

# Sustainable Solutions for Project Groundwork

During heavy rains, a raw sewage and storm water mixture 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 infrastructure.

Called *Project Groundwork*, this multi-billion-dollar construction initiative focuses on sustainable infrastructure – sewer improvements that provide economic, social, and environmental benefits to our communities, now and in the future.

Sustainable infrastructure can be “gray” such as new sewers, “green” such as pervious paving, or a blend of the two.

Together, these sustainable solutions will reduce or eliminate sewage overflows and backups, making our communities cleaner and healthier.



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# Sustainable Solutions for Project Groundwork



A program of the Metropolitan Sewer District  
of Greater Cincinnati

# Sustainable Infrastructure

Project Groundwork focuses on areas of our community where combined sewers are used, typically in older neighborhoods or suburbs.

Annually, about 14.1 billion gallons of raw sewage and storm water overflow – mostly from combined sewers, pipes which carry both sewage and storm water.

Hamilton County is among the top five locations in the nation for urban combined sewer overflows (CSOs). Overflows occur as many as 105 times a year at some locations.

Use of the following sustainable infrastructure within Hamilton County's combined sewer areas will help control CSOs while also providing community benefits.

## Going Green – Locally

Better local control of storm water entering combined sewers will reduce sewer overflows. Low Impact Development (LID) methods used by MSD include pervious paving, green roofs, and rain barrels, among others.

MSD is partnering with numerous local organizations to design and construct dozens of "demonstration" projects to identify which of these green practices are most effective.

Some current projects include:

- Cincinnati Zoo – pervious paving, rainwater harvesting, bioswales, and green roofs.
- Cincinnati Public Schools – shallow and deep green roofs, rain gardens, urban planters, bioswales, and pervious paving.
- American Red Cross – shallow, sloped green roof and bioswales.



## Going Green – Regionally

Regional storm water controls help remove large volumes of storm water from the combined sewer system. Examples include controlling runoff from hillsides, "daylighting" streams that were piped into combined sewers, and constructing bioretention basins.

Much of this effort is focusing on the Lower Mill Creek watershed, one of the largest contributors to CSOs in Hamilton County. MSD's immediate goal is to reduce overflows in this area by about two billion gallons a year.



## Communities of the Future

Communities of the Future is a unique framework for combining sustainable sewer improvements with urban renewal in areas which experience frequent CSOs.

MSD is partnering with local communities to identify solutions to sewer overflows that simultaneously address community issues such as brownfields redevelopment, vacancy and property abandonment.

This approach can provide tangible community benefits such as improved property values and neighborhood regeneration.

MSD is currently pursuing potential opportunities in Carthage and South Fairmount and will continue to look for new partnerships.

The focus of Communities of the Future is to use reinvestments in our sewers as a catalyst to stimulate reinvestments in our communities.

For more information, please visit  
the Project Groundwork website at  
[www.projectgroundwork.org](http://www.projectgroundwork.org)

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