

Article XI SURFACE WATER OVERLAY DISTRICT

A. Purpose.

The Surface Water Overlay District (SWOD) is an overlay district intended to protect the quality of the Town's surface waters. The provisions of this article are intended to:

1. Protect the water quality of the Town's major lakes, ponds, rivers and streams by managing stormwater runoff, siltation and sedimentation, and the construction or alteration of buildings and structures in proximity to these resources;
2. Minimize the potential for the pollution of these water bodies;
3. Protect wildlife and fisheries habitats and corridors;
4. Conserve the natural beauty and scenic quality of the shoreland; and
5. Allow uses of the land adjacent to these water bodies that are consistent with these objectives.

B. Authority.

This Article is adopted under the authority of the Innovative Land Use Controls statute, RSA 674:21, as amended. The provisions of this Article shall be administered by the Code Enforcement Officer through a Conditional Use Permit process, following review and comment by the Planning Board in accordance with RSA 674:21,II, and review and comment by the Conservation Commission.

C. Applicability.

The provisions of the SWOD shall apply to all land within two hundred fifty (250) feet of the reference line which is 636.7 feet above sea level for Lake Massasecum, 670 feet above sea level for Lake Todd, Warner River, West Branch of the Warner River, Hoyt Brook, Melvin Brook and the sections of their tributary streams; and within seventy-five (75) feet of all other water bodies, or perennial brooks. All water bodies included within the SWOD are shown on the Bradford Surface Water Protection Overlay District Map, which is based on United States Geological Survey quadrangle maps covering the Town of Bradford. (See NHDES consolidated list of water bodies.)

The provisions of this Article apply in addition to and coordinated with any state and federal requirements, including but not limited to RSA 482-A (Fill and Dredge in Wetlands), RSA 485-A (Water Pollution and Waste Disposal), and RSA 483-B (Shoreland Water Quality Protection Act). These standards shall govern if they are more stringent than state standards.

All land within the SWOD is also subject to the provisions of the underlying zone and any other local, state, or federal requirements as they may apply. Where there is conflict among the provisions of the SWOD, any other applicable overlay district, and the underlying district, the most restrictive provision shall apply. Compliance with the requirements of the SWOD does not alleviate an applicant or landowner from complying with any other local zoning, Site Plan, or Subdivision requirements, as may be applicable.

If there is any question whether an area is or is not a surface water that should be delineated and subject to this District, the Planning Board and/or Conservation Commission may require the applicant, at its sole cost, to provide the findings of a New Hampshire Certified Wetland Scientist as to the nature of the area in question.

D. Permitted Uses in the SWOD.

1. Notwithstanding the uses permitted in the underlying zoning district, or those permitted by Variance or Special Exception as issued by the Bradford Zoning Board of Adjustment, the following uses shall be allowed without a Conditional Use Permit in the SWOD provided they do not alter the surface condition or configuration of the land, do not obstruct or alter the natural flow or infiltration of surface or groundwater, and comply with the requirements of the SWOD:
 - a. The planting of native or naturalized species and wetland vegetation as identified in “The United States Fish and Wildlife Service National List of Plant Species that Occur in Wetlands: New Hampshire” and other native or non-native, non-invasive vegetation in conjunction with the landscaping of a lot;
 - b. The installation and observation of monitoring wells;
 - c. Conservation activities;
 - d. Accessory agriculture subject to Section H, Performance Standards;
 - e. The removal of dead, diseased, unsafe or fallen trees;
 - f. The maintenance of existing vegetation including shrubs, lawns, and fields;
 - g. Forestry in accordance with Section H, Performance Standards;
 - h. A pier or dock, including the replacement or expansion of an existing pier or dock, provided the structure is approved by the appropriate state agency, and subject to Section H, Performance Standards (Piers or docks lacking requisite approval or compliance with Performance Standards may be permitted as a conditional use).
 - i. The maintenance of an existing pier or dock, subject to Section H, Performance Standards.
 - j. Educational activities and scientific research consistent with the purpose and intent of this regulation.

