



PROJECT GROUNDWORK
your pipeline to clean water

Lick Run Project

The Lick Run Project – part of the Metropolitan Sewer District of Greater Cincinnati’s (MSD) solution for Lower Mill Creek – will eliminate nearly 400 million gallons of combined sewer overflows (CSOs) into the Mill Creek each year during a typical year of rain. The project will also improve water quality, create new jobs, and provide opportunities for neighborhood revitalization.

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 mandate (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 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 uses a combination of green infrastructure (e.g., stream restoration, wetlands, bioswales, rain gardens and stormwater detention basins) and gray infrastructure (e.g., new storm sewers) to provide cost-effective solutions with community benefits.

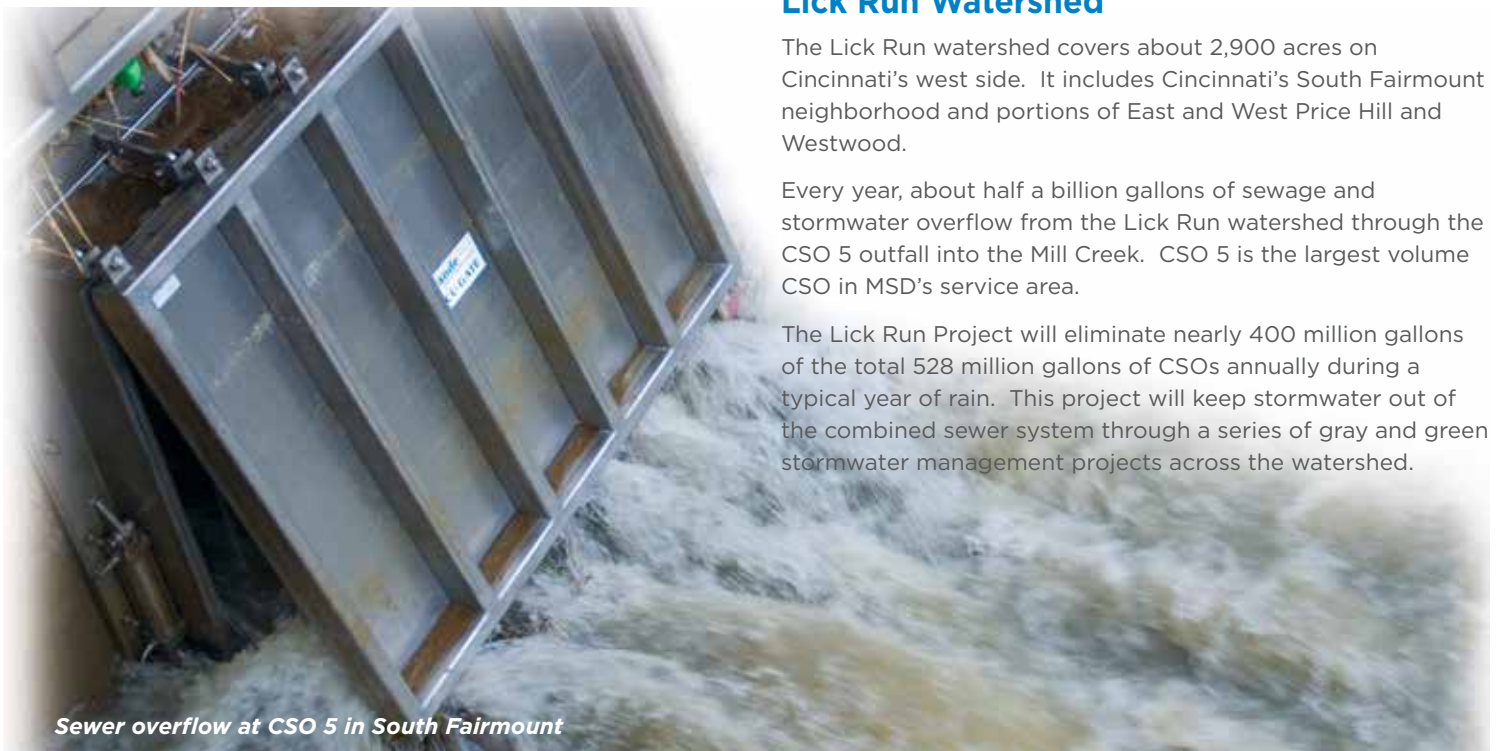
The remedy includes projects in the Lick Run, Kings Run, Bloody Run, and West Fork watersheds. Overall project costs are estimated at \$244 million (in 2006 dollars).

Lick Run Watershed

The Lick Run watershed covers about 2,900 acres on Cincinnati’s west side. It includes Cincinnati’s South Fairmount neighborhood and portions of East and West Price Hill and Westwood.

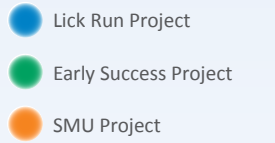
Every year, about half a billion gallons of sewage and stormwater overflow from the Lick Run watershed through the CSO 5 outfall into the Mill Creek. CSO 5 is the largest volume CSO in MSD’s service area.

