2.7 SHORELAND PROTECTION DISTRICT

2.7 A Description. The Shoreland Protection District is comprised of lands contiguous to and in the immediate vicinity of Caspian and Eligo Lakes.

2.7B Purpose. The Shoreland Protection District is established to:
   1. Preserve vegetation and natural cover of the shores adjacent to Lakes Eligo and Caspian in order to protect surface water resources and prevent pollution;
   2. Recognize the extreme vulnerability of lakeshore properties to erosion;
   3. Preserve or improve the natural stability of shoreline;
   4. Prevent degradation of water quality;
   5. Preserve the undeveloped wooded vegetation views both to and from the lakes and to avoid problems resulting from continued development of the lakeshores which would cause natural and scenic resource degradation; and
   6. Retain the mix of residential/summer homes as well as the recreation uses traditional to these lakes while it protects wildlife habitats and conserves both the natural scenic beauty that currently exists along the shorelands as well as the open fields and undeveloped forest viewsheds within the Town of Greensboro.

2.7 C Precedence. The provisions of this section will take precedence where they impose a greater restriction than another provision of this bylaw. Where there is a conflict between the provisions of this section, the most restrictive provision will apply.

2.7 D Applicability. A zoning permit, and any required development approval, is required for all land development within this district and for any activity that would clear land, remove vegetation or create impervious surface within 150 feet of the mean water level of Caspian and Eligo lakes, unless specifically exempted.

2.7 E Exempt Development. The following development is exempt from the provisions of this section (a zoning permit or development approval may still be required under other provisions of these regulations):
   1. Agricultural and silvicultural practices exempted under Section 3.6;
   2. Repair, maintenance and replacement of public or private roads;
   3. Normal maintenance and repair that will not result in a change in the footprint or use of any structure;
   4. Management of vegetative cover in accordance with Subsection P;
   5. Maintenance of lawn, garden, and landscaping that were in existence as of July 1, 2014;
   6. Creation of one footpath that does not exceed 5 feet in width (including stairs, landings and platforms) on a parcel to provide water access;
7. Demolition of a structure or portion of a structure;
8. Septic systems and wells permitted under a state Wastewater System and Potable Water Supply Permit from the Vermont Agency of Natural Resources;
9. Planting projects to restore natural and beneficial shoreline functions that do not involve grading, shoreline hardening or construction of structures, and that implement Vermont Shoreland Best Management Practices;
10. Development over or in the lake permitted under a Lake Encroachment Permit from the Vermont Agency of Natural Resources;
11. Development permitted under a Certificate of Public Good from the Vermont Public Utilities Commission; and
12. State-owned and operated facilities and institutions.

2.7 F **Permitted Uses, which require a zoning permit.** The Administrative Officer may issue a zoning permit for the uses listed below:

1. Single-family dwelling
2. Accessory structure
3. Accessory dwelling unit
4. Home occupation
5. Canopies or roofs on stairways, lifts, and landings require a permit
6. Docks, not to exceed one seasonal dock per lot, or per 150’ of shoreline

**Permitted Uses, which do not require a zoning permit.** Removal of vegetation necessary to accommodate the placement of a stairway and associated landing, a lift for Americans With Disabilities Act (ADA) accessibility, or access path. Trees, shrubs, and Natural Ground Cover shall be maintained within these areas. The construction shall not involve earth-moving equipment. Stairways and lifts shall meet the following design requirements:

1. Stairways and lifts shall not exceed four feet in width.
2. Landings for stairways and lifts shall not exceed 32 square feet in area.

2.7 G **Conditional Uses.** A landowner must obtain conditional use approval from the Development Review Board before the Administrative Officer may issue a zoning permit for the uses listed below. The DRB may authorize these uses, subject to conditional use review procedures under Section 5.4, including Shoreland Buffer re-establishment and bank stabilization projects, and the following provisions where the DRB finds that the purposes of this section will be protected through erosion controls, supplemental planting, protection of existing vegetation, and/or other measures. A Lake Encroachment Permit from the Vermont Agency of Natural Resources may be required.

