

HOW TO MAINTAIN YOUR PONDS: NON-STRUCTURAL MAINTENANCE

WHAT ARE STORMWATER PONDS?

A stormwater pond is a type of best management practice (BMP) designed to collect rainwater and pollutants and prevent downstream flooding. Many ponds located throughout Hampton Roads are stormwater BMPs, even ones that are community amenities. Stormwater ponds can have many different designs, including ponds with concrete channels, dry ponds with sand filters on the pond bottom, and ponds that provide wetland habitat around the edges.

HOW DO WET AND DRY STORMWATER PONDS WORK?

A dry pond is designed to hold water for a short period of time before allowing the water to discharge to a nearby stream. Between rain events, a dry pond looks like a large, grassy low area. When it rains, the pond fills with water. They hold water for 48-72 hours to allow sediment and pollutants to settle out. Because they detain water for a brief time before allowing it to flow out, dry ponds are also called detention ponds.

Wet ponds, on the other hand, maintain a permanent pool of water throughout the year. They remove pollutants by allowing sediment to settle as water slowly moves from one end of the pond to the other and through biological uptake, as plants absorb excess nutrients. Wet pond water levels can increase dramatically as a result of rainstorms, like dry ponds. Because they retain water for a longer time, wet ponds are also called retention ponds.

WHY ARE STORMWATER PONDS IMPORTANT?

Stormwater ponds:

- Control peak flows of runoff and lessen the effects of erosion.
- Help reduce street flooding.
- Improve the health of local waterways by removing pollutants and sediment from stormwater runoff.

Why is it important to keep your stormwater pond maintained?

Unmaintained stormwater ponds may:

- Not remove pollutants as intended, sending polluted water to streams and rivers.
- Become filled with sediment and debris, reducing the storage capacity of the pond, which may lead to downstream flooding and erosion.
- Look unsightly with excessive growth of unwanted weeds or algae.
- Cost more to fix problems if left unchecked.
- Lead to a dam breach if overgrown vegetation and trees compromise the integrity of the pond over time. This could cause flooding and damage to adjacent homes.
- Have inlet and outlet areas blocked by excessive growth or debris. This will cause water to back up or pond on adjacent properties.

By maintaining your stormwater pond, you are doing your part to help protect your local streams and the Chesapeake Bay. Maintaining your pond may be required by your municipality or local VSMP (Virginia Stormwater Management Program) Authority.



MAINTENANCE 101: WHERE

As rainwater flows over hard surfaces and lawns it picks up pollutants such as sediment, trash, pesticides from lawns, nutrients from fertilizer or pet waste, and oil and grease from cars. Stormwater ponds can help to reduce this pollution.

MAINTENANCE 101: WHAT AND HOW

How will I know what maintenance is required?

Virginia Stormwater Management Program (VSMP) regulations require that you perform ongoing routine maintenance including grass cutting, trash removal, and vegetation management of your stormwater BMP. However, requirements may differ by locality. Please, check with your municipality for specific details regarding the maintenance agreement and requirements in your locality.

GOOD TO DO...

Bi-Annually

Grass Cutting - Mow grass in the pond area at least twice a year including:

- Upstream slope of dam (dry ponds only).
- 25 feet around water control structure (dry pond only).
- Inlet channels, around headwalls, and pipes within pond area (where safe and accessible).
- Outlet channel.
- Top and side of embankments.
- Be sure to leave a buffer (wet ponds only).

Vegetation Management - Remove trees and woody debris from the following areas:

- From the top/ upstream/downstream slopes of the embankment.
- From inlet and outlet channels and pipes.
- Within 25 feet of the control structure .
- From channels, headwalls, and near pipes in the pond area.
- Banks of pond.



Well Maintained Dry Pond

The most commonly forgotten non-structural maintenance is mowing and removal of trees and woody vegetation on the downstream slope of the embankment

As Needed

Trash Removal

- Remove trash and debris from all areas in and around the pond after large runoff-producing storms. Please use caution removing trash from the wet area of wet ponds.

Other Preventive Maintenance

- Know the pollutant sources on your property and try to reduce or eliminate the pollutants at the source.
- Prevent trees and woody vegetation from growing in these areas.
- Seed and cover adjacent areas of bare soil to prevent erosion.
- Notify police if graffiti is observed.
- Verify pond safety signs are in place (if applicable).
- Inspect the pond after major storm events and contact your municipality if you have any concerns.
- Keep aerators in working condition (if applicable).
- Geese/water fowl prevention measures (if applicable).

If avoidable, do not apply herbicides, fertilizers, or pesticides in or around the pond. If manual removal methods of vegetation are ineffective, please use chemicals sparingly and consider professional guidance.

Grass Cutting

- Keep area mowed at least twice a year.

Vegetation Management

- Remove trees and brush on the embankments at least twice a year.

Trash Removal

- Clear trash regularly/as needed.

Other Maintenance

- Inspect and perform as needed.

MAINTENANCE 101: FREQUENTLY ASKED QUESTIONS

Q: When does my municipality inspect my stormwater pond?

A: State regulations require scheduled inspections at least once every five years, however some localities may inspect more often. To find out contact your municipality.

Q: I don't want mosquitos - how can I avoid having them breed in my stormwater pond?

A: Stormwater ponds typically are not breeding habitats for mosquitos. Rather, mosquitos usually breed in gutters, pots, or bird baths with standing water. Also see EPA's guidance for mosquito management: www.epa.gov/pesticides/health/mosquitos/mosquito.htm.



Q: My stormwater pond is full of cattails - what should I do?

A: Cattails are an indicator of a possible blocked pipe or high nutrient levels in the water. Cattails can be removed if they are disrupting the function of the pond, in which case their removal may be considered structural maintenance. Please contact your municipality for additional guidance.

Q: What if my stormwater pond has algae?

A: Managing algae and duckweed are considered aesthetic maintenance and are the responsibility of the owner.



Q: Who will fix any issues with my fence or dock?

A: Repairs to fences and docks are considered safety and aesthetic maintenance and are the responsibility of the owner. Ponds are not required to have a fence. Owners should not build structures that will inhibit maintenance of the pond by obstructing future access.

Q: Can I stock fish in my stormwater pond?

A: Stocking fish is not prohibited. Contact the Virginia Department of Game and Inland Fisheries for guidance on fish stocking. Stocking may not be advisable for ponds that regularly need to be drained for maintenance.

Q: Can I add a fountain to my stormwater pond?

A: Fountains and aerators are the owner's maintenance responsibility. These may require approval and a permit from your municipality. A fountain or aerator that is part of the pollutant removal plan may not be removed without the approval of your municipality.

CAN I REMOVE MY STORMWATER POND?

If your stormwater pond was installed as a condition of development, it cannot be removed. It is best to contact your municipality to discuss options before making any changes to your stormwater pond

WHAT IF I NEED HELP OR HAVE ADDITIONAL QUESTIONS?

Your municipality or local VSMP (Virginia Stormwater Management Program) Authority can answer your questions and provide additional guidance about maintaining your stormwater facility.

askHRgreen.org

YOUR GO-TO RESOURCE FOR EVERYTHING GREEN IN HAMPTON ROADS

No matter where you are in Hampton Roads, askHRgreen.org can assist you in connecting with the stormwater professionals in your locality. For assistance, please email us at hrgreen@hrpdcva.gov, call (757) 420-8300, or visit us online at askHRgreen.org/WaterQuality.