



NaturChem

Stormwater Services | Vegetation
Management

Stormwater BMP



Technique or method designed to manage the quantity and improve the quality of stormwater runoff.

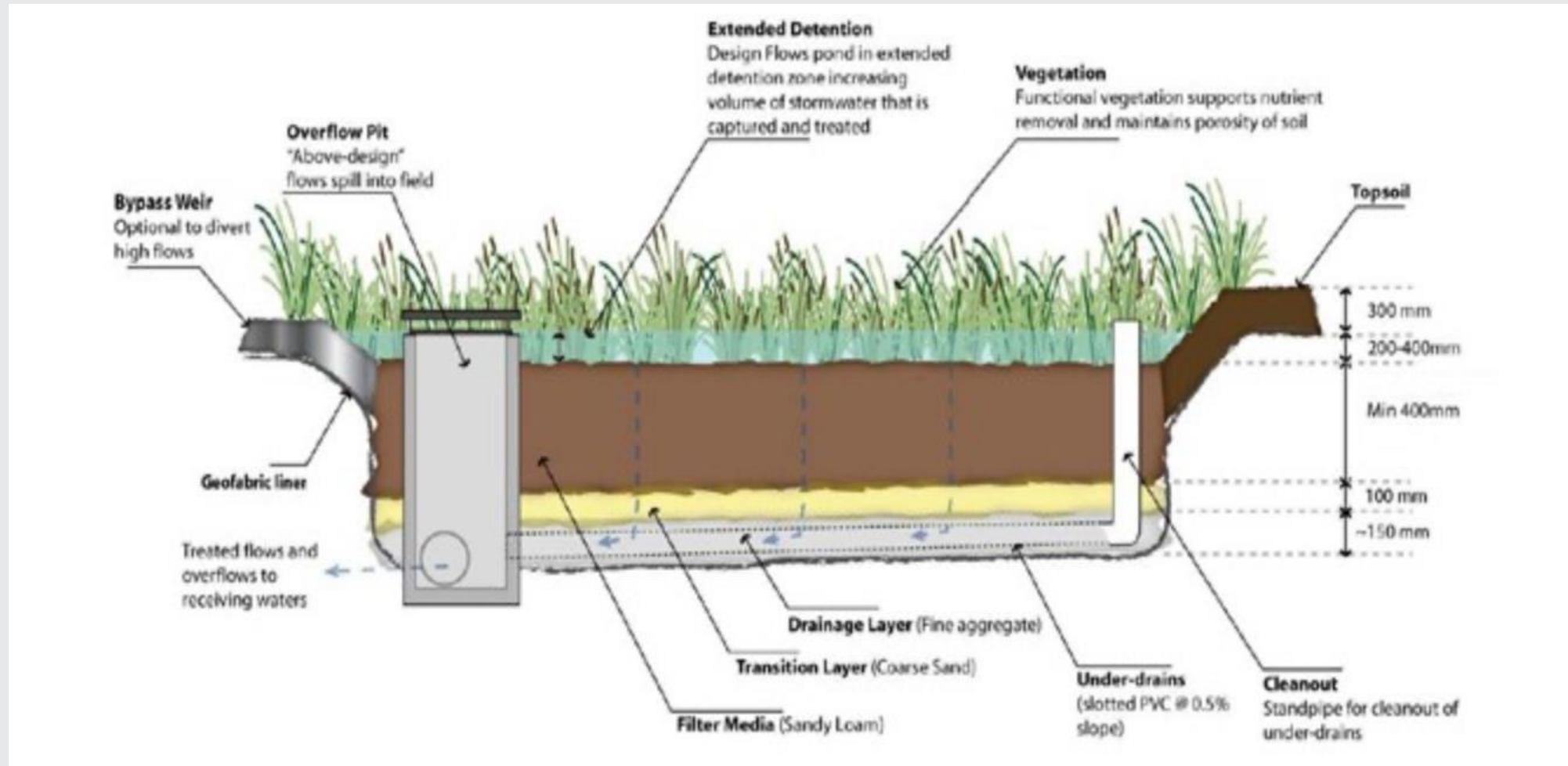
- Reduce or eliminate pollution and contaminants collected by runoff before the runoff reaches local streams or waterways.
- Restore water flow regimes to their natural state.

