



Vermont Wetlands Program Public Guidance

Recreational Trail Building and Wetlands

Introduction:

Hiking and walking experiences can be enhanced with trailside wetlands. Trails that offer a glimpse into these unique ecosystems can be an exciting segment for nature lovers and wildlife enthusiasts. However, careful consideration should be given to placement and construction of trails to protect and maintain these fragile ecosystems, wildlife habitat, and water quality. Sections of trails through wetlands that are not properly maintained or built can result in polluting waters with sediment, diffuse travel, wet feet and trail closures. There are several activities associated with trail building that may require wetland permitting, and some activities that are considered an Allowed Use within the Vermont Wetland Rules that can occur without the added cost and time from the permit process.

This guidance is intended to explain wetland regulatory requirements primarily for non-commercial trail building and trail upgrades. All commercial endeavors should conduct a thorough environmental review in the planning process. Be aware that wetland regulations apply to both public and private lands. The alteration of the physical and vegetative characteristics of wetlands and their buffer zones (areas within 50 feet of the wetland boundary) to install trails are the activities that typically trigger wetland jurisdiction, regardless of whether these activities occur with hand-held shovels and picks, or heavy machinery.

Trail Planning:

- The [Vermont Significant Wetland Inventory \(VSWI\)](#) Mapping is a great place to start to review the area in question. Be sure to look at the following layers: VSWI, advisory mapping, and hydric soils.
- Look at the site in the wet seasons – early spring or late fall. This will be the most obvious time to find wetlands, especially wetland seeps. Use the [Landowners' Guide to Wetlands](#) to help find these areas. Remember that both the wetland and the 50-foot buffer require protection.
- Find a route that avoids wet areas and minimizes stream crossings.
- Plan it right the first time and build a trail that suits your needs and takes the resources into account. If user volume or types increase over time, necessary upgrades may trigger permitting or a requirement to reroute if the original trail was in wetland or buffer zone. Poor planning can result in greater impacts if the trail widens as people are trying to “go around” wet areas that become impassable.
- Use well placed (dry) existing old woods roads or skidder trails to minimize clearing of new trails. Improving these types of trails and roads with the addition of fill in a wetland or buffer zone would likely require a permit. A change in use from a logging road or skid trails

in wetland buffers that were installed using the forestry allowed use may require permits, as these are strictly allowed for the use of forestry only. Contact the Wetland Program before performing any of these types of upgrades.

- If crossings are unavoidable, plan to minimize potential impacts by:
 - Crossing in a very narrow location.
 - Using bridges, boardwalks and catwalks that follow [Best Management Practices](#) and allow the proper passage of water and light through to the ground below, and for vegetation to grow under. These structures should be no wider than 5 feet and the bottom of the travel surface deck should be suspended at least 1 foot above the ground and include space between planking material.
 - Keeping fill, including rock and stone leading up to bridges or to ford, to under 250 square feet (sqft) per wetland area to be considered non-substantial modification for existing trails within the allowed use ([VWR 6.12](#)) to avoid a permit.
- Choose the right trail surface. If it is a primitive trail, the native ground will be sufficient for use if the area is dry. If you expect heavy use, you will want to consider using surepak to prevent erosion issues. Addition of fill materials to wetlands and buffers such as gravel, surepak, earthen fill or wood chips requires a permit.
- Consider water bars to direct water across the trail instead of extensive ditching and culverts. These activities both may require permits.
- Altering location of trail: check with the Wetlands Program first to determine if minor reroute can be considered a non-substantial modification or if it requires a permit/amendment.

Trail Maintenance:

- Structures such as culverts or water bars should be maintained and sized to allow the appropriate passage of water during all seasons. If you are constantly needing to replace these structures because they are blown out in the spring, they are not appropriately sized or placed.
- Improving existing trails by less than 250 sqft in a wetland or buffer zone does not require a permit. Multiple crossings of a wetland that cumulatively exceed 250 sqft may require a permit.

Types of Trails:

There are many potential types of trail systems used for recreation in Vermont. Given that the size and scale of the trail is dependent on the use and purpose of the trail, there are different wetland resource considerations for the different trail types.

Foot Trails - These types of trails have the ability to wind between trees, use native ground, utilize open areas, and fit within the allowed use category as little to no impacts may be required. The use of puncheons or bog bridges to get over wetter area will ensure these trails stay narrow and is an [allowed use](#). Mowing through wet areas and their 50-foot buffers will require a permit, as will fill used to “harden” wet areas.

Mountain Biking – Trails that involve raking duff and utilizing boardwalk/catwalks to span wet areas without fill may not need permits. Any new trails that will be constructing machine groomed trails should check with the Wetlands Program and other water resource programs to ensure these areas are located outside jurisdictional areas or obtain the correct permits. Commercial trail systems may require Act 250 permits as well.

Frisbee Golf – Use of walking trails between tees and holes may not require permits if installed using the foot trail guidance above. Tees and holes often require “hardening” so should be located outside of wetland and buffers or obtain appropriate permits for this fill. Any tree cutting through forested wetlands for “sight distance” also requires permits.

