



VERMONT WETLAND RULES

**WATER RESOURCES BOARD
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Appendix A Class One Wetlands

The Vermont Water Resources Board and the Department of Environmental Conservation are equal opportunity agencies and offer all persons the benefits of participating in each of its programs and competing in all areas of employment regardless of race, color, religion, sex, national origin, age, disability, or other non-merit factors.

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INTRODUCTION

This introduction is intended to provide general information about the Vermont Wetland Rules. This introduction is not a part of these rules.

I. General

The wetlands of the State of Vermont are indispensable but fragile natural resources. It is estimated that Vermont's existing wetlands comprise less than 5 percent of Vermont's surface area. In addition to being Vermont's most productive ecosystem, wetlands serve a wide variety of functions beneficial to the health, safety and welfare of the general public, including:

- o retaining stormwater runoff, reducing flood peaks, delaying flood crests and thereby reducing flooding;
- o protecting the quality and quantity of ground water;
- o improving surface water quality by storing organic materials, chemically breaking down or removing pollutants, and by filtering eroded sediments and organic matter from the surface runoff;
- o stabilizing soil and dissipating wave and current energy;
- o providing spawning, feeding and general habitat for fish;
- o providing a wide diversity of habitat for wildlife, including waterfowl, birds, mammals, furbearers, amphibians and reptiles;
- o providing habitats which are critical for the survival of rare, threatened or endangered species of plants and animals;
- o providing both representative and rare examples of plant communities which make up the state's natural wetland heritage;
- o providing valuable resources for education and research in natural sciences;
- o providing a diversity of recreational and economic benefits;
- o contributing to the open space character and overall beauty of the landscape.

A substantial portion of Vermont's wetlands have already been lost or severely impaired draining, dredging, filling, excavation, pollution and other activities. It is estimated that Vermont has already lost nearly 50% of its wetland resources and is continuing to lose hundreds of acres on an annual basis.

The legislature adopted an act in 1986 (10 V.S.A. Chapter 37, Section 905(a) (7-9)) that established the statutory framework for identifying and protecting Vermont's wetlands in accordance with the rules adopted by the Water Resources Board (Board). These rules only apply to those wetlands which are determined to be "so significant that they merit protection." The determination of whether any specific wetland merits protection under these rules is based on an evaluation of the extent to which it serves one or more of the functions listed in Section 5 (pages 9-15) of the rules.

ii. Summary of Key Provisions

a. Identifying Wetlands

Wetlands are identified by three parameters: the vegetation, soils and hydrology as described in Section 3.2 (page 5) of the rules. Upon request, the Department of Environmental Conservation may informally determine wetland boundaries through field investigation.

b. Farming Exemption

Areas used to grow food or crops in connection with farming activities or in ordinary rotation, as of February 23, 1990, are exempt from these rules. This exemption will expire whenever the area is no longer used to grow food or crops or is no longer in ordinary rotation.

c. Classification of Wetlands

The rules establish three classes of wetlands that are used to determine the level of protection under these rules. Class One and Two wetlands are "significant wetlands" and therefore are protected under these rules. Class One wetlands are those wetlands which the Board determines are exceptional or irreplaceable in their contribution to Vermont's natural heritage and merit the highest level of protection under these rules. Class three wetlands are not protected under these rules, however, may be protected by other federal, state or local regulations.

d. Initial Designation of "Significant Wetlands"

The rules designate most wetlands shown on the National Wetlands Inventory (NWI) maps and those wetlands contiguous to mapped wetlands as Class Two wetlands (see page 7 for exceptions). This initial

designation is based on a study conducted in 1988 by the Agency of Natural Resources. This study showed that greater than 93% of NWI mapped wetlands are significant based on the extent that they serve one or more of the functions specified in Section 5 of the rules. Copies of the NWI maps have been provided to all town clerks and regional planning commissions and are also available to the general public for a small fee from the Department of Environmental Conservation Wetlands Office (802) 241-3770.

e. Subsequent Designations of Significant Wetlands

The rules establish procedures for deleting or adding specific wetlands (see pages 7-8 and 18-20). The Water Resources Board's decisions will be based on an evaluation of the functions found in Section 5 (see pages 9-15). The rules identify 10 separate functions that may make a wetland so significant that it merits protection. For each function, the first paragraph describes the circumstances under which the Board will consider a wetland "significant" for that function. This paragraph is followed by a description of the criteria by which the Board will evaluate whether any specific wetland is significant for the function in question.

In general, those seeking to change the initial designation of wetlands will have the burden of proof under the rules. An important exception to this general rule is that where a subsequent evaluation by the Department of Environmental Conservation shows that wetlands included in the initial designation are not in fact "significant wetlands," the Board will expedite consideration of requests from the affected landowner or others (see page 18) to change that wetland's classification.

f. Buffer Zone

Initially, a 50 foot buffer zone is designated contiguous to all Class Two wetlands and a 100 foot buffer zone is designated contiguous to all Class One wetlands (see page 7). The Board may be petitioned to change the size or configuration of a buffer zone adjacent to any significant wetland (see pages 18-20).

g. Allowed and Conditional Uses

The rules contain a list of allowed uses, that is, uses allowed without any review under these rules (see

pages 15-18). These uses are allowed in significant wetlands and adjacent buffer zones, providing there is no draining, dredging, filling, grading or alterations of the water flow. Examples of allowed uses include silvicultural (or logging) and agricultural activities that are in compliance with the conditions listed on pages 16-17; the routine repair and maintenance of existing structures; recreational activities; and fish and wildlife management.

All uses which are not allowed are conditional uses. Conditional uses may only be allowed as described in Section h. below.

h. Conditional Use Determination

Conditional use determinations may be granted by the Secretary of the Agency of Natural Resources (Secretary) allowing activities otherwise prohibited within a significant wetland or a buffer zone (see pages 21-24). Such a conditional use determination may only be granted when it is shown that the proposed activity will not have undue adverse impacts on the significant functions of the wetland. The Secretary may impose any conditions deemed necessary to achieve the purposes of these rules.