Bioretention Basin/Rain Garden

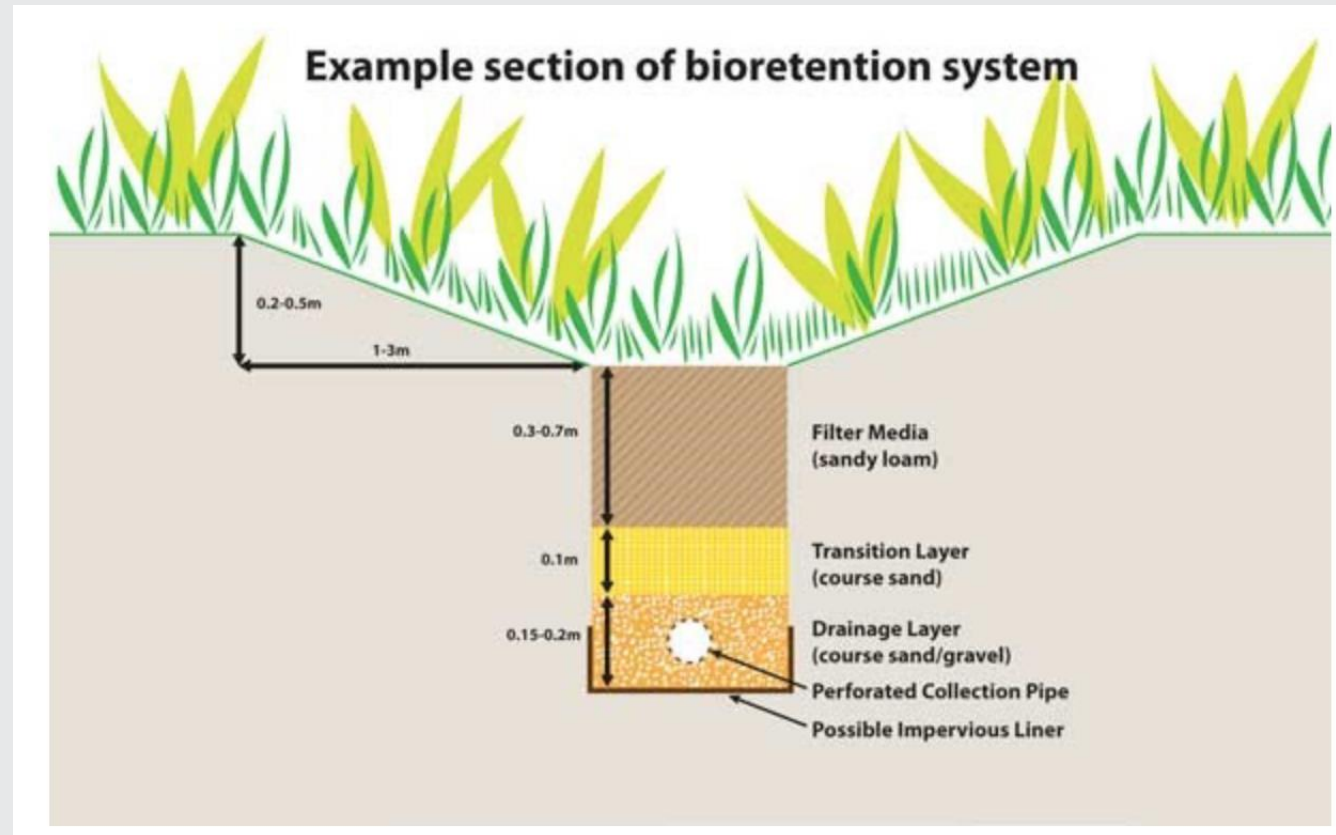
A basin used to slow and treat stormwater runoff. Runoff percolates through the system where it is treated by a number of physical, chemical, and biological processes. The slowed, cleaned water is then allowed to infiltrate native soils or directed to drains or receiving waters. The primary processes this BMP uses are filtration and biological uptake.



