Facts About: Stormwater Wetlands

Stormwater Best Management Practices (BMPs)

Wetlands are characterized by hydric (water saturated) soils and aquatic plants, which vary widely depending on the region, topography, climate, hydrology, water chemistry and other factors. The wetland plants filter and remove sediment, nutrients, and other pollutants. Wetlands have many functions, including collecting, holding, filtering and purifying flood waters, and providing habitat for a variety of wildlife and plants, as well as places of natural beauty and recreational activities.

Stormwater Wetlands

Shallow wetlands provide water quality treatment in a shallow pool with a large surface area (from the marshy bottom and differing shallow depths). **Extended detention shallow wetlands** use a combination of shallow wetland pool and extended detention storage to provide treatment for a higher volume of water. A **pond/wetland system** is a combination of a pond and wetland and has a deep permanent pool next to the shallow wetland. A **pocket wetland** is a smaller shallow wetland. It uses groundwater to help maintain a shallow wetland pool.

Extended detention shallow wetland

Shallow wetland

Design Variants

- Shallow wetland
- Extended detention shallow wetland
- Pond/wetland system
- Pocket wetland

Pollutant Removal Efficiencies

- Sediments 90%
- Phosphorus 60%
- Nitrogen 50% (as part of a system of environmental site design practices)

More Information

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