

# Infiltration Trenches

STRUCTURAL MAINTENANCE

## What is an infiltration trench?

An infiltration trench is a type of stormwater management facility that is designed to filter rainwater. It is an excavated channel filled with gravel that helps to manage polluted or excess rainwater on your property. Infiltration trenches can be located on the ground surface or buried by design. You can find infiltration trenches in residential neighborhoods and around commercial businesses.

## How does it work?

An infiltration trench captures rainwater and directs it through layers of gravel, sand, and underlying soil, which allows the water to infiltrate into the surrounding soil and prevents flooding.

Flow splitters are often used to send a certain quantity of untreated water, known as the "first flush," to an infiltration trench. An underdrain pipe may be installed in the gravel bed to collect and remove rainwater in case the infiltration trench becomes clogged.

## Why are infiltration trenches important?

- Improve health of streams and rivers
- Help to make our waters fishable and swimmable
- Improve the quality of the Chesapeake Bay

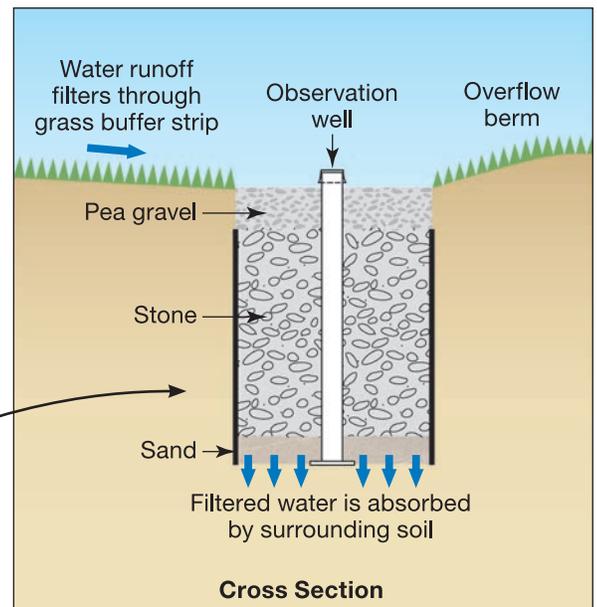
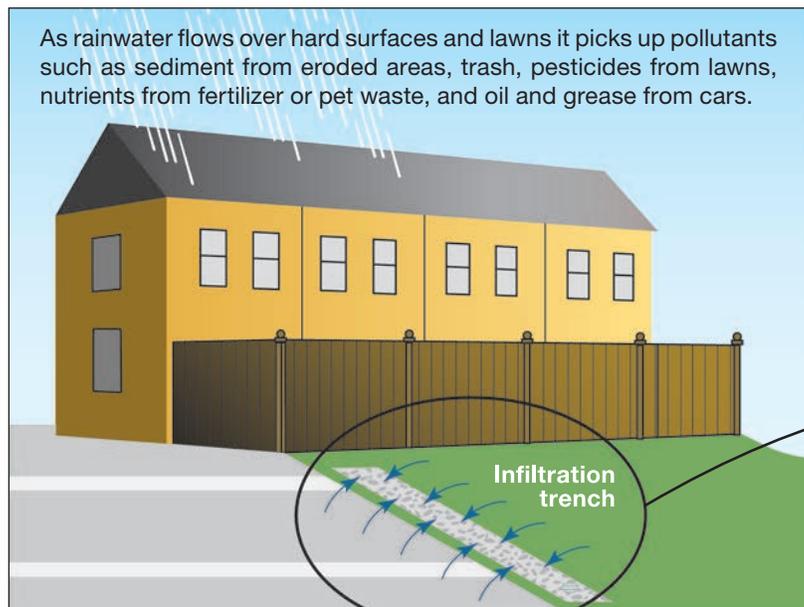


Recently maintained infiltration trench with new stone

## Why is it important to keep your infiltration trench maintained?

An unmaintained infiltration trench may:

- Become an aesthetic eyesore for your community
- Over time, allow unwanted algae and vegetation to grow over it, reducing its function
- Cause rainwater to pool on the surface long enough to become a breeding place for insects (more than 3 days)
- Cost more money to fix problems if left unchecked
- Not remove pollutants as intended, sending polluted water to streams and rivers



# Maintenance 101

## Performing Maintenance

Performing **preventive maintenance** regularly will prevent long-term damage and help avoid potential violations. These actions will keep your facility looking good and working correctly, which will save you money in the long term. The preventive maintenance actions listed below can be thought of as similar to preventive car maintenance (like changing the oil in your car every 3 months).

## Preventive Maintenance

### Frequently

- Mow surrounding grass and remove trash (see the non-structural maintenance fact sheet for additional guidance)

### Yearly

- Manually remove vegetation and weeds growing on the surface of the infiltration trench

### As needed

- Inspect the infiltration trench after every major storm event and contact DEP if you are concerned
- Manually remove sediment on top of the infiltration trench
- Know the pollutant sources on your property and try to eliminate them at the source
- Keep kids, adults, and pets from playing with the filter materials
- Inform contractors working on property of the location of the infiltration trench to prevent accidental damage

**Structural maintenance** is work done on the components of the filter that allow it to control rainwater and remove pollutants. Structural maintenance problems in the table below are things you should be looking out for. When they happen, call the Department of Environmental Protection (DEP) for help (like calling your mechanic when the engine light comes on).

## Structural Maintenance

### Problem:

### Possible Fix:

Water standing on the surface for more than 3 days

Filter media and other components may need to be replaced

Erosion along flow paths

Erosion should be corrected and flow paths possibly re-graded

Vegetation and weeds growing in the filter

Manually remove vegetation and rake media

Damage to structural components (i.e., filter materials, pipes, overflow structures, observation wells)

Specific maintenance for these components to be determined by DEP

Animals burrowing in the media

Fill burrow and establish vegetation

## Who is responsible for the maintenance?

As the property owner, **YOU** are responsible for all maintenance unless your infiltration trench has been transferred to the DEP Stormwater Maintenance Program. If you would like more information about transferring your infiltration trench into this program, please visit <http://www.montgomerycountymd.gov/stormwatertransfer>.

## How will I know what maintenance is required?

DEP performs inspections every 3 years. If maintenance issues are detected during an inspection, DEP will e-mail you a notice of violation with a work order that shows a list of items that need to be performed to restore your facility to proper working condition. You will have 60 days from the date of the e-mail to make the noted repairs. A civil citation may be issued if you have not complied with the maintenance requirements. DEP will work with you if you have questions about how to maintain your infiltration trench. You are not expected to identify all the structural repairs that may be needed on your facility. However, if you notice any of the issues or failures listed above, please contact DEP for guidance.

**A DEP-approved contractor must perform structural maintenance. Please visit <http://www.montgomerycountymd.gov/stormwater> for a list of approved contractors.**



### What if I need help or have questions?

DEP can answer your questions and provide additional guidance about maintaining your infiltration trench. Please e-mail us at [Askdep@montgomerycountymd.gov](mailto:Askdep@montgomerycountymd.gov), call the Montgomery County Customer Service Center at 3-1-1, or visit our website: <http://www.montgomerycountymd.gov/stormwater>.

