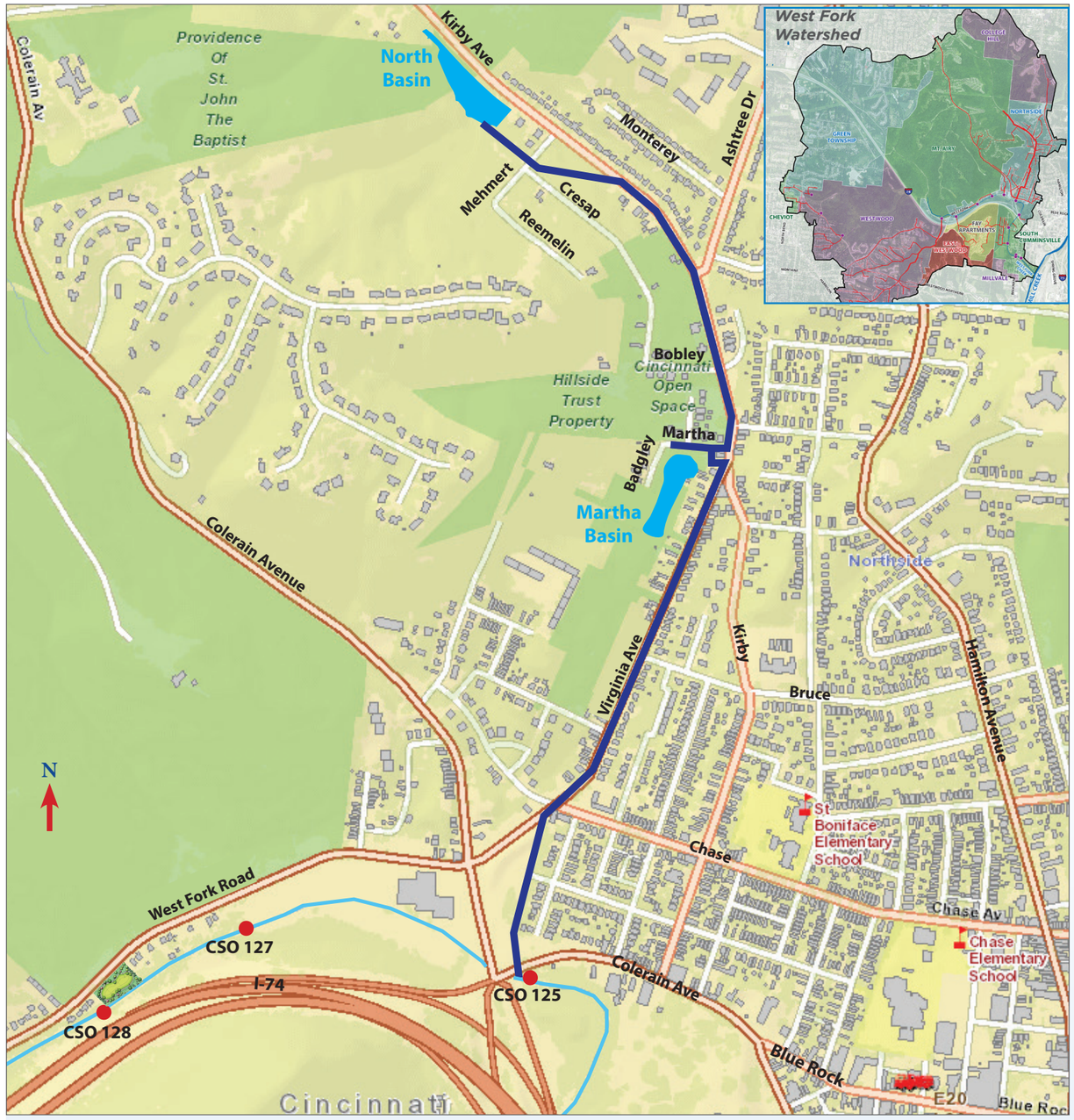
The West Fork watershed was named after the West Fork Creek, which transports natural drainage and stormwater runoff to the Mill Creek. West Fork Creek flows naturally on the hillsides within the watershed but is channelized (with concrete sides and bottom) in the valley where it parallels West Fork Road.

