



Vermont Wetlands Program

Mapping Guidance – Hydric Soils

Hydric Soil Layer

At First Glance: Hydric (Wet) soils are one aspect of a wetland. You have hydric soils on your site. Some hydric soils are more indicative of the presence of wetlands than others, and the response you receive indicates that likelihood.

Recommended Next Steps: If your parcel contains a hydric soil unit that has been flagged as a high potential for wetland condition (Hydric Soils (OBL):mucks, peats, ponded, flooded, marsh, emergent wetland), or overlaps with other mapping such as VSWI or Advisory Layers, a [State Wetlands Ecologist](#) or [wetland consultant](#) should visit the site to help you determine the location, general boundary, and classification of the wetland before any work is started. For all other areas mapped with hydric soils, you should contact a [State Wetlands Ecologist](#) to help conduct a desktop review to determine if a site visit is recommended.

What is this Layer: Hydric Soils are mapped by the [Natural Resources Conservation Service](#) (NRCS) of the United States Department of Agriculture (USDA) and are one of three parameters that determine if an area is a wetland. Hydric Soils are characterized as those that formed under conditions of saturation, flooding or ponding long enough during the growing season to develop anaerobic conditions in the upper part of the soil. Some hydric soil mapping units are more likely to be wetlands (peats and mucks), and other hydric soils polygons may have wetlands where they are located lower in the landscape. Hydric soils have been grouped as follows as per their likelihood of corresponding to wetland condition:

Hydric Soils (OBL)	These soils are very hydric and have descriptors in the NRCS soil descriptions of mucks, peats, ponded, flooded, marsh, emergent wetland.
Hydric Soils (FACW)	These types of soils are often found in wetland conditions.
Hydric Soils	These types of soils are commonly associated with wetlands where there are other parameters, in topographic lowlands, or associated with open water margins.

Regulatory Meaning: Hydric soils do not have a special regulatory status but are a mapping tool that can help with determining whether a wetland is present. An area would need to have field verified hydric soils, hydrophytic vegetation and wetland hydrology to be considered wetlands. These wetlands may be considered jurisdictional by the State of Vermont if they meet Section 4.6 of the Vermont Wetland Rules or are on the Vermont Significant Wetlands Inventory map. Any work in a Class I or II wetland or its jurisdictional buffer, including filling, dredging, draining, ditching, cutting woody vegetation, may require a permit from the Vermont Wetlands Program. Class II wetlands have a 50-foot buffer which is protected, and Class I wetlands have a 100-foot regulatory buffer. These buffers are measured from the edge of a delineated boundary (field verified) from the wetland. Areas that are also wetland and are

contiguous to the VSWI (continual wetland between the mapped area and the area in question) are considered significant and jurisdictional automatically.

Origin: The NRCS regularly conducts soil surveys to provide information for land use such as farming and forestry. Soil mapping is based on soil taxonomy and classification developed by the NRCS, and can help predict everything from crop productivity to septic suitability. Hydric soils are those that develop under sufficiently wet conditions to support the growth and regeneration of hydrophytic vegetation. Some hydric soils are more likely to contain wetlands than others upon field verification, such as mucks and peats.

Accuracy: Soil mapping is a combination of modeling and field mapping from over 30 years ago. The unit of measurement is coarser than something like the Vermont Significant Wetland Inventory maps, creating a broader brush stroke that is not as detailed. In areas of Vermont where agriculture is prevalent, the mapping may be more detailed than mountainous areas. Where hydric soils and other mapping units like the Vermont Significant Wetland Inventory Map or Wetland Advisory Maps overlap, there is an increased likelihood of wetlands being present.

Links of Interest

[NRCS Hydric Soils](#)

[Web Soil Survey](#)

[Landowners Guide to Wetlands](#)

[Vermont Wetland Rules](#)

[VSWI Maps](#)

[National Wetland Inventory](#)

[Wetland Classification](#)

[Wetland Classification Guidance](#)

[Contiguous Wetland Guidance Document](#)

[Wetland Permit Information](#)

[What is a Wetland?](#)

[Wetland Function and Values](#)



Hydric soil layer in purple – number refers to NRCS soil designation. Clicking on “see additional details” will provide name of soil unit