The Lick Run Project will eliminate nearly 400 million gallons of the total 528 million gallons of CSOs annually during a typical year of rain. This project will keep stormwater out of the combined sewer system through a series of gray and green stormwater management projects across the watershed.



Sewer overflow at CSO 5 in South Fairmount

Lick Run Project



1 Harrison Avenue Phase A

Completed in Fall 2013. New storm sewers along Harrison Avenue. Coordinated with Cincinnati Department of Transportation & Engineering (CDOTE) road work. A curb-side bumpout planter at Tremont Street was installed in Spring 2014.

2 Rapid Run Park

Completed in Fall 2014. First green project completed in Lick Run. Bioswale at Rapid Run Park and new storm sewers. MSD partnered with Cincinnati Park Board on this project.



3 Harrison Avenue Phase B

Completed in Spring 2015. New storm sewers along Harrison Avenue, Moellering Avenue and Beekman Street near the Western Hills Viaduct.

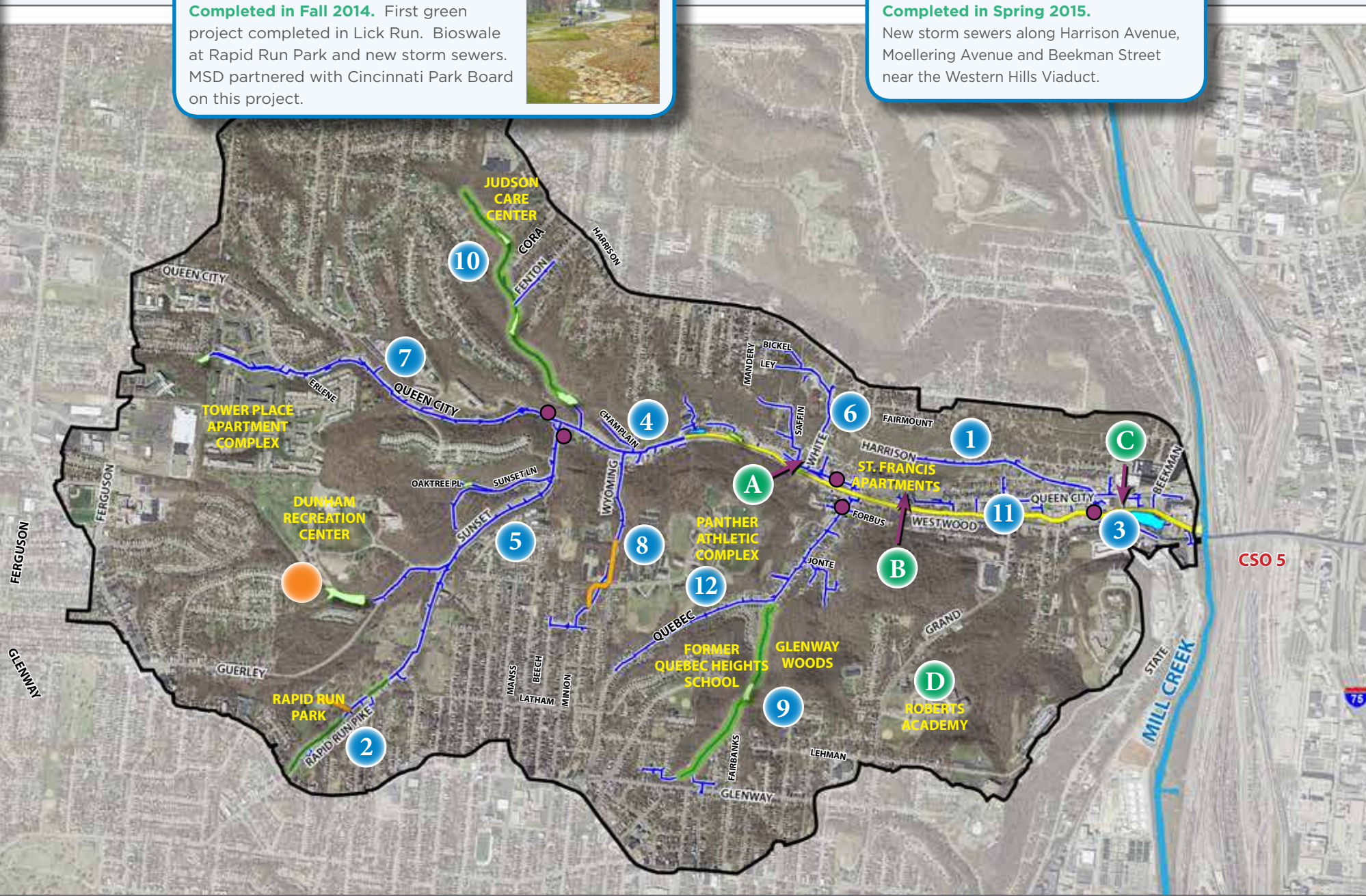
4 Queen City Avenue Phase 1

Completed in Spring 2015. New storm sewers along Queen City Avenue from the Bypass to Sunset Avenue and along Tillie/Champlain.

