



Sustainable Approaches to Stormwater Management

Before the City of Eugene was developed, forests and open spaces absorbed a significant amount of rainwater. Today, rain falls on buildings, streets, sidewalks, and other hard surfaces and runs off into rivers and streams. Stormwater runoff carries pollution to our rivers, causes erosion, decreases groundwater recharge, and increases river temperatures. Sustainable stormwater management is a strategy that helps the City of Eugene comply with pollution prevention and resource protection regulations by managing water at its source.

Sustainable stormwater management is rapidly gaining acceptance in the United States, particularly here in Eugene. The increased interest is a response to mounting costs of new development and redevelopment projects, more rigorous environmental regulations, and concerns about the impact of growth on natural resources.

Sustainable stormwater management is an alternative to the traditional piped approach. It promotes collection and conveyance of stormwater from roofs, parking lots, streets, and other surfaces allowing runoff to infiltrate into the ground or collect for reuse, often reducing the need for costly underground structures.

The strategy recognizes the relationship between the natural environment and the built environment, and manages them as integrated components of a watershed.

The approach relies on vegetated natural systems to slow and filter urban runoff, reducing runoff rates and pollutant levels.

Studies show that natural landscaping at a residential development can reduce annual stormwater runoff volume by as much as 65%. Natural drainage and native landscaping areas in residential developments can also remove up to 80% of the suspended solids and heavy metals present in stormwater runoff, and up to 70% of nutrients like phosphorous and nitrogen.

Sustainable stormwater management uses both structural facilities such as rain barrels, cisterns, and planters, and nonstructural facilities like vegetated filter strips, swales, raingardens, and eco-roofs and roof gardens. These sustainable approaches are cost effective and attractive. They also address erosion, water pollution, and other stormwater runoff problems all at once.

Using one or a combination of management options can effectively manage stormwater on-site and reduce the impacts of development on water quality.

Design approaches must be considered in terms of the project, site conditions, local building codes, water availability, and micro climate and may require professional assistance to function properly. For the latest approved approaches, check with city staff or go to the city website.

For more information contact Public Works staff at the Permit Information Center (PIC).

In person: 99 W. 10th Ave. (Atrium Building) from 9 a.m. to 5 p.m., Mon.-Fri.

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(See section 2.9 of the *City of Eugene's Stormwater Management Manual* for details.)

