

211 NATURAL RESOURCE PROTECTION ZONE (NRPZ)

211.1 DEFINITION OF ZONE

The Natural Resource Protection Zone consists of the following areas:

- A. Shoreland Area:** All land areas within 250 feet, horizontal distance, of the:
- normal high-water line of any river,
 - upland edge of a coastal wetland, including all areas affected by tidal action, or
 - upland edge of a freshwater wetland,
- and all land areas within 75 feet, horizontal distance, of the normal high-water line of a stream.

This Ordinance also applies to any structure built on, over or abutting a dock, wharf or pier, or other structure extending or located below the normal high-water line of a water body or within a wetland. (Amended 6/15/09 R)

- B. Special Flood Hazard Area:** Any land in the floodplain lying within the 100-year flood boundary as delineated on the Flood Insurance Rate Map of the Town as part of the National Flood Insurance Program.

211.2 ADDITIONAL REQUIREMENTS FOR THE SHORELAND AREA

211.2.A PRINCIPAL AND ACCESSORY STRUCTURES

- 211.2.A.1 No new principal or accessory structures, except structures which require direct access to the water as an operational necessity (including but not limited to piers, docks, retaining walls and public waterfront trails, but excluding recreational boat storage buildings) shall be located within any of the following areas:
- a. Areas within one hundred twenty-five (125) feet, horizontal distance, of the normal high water line of a river; or within one hundred twenty-five (125) feet, horizontal distance, of the upland edge of a coastal or freshwater wetland; or within seventy-five (75) feet, horizontal distance, of the normal high water line of a stream. (Amended 11/18/02 R, 6/15/09 R)
 - b. Areas within 250 feet, horizontal distance, of the upland edge of freshwater wetlands, salt marshes and salt meadows, and wetlands associated with great ponds and rivers, which are rated as "moderate" or "high" value waterfowl and wading bird habitat, including nesting and feeding areas, by the Maine Department of Inland Fisheries and Wildlife (MDIF&W) as of December 31, 2008, as depicted on a Geographic Information System (GIS) data layer maintained by MDIF&W or MDEP, and as shown on the Brunswick Official Zoning Map. These areas are defined as "Resource Protection Areas" and include areas which development would adversely affect water quality, productive habitat, biological ecosystems, or scenic and natural values (see also section 211.2.A.3). (Amended 5/17/99 E/R, 6/15/09 R)
 - c. Water and wetland setback measurements shall be taken from the top of a coastal bluff such as those that have been identified on Coastal Bluff maps as being "highly unstable" or "unstable" by the Maine Geological Survey pursuant to its "Classification of Coastal Bluffs" and published on the most recent Coastal Bluff map, and as depicted on the Brunswick GIS. If the applicant and the permitting official(s) are in disagreement as to the specific location of a "highly unstable" or "unstable" bluff, or where the top of the bluff is located, the applicant may at his or her expense, employ a Maine Registered Professional Engineer, a Maine Certified Soil Scientist, or a Maine State Geologist to make a determination. (Section inserted 6/15/09 R)

- d. Flood plains adjacent to tidal waters, rivers and flood plains along artificially formed great ponds along rivers, defined by the 100-year flood plain as designated on the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Maps or Flood Hazard Boundary Maps Flood Boundary and Floodway Maps or the flood of record. (Amended 6/15/09 R)
- e. Areas of two (2) or more contiguous acres with sustained slopes of 20% or greater.
- f. Areas of two (2) or more contiguous acres of wetlands which are not part of a freshwater or coastal wetland and which are not surficially connected to a river, tidal waters or stream during the period of normal high water. (Amended 11/18/02 R, 6/15/09 R)
- g. Land along rivers subject to severe bank erosion, undercutting, or river bed movement and lands adjacent to tidal waters which are subject to severe erosion or mass movement, such as steep coastal bluffs.

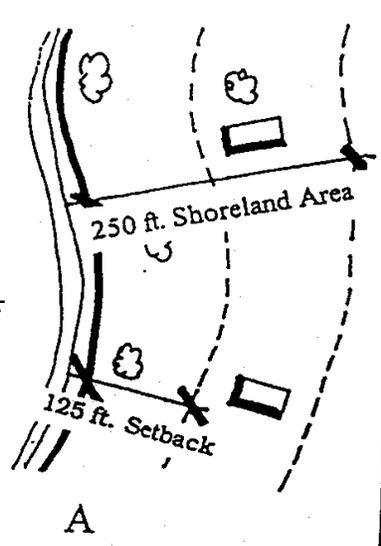
211.2.A.2 Proposals for new Principal and Accessory structures requiring direct access to the water as an operational necessity are subject to the provisions of section 306.7.

211.2.A.3 **Special Resource Protection Permit**

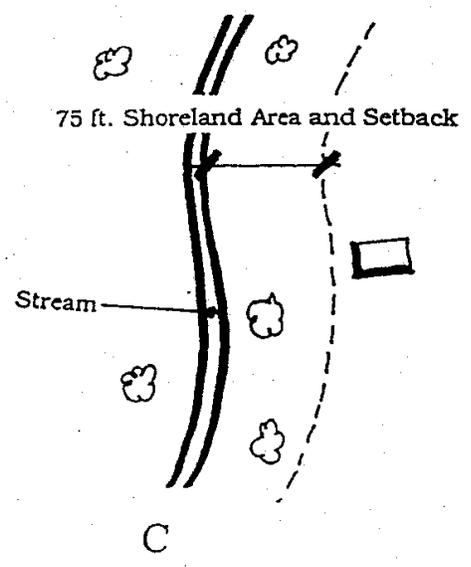
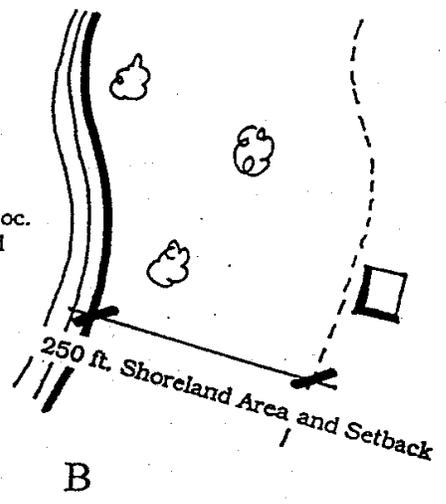
Properties that were created prior to June 6, 1994 and that are located in a Resource Protection Area as defined under 211.2.A.1(b); and those properties created prior to November 18, 2002 that lie within the Natural Resource Protection Zone of a stream created after November 18, 2002 may be developed with single family residential structures by a Special Resource Protection Permit if the Staff Review Committee makes a positive finding that the applicant has demonstrated that all of the following conditions are met: (Amended 9/4/01 R, 11/18/02 R)

- 1. There is no location on the property, other than a location within the Resource Protection Area, where the structure can be built.
- 2. The lot was established and recorded in the Cumberland County Registry of Deeds prior to June 6, 1994 if applying for a Special Resource Protection Permit in the Resource Protection Area, or November 18, 2002 if applying for a Special Resource Protection Permit in a stream NRPZ created after November 18, 2002.
- 3. All proposed buildings, sewage disposal systems and other improvements are: (Amended 6/15/09 R)
 - a. Located on natural ground slopes of less than 20%; and
 - b. Located outside the floodway of the 100-year floodplain along rivers and artificially formed great ponds along rivers and outside the velocity zone in areas subject to tides, based on detailed flood insurance studies and as delineated on the Federal Emergency Management Agency's Flood Boundary and Floodway Maps and Flood Insurance Rate Maps; all buildings, including basements, are elevated at least one foot above the 100-year floodplain elevation; and the development is otherwise in compliance with any applicable municipal floodplain ordinance. If the floodway is not shown on the Federal Emergency Management Agency Maps, it is deemed to be 1/2 the width of the 100-year floodplain.
- 4. The total ground floor area, including cantilevered or similar overhanging extensions, of all principal and accessory structures is limited to a maximum of 1,500 square feet. This limitation shall not be altered by variance. (Amended 6/15/09 R)

- River Or Tidal Area Or Coastal Wetland Or Freshwater Wetland



- "Moderate or High Value"
- Freshwater Wetland
 - Salt Marsh
 - Wetlands Assoc. W/great Pond & River (per I.F.W.)



