

WETLAND AND SHORELAND OVERLAY DISTRICT

Proposed Ordinance Amendment prepared by the Wetland and Shoreland Committee

Finalized by Committee on February 22, 2024

[Comments are shown like this]

- ❖ Remove existing **Article XIII. Wetland Conservation Overlay District** and **Article XIV. Shoreland Protection Overlay District**, in entirety, and add a new **Article XIV. Wetland and Shoreland Overlay District**, as follows:

ARTICLE XIV. WETLAND AND SHORELAND OVERLAY DISTRICT

175-58. Definitions and Acronyms.

BOG – A type of wetland characterized by wet, poorly drained peat-rich soils, usually acid rich from accumulated plant material. Bogs frequently are found surrounding a body of open water and often have characteristic flora such as sedges, heaths, and sphagnum.

GROUNDCOVER – Low growing plants that cover an area of ground and provide protection from surface water runoff and topsoil erosion.

INVASIVE PLANTS – Plants that are not native and not naturalized to a particular area which are a threat to local ecosystems. Invasive plants are identified as such by UNH Extension Service, NHDES or the Native Plant Trust.

NATIVE VEGETATION – A plant or plant community that has developed over time and is adapted to the local climate, soil, and other environmental factors. Native vegetation is identified as such by UNH Cooperative Extension.

NATURALIZED VEGETATION – Noninvasive plants that are not native to a particular area but have spread or been introduced there by adapting to the local environment, allowing them to grow and reproduce. Naturalized vegetation is identified as such by UNH Cooperative Extension. (See examples in the Appendix to the Durham Site Plan Regulations.)

NHDES – The New Hampshire Division of Environmental Services.

PERENNIAL STREAM – A stream or brook that, under normal circumstances, runs all year long (in contrast to an intermittent or seasonal stream which runs only part of the year and an ephemeral stream which runs only after significant rain events).

RARE AND EXEMPLARY COMMUNITY – A natural community that has been identified by the New Hampshire Natural Heritage Bureau as being an exemplary example of a particular type of community and/or location of rare plants or animals.

REFERENCE LINE - The regulatory limit of a surface water or wetland determined as follows:

1. For rivers and streams, the ordinary high-water mark.
2. For natural freshwater bodies without artificial impoundments, the natural mean high-water level as determined by NHDES.
3. For artificially impounded water bodies the waterline at full pond as determined by the elevation of the spillway crest.
4. For coastal and tidal waters, the highest observable tide line, which is that line defining the furthest landward limit of tidal flow, not including storm events, which can be recognized by indicators such as the presence of a strand line of flotsam and debris, the landward margin of salt tolerant vegetation, or a physical barrier that blocks further flow of the tide.
5. For wetlands, the delineated edge of the wetland.

RSA – Revised Statutes Annotated. Reference to specific laws of the State of New Hampshire.

TREATED SOILS – Soils decontaminated by a treatment process and certified for distribution and use as soil under NH Env-Wm 3203.11, having originally been contaminated with liquids or materials not regulated by the State of New Hampshire as hazardous waste defined under NH Env-Wm 2603.01.

UNH – The University of New Hampshire.

VERNAL POOL – A body of water, typically seasonal, that provides essential breeding habitat for certain amphibians and invertebrates, does not support viable fish population, and meets the criteria for a vernal pool established by the New Hampshire Fish and Game Department, Nongame and Endangered Wildlife Program, Identification and Documentation of Vernal Pools in New Hampshire, rev 2004, as amended.

WATER-DEPENDENT STRUCTURE – A structure that serves and supports activities that require direct access to, or contact with the water, or both, as an operational necessity and that requires a permit under RSA 482-A, including but not limited to a dock, wharf, pier, breakwater, beach, boathouse, retaining wall, or launching ramp.

WETLAND – An area that is inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soils. Wetlands include, but are not limited to, swamps, marshes, bogs, vernal pools, and similar areas.

WETLAND, NON-TIDAL – A wetland that is not subject to periodic inundation by tidal waters.

WETLAND, PRIME – A wetland designated by the Town Council in accordance with RSA 482-A:15 as having one or more of the values set forth in RSA 482-A:1 and that, because of its size, unspoiled character, fragile condition or other relevant factors, makes it of substantial significance.

WETLAND, TIDAL – A wetland whose vegetation, hydrology, or soils are influenced by periodic inundation of tidal waters.

WILDLIFE CORRIDOR - Wildlife corridors connect habitats so that wildlife can move between areas. They are critical for the conservation of wildlife in New Hampshire.

175-59. Purpose of the Wetland and Shoreland Overlay District.

