



Facts About: Bioretention

Stormwater Best Management Practices (BMPs)

Stormwater filtering practices capture and temporarily store the water quality volume, as required in Maryland's Stormwater Design Manual. The water passes through a filter bed of sand, gravel, organic matter, soil or other media to remove pollutants such as total suspended solids, total phosphorus and dissolved metals. The cleaned water is then returned to the conveyance system or allowed to infiltrate into underlying soils and recharge groundwater.

Bioretention

Bioretention practices are constructed shallow basins used to slow and treat stormwater runoff. Runoff is captured and treated from discrete impervious areas by passing it through a filter bed mixture of layered sand, soil, organic matter, and plants. Filtered stormwater is either returned to the conveyance system or partially infiltrated into the soil. Bioretention practices provide both water quality treatment and aesthetic value where they are implemented. They are versatile and can be used in a variety of landscaped areas, including roadway medians and parking lots. Native plants are ideal because they are best suited for local conditions and require less watering/expense maintaining, as well as the importance of creating habitat for other native species.



Bioretention



Bioretention in parking lot

Pollutant Removal Efficiencies

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