

New Hampshire Menu of Higher Floodplain Management Standards

In 2018, the Menu of Higher Floodplain Management Standards document was developed by the New Hampshire Floodplain Management Program, to assist New Hampshire municipalities with incorporating regulations that exceed the minimum federal regulations required to participate in the National Flood Insurance Program (NFIP) into their existing floodplain regulations. Adopting higher floodplain standards can improve a municipality's resiliency to future floods by reducing potential: loss of human life; property and environmental damage; displacement of residents; disruption of businesses; and the burden on community infrastructure, services, and staff. Certain higher standards including In addition, higher floodplain standards can help a municipality earn credit points through the [Community Rating System \(CRS\)](#), which is a voluntary incentive program administered by the Federal Emergency Management Agency (FEMA) that an NFIP community in good standing can apply to join and actively participate. Municipalities that propose to adopt higher standards should submit a draft of the ordinance amendments to the NH Floodplain Management Program staff at the [NH Office of Planning and Development](#) to ensure the municipality's floodplain regulations remain in compliance with the NFIP.

Effective in July 2022, the [NH State Building Code](#) references the [2018 International Building Code \(IBC\) and Internation Residential Code \(IRC\)](#) and [ASCE 24-14 \(Flood Resistant Design and Construction\)](#), which includes higher standards that exceed the NFIP minimum requirements. The higher standards that are required by the State Building Code are noted in this document. It is highly recommended that municipalities incorporate these higher standards in their floodplain regulations to ensure compliance with the State Building Code.

In this document, each higher standard includes the following sections: a description of the higher standard, which summarizes the key benefits of adopting the higher standard; a list of the NH municipalities that have adopted the higher standard; sample model ordinance language and/or ordinance language examples from NH municipalities that have adopted the higher standard; and CRS credit information. A Higher Floodplain Management Standards Resources section provides website links to resources that provide general or specific information about the higher standards that are featured in this document.

2024 Menu Update:

As part of the NOAA funded Flood Smart Seacoast Project, staff from the NH Coastal Program, with advisory support from the NH Floodplain Management Program at the Office of Planning and Development, updated and expanded the 2018 Menu of Higher Floodplain Management Standards to include additional higher standards that have been adopted in coastal communities including regulations that account for future coastal flood risk including sea-level rise and storm surge.

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NH Menu of Higher Floodplain Management Standards

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1. Structure Development Standards

1A: Elevation of Structures and/or Utilities and Mechanicals (Freeboard)

Freeboard is a margin of safety added to the base flood elevation to account for waves, debris, miscalculations, lack of data, or changes in climate. In addition, freeboard is a nautical term that is used to describe the elevation requirement of a structure's lowest floor above the base flood elevation. Freeboard is the single most effective means for reducing flood risk to a structure in the floodplain. Other benefits include less flood damage in the community, less suffering, less business interruption, quicker recovery, and higher property values. The additional height above the base flood elevation provides not only additional protection to the structure's lowest floor but can also provide the property owner with savings on their flood insurance policy. The elevation of utilities and mechanicals to at least the same level required for the lowest floor provides an added measure of safety and flood damage reduction to those utilities and mechanicals. Flood insurance policyholders may receive a five percent mitigation discount if certain covered utilities and mechanicals servicing the building, whether inside or outside the building, are elevated to at least the elevation of the floor above the building's first floor.

The National Flood Insurance Program (NFIP) requires that the lowest floor of residential structures be elevated to or above the base flood elevation and that non-residential structures be elevated or floodproofed to or above the base flood elevation. In addition, the NFIP minimum regulations require that electrical, heating, ventilation, plumbing, and air conditioning equipment, and other service facilities are located and constructed to minimize or eliminate flood damage.

NH State Building Code Requires a Freeboard for All Structures in Special Flood Hazard Areas

As noted below, the NH State Building Code requires all new construction and substantial improvements of structures located in a special flood hazard area be elevated at least one-foot above the base flood elevation.

Residential Structures: The [2018 IRC](#) requires the lowest floor for all new construction and substantial improvements in a special flood hazard area be elevated to the base flood elevation plus 1 foot.