The Wetland and Shoreland Overlay District (WSOD) is an overlay district intended to manage the use of wetlands, open waterbodies, and adjacent buffers in coordination with New Hampshire Revised Statutes Title L – Water Management and Protection, as amended. The purpose of this article is to:

- A. Improve the water quality of wetlands by filtering pollutants through adequate vegetation;
- B. Minimize flooding and flood damage to improve resiliency during extreme future weather events;
- C. Protect wildlife and fisheries habitats and enhance habitat connectivity;
- D. Maintain stream flow and groundwater recharge;
- E. Conserve natural beauty and scenic quality;
- F. Preserve natural shoreland vegetation to stabilize banks and prevent erosion;
- G. Improve resiliency in the face of climate change; and
- H. Limit uses and activities in the wetlands, waterbodies and buffer to those that are consistent with the goals stated herein.

175-60. Applicability.

A. The provisions of the WSOD apply to the following areas of the town of Durham:

- 1. Wetlands. All wetlands except:
 - a. isolated, non-tidal wetlands with a contiguous surface area of less than three thousand (3,000) square feet that are not vernal pools;
 - b. constructed ditches and swales that are currently functioning and maintained;
 - c. stormwater and sedimentation basins;
 - d. agricultural and irrigation ponds; and
 - e. fire ponds and cisterns.
- 2. Waterbodies. The following waterbodies including any tidal tributaries:
 - a. Great Bay and Little Bay;

- b. Oyster River, Lamprey River, and Bellamy River;
 - c. Beard’s Creek, Beaudette Brook, Bedford Brook, Bunker Creek, College Brook, Crommett Creek, Ellison Brook, Follett’s Brook (including South Fork), Hamel Brook, Horsehide Brook, Johnson Creek, Laroche Brook, Littlehale Creek, Longmarsh Brook, Pettee Brook, and Woodman Brook;
 - d. All other perennial streams; and
 - e. Durham Reservoir
3. Buffers. Land adjacent to the wetlands and waterbodies identified in 1. and 2., above, with a width from the reference line as stated below. Where a zoning district is referenced below, the width of the buffer is determined by the subject property’s underlying zone not by the zone where the wetland or waterbody is located.
- a. Bogs, prime wetlands, and rare and exemplary wetland communities: 200 feet
 - b. Vernal pools: 150 feet
(See references for Best Management Practices for vernal pools in Appendix)
 - c. All other non-tidal wetlands
 - in all zones other than the Core Commercial zones: 100 feet
 - in the Core Commercial zones: 30 feet
 - d. All tidal waters including Great Bay and Little Bay; tidal portions of the Oyster River, Bellamy River, Beard’s Creek, Bunker Creek, and Johnson Creek; their tidal tributaries; and wetlands located adjacent to tidal waters: 200 to 330 feet
[Determination of the width is left to the judgment of the Conservation Commission – There was some difference of opinion among members of the committee about the appropriate width, above.]
 - e. Lamprey River and Durham Reservoir: 200 feet
 - f. All other perennial non-tidal rivers and streams except College Brook and Pettee Brook: 150 feet
 - g. College Brook and Pettee Brook:
 - in all zones other than the Core Commercial zones: 100 feet
 - in the Core Commercial zones: 30 feet

B. Applicants are responsible, to the extent possible, for identifying any wetlands on neighboring properties where the wetland buffer would apply and showing them on the plan.

- C. Wetlands shall be delineated by a state certified wetlands scientist on the basis of hydrophytic vegetation, hydric soils, and wetlands hydrology, in accordance with the techniques outlined in the Army Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1 (January 1987), as amended. The hydric soils component of the delineation shall be determined in accordance with Field Indicators for Identifying Hydric Soils in New England (Version 2, July 1998), published by the New England Water Pollution Control Commission, as amended.
- D. The provisions of this article apply in addition to any state requirements for a dredge and fill permit or other state approval or permit. It is the intention of the Town that these provisions be coordinated with state requirements and standards but that these standards shall govern if they are more stringent than state standards. (It is the responsibility of the property owner/applicant to consult with the New Hampshire Department of Environmental Services to obtain all required permits for any ground disturbance in wetlands.
- E. Photographs of the work area and surrounding buffer shall be provided.

175-61. General Requirements for the buffer of the WSOD.

The following performance standards apply to the buffer within the WSOD except as allowable uses, activities, and structures may be approved as provided for under Permitted Uses and Conditional Uses in this article below. See the Appendix at the end of this article for specific references.

- A. *Native and Naturalized Vegetation*
A native or naturalized vegetated buffer is established to protect water quality 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 wetland and shoreland.

Within the buffer, all of the following standards and procedures apply. **Vegetation may be cut and removed as specified below only in consultation with the Durham Tree Warden or their designee, which may include a licensed forester or arborist.** See Sections below for Permitted Use A and Permitted Use B for further guidance.