E. Conditional Uses in the SWOD.

1. Conditional Uses: The following uses, including any necessary grading, shall be permitted as conditional uses in the SWOD provided that a Conditional Use Permit is granted by the Code Enforcement Officer in accordance with this Article:
 - a. The construction of streets, roads, driveways, access ways (but not including any parking areas other than those serving single-family uses), bridge crossings, and utilities including pipelines, power lines, and transmission lines;
 - b. Commercial agriculture and plant nurseries subject to Section H, Performance Standards;

- c. The construction or expansion of a non-residential or multi-unit building or structure;
 - d. Accessory buildings and structures other than those allowed as permitted uses;
 - e. Outdoor recreational facilities that do not require the construction of buildings or other structures.
 - f. The installation of private water supply wells serving a use on the lot;
 - g. The installation of culverts or rock fords for existing driveways or woods roads in uplands;
 - h. Temporary crossings for the maintenance of utility pipes or lines or for other utility structures;
 - i. Temporary cofferdams associated with the repair or replacement of existing structures;
 - j. The repair or replacement of existing retaining walls;
 - k. The control of aquatic weeds by harvesting;
 - l. The control of exotic weeds in accordance with RSA 487:17;
 - m. The construction of nature trails and paths;
 - n. Grading of the site where grading within the SWOD is necessary to accommodate an allowed structure located outside of the SWOD;
 - o. Geothermal heating and cooling systems, including but not limited to related groundwater wells and subsurface heat exchange installations;
 - p. Repair, repaving, replacement or reconstruction of existing roads, bridges, culverts, drainage systems and utilities on private property;
 - q. Construction of compensatory flood storage, including its excavation on private property.
2. Standards to Grant a Conditional Use Permit: The Code Enforcement Officer shall approve a Conditional Use Permit for a use in the SWOD only if it finds, with the advice of the Planning Board and Conservation Commission, that all of the following standards have been met in addition to the general standards for conditional uses and any performance standards for the particular use:
- a. The use is permitted in the underlying zone, or, has received a Variance or Special Exception from the Bradford Zoning Board of Adjustment;
 - b. Appropriate erosion control measures will be used;
 - c. There is no alternative location on the parcel that is outside of the SWOD that is practical for the proposed use;
 - d. The amount of soil disturbance will be the minimum necessary for the construction and operation of the facilities as determined by the Planning Board;
 - e. The location, design, construction, and maintenance of the facilities will minimize any detrimental impact on the adjacent shoreland and waterbody as well as downstream water bodies, and mitigation will be undertaken to counterbalance any adverse impacts; and,
 - f. Restoration will leave the site, as nearly as possible, in its pre-existing condition and grade at the time of application for the Conditional Use Permit.

F. Prohibited Uses in the SWOD.

1. Any use that is not identified as a permitted use in Section D, Permitted Uses in the SWOD, or a conditional use in Section F, Prohibited Uses in the SWOD, shall be a prohibited use. Notwithstanding this limitation, the erection of a structure or septic system on an existing lot within the SWOD may be permitted by special exception in accordance with the provisions and standards of the State of New Hampshire septic designs.
2. The following uses are deemed to pose a particular threat to the water quality of the Town's major streams, ponds, and lakes as well as downstream water bodies and are prohibited in the SWOD even if they are permitted or are conditional uses in the underlying zoning district:
 - a. the establishment or expansion of salt storage yards;
 - b. automotive junk or salvage yards;
 - c. the storage or handling of hazardous wastes;
 - g. the bulk storage of chemicals, petroleum products, or hazardous materials;
 - h. use of any fertilizer, pesticide, or herbicide except in conjunction with accessory or commercial agriculture as provided for in Section H, Performance Standards 1-5.1. B;
 - i. the processing of excavated materials;
 - j. the dumping of snow or ice removed from roads or parking lots;
 - k. the disposal, handling, or processing of solid wastes including transfer stations and landfills, recycling facilities, incinerators and composting facilities, animal waste and their byproducts;
 - l. animal feedlots and/or pastured animals;
 - m. the disposal of septage or other liquid or leachate wastes except for an approved septic system;
 - n. construction on upland slopes which exceed 15% gradient;
 - o. dumping, spreading or any other application or use of treated soils or sludge from a sewage treatment plant;
 - p. aquaculture;
 - q. water impoundments, unless required by state or federal governments and properly permitted;
 - r. parking areas other than those serving single-family uses.

G. Dimensional Requirements.

1. All buildings, and structures to be used, erected, altered, enlarged, or moved within the SWOD shall be in accordance with the dimensional standards of the underlying zoning district except as modified and required by this section in an effort to reduce runoff, erosion and flooding.
2. Lot Coverage: Buildings shall not cover more than 15% of the area of a lot. No more than a total of 20% of the lot area, including buildings, shall be covered by impervious surfaces.
3. Any increase in impervious surface of a nonconforming footprint within the 150 foot setback as required by this Article, will require either the planting of a minimum of a 25

foot wide natural vegetative buffer to the shoreline and/or a rain garden that is a minimum of 10% of the impervious surface area. This is done to decrease the rate of flow and volume of runoff into the watershed. The above methods are recommended, but not limited to these, should equally effective methods be desired.

