



Wetlands Protection in New Hampshire

Background

Wetlands are identified by three fundamental characteristics: hydrology, soils, and vegetation. They range from large water bodies to small areas saturated with ground or surface waters. They include lakes, ponds, floodplains, swamps, bogs, marshes, forested wetlands and similar areas. Wetlands and their surrounding uplands are ecologically dependent parts of the overall landscape that complement one another. Each provides important value to the other. Buffers around wetlands serve as wildlife corridors and feeding areas for aquatic ecosystems and species. Further, the upland areas surrounding wetlands provide aquatic ecosystem diversity, productivity, and stability as well as, recreational, aesthetic and economic value. Buffer areas stabilize soils and prevent erosion and filter suspended solids, nutrients and harmful toxic substances.

Local Actions

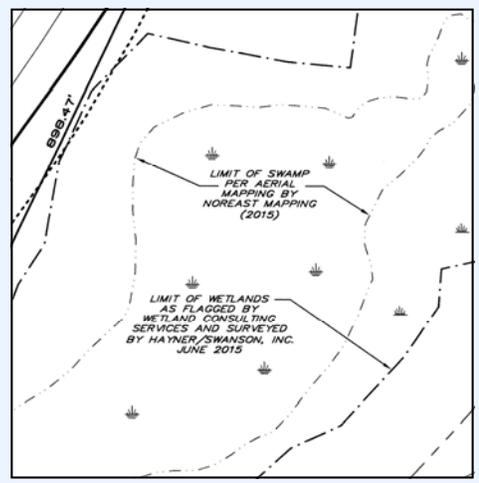
Communities have the flexibility to adopt regulations that take a comprehensive approach to wetland protection, considering direct and indirect impacts to wetlands and their associated upland areas.

Wetlands Ordinances

Buffer areas are a common wetland regulation. They are land adjacent to a wetland or water body that is to remain undeveloped. The size required varies by function and site specific conditions. The most common width is 100 feet, because at this distance most of the contaminants have been removed by the environment before reaching the wetland. Besides filtering soils, at 100-foot buffers also prevent erosion, moderate impacts of stormwater runoff, moderate system microclimate, provide habitat for wetland wildlife, and reduce disturbances to wetland resources. However, buffers put in place specifically to support wildlife generally require much more than 100 feet.

While the state regulates direct impacts within most wetlands, communities can establish additional oversight of proposed activities within the wetland and buffer area through local wetlands protection ordinances. Such ordinances can build upon the State Permitting process and review potential impacts to smaller wetlands more thoroughly, prevent cumulative impacts, reflect the interests of the community to prevent increased flooding, protect wetland ecosystem functions and values, and provide local inspection and enforcement.

Protection is best achieved through an overlay district that is applied community wide. Buffers should be applied to all wetlands on a site as identified and delineated by a Certified Wetland Scientist. As vegetated





buffers may not be adequate to filter out all pollutants during peak stormwater flow situations, communities may also wish to consider additional stormwater management techniques.

It is important for planning boards and conservation commissions to carefully consider the municipality's ability to implement and enforce an ordinance prior to proposing a particular approach. A good wetlands map is important for local wetland regulations, even when requiring applicants have all wetlands be delineated by a certified scientist as the basis of the actual wetlands zoning ordinance. National Wetlands Inventory maps and soils maps are useful indicators of the locations of larger wetlands in the community. A wetlands map is also helpful in educating the community in terms of how much a wetland ordinance would impact them. Resources permitting, communities with local wetlands regulations should also consider conducting a local wetlands inventory that could be overlain with parcel boundaries helping both the applicant and the ordinance's administrators and enforcers.

Prime Wetlands Designation

RSA 482-A: 15 and administrative rules Env-Wt 700 allows municipalities to designate select wetlands as "prime-wetlands" if analysis reveals that they are high quality wetlands. A prime-wetland is typically large, unspoiled, and has the ability to sustain populations of rare plant and/or animal species. Prime wetland designation is entirely the choice of the municipality and is not required.

If the municipality chooses to designate wetlands as prime-wetlands, a public hearing must be held in the community that the wetland is located in to vote on the designation. All wetlands greater than 2 acres are included by rule and those smaller than 2 acres may be included in the functional ranking. Once the wetland is designated as a prime-wetland the municipality must provide the New Hampshire Department of Environmental Services (NH DES) Wetlands Program copies of the study and tax maps with the prime-wetland identified. The NH DES then reviews the submission for completion in accordance with ENV-Wt 702.03.