About 300 million gallons of CSOs in the West Fork watershed are diverted through 15 separate CSO outfalls into the West Fork Channel each year. The West Fork project will eliminate about 173 million gallons of CSOs a year.

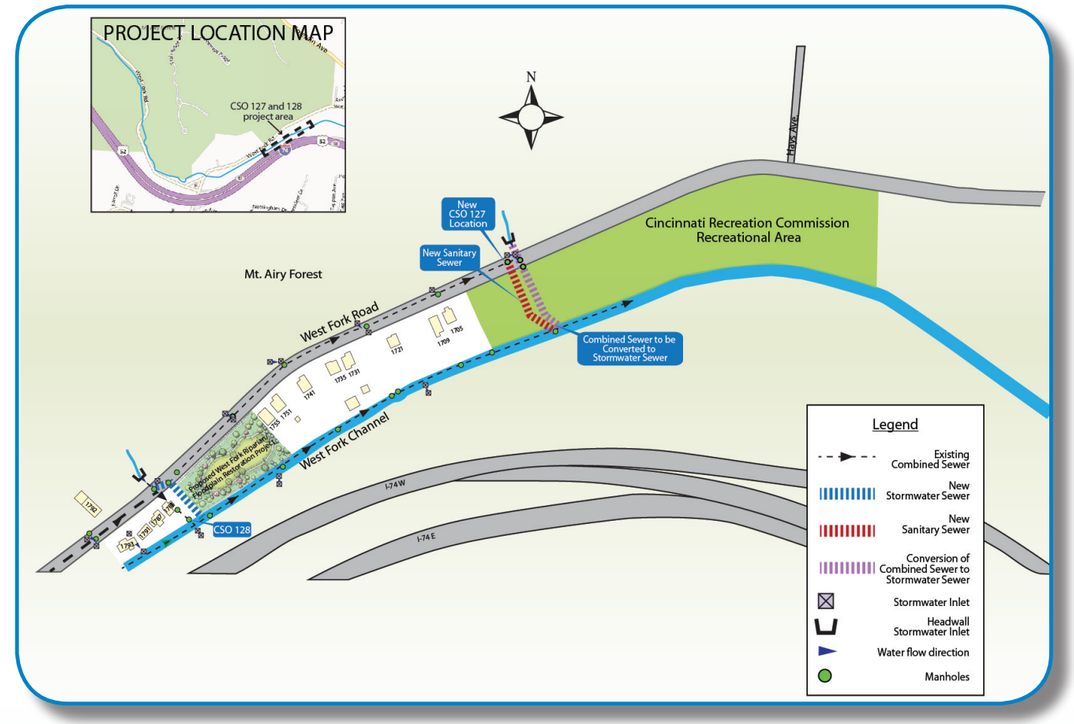


West Fork Channel

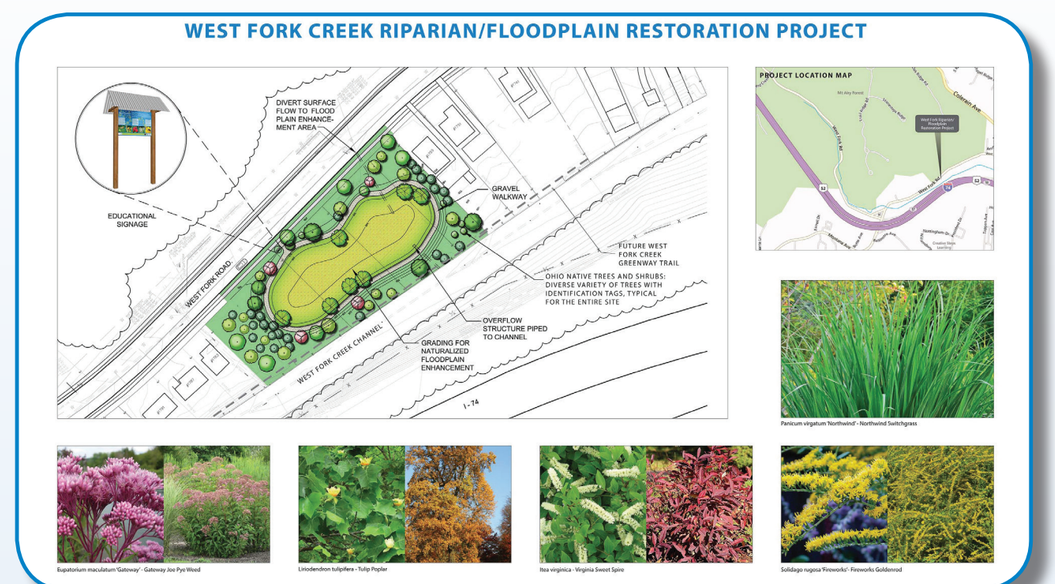
West Fork Project



CSO 125 Stream Separation Project (AKA Martha and North Basins), part of the Phase 1 solution



CSO 127 & 128 Stream Separation Project, part of the Phase 1 solution



West Fork Creek Riparian/Floodplain Restoration Project, a Clean Ohio grant project

West Fork Project

West Fork Solution

The Phase 1 solution for the West Fork watershed includes two projects that focus on reducing overflows at three CSO locations along the West Fork channel. The CSO 125 Stream Separation project (also known as the Martha and North Basin project) and the CSOs 127 and 128 Stream Separation project will collectively eliminate about 173 million gallons of overflow from the Mill Creek each year.

In addition, MSD and Groundwork Cincinnati/Mill Creek constructed a bioinfiltration basin - funded through a Clean Ohio Conservation Fund grant - that prevents about 500,000 gallons of stormwater from entering the combined sewer system annually.

CSO 125 Stream Separation Project
The CSO 125 Stream Separation project will collect stormwater in two detention basins — the North and Martha basins — and direct it through underground outlet pipes into the West Fork Channel. This project will reduce overflows at CSO 125, the largest volume overflow point in the West Fork watershed.

This project was split into two construction phases. The first phase began in April 2018 and is ongoing, with an expected completion in fall 2018. The second phase began in early September 2018 and is expected to be completed in spring 2019.

The North Basin — located off Kirby Avenue just northwest of Mehmert Avenue — will hold about 5.8 million gallons of stormwater. The basin will be about 25 feet deep at its deepest point.