The Secretary may determine, in some cases, that undue adverse impacts may be sufficiently mitigated. Mitigation is a term that refers to a series of steps: avoidance, minimization, restoration and compensation of adverse impacts. Compensation, or the replacement of wetland functions and acreage, involves a high level of risk and uncertainty. The compensation of wetlands shall therefore only be considered when the applicant has shown, first, avoidance, minimization and restoration are not practicable alternatives, and second, the applicant has quantitatively evaluated each of the wetland functions and can show that there will be no net loss of significant wetland functions or acreage. The rules presume that the only functions that are replicable with any degree of success are stormwater retention, sediment retention, waterfowl habitat, and open space and aesthetics. Compensation will not be allowed in Class One wetlands except in rare cases of compelling public need.

I. Enforcement

If the Secretary finds that any person has failed to comply with the provisions of these rules, he may

issue an order to abate the rule violations. For any person who fails, neglects or refuses to comply with the terms of such an order, statutory penalties provide for fines of not more than \$25,000.00 and imprisonments of not more than six months, or both, each day of the violation [10 V.S.A. Subsection 1275(a)].

iii. Roles of the Water Resources Board and the Secretary

The Water Resources Board adopted the Vermont Wetland Rules (10 V.S.A. Subsection 905(a)(7-9)). The Board is responsible for determining the subsequent designation of wetlands and buffer zones and for hearing Conditional Use Determination appeals.

The Secretary of the Agency of Natural Resources is responsible for studying and investigating wetlands, cooperating with other agencies and the Board in compiling data relating to wetlands, proposing specific wetlands to be designated as significant wetlands and implementing the Vermont Wetlands Rules (10 V.S.A. Section 905b)).

Compliance with the Vermont Wetland Rules is also required for all developments subject to review under Vermont's land use program, Act 250 (10 V.S.A. Section 6086(a)(1)(G)). In addition to complying with these rules, an applicant seeking an Act 250 permit must meet all other criteria under Act 250.

iv. Role of Local Governments

Although not mandated by these rules, it is important to note that local planning commissions are responsible for undertaking studies, making recommendations on wetland protection, and indicating those areas proposed for wetland protection in the land use plans (24 V.S.A. Sections 4303(19), 4325(4), 4345(6), 4384a(a)(2), 4382(a)(2), and 4383(a)(2)). In addition to these rules, no municipality may grant a zoning permit for the development of a wetland prior to the expiration of a period of thirty days (30) following the submission of a report to the Agency of Natural Resources, describing the proposed use, the location requested and an evaluation of the effect of such proposed use on the plan of the municipalities and on the regional plan (24 V.S.A. Section 4409(c)(2)(A)).

v. Information

Questions regarding the administration or interpretations of these rules should be directed to the Vermont Water Resources Board, National Life Records Center, Drawer 20, Montpelier, Vermont 05620-3201 (telephone (802) 828-3309).

Information regarding the conditional use determination, wetland boundary and functional determinations, copies of National Wetlands Inventory Maps, copies of Vermont Significant Wetlands Inventory Maps, or other materials relating to the Wetlands Act will be available upon request from the Department of Environmental Conservation, Water Quality Division, 103 South Main Street, Building 10 North, Waterbury, Vermont 05671-0408 (telephone (802) 241-3770).

(2/97)

SECTION 1: GENERAL

1.1 Purpose and Authority

It is the policy of the State of Vermont to identify and protect significant wetlands and the values and functions which they serve in such a manner that the goal of no net loss of such wetlands and their functions is achieved.

These rules are adopted under the authority of the Board pursuant to Title 10 V.S.A. Chapter 37, Section 905 (7-9). This statute limits the applicability of these rules to those wetlands which are so significant that they merit protection in this program. Wetlands not designated as significant under these rules should be assumed to have public value, and therefore may merit protection under other statutory or regulatory authority.

All public highway projects which have filed an Act 250 application prior to the date on which these rules were proposed (April 24, 1989) or which have received an Act 250 permit prior to the effective date of these rules (February 23, 1990) shall be exempt from the Vermont Wetland Rules.

Except as provided for below, these rules shall apply to all other land uses occurring within a significant wetland or its associated buffer zone that are commenced after February 23, 1990. These rules shall not apply to any land use for which:

- (1) A complete application for all local, state and federal permits related to either the regulation of land use or the protection of wetlands had been submitted as of February 23, 1990, and where the applicant does not subsequently file an application for a permit amendment in a way that would have an undue, adverse impact on a protected function of a significant wetland, and substantial construction of the project commences within two years of the date on which all such local, state and federal permits become final.
- (2) All local, state and federal permits related to either the regulation of land use or the protection of wetlands had been obtained as of February 23, 1990 and where substantial construction of the project commences by February 23, 1992; or
- (3) No local, state or federal permits related to either the regulation of land use or the protection of wetlands are required and where substantial construction was commenced prior to February 23, 1990.

1.2 Enforcement

Violations of these rules are subject to enforcement under applicable Vermont law including, but not necessarily limited to, the provisions of 10 V.S.A. Sections 1274 and 1275 and 3 V.S.A. Sections 2822.

1.3 Interpretation

The Secretary may make such informal interpretations of these rules as may be necessary for the exercise of his or her duties but shall not issue declaratory rulings formally interpreting these rules. Formal interpretation of these rules may be obtained by a request for either an advisory opinion from the Board's Executive Officer or a declaratory ruling from the Board as provided for in the Board's Rules of Procedure and 3 V.S.A. Section 808. Informal interpretations by the Secretary and advisory opinions by the Executive Officer may be brought to the Board by means of a petition for a declaratory ruling by any person demonstrating an interest in the outcome.

SECTION 2: DEFINITIONS

For the purposes of these rules, the terms below shall have the following meanings unless a different meaning clearly appears from the context. Examples are illustrative only and not exhaustive.

- 2.01 Alpine Peatland shall mean a wetland which is over 2500 feet in elevation, which has organic soils and is situated at or near the alpine zone in mountains.