Non-Residential Structures: The [2018 IBC/ASCE 24-14](#) requires various lowest floor elevations based on the structure's Flood Design Class and are higher for certain uses, high occupancy buildings, and critical and essential facilities. The lowest floor requirements for all new construction and substantial improvements of non-residential structures located in a special flood hazard area are: base flood elevation plus 1 foot for Flood Design [Classes 2 and 3](#) and base flood elevation plus 2 feet or to the 0.2-percent-annual-chance flood elevation, whichever is higher for [Flood Design Class 4](#). In addition, the 2018 IBC and ASCE 24-14 requires mechanical, plumbing, and electrical systems and other service equipment must be located at or above the elevation required for the lowest floor, as noted above. An exception allows these systems and equipment to be below the required elevation if they are designed and installed to prevent water from entering or accumulating within the components and in accordance with ASCE 24-14.

NH MUNICIPALITIES WITH HIGHER STANDARD

- Allenstown (2 ft)
- Dover (2 ft)
- Durham (2 ft)
- Exeter (2 ft)
- Hampton (1 to 3 ft)
- Madbury (2 ft)
- Nashua (CRS community) (1 ft)
- Portsmouth (2 ft new construction) (1 ft substantial improvement)
- Rollinsford (2 ft)
- Rye (2 ft)
- Winchester (CRS community) (1 ft)

SAMPLE ORDINANCE LANGUAGE

Model Floodplain Ordinance Language

Section 10 – Structure Requirements (Zones A, AE, AO)

- A. *New construction of a structure or an existing structure to be substantially improved or replaced, or that has incurred substantial damage, or the placement or substantial improvement of a manufactured home located in Zones A, AE, and AO shall have the lowest floor elevated at least [Insert either: one foot, two feet, or three feet above] the base flood elevation.*
- B. *New construction of a non-residential structure, or an existing non-residential structure to be substantially improved or replaced, or that has incurred substantial damage, located in a special flood hazard area shall:*
- 1. Have the lowest floor elevated at least [Insert either: to, one foot, two feet, or three feet above] the base flood elevation; or*
 - 2. Together with attendant utility and sanitary facilities:*
 - a. Be floodproofed at least [Insert either: one foot, two feet, or three feet above] the base flood elevation so that below this elevation the structure is watertight with walls substantially impermeable to the passage of water;*

Section 12 – Manufactured Homes (Zones A, AE, AO)

- A. *A new manufactured home to be placed, or an existing manufactured home to be substantially improved or replaced, or that has incurred substantial damage, located in a special flood hazard area shall:*
- 1. Have the lowest floor elevated at least [Insert either: to, one foot, two feet, or three feet above] the base flood elevation;*

Municipality Ordinance Language Examples

A. City of Nashua: Structure and Manufacturing Homes Freeboard Requirements

Zoning Ordinance Chapter 190, Part 2, Section 190-68 Special flood hazard areas

Criteria. The Administrative Officer's one-hundred-year flood elevation determination will be used as criteria for requiring in Zones A, AE and AO that:

1. All new construction or substantial improvement of residential structures have the lowest floor (including basement) elevated at least one foot above the 100-year flood elevation.
2. That all new construction or substantial improvements of nonresidential structures have the lowest floor (including basement) elevated at least one or two feet above the one-hundred-year flood level depending on the Flood Design Class (one foot for Flood Design Classes 1, 2 and 3 and two feet for the 500-year flood elevation, whichever is higher for Flood Design Class 4) or to the design flood elevation, whichever is higher or, together with attendant utility and sanitary facilities, shall:
 - a. Be floodproofed so that below the one-hundred-year flood elevation the structure is watertight with walls substantially impermeable to the 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.
3. All manufactured homes to be placed or substantially improved within special flood hazard areas shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is at least one foot above the base flood level; and be securely anchored to resist floatation, collapse, or lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors.

B. City of Nashua: Residential Development’s Utilities and Mechanicals Freeboard Requirement to Meet CRS Class 8 Prerequisite

Zoning Ordinance Chapter 190, Part 2, Section 190-63 Construction requirements

The Department of Building Safety shall review all building permit applications for new construction or substantial improvements to determine whether proposed building sites will be reasonably safe from flooding. If a proposed building site is located in a special flood hazard area, all development shall:

- E. All residential development, including new construction, placements of new manufactured homes, and substantial improvements, be constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment, and other service facilities that are located at least one foot above base flood elevation so as to prevent water from entering or accumulating within the components during conditions of flooding.

C. Town of Allenstown: Structure, Manufactured Home, and Utilities and Mechanicals Freeboard Requirements

Zoning Ordinance Chapter 15, Section 1511 Development Standards

1. General Standards within the Flood Hazard Overlay District:
 3. All new construction and additions to any residential or nonresidential structure shall have the

lowest floor, including basement, together with attendant utility and sanitary facilities, elevated to no lower than two feet above the base flood elevation.

