



PROJECT GROUNDWORK
your pipeline to clean water

Kings Run Project

The Kings Run Project — part of the Metropolitan Sewer District of Greater Cincinnati’s (MSD) solution for the Mill Creek — will reduce combined sewer overflows (CSOs) into the Kings Run stream and the Mill Creek, restore Kings Run as a tributary of the Mill Creek, and improve water quality in both streams.

Challenge in Lower Mill Creek

During rains, our combined sewer system can overflow into streams and rivers, impacting water quality and recreation.

MSD is under a federal Consent Decree to reduce the overflows and has implemented a major public works initiative called “Project Groundwork” that includes hundreds of sewer construction and stormwater management projects.

More than half of the sewer overflows end up in the Mill Creek or one of its tributaries.

As a result, MSD is implementing a special solution called the “Lower Mill Creek Partial Remedy (LMCPR)” that will significantly reduce overflows into the Mill Creek 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 about 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 combines green infrastructure (e.g., stream restoration, wetlands, bioswales, rain gardens 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 Kings Run, Lick Run, Bloody Run, and West Fork watersheds. Overall project costs are estimated at \$244 million (in 2006 dollars).

Kings Run Sub-Watershed

The Kings Run sub-watershed, about 1,000 acres in size, includes portions of the Cincinnati neighborhoods of College Hill, Spring Grove Village, and Winton Hills.

The watershed was named after the Kings Run stream, which used to be a tributary of the Mill Creek. The stream still exists and flows aboveground through the Wooden Shoe community but is piped back into a combined sewer at the intersection of Winton Ridge Lane and Kings Run Drive.

During heavy rains, the combined sewer, which collects sanitary sewage and stormwater from the watershed, overflows at CSO 217 into Kings Run and at CSO 483 into the Mill Creek.

The two CSOs are nested, so overflows at CSO 217 contribute to overflows at CSO 483. About 270 million gallons of CSOs overflow annually.

The Kings Run Project will reduce the overflows through the use of stormwater detention basins, sewer separation, and an underground CSO storage system. The project also includes stream stabilization of the Kings Run stream.



