



Pittsburgh
Water & Sewer
Authority

**COLLABORATION DAY
CAPITAL IMPROVEMENT PROGRAM
GREEN INFRASTRUCTURE
PROJECTS**

November 18, 2015
8:30 – 9:45

Saw Mill Run Watershed Planning, City Wide Assessment and Demonstration Projects

- Modeling and field studies to review CSO reduction and stream removal opportunities and water quality improvement potential
- Control of high hazard areas and management of other pollution sources
- Site investigations, constructability assessment, construction and operations cost estimates, and conceptual designs with an urban planning component
- Demonstration projects will be selected, designed, constructed and monitored for CSO reduction

A-22 / SHADYSIDE

Managing Stormwater at the Neighborhood Level

- Modeling
- Site Investigation
- Design, Coordination, Construction

Focusing stormwater capture at highest yield locations

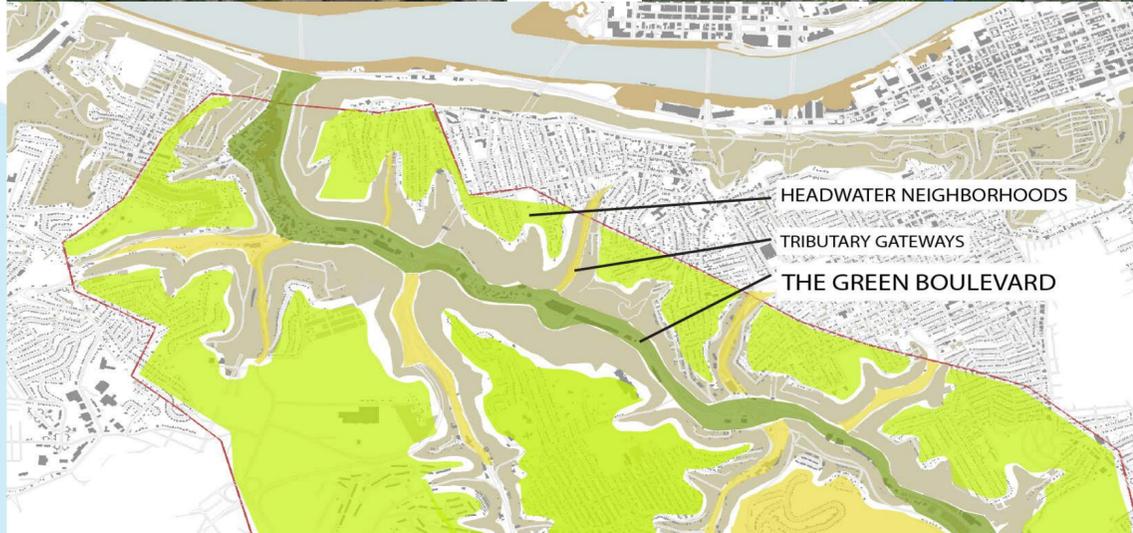


Citywide Green Infrastructure Assessment

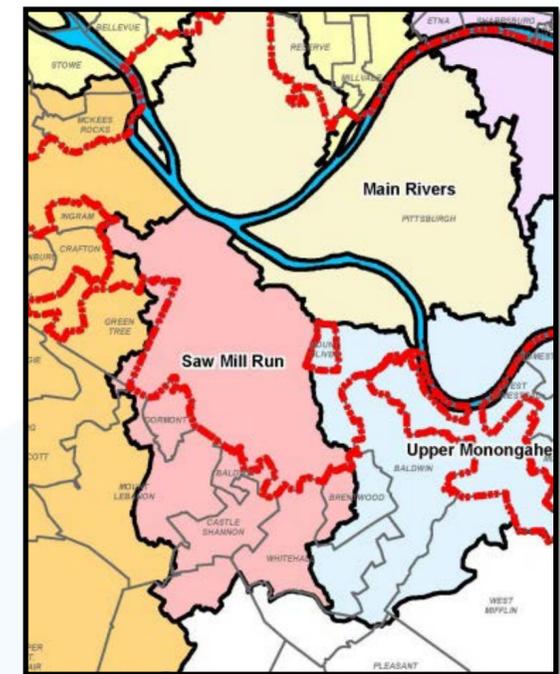


- Identifying potential high-yield GI sites in high-overflow sewersheds
- Coordinating with City department and agency efforts
- Strategic urban planning based on stormwater management
- Includes potential stream separation and daylighting

Saw Mill Run Integrated Watershed Management Planning



- Collaboration of 12 municipalities
- Comprehensive watershed management plan employing EPA Integrated Framework
- Focus on Water Quality
- Partnerships: Economic Development South, US Army Corps of Engineers



Demonstration Projects



- Require partnerships and community collaboration
- Implementation and monitoring will inform future planning

Monitoring to Demonstrate Effectiveness

GI Project Performance & CSO Abatement

- Performance Monitoring
 - Pre-construction
 - Post-construction
- Water Quality Monitoring
- Flow Reduction Monitoring
 - Document changes in wet weather flows in GI demonstration project watersheds
- Sharing results



Leaf
Wetness
Sensor,
Rain Gauge,
and Data
Logger



Green Infrastructure Projects

Project Name	Pre 2016	2016	2017	2018	2019	2020	Post 2020	Total
Saw Mill Run Water Quality Program, City Wide Assessment and Demonstration Projects	\$9.60	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$69.60
Green Infrastructure Effectiveness Monitoring	\$0.08	\$0.75	\$0.75	\$0.75	\$0.00	\$0.00	\$0.00	\$2.33
Regional Green Infrastructure Study	\$0.00	\$3.00	\$3.00	\$3.00	\$0.00	\$0.00	\$0.00	\$9.00
Total	\$9.68	\$13.75	\$13.75	\$13.75	\$10.00	\$10.00	\$10.00	\$80.93