Once approved, DES applies the law and rules to any future projects that fall in the prime-wetland. The 100-foot Prime Wetland Buffer applies only to those communities that designated Prime Wetlands before August 17, 2012. This buffer and its protections will not apply to communities that designate Prime Wetlands after this time. All activities are regulated in prime wetlands and require a permit from the NHDES Wetlands Bureau (see Wetlands Permits below). As Prime Wetlands may not apply to all wetlands in a community, the municipality can also decide to establish additional buffers or setbacks in addition to the prime-wetland regulations.

Floodplain Ordinances

The most damaging flooding in New Hampshire typically occurs from prolonged rains or repetitive rain events. Just a few inches of swiftly moving water can sweep people off their feet and a couple feet of water can carry vehicles away, wash houses off of their foundations, destroy bridges, and even result in injuries and deaths. The debris carried by floodwaters often causes the most damage.

Unfortunately, because New England's development history focuses mostly on development around rivers for mills, much of New Hampshire's development is already in floodplains and subject to heavy flooding damage. Local flood hazard planning must pay careful attention to activity centers and historical investments, as these are the characteristics that often draw people to the state.

Reducing flood risks is a combination of both hazard mitigation and watershed management. Most all communities in New Hampshire have floodplain regulations that meet the minimum National Flood Insurance Program (NFIP) requirements. Property owners are only eligible for flood insurance if the community



enacts regulations to require residential buildings to be elevated above the 100-year flood elevation.

Nonresidential structures are also required to be flood-proofed. These regulations help reduce the damage caused by flooding. However the NFIP requirements are just minimums. There are a few ways that communities can exceed the NFIP requirements through more stringent ordinances and regulations:

- New principal building should not be allowed to be built in flood hazard areas unless there is no other option available
- Uses with a high potential for causing hazardous conditions during a flood should be prohibited
- New structures or additions must be at least 1 to 3 feet above the flood elevation
- Fill or other encroachments must be mitigated by compensatory storage

Shoreland Protection Ordinances

Much of New Hampshire's population is located on shorelands. The best way to protect streams, rivers, lakes, and estuaries, is to leave an undisturbed buffer around the water body. The size of the water body determines what kind of buffer should be used. Communities have the option to adopt shoreland regulations that exceed the minimum standards required of the Shoreland Water Quality Protection Act (SWQPA). Communities can adopt either or both of the following:

1. Regulations that extend regulation coverage to streams and surface water bodies that do not fall under the jurisdiction of the SWQPA.
2. More stringent regulations than the minimum SWQPA requirements.



Either of these enhanced protections, extend the State's shoreline buffers and provide additional protections to surface waters, further protecting lacustrine and riparian wildlife habitat and filtering backyard runoff.

Land Preservation

Land preservation generally applies to upland areas and permanently protects them using legal and physical means to ensure that the resource remains undeveloped and/or in a natural condition. Generally, protection is achieved by placing the land of interest under a conservation easement that is managed by a conservation organization, a town, or a state agency. The purpose of a conservation easement is to restrict the future use of the land and is endless and permanent. This type of land use practice protects wetlands in how it restricts the surrounding uplands from being developed.

NH Department of Environmental Services Permits and Programs

State wetlands permits focus on direct impacts to wetlands. There are limited situations where secondary impacts to wetlands from upland development or impacts to upland habitat for wetland dependent species are considered in the permitting process. The exceptions are larger developments that trigger alteration of terrain permits, the NH Programmatic General Permit (US Army Corps of Engineers) or projects located within the regulated shoreline.

Wetland Permits

The State's wetland protection policy is to ensure no net loss, maintaining a minimum number of wetland acres throughout the state. Wetland and Prime Wetland Permits are viewed to ensure there will be no significant net loss of wetland values, the project could not be otherwise located outside of the wetland, and that impacts are minimized.