Kings Run stream

Kings Run Project

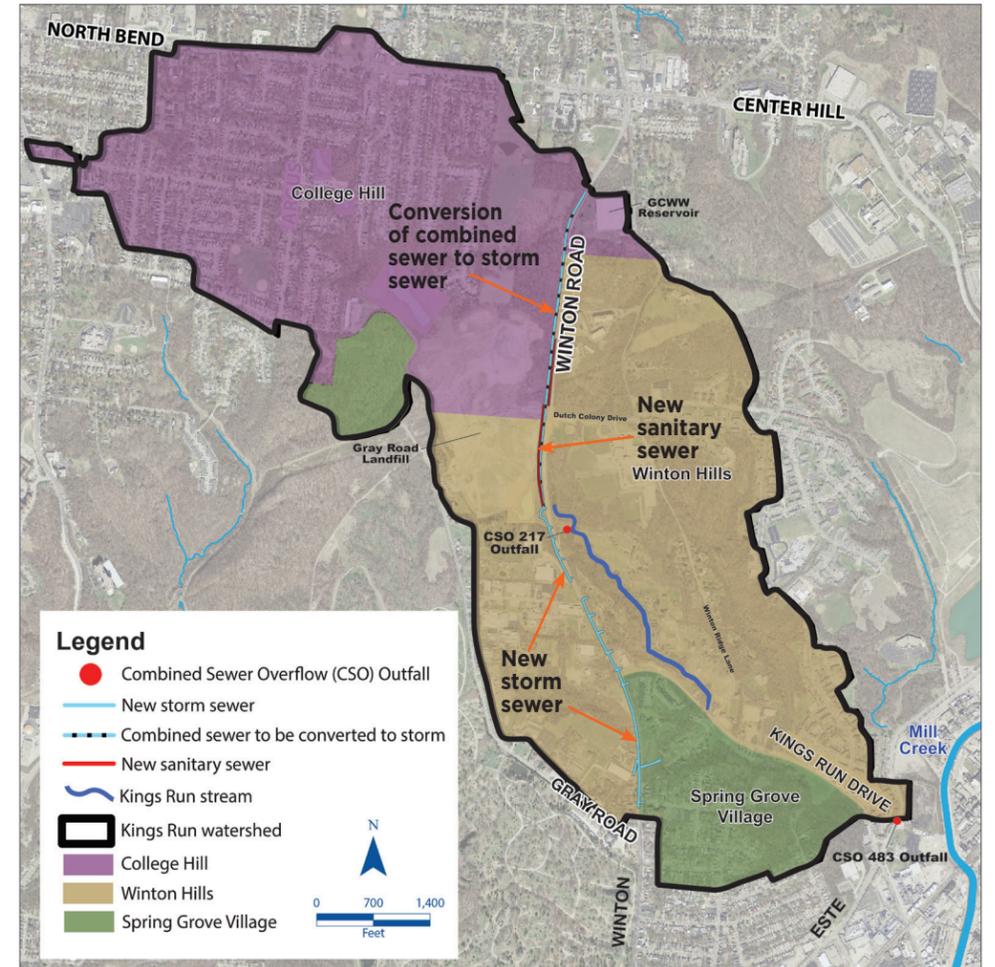
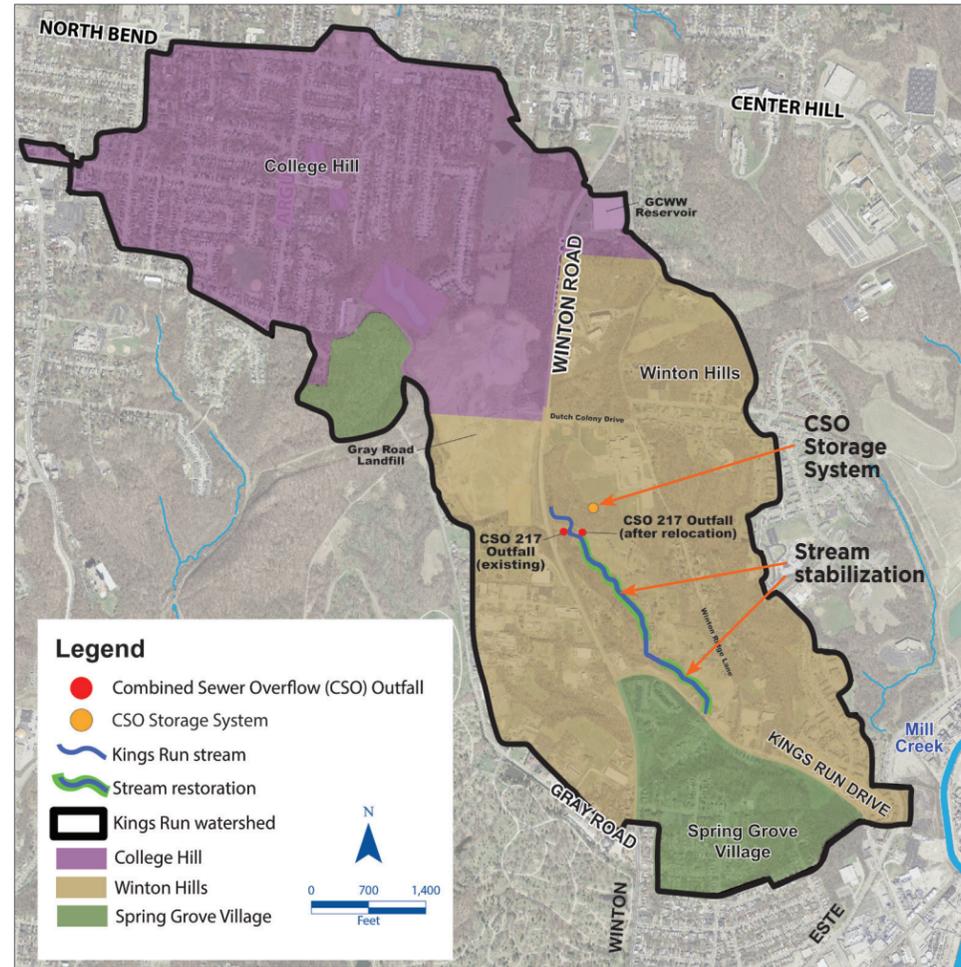
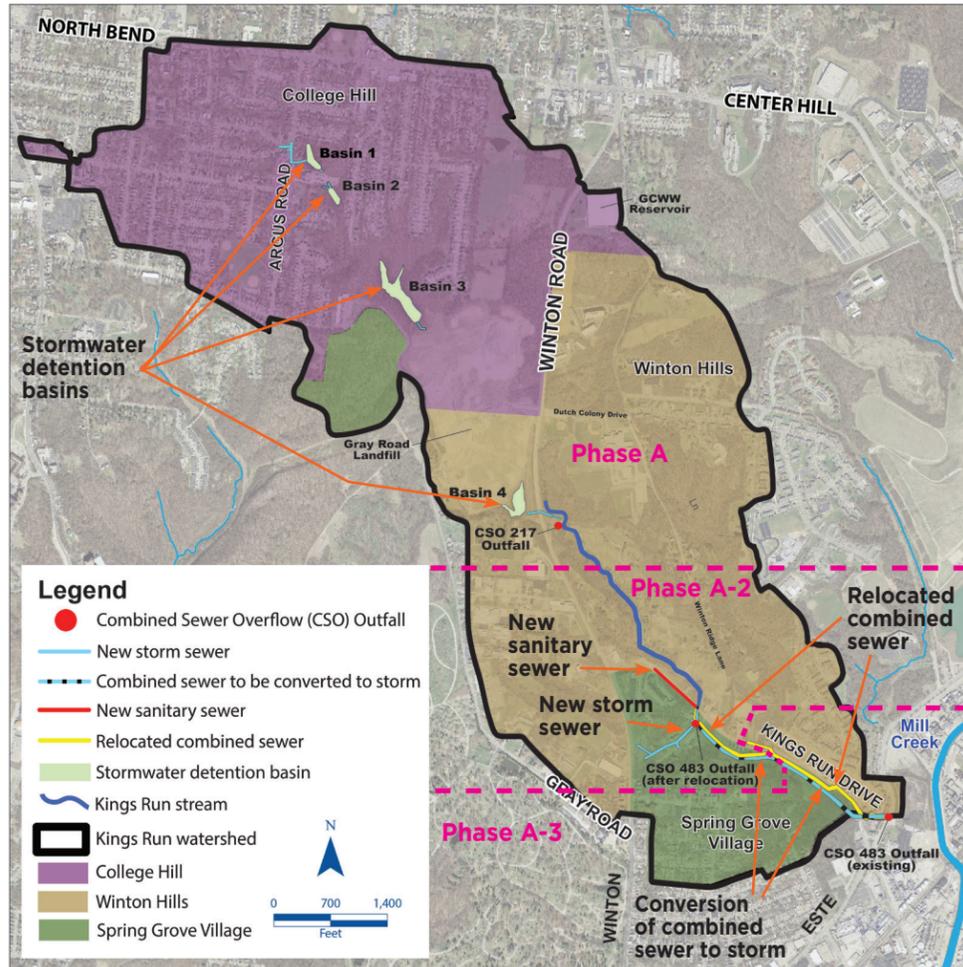
Phase A Construction: May 2018 - Spring 2019

