

STORMWATER PONDS

FUNCTION & MAINTENANCE REQUIREMENTS

What are Stormwater Ponds?

Is there a pond in your HOA community? Chances are it was built to help manage stormwater instead of being naturally occurring. **Stormwater ponds are large constructed basins designed collect, store, and treat large amounts of stormwater runoff.** They help to reduce downstream flooding and remove pollutants by capturing and slowly releasing water. **There are two types: wet and dry.**

Function of Wet Ponds

Wet ponds have a permanent pool of water and are typically surrounded by vegetative buffers to help collect pollutants. There is often a visible outflow structure in the pond, called a riser. In most wet ponds:

- Runoff flows into the pond through an inlet.
- A smaller pool, called a forebay, slows the runoff and lets sediment and other pollutants to settle to the bottom.
- Water then flows to a second pool, the primary pool, for additional settling.
- If the water level exceeds the outlet elevation, like after heavy rainfall, the outlet structure slowly releases it.
- During extreme rain events, water may flow over the highest part of the pond, called the emergency spillway or overflow.



Function of Dry Ponds

Dry ponds are a large grassy basin, sometimes with rock, other vegetation, and an outflow structure that are dry except for after storms. In most dry ponds:

- Runoff flows into the pond.
- The basin slows the incoming water and allows sediment and other pollutants to settle out.
- The water infiltrates into the ground to replenish groundwater or is released slowly through an underdrain or outlet structure to nearby waterways within a few days.





Promoting Healthy Ponds

You may notice that your stormwater pond is green. This is because wet ponds collect nutrients from fertilizers and plant matter, which cause algal blooms.

While stormwater ponds are meant to collect and filter pollutants, they will be cleaner when pollutants are managed prior to flowing into the pond. Follow these best practices:

- Limit using fertilizers and other lawn chemicals near the pond.
- Keep grass clippings and leaf litter out of the pond.
- Clean up pet waste and trash near the pond.
- Maintain a vegetated buffer to keep pollutants from reaching the water.

Maintenance Requirements

Your HOA is most likely responsible for maintaining your stormwater pond, which is required to ensure proper long-term function. **Failing to maintain your pond can lead to increased water pollution, higher flood risk, and costlier maintenance down the line.** While your HOA can do some maintenance activities, others require a contracted professional.

Your HOA or landscaping contractor should do the following monthly or as-needed:

- Clear sediment from the inlets and outlets.
- Remove trash and debris from the pond, its structures, and the shoreline.
- Maintain vegetation with mowing, removing woody vegetation, and restoring ground cover.

A qualified professional should inspect for the following semi-annually to annually:

- Inlet or outlet structure blockage or damage.
- Erosion and embankment damage.
- Sediment accumulation.

Structural components must be repaired immediately if they reduce the pond's function.

A qualified professional will eventually need to remove accumulated sediment from wet ponds due to reduced storage capacity. It is the most expensive maintenance, requiring special equipment and skilled labor. Frequency will depend on the pond's size and amount of sediment accumulated.

- **Forebay:** every 2 to 7 years or after 50 percent of total forebay capacity has been lost.
- **Primary pond:** every 25 to 50 years or after 50 percent of the pond volume has been lost.



Visit mnwcd.org/hoa-stormwater-tools for more information and resources.

Reach out to your city and contractors to determine the proper maintenance schedule for your pond.