The importance of buffers around ponds and wetlands

What's a buffer?

A buffer, also known as a riparian area, is vegetated land adjacent to a stream, pond, lake or wetland. Buffers are important for keeping water clean, because they work both above and below ground.

- Cleans water by filtering out and storing pollutants such as excess phosphorus.
- Prevents flood damage by storing water during large rain events. Deep roots allow water to infiltrate and act as a sponge.
- Controls erosion and resulting sedimentation downstream by slowing the flow of water at the ground's surface.
- Enhance aesthetics and property values.
- Provides valuable habitat for wildlife that doesn't otherwise cope with urban development (amphibians, birds, microbes, etc.).

Wetlands

According to the MN Board of Soil and Water Resources, Minnesota's wetlands have been reduced from an original 18.6 million acres to 10.6 million acres. In Ramsey County, at least 50% has been lost. Wetlands are important ecosystems that may or may not be visibly wet at a given time. The presence of water, whether seasonal or constant, creates hydric soils that retain a chemical 'memory' of being saturated. These soils are an indicator, along with vegetation type, topography, and water saturation, which tell us where wetland boundaries are located.

The perimeters of both ponds and wetlands, while not necessarily holding water, are often also technically wetlands. Because of this, they serve an important function in the protection of water resources with an impact that extends to the larger water bodies that the wetlands feed into.

Buffers extend the life of wetlands and ponds, reducing sediment inputs and protecting surface water from excess nutrients. Maintaining healthy buffers is of interest to cities and homeowners, because they reduce and even prevent expensive maintenance such as dredging further down the line.

What policies are in place?

In 2016, VLAWMO updated the wetland policy for the watershed district. The policies are for Cities and Townships to uphold. Cities and Townships can refer to the updated 2017 VLAWMO water plan as a convenient and accurate guide when updating comprehensive water plans.

Vegetated buffers are also attractive features, often planted with wildflowers.

The **Wetland Conservation Act** (1991) regulates the draining, filling, or excavating of wetlands. As a watershed management organization (WMO), VLAWMO is charged with facilitating this act in its watershed. Several parts of the **VLAWMO Water Policy** apply to buffers. For the complete policy, visit www.vlawmo.org.

> **4.1. e**. Protect receiving water bodies, wetland and storm sewer inlets.
>
> **6.1. b.** Promote management practices that protect groundwater recharge and ground water quality.
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> **7.1. a.** It is the policy of VLAWMO to: a. Preserve the natural appearance of intact, vegetated and stable shoreland and streambanks that provide valuable functions to the associated water resource including prevention of erosion, reinforcement of soils through root structure, trapping of nutrients and sediments, and provision of fish and wildlife habitat. b. Preserve water quality and the ecological integrity of the riparian environment, including wildlife, fisheries, and recreational water resources. c. Promote the preservation and enhancement of the ecological integrity and natural appearance of shoreland and streambanks with the intent of preventing erosion. d. When alteration is necessary, VLAWMO encourages and fosters bioengineering, landscaping and preservation of natural vegetation practices.

The VLAWMO Water Policy was created in partnership with all of its Cities and Townships. Different ponds and wetlands have different classifications depending on size, water flow, and vegetative diversity, assigned by the Minnesota Wetland Functional Assessment. For example, the smallest class of storm ponds built prior to 2016 are to have a width of **15'** average (circumference depth around pond) with a **10'** minimum. After 2016, Dimensions for wetlands are **20'** average with a **16.5'** minimum. Per the VLAWMO water policy, the municipality is responsible for enforcement.

Management Class	Base Buffer Width, feet	Minimum Applied Buffer Width, feet
Manage 3 (storm ponds)	20	16
Manage 2	30	24
Manage 1	40	34
Preserve	75	67

Contact VLAWMO for further description of management classes or buffer measurements.

What can I do?

There are few ways to approach the maintenance and construction of buffers. Through one or a combination, our goal is to balance both the needs of the watershed as well as the preferences of the landowner.

- Simply leave the desired dimensions around the stormpond or wetland left un-mowed and in a natural state.
- Encourage turfgrass to be mowed a minimum of 3" high to limit erosion on lawns.
- Consult or hire a contractor that specializes in landscaping and shoreline restoration. VLAWMO is able to provide references of qualified contractors.
- Apply for a grant with VLAWMO to help with project construction costs. Projects with grant support can be undertaken independently or in conjunction with a private contractor.