4. Undersized lots that add land resulting in an overall 2.25 buildable acres in size may reduce their setback from the road to 25 feet.
5. Shoreland Setback of Buildings and Structures:
Any new building or structure or any enlargement or modification of an existing building or structure shall be set back from the reference line of the waterbody as follows:
 - a. Lake Massasecum, Lake Todd, Warner River: 125 feet.
 - b. Warner River, West Branch of Warner river and Hoyt Brook, Melvin Brook: 75 feet.
 - c. all other perennial streams: 25 feet.

These setback provisions shall not apply to water-dependent structures, nor to permitted uses that are specifically listed in Section D, Permitted Uses in the SWOD nor conditional uses that are specifically listed in Section E, Conditional Uses in the SWOD other than principal and accessory buildings and structures.

Water-dependent structures and uses listed in Section D.1.h shall be set back the maximum practical distance from the reference line of the waterbody as determined by the Code Enforcement Officer. Conditional uses listed in Section 1-2, other than principal and accessory buildings and structures, shall be set back the maximum practical distance from the reference line of the waterbody as determined by the Planning Board in consultation with the Conservation Commission. Septic systems shall be governed by Section 6 below.

6. Septic Setbacks
 - a. Any new septic system, leach field, or other sewage disposal system shall be set back from the reference line of the waterbody as provided for in Bradford's Rural Residential Zoning or as follows, whichever is greater:
 - 1) Lake Massasecum, Lake Todd, Warner River Melvin Brook: 125 feet.
 - 2) All other water bodies including perennial streams: 75 feet.
 - b. The replacement of an existing septic system, leach field, or other sewage disposal system that is located within the required setback from the reference line of the waterbody shall comply with the required setback unless the Code Enforcement Officer determines that such a location is not physically possible due to the shape or size of the lot and soil conditions. If the Code Enforcement Officer determines that a replacement system must be located within the required shoreland septic system setback, the system shall be located to provide the maximum setback possible as determined by the Code Enforcement Officer and shall employ the best available technology recognized by the New Hampshire Department of Environmental Services (NHDES) subsurface department.

7. Use of Shoreland in Calculating Lot Area and Density

Land within the SWOD may be used to meet the minimum lot area, minimum lot size, or maximum density provisions of the underlying zoning district.

8. Shoreland Frontage

Any subdivided or otherwise newly-created single lot that abuts a waterbody in the SWOD shall have a minimum of two hundred (200) feet of shoreland frontage except in zoning districts where a lesser length of frontage, or none, is specified in the lot dimensions. If such a lot contains more than one dwelling unit and is served by on-site sewage disposal, the lot shall have an additional fifty (50) feet of shoreland frontage per dwelling unit.

H. Performance Standards in the SWOD.

All buildings and structures shall be erected, altered, enlarged, or moved and all land within the SWOD shall be used in accordance with the following specific performance standards:

1. Natural Woodland for Shoreland Development

The preservation of natural shoreland vegetation is intended to stabilize banks to prevent erosion, maintain wildlife habitats, minimize pollution of the water and preserve the scenic quality of shoreline properties.

Where existing, a natural woodland buffer shall be maintained within one hundred fifty (150) feet of the reference line or for the full width of the SWOD if the district is less than one hundred fifty (150) feet in width. The purpose of this buffer shall be to protect the quality of public waters by minimizing erosion, preventing siltation and turbidity, stabilizing soils, preventing excess nutrients and chemical pollution, maintaining natural water temperatures, maintaining a healthy tree canopy and understory, preserving fish and wildlife habitat, and respecting the overall natural conditions of the protected shoreland.

Where a natural woodland buffer does not exist, a naturally vegetated buffer strip at least fifty (50) feet in width, or the full width of the SWOD if the district is less than fifty (50) feet in width, shall be maintained adjacent to the reference line. Within the buffer strip, naturally occurring vegetation shall be maintained and encouraged. No new lawn, garden, or landscape areas shall be created within the buffer strip but existing lawns may be allowed to remain provided that a twenty-five (25) foot wide strip adjacent to the shore is not mowed and is allowed to reestablish naturally occurring vegetation.

Within the 150' Woodland Buffer, the following standards shall apply:

- a. Selective cutting of trees and other vegetation other than ground cover shall be permitted provided that a healthy, well distributed stand of trees and other vegetation is maintained. No trees over six (6) inches in DBH [nineteen (19) inches in circumference] shall be cut within the natural woodland buffer. Not more than fifty (50) percent of the basal area of trees, nor more than fifty (50) percent of the total number of saplings shall be removed in any twenty (20) year

period. A healthy, well distributed stand of trees, saplings, shrubs and groundcovers and their living undamaged root systems shall be left in place.