- 2.02 Aquatic Life shall mean all animal life which is dependent for its survival and reproduction on wetlands. Typical species: spotted salamander, painted turtle, springpeeper and green frog.
- 2.03 Board shall mean the Water Resources Board.
- 2.04 Bog shall mean a peat-accumulating wetland with hydric, organic soils, a complete, or nearly complete, sphagnum cover, and a pH value ranging from 3.5 to 5.6 that receives water primarily from precipitation. Typical species: Sphagnum, leatherleaf, and pitcher plant.
- 2.05 Buffer zone shall mean the area contiguous with a significant wetland which serves to protect those values and functions sought to be preserved by its designation.
- 2.06 Compensation shall mean the elimination of undue adverse impacts on the protected functions of significant wetlands by the replacement of those protected functions lost or impaired.
- 2.07 Contiguous shall mean sharing a boundary^{such as a river} or touching and shall include situations where the water level of the wetland is directly influenced by the water level of the adjacent waterbody ~~or wetland~~ and where a man-made structure (e.g. roadway) divides a wetland, if surface water is able to flow over, under or through that structure.
- 2.08 Deep Marsh shall mean those wetlands with an average water depth between six inches and three feet during the growing season which have hydric soils and which are dominated by greater than 50 percent areal cover of herbaceous vegetation. Typical species: giant burreed, arrowhead, pickerelweed, bulrushes, cattails.
- 2.09 Dredge shall mean lowering the bottom elevation or any cleaning, deepening, widening, or excavating, either temporarily or permanently.
- 2.10 Emergent Vegetation shall mean erect, rooted herbaceous (nonwoody) plants that may be flooded at the base but do not tolerate prolonged inundation of the entire plant. Examples: cattails, reed canary grass.
- 2.11 Facultative Species shall mean plant species that sometimes occur in wetlands, but which may also be found in uplands.
- 2.12 Fen shall mean a peat-accumulating wetland with hydric organic soils and a pH value ranging from 4.0 to 8.0. Sphagnum moss may be present, however, not as a complete cover. It generally receives water and minerals from runoff flowing through it. Typical species: low sedges, Sphagnum, other mosses, and heath shrubs.

- 2.13 Fill shall include the placing of any material that raises, either temporarily or permanently, the elevation of any area.
- 2.14 Hydric soils shall mean soils that are saturated, flooded or ponded long enough during the growing season to develop anaerobic conditions in the upper part (U.S.D.A. Soil Conservation Service 1987). For the purpose of these rules, hydric soils shall be synonymous with the terms saturated soils and seasonally saturated soils as used in 10 V.S.A. Section 902(5).
- 2.15 Hydrophytic Vegetation shall mean vegetation, including obligate wetland species and facultative species, growing in water, soil or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content. For the purposes of these rules, hydrophytic vegetation shall be synonymous with the term significant vegetation as used in 10 V.S.A. Section 902(5).
- 2.16 Mitigation shall mean a comprehensive effort to lessen impacts on wetlands through avoidance, minimization, and when appropriate, compensation.
- 2.17 Obligate Wetland Species shall mean plant species that are almost always found only in wetlands under natural conditions.
- 2.18 Person shall mean any individual, partnership, public or private corporation, municipality, institution, or agency of the state or federal government, including any officer or governing or managing body of a partnership, association, firm or corporation.
- 2.19 Prevalence of Vegetation shall mean plants comprising greater than 50 percent of the average percent areal cover of the plant community.
- 2.20 Protected functions shall mean those functions that make a wetland so significant they merit protection under these rules.
- 2.21 Secretary shall refer to the Secretary of the Agency of Natural Resources or his or her authorized representative.
- 2.22 Shallow marsh shall mean those wetlands with an average water depth less than six inches during the growing season having hydric soils and dominated by greater than 50 percent areal cover of herbaceous vegetation. Typical species: reed canary grass, tussock sedge, rice cut grass.
- 2.23 Shrub swamps are those wetlands with greater than 50 percent areal cover of perennial woody vegetation less than 20 feet tall and with hydric soils. Typical species: speckled alder, willows, buttonbush.

- 2.24 Significant Wetland shall mean any wetland which the Board determines to be a Class One or Class Two wetland.
- 2.25 Silvicultural activities, shall mean those activities associated with the sustained management of land for silvicultural purposes including the planting, harvesting, and removal of trees.
- 2.26 Surface Vegetation shall mean plants with vegetative parts principally on the water surface. Examples: water lily, spatterdock.
- 2.27 Uplands shall mean lands which are not wetlands.
- 2.28 Waterfowl shall mean all ducks, geese and swans.
- 2.29 Wetlands shall mean those areas of the state that are inundated by surface or ground water with a frequency sufficient to support significant vegetation or aquatic life that depend on saturated or seasonally saturated soil conditions for growth and reproduction. Such areas include but are not limited to marshes, swamps, sloughs, potholes, fens, river and lake overflows, mud flats, bogs, and ponds, but excluding such areas as grow food or crops in connection with farming activities.
- 2.30 Wetland Evaluation Technique shall mean the functional evaluation method cited as follows: Adamus, P.R., Clairain, E.J., Jr., Smith, R.D., and Young, R.E., 1987. "Wetland Evaluation Technique (WET); Volume II: Methodology," US Army Engineer Waterways Experiment Station, Vicksburg, Miss.
- 2.31 Wetland Hydrology shall mean the sum total of wetness characteristics in areas that are inundated by water or which have hydric soils that are saturated or seasonally saturated for a sufficient duration to support significant vegetation or aquatic life. Wetness characteristics shall include the hydrologic cycle, water table levels, water chemistry, hydrologic budget, and ground water flow patterns. Typical indicators: evidence of inundation, drift lines, sediment deposits, and morphological plant adaptations.
- 2.32 Wooded swamps are those wetlands with greater than 50 percent areal cover of perennial woody vegetation greater than 20 feet tall and with hydric soils. Typical species: red maple, northern white cedar, American elm.