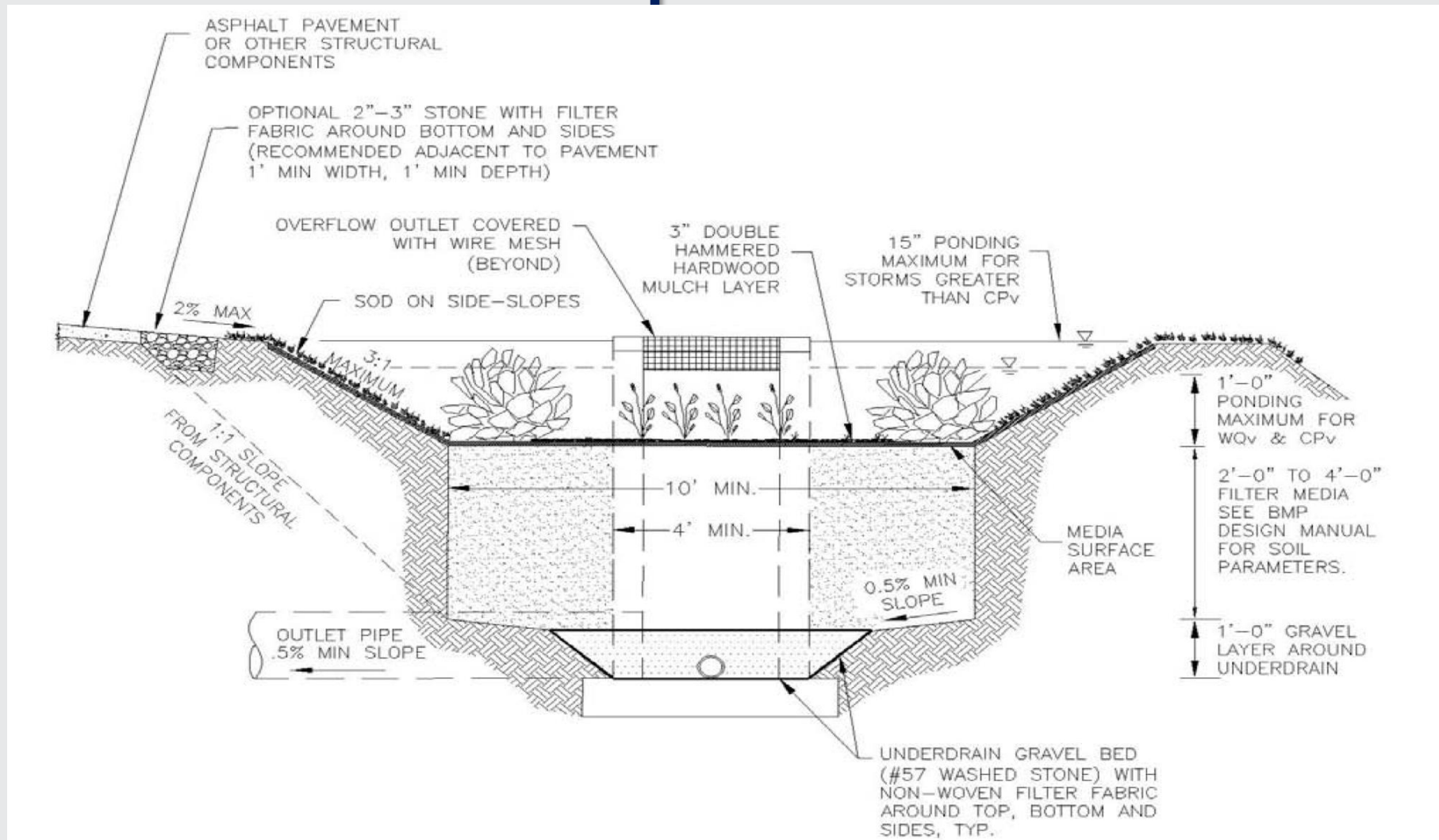
Components



Components



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Components Explained

Grass Buffer Strip – reduces water velocities and filters sediment from the runoff.

Sand Bed – reduces velocities, filters sediment, and spreads the flow of water over the length of bioretention basin.

Ponding Area – provides a temporary storage location for runoff prior to its evaporation or infiltration.

Organic/Mulch Layer – filters pollutants and promotes microorganisms that degrade petroleum-based products and other organic material.

Filter Media – provides absorption for hydrocarbons, heavy metals, nutrients, and other pollutants.

Vegetation – Refer to plant listing; Vegetation capable of withstanding “wet feet”; Should be regionally native; No Invasives!

Bioretention Soil Media Mix

Mixes can vary by region. In general, the composition will consist of:

- 60 – 70% washed course sand

- 15 - 20% sandy loam topsoil

- 15 - 20% compost

The blended material should have a very low silt and clay content.

You can purchase it already mixed (if you can find it) OR mix it yourself. We have had to resort to aggregate facilities in NC for the mix.

Bioretention Maintenance

- Recommend monthly inspection. (After a rain event is a perfect time)
- Removal of trash and debris
- Pruning of vegetation
- Hand work; Pulling of weeds; No herbicides in basin
- Removal of sediment at inlets
- Inspecting thickness of mulch. Should be 3-4" thickness.
 - Mulch should be replaced every 2-3 years
- Checking for erosion on slopes and around inlets.
- Has it drained within 48 hrs? Potential clog.

Examples



Examples



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