4. All utilities, including electrical, heating, ventilation, plumbing, air conditioning, and other service facilities, including ductwork shall be elevated or made of flood resistant materials up to two feet above base flood elevation, and designed and located to prevent water from entering or accumulating within the components during conditions of flooding.

Additional Standards for Manufactured Homes All manufactured homes to be placed or substantially improved within special flood hazard areas shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is at least two feet above the base flood level; and be securely anchored to resist flotation, collapse, or lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors.

COMMUNITY RATING SYSTEM (CRS)

Activity 432b - Freeboard (FRB) (Up to 500 points available)

Freeboard must be applied to the elevation of the lowest floor of the building or to the elevation to which a non-residential building is dry floodproofed, and to all components of the building, including all utilities, ductwork, and attached garages. More points are provided if the community prohibits buildings on fill or requires compensatory storage if filling is used.

The number of points based on freeboard elevation and filling requirements is shown in the table below.

Freeboard	No filling restrictions	Compensatory storage required	Fill prohibited
1 foot	100	110	120
2 feet	225	250	280
3 feet	375	440	500

No CRS points for freeboard are available solely for utilities and mechanicals but to receive CRS credit points this requirement must be also included in the ordinance.

Community Rating System Class 8 or Better Prerequisite:

In January 2021, a new Community Rating System [Class 8 prerequisite](#) was implemented for freeboard for all participating and new CRS communities. To become a Class 8, a community must adopt and enforce at least a 1-foot freeboard requirement (including machinery and equipment) for all residential buildings constructed, substantially improved, and/or reconstructed due to substantial damage, throughout its Special Flood Hazard Area (SFHA) where base flood elevations have been determined on the Flood Insurance Rate Map (FIRM) or in the Flood Insurance Study (FIS).

1B: Elevation of Structures and Utilities/Mechanicals with Sea Level Rise Design Flood Elevations and Maximum Height Exceedance Provisions

While coastal communities are dealing with present-day coastal flooding, they must also assess and determine how to address future coastal flooding. One way to achieve this is to incorporate best available coastal flood risk science and guidance into their land use and development regulations. In accordance with [NH's 2019-2020 Coastal Flood Risk Summary](#), the town of Hampton developed Sea Level Rise Design Flood Elevation (SLR DFE) requirements that account for sea level rise for a structure in a special flood hazard area that is new construction or a substantial improvement. The SLR DFE equals the Base Flood Elevation plus a freeboard, which accounts for anticipated sea level rise and varies based on the structure's flood design classification, which is based on use or occupancy and established by the ASCE 24-14 standard that is referenced in NH's State Building Code. To account for higher freeboard requirements, coastal communities must also consider the impact on the municipality's maximum height requirements for structures.

NH MUNICIPALITIES WITH HIGHER STANDARD

- Hampton
- Rye (maximum height exceedance provisions only)

SAMPLE ORDINANCE LANGUAGE

Municipality Ordinance Examples

A. **Town of Hampton: Sea-Level Rise Design Flood Elevations for Structures and Utilities/Mechanicals and Maximum Height Exceedance Provisions**

Zoning Ordinance Article II, Section 2.4.2 Definitions:

Flood Design Class: Classification established by ASCE 24-14 Standard, referenced in the NH State Building Code for nonresidential structures. Assigned to buildings and structures based on use or occupancy. Bases requirements on the risk associated with unacceptable performance.

Sea Level Rise Design Flood Elevation (SLR DFE): The elevation to which buildings in Special Flood Hazard Areas must be built to account for sea level rise. SLR DFE equals the Base Flood Elevation plus freeboard plus anticipated sea level rise.