SECTION 3: IDENTIFICATION OF WETLANDS

3.1 Farming Exemption

a. Statutory guidance

Section 902(5) of 10 V.S.A. defines wetlands to exclude "such areas as grow food or crops in connection

with farming activities." Section 905(9) of 10 V.S.A. requires that any Board rules "that restrain agricultural activities" must have the consent of the Commissioner of the Department of Agriculture.

b. Definition

Farming activities shall mean the cultivation or other use of land for growing food, fiber, Christmas trees, maple sap, or horticultural and orchard crops; and the growing of food and crops in connection with the raising, feeding, or management of livestock, poultry, equines, fish farms, or bees for profit.

c. Limitation on Exemption

The farming exemption shall apply to all areas used to grow food or crops in connection with farming activities including areas in ordinary rotation, as of the effective date of these rules. The exemption will expire whenever the area is no longer used to grow food or crops or in ordinary rotation.

3.2 Methodology for Identifying Wetlands

a. Wetland/Upland Boundary Delineation

The boundary between a wetland and an upland shall be delineated by the methodology set forth in the most recent edition of the Federal Manual for Identifying and Delineating Jurisdictional Wetlands. This methodology employs three parameters: vegetation, soils and hydrology. The most recent edition of The Wetland Plant List of the State of Vermont published by the U.S. Fish and Wildlife Service shall be used to determine the frequency of vegetation occurrence in wetlands.

b. Wetland/Deepwater Habitat Boundary Criteria

Wetland shall be distinguished from deepwater habitat by the following criteria:

(1) Lakes, Ponds and Reservoirs

When adjacent to any lake, pond or reservoir that is a public water a wetland's boundary shall extend to the maximum extent of a prevalence of surface, emergent, or woody vegetation at any time during the growing season. For all other lakes, ponds or reservoirs, a wetland's boundary shall extend to a depth of two meters.

(2) Rivers or Streams

In wetlands adjacent to a river or stream, the wetland shall extend to either the edge of the river or stream channel or to the maximum extent of a prevalence of surface, emergent or woody vegetation at any time during the growing season, whichever is greater.

SECTION 4: DESIGNATION OF SIGNIFICANT WETLANDS
AND BUFFER ZONES

4.1 Classification of Wetlands

For purposes of these rules all wetlands in Vermont are designated as either Class One, Class Two or Class Three wetlands. Those wetlands designated as Class One or Class Two wetlands, based on an evaluation of the criteria and review standards specified in Section 5 of these rules, are so significant that they merit protection.

- a. Class One wetlands are those wetlands that in and of themselves, based on an evaluation of the functions in Section 5, are exceptional or irreplaceable in their contribution to Vermont's natural heritage and are therefore so significant that they merit the highest level of protection under these rules.
- b. Class Two wetlands are those wetlands, other than Class One wetlands, which based on an evaluation of the functions in Section 5, are found to be so significant, either taken alone or in conjunction with other wetlands, that they merit protection under these rules.
- c. Class Three wetlands are those wetlands which have not been determined by the Board to be so significant that they merit protection under these rules either because they have not been evaluated or because when last evaluated were determined not to be sufficiently significant to merit protection under these rules.

4.2 Initial Designations

a. Class One Wetlands

Class One wetlands when designated as provided for in Section 7 shall be identified in Appendix A of these rules.

b. Class Two wetlands

All wetlands shown on the National Wetlands Inventory maps for the State of Vermont (1978) published by the U.S. Fish and Wildlife Service, and all wetlands contiguous to

such mapped wetlands, are presumed to be Class Two wetlands, unless determined otherwise by the Board as provided for in Section 7 of these rules except for the following:

- (1) Those wetlands subsequently designated as Class One wetlands (Appendix A); and
- (2) The following categories of wetlands shown on the National Wetlands Inventory maps:
 - Riverine Lower Perennial Open Water (R2OW)
 - Riverine Lower Perennial Beach/Bar (R2BB)
 - Riverine Upper Perennial Open Water (R3OW)
 - Riverine Upper Perennial Beach/Bar (R3BB)
 - Lacustrine Limnetic Open Water (L1OW)
 - Lacustrine Littoral Open Water (L2OW)
 - Lacustrine Littoral Beach/Bar (L2BB)

Each Class Two wetland is presumed, until determined otherwise by the Board as provided for in Section 7 of these rules, to serve all of the functions specified in Section 5 of these rules. The functions that make a specific wetland significant shall be determined pursuant to Section 4.7 and 7.

- c. Class Three Wetlands are those wetlands which are not designated as Class One or Class Two wetlands.

4.3 Buffer Zones

The Board may designate a buffer zone contiguous to any Class One or Class Two wetland. Until otherwise designated by the Board, a one hundred (100) foot buffer zone is established contiguous to the boundaries of a Class One wetland and a fifty (50) foot buffer zone is established contiguous to the boundaries of a Class Two wetland.

4.4 Subsequent Designations

The Board on its own motion or acting on petitions in accordance with Section 7, shall:

- a. determine whether to reclassify any wetland to a higher or lower classification.
- b. determine which functions make any wetland significant.

- c. determine whether the size or configuration of a buffer zone adjacent to a significant wetland should be increased or decreased.
- d. make a determination of the designated boundaries of the wetland.

4.5 Vermont Significant Wetland Inventory (VSWI) Maps

a. Annual Update

The National Wetlands Inventory Maps for the State of Vermont, revised to conform with these rules, shall be known as the Vermont Significant Wetland Inventory (VSWI) Maps. One year from the effective date of these rules and annually thereafter, the Secretary shall revise the affected VSWI maps to reflect the actions of the Board in the preceding calendar year pertaining to the designation of significant wetlands. Copies of the VSWI maps, including annual revisions will be provided to each affected municipality, regional planning commission and regional office of the Agency of Natural Resources by the Secretary.

b. Accuracy Limitations of VSWI

The VSWI maps should not be relied upon to provide precise information regarding the location or configuration of significant wetlands (see Section 3.2). They are intended to denote the approximate location and configuration of significant wetlands.

4.6 Boundary Determinations

- a. The methodology for delineating the boundaries of any wetland is described in Section 3.2 of these rules. Upon written request of any affected municipality or property owner(s), the Department may issue an informal opinion regarding the boundaries of any significant wetland. Such a request shall include a location map of the site in question and any additional information the Department may require. The Department shall inform the landowner and the municipality in writing of such a determination.
- b. Wetland boundaries shall be delineated in accordance with the provisions of these rules. The Department may issue an informal opinion verifying such wetland boundary determinations.
- c. Formal determinations of wetland boundaries are made by the Board as provided for in Section 7.

