

VERMONT WETLAND EVALUATION FORM

Project Name: _____ Project #: _____

Date: _____ Investigator: _____

SUMMARY OF FUNCTIONAL EVALUATION

- _____ 1. Water Storage for Flood Water and Storm Runoff
- _____ 2. Surface and Ground Water Protection
- _____ 3. Fisheries Habitat
- _____ 4. Wildlife and Migratory Bird Habitat
- _____ 5. Hydrophytic Vegetation Habitat
- _____ 6. Threatened and Endangered Species Habitat
- _____ 7. Education and Research in Natural Sciences
- _____ 8. Recreational Value and Economic Benefits
- _____ 9. Open Space and Aesthetics
- _____ 10. Erosion Control Through Binding and Stabilizing the Soil

NOTE: *This form has been developed by the Department of Environmental Conservation, as a preliminary field checklist. Under Section 4.7 of the Vermont Wetland Rules, the Department of Environmental Conservation is given the authority to issue advisory opinions as to which functions, if any, are provided by a significant wetland. Although the Department may use this form as part of its evaluation of a particular wetland, completion of this form does not constitute a determination by the Department. Please contact the wetlands office at 244-6951 with questions about this form or about determining the functions that are provided by any particular wetland. Formal determinations are made by the Water Resources Board.*

1. **Water Storage for Flood Water and Storm Runoff**

The wetland is likely not to be significant if a, b or c apply:

- ___ a. Wetland surface area is less than 1% of watershed.

$$\frac{\text{area of wetland}}{\text{watershed area}} \times 100 = \underline{\hspace{2cm}} \times 100 + \underline{\hspace{2cm}} \%$$
- ___ b. Wetland is contiguous to a major lake or pond that provides storage benefits independently of the wetland.
- ___ c. The wetland's storage capacity is created primarily by beaver dams or other temporary structures.
- d. Are any of the following conditions present downstream of the wetland, but upstream of a major lake or pond, that could be impacted by a loss or reduction of the water storage function:
 - ___ 1. Developed public or private property;
 - ___ 2. Stream banks susceptible to scouring and erosion;
 - ___ 3. Important habitat for aquatic life.

If so, the wetland is likely to be significant if any of the following conditions are met:

- ___ e. Constricted outlet or no outlet and an unconstricted inlet;
- ___ f. Physical space for floodwater expansion and dense, persistent, emergent vegetation or dense woody vegetation that slows down flood waters during peak flows and facilitates water removal by evaporation and transpiration;
- ___ g. If a stream is present, its course is sinuous and there is sufficient woody vegetation to intercept surface flows in the portion of the wetland that floods;
- ___ h. Ratings of High or Moderate for Floodflow Alteration Effectiveness and Opportunity using the Wetland Evaluation Technique.

Describe any characteristics of the watershed that may increase the volume of runoff reaching the wetland, such as large urbanized areas, relatively impervious soils or steep slopes: _____

2. Surface and Ground Water Protection

The wetland is likely to be significant if any of the following conditions are met:

- a. The wetland recharges a well head or aquifer protection area or a Class I or Class II ground water area;
- b. Reduces levels of contaminants in surface waters which recharge underlying or adjacent ground waters;
- c. Contributes to the flows of Class A surface waters;
- d. Enhances or protects water quality through chemical action or by the removal of nutrients (3 of the following 6):
 - constricted or no outlets;
 - water sampling indicates removal of pollutants or nutrients;
 - fine mineral soils and alkalinity not low;
 - no dead forest or shrub areas, and no ditches or channels that confine water;
 - low water velocity through dense, erect vegetation;
 - hydroperiod permanently flooded or saturated.
- e. Enhances or protects water quality by the retention or removal of sediments or organic matter, or by moderating the adverse water quality effects of soil erosion or stormwater runoff; no artificial channelization of the wetland, no soil tillage and any one of the following:
 - constricted or no outlet;
 - water sampling indicates retention of sediments or organic matter;
 - wetlands in depositional environments with erect, persistent vegetation wider than 20 feet;
 - wetlands with persistent vegetation comprising a defined delta, island, bar or peninsula.
- f. Ratings of High or Moderate for Sediment Retention or Nutrient Removal using the Wetland Evaluation Technique.

Describe any land uses or characteristics of the watershed that may contribute point or nonpoint sources of sediments, toxicants or nutrients to the wetland, such as: steep erodible slopes; row crops; dumps; areas of pesticide, herbicide or fertilizer application; feet dots; parking lots or heavily traveled road; and septic

systems. _____

3. Fisheries Habitat

The wetland is likely to be significant if any of the following conditions are met:

- ___ a. Provides spawning, nursery, feeding or cover habitat for fish (documented or professionally judged);
- ___ b. Documented spawning habitat for northernpike;
- ___ c. Contains woody vegetation that overhangs the banks of a stream or river and provides any of the following: shading that controls summer water temperature; cover including refuges created by overhanging branches or undercut banks; source of terrestrial insects as fish food; or streambank stability.
- ___ d. Provides cold spring discharge that lowers the temperature of receiving waters and creates summer habitat for salmonid species.