SHORELAND AREA
VS.
SHORELAND SETBACK SCENARIOS
(Not to Scale)

5. All structures, except functionally water-dependent structures, are set back from the normal high-water line of a waterbody or upland edge of a coastal or freshwater wetland to the greatest practical extent, but not less than 125 feet, horizontal distance; or not less than 75 feet, horizontal distance from a stream. In determining the greatest practical extent, the Staff Review Committee shall consider the depth of the lot, the slope of the land, the potential for soil erosion, the type and amount of vegetation to be removed, the proposed building site's elevation in regard to the floodplain, and its proximity to moderate-value and high-value wetlands. (Amended 9/4/01 R, 11/18/02 R, 5/17/99 E/R, 6/15/09 R)

211.2.B AGRICULTURE

- 211.2.B.1 All spreading of manure shall be accomplished in conformance with the *Manure Utilization Guidelines* published by the Maine Department of Agriculture on November 1, 2001, and the Nutrient Management Law (7 M.R.S.A. sections 4201-4209). (Amended 6/15/09 R)
- 211.2.B.2 Manure shall not be stored or stockpiled within one hundred twenty-five (125) feet, horizontal distance, of the normal high water line of a river or tidal waters; or within one hundred twenty-five (125) feet, horizontal distance, of the upland edge of a coastal or freshwater wetland; or within seventy-five (75) feet, horizontal distance, of the normal high water line of a stream. All manure storage areas within the shoreland zone must be constructed or modified such that the facility produces no discharge of effluent or contaminated storm water. (Amended 6/15/09 R)
- 211.2.B.3 Agricultural activities involving tillage of soil greater than forty thousand (40,000) square feet in surface area within the Shoreland Area shall require a Conservation Plan to be filed with the Planning Board. Non-conformance with the provisions of said plan shall be considered to be a violation of this ordinance. Assistance in preparing a soil and water conservation plan may be available through the local Soil and Water Conservation District Office. (Amended 6/15/09 R)
- 211.2.B.4 Newly established fields which require tilling of soil shall not be permitted within seventy-five (75) feet, horizontal distance, of the normal high water line of any river, tidal waters or stream; nor of the upland edge of a coastal or freshwater wetland.
- The tilling of fields associated with ongoing farm activities, and which are not in conformance with the above setback provisions may continue, provided that such tilling is conducted in accordance with a Conservation Plan. (Section Amended 6/15/09)
- 211.2.B.5 Newly established livestock grazing areas shall not be permitted within seventy-five (75) feet, horizontal distance, of normal high water line of a river, coastal or freshwater wetland or stream.
- Livestock grazing associated with ongoing farm activities, and which are not in conformance with the above setback provisions may continue, provided that such grazing is conducted in accordance with a Conservation Plan. (Section Amended 6/15/09)

211.2.C BEACH CONSTRUCTION

Before beach construction is commenced, an applicant must obtain a permit from the Department of Environmental Protection and site plan approval by the Planning Board.

211.2.D CLEARING OR REMOVAL OF VEGETATION FOR ACTIVITIES OTHER THAN TIMBER HARVESTING
(Amended 6/15/09 R)

- 211.2.D.1 Except to allow for development of permitted uses, within a strip of land extending seventy-five (75) feet, horizontal distance, inland from the normal high water line of a river, tidal waters or

stream; seventy-five (75) feet, horizontal distance, from the upland edge of a coastal or freshwater wetland; a buffer strip of vegetation shall be preserved as follows: (Amended 11/18/02 R, 6/15/09 R)

- a. There shall be no cleared opening greater than 250 s.f. in the forest canopy (or other existing woody vegetation if a forested canopy is not present) as measured from the outer limits of the tree or shrub crown. However, a footpath not to exceed six (6) feet in width as measured between tree trunks and/or shrub stems is allowed provided that a cleared line of sight to the water through the buffer strip is not created. (Amended 6/15/09 R)
- b. Selective cutting of trees within the buffer strip is allowed provided that a well distributed stand of trees and other natural vegetation is maintained. For the purposes of Section 211.2.D.1 a "well-distributed stand of trees" shall be defined as maintaining a rating score of 24 or more in any 25 foot by 50 foot rectangle (1250 s.f.) area as determined by the following rating system. (Amended 6/15/09 R)

Diameter of Tree at 4-1/2 feet above ground level (inches)	Points
2 - < 4 in.	1
4 - < 8 in.	2
8 - < 12 in.	4
12 in or greater	8

Note: As an example, if a 25-foot x 50 foot plot contains four (4) trees between 2 and 4 inches in diameter, two trees between 4 and 8 inches in diameter, three trees between 8 and 12 inches in diameter, and two trees over 12 inches in diameter, the rating score is: $(4 \times 1) + (2 \times 2) + (3 \times 4) + (2 \times 8) = 36$ points Thus, the 25 foot by 50 foot plot contains trees with 36 points. Trees totaling 12 points $(36 - 24 = 12)$ may be removed from the plot provided that no cleared openings are created. (Amended 6/15/09 R)

The following shall govern in applying this point system:

- i. The 25 foot by 50-foot rectangular plots must be established where the landowner or lessee proposes clearing within the required buffer;
- ii. Each successive plot must be adjacent to, but not overlap a previous plot;
- iii. Any plot not containing the required points must have no vegetation removed except as otherwise allowed by this Ordinance;
- iv. Any plot containing the required points may have vegetation removed down to the minimum points required or as otherwise allowed by this Ordinance;
- v. Where conditions permit, no more than 50% of the points on any 25-foot by 50-foot rectangular area may consist of trees greater than 12 inches in diameter. (Section added 6/15/09 R)

For the purposes of Section 211.2.D.1 "other natural vegetation" is defined as retaining existing vegetation under three (3) feet in height and other ground cover and retaining at least five (5) saplings less than two (2) inches in diameter at four and one half (4 1/2) feet above ground level for each 25-foot by 50-foot rectangular areas. If five saplings do not exist, no woody stems less than two (2) inches in diameter can be removed until 5 saplings have been recruited into the plot. (Section added 6/15/09 R)

Notwithstanding the above provisions, no more than 40% of the total volume of trees four (4)

inches or more in diameter, measured at 4 1/2 feet above ground level may be removed in any ten (10) year period.

- c. In order to protect water quality and wildlife habitat, existing vegetation under three (3) feet in height and other ground cover, including leaf litter and the forest duff layer, shall not be cut, covered, or removed, except to provide for a foot path or other permitted uses as described in Section 211.2.D.1 paragraphs 1(a) and (b) above. (Amended 6/15/09 R)
- d. Pruning of tree branches, on the bottom 1/3 of the tree is allowed. (Amended 6/15/09 R)
- e. In order to maintain a buffer strip of vegetation, when the removal of storm-damaged, diseased, unsafe, or dead trees results in the creation of cleared openings, these openings shall be replanted with native tree species unless existing new tree growth is present.

Section 211.2.D.1 does not apply to those portions of public recreational facilities adjacent to public swimming areas as long as cleared areas are limited to the minimum area necessary. (Amended 6/15/09 R)

211.2.D.2 At distances greater than seventy-five (75) feet, horizontal distance, from the normal high-water line of any water body, stream, or the upland edge of a wetland, there shall be allowed on any lot, in any ten (10) year period, selective cutting of not more than forty (40%) percent of the volume of trees four (4) inches or more in diameter, measured 4 1/2 feet above ground level. Tree removal in conjunction with the development of permitted uses shall be included in the forty (40%) percent calculation. For the purposes of these standards volume may be considered to be equivalent to basal area.