4.7 Determination of Functions

Upon written request of any affected property owner(s) the Department may issue an informal opinion as to which, if any, of the functions specified in Section 5 are served by any significant wetland.

SECTION FIVE: FUNCTIONAL CRITERIA FOR EVALUATING A WETLAND'S SIGNIFICANCE

In evaluating whether any wetland is so significant that it merits protection, and if so, whether it is a Class One or a Class Two wetland, the Board shall evaluate the functions that the wetland serves both as a discrete wetland and in conjunction with other wetlands by considering the following criteria.

5.1 Function: Water storage for flood water and storm runoff.

Wetlands that provide for the temporary storage of floodwater or stormwater runoff to the extent that they make an important contribution to: reducing risks to public safety, reducing damage to public or private property reducing downstream erosion or enhancing the stability of habitat for aquatic life, are significant wetlands.

In determining whether a wetland is significant for this function, the Board shall, at a minimum, consider the extent to which it:

- a. Reduces either the magnitude or frequency of risks to public safety or of damage to public or private property due to flood water or stormwater runoff after considering:
 - (1) Its significance relative to other water storage capacity in its own watershed or in the watershed of any watercourse to which it is tributary;
 - (2) Whether it is contiguous to a lake or pond which would provide storage benefits independent of the wetland;
 - (3) The extent of development in any affected downstream flood plain;
 - (4) Its rating for flood storage using the Wetland Evaluation Technique;
 - (5) The extent to which a wetland's water storage capacity is created by beaver dams and similar temporary conditions;

- (6) Wetland whose surface constitutes less than one percent of the watershed upstream of its outlet will be presumed to not be significant for reducing the magnitude or frequency of downstream flooding.
- b. Reduces the scouring and erosion of stream banks by attenuating flood peaks and reducing water velocities.
- c. Maintains the stability of important habitat for aquatic life by either attenuating peak flows of flood waters or stormwater runoff, or reducing the scouring and erosion of stream banks.
- d. Hydraulic and hydrologic analysis of the extent to which a wetland serves this function shall utilize average annual, 10 year, 50 year and 100 year storm frequencies in generating hydrographs for the wetland's inlet, outlet and at critical locations downstream.

5.2 Function: Surface and ground water protection

Wetlands that make an important contribution to the protection or enhancement of the quality of surface or of ground water are significant wetlands. In determining whether a wetland is significant for this function, the Board shall, at a minimum, consider the extent to which it:

- a. Recharges any of the following: 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 groundwaters;
- c. Contributes to the flows of Class A surface waters;
- d. Enhances or protects water quality through chemical action, by the removal of nutrients, by the retention or removal of sediments or organic matter or by moderating the adverse water quality effects of soil erosion or stormwater runoff;
- e. Is rated for nutrient retention and removal or for sediment trapping using the Wetland Evaluation Technique.

5.3 Function: Fisheries habitat

Wetlands that are used for spawning by northern pike or that are important for providing fisheries habitat are significant wetlands. In determining whether a wetland is significant for fisheries habitat the Board shall, at a minimum, consider the extent to which it:

- a. Provides spawning, nursery, feeding or cover habitat for fish;
- b. Lowers or moderates the temperature of surface waters due to the discharge of cold springs, the provision of shade or for other reasons.

5.4 Function: Wildlife and migratory bird habitat

Wetlands that support a significant number of breeding waterfowl or broods of waterfowl or that provide important habitat for wildlife and migratory birds are significant wetlands. In determining whether a wetland is significant for wildlife and migratory bird habitat the Board shall, at a minimum, consider the extent to which it:

a. Birds

- (1) Has the habitat to support one or more breeding pairs of waterfowl or one or more broods of waterfowl;
- (2) Supports or has the resting, staging or roosting habitat to support waterfowl migration;
- (3) Supports a nest site, provides a buffer for a nest site, or is used as feeding habitat for any of the following species: Great blue heron, black-crowned night-heron, snowy egret, or green-backed heron;
- (4) 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 tern, Cape May warbler, Lincoln's sparrow, Tennessee warbler, American bittern, pied-billed grebe, least bittern, northern harrier, short-eared owl, black-backed woodpecker, three-toed woodpecker, spruce grouse, and Cerulean warbler;

b. Mammals

- (1) Contains evergreen trees and can be shown to provide winter or otherwise necessary feeding habitat for white-tailed deer, based on an assessment of historic and current use of browsing at a moderate or heavier level;

- (2) Provides necessary feeding habitat for black bear or moose, based on an assessment of historic and current use;
- (3) Contains evidence that it is used by muskrats, otter, or mink;
- (4) Supports an active beaver dam, one or more beaver lodges, or evidence of an adult population of beaver which have used the site in two or more consecutive years;

c. Amphibians

- (1) The wetland provides habitat that supports the reproduction of uncommon Vermont amphibian species including: Jefferson salamander, blue-spotted salamander, yellow-spotted salamander, and others found in Vermont of similar significance;
- (2) Supports or based on its habitat is likely to support breeding populations of any uncommon Vermont amphibian species including: Mountain dusky salamander, four-toed salamander, Fowler's (Woodhouse's) toad and others found in Vermont of similar significance;

d. Reptiles

- (1) Supports or based on its habitat is likely to support populations of any of the following declining or disjunct species of reptiles: Wood turtle, map turtle, stinkpot turtle, or spotted turtle;

e. Other

- (1) Meets four or more of the following conditions indicative of wildlife habitat diversity:
 - (a) Three or more wetland vegetation classes (1/2 acre or greater in size) are present including: open water contiguous to but not necessarily part of the wetland, deep marsh, shallow marsh, shrub swamp, wooded swamp, fen, or bog;
 - (b) The dominant wetland vegetation class is one of the following types: deep marsh, shallow marsh, or wooded swamp;
 - (c) The wetland is located contiguous to a lake, pond, river, or stream;

- (d) Fifty percent or more of the surrounding habitat types are any combination of one or more of the following types: forest, agricultural land, old field, or open land;
- (e) Emergent or woody vegetation occupies 26 to 75 percent of the wetland area and open water occupies the remainder of the wetland area;
- (f) The wetland falls into one of the following:
 - 1. Hydrologically connected to other wetlands of different dominant vegetation classes or open water bodies within 1 mile; or
 - 2. Hydrologically connected to other wetlands of the same dominant vegetation class within 1/2 mile; or
 - 3. Within 1/4 mile of other wetlands of different dominant vegetation classes or within 1/4 mile of open waterbodies; but not hydrologically connected.
- (2) Is owned by the state or federal government in fee or through easement and managed as a wildlife area as evidenced by a management plan filed and approved by the Secretary;
- (3) Contains evidence that it is used by wetland dependent wildlife species.