Comments: _____

4. Wildlife and Migratory Bird Habitat

The wetland is likely to be significant if any of the following conditions are met:

- ___ a. Habitat to support one or more breeding pairs or broods of waterfowl;
- ___ b. Supports or has the resting, staging or roosting habitat to support waterfowl migration;
- ___ c. Provides a nest site, a buffer for a nest site or feeding habitat for great blue heron, black-crowned night heron, green-backed heron or snowy egret;
- ___ d. Supports or has the habitat to support one or more breeding pairs of any of the following species of birds: Virginia rail, sora rail, common moorhen

(gallinule), American coot, snipe, horned grebe, marsh wren, Wilson's warbler, rusty blackbird, bay-breasted warbler, blue-gray gnatcatcher, black warbler, American bittern, pied-billed grebe, least bittern, northern harrier, short-eared owl, black-backed woodpecker, three-toed woodpecker, spruce grouse, and Curulean warbler;

- ___ e. Contains evergreen trees and provides winter or necessary feeding habitat for white-tailed deer;
- ___ f. Provides necessary feeding habitat for black bear or moose;
- ___ g. Contains evidence that it is used by muskrat, otter or mink;
- ___ h. Supports an active beaver dam, one or more lodges, or evidence of us in two or more consecutive years by an adult beaver population;
- ___ i. Provides habitat that supports the reproduction of Jefferson salamander, blue-spotted salamander, yellow-spotted salamander or other uncommon amphibians;
- ___ j. Supports or has the habitat to support breeding populations of mountain dusky salamander, four-toed salamander, Fowler's toad or other species of similar significance;
- ___ k. Supports or has the habitat to support populations of any of the following reptile species: wood turtle, map turtle, stinkpot turtle or spotted turtle;
- ___ l. Meets four or more of the following conditions indicative of wildlife habitat diversity:
 - ___ 1. three or more wetland vegetation classes (greater than 1/2 acre) present (not including wet meadows);
 - ___ 2. the dominant vegetation class is marsh or swamp;
 - ___ 3. located contiguous to a lake, pond, river or stream;
 - ___ 4. 50% or more surrounded by forest, agricultural land, old field or open land;
 - ___ 5. emergent or woody vegetation occupies 26 to 75 percent of wetland, the rest is open water; and
 - ___ 6. one of the following:

- _____ i. hydrologically connected to other wetlands of different dominant classes or open water within 1 mile;
- _____ ii. hydrologically connected to other wetlands of same dominant class within 1/2 mile;
- _____ iii. within 1/4 mile of other wetlands of different dominant classes or open water, but not hydrologically connected;
- _____ m. Owned by state and federal government and managed as a wildlife area; and
- _____ n. Contains evidence that it is used by wetland dependent wildlife species.

Comments: _____

5. Hydrophytic Vegetation Habitat

Wetlands that are bogs, fens, alpine peatlands or black gum swamps are automatically significant for this function. The wetland is also likely to significant if any of the following conditions are met:

- _____ a. Best known county example of one of the following: deep marsh dominated by rushes or cattails, shallow marsh, shrub swamp, wooded swamp dominated by hardwoods, cedars or spruce/fir-tamarack;
- _____ b. Provides habitat for rare species of hydrophytic vegetation;
- _____ c. Contains one or more plant species at their range limits; and
- _____ d. Contains disjunct plant species 40 miles or more from the nearest population.

Species or communities of concern: _____

6. **Threatened and Endangered Species Habitat**

Wetlands that contain species on the federal or state threatened or endangered lists are automatically significant for this function. The wetland is also likely to be significant if either of the following apply:

- ___ a. There is credible documentation that the wetland provides important habitat for any species on the federal or state threatened or endangered species lists;
- ___ b. There is credible documentation that threatened or endangered species have been present in past 10 years.

Name of species and ranking: _____

7. **Education and Research in Natural Sciences**

The wetland is likely to be significant if any of the following apply:

- ___ a. Owned by or leased to a public entity dedicated to education or research;
- ___ b. History of use for education or research, or scientific papers exist on the wetland; and
- ___ c. Has one or more characteristics making it valuable for education or research.

Comments: _____

8. **Recreational Value and Economic Benefits**

The wetland is likely to significant if any of the following apply:

- ___ a. Used for or contributes to recreational activities;
- ___ b. Provides economic benefits;

- ___ c. Provides important habitat for fish or wildlife which can be fished, hunted or trapped; and
- ___ d. Used for harvesting of wild foods.

Comments: _____

9. Open Space and Aesthetics

The wetland is likely to be significant if any of the following apply:

- ___ a. Can be readily observed by the public;
- ___ b. Possesses special or unique aesthetic qualities as open space; and
- ___ c. Has prominence as a distance feature in the surrounding landscape.

Comments: _____

10. Erosion Control through Binding and Stabilizing the Soil

The wetland is likely to be significant if there are erosive forces present and any of the following characteristics are present:

- ___ a. Forested or shrub wetland adjacent to a lake, river or stream;
- ___ b. Dense, erect vegetation greater than 20 feet wide;
- ___ c. Wetland substrate exposed to erosive forces is rubble, cobble or gravel;
- ___ d. Good interspersions of persistent emergent vegetation and water along course of stream flow;
- ___ e. Studies show that wetlands of similar size, vegetation type, and hydrology are important for erosion control;
- ___ f. Ratings of High or Moderate for Sediment Stabilization using the Wetland Evaluation Technique.

What type of erosive forces are present:

_____ Lake fetch and waves: _____

_____ High current velocities: _____

_____ Water level influenced by upstream impoundment: _____

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