In no event shall cleared openings for any purpose, including but not limited to, principal and accessory structures, driveways, lawns and sewage disposal areas, exceed in the aggregate, 25% of the lot area within the shoreland area or ten thousand (10,000) square feet, whichever is greater, including land previously cleared. (Entire section amended 6/15/09)

211.2.D.3 Legally existing cleared openings may be maintained, but shall not be enlarged, except as allowed by this Ordinance. This rule applies specifically to continued maintenance, but not enlargement of lawns, gardens, and agricultural fields and pastures in existence at the effective date of this amendment. (11/18/02 R, 6/15/09 R)

211.2.D.4 Fields and other cleared openings which have reverted to primarily shrubs, trees, or other woody vegetation shall be regulated under the provisions of Section 211.2.D. (Amended 6/15/09 R)

211.2.D.5 The clearing of vegetation shall be limited to that which is necessary for permitted uses in the following areas:

- a. Areas within 250 feet, horizontal distance, of the upland edge of freshwater wetlands, salt marshes and salt meadows, and wetlands associated with great ponds and rivers, which are rated as "moderate" or "high" value waterfowl and wading bird habitat, including nesting and feeding areas, by the Maine Department of Inland Fisheries and Wildlife (MDIF&W) as depicted on a Geographic Information System (GIS) data layer maintained by MDIF&W or MDEP, and as shown on the Brunswick Official Zoning Map. (Amended 6/15/09 R)
- b. Flood plains adjacent to tidal waters, rivers and flood plains along artificially formed great ponds along rivers, defined by the 100-year flood plain as designated on the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Maps or Flood Boundary and Floodway Maps or the flood of record. (Amended 6/15/09 R)

- c. Areas of two (2) or more contiguous acres with sustained slopes of 20% or greater.
- d. Areas of two (2) or more contiguous acres of wetlands which are not part of a freshwater or coastal wetland and which are not surficially connected to a river, tidal waters or stream during the period of normal high water. (Amended 11/18/02 R, 6/15/09 R)
- e. Land along rivers subject to severe bank erosion, undercutting, or river bed movement and lands adjacent to tidal waters which are subject to severe erosion or mass movement, such as steep coastal bluffs. Land along the top of a coastal bluff that has been identified on Coastal Bluff maps as being “highly unstable” or “unstable” by the Maine Geological Survey pursuant to its “Classification of Coastal Bluffs” and published on the most recent Coastal Bluff map. (Amended 6/15/09 R)

211.2.D.6

The vegetation clearing standards of this ordinance can be exceeded on a temporary basis with prior written approval of the Codes Enforcement Officer under the following conditions:

- a. The work shall be completed by a qualified professional under the supervision of a public natural resource agency or municipal department exclusively for the purpose of controlling the spread of invasive species and restoring natural areas.
- b. Woody species removed that exceed the required stand scoring limits are non-native invasive species including: Norway Maple (*Acer platanoides*), Japanese barberry (*Berberis thunbergii*), Asiatic bittersweet (*Celastrus orbiculata*), glossy buckthorn (*Frangula alnus*), Morrow’s honeysuckle (*Lonicera morrowii*), Japanese honeysuckle (*Lonicera japonica*), Tartarian honeysuckle (*Lonicera tatarica*), multiflora rose (*Rosa multiflora*), or other species identified as woody invasive plants by the Maine Natural Areas Program (MNAP).

If removal of these species exceeds the required stand scoring limits, native species will be planted to return the area to compliance with the “well distributed stand” definition as specified in 211.2.D.1.b prior to the start of the next growing season.

- c. Non-native invasive woody species under three (3) feet in height and herbaceous invasive species including Japanese knotweed (*Fallopia japonica*), purple loosestrife (*Lythrum salicaria*), and other species identified as invasive plants by the Maine Natural Areas Program (MNAP) can be removed if the area is replanted and monitored for the successful establishment of native species at an equal or greater density than the species removed.
- d. Temporary erosion control measures shall be installed prior to the start of the activity if the invasive species removal effort has the potential to result in erosion of soil into the resource.
- e. All disturbed areas shall be permanently stabilized.
(Amended 11/18/02 R)

211.2.E

EROSION AND SEDIMENTATION CONTROL

211.2.E.1

Activities which involve filling, grading, excavation or other similar activities which result in unstabilized soil conditions and which require a permit shall also require a written soil erosion and sedimentation control plan. The plan shall be submitted to the Planning Board or Codes Officer in accordance with this ordinance for approval and shall include, where applicable, provisions for:

- a. Mulching and revegetation of disturbed soil.

- b. Temporary runoff control features such as hay bales, silt fencing or diversion ditches.
- c. Permanent stabilization such as retaining walls or rip rap.

- 211.2.E.2 In order to create the least potential for erosion, development shall be designed to fit with the topography and soils of the site. Areas of steep slopes where high cuts and fills may be required shall be avoided wherever possible, and natural contours shall be followed as closely as possible.
- 211.2.E.3 Erosion and sedimentation control measures shall apply to all aspects of the proposed project involving land disturbance, and shall be in operation during all stages of the activity. The amount of exposed soil at every phase of construction shall be minimized to reduce the potential for erosion.
- 211.2.E.4 Any exposed ground area shall be temporarily or permanently stabilized within one (1) week from the time it was last actively worked, by use of riprap, sod, seed, and mulch, or other effective measures. In all cases permanent stabilization shall occur within nine (9) months of the initial date of exposure. In addition:
- a. Where mulch is used, it shall be applied at a rate of at least one (1) bale per five hundred (500) square feet and shall be maintained until a catch of vegetation is established.
 - b. Anchoring the mulch with netting, peg and twine or other suitable method may be required to maintain the mulch cover.
 - c. Additional measures shall be taken where necessary in order to avoid siltation into the water. Such measures may include the use of staked hay bales and/or silt fences.
- 211.2.E.5 Natural and artificial drainage ways and drainage outlets shall be protected from erosion from water flowing through them. Drainage ways shall be designed and constructed in order to carry water from a twenty five (25) year storm or greater, and shall be stabilized with vegetation or lined with rip-rap.

211.2.F MINERAL EXPLORATION AND EXTRACTION

All mineral exploration and extraction must conform to requirements of Section 306.6 of this ordinance. Mineral exploration to determine the nature or extent of mineral resources shall be accomplished by hand sampling, test boring, or other methods which create minimal disturbance of less than one hundred (100) square feet of ground surface. A special exception from the Zoning Board of Appeals shall be required for mineral exploration which exceeds the above limitation.

All excavations, including test pits and holes shall be immediately capped, filled or secured by other equally effective measures, so as to restore disturbed areas and to protect the public health and safety. Mineral extraction may be permitted under the following conditions:

- 211.2.F.1 A reclamation plan shall be filed with, and approved by the Planning Board before a permit is granted. Such plan shall describe, in detail, procedures to be undertaken to fulfill the requirements of Section 211.2.F.3 below. (Amended 6/15/09 R)
- 211.2.F.2 No new gravel pits may be developed within the Shoreland Area unless it can be demonstrated that no reasonable alternative exists outside the zone. When gravel pits must be located within the zone, they shall be set back as far as practicable, and, at a minimum, in conformance with the setback standards below.

