
ENVIRONMENTAL Fact Sheet



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Clues to Identifying Forested Wetlands

Wetlands perform many functions that are important to the health of our environment – they protect water quality in our lakes and for drinking, help ensure adequate water supplies, and provide wildlife habitat, flood control, and nurseries for finfish and shellfish. It is for these reasons that wetlands are protected under New Hampshire state law.

There are several types of wetlands in New Hampshire. Some wetlands have herbaceous plants – such as marshes, wet meadows, and bogs. Wetlands that have woody plants or trees are forested wetlands or swamps, scrub-shrub wetlands, bogs, and vernal pools. Since the state of New Hampshire is more than 80 per cent forested, and about 6 to 10 percent of the state is considered wetlands, there are a lot of forested wetlands in New Hampshire!

Wetlands are identified based upon three criteria; the presence of plants adapted to survive in wet soil conditions, the presence of water at or near the surface for more than two weeks during the growing season, and the presence of hydric soils. Although wetland identification may require a trained professional such as a wetland scientist, if you have some knowledge of plants or a field guide, and good observation skills, you may be able to get an idea of where wetlands are located.

The following questions are provided to guide you in observing some characteristics of forested wetlands. You will need to know how to identify some plants to answer some of these questions. If you answer "yes" to one or more of the following questions about a site, a forested wetland may be present on the property.

- Do you see natural drainage routes, which are defined by a small channel or scouring?
- Is the ground soggy or spongy under foot at any time during the growing season (May to September)?
- Is *Sphagnum* moss present?
- Do you see low spots or depressions where water lies or pools for more than seven days during the growing season?
- Does the ground have areas of depressions and mounds (also called pit and mound topography)?
- Do you see springs or seeps? (Water may be trickling out of the ground.)
- Do you see areas that cannot be crossed by vehicle, tractor, or other machinery because it might get stuck in the soft, wet ground?
- Do you see any water-stained leaves on the ground? (These look blacker than plain dry leaves.)

- Do you see trees blown down (windthrows), which expose shallow but extensive root systems?
- Do you see fine silt or sediment deposits on leaves on the ground or on stems or tree trunks?
- Do you see drift lines where sticks, leaves and other water-carried debris have lodged against the base of vegetation (especially on one side)?
- Do you see any of these herbaceous plants: jewelweed, sensitive fern, cinnamon fern, royal fern, skunk cabbage, jack-in-the-pulpit, goldthread?
- Do you see any of these shrubs present: high-bush blueberry, winterberry holly, speckled alder, northern arrowwood, silky or red-osier dogwood?
- Do you see any of these deciduous trees present: black or green ash, American elm, black willow, swamp white oak, red maple, silver maple, black gum, yellow or grey birch?
- Do you see any of these evergreen or needle-bearing trees present: balsam fir, black spruce, larch or tamarack, northern white cedar, or Atlantic white cedar?
- Do you see a black organic layer (may look like decomposing leaves and roots) below the surface that is at least 4 inches thick? (You will need to clear away some of the leaves and surface materials to observe this characteristic.)
- If you dig to a depth of 18 inches, is the soil color grayish or marked with rust-colored spots, streaks, or lines of different color. (In agricultural fields, these characteristics are observed below the depth that a plow can reach.)
- If you dig a pit to a depth of 18 inches, does it fill with water or does water trickle down the inside? (You may need to wait 20 minutes or so after you have dug the pit to observe this.)

If you answer "yes" to any of these questions about a site, a forested wetland may be present.

Most projects that propose impacts (of any size) to wetlands require a "dredge and fill" permit from the New Hampshire Department of Environmental Services - Wetlands Bureau.

For more information, contact the DES Wetlands Bureau at 271-2147 or wetmail@des.nh.gov .