1. No new lawn, garden, or landscape area shall be created within the buffer, except as stated under Permitted Use. B. 10. Regarding landscaping.
2. Existing lawns within 30 feet of the reference line must be re-established, or allowed to re-establish, with native or naturalized vegetation.
3. No trees over 6 inches in diameter (measured 4-1/2 feet above the ground)

nor ground cover may be cut or removed within the buffer (See exceptions below).

4. Not more than 50 percent of the total number of trees under 6 inches in diameter (measured 4-1/2 feet above the ground) may be removed in any 20-year period.
5. Selective cutting of trees under 6 inches in diameter (measured 4-1/2 feet above the ground) and other vegetation is permitted provided that groundcover is not disturbed and a healthy, well distributed stand of trees, saplings, and shrubs and their undamaged root systems is maintained.
6. Groundcover shall be left intact (except as specifically provided in 8, below).
7. Stumps and root systems shall be left intact and not be removed except as provided in 8., below.
8. Dead trees shall remain and not be cut. Unsafe trees (regardless of size) may be removed provided their stumps and root systems are left in place. Diseased, invasive, and toxic vegetation (as recognized by the State of New Hampshire), including their root systems, may be removed. If such removal results in the creation of cleared openings, these openings shall be replanted with native or naturalized species unless existing new growth is present.
9. Within 15 feet of an existing single-family house provisions 1-3 and 6-8, above, do not apply.
10. Vegetation may be removed to provide for a foot path(s) not to exceed 6 feet in width. Any path to the shoreline should meander some in order to slow runoff and reduce erosion.
11. The application of pesticides, herbicides, and fertilizers is prohibited except in conjunction with allowed agricultural activities in accordance with Subsection C, below
12. When a landowner applies for an approval to the Planning Board under this article, the board may require that all or portions of the buffer be re-established to the extent reasonable as part of an approval.

B. *Sedimentation and Erosion Control*

All activities and the use of buildings, structures, and land within the WSOD 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. All activities shall be conducted in accordance with Best Management Practices (BMPs) for stormwater management and general Town standards (See the Appendix to this article).

C. *Agricultural Activity*

Activity related to agriculture, including the application of pesticides, herbicides, and fertilizers is not permitted:

1. within any wetland or waterbody included in this overlay district; nor
2. within 100 feet of the reference line of those wetlands and waterbodies (or within the buffer where the buffer is less than 100 feet).

Exceptions to these restrictions, immediately above, are permitted where the Code Administrator, in consultation with the Durham Agricultural Commission or the Strafford County Conservation District, determines that:

1. the activity will be done in accordance with best management practices; or
2. the potential adverse impact upon the wetland or waterbody will be minor and inconsequential in cases where best management practices are not applicable.

References for best management practices include, but are not limited to the resources listed in the Appendix, “Manual of Best Management Practices for Agriculture” (New Hampshire Department of Agriculture, Markets and Food, 2017, as amended), <https://www.agriculture.nh.gov/publications-forms/documents/bmp-manual.pdf>, and “Best Management Wetlands Practices for Agriculture” (New Hampshire Department of Agriculture, Markets and Food, 2019, as amended), <https://www.agriculture.nh.gov/publications-forms/documents/wetlands-bmp-manual.pdf>.

Site plan review for agricultural activity may be required in accordance with the Durham Site Plan Regulations or other provisions of this ordinance.

D. *Forestry*

Any forestry activity within the WSOD shall be conducted in accordance with the Basal Area Law RSA 227-J:9 and shall follow best forest management practices. See reference in appendix.

E. *Septic Systems*

Any new septic system, septic tank, leach field, or other sewage disposal system, but not including Town sewer lines and private septic lines (See Conditional Uses, below) shall be set back 125 feet from the reference line.

The replacement of an existing septic system, septic tank, leach field, or other sewage disposal system that is located within the required setback from the reference line of the wetland shall comply with the required setback unless the Health Officer/Zoning Administrator/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 Health Officer/Zoning Administrator/Code Enforcement Officer determines that a

replacement system must be located within the required wetland septic system setback, the system shall be located to provide the maximum setback possible as determined by the Health Officer/Zoning Administrator/Code Enforcement Officer and shall employ the best available technology.

F. Salt Use and Snow Storage

Snow storage areas for parking lots for all new development and significant redevelopment, except for single family property, shall not be located within the buffer. Certified Green SnoPro contractors shall be used to plow parking lots for new development and significant redevelopment. Sodium chloride salt used for deicing shall be properly stored, and applied using the minimum amount necessary, according to accepted Best Management Practices as published by NHDES (see Appendix) to minimize its impact on wetlands and public health. Alternatives such as calcium magnesium acetate (CMA) and/pr potassium acetate (KA) are encouraged.

175-62. Permitted Use A – Uses That Do Not Require Review.