No part of any extraction operation, including drainage and runoff control features, shall be permitted within one hundred twenty five (125) feet, horizontal distance, of the normal high water

line of a river or tidal waters; or one hundred twenty-five (125) feet, horizontal distance, of the upland edge of a coastal or freshwater wetland; or seventy-five (75) feet, horizontal distance, of a stream. Gravel pits shall be screened from the resource(s) by vegetation. Extraction operations shall not be permitted within seventy-five (75) feet of any property line, without written permission of the owner of such adjacent property. (Amended 6/15/09 R)

(Section 3 omitted and renumbered 6/15/09)

211.2.F.3 Within twelve (12) months following the completion of extraction operations at any extraction site, which operations shall be deemed complete when less than one hundred (100) cubic yards of materials are removed in any consecutive twelve (12) month period, ground levels and grades shall be established in accordance with the following:

- a. All debris, stumps, and similar material shall be removed for disposal in an approved location, or shall be buried on site. Only materials generated on-site may be buried or covered on-site.
- b. The final graded slope shall be two and one half to one (2 1/2:1) or flatter. (Amended 6/15/09 R)
- c. Top soil or loam shall be retained to cover all disturbed land areas, which shall be reseeded and stabilized with vegetation native to the area. Additional top soil or loam shall be obtained from off-site sources if necessary to complete the stabilization project.

211.2.F.4 The Planning Board may impose such other considerations as necessary to minimize adverse impacts associated with mineral extraction operations on surrounding uses and resources.

211.2.G PIERS, DOCKS, WHARVES, BRIDGES AND OTHER STRUCTURES AND USES EXTENDING OVER OR BELOW THE NORMAL HIGH-WATER LINE OF A WATER BODY OR WITHIN A WETLAND

- a. Access from shore shall be developed on soils appropriate for such use and constructed so as to control erosion.
- b. The location shall not interfere with existing developed or natural beach areas.
- c. The facility shall be located so as to minimize adverse effects on fisheries.
- d. The facility shall be no larger in dimension than necessary to carry on the activity and be consistent with the surrounding character and uses of the area. A temporary pier, dock or wharf shall not be wider than six feet for non-commercial uses.
- e. No new structure shall be built on, over or abutting a pier, wharf, dock or other structure extending beyond the normal high-water line of a water body or within a wetland unless the structure requires direct access to the water body or wetland as an operational necessity.
- f. New permanent piers and docks on non-tidal waters shall not be permitted unless it is clearly demonstrated to the Codes Enforcement Officer that a temporary pier or dock is not feasible, and a permit has been obtained from the Department of Environmental Protection, pursuant to the Natural Resources Protection Act.
- g. No existing structures built on, over or abutting a pier, dock, wharf or other structure extending beyond the normal high-water line of waterbody or within a wetland shall be converted to residential dwelling units.

- h. Structures built on, over or abutting a pier, wharf, dock or other structure extending beyond the normal high-water line of a water body or within a wetland shall not exceed twenty (20) feet in height above the pier, wharf, dock or other structure.
- i. Commercial marine activities and piers, docks, wharves, breakwaters, causeways, marinas, bridges and other structures projecting into water bodies must conform to the provisions outlined in Section 306.7.

Note: New permanent structures, and expansions thereof, projecting into or over water bodies shall require a permit from the Department of Environmental Protection pursuant to the Natural Resources Protection Act, 38 M.R.S.A., section 480-C. Permits may also be required from the Army Corps of Engineers if located in navigable waters. (Section Amended 6/15/09 R)

211.2.H ROADS AND DRIVEWAYS

The following standards shall apply to the construction of roads and/or driveways and drainage systems, culverts and other related features.

211.2.H.1 Unless no reasonable alternative exists as determined by the Planning Board, roads and driveways shall be set back at least one-hundred twenty-five (125) feet, horizontal distance, from the normal high-water line of a river or tidal waters; one hundred twenty-five (125) feet, horizontal distance, from the upland edge of any coastal or freshwater wetland; seventy-five (75) feet from the normal high water line of a stream. If no reasonable alternative exists, the Planning Board may reduce the road and/or driveway setback to no less than fifty (50) feet upon clear showing by the applicant that appropriate techniques will be used to prevent sedimentation of the protected resource(s). Such techniques may include, but are not limited to, the installation of settling basins and/or the effective use of additional ditch relief culverts and turnouts placed so as to avoid sedimentation of the protected resource(s). (Amended 6/15/09 R)

On slopes of greater than twenty (20) percent the road and/or driveway setback shall be increased by ten (10) feet for each five (5) percent increase in slope above twenty (20) percent.

Section 211.2.H.1 does not apply to approaches to water crossings to roads or driveways that provide access to permitted structures and facilities located nearer to the shoreline or stream due to an operational necessity, excluding temporary docks for recreational uses. Roads and driveways providing access to permitted structures within the setback area shall comply fully with the requirements of Section 211.2.H.1 except for that portion of the road or driveway necessary for direct access to the structure.

211.2.H.2 New roads and driveways are prohibited in the areas described in section 211.2.A.1. except that the Planning Board may grant a permit to construct a road or driveway to provide access to permitted uses within the those areas, upon a finding that no reasonable alternative route or location is available outside of those areas, in which case the road and/or driveway shall be set back as far as practicable from the protected resource. (Amended 6/15/09 R)

211.2.H.3 Existing public roads may be expanded within the legal road right-of-way regardless of their setback from a water body, stream or wetland. (Amended 6/15/09 R)

211.2.H.4 Road and driveway banks shall be no steeper than a slope of two (2) horizontal to one (1) vertical, and shall be graded and stabilized in accordance with the provisions for erosion and sedimentation control contained in section 211.2.E. (Amended 6/15/09 R)

211.2.H.5 Road and driveway grades shall be no greater than ten (10) percent except for segments of less than two hundred (200) feet. (Amended 6/15/09 R)

211.2.H.6 In order to prevent road and driveway surface drainage from directly entering a protected resource, roads and driveways shall be designed, constructed, and maintained to empty onto an unscarified buffer strip at least fifty (50) feet plus two times the average slope in horizontal width between the outflow point of the ditch or culvert and the normal high water line of a river, tidal waters, stream, or upland edge of a coastal or freshwater wetland. The unscarified buffer strip along a stream shall be twenty-five (25) feet in horizontal width. Surface drainage which is directed to an unscarified buffer strip shall be diffused or spread out to promote infiltration of the runoff and to minimize channelized flow of the drainage through the buffer strip. (Amended 6/15/09 R)

211.2.H.7 Ditch relief (cross drainage) culverts, drainage dips and water turnouts shall be installed in a manner effective in directing drainage onto unscarified bufferstrips before the flow gains sufficient volume or head to erode the road, driveway or ditch. (Amended 6/15/09 R)

To accomplish this, the following shall apply:

- a. Ditch relief culverts, drainage dips and associated water turnouts shall be spaced along the road, or driveway at intervals no greater than indicated in the following table: (Amended 6/15/09 R)

Grade (in percent)	Spacing (in feet)
0-2	250
3-5	200-135
6-10	100-80
11-15	80-60
16-20	60-45
21+	40

- b. Drainage dips may be used in place of ditch relief culverts only where the grade is ten (10) percent or less. (Amended 6/15/09 R)
- c. On sections having slopes greater than ten (10) percent, ditch relief culverts shall be placed at approximately a thirty (30) degree angle downslope from a line perpendicular to the centerline of the road or driveway. (Amended 6/15/09 R)
- d. Ditch relief shall be sufficiently sized and properly installed in order to allow for effective functioning, and their inlet and outlet ends shall be stabilized with appropriate materials.

211.2.H.8 Ditches, culverts, bridges, dips, water turnouts and other storm water runoff control installations associated with roads and driveways shall be maintained on a regular basis to assure effective functioning.