Winter Trails (Nordic Ski Trails and VAST Trails) – Packed snow surfaces create their own means of crossing through wetlands during the winter. Use of existing VAST trails is an allowed use, but new trails typically require permits. Improvements to allow for grooming or to extend the season, like tree cutting for trail widening, altering drainage or bringing in fill, require permits where they are located in wetlands or buffers. Trails need to be closed when weather conditions are suboptimal to prevent damage to the wetlands during the thaw.

Horseback Riding Trails and/or VASA trails– Crossings for horses and ATVs through wetlands require special considerations for weight and stability and are likely to be closer to road building than low impact trail crossings. Permits would be required for fill or for substantial bridge abutments in wetlands or buffers. For both trails systems, it is critical to avoid ongoing damage in unimproved areas to avoid impacts and violations.

ADA Accessible and Multi-Use Trails - Trails or segments of trails which allow for wheelchair or other personal mobility device access allows more people to enjoy nature. Because of their wider width, minor slope and firm and stable substrate requirements, these types of trails frequently require wetland permits when they intersect with Class II wetlands and their buffers. Try the following tips to keep your trail project below the permitting threshold:

- Trails through wetlands typically do not meet the “firm and stable surface” accessibility requirement. If a trail must go through a wetland, use a boardwalk. Starting and ending the boardwalk outside of the wetland buffer zone will likely allow you to avoid wetland permits.
- Trails are not required to be paved. Packed crushed stone, or packed soils and other natural materials can provide the required firmness.
- Narrow trails to the federal accessibility standards minimal width of 3 feet¹ when in wetland or buffer zones and make those trails straight to avoid the need for turn clearances.
- Build wheelchair passing spaces outside of the wetland and buffer where possible.
- Creating a one-lane boardwalk with intermittent passing spaces to a width of 5 feet meets the allowed use standards without requiring a wetlands permit.

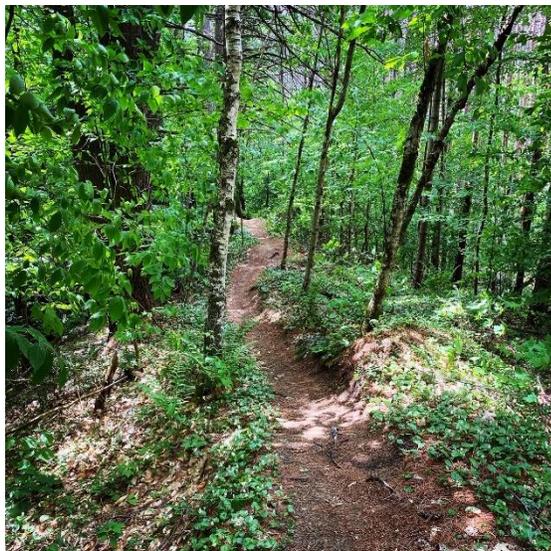
¹ The United States Access Board published guidelines in 2004 about providing access to people with disabilities per both the [Americans with Disabilities Act](https://www.access-board.gov/attachments/article/412/ada-aba.pdf) (ADA) and the [Architectural Barriers Act](https://www.access-board.gov/attachments/article/1637/outdoor-guide.pdf) (ABA). The guide is online at: <https://www.access-board.gov/attachments/article/412/ada-aba.pdf>. The United States Access Board published a 2014 guide for outdoor facilities, available online at: <https://www.access-board.gov/attachments/article/1637/outdoor-guide.pdf>

Wetlands and Trail Building Summary:

You do not need a Wetland Permit when...

you are conducting the following trail building activities within Class II Wetlands or their 50-foot buffer zones:

- Use of boardwalks, bridges or catwalks that are in compliance with the [Wetland Allowed Use BMP Section 6.16](#)
- Repairing existing structures such as culverts or bridges when remaining in the existing footprint
- Raking away duff for trails
- Placing reinforcing stepping stones where work in wet area/waterway does not exceed 250 square feet for the wetland/buffer in question for existing trails
- Trimming branches within the trail
- Placing trail markers



You need a Wetland Permit when...

you are conducting the following Trail building activities within Class II Wetlands and their 50-foot buffer zones:

- Any type of machine or hand- graded trail (e.g. downhill mountain bike trail with berms)
- Filling for existing trails
 - Fill through wet areas
 - Fill to place culverts in any type of stream (intermittent, perennial, seasonal) located within a wetland/buffer
 - Cumulative fill totaling over 250 square feet for transition areas off and on bridges for the trail system
 - Placement of stones for forded crossing through streams or wet areas that exceed 250 sf for the trail system
- Cutting woody vegetation for new trails (clearing paths through trees and shrubs) or mowing a new path
- Placing any type of pavement, gravel or sure-mat, woodchips, and recycled materials in new areas where that type of treatment has not been used before
- Widening trail footprints by ditching or doing other “drainage work”
- Improving existing logging roads to include in a trail network.



Questions? Contact the Vermont Wetlands Program:

802-490-6195 or <https://dec.vermont.gov/watershed/wetlands/contact>