Notwithstanding the uses permitted in the underlying zoning district, the following uses, activities, and structures shall be allowed without a permit or Town approval in the WSOD provided that they do not alter the surface condition or configuration of the land by the addition of fill, do not obstruct or alter the natural flow or infiltration of surface water, and comply with the requirements of the WSOD:

1. The planting of native or naturalized species and wetland vegetation excluding lawns as identified in “The United States Fish and Wildlife Service National List of Plant Species that Occur in Wetlands: New Hampshire” within a wetland and native or non-native, non-invasive vegetation in the buffer;
2. Planting, cutting, removal and maintenance of vegetation done in conformance with the performance standards for handling vegetation in the buffer in Section 175-61.A., above;
3. Agriculture (including agriculture as a principal and as an accessory use) in accordance with Section 175-61.C., above;
4. The installation and observation of monitoring wells;
5. Conservation activities;
6. The creation of unpaved trails and paths with a width not exceeding 6 feet that do not involve significant regrading in accordance with Best Management Practices (See the Appendix);
7. Forestry in accordance with Section 175-61.D.;

8. The maintenance and minor repair of a pier or dock provided the activity is approved by the appropriate state agency (Otherwise the activity is treated as a Permitted use B).

175-63. Permitted Use B – Uses That Require Commission and Board Review. The following uses, activities, and structures, including any necessary grading, shall be permitted in the WSOD only if they are permitted in the underlying zoning district and, after review by the Conservation Commission, the Planning Board determines that the Permitted Use B criteria, below, are met. Applications for a Permitted Use B shall be listed specifically on Planning Board agendas but neither a public hearing nor notices is required.

1. The installation of private water supply wells and lines for the well serving a use on the lot; (For reference for the applicant – See Study on Sea Level Rise and Impacts on Groundwater Levels and Water Quality here: https://www.ci.durham.nh.us/sites/default/files/fileattachments/planning/page/18681/groundwater_vulnerability_report.pdf);
2. Temporary crossings for the maintenance or installation of utility pipes or lines or other utility structures that are located outside of the WSOD;
3. Temporary cofferdams associated with the repair or replacement of existing structures;
4. Expansion of nonconforming structures in accordance with Section 175-30. D. Requirements for Nonconforming Buildings and Structures in the WSOD;
5. The repair, replacement or minor expansion of existing retaining walls;
6. Decks with an area of less than two hundred square feet provided that they are raised above the ground in such a manner as to permit the natural flow of any surface water;
7. The control of exotic weeds in accordance with RSA 487:17;
8. Grading of the site where grading within the WSOD is necessary to accommodate a structure located outside of the WSOD;
9. Fences that are not detrimental to wildlife corridors;
10. Landscaping areas consistent with the intent of this article, as reasonably determined by the Conservation Commission and Planning Board;
11. Departure from other standards under Native and Naturalized Vegetation Section 175-61. A. 2. through 11. for good cause;

12. The installation, expansion, replacement or removal of a pier or dock provided the activity is approved by the appropriate state agency;
13. Aquaculture
14. Items which are not explicitly addressed in this subsection but for which the proposed activity clearly:
 - a. would not have any significant adverse impact; and
 - b. would be consistent with the intent of this article, all as reasonably determined by the Planning Department in consultation with the Planning Board chair (and would then be reviewed under the Permitted Use B process).

Permitted Use B – Commission and Board Review Criteria.

- 1) The design, construction, maintenance and operation of the proposed structures and activities within the wetland, waterbody, and buffer will minimize soil disturbance and adverse impacts to water quality to the extent workable.
- 2) Mitigation and restoration activities for the area being disturbed will allow for the site to perform the functions of the wetland, waterbody, and buffer to the extent workable. Native or naturalized vegetation will be re-established as appropriate (See Section 175-60 A. 1. for reference).

Conservation Commission Review.

Applications under this subsection B. shall be presented to the Conservation Commission for its review. The commission will then forward its comments to the Planning Board. If any pertinent element of the application changes significantly after the commission review, the application shall be returned to the commission for additional review. The Planning Board shall not take final action on an application, including an application that has been returned to the commission for additional review, until the commission has offered its comments/recommendations (except as provided for below).

Applications shall be presented to the Conservation Commission in a timely manner. The commission shall offer its comments/recommendations or decline to comment within 45 days of when the application, or a significant change to an application, is first presented to the commission at a meeting, unless the Planning Board grants an extension of the timeframe.

175-64. Conditional Uses in the WSOD.

- A. **Conditional Uses.** The following uses, activities and structures, including any necessary grading, shall be permitted as conditional uses in the WSOD provided that the use, activity or structure is allowed in the underlying zoning district, and not included in Sections 175-60. A. and B., above, and that after review by the Conservation Commission the Planning Board determines that the criteria in 175-64. B., below, are met. See Article VII. Conditional Use Permits which delineates

the application process for conditional uses. However, the eight general criteria in that article do not apply to conditional uses in the WSOD.

