

What is a Constructed Wetland?

Constructed wetlands are stormwater management systems designed to maximize the removal of pollutants from stormwater runoff.

Constructed wetlands are typically shallow marsh systems planted with emergent vegetation. Flow is directed through an engineered, open marsh system where pollutants are removed through settling and vegetative uptake/filtration.

Constructed wetlands can be designed as either an online or offline facilities. They can also be used effectively in series with other flow/sediment reducing BMPs that reduce the sediment load and equalize incoming flows. Constructed wetlands are a good option for retrofitting existing dry ponds.



SUGGESTED MAINTENANCE ACTIONS*

ROUTINE REQUIREMENTS

- All components expected to receive and/or trap debris and sediment should be inspected for clogging and excessive accumulation at least annually, or as needed; these components may include control structures, weirs, orifices, and outfall pipes.
- All structural components should be inspected annually for cracking, subsidence, spalling, erosion, and deterioration.
- Check the forebay for accumulated sediment. In general, the forebay should be dredged if sediment fills over 50% of design volume.

AS NEEDED

- Check for erosion or instability and repair if required.
- Inspect control structures, weirs, orifices, outfall pipes for leaks and blockages.
- Inspect after every major storm event.

DO NOT:

- Use fertilizers or pesticides in your constructed wetland as they are usually not needed and can contribute to water pollution.
- Remove or alter your constructed wetland. If you claimed your constructed wetland for the Stormwater Credit Program, removing or modifying it can result in loss of credit.
- Allow sediment to buildup and accumulate.
- Allow animals to burrow in the area.

** Please refer to the Maryland Stormwater Design Manual, Volumes I and II for minimum requirements and procedures for maintaining BMPs. This document serves as the official guide for stormwater management principles, methods, and practices in the State of Maryland. Visit <http://bit.ly/MDESWDM>.*

Who is responsible for this maintenance?

As the property owner, you are responsible for all maintenance.

WHY IT'S IMPORTANT TO MAINTAIN YOUR CONSTRUCTED WETLAND

An unmaintained constructed wetland may:

- Stop filtering the rainwater and allow trash and pollutants to enter into our local streams.
- Cause flooding and safety concerns if it fails.
- Be difficult or expensive to repair if left unmaintained.

Troubleshooting Issues

Symptom	Possible Cause	Solution
Stagnant water	Buildup of debris that blocks water flow paths.	Remove any visible debris. Check to ensure that water is moving through all parts of the wetland. Ensure that debris does not block flow paths.
Damaged or clogged inlet and outlet channels, pipes and/or trash racks	Clogging due to leaf litter, sediment, or debris accumulation.	Remove any visible debris from the surface. Repair or replace damaged structures to prevent functionality failure.
Dead or dying plants	Invasive species taking over planted vegetation.	Regularly inspect vegetation. Remove invasive species. Herbicides should only be used for extreme circumstances. Use only native vegetation.

Recommended timeframes for routine maintenance

Inspect Banks for Settlement and Erosion	Inspect annually and after large storm events.
Inspect Forebay for Accumulated Sediment	— As needed —
Mowing and Trimming	— As needed —
Remove Tree and Woody Vegetation on Banks	— As needed —
Remove Trash and Debris	— As needed —
Erosion Control	— As needed —

Typical Constructed Wetland Profile (for illustrative purposes only)