A concrete inlet structure on the north side of the basin will let in stormwater from a local eight-foot-diameter storm sewer (that will be disconnected from the combined sewer). Stormwater runoff will also enter by flowing down its sides.

A concrete outlet structure in the lowest point of the basin will release water into an underground stormwater outlet pipe that leads to the West Fork Channel.

The Martha Basin — south of Martha Street between Virginia Avenue and Badgeley Street — will hold about 0.75 million gallons of stormwater. The basin will be about seven feet deep at its deepest point. Stormwater runoff will enter the basin by flowing down its sides.

A concrete outlet structure in the lowest point of the basin (on the south side) will release water into an underground stormwater outlet pipe that connects to the pipe carrying stormwater from the North Basin to the West Fork Channel.

CSOs 127 and 128 Stream Separation Project
Completed in 2015, the CSOs 127 and 128 Stream Separation project helps reduce overflows caused by stormwater runoff from Mt. Airy Forest. The project collects stormwater and directs it through two new stormwater sewers to the West Fork Channel, preventing stream flows from entering the combined sewer.

Clean Ohio Grant Project
A Clean Ohio Conservation Fund grant was awarded to MSD and Groundwork Cincinnati-Mill Creek to design and construct a stormwater bioinfiltration basin on four vacant parcels of land in the vicinity of 1769 West Fork Road.

Construction of this project began in summer 2017 and was completed in summer 2018.

The basin prevents about 500,000 gallons of stormwater from entering the combined sewer system each year. It includes educational signage and a walking path.

Landscaping of the basin was coordinated with the Cincinnati Park Board and the Northside community.

Example of a bioinfiltration basin

For more information:

Visit www.projectgroundwork.org/westfork or

Contact MSD Engineering Customer Service at (513) 557-3594 or MSD.Communications@cincinnati-oh.gov