
ENVIRONMENTAL Fact Sheet



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Identifying Department of Environmental Services' Wetlands Jurisdictional Areas

The Department of Environmental Services (DES) is charged with protecting tidal, fresh water wetlands and surface waters from unregulated alteration. The Department's authority stems from RSA 482-A which describes jurisdictional wetlands as "wherever the tide ebbs and flows", and "freshwater flows or stands". Administrative rule Wt 101.88 further defines wetland as:

"an area that is inundated or saturated by surface or ground water at a frequency and duration sufficient to support and that under normal conditions does support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands include, but are not limited to, swamps, marshes, bogs and similar areas."

JURISDICTION IN TIDAL AREAS:

Tidal jurisdiction includes all submerged lands, salt marsh, sand dunes, tidal flats, and an upland tidal buffer zone that extends 100 feet from the highest observable tideline. The State owns the ocean bottom and submerged lands up to the syzygy high tide, which is the highest predictable tide, and regulates other areas under its police powers.

Tidal flats are broad, relatively level areas that are alternately flooded and exposed by the tide. There is little vegetation, but there is usually a rich fauna of burrowing invertebrates. Mud flats are the most common form, and have sediments composed mostly of silt-sized and clay-sized material, usually with with a high organic component. Sand flats are similar to mud flats but the grain size is larger.

Tidal marshes are vegetated areas flowed by the tide. The vegetation is composed of species that are tolerant of both periodic flooding and high salinity.

Coastal sand dunes are formed by the sand blown from beaches. Well established dunes provide significant protection against storm driven tides. American Beach Grass *Ammophila breviligulata* plays a significant role in both building and stabilizing dunes. A trough or swale is normally found behind a **primary dune**. The **back dune** area should be well vegetated with Beach Heather *Hudsonia tomentosa* and *H. ericoides*, Beach Pea *Lathyrus japonica*, and Salt Spray Rose *Rosa rugosa* in addition to American Beach Grass. RSA 482-A prohibits "destruction, defacing, reducing, altering, building on or removal of sand and vegetation without a permit" from the Department of Environmental Services.

The tidal buffer zone is measured 100 feet from the highest observable tide line. The tide line is the furthest limit of tidal flow, and is defined by either a strand line of flotsam and debris, the landward

margin of salt tolerant vegetation, or a physical barrier which blocks the flow of the tide. The tidal buffer zone may include wetlands, transitional areas, and both natural and developed uplands.

NONTIDAL WETLANDS AND SURFACE WATERS:

The Department of Environmental Services regulates all work in freshwater wetlands, lakes, ponds, rivers and streams. Jurisdiction also includes intermittent streams that flow for a sufficient time during the year to develop and maintain a defined channel. The limit of the Department's jurisdiction adjacent to surface waters is the top of the bank. A bank is the area immediately adjacent to the edge of a surface water body. There is no set distance from a waterbody which defines the upper limit of a bank. One must look for a break in slope to define the upper limit.

Ditches excavated in original stream channels, that have developed characteristics of a stream, were constructed in wetlands or exhibit characteristics of a wetland, such as hydric soil and vegetation are also regulated.

The New Hampshire Wetlands Program delineates wetlands according to the *1987 Federal Manual For Identifying Jurisdictional Wetlands and the Field Indicators for Identifying Hydric Soils in New England*. These manuals use the combination of the presence of three criteria; hydrology, hydric soil and vegetation.

The common denominator of all wetlands is water (hydrology). The water table typically provides the source. A lake, pond, or stream is usually the result of the water table being located on or above the soil surface. Other types of wetlands will occur when the water table is at or near the soil surface. Some common field indicators for identifying hydrology would be water stained leaves, buttressed roots, and water lines and/or sediment deposits on trees.

Soil profiles are used to determine where the water table is located. The soil will develop certain morphological properties when wet (hydric). Generally, soil particles are found in combination with oxygen. When the oxygen is displaced by water for a prolonged period of time it results in an anaerobic environment which causes a chemical reduction in some of the soil components. This reduction is reflected in the soil color. An oxidized soil (oxygen present) will exhibit bright colors, such as tan, red, orange, or yellow. A reduced soil (no oxygen present) exhibits dark colors such as black, dark brown, or grey. Seasonally wet soils which are alternately saturated and oxidized (aerated) are usually mottled. Mottles are streaks or spots of different colors. The abundance, size and color of the mottles reflect the duration of saturation. Evidence of reduced or mottled soil (hydric) may indicate the area would classify as a wetland.

Under normal circumstances, a wetland will be dominated by a community of hydrophytic vegetation. Hydrophytic vegetation includes plants that are tolerant of wet soil conditions. Species in this category are listed in the *National List of Plant Species That Occur in Wetlands: New Hampshire*. This list assigns plants with a wetland indicator status, which is based on the frequency of occurrence found in a wetland. If 50% or more of the plant species in an area have the status of obligate, facultative wetland, and/or facultative, then the area could classify as a wetland. The common freshwater wetland types found in NH are marshes, wet meadows, shrub and forested swamps, bogs, fens, and vernal pools. All wetlands are evaluated based on the value of the functions they provide. Common functions are storm water abatement, nutrient filtering, and wildlife habitat.

Prime wetlands are areas with high value functions, which are mapped and adopted by a town and approved by the Department. Prime wetlands have additional protection under RSA 482-A, which states "no permit shall be issued unless evidence is provided that there shall be no net loss of values to those areas".