1. Nonconforming structure
2. Boathouses
3. Public recreational facilities
4. Cemeteries
2.7 H **Dimensional Standards.** Lots and structures must meet the dimensional standards below:

<table>
<thead>
<tr>
<th></th>
<th>Minimum Lot Size</th>
<th>Minimum Lot Width</th>
<th>Minimum Lot Depth</th>
<th>Minimum Shoreline Frontage</th>
<th>Minimum Front (Road) Setback</th>
<th>Minimum Side and Rear Setback</th>
<th>Minimum Shoreline Setback</th>
<th>Maximum Height, Single Family Dwelling</th>
<th>Maximum Height, Boathouse</th>
<th>Maximum Height, All Other Structures Within 150’ of the Lake</th>
<th>Maximum Height, All Other Structures, Outside of 150’ of the Lake</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Minimum lot size</td>
<td>1 acre</td>
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<td>30 feet</td>
<td>15 feet</td>
<td>20 feet</td>
<td>30 feet</td>
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<td>2</td>
<td>Minimum lot width</td>
<td>100 feet</td>
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<td>3</td>
<td>Minimum lot depth</td>
<td>200 feet</td>
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<td>4</td>
<td>Minimum shoreline frontage</td>
<td>100 feet</td>
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<td>5</td>
<td>Minimum front (road) setback</td>
<td>50 feet</td>
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<td></td>
<td>Measured from the right-of-way centerline</td>
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<tr>
<td>6</td>
<td>Minimum side and rear setback</td>
<td>20 feet</td>
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<td></td>
<td></td>
<td></td>
<td>Measured from the property line</td>
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<tr>
<td>7</td>
<td>Minimum shoreline setback</td>
<td>150 feet</td>
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<td></td>
<td></td>
<td>Measured horizontally from the mean water level</td>
</tr>
<tr>
<td>8</td>
<td>Maximum height, single family dwelling</td>
<td>30 feet</td>
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<td></td>
<td></td>
<td>Measured from average finished grade at the outer building wall to the ridgeline</td>
</tr>
<tr>
<td>9</td>
<td>Maximum height, boathouse</td>
<td>15 feet</td>
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<tr>
<td>10</td>
<td>Maximum height, all other structures within 150’ of the lake</td>
<td>20 feet</td>
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</tr>
<tr>
<td>11</td>
<td>Maximum height, all other structures, outside of 150’ of the lake</td>
<td>30 feet</td>
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2.7 I **General District Standards.** The standards below are specific to proposed development within the Shoreland Protection District:

1. **Shoreline Setback.** Any areas proposed to be cleared or covered with impervious surface must be located at least 150 feet from the mean water level except for boathouses and shoreline stabilization measures permitted under a Lake Encroachment Permit from the Vermont Agency of Natural Resources and that implement Vermont Shoreland Best Management Practices.

2. **Steep Slopes.** Any areas proposed to be cleared or covered with impervious surface must have a slope of less than 15% (as determined based on the most currently available lidar data from the state or by a current topographic survey of the project site prepared and stamped by a licensed Vermont surveyor) or the applicant must submit plans prepared by a professional engineer demonstrating that the slope will be stabilized with minimal potential for erosion and impacts to water quality.

3. **Impervious Surface.** The amount of impervious surface must not exceed 15% of the total area within 250 feet of the lake or the applicant must submit plans prepared by a professional engineer demonstrating that stormwater runoff will be managed with minimal potential for erosion and impacts to water quality.

4. **Vegetative Cover.** Vegetative cover must be maintained on at least 60% of the total area within 250 feet of the lake and the applicant must implement Vermont Shoreland Best Management Practices to provide erosion control, bank stability and wildlife habitat functionally equivalent to that which would be provided by clearing less than 40% of the land. Vegetative cover must be managed in accordance with Subsection P.
5. No portion of any structure within 50' of the lake may increase in height.

