

Wetlands

Wetlands are vegetated ecosystems characterized by abundant water. All wetlands have three characteristics in common. First, all are inundated with water during parts of the growing season. Second, they contain wet (hydric) soils. Finally, wetlands are dominated by plants that are adapted to life in saturated or inundated soils. Vermont's wetlands range in size from vernal pools and seeps that may be a few hundred square feet or less to vast swamps and marshes occupying thousands of acres along Otter Creek and Lake Champlain. (Note that vernal pools, although a type of wetland, are treated separately in this project because of their unique ecological functions.)

Why is it Important?

Wetlands store large volumes of water and attenuate downstream flooding, a function that is likely to increase in importance in Vermont as climate change brings more frequent and larger storm events. Wetlands help maintain surface water quality by trapping sediments and removing nutrients and pollutants from surface waters before that water reaches streams or lakes. Vegetated wetlands along the shores of lakes and rivers can protect against erosion caused by waves along the shorelines during floods and storms. Many wetlands are associated with groundwater discharge and form the headwaters of many cold-water streams, another function that is likely to increase in importance with the expected warming and reduction in snowpack associated with climate change. Wetlands are well known for the critical wildlife habitat they provide for many species of birds, mammals, reptiles, amphibians, and insects, but some wetlands also provide critical spawning and nursery habitat for fish species. Although wetlands occupy only about five percent of the land area in Vermont, they provide necessary habitat for the survival of a disproportionately high percentage of the rare, threatened, and endangered species in the state. Examples of wetland dependent rare species include Calypso orchid, Virginia chain fern, marsh valerian, sedge wren, spotted turtle, and four-toed salamander.

How was it made?

This dataset was first created in 2015 for use in BioFinder and Vermont Conservation Design and was not changed for the 2023 version.

Highest Priority Wetlands are Class 1, state significant, within a Highest Priority landscape scale component, within a small watershed with >50% of the land area developed, is within an important watershed for Lake Champlain, Mississqoui River or South Lake water quality. All other wetlands included in the (Vermont Significant Wetlands Inventory ("VSWI")) are considered *Priority*

To get more technical information about the Wetlands Component, see the see the [2023 Technical Abstract](#)