211.2.I TIMBER HARVESTING

Section 211.2.I in its entirety is to be repealed on the statutory date established under 38 M.R.S.A. section 438-B(5), at which time the Bureau of Forestry will administer and enforce the statewide standards for timber harvesting in shoreland areas. (Added 6/15/09 R)

211.2.I.1 Timber Harvesting shall conform with the following provisions

- a. Selective cutting of no more than forty (40) percent of the total volume of trees four (4) inches

or more in diameter measured at 4 ½ feet above ground level on any lot in any ten (10) year period is permitted. In addition:

- i. Within seventy-five (75) feet, horizontal distance, of the normal high-water line of a river, tidal waters or stream; or within seventy-five (75) feet, horizontal distance, of the upland edge of a coastal or freshwater wetland; there shall be no clear-cut openings and a well-distributed stand of trees and other vegetation, including existing ground cover, shall be maintained. (Amended 6/15/09 R)
 - ii. In areas outside of those described in paragraph i. above, harvesting operations shall not create single clear-cut openings greater than ten-thousand (10,000) square feet in the forest canopy. Where such openings exceed five-thousand (5000) square feet they shall be at least one hundred (100) feet apart. Such clear-cut openings shall be included in the calculation of total volume removal. For the purposes of these standards volume may be considered to be equivalent to basal area.
- b. Timber harvesting operations exceeding the 40% limitation in paragraph a. above, may be allowed by the Planning Board upon a clear showing, including a forest management plan signed by a Maine licensed professional forester, that such an exception is necessary for good forest management and will be carried out in accordance with the purposes of this Ordinance. The Planning Board shall notify the Commissioner of the Department of Environmental Protection of each exception allowed, within fourteen (14) days of the Planning Board's decision.
 - c. No accumulation of slash shall be left within fifty (50) feet of the normal high-water line of a river, tidal waters or stream. In all other areas slash shall either be removed or disposed of in such a manner that it lies on the ground. Any debris that falls below the normal high- water line of a water body shall be removed. (Amended 6/15/09 R)
 - d. Timber harvesting equipment shall not use stream channels as travel routes.
 - e. All crossings of flowing water shall require a bridge or culvert, except in areas with low banks and channel beds which are composed of gravel, rock or similar hard surface which would not be eroded or otherwise damaged.
 - f. Skid trail approaches to water crossings shall be located and designed so as to prevent water runoff from directly entering the water body or stream. Upon completion of timber harvesting, temporary bridges and culverts shall be removed and areas of exposed soil revegetated.
 - g. Except for water crossings, skid trails and other sites where the operation of machinery used in timber harvesting results in the exposure of mineral soil shall be located such that an unscarified strip of vegetation of at least seventy-five (75) feet in width for slopes up to ten (10) percent shall be retained between the exposed mineral soils and the normal high water line of a river, tidal waters, or stream; or upland edge of a coastal or freshwater wetland. For each ten (10) percent increase in slope, the unscarified strip shall be increased by twenty (20) feet. The provisions of this paragraph apply only to a face sloping toward the river, tidal waters, stream, coastal wetland or freshwater wetland, provided however, that no portion of such exposed mineral soil on a back face shall be closer than twenty five (25) feet from the protected resource. (Amended 6/15/09 R)

In addition, an unscarified strip of vegetation of at least seventy-five (75) feet in width shall be retained between the exposed mineral soils and the normal high-water line of a stream.

211.2.J

CAMPGROUNDS

Campgrounds shall conform to the minimum requirements imposed under State licensing and permitting procedures and the following:

211.2.J.1

The areas intended for placement of a recreational vehicle, tent or shelter, and utility and service buildings, shall be set back a minimum horizontal distance of one hundred twenty-five (125) feet, horizontal distance, from the normal high-water mark line of a river or tidal waters, or the upland edge of a coastal or freshwater wetland; seventy-five (75) feet, horizontal distance from the normal high water line of a stream. (Amended 6/15/09 R)

211.2.J.2

Campgrounds shall contain a minimum of 5000 sq feet of land, not including roads and driveways, for each site. Land supporting wetland vegetation, and land below the normal high-water line of a water body shall not be included in calculating land area per site. (Added 6/15/09 R)

211.2.J.3

All campgrounds are subject to approval of the Planning Board through site plan review and the Department of Human Services.

211.2.K

SANITARY STANDARDS

As well as meeting all requirements of the State of Maine Subsurface Wastewater Disposal Rules, all on-site septic systems located within the Shoreland Area shall meet the following additional standards:

211.2.K.1

All parts of all types of subsurface wastewater disposal systems shall be setback a minimum horizontal distance of one hundred twenty-five (125) feet from the normal high water line of a river or tidal waters; one hundred twenty-five feet from the upland edge of a coastal or freshwater wetland; seventy-five (75) feet from the normal high water line of a stream (Amended 5/21/01, 6/15/09 R)

The clearing or removal of woody vegetation necessary to site a new system and any associated fill extensions shall not extend closer than one hundred twenty-five (125) feet, horizontal distance from the normal high water line of a river, tidal waters, or coastal or freshwater wetland; or within seventy-five (75) feet, horizontal distance, from the normal high water line of a stream. A holding tank is not allowed for a first-time residential use in the shoreland zone.

211.2.K.2

The Local Plumbing Inspector may approve a request concerning the setback of a replacement subsurface wastewater disposal system, if a report, prepared by a soils scientist or site evaluator registered in the State of Maine, is submitted and accepted stating that

- a. the existing system is failing
 - b. no suitable location exists outside the setbacks and
 - c. the proposed location meets the required setbacks to the great extent.
- (Amended 5/21/01)

211.2.K.3

Setbacks for new subsurface wastewater disposal facilities in the Shoreland Zone cannot be reduced by variances.

211.2.L

OVERBOARD DISCHARGE SYSTEMS

Overboard discharge from a sewage disposal system, in which sewage, chlorinated or otherwise, flows into a protected resource is prohibited. Systems licensed prior to the passage of this amendment may continue as long as they are in compliance with all appropriate state law and do not involve expansion of the existing system.

211.2.M

WATER QUALITY

No activity shall deposit on or into the ground or discharge to the waters of the State any pollutant that, by itself or in combination with other activities or substances will impair designated uses or the water classification of the water body, stream or wetland. (Amended 6/15/09 R)

211.2.N

SIGNS

The use of signs in the NRPZ must adhere to Sections 601 through 604. (Amended 6/15/09 R)

211.2.O

INDIVIDUAL PRIVATE CAMPSITES

Individual, private campsites not associated with campgrounds are allowed provided the following conditions are met: (Amended 6/15/09 R)

1. One campsite per lot existing on the effective date of this ordinance, or thirty thousand (30,000) s.f. of lot area within the shoreland zone, whichever is less, may be permitted.
2. Campsite placement on any lot, including the area intended for a recreational vehicle or tent platform, shall be setback one hundred twenty five (125) feet, horizontal distance, from the normal high water line of a river or tidal waters, or from the upland edge of a coastal or freshwater wetland; seventy-five (75) feet, horizontal distance from the normal high water line of a stream. (Amended 6/15/09 R)
3. Only one recreational vehicle shall be allowed on a campsite. The recreational vehicles shall not be located on any type of permanent foundation and no structure(s) except canopies shall be attached to the recreation vehicle. (Amended 6/15/09 R)
4. The clearing of vegetation for the sitting of the recreational vehicle, tent or similar shelter shall be limited to one thousand (1,000) s.f.
5. A written sewage disposal plan describing the proposed method and location of sewage disposal shall be required for each campsite and shall be approved by the Local Plumbing Inspector. Where disposal is off site, written authorization from the receiving facility or land owner is required.
6. No recreational vehicles, tent or similar shelter shall be placed on-site for more than one hundred and twenty (120) days per year.

211.2.P

SOILS

All land uses shall be located on soils in or upon which the proposed uses or structures can be established or maintained without causing adverse environmental impacts, including severe erosion, mass soil movement, improper drainage, and water pollution, whether during or after construction.

Proposed uses requiring subsurface waste disposal, and commercial or industrial development and other similar intensive land uses, shall require a soils report based on an on-site investigation and prepared by a state certified professional. Certified persons may include Maine Certified Soil Scientists, Maine Registered Professional Engineers, Maine State Certified Geologists and other persons who have training and experience in the recognition and evaluation of soil properties. The report shall be based upon the analysis of the characteristics of the soil and surrounding land and water areas, maximum ground water elevations, presence of ledge, drainage conditions, and other pertinent data which the evaluator deems appropriate. The soils report shall include recommendations for a proposed use to counteract soil limitations where they exist.

