



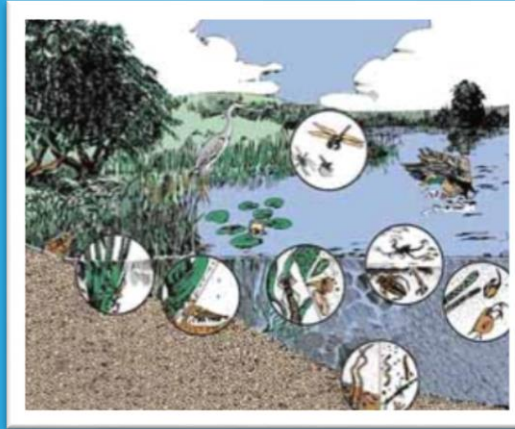
Stormwater Facilities & Maintenance

Constructed Wetlands

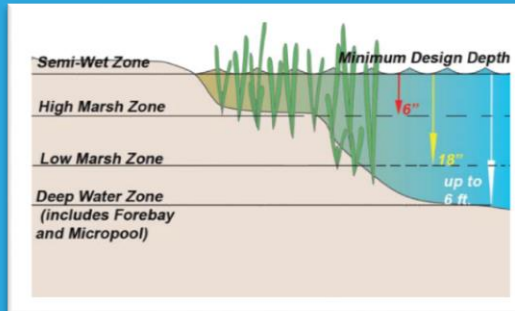
Constructed Wetlands are an engineered treatment BMP designed for sites that are not wetlands, to provide stormwater treatment. These facilities are considered part of the larger stormwater collection and treatment system, and are intended to remove pollutants from stormwater runoff – enhancing water quality.

Pro Tip:

Before performing maintenance consult with the engineer or the as built drawing to discover if the constructed wetland is lined (perc rate greater than .5 in/hr requires lining). Consult as built or wetland specialist for further information regarding the plant list and density specs.



Source: EPA
Wetland Pollutant Removal



Source: Prj.geosyntec.com



Source: Kitsap County Duwe'iq Illustration



Wm Bush Park Wetland in Lacey

Maintenance required when:

- Gravity drain in settling cell clogged or missing
- Yard waste and/or debris in wetland
- Evidence of oil, gasoline, contaminants, or other pollutants
- Erosion on wetland slope, berms, or near inlet/outlet pipes
- Noxious weeds in/near wetland

Contact your HOA or property manager immediately if:

- Inlet/outlet pipes blocked or broken
- Wetland is overflowing
- There is damage from a storm or vandalism
- Evidence of illegal dumping and/or oil in wetland

Visit us online:

ThurstonStormwater.org

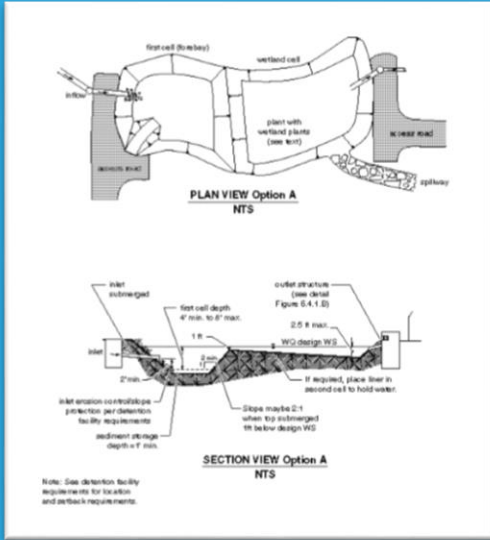
Don't let your systems fail.

Stormwater treatment wetlands are shallow, man-made ponds designed to treat stormwater using the biological processes of emergent aquatic plants, soils, and associated microbes.

While removal of specific pollutants (like phosphorus) can be highly variable in constructed wetlands, these facilities have shown to be effective in the removal of sediment, metals, and pollutants that bind to soils and organic acids.



Source: Kitsap County Constructed Wetland – during construction



TC Stormwater Wetland option 1

Combined constructed wetland and detention ponds occupy a similar amount of surface area as regular detention ponds - while also providing habitat, runoff treatment, flow control, and a more aesthetically pleasing facility.

Keep water clean.

Protect county roads from flooding.

Save money.

Constructed wetland designs and their maintenance features are similar to wet ponds. With constructed wetlands, there are two cells separated by a berm, where pretreatment is accomplished in the settling cell. Because of this, more regular sediment removal will be required in the settling cell than the wetland cell. Furthermore, unlike wet ponds, plant vigor and biomass are primary design concerns, not water volume (as with wet ponds). Both cells will accumulate organic matter “deltas” in the bottom of the marsh, which should be removed (typically every 8-10 years).



TC Stormwater Wetland option 2 – more naturalistic version

For additional information regarding stormwater management in Thurston County, reference our Stormwater Drainage Manual at DM.ThurstonStormwater.org.