



Surface Sand Filters

What is a sand filter?

A sand filter is a type of stormwater management facility designed to filter rainwater through sand to remove pollutants. It is typically a depression in the ground filled with sand that helps to manage polluted or excess rainwater. To the untrained eye, it may look like a sand box or volleyball court. You can find sand filters in residential neighborhoods and around commercial businesses.

How does it work?

During a storm, rainwater collects pollutants as it flows across hard surfaces, such as rooftops, sidewalks, and roads. Flow splitters are often used to send a certain quantity of untreated water, known as the "first flush," to a surface sand filter. The sand filter captures the rain water, directs it through layers of sand and gravel that filter and remove the pollutants, and returns the clean water back to the local stream or into the storm drain system.

Why is a sand filter important?

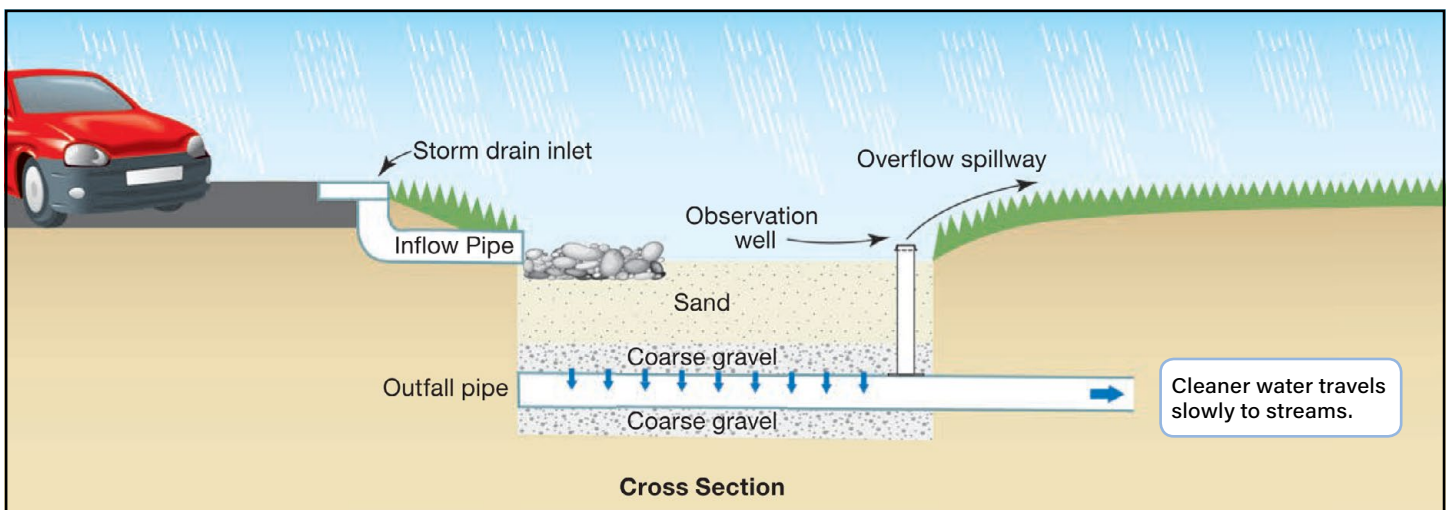
- Removes pollutants
- Improves health of streams and rivers
- Helps to make our waters fishable and swimmable
- Improves the water quality of the Chesapeake Bay



Why is it important to keep your sand filter maintained?

An unmaintained sand filter may:

- Over time, allow unwanted algae and vegetation to grow over it, reducing its function and appearance
- Become clogged and allow water to pool long enough for mosquitoes to breed (longer than 3 days)
- Cost more money to fix problems if left unchecked
- Not remove pollutants as intended, sending polluted water to streams and rivers



As stormwater flows over hard surfaces and lawns, it picks up pollutants such as sediment from eroded areas, trash, pesticides from lawns, nutrients from fertilizer or pet waste, and oil and grease from cars. Sand filters remove much of this pollution by filtering stormwater through layers of stone and sand before releasing it slowly to streams.

Maintenance 101

PREVENTIVE (non-structural) MAINTENANCE

Regular preventative maintenance helps avoid long-term damage and potential violations. These basic actions will keep your facility looking good and working correctly, which saves you money in the long run.

Grass Cutting (At least twice a year)

- Mow grass around perimeter of sand filter. (*Be careful—keep grass clippings out of the sand filter!*)

Vegetation Management (Annually)

- Remove all trees and woody vegetation from the trench
- Remove all grass and weeds growing in the trench
- Seed and cover adjacent areas of bare soil to prevent erosion

Trash Removal (Monthly)

- Remove trash and debris from all areas in and around trench

Other Preventive Maintenance

- Try to reduce or eliminate trash and other pollutants on your property
- Prevent people from playing in the sand filter
- Inform work crews on your property of the sand filter so they don't accidentally damage or deposit snow on it
- Inspect the sand filter after every major storm, and contact DEP if you are concerned

STRUCTURAL MAINTENANCE

Structural maintenance must be done if the sand filter is not filtering and draining properly. Watch for the structural maintenance problems listed below.

A DEP-approved contractor must perform structural maintenance. Please visit montgomerycountymd.gov/stormwater for a list of approved contractors.

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 or dead vegetation	Erosion should be corrected, vegetation may need to be replanted on adjacent areas, and flow paths may need to be re-graded
Damage to structural components (i.e., filter materials, pipes, overflow structures, observation wells)	Specific maintenance for these components to be determined by DEP
Animal burrows	Fill in burrows

Who is responsible for the maintenance?

Per Montgomery County regulations, the property owner is responsible for all maintenance unless your sand filter has been transferred to the DEP Stormwater Maintenance Program.

If you would like more information about transferring your sand filter into this program, please visit montgomerycountymd.gov/stormwater.

(PLEASE NOTE: Only sand filters located in common areas of residential properties are eligible for the transfer program.)

How will I know what maintenance is required?

DEP performs inspections every 3 years. If maintenance problems 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. If you notice any of the issues or failures listed above, please contact DEP for guidance.



NEED HELP OR HAVE QUESTIONS?

DEP can answer your questions and provide additional guidance about maintaining your sand filter.

Email us at AskDEP@montgomerycountymd.gov, call the Montgomery County Customer Service Center at **3-1-1**, or visit our website: montgomerycountymd.gov/stormwater.