Stormwater runoff can impact water quality in rivers and streams. Portland uses green streets, ecoroofs, trees and other green infrastructure to increase sewer system efficiency, and protect water quality, public health, and the environment. Green infrastructure keeps stormwater out of the sewer system, filters pollutants, provides habitat and increases neighborhood green space for healthier watersheds.

Portland Innovative Wet Weather Projects

The City of Portland’s Innovative Wet Weather Program supports projects that effectively manage stormwater as close to its source as possible and use vegetation to slow, retain and filter stormwater. Using green infrastructure to manage stormwater in the urban environment contributes to healthy watersheds.

Between 2002 and 2009, the U.S. Environmental Protection Agency (EPA) granted the city $3.4 million to fund over 30 innovative public and private projects throughout Portland that demonstrate sustainable, low-impact stormwater management solutions. In addition to managing stormwater, these green infrastructure projects provide traffic-calming, bike parking, place-making and community-building.

Integrating green infrastructure into our built environment benefits community livability, public health, and the economy. Just as parks, natural areas and open space are important for a city, so are small, localized green spaces like rain gardens, green streets, ecoroofs, and trees. Bringing nature into the city can improve our mental and physical health, enhance social interactions, increase property values, and reduce energy demand. Green infrastructure can also make pipe infrastructure work more efficiently and minimize the need for more expensive pipe solutions. Green infrastructure helps our cities become more resilient to the effects of a changing climate.
Innovative Wet Weather Project Examples

Holman Park
This enhanced pocket park is on a designated bicycle greenway, where bicycles and pedestrians have priority and green streets manage stormwater. When the Portland Bureau of Transportation (PBOT) started work on the project, neighborhood residents recognized an opportunity to satisfy a long-standing desire to improve the pocket park. Environmental Services worked with the community, PBOT and Portland Parks and Recreation to showcase innovative green infrastructure for stormwater management while enhancing a neighborhood asset. Park improvements included expanding the park into the right-of-way, adding stormwater planters, and closing a street to allow only bicycle and pedestrian access. Neighbors installed an ecoroof on top of a new kiosk and community bulletin board in the park.

Stormwater Education Plaza
Environmental Services worked with Portland Community College (PCC) to combine green stormwater management with an interpretive exhibit in Portland’s Central Eastside Industrial District. A rain garden at PCC’s CLIMB Center for Advancement includes several innovations:
- The rain garden collects stormwater from the CLIMB Center’s roof and the adjacent street.
- Roof runoff cascades over concrete and steel slabs into the rain garden and street runoff flows into the facility under a steel sidewalk grate.

PCC STORMWATER EDUCATION PLAZA

An interpretive kiosk describes how the rain garden captures and filters stormwater to keep runoff out of the sewer system.
- The kiosk’s green roof absorbs rain to reduce runoff.

Stormwater Bike Corral
This multi-functional project uses green infrastructure to manage stormwater, provides bike parking and features public art. A green street facility manages stormwater from streets and an adjacent building. The project provides covered bike parking for customers of nearby restaurants. Artists Peg Butler and Buster Simpson used oil industry imagery in the project design to reference the facility’s replacement of vehicle parking with bike parking and vegetation. Ecoroof planters are halved oil barrels with iridescent surfaces that change hues much like oil sheens.

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NE Holladay Green Street Corridor Plan
The NE Holladay Green Street Corridor Plan creates a vision that transforms NE Holladay Street into a model urban greenway and civic corridor.

Route to the River
The rain garden project is part of the SE Clay Green Street Project, which will extend for 12 blocks and will link outlying neighborhoods to the Central Eastside Industrial District and the Willamette River.

Stormwater Education Plaza

Route to the River

Stormwater Bike Corral

BIKE CORRAL

An interpretive kiosk describes how the rain garden captures and filters stormwater to keep runoff out of the sewer system.

Stormwater Planter
The Mississippi Commons development installed the stormwater planter in 2004 when sustainable stormwater management and green infrastructure were new concepts for site development. This project introduced several innovative stormwater management approaches. The stormwater planter integrated into the design of the commercial space is an amenity that helps attract customers, and is effective. The planter manages an average of half a million gallons of roof runoff annually. Environmental Services and the owners of the development used their experience with the stormwater facility to make several modifications in 2011. They re-planted the stormwater facility with low-growing plants, and added signage to discourage children from playing in the facility and to educate the public about sustainable stormwater management.

Monitoring
Environmental Services gathers performance data on sustainable stormwater facilities to quantify benefits, improve design and function, and lower maintenance costs. Long-term monitoring of these facilities is an important part of the sustainable stormwater program. Monitoring results are posted at www.portlandoregon.gov/bes/36055.

Education and Outreach
The Innovative Wet Weather Program promotes green infrastructure programs through advertisements, workshops and other educational tools. Interpretive signs at sustainable stormwater project sites explain the stormwater techniques used. The city compiles project reports and posts them as an educational tool at www.portlandoregon.gov/bes/35941.

NE Holladay Green Street Corridor Plan
The NE Holladay Green Street Corridor Plan creates a vision that transforms NE Holladay Street into a model urban greenway and civic corridor.

The city is already using some methods on Portland’s streets, while other methods are innovative, new ideas. This concept plan provides the framework to transform NE Holladay Street into a neighborhood greenway that creates a vibrant place to work, live and visit while enhancing our environment.

FOR MORE INFORMATION
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