CITY OF EUGENE
STORMWATER
MANAGEMENT PROGRAM

Alternatives to Pavement

Letting the water soak in

Pavement - in the form of walkways, roads, and parking areas - plays a major role in transporting increased stormwater runoff and pollution to our streams, rivers and groundwater. Contaminants from our roofs, cars, yards and pets include pesticides, bacteria, detergents, and spilled oil. Rainwater mixes with these pollutants and becomes toxic, only to end up in our waterways. If soil types and site conditions are suitable alternative paving materials can be used to allow water to soak into the ground and reduce the runoff leaving a site, which can help decrease downstream flooding and water pollution.

Pervious Pavement

Pervious pavement refers to pavement surfaces that allow water to filter and infiltrate into the ground instead of running off the site into the storm drains. There are many types of pervious pavement on the market today. Numerous products and design approaches are available, including special asphalt paving; manufactured products of concrete, plastic, and gravel; paving stones; and brick. It may be used for walkways, patios, plazas, driveways, parking lots, and some portions of streets, subject to compliance with building codes.

As our city becomes more urbanized, pervious pavement offer a range of benefits, including:

- Reducing the amount of stormwater runoff and keeping associated pollutants from entering nearby streams;
- Allowing groundwater recharge and reducing localized flooding during rain events;
- Eliminating problems with standing water
- Minimizing the need to irrigate nearby planting areas
- Pervious pavement is considered an impervious area reduction technique for sites within Eugene that are required to meet stormwater development standards
- Requiring less land to be set aside for costly retention basis and other drainage systems; and
- Reducing thermal pollution and erosion of streambeds and riverbanks pervious pavement allow water to infiltrate and filter into the ground instead of running off a site

For Larger Areas

For areas needing a larger, more stable surface, porous asphalt and pervious concrete are good options. These look the similar or sometimes the same as traditional pavement, but are manufactured without 'fine' materials and incorporate void spaces to allow water to infiltrate the pavement and seep into the ground. These systems often require more planning than conventional asphalt or concrete. Site evaluation, careful design and product selection, and proper installation and maintenance, are recommended for best results. A professional engineer, registered in the state of Oregon must design pervious pavement systems that will be supporting vehicular traffic.

Pervious Concrete and Grass Pavers

Grass pavers are concrete interlocking blocks or synthetic grid systems with open spaces designed to allow grass to grow in between the pavers. Pervious concrete and grass pavers have an underlying stone reservoir that temporarily stores water that has infiltrated the surface, allowing it to filter into the ground. The depth of the base materials will depend on soil type and how the surface will be used.

EUGENE

Porous asphalt

Porous asphalt pavement, used mostly for parking lots, allows water to drain through the pavement surface into a stone recharge bed and infiltrate into the soils below the pavement.

With the proper design and installation, porous asphalt can provide cost-effective, attractive pavements with a life span of more than 20 years, and at the same time provides a stormwater management system that promotes infiltration and improve water quality.

Maintenance

- Implement regular sweeping practices to prevent build up of sediment and debris
- Remove vegetation that will restrict infiltration
- Trees and shrubs should not be located in or around the pervious pavement because roots from trees can penetrate the pavement, and leaves from deciduous trees and shrubs can increase the risk of clogging the surface
- Inspect overflow devices and remove obstructions and debris when discovered

Resources

There are many good resources about permeable and pervious pavement on the internet, including:

www.lid-stormwater.net

www.bae.ncsu.edu/topic/permeable-pavement

www.epa.gov/npdes/pubs/porouspa.pdf

www.eugene-or.gov/stormwater

How can I get help?

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.
Voice-mail: 541-682-8400
Email: cewepic@ci.eugene.or.us
Web: www.eugene-or.gov/stormwater
(See section 2.9 of the City of Eugene's Stormwater Mangement Manual *for details.)*

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