Early Success Projects

- A San Antonio Church**
Permeable pavers and four small bioinfiltration basins (rain gardens) were installed in 2011.
- B St. Francis Court Apartments**
Two unused parking lots were converted to bioinfiltration basins (rain gardens) in 2010.
- C Immanuel United Church**
A bioinfiltration basin (rain garden) was installed in 2010.
- D Roberts Academy**
Retrofit of an existing stormwater detention basin and five new bioinfiltration basins installed in 2014.

Guerley Road Detention Dam
Completed in Summer 2014. Large stormwater detention dam off Guerley Road. This project will help reduce street flooding and CSOs.



5 Sunset Avenue

Under Construction. New storm sewers along Sunset Avenue/Rapid Run Pike, Sunset Lane and Guerley Road and a new stormwater detention basin. Construction: Fall 2015 - Spring 2017.

6 White Street

Under Construction. New storm sewers along White Street and multiple adjacent streets. Construction: Winter (Feb) 2016 - Spring 2017.

7 Queen City Avenue Phase 2

Starting this Fall. New storm sewers along Queen City Avenue from Sunset Avenue to the Tower Place apartment complex off East Tower Drive and retrofit of one existing stormwater detention basin. Anticipated construction: Fall 2016 - Winter (Dec) 2018 (substantially complete)..

12 Quebec Road

New storm sewers along Quebec Road and multiple adjacent streets. Anticipated construction: Summer 2017 - Summer 2018.

11 Lick Run Greenway

Stormwater conveyance system with an urban waterway and underground stormwater conveyance box. Anticipated construction: Fall 2016 - Winter (Dec) 2018 (substantially complete). **See back page for more details.**

10 Queen City and Cora Avenues

Starting this Fall. Restoration of a stream in a ravine behind the Judson Care Center that was enclosed in a combined sewer, retrofit of three existing stormwater detention basins and new storm sewer along Fenton Avenue and at bottom of ravine. Anticipated construction: Fall 2016 - Fall 2017.

9 Quebec Heights

Starting this Fall. Restoration of a stream in Glenway Woods that was enclosed in a combined sewer, retrofit of one existing stormwater detention basin and new storm sewer. Partnering with Cincinnati Parks. Anticipated construction: Fall 2016 - Fall 2017.

8 Wyoming & Minion Avenues

Starting this Fall. New storm sewers along Wyoming Avenue and multiple adjacent streets. Anticipated construction: Fall 2016 - Fall 2017.

Project Details

Overview of the Lick Run Project

The Lick Run Project is comprised of 12 separate projects that will work together to collect about 500 million gallons of stormwater a year from the Lick Run watershed and convey it to the Mill Creek.

The Lick Run Project will be under construction through 2019 and is estimated to cost ~\$193 million. The main feature is the Lick Run Greenway, which includes a mile-long urban waterway through the heart of South Fairmount. The Greenway will convey stormwater to the Mill Creek. The other 11 projects will convey stormwater to the Greenway.

Keeping stormwater out of MSD's combined sewer system will reduce overflows into the Mill Creek and will also reduce the amount of wastewater treated at the Mill Creek treatment plant.

The projects — described in detail in the map on the inside spread — include (in order of anticipated construction starts):

- Harrison Avenue, Phase A **(completed)**
- Rapid Run Park **(completed)**
- Harrison Avenue Phase B **(completed)**
- Queen City Avenue Phase 1 **(completed)**
- Sunset Avenue, Sunset Lane and Rapid Run Pike **(under construction)**
- White Street **(under construction)**
- Queen City Avenue Phase 2
- Wyoming and Minion Avenues
- Quebec Heights
- Queen City and Cora Avenues
- Lick Run Greenway
- Quebec Road

Lick Run Greenway in South Fairmount

The Lick Run Greenway (see map below) will be located in South Fairmount from old Queen City Avenue to the Mill Creek between Queen City and Westwood avenues. This area is a gateway to the west side of Cincinnati from I-75 and downtown Cincinnati.

The Greenway will include a mile-long urban waterway with a meandering stream channel, natural stone, runs, pools and riffles and a riparian edge planted with native plants and trees. An underground stormwater conveyance box will be constructed beneath the system to handle flows from large rain events. The Greenway will also include a wetland forebay, headwaters area and a pond, among other features.

The Greenway also includes multi-use paths, lighting, signage, retaining walls, an improved civic recreation space, parking, five vehicular bridges and one pedestrian bridge.

The project is currently in design with construction anticipated to begin in Fall 2016 (with utility relocations).



Lick Run Greenway at 90% Design



For more information:

Visit the Lick Run website at www.projectgroundwork.org/lickrun
Contact MSD Engineering Customer Service at (513) 557-3594 or MSD.Communications@cincinnati-oh.gov