1. Streets, roads, driveways, bridges and other access ways; paved sidewalks, trails, and paths; public trails and paths; and parking areas serving single-family houses (but not other uses). Culverts and bridges should be designed in accordance with best management practices to allow for passage of wildlife in areas where habitat connectivity could otherwise be disrupted. Culverts should be sized to the Durham Public Works Drainage Standards (See Appendix).
2. Utilities including Town water lines, Town sewer lines, gas lines, electric lines, and private septic lines (See Septic Systems, above). However, freestanding solar arrays are not allowed in the Wetland and Shoreland Overlay District.
3. Accessory structures including patios and decks. However freestanding accessory buildings may not be constructed on existing slopes that exceed 20%, nor may those slopes be regraded to accommodate the building.
4. A non-residential building in a Core Commercial or Research/Industry zoning district.
5. Plant nurseries subject to the standards in Section 175-60. C. Agricultural Activity.

B. Conditional Use Criteria

1. There is no alternative design and location on the parcel for the proposed project that would:
 - a) have less adverse impact on the WSOD and overall ecological values;
 - b) be workable; and
 - c) be reasonable to expect the applicant to utilize.
2. The design, construction, maintenance and operation of the proposed structures and activities within the wetland and buffer will minimize soil disturbance and adverse impacts to water quality to the extent workable.
3. Mitigation and restoration activities of the area being disturbed will allow for the site to perform the functions of the wetland, waterbody, and buffer to the extent workable. Native or naturalized vegetation will be re-established as appropriate (See Section 175-60 A. 1. for reference).
4. The proposed project will not have substantial adverse impacts to known rare species, rare habitats, water quality, aquatic connectivity, or wildlife corridors. Applicants are not required to provide supporting documentation for this

criterion unless the Planning Board has good reason to believe this criterion applies.

C. **Ecological Value.** Ecological value, in B. above, is defined as the environmental functions performed by all lands and waters to support the variety of habitats and the abundance and diversity of all flora and fauna.

D. **Conservation Commission Review**

Applications under this subsection. shall be presented to the Conservation Commission for its review. The commission will then forward its comments to the Planning Board. If any pertinent element of the application changes significantly after the commission review, the application shall be returned to the commission for additional review. The Planning Board shall not take final action on an application, including an application that has been returned to the commission for additional review, until the commission has offered its comments/recommendations or the deadline for offering its comments, below, has passed.

Applications shall be presented to the Conservation Commission in a timely manner. The commission shall offer its comments/recommendations within 45 days of when the application, or a significant change to an application, is first presented to the commission at a meeting, unless the Planning Board grants an extension of the timeframe.

175-65. Special Exception for Single-Family Residences in the WSOD.

The construction of a single-family residence, including a septic system serving a single-family residence, on an existing vacant lot within the Wetland and Shoreland Overlay District may be permitted by special exception if the Zoning Board of Adjustment finds that the proposal meets the general special exception criteria and the criteria below. Applicants shall submit all necessary materials to facilitate the review, including a site plan and landscaping plan, as appropriate.

1. The lot upon which the exception is sought was an official lot of record, as recorded in the Strafford County Registry of Deeds, prior to January 1, 1976 (just after the first adoption of the Wetland and Shoreland Overlay Districts).
2. The single-family use for which the exception is sought cannot be carried out on a portion or portions of the lot which are outside the Wetland Conservation Overlay District without undue hardship.
3. Due to the provisions of the Wetland and Shoreland Overlay District no reasonable and economically viable use of the lot can be made without the exception.
4. The location and design of the single-family use shall provide for the maximum setback from the reference line consistent with reasonable use of the property considering the size, shape, slope, and natural conditions of the lot including, but not limited to, soils, flood hazard areas, and wetlands.

5. The design and construction of the proposed septic system will not cause any adverse impact to public health, ground or surface water, or other environmental resources.
6. There is a reasonable building envelope on the lot to accommodate a single family home and septic system without requiring extraordinary measures.

When an application for a special exception under this section is submitted to the Zoning Board of Adjustment, copies of the application shall be forwarded to the Conservation Commission as soon as possible. The commission may offer comments to the ZBA at its option. The ZBA, at its option, may continue an application to an additional meeting to provide time for the commission to prepare its comments, but an application may not be continued to more than one additional meeting for this purpose.

175-66. Prohibited Uses in the WSOD.

Any use that is not identified as an allowed use in 175-63, 175-64, or 175-65 is prohibited.

