Lick Run Project



MSD's Lick Run Project will eliminate nearly 400 million gallons of combined sewer overflows (CSOs) into the Mill Creek each year. The project, which includes new storm sewers and green infrastructure, including a mile-long stream in a park setting, will improve water quality in the Mill Creek and provide opportunities for neighborhood revitalization in South Fairmount.

Challenge in Lower Mill Creek

When it rains, MSD's combined sewer system can overflow into our 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, also known as a Consent Decree, to reduce the overflows and has implemented a major public works solution called "Project Groundwork" to achieve compliance.

As more than half of the overflows occur into the Mill Creek, a tributary of the Ohio River, MSD is implementing a special solution called the Lower Mill Creek Partial Remedy or LMCPR that seeks to significantly reduce the overflows.

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 rainstorms.

This approach uses a combination of green infrastructure (e.g., bioswales, stormwater detention basins, stream restoration, wetlands, and rain gardens) 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 the East and West Price Hill and Westwood communities.

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



Watershed Boundary

and Debris

/ Storm Sewer

Natural

Conveyance

Lick Run Greenway

Sanitary Sewer

MSD's Lick Run Project



City Stormwater Management Utility (SMU) Project

1 Harrison Avenue Phase A

Completed in Fall 2013.

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

2 Harrison Avenue Phase B

Completed in Spring 2015.

New storm sewers along Harrison Avenue, Moellering Avenue and Beekman Street near the Western Hills Viaduct. **Queen City Avenue Phase 1**

Detention Basin

Completed in Spring 2015.

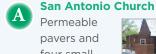
New storm sewers along Queen City Avenue from Queen City Bypass to Sunset Avenue and along Tillie/ 4 Rapid Run Park Bioswale

Completed in Spring 2015.

Bioswale at Rapid Run Park and new storm sewers. MSD partnered with the Cincinnati Park Board and received an ODNR grant.



Early Success Projects



pavers and four small bioinfiltration basins (rain

gardens) were installed in 2011.

St. Francis Court Apartments Two unused parking lots were

converted to bioinfiltration basins (rain gardens) in 2010.

Immanuel United Church

A bioinfiltration basin (rain garden) was installed in 2010.

Roberts Academy

Retrofit of an existing stormwater detention basin and five new bioinfiltration basins installed in 2014.

5 Sunset Avenue

Completed in December 2015.

New storm sewers along Sunset Avenue/Rapid Run Pike, Sunset Lane and Guerley Road and a new stormwater detention basin off Sunset

6 White Street

Completed in Summer 2017.

New storm sewers along White Street and multiple adjacent streets.

Wyoming & Minion Avenues

Completed in Summer 2018.

New storm sewers along Wyoming Avenue and multiple adjacent streets.

Guerley Road Detention Dam

Completed in Summer 2014.

Large stormwater detention dam off Guerley Road. This project helps reduce street flooding and CSOs.

12 Queen City Avenue Phase 2

Completed in Spring 2019.

New storm sewers along Queen City Avenue from Sunset Avenue to the Vantage Pointe West apartments.

111 Quebec Road

Completed in Spring 2019.

New storm sewers on Quebec Road & side streets.

10 Queen City and Cora Avenues

Completed in Fall 2018.

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 sewers along Fenton Avenue and at bottom of ravine.



9 Lick Run Greenway

Under Construction.

Mile-long stream (man-made) and underground stormwater conveyance box. Anticipated construction: Summer 2017 - Summer 2020



8 Quebec Heights

Completed in Summer 2018.

Restoration of a stream in Glenway Woods that was enclosed in a combined sewer, retrofit of one existing stormwater detention basin and new storm sewers. Partnered with Cincinnati Parks.

Project Details

Overview of the Lick Run Project

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

The Lick Run Project will be under construction through 2020 and is estimated to cost ~\$193 million. The main feature is the Lick Run Greenway, which includes a mile-long stream through the heart of South Fairmount. The other 11 projects convey stormwater to the Greenway.

Helping keep stormwater out of MSD's combined sewer system will reduce sewer overflows into the Mill Creek and 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:

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

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 meandering stream with runs, pools, and riffles and a bank planted with native plants and trees. An underground stormwater conveyance box will be constructed beneath the creek to handle flows from heavy rains. The Greenway will also include a special wetland area, headwaters park (where the stream starts) and a pond, among other features.

The Greenway also includes walking paths, extensive recreational space, off-street parking, five vehicular bridges, one pedestrian bridge, and educational signage..

Construction began in July 2017 and is anticipated to be completed in summer 2020.





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