



**PROJECT GROUNDWORK**  
*your pipeline to clean water*

# Reforestation Early Success Project

## Introduction

During heavy rains, raw sewage - mixed with storm water - overflows from our sewers into local streams and rivers and also backs up into basements.

To resolve this public health and environmental issue, the Metropolitan Sewer District of Greater Cincinnati (MSD) must rebuild and improve our sewer system.

Called **Project Groundwork**, this multi-year and multi-billion dollar initiative is one of the largest public works projects in the history of our community and includes hundreds of sewer and treatment plant improvements and stormwater control projects.

## Stormwater Controls

The vast majority of overflows occur from combined sewers, which carry both sewage and stormwater in the same pipe. By controlling the amount of stormwater that enters combined sewers, MSD can help reduce or eliminate overflows.

MSD is currently partnering with other organizations, such as the Cincinnati Park Board, to implement and evaluate the effectiveness of various stormwater controls through demonstration-type projects. Examples include rain gardens, green roofs, bioswales and pervious paving that absorb stormwater into the ground and prevent or delay it from reaching combined sewers.

## Rapid Run Park and 2100 Block of Queen City Avenue

Urban reforestation can be an effective tool at reducing the quantity of stormwater runoff entering the combined sewer system.

Two sites were chosen for reforestation: an open space parcel in the 2100 block of Queen City Avenue in Cincinnati's South Fairmount neighborhood and Rapid Run Park in Cincinnati's West Price Hill community. Rapid Run Park covers about 52 acres, and the Queen City Avenue site covers about 16 acres.



Reforestation area along 2100 block of Queen City Avenue in South Fairmount.

## Rapid Run Park and 2100 Block of Queen City Avenue...

Based on a typical year rainfall, the annual stormwater runoff from the Rapid Run park area is about 8.7 million gallons, which is enough water to fill 13 Olympic-size pools or to cover a football field with 20 feet of water.

The annual stormwater runoff from the Queen City Avenue property is about 300,000 gallons. That's enough water to cover a football field with one gallon of water.

## Reforestation Early Success Project

To help reduce the volume of stormwater runoff, the 16-acre Queen City Avenue parcel and about one acre within the 52-acre Rapid Run Park were reforested. The tree planting was completed in April and May 2010. In June 2010, workers added protective grow tubes to keep deer away.

About 2,400 donated oak, maple, walnut and hickory trees were planted on the Queen City Avenue site, and about 120 maple, oak and witch hazel trees were planted on the southeast side of Rapid Run Park.



Community volunteers planting trees at the Queen City Avenue site.

## Project Benefits

This project will provide numerous benefits to both MSD and the South Fairmount and West Price Hill communities, including:

- Reforestation at Rapid Run Park and Queen City Avenue will help reduce water quantity as tree roots intercept and absorb stormwater runoff, releasing pressure on the combined sewers downstream.
- In addition to reducing the volume of stormwater runoff, reforestation acts as an effective sound barrier, helps improve air quality by absorbing air pollutants, and can lessen the urban heat island effect.
- Reforestation along steep hillsides can greatly improve slope stability, reducing the chances of future landslides.



Community volunteers installing deer guards on newly planted trees at the Queen City Avenue site.

## For More Info

For more details on this project, please contact MaryLynn Lodor, MSD's Environmental Program Manager, at (513) 244-5535 or [MSD.Communications@cincinnati-oh.gov](mailto:MSD.Communications@cincinnati-oh.gov).

