

BioRetention Systems for Urban Stormwater Runoff Treatment

Phosphorus Pollution Problem

- Just 1 g of phosphorus promotes the growth of 100 g algae which deplete oxygen and damage water resources
- P concentration as low as 0.1-0.2 mg/L can trigger excessive aquatic growth and harmful algae blooms
- Urban stormwater runoff typically has P concentrations ~ 1 mg/L, however it generates large volumes of water.



An Innovative BioRetention Systems for Urban Stormwater Runoff Phosphorus Harvesting, Removal and Recycling

- WSSI has developed an affordable and efficient bioretention systems and other filtration products (**PR_G_001**) for phosphorus harvesting, removal and recycling from urban stormwater runoff.
- **PR-G-001** are a passive filter systems housed in a two compartments tanks or geotextile membranes, filled with PhosphoReduc phosphorus reducing media, rich in iron (Fe) and calcium (Ca) oxides and a Phosphoreduc pH reducing media.



PhosphoReduc™ media



Hardwick, Vermont



Loudon County, Virginia



Brazil

Treatment Efficiency

- ☑ Up to 95% Phosphorus removal
- ☑ Up to 90% Pathogens removal
- ☑ Up to 90% Solids removal

Benefits to Environment

- No energy requirements
- Small footprint
- Life span 20 years
- Minimal land disturbance

Minimal O & M

- Please see our additional information on operation and maintenance.