- b. Existing vegetation under three (3) feet in height including ground cover shall not be removed except to provide for a single point of access to the shoreline as provided for in Section G, Docs and Piers In or Over the Water below, and in case of disease as provided for in Section I.e., below.
 - c. No cleared opening in the forest canopy shall be created with a projected surface area of greater than two hundred fifty (250) square feet as measured from the outer limits of the tree crown unless a building is allowed within the buffer strip. In such a case, a cleared opening for the building site may be created but the cleared opening shall not extend more than twenty-five (25) feet outward from the building.
 - d. Stumps and their root systems which are located within fifty (50) feet of the reference line shall be left intact. The removal of stumps and roots in conjunction with beaches or docks may be permitted with the advice of the Conservation Commission to the Planning Board based upon a determination that the removal in combination with mitigation activities will not increase the potential for erosion.
 - e. Dead, diseased, or damaged trees, saplings, or ground covers may be removed with prior advice of the Conservation Commission to the Planning Board and its subsequent approval. The stumps and root systems of the removed trees shall not be disturbed and shall remain in place. If such removal results in the creation of cleared openings, these openings shall be replanted with native species unless existing new growth is present. Dead and living trees that provide dens and nesting places for wildlife are encouraged to be preserved.
 - f. The application of pesticides, herbicides, and fertilizers within the buffer is prohibited except in conjunction with allowed agricultural activities.
2. Agriculture
In no case shall any soil disturbance or animal grazing occur within seventy-five (75) feet of the reference line. No fertilizers (including manure), pesticides, or herbicides shall be applied within seventy-five (75) feet of the reference line. Any commercial agricultural activity within the SWOD shall be conducted in accordance with a management plan demonstrating Best Management Practices.
 3. Forestry
Any forestry activity within the SPO shall be conducted in accordance with a forest management plan prepared by a New Hampshire state licensed professional forester and shall be in accordance with the Basal Area Law RSA 227-J:9 and shall use as guidance for best forest management practices “New Hampshire Best Management Practices for Erosion Control on Timber Harvesting Operations” Department of Resources and

Economic Development and University of New Hampshire Cooperative Extension 2016, as amended, Best Management Practices for Forestry: Protecting New Hampshire's Water Quality 2005 as "Good Forestry in the Granite State" (DRED). In no case shall any harvesting or clearing, except for the removal of dead or diseased trees, occur within fifty (50) feet of the reference line. If there is conflict among the standards, the most restrictive shall apply.

4. Sedimentation and Erosion Control

a. All activities and the use of buildings, structures, and land within the SWOD shall be designed and operated to minimize the volume and rate of stormwater runoff, the amount of erosion, and the export of sediment from the site, and to prevent the release of surface runoff across exposed mineral soils. All activities shall be carried out in accordance with a stormwater management and erosion control plan that incorporates Best Management Practices.

b. Inspection of Nonconforming Septic Systems:

When a property with a septic system that does not conform to the setback requirements of Section G.6 is sold or otherwise transferred, the septic system shall be inspected by a certified septic inspector and, if inadequate, replaced prior to the transfer of the property. If it is replaced it shall be consistent with the setback requirements in Section G.6, unless deemed by the Code Enforcement Officer to be unreasonable due to the site or soil conditions.

5. Access to the Shorefront

One point of access to the shorefront may be developed on any lot. Such access shall be limited to a maximum of twenty (20) feet in width.

6. Docks and Piers In or Over the Water

If otherwise permitted in the District, a maximum of ten (10) percent of the frontage of the lot on the waterbody, but no greater than fifty (50) feet of frontage, may be used for any boat dock or ramp (excluding seasonal, temporary docks or ramps). Access to the facility shall be located on soils suitable for such use and shall be designed, constructed, and maintained to minimize erosion. The facility shall comply with all applicable federal, state, and local requirements.

7. The boundaries of required buffer areas shall be marked on the site with stakes and flagging along the buffer perimeter. Such markings shall remain in place until all construction is complete and has been inspected and approved.

I. Improvements Shown on Plans.

All information related to the location, area and limits of surface waters, as well as the associated buffers, shall be shown on a proposed construction and development plan, including but not limited to subdivision or site plans and on an existing conditions plan.

J. Wetlands Within the SWOD.

Wetlands within the SWOD shall comply with the elements of Article VIII, Wetlands Ordinance in addition to all applicable elements of this Article.