What is Stormwater Runoff?

In a natural environment, most rainwater soaks into the ground or is captured by trees and other plants. As land is developed, it is covered by hard surfaces - roads, parking lots and rooftops – that prevent natural infiltration, and allow water to quickly run downstream. This runoff, known as stormwater, carries dirt, fertilizer, pet waste, pesticides and debris into lakes, streams and wetlands. Polluted stormwater runoff is the number one water quality problem in Minnesota and across the country.

In many urban environments, stormwater is managed with storm sewer systems that quickly move stormwater away to prevent localized flooding. However, storm sewers often drain directly into lakes, streams and wetlands, rapidly carrying pollution into our valuable surface waters.

Stormwater Best Management Practices (BMPs) are the primary method for dealing with polluted runoff. BMPs may include ponds, raingardens, porous pavement, green roofs, or other practices that temporarily hold, filter, or reduce stormwater. Slowing down or reducing the flow of water minimizes flooding and reduces the amount of pollution reaching downstream water bodies.

What is Pervious Pavement?

Pervious pavement functions like traditional concrete or asphalt surfaces, but allows water to seep through the pavement surface - which would otherwise be impermeable.

Pervious pavement allows water to flow into an underlying rock storage area that helps filter pollutants out of stormwater. In soils that are conducive to infiltration, pervious pavements allow water to soak into the ground, replenishing ground water. In tighter soils, the system is designed with an under drain that conveys clean water to the storm sewer system.

Pervious pavement works best in areas of pedestrian traffic or low automobile traffic such as sidewalks and parking lots.
In order to minimize impacts of development on downstream water resources, Minnehaha Creek Watershed District often requires that BMPs are installed and maintained as a condition of a Watershed District permit. Properly designed and installed BMPs must also be regularly maintained in order to achieve long-term clean water benefits.

- Proper maintenance allows pervious pavement to perform as designed, reducing flooding and improving water quality.
- Well-maintained pervious pavement remains effective much longer and cost less to maintain.
- Regular maintenance is less expensive than major non-routine maintenance or reconstruction costs that can result from a lack of maintenance.

**Maintenance Tips**

**Routine maintenance**

Routine inspections help you become familiar with your pervious pavement so you can identify small or potential problems when they are still easy to fix.

- Inspect pervious pavement at least annually and after large rain events. Look for washed out areas, displaced paver stones, etc.
- Clear pavement of leaves and larger debris as necessary
- Scheduled vacuum sweeping and jet washing (three or four times a year, and after snow melt)
- Maintain pre-treatment practices such as vegetative strips to filter runoff from drainage areas
- Stabilize erosion-prone areas adjacent to pervious pavement with vegetation or other methods
- Do not use chemical de-icers or sand on pervious pavement

**Signs that further maintenance may be needed:**

- Water pools on the pervious pavement for more than 24 hours without infiltration
- Water is running off the pervious pavement and not infiltrating
- Cracks or potholes form

Note: If non-routine maintenance is needed, you should consult a professional or contact MCWD for more information.