New Hampshire regulates almost all activities that disturb soils under a surface water body or wetland, jurisdictional areas, regardless of size or scale. Jurisdictional areas include wetlands, surface waters, the prime wetland buffer, the tidal buffer zone, and sand dunes. Wetlands are identified by three characteristics: the presence of hydric soils, hydrophytic vegetation and hydrology. The purpose of wetlands and non-site specific permit standards are to protect and preserve submerged tidal and freshwater lands and wetlands from unregulated alteration.

Activities that require a wetlands permit vary dependent on the affected jurisdictional areas and type of impact.

Typically, the following will require state review and permitting:

- Installing or repairing a dock, boat lift, or any other type of shoreline structure at any lake, pond, river or stream.
- Impacting the bank of any water body, such as bank stabilization or repairing retaining walls on or within the bank of any lake, pond, river or stream.
- Constructing a new beach or replenishing beach sand adjacent to any waterbody.
- Dredging, filling or constructing new structures within any jurisdictional wetland including the bed of a swamp, bog, marsh, forested wetland, tidal buffer zone or sand dune.
- Timber harvesting crossing any stream or wetland.

Applications are administered by the NHDES Wetlands Bureau. That said the applicant must first file the permit application with the town or city clerk who not only forwards the application to NH DES but also to the local Planning Board and Conservation Commission. NH RSA 482-A:11 enables a municipal Conservation Commission to investigate any application. The Conservation Commission has 14 days in which to notify NH DES of its intentions to review a dredge and fill permit and then has 40 days to submit a report to NH DES who must consider the conservation commission findings.

Shoreland Permits

The Shoreland Water Quality Protection Act (SWQPA), formerly known as the Comprehensive Shoreland Protection Act (CPSA), was established in 1991. The act created minimum standards for the subdivision, use, and development of the state of New Hampshire's shorelands. In 2008, the act was amended to include limitations on impervious surfaces, revised vegetation maintenance



requirements, and a permit requirement for most construction, excavation, and filling activities inside of the protected shoreland area. In 2011 the CSPA was renamed to the SWQPA and revised again including changes to the vegetation requirements within the buffer, impervious surfaces limitations, and created a new shoreland permit by notification.

Activities that require a shoreland permit are new construction, construction that alters existing impervious surfaces, excavation, removal or formation of a cavity in the ground, and any filling activities, within the protected shoreland. Lands located within 250 feet (measured horizontally) from the reference line of protected water bodies are classified as the protected shoreland. The reference line is the point where setbacks are determined from and vary depending on water body type. The water bodies protected by the SWQPA include all lakes, ponds, and impoundments larger than 10 acres, all 4th order and greater streams and rivers, all designated rivers and river segments specified by RSA 483, and all waters that are affected by tide.

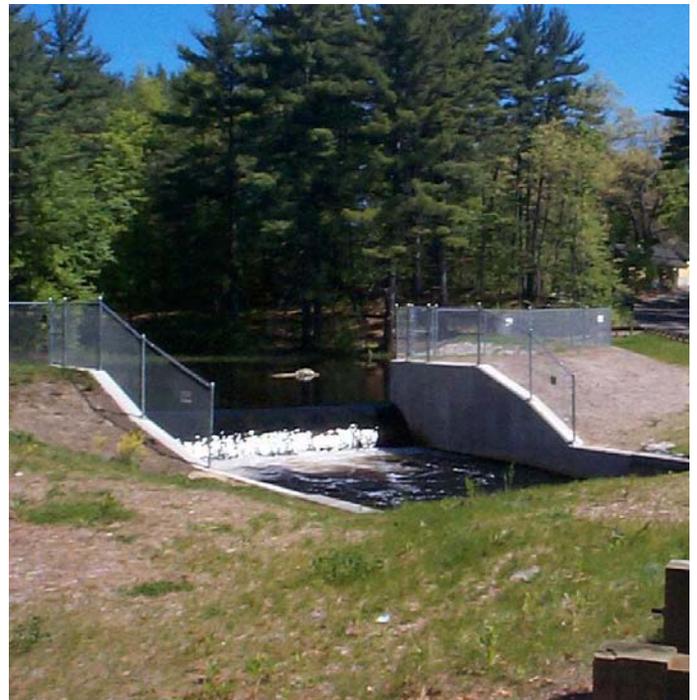
Aquatic Resource Mitigation Program

The State of New Hampshire has mandatory permits for activities that can result in substantial impacts on the environment. These activities include dredging, filling, and construction in wetland and surface water resources. Dredging and filling of areas that fall under jurisdiction must be avoided and the impacts should be minimal. However, many permits are issued for unavoidable impacts.