5.5 Function: Hydrophytic vegetation habitat.

Wetlands that are any of the following types: bogs, fens, alpine peatlands or black gum swamps are significant wetlands. Other wetlands that provide important habitat for hydrophytic vegetation consisting of rare plant species or communities of plant species that make an important contribution to Vermont's natural heritage are significant wetlands. In determining whether a wetland is significant for this function the Board shall, at a minimum, consider the extent to which it:

- a. Serves as the best known example of any one of the following community types documented within a county: deep marsh dominated by rushes, deep marsh dominated by cattails, shallow marsh, shrub swamp, wooded swamp dominated by hardwoods, cedars or spruce/fir/tamaracks;
- b. Provides habitat for rare species of hydrophytic vegetation;

- c. Contains one or more plant species that are at their range limits;
- d. Contains disjunct plant species 40 miles or more from the nearest population of that plant species in the United States;

5.6 Function: Threatened and endangered species habitat.

Wetlands that contain threatened or endangered species are significant wetlands. In determining whether a wetland is significant for this function the Board shall consider whether:

- a. There is creditable documentation that the wetland provides important habitat for any species on the federal or state threatened or endangered species list of animals or plants;
- b. There is creditable documentation that the wetland has contained one or more threatened or endangered species on the federal or state list in the past 10 years.

5.7 Function: Education and research in natural sciences.

Wetlands that provide, or are likely to provide valuable resources for education or scientific research are significant wetlands. In determining whether a wetland is significant for this function the Board shall, at a minimum, consider whether the wetland:

- a. Is owned by a public entity dedicated for education or research or an easement for education or research has been conferred to a public entity;
- b. Has a history of use for education or research or scientific papers exist on a wetland;
- c. Has one or more characteristics which potentially make it unique or valuable for education or scientific research purposes.

5.8 Function: Recreational value and economic benefits.

Wetlands that provide substantial recreational values or economic benefits are significant wetlands. In determining a wetland is significant for this function, the Board shall, at a minimum, consider the extent to which it:

- a. Is 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 under applicable state law;
- d. Is used for the harvesting of wild foods.

5.9 Function: Open space and aesthetics.

Wetlands that contribute substantially to the open-space and aesthetic character of the landscape are significant wetlands. In determining whether a wetland is significant for this function, the Board shall, at a minimum, consider the extent to which it:

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

5.10 Function: Erosion control through binding and stabilizing the soil.

Wetlands that are important for erosion control are significant wetlands. In determining whether a wetland is significant for this function, the Board shall, at a minimum, consider the extent to which it:

- a. Protects a shoreline, riverbank or streambank from excessive erosion by dissipation of wave and current energy or by binding and stabilizing the soil;
- b. It has been shown by studies that wetlands of similar size, vegetation type, and hydrology are important for erosion control;
- c. It is rated for shoreline anchoring using the Wetland Evaluation Technique.

SECTION SIX: ALLOWED AND CONDITIONAL USES

6.1 General

In order to protect the functions which make them significant wetlands, the use of Class One and Class Two wetlands and their associated buffer zones shall be protected as provided for in this section.

6.2 Allowed Uses

The following uses shall be allowed in a Class One or Class Two wetland and in their adjacent buffer zone without any review

under these rules, provided that the configuration of the wetland's outlet or the flow of water into or out of the wetland is not altered and that no draining, dredging, filling, or grading occurs except as may be provided for in subsections a, b, c, d, and 1 below.

a. Silvicultural activities which:

- (1) Comply with Acceptable Management Practices for Maintaining Water Quality on Logging Jobs in Vermont adopted pursuant to 10 V.S.A. Section 1259;
- (2) Comply with silvicultural standards for deer wintering yards, established jointly by the Departments of Fish and Wildlife and Forests, Parks and Recreation, when occurring in significant wetlands or adjacent buffer zones containing deer wintering yards mapped by the Fish and Wildlife Department; and
- (3) Restrict equipment maintenance and the storing or changing of oil, grease, or other petroleum products to log landings; and
- (4) Restrict log landings to uplands or buffer zones except that landings not requiring the placement of fill may be located within the wetland when the ground is frozen.

- b. The restoration, reconstruction, rehabilitation, or upgrading of existing roads used solely for silvicultural purposes provided that such roads are not increased in width by more than 20%.
- c. The construction of new roads used solely for silvicultural purposes in buffer zones.
- d. The removal of beaver dams to the extent necessary to prevent impairment of the use of existing logging roads or ongoing silvicultural management practices.
- e. Silvicultural activities including the uses allowed by subsections b, c and d above, when occurring in any Class One wetland, the buffer zone for any Class One wetland and in any Class Two wetland specifically designated by the Board to protect habitat for any species on the state or federal list of threatened or endangered species, that comply with a plan approved in writing by the Commissioner of the Department of Forests, Parks and Recreation.
- f. The growing of food or crops in connection with farming activities when:

