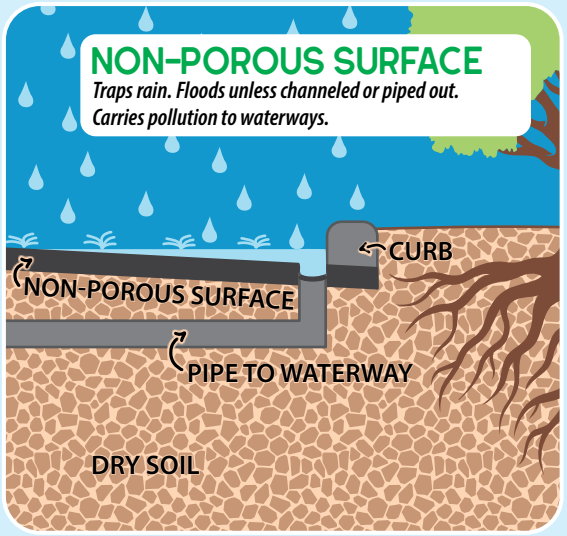
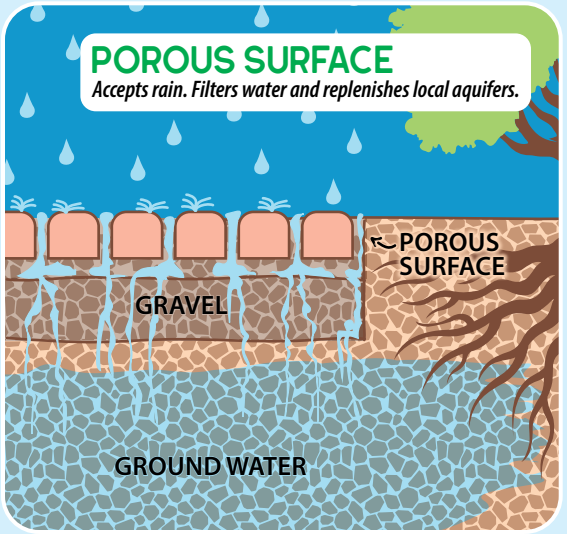
NON-POROUS vs. POROUS

In nature, rain soaks into the ground or flows into waterways. That doesn't happen in urban areas like Springfield where land is covered by waterproof buildings and pavement. These structures help us stay dry but also block the natural water cycle. It would cause flooding and erosion, but we have a stormwater system to drain rain out of the City and directly into local waterways. It's expensive infrastructure that requires maintenance and it transports pollution straight from neighborhoods to local rivers. Where possible, a porous surface is a great choice on your property because it allows rain to soak into the ground, which provides many benefits.





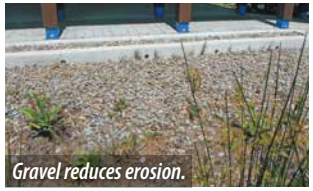

Path, pavilion, and rain garden at Brattain House.

SOAKING IT UP AT BRATTAIN HOUSE

10th and G Street, Springfield, Oregon

See porous surfaces in action at the rain garden at historic Brattain House in Springfield. This public garden was built in 2015 as part of a Sustainable Cities initiative in collaboration with the University of Oregon. It showcases attractive, functional, and rain-friendly landscaping.


Permeable pavers and a gutter.


Gravel reduces erosion.


Gutter empties to rain garden.

Permeable pavers on the path let rain soak into and around the bricks. River rock along the edges and in the garden keep mud at bay, reduce erosion and let rain percolate into groundwater below.

When it rains on the roof of the house or pavilion, downspouts move the water to a gutter that feeds into a rain garden. Native plants in the rain garden help reduce erosion and assist with absorption of excess nutrients, plus the root systems help with filtration. ***Swing by to check it out!***

CONTACT US

We're here to help keep Springfield's rivers clean, so we're here to help you do that too!

For more info, contact the Stormwater Team
SpringfieldStreams.org, 541.726.3694
WaterResources@springfield-or.gov

CITY OF SPRINGFIELD, OREGON

Clean Water GARDEN

POROUS SURFACES

Walkable, yet rain-friendly

Porous surfaces

HERE'S WHY THEY'RE WORTH IT...

Traditional hardscaping materials such as concrete, asphalt, and brick-and-mortar paths *create non-porous surfaces that interrupt the natural water cycle as they prevent rain from soaking into the ground. This causes problems that require an extensive and resource-intensive stormwater system to remedy. Even then, there are problems.* ***Porous surfaces****, on the other hand, allow water to soak into the ground, providing many benefits.*

REDUCE STORMWATER RUNOFF

Porous surfaces allow rainwater to soak into the ground, reducing the amount of stormwater runoff that flows into storm drains and streams. By reducing the amount of runoff, you can help protect water quality and reduce the risk of flooding.

RECHARGE GROUNDWATER

Porous surfaces help recharge groundwater, which is an important source of Springfield's drinking water. When rainwater infiltrates the ground, it replenishes the groundwater supply, ensuring that there is enough water for future generations.

IMPROVE WATER QUALITY

Porous surfaces act as a natural filtration system, removing pollutants and sediments from stormwater runoff as it infiltrates the ground. This helps improve water quality and protects the health of aquatic ecosystems.

REDUCE HEAT ISLAND EFFECT

Traditional hardscaping materials can absorb and radiate heat, contributing to the urban heat island effect that makes temperatures hotter in urban areas than in outlying areas. Porous surfaces, on the other hand, absorb less heat, reducing the ambient temperature and make outdoor spaces more comfortable on a hot day.

ENHANCE LANDSCAPE DESIGN

Porous surfaces come in a range of textures, shapes, and colors, which can be customized for your landscape style. Plus, porous surfaces suit a variety of applications, including driveways, parking lots, and walkways.

COMMUNITY BENEFIT

By installing porous surfaces on your property, rest assured you're making a good choice that's functional, attractive, and improving local water quality in and around your area for the long term. You're part of a growing group of Springfielders taking steps to leave our land in better shape than we found it.

Find Springfield's entire collection of Clean Water Garden brochures at ***bit.ly/cleanwatergarden****.*

IDEAS FOR POROUS SURFACES

Porous surfaces add a lot of character!
The next time you install or re-do a driveway, patio, walkway, or path consider porous options.

There are a variety of styles and price points to choose from. In addition to choosing a great surface, also consider the soil below and if it needs amendments to assist with rain infiltration, such as a layer of gravel and/or sand. Less common than these options, but also available, is permeable concrete and porous asphalt.

CLAY BRICKS are often available from old buildings, and other salvage sites. There are many types of sand that are porous, brace the bricks, and prevent weeds.

CRUSHED ROCK OR GRAVEL Great for patios! For good infiltration, if using layers of rock, put the largest rocks on top.

PERMEABLE PAVERS offer a beautiful and durable surface. They can make for a difficult do-it-yourself project, so consider professional installation.

STONE makes for a lovely path. Herbs can be planted between stones for a scented tour of the garden.

WOOD CHIPS on a path lend a natural look. Be prepared for regular maintenance.