BIOSWALES
FACT SHEET

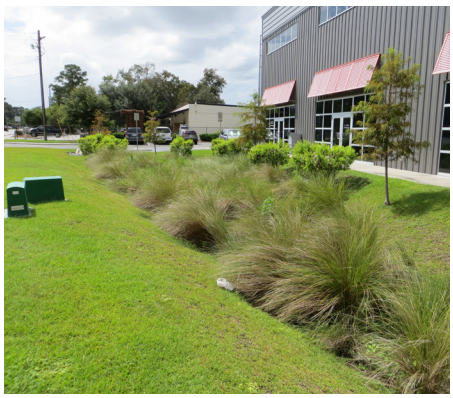
Bioswales, or dry enhanced swales, are vegetated open channels designed to capture and treat stormwater. Unlike other stormwater green infrastructure, bioswales are configured in a linear fashion for conveyance.

Bioswales are often vegetated, improving aesthetics, reducing the velocity of stormwater and assisting with pollutant removal; but do not confuse them with a grassed channel or ditch. Much like other bioinfiltration practices (i.e. bioretention), bioswales utilize an engineered soil media and underdrain to enhance pollutant removal. Bioswales should be designed with less than a 4% longitudinal slope. Berms or check dams can be used in bioswales to promote surface ponding, infiltration, and settlement of sediment and pollutants.

Like all infrastructure, green infrastructure practices such as bioswales require proper maintenance to perform long-term. Accumulation of sediment, litter, debris and improper vegetation growth are a result of poor maintenance. During vegetation establishment, more frequent inspections are required to inspect for erosion. If the bioswale isn't draining within 48 hours after a moderately-sized rain event (~1 inch), check the inlet and outlet structures and media surface for clogging. Bioswales are frequently used parallel to roadways; therefore, specific care should be given to ensure vegetation does not block lines of sight and overflow does not create driving hazards. Maintenance costs for bioswales are not extensively documented; however, due to the similarities in design and function, average maintenance costs are expected to be comparable to bioretention (median cost ~$0.70/sq. ft.).

BIOSWALES POLLUTANT REMOVAL[1]

80%	of suspended solids
50%	of phosphorus
50%	of nitrogen
95%	of metals



1 Georgia Stormwater Management Manual. Atlanta, 2016. 2016 Edition. https://atlantaregional.org/natural-resources/water/georgia-stormwater-management-manual/