- (1) Threatened or endangered species are protected; and
 - (2) No clearing of existing vegetation occurs in deer wintering yards mapped by the Vermont Fish and Wildlife Department; and
 - (3) In compliance with the most recent Acceptable Agricultural Practices adopted by the Department of Agriculture.
- g. The operation of existing hydroelectric facilities in accordance with all applicable requirements established by either federal or state agencies.
 - h. The routine repair and maintenance of utility poles and lines in a manner which minimizes adverse impacts and is in accordance with a plan approved by the Secretary.
 - i. Hunting, birdwatching, hiking, boating, trapping, fishing, horseback riding, swimming, snowshoeing, skiing, and similar outdoor recreational activities.
 - j. Snowmobiling on trails designated by the Vermont Association of Snow Travelers.
 - k. Scientific research and educational activities.
 - l. The emergency repair of utility poles and lines or the maintenance, reconstruction or routine repair of structures and facilities (including, but not limited to, public transportation facilities, bulkheads, docks, piers, pilings, paved areas, houses, or other buildings) in existence as of February 23, 1990 or additions to such structures or facilities which does not involve substantial expansion or modification.
 - m. The routine maintenance and upkeep, including the removal of vegetation or maintenance dredging, from manmade ponds less than two acres in size.
 - n. Wildlife or fisheries management activities conducted in accordance with a written plan approved by the Secretary.
 - o. The placement, maintenance or removal of duck blinds, ice fishing shanties, fences, catwalks, footbridges, observation decks, docks exempt under 29 V.S.A. Section 403(b) and similar structures.
 - p. The harvesting of wild foods and the collecting of scientific specimens, not on the state or federal threatened or endangered species lists, for noncommercial purposes.

- q. The control of non-native species of nuisance plants including Eurasian milfoil, water chestnut, purple loosestrife and reed grass (Phragmites), where such control is by hand pulling of plants or according to a written plan approved by the Secretary and under any applicable state law.
- r. The mowing of existing lawns, the placement of barbecue pits, sand boxes, bird houses, and other similar activities incidental to ordinary residential use within a buffer zone.
- s. The use of pesticides or other biological agents to control mosquitoes when applied according to all applicable state law.

6.3 Conditional Uses

All uses which are not allowed uses are conditional uses. Conditional uses may be allowed, within significant wetlands or their associated buffer zones only under the terms, of an order issued by the Secretary in accordance with the provisions of Section 8 of these rules.

SECTION SEVEN: PETITIONS

7.1 General

The Board, upon receipt of a petition from a state agency, a regional planning commission, a municipality, a municipal planning commission, a municipal conservation commission, an affected landowner, 15 or more persons in interest, an organization in interest with 15 or more members, or on its own motion, shall:

- a. Determine whether to reclassify any wetland to a higher or lower classification.
- b. Determine which functions make any wetland significant.
- c. Determine whether the size or configuration of a buffer strip associated with a significant wetland should be modified.
- d. Determine the final boundaries of any significant wetland.

7.2 Content of Petitions

Any petition shall be in writing and must contain the following information unless waived in writing by the Board.

- a. A description of the specific location of the subject wetland or buffer zone and the location on a USGS topographic map or the relevant portion of the VSWI map;

- b. A description of the specific action(s) sought by the petitioner citing the applicable provisions of these rules and state law.
- c. A detailed narrative of why the petitioner believes the action(s) sought by the petition is consistent with these rules including a discussion of each wetland function (see Section 5) at issue.
- d. Copies of all documents which the petitioner intends to rely upon in support of the petition;
- e. The names and complete mailing addresses of all persons owning property within or adjacent to the wetland or buffer strip in question.
- f. Such other information as the Board may require.

7.3 Petition Distribution

The petitioner shall, in addition to filing an original and five (5) copies with the Board, certify by affidavit that:

- a. A complete copy of the petition has been filed with;
 - 1. the Department of Environmental Conservation,
 - 2. the clerk of each Vermont municipality in which the wetland or buffer strip in question is located,
 - 3. each regional planning commission serving the geographical area in which the wetland or buffer strip in question is located,
 - 4. such other persons as the Board may direct.
- b. The location map, description of the specific action(s) requested, the supporting narrative and a listing of where complete copies of the petition have been filed have been provided to all persons owning property within or adjacent to the wetland or buffer zone in question and to the municipal planning commission and/or conservation commission.

7.4 Review Process

a. Notice

The Board shall consider petitions in accordance with these rules and its Rules of Procedure. The Board shall provide notice of the petition to all persons required to be served by Section 7:3 as well as to such other persons as it

may decide. In addition the Board shall cause such notice to be published at the petitioner's expense in a local newspaper generally circulating in the area where the wetland is located. Such notice shall provide not less than 30 days within which to file written comments or to request that the Board hold a hearing on the petition.

b. Review Standards

The Board shall determine whether a wetland is significant, and if so whether it is a Class One or Class Two wetland, on the basis of the criteria set forth in Section 5 of these rules. The Board shall decide whether to modify the size or configuration of any buffer zone associated with any Class One or Class Two wetland on the basis of the need to protect those values and functions sought to be preserved by the designation.

7.5 Temporary Designation

Upon petition by the Secretary or on its own motion, the Board may temporarily designate a wetland as a significant wetland for one or more of the functions specified in Section 5 or may modify the size or configuration of a buffer strip for any significant wetland. Such temporary designations shall be for a period of 60 days, unless otherwise specified by the Board for a good cause.

Petitions for temporary designation shall comply with the provisions of Section 7.2 of these rules except that the Board may waive receipt of a detailed narrative and supporting documentation. Temporary designations may be made only when the Board finds that:

- a. there is reasonable likelihood that the wetland in question may be significant based on the criteria in Section 5 for one or more functions identified in the petition; and
- b. failure to grant a temporary designation is likely to result in substantial or irreversible harm to one or more of the functions specified in Section 5.

7.6 Notice of Decision

The Board shall provide notice of any decision made under Section 7 of these rules to all persons entitled to receive notice under subsection (c) above. The notice shall provide a brief explanation of the basis for the Board's decision.

SECTION EIGHT: CONDITIONAL USE DETERMINATION

8.1 General

The Secretary may authorize conditional uses in a significant wetland or in its associated buffer zone under the authority of 10 V.S.A. Section 905b(18) and Section 1272. The Secretary may impose any conditions in such an authorization deemed necessary to achieve the purposes of these rules. A conditional use determination issued under these rules shall not relieve any person of the responsibility to comply with all other applicable federal, state or local laws.

All requests shall be in writing and shall contain the information specified in Section 7.2 of these rules. A conditional use determination is presumed to remain valid for one year from the date of the determination.

