ENVIRONMENTAL
Fact Sheet

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

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Aquatic Resource Mitigation

Dredging, filling and construction in wetland and surface water resources (also, "jurisdictional areas") can result in significant impacts on the environment. Since 1967, New Hampshire has required permits for such activities. While state law requires that dredging and filling of jurisdictional areas must be avoided and impacts minimized, many permits are issued for unavoidable impacts.

To compensate for the loss of these jurisdictional areas, the New Hampshire Department of Environmental Services has adopted rules that require certain projects to provide mitigation for the impacts. Env-Wt 303.02 requires mitigation for major impact projects, certain minor impact projects with jurisdictional impacts of 10,000 square feet or greater, and projects involving over 200 linear feet of stream impact.

To what projects does compensatory mitigation apply?
A compensatory mitigation proposal is required for minor projects with at least 10,000 square feet of impact and major impact projects, unless jurisdictional impacts are:

- Limited to temporary impacts (the ground surface of the wetland is at the same elevation as before it was disturbed).
- For a pond classified as a minor impact but with less than 10,000 square feet of jurisdictional impacts.
- Less than 10,000 square feet, and not to an exemplary natural community or a state or federally listed endangered or threatened species, its habitat, or reproduction areas.
- For bank stabilization using riprap or other methods to protect existing infrastructure such as highways, bridges, dams or buildings.
- For bank stabilization using bioengineering methods.
- For docking structures if the surface area of all new shoreline structures (for docking) totals less than 2,000 square feet.
- Less than 200 linear feet of total stream impact that includes both banks and channel.

Where does the required mitigation have to occur?
Compensatory mitigation sites shall be located in the same watershed in which the impacts occurred or in the vicinity of the impacts when available and practicable.

How does one determine the appropriate amount of mitigation necessary to offset the impacts associated with a project?

An evaluation of a wetland to determine the functions and values it performs within the context of the broader landscape needs to be done. It is called a functional assessment.

The five types of wetland mitigation – land preservation, restoration, enhancement, creation or a payment into the aquatic resource mitigation fund – may be used singly or in combination to assemble a mitigation package that meets current mitigation rules. A clear description of each is as follows:

Land Preservation – The permanent protection of predominantly upland areas using legal and physical mechanisms so that the resource remains in a natural or undeveloped condition. Such protection is accomplished by placing the land under a conservation easement, which is held by a conservation organization, town or state agency. A conservation easement restricts the future use of the property in perpetuity. This practice does not make up for lost wetland functions, but protects other wetlands from degradation due to development of surrounding uplands.

Wetland restoration – The reestablishment of a filled, dredged or drained wetland to its historic condition, to restore lost functions. Restoration can include the removal of fill, restoration of the hydrology, or other means. Wetlands restoration often has a higher success rate, because the wetland hydrology had been present at one time. Some improvements to functions may be accomplished by enhancing the buffer to the aquatic resource and may be considered as part of the mitigation package.

Wetland enhancement – The manipulation of the physical, chemical, or biological characteristics, or any combination thereof, of an aquatic resource to heighten, intensify, or improve one or more specific aquatic resource functions. Wetlands enhancement results in the gain of selected aquatic resource functions. Wetlands enhancement does not result in a gain in aquatic resource area.

Wetlands creation – The transformation of upland to wetland at a site where the upland was not created by human activity, such as by filling or water diversion. Creation typically involves the excavation of a site to achieve adequate hydrologic features, followed by the importation of wetland soils and establishment of wetlands vegetation. This is often very costly and requires significant efforts to succeed.

Aquatic resource mitigation fund – If the other three forms of mitigation have been examined and it has been determined that they are not feasible, this fourth option will be available. That is, payment of funds in lieu of restoration/creation/preservation that can be pooled with similar payments from other projects to fund projects within the same watershed that have greater conservation value.

Replacement Ratios

To answer the “how much” question, ratios of mitigation area to area of wetlands loss, the following table has been developed to reach the goal of having all mitigation sites be quality sites and ensure that there is no net loss of wetlands.

Mitigation Ratio Table 800-1

Resource Type	Creation Ratio (resource created: size of impact)	Restoration Ratio (resource restored: size of impact)	Enhancement Ratio		Aquatic Resource Buffer Preservation (buffer area: size of impact)
			Hydrologic (resource enhanced: size of impact)	Vegetative (resource enhanced: size of impact)	
Bog or Fen	N/A	2:1	5:1	10:1	15:1
Tidal Wetlands	3:1	2:1	5:1	10:1	15:1
Forested	1.5:1	1.5:1	5:1	10:1	10:1
Undeveloped Tidal Buffer Zone	N/A	2:1	5:1	10:1	3:1
All Other Jurisdictional Areas	1.5:1	1:1	5:1	10:1	10:1

For More Information

For more information, please contact the NHDES Wetlands Bureau at (603) 271-2147, wetmail@des.state.nh.us, or go to www.des.nh.gov and choose “Wetlands” from the A to Z List.