GREEN INFRASTRUCTURE GRANT PROGRAM

	Matching Grant Program	Mini-Grant Program
Eligibility	Property Owners	Non-Profits and Community Organizations
Grant Size	\$5,000 - \$50,000	\$1,000 - \$5,000
Grant Timing	Reimbursement when complete (up to 50% of cost of GI)	80% when awarded, 20% when project is complete
Key Selection Criteria	<ul style="list-style-type: none"> Projected water quality impact Efficiency (cost per gallon) Scale Monitoring plan Maintenance plan Benefits to community Educational impact Innovativeness 	<ul style="list-style-type: none"> Projected water quality impact Partnerships Visibility of project Community engagement Maintenance plan Benefits to community Educational impact
Requirements	Must commit to long-term maintenance and allow PWSA to inspect	Must report impact of project to PWSA

PWSA GRANT PROGRAM

summary: 2015

38 Applications Received

17 Grants Awarded (7 Matching, 10 Mini)

\$250,000 Funds Awarded

\$1,005,494 Total Green Infrastructure Investment
(applicant estimated)

3.5 - 4 Million Gallons of Stormwater Managed
(PWSA estimated)

University Square #1
Stormwater Management Garden

Pittsburgh Zoo & PPG Aquarium
"The Islands" Xeriscaping Project

Pittsburgh Parks Conservancy
Westinghouse Memorial Restoration Project

DECO Resources LLC
GI Ecotourism, Digital Education & Engagement

Mount Washington Community Development Corporation
Republic Street Rain Garden and Signage

Brighton Heights Citizens Federation
Woods Run Greenway

Tree Pittsburgh
*Campus Rainwater Harvesting System
Beautify Butler Stormwater Planters*

Phipps Conservatory & Botanical Gardens
Stormwater & Irrigation Infrastructure Integration

Pittsburgh Housing Development Corporation
Mayflower Water Street Project

Western Pennsylvania Conservancy
River Avenue Tree Planting Project

Squirrel Hill Urban Coalition
Neighborhood GI Mapping & Prioritization

The Corner
Rainwater Mitigation Planters

Larimer Consensus Group
Community Water Planning

MOE Brothers LLC
4129 Butler Street

Start Uptown
PFEX Green Roof Project

Walnut Capital
Bakery Village

GRANT PROGRAM RECIPIENTS

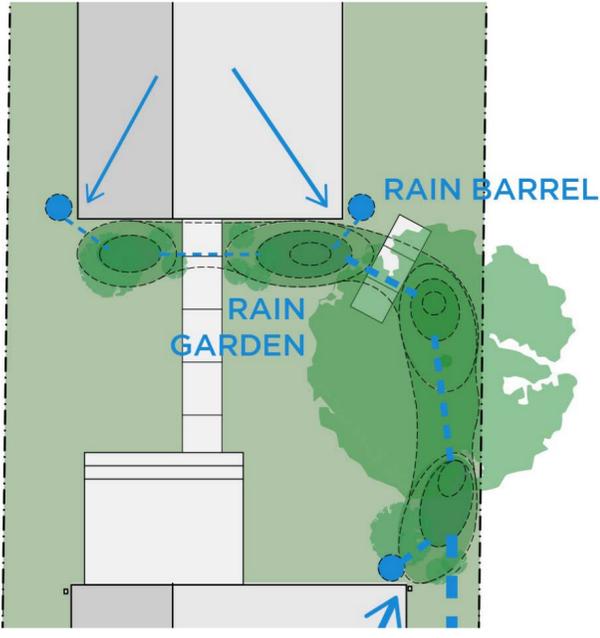
2015



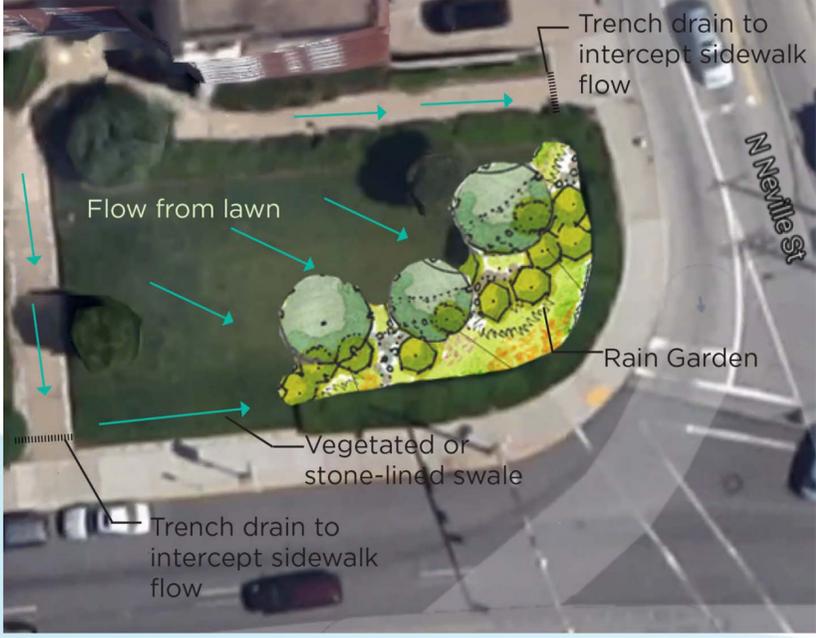
The Corner - planter boxes



Westinghouse Memorial - stormwater managing landscape



Mayflower Street - 10 residential rain gardens



University Square #1 - rain garden & educational workshops



Paramount Film Exchange - accessible green roof