6. No new structures except boathouses are allowed within 150' of the lake.

7. New roads and driveways shall not be constructed in the Shoreland Buffer Resource Zone.

8. New lawn areas within the Shoreland Buffer Resource Zone shall not be permitted. Property owners with lawn areas in the Shoreland Buffer Resource Zone are encouraged to return lawn areas to their naturally vegetated state. Supplemental planting with appropriate vegetation to restore and enhance the effective filtering and bank stabilization functions of a Shoreland Buffer is encouraged.

9. Any areas within the Shoreland Buffer Resource Zone that are disturbed as the result of a permitted or conditional use, as provided in Sections 2.7 F and 2.7 G, or the expansion of a nonconformity shall be restored through natural regeneration and/or planting of native shrubs and trees appropriate to the site and designated as “no mow zones.”¹

10. Riprap and retaining walls used for ornamental purposes or for terracing natural slopes that disturb natural vegetation are not permitted within the Shoreland Buffer Resource Zone.

11. On the shorelines of Caspian and Eligo Lakes, there shall be no cutting into, disturbance of, or removal of any Natural Berm separating the lakeshore property from the lake itself.

12. New Development shall comply with the erosion prevention and sediment control standards in Section 2.7 Q of this bylaw.


14. Runoff from cleared or impervious areas within the Shoreland Protection District shall not enter the Shoreland Buffer Resource Zone in channelized form.

15. New Development must also comply with the applicable Flood Hazard Area regulations (Article 6) if it is located in the Special Flood Hazard Area.

¹ Turf grass is not an appropriate choice for shoreland buffer re-vegetation.
16. Roads and Driveways.

a. Roads and driveways shall be properly crowned to allow stormwater to flow immediately off the surface into surrounding vegetation or a stabilized ditch. Water bars can also be utilized to intercept water flowing lengthwise down the surface and transfer it off to the side into vegetation or ditched areas.

b. Banks shall have a slope of 1:2 (vertical : horizontal) or less.

c. Grades shall be no steeper than 10%. New roads or driveways crossing Steep Slopes shall be avoided.

d. Drainage ditches with slopes less than 5% shall be lined with grass and run-off ditches; slopes greater than 5% shall be lined with riprap.

e. Drainage ditches shall empty, in a diffused manner, into vegetated buffer strips set back at least 150 feet from the water’s edge.

f. Adequate and correctly installed cross drains, culverts, and water turnouts shall be provided to avoid ditch erosion.

g. Existing driveways shall not be paved but shall use road materials such as a mix of crushed gravel and fines (not bank run gravel) so the particles ‘lock’ together. See [https://dec.vermont.gov/sites/dec/files/wsm/lakes/Lakewise/docs/LP_BMPCrownedDriveways.pdf](https://dec.vermont.gov/sites/dec/files/wsm/lakes/Lakewise/docs/LP_BMPCrownedDriveways.pdf)

2.7. J District Standards for Single-family Dwellings. An applicant proposing to build, reconstruct, expand or modify a single-family dwelling in this district must demonstrate that:

The structure will not exceed 2,500 square feet of total interior habitable floor area, excluding garages, porches, decks, accessory structures, and/accessory dwelling units, except:

a. A pre-existing nonconforming structure may be reconstructed or modified within its original footprint, provided that the structure’s degree of nonconformity is not increased.

b. All new and reconstructed single family dwellings must have two parking places.

2.7 K District Standards for Boathouses. Boathouses must be used solely for storage of boats and related goods. There is a limit of one boathouse per lot. Applicants must build, reconstruct, expand, modify, or relocate a boathouse in this district as follows:

1. Construction of a New Boathouse. A new boathouse must:
a. Be constructed behind the natural berm, if one exists, or if one does not exist, the boathouse must be built behind the mean water level;

b. Not exceed 400 square feet in total floor area and a height of 15 feet;

c. Not include any decks (including roof decks), porches or similar appurtenances;

d. Not have any plumbing;

e. Mitigate clearing and creation of impervious surface within the shoreline setback by leaving the stumps of any trees cut for the construction of the boathouse in the ground, chipping the branches of any trees cut, and distributing the chips on areas disturbed during construction.

