SAND FILTERS

Sand filters are typically a sand filled depression in the ground capable of treating and capturing pollutants and excess runoff. Sand filters address stormwater runoff by allowing it to filter through a bed of sand. A typical sand filter includes a pretreatment system that removes larger sediment and debris from runoff. An above-ground or open sand filter requires a sizable piece of land and it is ideal for areas with less urbanization. As the name suggests, this system is open to the atmosphere and visible in the landscape. The treated stormwater is then collected in the underdrains and then sent to a detention or retention facility. Compared to the above ground system, the below-ground sand filter is the more expensive option and well suited for highly urbanized areas. This type of system consists of an underground enclosure or vault divided into several compartments. There are pre-settling and sand filtration cells within the vault that cleans water while it passes through and then collects at the retention center. Also, this system has a pipe-in connection to let in stormwater runoff and an outlet to let out excess water.

Who is responsible for this maintenance?

As the property owner, you are responsible for all maintenance of your sand filter.
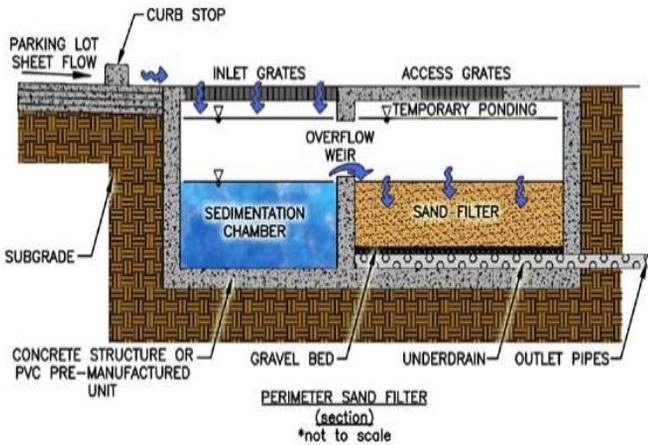
Below-ground sand filter

WHY IT'S IMPORTANT TO MAINTAIN YOUR SAND FILTER

An unmaintained sand filter area may:

- Stop filtering the rainwater and allow pollutants to flow into our local streams.
- Be difficult or expensive to repair if left unmaintained.
- Allow water to pool on the surface long enough to allow mosquitoes or other insects to breed (longer than 3 days).

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MAINTENANCE AND MONITORING

FREQUENCY*	ACTIVITY*
After Storm Event	• Check and remove all sediment.
Bi-Weekly	• Inspect surrounding vegetation and make sure they are established.
Monthly or As Needed	• Cut or trim surrounding vegetation surrounding the sand filter.
Twice a Year	• Check all components for debris, trash, and sediment. • Inspect surrounding vegetation and make sure they are in good condition. Replace vegetation if needed and ensure that it is diverse. • Remove debris from the sand in the system. • Remove all vegetation growing in the system.
Annually	• Check structural components for cracking and deterioration. • Check area surrounding the system for erosion and stabilize. • Check surrounding vegetation and remove unwanted growth.
*Follow manufacturer's guidelines	

Symptom	Possible Cause	Solution
Standing water in the surface sand filter	Clogging due to leaf litter, grass clippings, sediment, or debris accumulation.	If standing water occurs longer than 2 or 3 days, the surface sand filter may be clogged. Remove any visible debris from the area.
Rainwater is not flowing into the infiltration area	Leaves, sediment, or other debris may be blocking the flow path.	Remove any visible debris from the sand filter area and the flow path. Be sure to check that paved surfaces are also clear.
Sediment is accumulating in the surface sand filter	Erosion may be occurring near the flow path or washing off paved surfaces.	Stabilize any eroded areas with vegetation being careful not to block flow path. Be sure upstream paved surfaces are free of debris.

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INVASIVE PLANTS

"Invasive" describes a species that, when introduced into an ecosystem aggressively establishes itself at the expense of native plants or animals (*Maryland Department of Natural Resources*). Regularly inspect vegetation and remove invasive/nuisance plant species. For more information on invasive plants in Maryland, please go to the Maryland Department of Natural Resources website at: http://dnr.maryland.gov/invasives/Pages/default.aspx.

Surface Sand Filter, Department of Environmental Protection, Montgomery County, Maryland