Phase A-2 Construction: April 2018 - Spring 2019

Phase A-3 Construction: April 2018 - Spring 2019

Phase B Construction: June 2018 - Summer 2019

Phase C Construction: November 2017 - Spring 2019



Example of a stormwater detention basin



Example of open-cut sewer construction work



Example of an underground CSO storage system (pipe array)



Example of stream stabilization methods



Example of new storm sewer

Project Details

Overview of the Kings Run Project

The Kings Run Project includes five phases (A, A-2, A-3, B and C) that will be constructed between 2017 and 2019. The project will:

- Control 90% of the combined sewer flows into the Kings Run stream and the Mill Creek
- Restore Kings Run as a tributary of the Mill Creek
- Improve water quality in both streams.

Phase A

Phase A includes the construction of three stormwater detention basins in College Hill and the modification of a fourth basin in Winton Hills (see map). The basins will capture and hold stormwater during rain storms and slowly release the water back into the combined sewer system.

Construction began in May 2018 and is expected to be completed in spring 2019.

Phases A-2 and A-3

Phase A-2 and A-3 includes sewer separation in Winton Hills and Spring Grove Village. Phase A-2 includes the construction of about 900 feet of new storm sewer, about 700 feet of new sanitary sewer, and about 2,050 feet of relocated combined sewer in the vicinity of Winton Ridge Lane and Kings Run Drive (see map). The existing combined sewer in this area will be converted to a storm sewer. Phase A-3 includes the construction of about 1,950 feet of relocated combined sewer along Kings Run Drive (see map). The existing combined sewer in this area will be converted to a storm sewer.

Construction began in April 2018 and is expected to be completed in spring 2019.

Phase B

Phase B includes an underground CSO storage system (pipe array) and stream stabilization along the Kings Run stream in Winton Hills (see map). The storage system will capture and hold about 0.67 million gallons of combined sewer flows upstream of CSO 217.

Stream stabilization will include the addition of natural features such as rock and log riffles, rock armoring, and native trees and shrubs along the stream bed, banks, and floodplain to reduce erosion and slow flow.

Construction began in June 2018 and is expected to be completed in summer 2019.

Phase C

Phase C includes sewer separation in College Hills, Winton Hills and Spring Grove Village. About 4,700 feet of new storm sewer and about 2,200 feet of new sanitary sewer will be constructed along Winton Road in two locations (see map). The existing combined sewer in this area will be converted to a storm sewer.

The converted storm sewer and new storm sewer along the northern reach of Winton Road will discharge into the Kings Run stream. The new storm sewer along the southern reach of Winton Road will discharge into the Mill Creek.

Construction began in November 2017 and is expected to be completed in spring 2019.



Existing CSO 217 at King Run stream



Existing CSO 483 at the Mill Creek

For more information:

Visit the Kings Run website at: www.projectgroundwork.org/kingsrun

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