

## WHY ARE PERMEABLE PAVEMENTS BEING INSTALLED?

Permeable pavements help to sustainably manage toxic urban stormwater by filtering and slowing stormwater as it flow across the landscape. Permeable pavements belong to a group of practices called Low Impact Development (LID). LID is being increasingly incorporated into our landscapes and required by the Washington State Department of Ecology to meet stormwater permit requirements. Other examples of LID Best Management Practices (LID BMPs) include green roofs and rain gardens.



*Porous asphalt (left) and pervious concrete (right)*



*Grid System*



*Pavers*

## ADDITIONAL INFORMATION

Additional information and resources may be found through the following organizations:

- ◆ **Your local city or county**
- ◆ **Washington Stormwater Center**  
[www.wastormwatercenter.org/lid-pavements](http://www.wastormwatercenter.org/lid-pavements)
- ◆ **Washington State Department of Ecology**  
[ecology.wa.gov](http://ecology.wa.gov)
- ◆ **United States Environmental Protection Agency**  
[www.epa.gov](http://www.epa.gov)

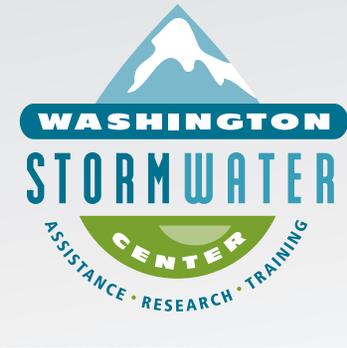
## STORMWATER MANUALS

Additional information can also be found in the stormwater manuals for the following jurisdictions:

- ◆ **King County**  
[www.kingcounty.gov](http://www.kingcounty.gov)
- ◆ **City of Seattle**  
[www.seattle.gov](http://www.seattle.gov)
- ◆ **Pierce County**  
[www.piercecountywa.gov](http://www.piercecountywa.gov)
- ◆ **City of Tacoma**  
[www.cityoftacoma.org](http://www.cityoftacoma.org)



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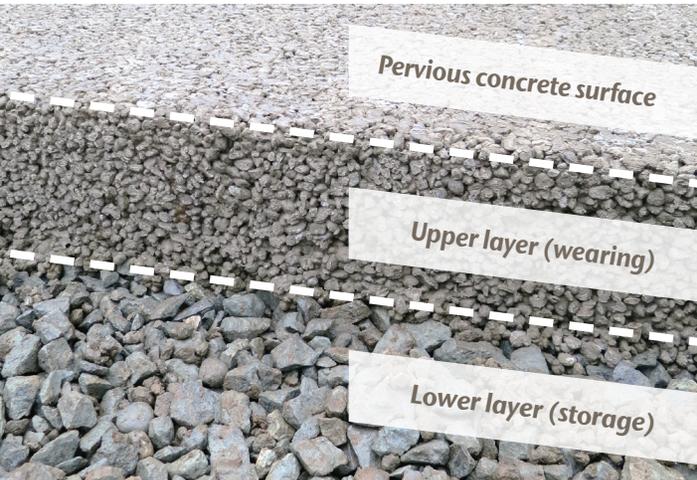
# PERMEABLE PAVEMENTS



[WWW.WASTORMWATERCENTER.ORG](http://WWW.WASTORMWATERCENTER.ORG)

## HOW DO PERMEABLE PAVEMENTS WORK?

All LID BMPs aim to slow and filter stormwater as it flows across the urban landscape. Permeable pavements have an upper “wearing layer” that is rigid enough to support vehicles, and permeable enough to allow water to pass through via large pores. This upper layer is commonly made with grids, pavers, pervious concrete, or porous asphalt. Below the wearing layer is a base layer with even larger spaces where the water may be stored temporarily. The water in the storage layer slowly infiltrates in the native soils.



Newly installed permeable pavements can have tested infiltration rates of over 200 inches per hour! They can take a lot of stormwater. Over time, however, the pore space in these pavements may become impeded with sediment and debris which reduces the functionality of the pavements.

## IS MY PAVEMENT WORKING PROPERLY?

Watching where the water goes during heavy rain events is a good way to make sure permeable pavements are functioning. Does it seem to “disappear” (infiltrate) or does it try to flow across the surface to a low spot? If all the water flows across the top of the pavement there may be an issue and your pavement is very likely clogged. There are, however, ways to prevent clogging and maintain the performance of the pavement.



## MAINTAINING YOUR PERMEABLE PAVEMENT

### Keep Debris Away

Always avoid exposing the pavement to additional dirt and debris. Never dump a load of soil, compost, or bark directly on a permeable pavement—put a tarp down first.

### Redirect Run-on

Run-on occurs when stormwater from a nearby connected surface (regular pavements or landscaping) flows onto a permeable pavement. This run-on contains dirt that can clog the permeable pavements and reduce its functionality. Take corrective actions to redirect run-on away from the permeable pavements.

### No Pesticides or Herbicides

The pavements are processing stormwater and these chemicals contribute to increased stormwater pollution.

### Snow

- ◆ Avoid sanding the permeable pavement.
- ◆ Sand should *only* be applied in cases of emergency or where safety issues arise.
- ◆ If you must apply sand, vacuum the sediment out of the pavement as soon as possible after snow has melted.

### Moss

Moss in permeable pavements is common in our Pacific Northwest region. If stormwater is infiltrating through the pavement, the moss isn't a problem. If aesthetically unappealing to you, or the moss growth is severe, then options for treatment are:

- ◆ Pressure wash the facility (if concrete).
- ◆ Use a weed burner to remove moss.
- ◆ Sweep the moss out during dry periods.
- ◆ Vacuum the facility using a commercial vacuum street sweeper.

### Deep Cleaning and Maintenance

At the very minimum, deep cleaning should occur on an annual or semi-annual basis. This may include working with your homeowner's association to hire a contractor with the right equipment. Or, this may mean replacing broken pavers or troubleshooting drainage issues. Consult with your local government or refer to the additional resources listed on the back.

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