2. Modification or Reconstruction of an Existing Boathouse. A modified or reconstructed boathouse must:

   a. Be relocated, if practicable, to behind the natural berm, or the mean water level if no berm exists;

   b. Not exceed 400 square feet in total floor area and a height of 15 feet if the original structure did not exceed those dimensions;

   c. Not be expanded in floor area (all interior floor area plus porches and decks) or volume (inclusive of all space within the roof and fixed exterior walls) if the original structure exceeded 400 square feet in total floor area and a height of 15 feet;

   d. Not include any new or expanded decks (including roof decks), porches or similar appurtenances;

   e. Not include any expanded plumbing.

3. Mitigate clearing and creation of impervious surface within the shoreline setback by leaving the stumps of any trees cut for the construction of the boathouse in the ground, chipping the branches of any trees cut, and distributing the chips on areas disturbed during construction.

2.7 L District Standards for Docks. There is a limit of one seasonal dock per lot or per 150’ of shoreline. A new dock in this district will not exceed 300 square feet in size.

2.7 M District Standards for Accessory Structures. An applicant proposing to build, reconstruct, expand or modify an accessory structure in this district must demonstrate that:

   1. The construction of a New Accessory Structure. A new accessory structure will not exceed 900 square feet, including porches and decks, and must meet all setbacks.

   2. Modification or Reconstruction of an Existing Accessory Structure. A modified or reconstructed accessory structure:
a. There is no net increase in the footprint within 150’ of the shoreline;
b. The structure’s degree of nonconformity is not increased.

2.7 N District Standards for an Accessory Dwelling Unit. There is a limit of one accessory
dwelling unit on a lot. An applicant proposing to build, reconstruct, expand or modify an
accessory dwelling unit in this district must demonstrate that:

1. The construction of a new ADU: A new ADU will not exceed 900 square feet of
total habitable floor area or 30% of the size of the principal structure, whichever
is greater.

2. Modification or Reconstruction of an Existing ADU:
   a. The structure will not exceed 900 square feet of total habitable floor
      area or 30% of the size of the principal structure, whichever is
greater, provided that:
   b. There is no net increase in the footprint within 150 feet of the
      shoreline;
   c. The structure’s degree of nonconformity is not increased; and

3. All new and reconstructed ADU’s must have one designated parking place.

2.7 O District Standards for Nonconformities. An applicant with a parcel of land that was
created and developed prior to July 1, 2014 who cannot meet the standards of Subsection 2.7 H
due to physical characteristics of the land or of pre-existing development on the parcel must
demonstrate that the proposed development conforms to the following:

1. The standards of Section 3.8 must be met.

2. No portion of a structure within 50’ of the lake may increase in height.

3. If the structure does not meet setback requirements and it is practicable to relocate
   the structure to a portion of the lot where it would conform to the setback
   requirements, it is recommended to do so.

4. The proposed cleared area or impervious surface will be located as far as possible
   from the mean water level except for shoreline stabilization measures permitted under
   a Lake Encroachment Permit from the Vermont Agency of Natural Resources or that
   implement Vermont Shoreland Best Management Practices.

5. On a parcel that is developed with a habitable structure, any expansion of impervious
   surface within 150 feet of the mean water level will not encroach any closer to the
   shoreline than the pre-existing development on the parcel.
6. The proposed cleared area or impervious surface will be mitigated in accordance with *Vermont Shoreland Best Management Practices* as most recently publicized by the Vermont Department of Environmental Conservation (for more information, see https://dec.vermont.gov/watershed/lakes-ponds/lakeshores-lake-wise/bmp).