The following uses are deemed to pose a particular threat to shoreland or wetland habitat or water quality and are specifically prohibited in the WSOD:

1. the establishment or expansion of salt storage yards;
2. automotive junk or salvage yards;
3. the storage or handling of hazardous wastes;
4. the bulk storage of chemicals, petroleum products, or hazardous materials;
5. use of any fertilizer, pesticide, or herbicide except as provided for in Section 175-61. C. Agricultural Activity;
6. the processing of excavated materials;
7. the dumping or disposal of snow or ice removed from roads or other off-site locations;
8. the disposal, handling, or processing of solid wastes including transfer stations, recycling facilities, and composting facilities;
9. animal feedlots;
10. the disposal of septage or other liquid or leachate wastes except for an approved septic system;
11. dumping, spreading or any other application or use of treated soils or sludge from a sewage treatment plant; and
12. Freestanding solar energy systems.

175-67. Compliance with Other Regulations

All land within the WSOD is also subject to the provisions of an underlying zone. Where there is a conflict among the provisions of the WSOD, any other applicable overlay district, the underlying district, or state and federal regulations the most stringent or restrictive provision shall apply.

175-68. Challenge to the Classification of Wetlands.

The following procedure shall be followed when there is a challenge to any designation of land under this article:

1. Any party with standing may submit a challenge. The challenge must be submitted in writing.
2. The Town Planner shall engage a state certified wetlands scientist (or soil scientist if appropriate) to review the classification.
3. The Town Planner may authorize the wetlands/soil scientist to conduct an on-site investigation.
4. The wetlands/soil scientist shall present evidence to the Town Planner who shall render a decision about the classification. The Town Planner may use any resource to assist in making a decision, including obtaining input from the Conservation Commission and the Planning Board.
5. All costs for use of the wetlands/soil scientist shall be borne by the party making the challenge to the classification. The party making the challenge shall place the estimated amount to cover the cost for the review into escrow with the Town expeditiously.

175-69. Variance Applications.

When a variance application pertinent to the WSOD is submitted to the Zoning Board of Adjustment, copies of the application shall be forwarded to the Conservation Commission as soon as possible. The commission may offer comments to the ZBA at its option. The ZBA, at its option, may continue an application to an additional meeting to provide time for the commission to prepare its comments, but an application may not be continued to more than one additional meeting for this purpose.

175-70. Local Resources and Authority.

The Planning Board has final authority under this article independent of the status of any state or federal permitting related to the proposed project. The Planning Board may use any appropriate resources in reviewing applications, including those in the Appendix.

175-71. Enforcement.

Violations of this article, including violations that are encountered in the course of the review of an application under this article, shall be enforced consistent with the provisions of this Zoning Ordinance.

Any wetland, waterbody, or buffer altered in violation of this article shall be restored at the expense of the violator(s), as provided by RSA 483-A:5.

APPENDIX TO THIS ARTICLE

Sources serving as references for this article include, but are not limited to, the following.

GENERAL REFERENCES

Durham Site Plan Regulations - <https://www.ci.durham.nh.us/planning/site-plan-regulations>

Lists of recommended plants and prohibited invasive species included in Appendix B in the Durham Site Plan Regulations -

https://www.ci.durham.nh.us/sites/default/files/fileattachments/planning_and_zoning/page/20721/landscaping_species_-_recommended.pdf

Durham Subdivision Regulations - <https://www.ci.durham.nh.us/planning/subdivision-regulations>

Durham Public Works Design & Construction Standards -

<https://www.ci.durham.nh.us/publicworks/design-and-construction-standards>

AGRICULTURE

Manual of Best Management Practices (BMPs) for Agriculture in New Hampshire (2019) -

<https://www.agriculture.nh.gov/publications-forms/documents/best-management-practices-bmp-manual.pdf>

Best Management Wetlands Practices (BMWPs) for Agriculture (2019) -

<https://www.agriculture.nh.gov/publications-forms/documents/wetlands-bmp-manual.pdf>

BUFFERS

Buffers for the Bay - Explanations of Recommended Buffer Widths for Various Buffer Functions - <https://bufferoptionsnh.org/>

EROSION AND SEDIMENTATION CONTROL

Stormwater Management and Erosion and Sediment Control for Urban and Developing Areas in New Hampshire, NHDES, 1992

FLOODING/CLIMATE CHANGE

Map of Durham Advisory Climate Change Risk Areas -

https://www.ci.durham.nh.us/sites/default/files/fileattachments/planning_board/page/54310/advisory_climate_change_risk_areas.pdf; See Article XV, Flood Hazard Overlay District for context and explanation.

