

Vegetated Filter Strips

Vegetated filter strips are uniformly graded and densely vegetated sections of land, designed to treat runoff and remove pollutants through vegetative filtering and infiltration. Vegetated filter strips are best suited to treating runoff from roads and highways, roof downspouts, very small parking lots, and pervious surfaces. These filter



strips may be constructed with turf, meadow grasses, or other dense vegetation. They are also ideal components of the "outer zone" of a stream buffer, or as pretreatment for another structural stormwater control. Filter strips can serve as a buffer between incompatible land uses, be landscaped to be aesthetically pleasing, and provide groundwater recharge in areas with pervious soils.

There are some common problems to be aware of when maintaining a vegetated filter strip. They include, but are not limited to, the following:

- Sediment build-up
- Clogging in the pea gravel diaphragm or other flow spreader
- Establishing vegetation within the vegetated filter strip
- Ant mounds
- Erosion
- Concentrated flow

Routine maintenance should be performed on the vegetated filter strips to ensure that the practice is functioning properly. Note that during the first year the vegetated filter strip is built, maintenance may be required at a higher frequency to ensure the proper establishment of grass and vegetation in the practice. Upon establishment, grass should be routinely cut and vegetation trimmed, as necessary, to maintain a grass height of 3-12 inches or 6-15 inches along a roadway. Other routine maintenance includes removing trash from the vegetated filter strip and ensuring that grass clippings and other debris are removed from the filter strip.

Vegetated filter strips should be inspected after a large rainstorm. Keep drainage paths, both to and from the BMP, clean to promote sheet flow so that the water can be filtered by the BMP.

If the vegetated filter strip is not draining properly, check for clogging in the inlet and outlet structures. Also, consider if the filter strip has a sufficient slope or if there are obstructions within the filter strip that may cause inhibit the flow of water. If the practice includes a permeable berm, a structural repair or cleanout to unclog the outlet pipe may be necessary.

In order to keep the water that exits the vegetated filter strip clean, fertilizers should be used sparingly during the establishment of the practice. Once the vegetation in the practice has been established, fertilizers should not be used. While vegetation in the vegetated filter strip is important, a primary purpose of a vegetated filter strip is to act as a water quality device and introducing fertilizers into the vegetated filter strip introduces nutrients such as phosphorus and nitrogen that can pollute downstream waters. To control animal nuisances and invasive species, pesticides (including herbicides, fungicides, insecticides, or nematode control agents) should be used sparingly and only if necessary.

The table below shows a schedule for when different maintenance activities should be performed on a vegetated filter strip.

Vegetated Filter Strips Typical Routine Maintenance Activities and Schedule

Activity	Schedule
<ul style="list-style-type: none"> • Mow grass to a height to maintain a dense vegetative cover. It is recommended that the height of grass is 3-12 inches and 6-15 inches along a roadway. Remove any grass clippings • Keep the practice clean and remove all trash, sediment, and debris. • Reseed any eroded or bare spots. • Water the practice during dry conditions of vegetation establishment. 	As needed
<ul style="list-style-type: none"> • Inspect vegetated filter strip for signs of erosion, and repair the strip as needed. • Inspect for invasive species and remove as needed. • Inspect pea gravel diaphragm for clogging and remove built-up sediment. • Inspect vegetation for rills and gullies. Seed or sod bare areas. • Inspect to ensure that grass has established. If not, replace with an alternative species. 	Annual Inspection