2.7 P **Nonconforming Uses and Structures Within the Shoreland Buffer Resource Zone.**

1. Any structure or use of land legally in existence or legally permitted as of the effective date of these regulations that does not meet the requirements of these regulations shall be considered nonconforming. Nonconforming uses and structures within the Shoreland Buffer Resource Zone are subject to the following conditions:

   a. A Nonconforming Structure may undergo normal maintenance and repair provided that such action does not increase the degree of nonconformity. Alterations within the existing footprint shall be allowed; such alterations require a conditional use permit. New and altered windows and doors are a permitted use and require only a building permit, not a conditional use permit. Normal repair does not include reconstruction. See subsection C of this section regarding reconstruction.

   b. Any expansion of a Nonconforming Structure, including the addition of decks or patios, shall not extend towards the water beyond the existing nonconformity [see figure below].

   c. A Nonconforming Structure may be enlarged, extended, reconstructed, expanded, modified or relocated only with the approval of the DRB, subject to conditional use review under Section 5.4. The DRB must determine that the enlargement, extension, expansion, modification or relocation does not increase the degree of nonconformity or else it compensates for lost Shoreland Buffer through Mitigation measures (See 3 C below) and meets all other applicable requirements of these regulations.

   d. Where the expansion of a Nonconforming Structure is permitted, the DRB shall require the applicant, as a Mitigation measure, to return a significant portion of any mowed or cleared areas in the Shoreland Buffer Resource Zone to a naturally vegetated state with supplemental planting of appropriate non-invasive vegetation. At a minimum, slopes of 15% or greater shall be returned to natural vegetation cover. Other areas not essential to intended use of the development shall be returned to natural vegetation cover as well in order to bring the development closer to compliance with the development standards of the Shoreland Buffer Resource Zone.

   e. Expansion of Nonconforming Structures shall comply with the erosion prevention and sediment control standards in Section 2.7Q of these regulations.
f. New roads and driveways are not allowed as part of an expansion of a Nonconforming Structure. However, the DRB may authorize improvements to existing nonconforming roads and driveways if such improvements will result in a reduction of existing shoreland erosion and unbuffered stormwater runoff.

g. Cleared openings and lawns within the Shoreland Buffer Resource Zone legally in existence on the effective date of these regulations may be maintained. However, areas that were once fields, lawns or cleared openings but have reverted to primarily shrubs, trees, or other woody vegetation are regulated as a buffer under these regulations.

2. In accordance with 24 V.S.A. § 4469(a) and Section 5.5 of this bylaw, a variance from the DRB is required for any Development on pre-existing, nonconforming lots that currently does not comply with the Shoreland Buffer Resource Zone setback, lot shoreline frontage, and/or minimum depth standards.

3. Reconstruction and Relocation in the Shoreland Buffer Resource Zone

a. A Nonconforming Structure may be rebuilt in its existing Building Footprint provided that the Nonconforming Structure is not located in the Special Flood Hazard Area. The building and its accessory appendages may be replaced but not enlarged. Accessory appendages such as porches and decks are not part of the Building Footprint but may be replaced in place with structures of the same size and functionality. A Nonconforming deck or porch may not be enclosed. A Conditional Use permit shall be required for reconstruction. A reconstructed building must comply with the erosion prevention and sediment control standards in Section 2.7Q of this bylaw.

b. A Nonconforming Structure can be relocated so that it is less nonconforming but still within the Shoreland Buffer Resource Zone provided that disturbed areas are restored to a naturally vegetated state with supplemental planting of appropriate native vegetation. Relocation shall require a Conditional Use permit. A relocated building shall comply with erosion prevention and sediment control standards in Section 2.7Q of this bylaw.

c. Where the reconstruction or relocation of a Nonconforming Structure is permitted, the Development Review Board shall require the applicant to compensate through Mitigation measures, determined per site that may include but are not limited to planting appropriate non-invasive, native vegetation according to Shoreland Best Management Practices.
2.7 Q **District Standards for Vegetative Cover.** An applicant proposing to cut trees within 150 feet from the mean water level must obtain an intent to cut permit from the ZA. As part of that permit application, an applicant must demonstrate compliance with all regulations described below. Additionally, adequate photographs and a sketch must be provided of the area of the property affected, identifying the location of the trees and saplings that will be removed.