FORESTRY

Best Management Practices for Forestry - UNH Extension Service -

<https://extension.unh.edu/resource/best-management-practices-forestry-protecting-new-hampshires-water-quality>

New Hampshire Best Management Practices for Erosion Control on Timber Harvesting Operations - <https://extension.unh.edu/resource/new-hampshire-best-management-practices-erosion-control-timber-harvesting-operations>

LIVING SHORELINES

Nature-based approaches for shoreline stabilization in tidal waters -

<https://www.des.nh.gov/water/coastal-waters/living-shorelines>

Living Shoreline Site Suitability Assessment -

<https://www.des.nh.gov/sites/g/files/ehbemt341/files/documents/2020-01/r-wd-19-19.pdf>

PLANT SELECTION

Native and naturalized species and wetland vegetation - “The United States Fish and Wildlife Service National List of Plant Species that Occur in Wetlands: New Hampshire”

Native Plant Trust Nursery - Plant Selection Tool -

<https://plantfinder.nativeplanttrust.org/Plant-Search>

SALT STORAGE

Storage and Management of Deicing Materials -

<https://www.nhms4.des.nh.gov/sites/g/files/ehbemt636/files/documents/2022-09/salt-storage.pdf>

Environmental impacts of salt and application guidelines -

<https://www.des.nh.gov/resource-center/publications?keys=wasfacsh&purpose=&subcategory=>

SEPTIC SETBACKS

Best Management Practices (BMPs) for Groundwater Protection (2020) NHDES Fact Sheet -

<https://www.des.nh.gov/sites/g/files/ehbemt341/files/documents/2020-01/dwgb-22-4.pdf>

The Shoreland Water Quality Protection Act ([RSA 483-B](#))

STORMWATER MANAGEMENT – BEST MANAGEMENT PRACTICES

Best Management Practice for Urban Stormwater Runoff, NHDES, 1996

Best Management Practices to Control Nonpoint Source Pollution: A Guide for Citizens and Town Officials, NHDES, January 2004 -

<https://www.des.nh.gov/sites/g/files/ehbemt341/files/documents/2020-01/wd-03-42.pdf>

Innovative Stormwater Treatment Technologies Best Management Practices Manual, NHDES, 2002

Homeowners Guide to Stormwater Management (2019) -

<https://www4.des.state.nh.us/SoakNH/wp-content/uploads/2020/03/Homeowners-Guide-to-Stormwater-Management-2019.pdf>

NH Stormwater Manual Vol. 1 (2008) -

<https://www.des.nh.gov/sites/g/files/ehbemt341/files/documents/2020-01/vol1-cl-toc.pdf>

NH Stormwater Manual Vol. 2 (2008) -

<https://www.des.nh.gov/sites/g/files/ehbemt341/files/documents/2020-01/wd-08-20b.pdf>

NH Stormwater Manual Vol. 3 (2008) -

<https://www.des.nh.gov/sites/g/files/ehbemt341/files/documents/2020-01/vol3-cl-toc.pdf>

Porous Pavement - <https://scholars.unh.edu/stormwater/13/>

Stormwater Management and Erosion and Sediment Control for Urban and Developing Areas in New Hampshire, NHDES, 1992

UNH Stormwater Center - <https://extension.unh.edu/stormwater-center>

Wetlands Best Management Practice Techniques for Avoidance and Minimization (2018) -

<http://neiwpc.org/wp-content/uploads/2018/09/Wetlands-bmp-manual.pdf>

TRAILS

NH Best Management Practices for Trail Construction & Maintenance (2017) -

<https://naturegroupie.org/sites/default/files/documents/bmp-manual2017.pdf>

VERNAL POOLS

Conserving Pool-Breeding Amphibians-

<https://www.maineaudubon.org/wp-content/uploads/2017/03/Best-Development-Practices-Conserving-Pool-breeding-Amph.pdf>

General Information about Vernal Pools -

<https://extension.unh.edu/resource/vernal-pools>

WETLANDS AND SHORELANDS MANAGEMENT, GUIDES, AND REGULATIONS

Erosion Control for Construction within the Protected Shoreland (2020) -

<https://www.des.nh.gov/sites/g/files/ehbemt341/files/documents/2020-01/sp-1.pdf>

Lawn Care within the Protected Shoreland (2020) -

<https://www.des.nh.gov/sites/g/files/ehbemt341/files/documents/2020-01/sp-2.pdf>

Pesticide Use Within the Protected Shoreland (2020) -

<https://www.des.nh.gov/sites/g/files/ehbemt341/files/documents/2020-01/sp-3.pdf>

Shoreland Accessory Structures (2020) -

<https://www.des.nh.gov/sites/g/files/ehbemt341/files/documents/2020-01/sp-6.pdf>

Vegetation Management for Water Quality (2020) -

<https://www.des.nh.gov/sites/g/files/ehbemt341/files/documents/2020-01/sp-5.pdf>

Wetlands Best Management Practice Techniques for Avoidance and Minimization (2018) -

<http://neiwpc.org/wp-content/uploads/2018/09/Wetlands-bmp-manual.pdf>

Wetlands Permitting: Avoidance, Minimization and Mitigation (2020) -

<https://www.des.nh.gov/sites/g/files/ehbemt341/files/documents/2020-01/wb-21.pdf>