The purpose of mitigation is to prevent any net loss of wetland functions or values as a result of development. Functional assessments are executed to determine the functions and values a wetland provides in the landscape. Once these functions and values are established, compensatory mitigation can be put in place in order to provide replacement or protection if these functions or values are lost in a project.

Compensatory Mitigation is required for major impact projects and also minor projects with 10,000 square feet of impact. If impacts of a project are significant, the permittee must compensate for the loss of the functions and/or values of the wetland. DES mandates that specific projects mitigate for the impacts by doing one or more of the following:

- Restore a previously existing wetland
- Create a new wetland
- Preserve land, at least 50% upland, to protect adjacent wetlands or water resources

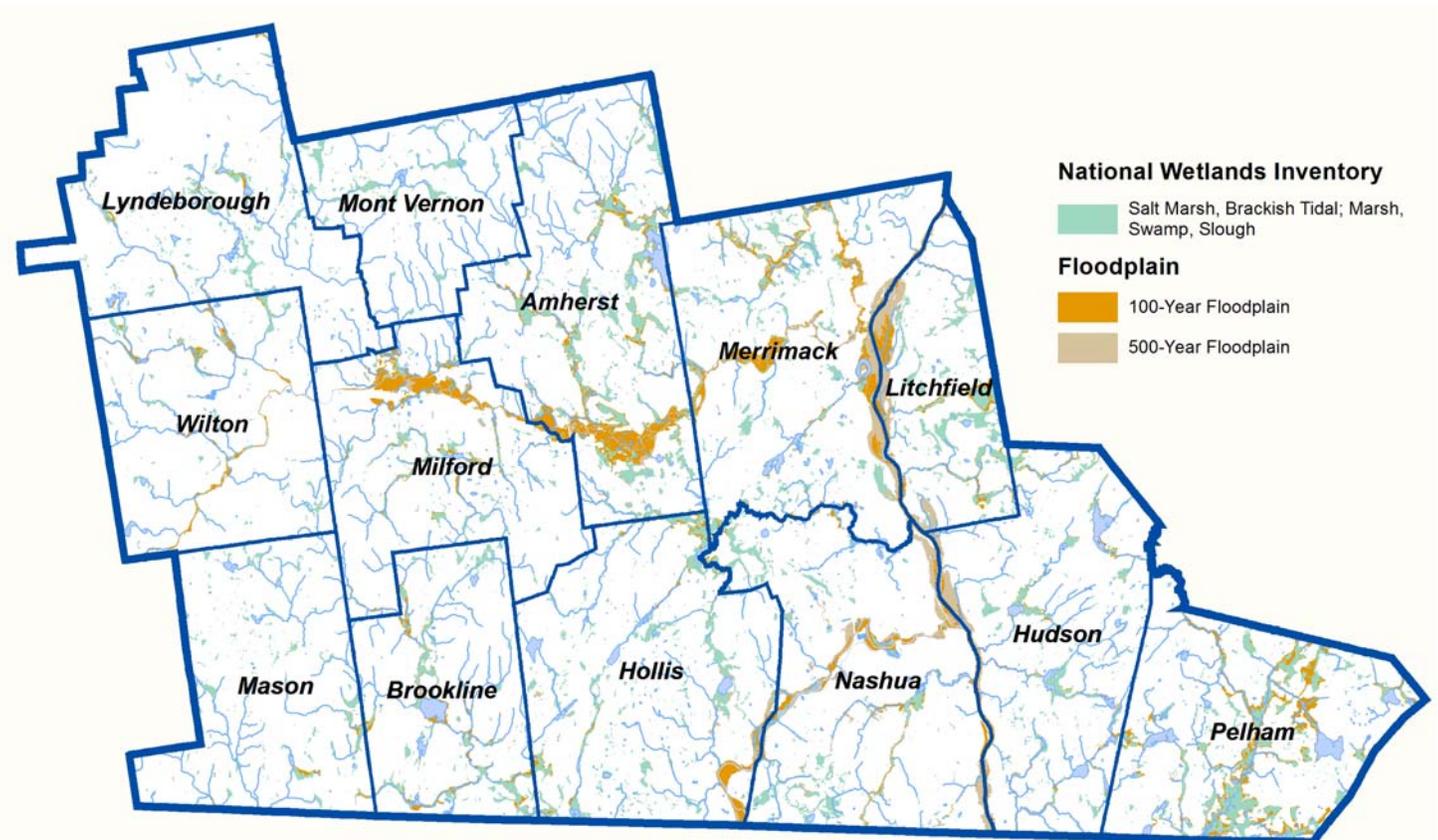


Stream Crossings

Stream crossings are mainly regulated to prevent habitat fragmentation, and the main objective of a stream crossing permit is to allow for aquatic organisms to pass through all stream crossings. NH DES permits are required for construction of all stream permits. Temporary and permanent crossings must be designed to withstand and prevent restriction of high flows, maintain existing low flows, and to not obstruct the movement of aquatic life. No activity may significantly disrupt necessary life-cycle movements of indigenous species and migratory species, unless the activity's purpose is to impound water. Applicants must submit a statement that describes the impact of the proposed project and provide evidence that potential impacts have been avoided to the maximum possible extent and any unavoidable impacts have been minimized.

Resources

- Buffers for Wetlands and Surface Waters - A Guidebook for New Hampshire Municipalities, November 1995, Revised May 1997, <https://www.nh.gov/oep/planning/resources/documents/buffers.pdf>
- National Wetlands Inventory, http://des.nh.gov/organization/divisions/water/wetlands/documents/nh_wetlands_and_waters_report.pdf