211.2.Q

ARCHAEOLOGICAL SITES

Any proposed land use activity involving structural development or soil disturbance on or adjacent to sites listed on, or eligible to be listed on the National Register of Historic Places, as determined by the Maine Historic Preservation Commission shall be submitted to that Commission for review and comment, at least twenty (20) days prior to action being taken by the permitting authority. The permitting authority shall consider comments received from the commission prior to rendering a decision on the application. A list of Historic Places compiled by the Maine Historic Preservation Commission will be kept on file in the Planning and Codes Enforcement Offices.

A permit is not required for an archaeological excavation as long as the excavation is conducted by an archaeologist listed on the State Historic Preservation Officer's level 1 or level 2 approved list, and unreasonable erosion and sedimentation is prevented by means of adequate and timely temporary and permanent stabilization measures. (Added 6/15/09 R)

211.2.R

PARKING AREAS

211.2.R.1

Parking areas shall meet the shoreline setback requirements for structures. If the Planning Board finds that no reasonable alternative exists, the setback requirement for parking areas serving public or private boat launching facility may be reduced to no less than fifty (50) feet from the normal high water line of a river, tidal waters, stream; or no less than fifty (50) feet from the upland edge of a coastal or freshwater wetland. (Amended 6/15/09 R)

211.2.R.2

Parking areas shall be designed to prevent stormwater runoff from flowing directly into a protected resource, and where feasible, to retain all runoff on site.

211.2.R.3

Parking areas shall conform with the design and performance standards of Section 512. In addition parking spaces for vehicles with boat trailers shall be 40' in length.

211.2.S

STORM WATER RUNOFF

211.2.S.1

All new construction and development shall be designed to minimize storm water runoff from the site in excess of the natural pre-development conditions. Where possible, existing natural runoff control features, such as berms, swales, terraces and wooded areas shall be retained in order to reduce runoff and encourage infiltration of stormwaters.

211.2.S.2

Direct discharge of stormwater into any water body shall be avoided.

211.2.S.3

Storm water runoff control systems shall be maintained as necessary to ensure proper functioning.

211.2.T

ESSENTIAL SERVICES

211.2.T.1

Where feasible, the installation of essential services shall be limited to existing public ways and existing service corridors.

211.2.T.2

The installation of essential services, other than road-side distribution lines, is not allowed in the Shoreland Area except to provide services to a permitted use within the district, or except where the applicant demonstrates that no reasonable alternative exists. Where allowed, such structures and facilities shall be located so as to minimize any adverse impacts on surrounding uses and resources, including visual impacts. (Amended 6/15/09 R)

211.2.T.3

Damaged or destroyed public utility transmission and distribution lines, towers and related equipment may be replaced or reconstructed without a permit. (Added 6/15/09 R)

211.3**REQUIREMENTS FOR SPECIAL FLOOD HAZARD AREAS**

The following requirements shall be met within the Special Flood Hazard Areas, Zones A, A1-A30, and V1-V30, as identified by the Federal Emergency Management Agency in the report "Flood Insurance Study - Town of Brunswick, Maine, Cumberland County" dated January 3, 1986 with accompanying "Flood Insurance Rate Map" (FIRM) and "Flood Boundary and Floodway Map" which is adopted by reference as a part of this Ordinance."

211.3.A**FLOOD HAZARD DEVELOPMENT PERMIT REQUIREMENTS**

All construction or other development (as defined in Section 111) in special flood hazard areas, including the placement of mobile homes, shall require a Flood Hazard Development Permit from the Code Enforcement Officer. This permit shall be in addition to any other permits which may be required by this Ordinance. No Flood Hazard Development Permit shall be issued until the Code Enforcement Officer has determined that all other necessary federal, state, and municipal permits have been obtained.

211.3.B**APPLICATION FOR FLOOD HAZARD DEVELOPMENT PERMITS**

The application for a Flood Hazard Development Permit shall be submitted to the Code Enforcement Officer and shall include:

- a. The name and address and phone numbers of the applicant, owner and contractor;
- b. An address and a map indicating the location of the construction site;

- c. A site plan showing location of existing and/or proposed development, including but not limited to, structures, sewage disposal facilities, water supply facilities, areas to be cut and filled, and the dimensions of the lot;
- d. A statement of the intended use and cost including all materials and labor of the structure and/or development;
- e. A statement as to the type of sewage system proposed.
- f. Specification of dimensions of the proposed structure and/or development;
- g. The elevation in relation to National Geodetic Vertical Datum (NGVD) or to a locally established datum in Zone A only, of the:
 - 1. base flood at the proposed site of all new or substantially improved structures, which is determined:
 - a. in Zones A1-30 and V1-30 from data contained in the "Flood Insurance Study - Town of Brunswick, Maine," as described above; or,
 - b. in Zone A, to be the elevation of the ground at the intersection of the floodplain boundary and a line perpendicular to the shoreline which passes along the ground through the site of the proposed building;
 - 2. highest and lowest grades at the site adjacent to the walls of the proposed building;
 - 3. lowest floor, including basement; and whether or not such structures contain a basement; and,
 - 4. level, in the case of non-residential structures only, to which the structure will be floodproofed;
- h. A description of an elevation reference point established on the site of all new or substantially improved structures;
- i. Either an Elevation Certificate (FEMA Form 81-31) by a Professional Land Surveyor, registered professional engineer or architect, or for non-residential structures to be floodproofed, a Floodproofing certificate (FEMA Form 81-65) completed by a registered professional engineer or architect. These certificates verify that the elevations shown on the application are accurate;
- j. Certification by a registered professional engineer or architect that:
 - 1. non-residential structures will meet the floodproofing criteria of section 211.3.B.g.4.; 211.3.E.2; and, other applicable standards or Section 211.3.E.
 - 2. construction in coastal high hazard areas, Zones V1-30 will meet the criteria of section 211.3.E. 11; and,

3. engineered hydraulic openings in foundation walls will meet the standards of section 211.3.E.7.2.
 4. bridges will meet the standards of section 211.3.E.8.
 5. containment walls will meet the standards of section 211.3.E.9.
- k. A description of the extent to which any water course will be altered or relocated as a result of the proposed development; and,
 - l. A statement of construction plans describing in detail how each applicable development standard in section 211.3.E will be met.

211.3.C

REVIEW STANDARDS FOR FLOOD HAZARD DEVELOPMENT PERMIT APPLICATIONS

The Code Enforcement Officer shall:

- a. Review all applications for the Flood Hazard Development Permit to assure that proposed developments are reasonably safe from flooding and to determine that all pertinent requirements of Section 211.3.E (Development Standards) have, or will be met;
- b. Utilize, in the review of all Flood Hazard Development Permit applications, the base flood data contained in the "Flood Insurance Study - Town of Brunswick, Maine," as described in section 211.3. In special flood hazard areas where base flood elevation data are not provided, the Code Enforcement Officer shall obtain, review and reasonably utilize any base flood elevation and floodway data from federal, state, or other sources.
- c. Make interpretations of the location of boundaries of special flood hazard areas shown on the maps described above;
- d. In the review of Flood Hazard Development Permit applications, determine that all necessary permits have been obtained from those federal, state, and local government agencies from which prior approval is required by federal or state law, including but not limited to Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C.1334;
- e. Notify adjacent municipalities, the Department of Environmental Protection, and the Maine Floodplain Management Program in the State Planning Office prior to any alteration or relocation of a water course and submit copies of such notifications to the Federal Emergency Management Agency;
- f. Issue one of the following Flood Hazard Development Permits based on the type of development:
 - (a) Issue a two part Flood Hazard Development Permit for elevated structures. Part I shall authorize the applicant to build a structure to and including the first horizontal floor only above the base flood level. At that time the applicant shall provide the Code Enforcement Officer with a second Elevation Certificate completed by a professional land surveyor, engineer, or architect based on the Part I permit construction, "as built" for verifying compliance with the elevation requirements of section 211.3.E.1., 2., 3., or 11. Following review of the Elevation Certificate the Code Enforcement Officer shall issue Part II of the Flood Hazard Development Permit. Part II shall authorize the applicant to complete the construction project; or

