

Facts About: Submerged Gravel Wetlands

Stormwater Best Management Practices (BMPs)

Micro-scale practices are small environmental site design (ESD) water quality treatment devices that capture and treat stormwater runoff from impervious areas less than one acre in size. These practices typically include natural systems, vegetation, and soils. Unlike larger, structural practices, these smaller devices can provide stormwater management at the source.

Submerged Gravel Wetland

A **submerged gravel wetland** is a small-scale filter using wetland plants and rocks to provide water quality treatment. Runoff drains into the wetland into the submerged gravel and is distributed throughout the system. Pollutant removal is achieved through biological uptake from algae and bacteria growing within the rocks. Wetland plants provide additional nutrient uptake. This type of practice can work well in areas that have poorly draining soils or a high water table, like Maryland's Eastern Shore.



Submerged gravel wetland



Plants growing in the wetland

Pollutant Removal Efficiencies

- Sediments 80%
- Phosphorus 66%
- Nitrogen 56% (as part of a system of ESD practices)

More Information

For information on specific design criteria, go to Maryland's Stormwater Design Manual:
mde.maryland.gov/programs/water/StormwaterManagementProgram/Pages/stormwater_design.aspx