- NH Department of Environmental Services – Shoreland Program, <http://des.nh.gov/organization/divisions/water/wetlands/cspa/index.htm>
- NH Department of Environmental Services – Wetlands Bureau, <http://des.nh.gov/organization/divisions/water/wetlands/index.htm>
- NH DES Wetlands FAQ, <http://des.nh.gov/organization/divisions/water/wetlands/categories/faq.htm>
- NH Innovative Land Use Planning Techniques Handbook, Guidance and model ordinances for local Wetlands, Floodplain and Shoreland Ordinances, http://des.nh.gov/repp/innovative_land_use.htm
- NH Office of Energy and Planning, A-Z Library, Water Resources and Wetlands, https://www.nh.gov/oep/resource-library/water-resources/index.htm#wetlands_buffers
- The NH Method for Inventorying and Evaluating Wetlands, <http://nhmethod.org/>
- The NH Wetlands Mapper, <http://nhwetlandsmapper.unh.edu/>
- Wetlands Identification and Assessment Resources, <http://des.nh.gov/organization/divisions/water/wetlands/categories/resources.htm#assessment>



Wetland Protection Ordinances in the NRPC Region

Municipality	Wetlands Ordinance			Other Protections
	Yes/No	Buffer (ft)	Setback (ft)	
Amherst	Yes	Water protection wetlands 100' Significant wetlands 50' Other wetlands 25' Vernal Pools 100' for Tier One, 50' for Tier Two	-	Shoreland protections within the Wetland Ordinance
Brookline	Yes	50'	Leachfields 75'	Prime Wetlands
Hollis	Yes	100'	-	-
Hudson	Yes	50'	-	-
Litchfield	Yes	50' (200' for vernal pools)	Buildings 75' Leachfields 100'	Floodplain Ordinance Exceeds NFIP
Lyndeborough	Yes	-	-	-
Mason	Yes	-	Leachfields 75'	-
Merrimack	Yes	25'	Buildings 40'	Shoreland Protection District
Milford	Yes	25' for General Wetlands 50' for Wetlands Marked on the 7.5 minute USGS Milford Quadrangle Photo	-	-
Mont Vernon	Yes	-	75' for Septic/ Leach Field	-
Nashua	Yes	Primary Wetland 75' Critical Wetland 40' Other Wetland Over 9,000 sf 40' Other Wetland 3,000 sq. ft. to 9,000 sq. ft. 20' Vernal Pool 20'	-	Prime Wetlands
Pelham	Yes	50'	25' for septic from poorly drained soils 50' for septic from very poorly drained soils 75' for septic from ponds, streams, & year-round brooks	Prime Wetlands
Wilton	Yes	-	Buildings - 50'	-