- (b) Issue a Flood Hazard Development permit for floodproofing of non-residential structures that are new construction or substantially improved non-residential structures that are not being elevated but that meet the flood proofing standards of section 211.3.E.2.1.a., b., and c. The application for this permit shall include a Floodproofing Certificate signed by a registered professional engineer or architect; or
- (c) Issue a Flood Hazard Development Permit for Minor Development for all development that is not new construction or a substantial improvement, such as repairs, maintenance, renovations, or additions, whose value is less than 50% of the market value of the structure. Minor development also includes, but is not limited to: accessory structures as provided in section 211.3.E.5, mining, dredging, filling, grading, paving, excavation, drilling operations, storage of equipment or materials, deposition or extraction of materials, public or private sewage disposal systems or water supply facilities that do not involve structures; and non-structural projects such as bridges, dams, towers, fencing, pipelines, wharves, and piers.
- g. Maintain, as a permanent record, copies of all flood Hazard Development Permits issued and data relevant thereto, including reports of the Board of Appeals on variances granted under the provisions of Chapter 703 of this Ordinance, and copies of Elevation Certificates, Floodproofing Certificates and Certificates of Compliance required under the provisions of this Ordinance.

211.3.D. CERTIFICATE OF COMPLIANCE

No land in a special flood hazard area shall be occupied or used and no structure which is constructed or substantially improved shall be occupied until a Certificate of Compliance is issued by the Code Enforcement Officer subject to the following provisions:

- a. The applicant shall submit an Elevation Certificate completed by:
 - 1. a Professional Land Surveyor for compliance with section 211.3.E.1-3 or 11; and,
 - 2. a registered professional engineer or architect, in the case of:
 - (a) floodproofed non-residential structures, for compliance with section 211.3.E.2; and,
 - (b) construction of structures in the coastal floodplains for compliance with section 211.3.E.11.
- b. Written notification that the development is complete and complies with this ordinance shall be submitted by the applicant in writing along with a completed Elevation Certificate to the Code Enforcement Officer.

- c. The Code Enforcement Officer shall review the application and shall issue a Certificate of Compliance, provided the building conforms with the provisions of this Ordinance.

211.3.E

DEVELOPMENT STANDARDS IN FLOOD HAZARD AREAS

All developments in areas of special flood hazard shall meet the following applicable standards:

- (1) All development shall be designed or modified and anchored to prevent flotation (excluding piers and docks), collapse, or lateral movement resulting from the hydrodynamic and hydrostatic loads, including the effects of buoyancy.
- (2) Construction material and utility equipment must be resistant to flood damage.
- (3) Construction methods and practices shall be used to minimize flood damage.
- (4) All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the systems.
- (5) All new and replacement sanitary sewage systems including on-site waste disposal systems, shall be designed, located and constructed to minimize or eliminate infiltration of flood waters into the system and discharges from the systems into flood waters.
- (6) All electrical, heating, ventilation, plumbing, and air conditioning equipment, and other service facilities shall be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.
- (7) All development associated with altered or relocated portions of a water course shall be constructed and maintained in such a manner that no reduction occurs in the flood carrying capacity of the water course.

211.3.E.1

RESIDENTIAL STRUCTURES

New construction or the substantial improvement of any residential structures located within:

- (1) Zones A1-A30, shall have the lowest floor (including the basement), elevated at least one foot above the base flood elevation.
- (2) Zone A shall have the lowest floor (including basement) elevated to at least one foot above the base flood elevation utilizing elevation information available from federal, state and other sources.
- (3) Zones V1-30 shall meet the requirements of section 211.3.E.11.

211.3.E.2

NON-RESIDENTIAL STRUCTURES

New construction or substantial improvement of any non-residential structures located within:

- (1) Zones A1-30, shall have the lowest floor (including basement) elevated to at least one foot above the base flood elevation, or together with attendant utility and sanitary facilities shall:
 - a. be floodproofed to at least one foot above the base flood elevation so that below that elevation the structure is watertight with walls substantially impermeable to passage of water;
 - b. have structural components capable of resisting hydrostatic and hydrodynamic loads and the effects of buoyancy; and,
 - c. be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting the provisions of this section. Such certification shall be provided with the application for a Flood Hazard Development Permit, and shall include a record of the elevation above mean sea level to which the structure is flood proofed.
- (2) Zone A shall have the lowest floor (including basement) elevated to at least one foot above the base flood elevation by utilizing elevation information elevation available from federal, state or other sources or together with attendant utility and sanitary facilities meet the floodproofing standards of section 211.3.E.2.(1).
- (3) Zones V1-30 shall meet the requirements of section 211.3.E.11.

211.3.E.3 MOBILE HOMES

New or substantially improved mobile homes located within:

- (1) Zones A1-30 shall:
 - a. be elevated on a permanent foundation such that the lowest floor is at least one foot above the base flood elevation; and,
 - b. be securely anchored to an adequately anchored foundation system to resist flotation, collapse, or lateral movement. Methods of anchoring may include, but are not limited to:
 - (1) over-the-top ties anchored to the ground at the four corners of the manufactured home, plus two additional ties per side at intermediate points (modular housing less than 50 feet long require one additional tie per side); or by,
 - (2) frame ties at each corner of the home, plus five additional ties along each side at intermediate points (modular housing less than 50 feet long require four additional ties per side).
 - (3) All components of the anchoring system described above shall be capable of carrying a force of 4800 pounds.

- (2) Zone A shall be elevated on a permanent foundation such that the lowest floor is elevated to at least one foot above the base flood elevation as determined by utilizing information on the base flood elevation available from federal, state and other sources.
- (3) Zones V1-30 shall meet the requirements of section 211.3.E.11.

211.3.E.4 RECREATIONAL VEHICLES

Recreation vehicles located within:

- (1) Zones A1-30 shall either:
 - a be on the site for fewer than 180 consecutive days,
 - b be fully licensed and ready for highway use. A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions; or,
 - c be permitted in accordance with the elevation and anchoring requirements for "modular housing" in section 211.3.E.3.(1).a and b.
- (2) Zones V1-30 shall meet the requirements of either section 211.3.E.4.(1).a or b or 211.3.E.11.

211.3.E.5 ACCESSORY STRUCTURES

Accessory structures as defined in Section 111, located within Zones A1-30 and A, shall be exempt from the elevation criteria required in section 211.3.E.1 and 2, if all other requirements of section 211.3.E and all the following requirements are met. Accessory Structures shall:

- (1) be 500 square feet or less and have a value less than \$3,000.
- (2) have unfinished interiors and not be used for human habitation.
- (3) have hydraulic openings, as specified in section 211.3.E.7.(2).b.3 in at least two different walls of the accessory structure.
- (4) be located outside the floodway.
- (5) when possible be constructed and placed on the building site so as to offer the minimum resistance to the flow of floodwater and be placed further from the source of flooding than is the primary structure.
- (6) have only ground fault interrupt electrical outlets. The electric service disconnect shall be located above the base flood elevation and when possible outside the Special Flood Hazard Area.