WILDLIFE CORRIDORS AND CROSSINGS

Best Management Practices (BMPs) for Wildlife Corridors -

https://corridordesign.org/dl/docs/corridordesign.org_BMPs_for_Corridors.pdf

Caltrans Wildlife Crossing Project and Process Decision Trees - See pages 5-6 of the California Department of Transportation's Wildlife Crossings Guidance Manual -

https://www.conservewildlifenj.org/downloads/cwnj_278.pdf

The Nature Conservancy's Connect the Coast Report - <https://www.nature.org/en-us/about-us/where-we-work/united-states/new-hampshire/stories-in-new-hampshire/connecting-wildlife-habitat/>

Nature Conservation report investigating the impact of human activity on wildlife crossings -

<https://natureconservation.pensoft.net/article/73060/>

NH Fish & Game's Wildlife Corridors - <https://www.wildlife.nh.gov/wildlife-and-habitat/nh-wildlife-corridors>

NH GRANIT's Wildlife Corridor GIS Overlay - <https://granit.unh.edu/>

NH Stream Crossing Guidelines - <https://www4.des.state.nh.us/NH-Stream-Crossings/>

NH Wildlife Action Plan - <https://www.wildlife.nh.gov/wildlife-and-habitat/nh-wildlife-action-plan>

PROPOSED CHANGES TO OTHER PARTS OF THE ZONING ORDINANCE

Text Proposed to be Added is Shown Like This

Existing Text Proposed to be Deleted is Shown Like This

- ❖ Modify **Section 175-36. Overlay Districts**, as follows:

175-36. Overlay Districts.

In addition to the zoning districts (or “base zoning districts”) identified in Section 175-35, there are ~~six (6)~~ *five* overlay districts as follows:

WCOD	Wetland Conservation Overlay District
SPOD	Shoreland Protection Overlay District
<i>WSOD</i>	<i>Wetland and Shoreland Overlay District</i>
FHOD	Flood Hazard Overlay District
APOD	Aquifer Protection Overlay District
HOD	Historic Overlay District
PWSFOD	Personal Wireless Service Facilities Overlay District

- ❖ Delete current Subsection **175-29 Nonconforming Lots. B. Requirements for Individual Nonconforming Vacant Lots in the WSOD and SPOD.** in entirety and reletter Subsection C. to Subsection B.
- ❖ Modify Section **175-30. Nonconforming Structures and Buildings**, as follows:

175-30. Nonconforming Structures and Buildings

D. Requirements for Nonconforming Buildings and Structures in the *WSOD* ~~WCOD and SPOD.~~

3. The construction of attached additions or other expansions to nonconforming one- and two-family dwellings shall be permitted within the Wetland Conservation Overlay District and Shoreland Protection Overlay District *by Permitted Use B* provided that *these additional conditions are met*:
 - a. The dwelling lawfully existed prior to the date on which this Article was enacted.
 - b. The number of dwelling units shall not be increased.
 - c. The building footprint existing prior to the date on which this Article was enacted shall not be cumulatively increased by more than fifteen (15) percent.
 - d. The habitable floor area existing prior to the date on which this Article was enacted shall not be cumulatively increased by more than thirty (30) percent.
 - e. The proposed construction shall conform to all other applicable ordinances and regulations of the Town of Durham.

- ❖ Change **Article XII.1 Use and Dimensional Standards** to **Article XIII. Use and Dimensional Standards** and make other appropriate changes in the ordinance, including in the Table of Contents, to reflect this change.
- ❖ In **Section 175-54. Table of Dimensions** add note in both **Minimum Lot Size in Square Feet** and **Minimum Lot Area Per Dwelling Unit** at the bottom stating: “See **Subsection 175-56. I. Use of Poorly-Drained Soils in Calculating Lot Area and Density.**”
- ❖ In **Section 175-55. General Use Standards**, add the following new provision at the end:

10. Conditional uses and special exceptions for new subdivisions. In cases where a conditional use or special exception is needed to develop a lot located in a proposed new subdivision, the conditional use or special exception needed for that lot shall be obtained prior to the approval of a subdivision containing that lot.
- ❖ Within **Section 175-56. General Dimensional Standards**, add language as shown in Subsection G. 1. and add new Subsection I:

G. 1. All *areas of surface water, wetlands*, very poorly drained, poorly drained, and somewhat poorly drained soils as identified on the HISS.

I. Use of Poorly-Drained Soils in Calculating Lot Area and Density

No areas of surface water, wetlands or areas designated as very poorly drained, poorly drained, or somewhat poorly drained soil located within the WSOD may be used to satisfy minimum lot sizes or minimum lot area per dwelling unit.

- ❖ Under Section 175-56 G. change title from “*Calculation of usable area.*” to “*Calculation of Usable Area in Conservation Subdivisions.*”
- ❖ *Make all other changes in the ordinance, as appropriate, including in the Table of Contents to reflect the replacement of the WCOD and SPOD with the consolidated WSOD.*