8.2 Distribution

The applicant shall, in addition to filing an original copy with the Secretary, file a complete copy of the request for a conditional use determination with the following:

- a. the clerk of each Vermont municipality in which the wetland or buffer zone is located,
- b. each regional planning commission serving the geographical area in which the wetland or buffer zone is located.

In addition, copies of the location map, the description of the specific action(s) for which conditional use determination is sought, the supporting narrative and a listing of where complete copies of the request have been filed shall be provided to the municipal planning commission and/or conservation commission and to all persons owning property within or adjacent to the wetland or buffer zone in question.

8.3 Notice of request

The Secretary shall provide an opportunity for public comment by posting, for not less than 15 days, a notice of a request for a conditional use determination at the town clerk's office of all towns wherein the wetland or buffer zone is located. The Secretary at his or her discretion may provide additional notice of the request for a conditional use determination.

The Secretary shall have notice of any request for compensation under Section 8.5(c) published in a local newspaper generally circulating in the area where the wetland is located at the expense of the person proposing compensation.

8.4 Notice of Decision

The Secretary shall provide notice of any decision made under Section 8 of these rules to all persons entitled to receive notice under Section 8.2 above.

8.5 Conditional Use Review Standards

a. General

The Secretary may determine that a proposed conditional use in Class One or Class Two wetlands or their buffer zones will have no undue adverse impact only when the Secretary determines that the proposed use will not result in a undue adverse effect on protected functions. In making this determination, the potential effect of any proposed conditional use shall be assessed on the basis of both its direct and immediate effects as well as on the basis of any cumulative or on-going effects on the significant wetland.

The Secretary shall not determine that any proposed conditional use is in compliance with these rules if it has an undue adverse effect on protected functions unless the Secretary determines that these impacts are sufficiently mitigated. Adverse impacts on any protected functions, other than minimal impacts, shall be presumed to constitute an undue adverse effect unless mitigated in accordance with subsection (b), below.

b. Mitigation

The following measures shall be used to mitigate adverse impacts on protected functions, other than minimal impacts, to the extent necessary to achieve no net undue adverse effect:

- (1) The proposed activity cannot practicably be located on the upland portion of the site in question or on another site owned, controlled or available to satisfy the basic project purpose; and
- (2) All practicable measures have been taken to avoid adverse impacts on protected functions; and
- (3) The applicant has evaluated each of the protected functions in accordance with the protocols determined by the Department of Environmental Conservation; and
- (4) The proposed conditional use has been planned to minimize potential adverse impacts on the protected functions; and

- (5) A plan has been developed for the prompt restoration of any adverse impacts on protected functions.

Compensation in accordance with subsection (c) below may be considered only when full compliance with the above requirements is insufficient to achieve no net undue adverse effect on any protected function.

c. Compensation

In rare cases it may be possible to reduce adverse impacts on protected functions which cannot be avoided through mitigation by compensating for such impacts so that there is no net undue adverse impact. Such compensation measures may include establishing new wetlands or enlarging the boundaries of an existing wetland to compensate for the adverse impact of a conditional use.

Compensation to avoid undue adverse impacts on protected functions in Class One wetlands may only be considered upon the showing that the adverse impacts are necessary in the course of meeting a compelling public need to protect public health or safety.

Compensation measures will be allowed in either Class One or Class Two wetlands only to reduce adverse impacts on those protected functions that are compensable. Compensation may be possible for adverse impacts on the functions specified in Sections 5.1, 5.2(e), 5.4(a)(1 and 2), and 5.9 of these rules. It is presumed that compensation is not possible for any of the remaining functions specified in Section 5 of these rules. Any compensation plan must demonstrate the following:

- (1) there will be no net loss of the protected functions or acreages of significant wetlands; and
- (2) the compensation measures will be fully implemented prior to, or concurrently with, the proposed conditional use; and
- (3) where practicable, the compensation proposal shall be contiguous to the impacted wetlands; and
- (4) the compensation measures shall be monitored and managed for a period necessary to insure full replacement of the protected functions in question and any additional period that may be required by subsequent remedial measures but in no event for less than five years; and

- (5) shall be designed to be self-sustaining following the period for which monitoring or management is required.
- (6) adequate financial surety is provided to carry out the proposed compensation including any necessary remedial measures; and
- (7) the replacement wetland will be permanently preserved by a conservation easement or deed restriction conveyed to a suitable party or by other appropriate means.

SECTION NINE: APPEALS

Any act or decision of the Secretary under these rules may be appealed within 30 days to the Board pursuant to 10 V.S.A. Section 1269. Any final decision of the Board may be appealed as provided for in 10 V.S.A. Section 1270.

Vermont Wetland Rules

APPENDIX A - Class One Wetlands

(NOTE: No wetlands have yet been designated or are currently proposed for designation as Class One wetlands. However, the following list of wetlands which are wholly or largely owned by the public or by private conservation organizations represents, for illustrative purposes only, a preliminary list of potential candidates for as Class One wetlands as provided for in Section 7 of these rules.

Addison County

Cornwall Cedar Swamp, Cornwall

Otter Creek Wetland, Ferrisburg and Leicester

East Creek Wetland, Orwell

Dead Creek Wetland, Panton, Addison and Bridport

Bennington County

South Stream, Pownal

Caledonia County

Peacham Bog, Peacham

Jewett Pond Wetland, Peacham and Barnet

Chittenden County

Colchester Bog, Colchester

Shelburne Pond, Shelburne

Mount Mansfield Bog, Underhill and Stowe

Essex County

Clyde River Marshes, Charleston and Brighton

Moose Bog, Ferdinand

Victory Basin, Victory

Franklin County

Fairfield Swamp, Fairfield and St. Albans

Franklin Bog, Franklin

Missisquoi Delta, Highgate and Swanton

Grand Isle County

Mud Creek, Alburg

Station Marsh, South Hero

Lamoille County

Molly Bog, Morristown

Orleans County

Barton River Marsh (Coventry Marsh), Coventry

Rutland County

Lake Bomoseen Marsh, Castleton and Hubbardton

Tinmouth Channel, Tinmouth

Washington County

Chickering Bog, Calais

Windham County

Black Gum Swamp, Vernon