211.3.E.6 FLOODWAYS

- (1) In Zones A1-30 encroachments, including fill, new construction, substantial improvement, and other development shall not be permitted in riverine areas, for which a regulatory floodway is designated on the community's "Flood Boundary and Floodway Map," unless the alteration is a necessity and a technical evaluation certified by a registered professional engineer is provided demonstrating that such encroachments will not result in any increase in flood levels within the community during the occurrence of the base flood discharge.
- (2) In Zones A1-30 riverine areas, for which no regulatory floodway is designated, encroachments, including fill, new construction, substantial improvement, and other development shall not be permitted on the floodway as determined in section 211.3.E.6.(3) unless a technical evaluation certified by a registered professional engineer is provided demonstrating that the cumulative effect of the proposed development, when combined with all other existing development and anticipated development:
 - a. will not increase the water surface elevation of the base flood more than one foot at any point within the community; and
 - b. is consistent with the technical criteria contained in Chapter 5 entitled "Hydraulic Analyses," Flood Insurance Study - Guidelines and Specifications for Study Contractors, (FEMA 37/January 1995, as amended).
- (3) In Zones A1-30 and A, riverine areas for which no regulatory floodway is designated, the regulatory floodway is determined to be the channel of the river or other water course and the adjacent land areas to a distance of one-half the width of the floodplain as measured from the normal high water mark to the upland limit of the floodplain. Encroachments, including fill, new construction, substantial improvement, and other development shall not be permitted unless a technical evaluation certified by a registered professional engineer is provided meeting the requirements of section 211.3.E.6.(2).a and b.

211.3.E.7 ENCLOSED AREAS BELOW THE LOWEST FLOOR

New construction or substantial improvement of any structure in Zones A1-30 and A that meets the development standards in section 211.3.E including the elevation requirements of section 211.3.E.1., 2., or 3 and is elevated on posts, columns, piers, piles, "stilts," or crawl spaces may be enclosed below the base flood elevation requirements provided all the following criteria are met or exceeded:

- (1) Enclosed areas are not "basements" as defined in Section 111.
- (2) Enclosed areas shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of flood water. Designs for meeting this requirement must either:
 - (a) be engineered and certified by a registered professional engineer or architect; or

(b) meet or exceed the following minimum criteria:

1. A minimum of two openings having a total net area of not less than one square inch for every square foot of the enclosed area;
 2. The bottom of all openings shall be no higher than one foot above the lowest grade; and,
 3. openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the entry and exit of flood waters automatically without any external influence or control such as human intervention, including the use of electrical and other non-automatic mechanical means;
- (3) The enclosed area shall not be used for human habitation; and,
- (4) The enclosed areas are usable solely for building access, parking vehicles, or storing of articles and equipment used for maintenance of the building.

211.3.E.8 BRIDGES

New construction or substantial improvement of any bridge located within Zone A1-30 and V1-30 shall be designed such that:

- (1) when possible, the lowest horizontal member (excluding the pilings, or columns) is elevated to at least one foot above the base flood elevation; and
- (2) a registered professional engineer shall certify that:
 - a. the structural design and methods of construction shall meet the elevation requirements of this section and the floodway standards of section 211.3.E.6; and
 - b. the foundation and superstructure attached thereto is anchored to resist flotation, collapse and lateral movement due to the effects of wind and water loads acting simultaneously on all structural components. Water loading values used shall be those associated with the base flood.

211.3.E.9 CONTAINMENT WALLS

New construction or substantial improvement of any containment wall located within:

- (1) Zones A1-30 and V1-30 shall:
 - a. have the containment wall elevated to at least one foot above the base flood elevation;
 - b. have structural components capable to resisting hydrostatic and hydrodynamic loads and the effects of buoyancy; and

- c. be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting the provisions of this section. Such certification shall be provided with the application for a Flood Hazard Development Permit, as required by section 211.3.B.j.
- (2) Zone A shall have the containment wall elevated to at least one foot above the base flood elevation utilizing information obtained pursuant to section 211.3.B.g or 211.3.C.b.

211.3.E.10 WHARVES, PIERS AND DOCKS

New construction or substantial improvement of wharves, piers and docks are permitted in Zone A, A1-30 and V1-30, in and over water and seaward of the mean high tide if the following requirements are met:

- (1) wharves, piers, and docks shall comply with all applicable local, state, and federal regulations; and
- (2) commercial wharves, piers, and docks involving fill shall adhere to the design and construction standards contained in the U.S. Army Corps of Engineers' "Shore Protection Manual".

211.3.E.11 COASTAL FLOODPLAINS

- (1) All new construction located within Zones A1-30, A, and V1-30 shall be located landward of the reach of the mean high tide except as provided in section 211.3.E.11.(8).
- (2) New construction or substantial improvement of any structure located within Zones V1-30 shall:
 - a. be elevated on posts or columns such that:
 - (1) the bottom of the lowest structural member of the lowest floor (excluding the pilings or columns) is elevated to one foot above the base flood elevation;
 - (2) the pile or column foundation and the elevated portion of the structure attached thereto is anchored to resist flotation, collapse, and lateral movement due to the effects of wind and water loads acting simultaneously on all building components; and,
 - (3) water loading values used shall be those associated with the baseflood. Wind loading values used shall be those required by applicable state and local building standards.
 - b. have the space below the lowest floor:
 - (1) free of obstructions; or,

- (2) constructed with open wood lattice-work, or insect screening intended to collapse under wind and water without causing collapse, displacement, or other structural damage to the elevated portion of the building or supporting piles or columns; or,
 - (3) constructed with non-supporting breakaway walls which have a design safe loading resistance of not less than 10 or more than 20 pounds per square foot.
- c. A registered professional engineer or architect shall:
- (1) develop or review the structural design, specifications, and plans for the construction, which must meet or exceed the technical criteria contained in the Coastal Construction Manual, (FEMA-55/February, 1986); and,
 - (2) certify that the design and methods of construction to be used are in accordance with accepted standards of practice for meeting the criteria of section 211.3.E.11(2).
- d. The use of fill for structural support in Zones V1-30 is prohibited.
- e. Human alteration of sand dunes within Zones V1-30 is prohibited unless it can be demonstrated that such alterations will not increase potential flood damage.
- f. The enclosed areas may be used solely for parking vehicles, building access, and storage.
- g. Lobster sheds and fishing sheds located seaward of mean high tide shall be exempt from the elevation requirement in section 211.3.E.2 and are permitted by the Planning Board if all the following requirements and those of section 211.3.E.6 and 7 are met and a Public Hearing is held:
- 1. The sheds shall be limited to low value structures such as metal or wood sheds 200 square feet or less and shall not exceed more than one story.
 - 2. The structure shall be securely anchored to the wharf or pier to resist flotation, collapse, and lateral movement due to the effect of wind and water loads acting simultaneously on all building components.
 - 3. The structure will not adversely increase wave or debris impact forces affecting nearby buildings.
 - 4. The structure shall have unfinished interiors and shall not be used for human habitation.
 - 5. Any mechanical, utility equipment and fuel storage tanks must be anchored and either elevated or flood proofed to one foot above the base flood elevation.

6. All electrical outlets shall be ground fault interrupt type. The electrical service disconnect shall be located on shore above the base flood elevation and when possible outside the Special Flood Hazard Area.

211.3.F

WARNING AND DISCLAIMER OF LIABILITY

The degree of flood protection required by this ordinance is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increases by man-made or natural causes. This ordinance does not imply that land outside the areas of special flood hazard or uses permitted with such areas will be free from flooding of flood damages. This ordinance shall not create liability on the part of the Town of Brunswick or by any officer or employee thereof for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made thereunder.

211.4

LAND INCORRECTLY DELINEATED AS PART OF THE NATURAL RESOURCE PROTECTION ZONE

211.4.A In a case where the Special Flood Hazard Area boundary is believed to be incorrectly delineated, the property owner may apply to the Federal Emergency Management Agency for a Letter of Map Correction as outlined in the National Flood Insurance Program Regulations 44 CFR Part 65.

211.4.B In a case where a Shoreland Area boundary determination is appealed to the Zoning Board of Appeals, the owner or applicant shall show where the bounds should properly be located with a report submitted and accepted from a registered professional engineer, registered geologist or other appropriate professional acceptable to the Board.

(Section 211 was amended in its entirety on 1/19/99 R)