1. A well-distributed stand of trees will be maintained as follows:
   a. The area within 150 feet from the mean water level must be divided into a series of 25-foot x 25-foot areas that are adjacent and that do not overlap.
   b. Each 25-foot x 25-foot area must obtain a rating score of 12 or more points based on the number and diameter of trees within that area. Diameter will be measured at 4½ feet above ground level.
      (i) A tree with a diameter of at least 2 but less than 4 inches = 1 point
      (ii) A tree with a diameter of at least 4 but less than 8 inches = 2 points
      (iii) A tree with a diameter of at least 8 but less than 12 inches = 4 points
      (iv) A tree with a diameter of 12 or more inches = 8 points
   c. Trees may be removed from any 25-foot x 25-foot area that obtains more than 12 points provided that the area continues to obtain a rating score of at least 12 points.
   d. Trees must not be removed from any 25-foot x 25-foot area that obtains 12 points or less.
e. Dead, diseased or unsafe trees may be removed regardless of points.

f. Pruning of tree branches within the bottom one-third of a tree's height will be allowed regardless of points.

g. If an area falls below 25 points, a replacement tree must be planted.

2. Other natural vegetation will be maintained as follows:

   a. Existing vegetative cover under three feet in height and other ground cover, including leaf litter and the forest duff layer, must not be cut, covered or removed.

   b. At least five saplings less than two inches in diameter (measured at 4½ feet above ground level) will be retained within each 25-foot by 25-foot area. If five saplings do not exist, no woody stems less than two inches in diameter will be removed until five saplings have been planted or rooted in the area.


1. The extent of earthwork, erosion potential, and protection of critical features shall be considered in site selection and design. Site selection shall consider existing topography, existing drainage courses, vegetation and soil conditions. Erosion prevention and sediment control measures shall be well thought-out early in the selection process.

   a. Development of a lot or site shall require the least possible amount of vegetation clearing, soil disturbance, exposure time, soil compaction and topography change.

   b. Lot coverage and building footprints shall minimize site disturbance and preserve large areas of undisturbed space. Environmentally sensitive areas shall be a priority for preservation.

   c. Runoff from above the construction site shall be intercepted and directed around the disturbed area into an undisturbed vegetated area.

   d. Vegetated strips and swales, sediment traps, and silt fences shall be used to prevent soil from leaving the site.

   e. There shall be no soil compaction outside the construction disturbance area, which shall be identified and delineated in the field with appropriate safety or landscape fencing. In areas outside the disturbance area, there shall be no storage of construction vehicles, construction materials, or fill, nor shall these areas be used for circulation.
f. Immediate seeding and mulching or the application of an erosion control mat shall be completed at the conclusion of each phase of construction, or at the conclusion of construction if not phased. Use only matting with non-fixed net joints so animals will not get trapped in the matting.

g. Development, grading or clearing of vegetation on land where the slope is greater than 15% is prohibited.

2. Pre-Development Submission Requirements for Single Family Dwellings and Accessory Dwelling Units. (Accessory Structures are exempted from these requirements).

a. An existing condition site assessment providing slope profiles, existing gradients, sensitive natural communities, and site features that aid in stormwater management such as natural drainage ways and vegetated lands.

b. A map drawn to scale showing the location, extent and type of proposed Development and land disturbance and its proximity to the Shoreland Buffer Resource Zone and Lake. The plan shall include consideration of low impact development concepts as recommended in the Vermont Low Impact Development Guide for Residential and Small Sites.

c. An erosion and sediment control plan that incorporates accepted management practices as recommended by the state in The Low Risk Site Handbook for Erosion Prevention and Sediment Control.²

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² Any construction activity that disturbs one or more acres of land, or is part of a larger development plan that will disturb an acre or more requires a Vermont state permit for stormwater discharges from construction sites.