

Roselawn Park Sustainable Stormwater Project

The Metropolitan Sewer District of Greater Cincinnati (MSD) – in partnership with the Cincinnati Recreation Commission, Cincinnati Park Board, and Cincinnati Reds – is evaluating the effectiveness of three bioinfiltration basins in Roselawn Park. This project is part of a larger MSD program to evaluate various sustainable stormwater controls in managing runoff and reducing the volume of stormwater entering combined sewers to prevent sewer overflows.

Background

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

The Metropolitan Sewer District of Greater Cincinnati (MSD) is under a federal order to reduce the overflows and has implemented a major public works initiative called "Project Groundwork" to achieve compliance and bring value to our communities through this multi-year and multi-billion investment.



Entrance to Roselawn Park

Partners in Sustainable Stormwater Control

Since 2009, MSD has partnered with various public and private entities across Hamilton County to demonstrate the use and effectiveness of various sustainable stormwater controls.

This effort, known as the Enabled Impact Program, enables improvements on public and private property to remove stormwater from the combined sewer system, thus reducing overflows.

The stormwater controls are primarily Low Impact Development (LID) projects, which capture less than 10 million gallons of stormwater annually, but the program also includes several Regional projects which are anticipated to capture more than 10 million gallons of stormwater a year.

Some stormwater controls under evaluation include:

- **Rain gardens** a planned depressed, vegetated area that captures and absorbs runoff from nearby impervious surfaces.
- **Green or vegetative roofs** roofs which incorporate vegetative materials that uptake and filter stormwater before flowing via gravity to a roof drain system.
- **Bioinfiltration areas/cells** depressions in the land that are designed to capture stormwater runoff from impervious surfaces (such as roofs and parking lots) through vegetation and subsurface storage.
- **Pervious paving and pavers** materials used as alternatives to concrete or asphalt that allow water to pass to the ground or subsurface storage below.
- Rainwater harvesting and reuse a process that allows rainwater to be collected before reaching the ground and used for other purposes.
- Bioswales long, trough-like areas that capture and detain rainwater on vegetated ground and in subsurface storage for as long as possible before re-entering sewage systems.

Roselawn Park

Roselawn Park is a 33-acre city park located on Seymour Avenue between Reading and Langdon Farm roads in the Roselawn neighborhood of Cincinnati.

Stormwater on the southern side of the park is currently handled by stormwater inlets leading to a drainage swale in the parking lot. The runoff enters MSD's combined sewer system from the swale.

Based on a typical year of rainfall, the annual stormwater runoff from this 10-acre portion of the property is about 10.1 million gallons.

Roselawn Park Pilot Stormwater Project

To help slow the volume of stormwater runoff from the park, three bioinfiltration basins (e.g., large rain gardens) will be installed at the site. The basins will use native plant species, special soils and layers of gravel to absorb, clean and store stormwater runoff.

One of the bioinfiltration basins will be located in the island of the main parking lot in the location of the existing drainage swale.

The second and largest bioinfiltration will be located at the base of a hillside on the western side of the park. The hillside will be contoured and reforested to promote stormwater infiltration. This basin will also receive stormwater runoff from Field #4 (outdoor ballfield) and overflow from the parking lot basin.

The third bioinfiltration basin will receive stormwater runoff from a new indoor practice facility for baseball/softball in the southeastern portion of the site and its adjacent drainage area (see Partnering with Cincinnati Reds).

The project, which will begin in December 2013 and be complete by spring 2014, will prevent about 507,000 gallons of stormwater a year from entering the combined sewer system and contributing to sewer overflows.

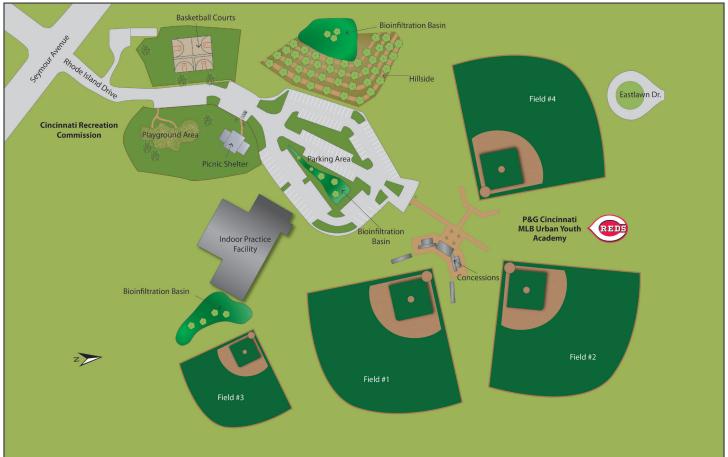
Partnering with the Cincinnati Reds

This project is being coordinated with construction of a permanent home for the P&G Cincinnati MLB Urban Youth Academy. The Academy, a Reds Community Fund project, will feature a stateof-the art recreational complex including an indoor practice facility and four outdoor ballfields. The academy offers free, year-round baseball and softball instruction to youths, 8-18.

Stormwater runoff from the indoor practice facility will be routed to the bioinfiltration basin adjacent to the building. Field #4 will be equipped with an underdrain system routed to the bioinfiltration basin at the bottom of the hillside.

Need More Information?

For more information contact: MSD Engineering Customer Service at (513) 557-3594 or MSD.Communications@cincinnati-oh.gov or visit: www.projectgroundwork.org/bloodyrun



Project Map