Zoning Ordinance Article II, Section 2.4.7 Floodplain Development Requirements

- A. *General Requirements. All development in a special flood hazard area shall:*

4. *Be constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment, and other service facilities that must be elevated to the Sea Level Rise Design Flood Elevation in Table 1 (and determined by the Floodplain Administrator in Section 2.4.8).*

Zoning Ordinance Article II, Section 2.4.9 Structure Requirements

A. **Standards for Structures.** *In all special flood hazard areas, except for Zone VE, the following requirements for new construction or substantial improvement of any structure must be met:*

1. **Elevation Requirements.** *The lowest floor of a structure shall be elevated to the Sea Level Rise Design Flood Elevation as referenced in Table 1 (and determined by the Floodplain Administrator in Section 2.4.8). If the elevation of the structure's lowest floor above base flood elevation results in the exceedance of the maximum height requirements (in feet) provided in Article IV, Section 4.4, then the maximum height requirements (in feet) shall be increased by the elevation amount (in feet) that exceeds the maximum height requirement, up to 3 feet.*

3. **Manufactured Homes:**

- a. *Shall meet the elevation requirements in Section 2.4.9(A)(1).*

B. **Floodproofing of Non-Residential Structures and Certification.** *In all special flood hazard areas, except for Zone VE, the following requirements for new construction or substantial improvement of a non-residential structure that does not meet the elevation requirements stated in Section 2.4.9(A), shall meet the following requirements:*

1. *The structure, including the basement or crawlspace floor, shall be flood proofed or elevated at least one foot above the base flood elevation to the Sea Level Rise Design Flood Elevation as referenced in Table 1 (as determined by the Floodplain Administrator in Section 2.4.8) so that below this elevation the structure is watertight with walls substantially impermeable to the passage of water together with attendant utility and sanitary facilities. The structure shall have structural components are capable of resisting hydrostatic and hydrodynamic forces and the effects of buoyancy.*

Zoning Ordinance Article II, Section 2.4.11 Coastal High Hazard Areas (Zone VE)

C. **Construction Standards.** *New construction or substantial improvement of any structure including manufactured homes to be placed or substantially improved within Zone VE shall:*

1. *Be elevated on pilings and columns such that: a. the bottom of the lowest horizontal structural member of the lowest floor (excluding the pilings or columns) is elevated to the Sea Level Rise Design Flood Elevation as referenced in Table 1 (and determined by the Floodplain Administrator in Section 2.4.8) with allowance to exceed the maximum height requirements by up to 3 feet consistent with Section 2.4.9(A)(1);*

Hampton Table 1: Sea-level Rise Design Flood Elevation Requirements for Flood Design Classes 1-4 in the Special Flood Hazard Area					
ELEVATION	FLOOD ZONE	FLOOD DESIGN CLASS (ASCE 24-14)			
		1	2	3	4
Minimum Elevation of the Top of the Lowest Floor <i>(ASCE 24-14, Table 2-1)</i>	A Zones	BFE + 1'	BFE + 3'	BFE + 4'	BFE + 6'
Minimum Elevation of the Bottom of the Lowest Horizontal Structural Member of Lowest Floor <i>(ASCE 24-14, Table 4-1)</i>	Coastal High Hazard Areas (Zone VE)	BFE + 1'	BFE + 3'	BFE + 5'	BFE + 6'
Minimum Elevation of Dry Floodproofing of Non-Residential Structures and Non-Residential Portions of Mixed-Use Buildings <i>(ASCE 24-14, Table 6-1)</i>	A Zones	BFE + 2'	BFE + 3'	BFE + 4'	BFE + 6'
	Coastal High Hazard Areas (Zone VE)	Not permitted	Not permitted	Not permitted	Not permitted
Minimum Elevation of Utilities and Equipment <i>(ASCE 24-14 Table 7-1)</i>	A Zones	BFE + 1'	BFE + 3'	BFE + 4'	BFE + 6', or 500-year flood elevation, whichever is higher
	Coastal High Hazard Areas (Zone VE)	BFE + 1'	BFE + 3'	BFE + 5'	BFE + 6', or 500-year flood elevation, whichever is higher

A. Town of Rye: Maximum Height Exceedance Provisions

Town Code Section 190-3.4 Coastal Area District

D. Height. Within the Coastal Area District, no building or structure shall exceed 28 feet in height as measured from existing grade. If the building or structure is required to be elevated in accordance with Chapter 60, Floodplain Management, of the Town Code, the overall height of the building or structure shall not exceed 30 feet as measured from the existing grade. Wireless telecommunication towers are exempt from this limitation.

COMMUNITY RATING SYSTEM (CRS)

Activity 432b - Freeboard (FRB) (Up to 500 points available)

Freeboard must be applied to the elevation of the lowest floor of the building or to the elevation to which a non-residential building is dry floodproofed, and to all components of the building, including all utilities, ductwork, and attached garages. More points are provided if the community prohibits buildings on fill or requires compensatory storage if filling is used. The number of points based on freeboard elevation and filling requirements is shown in the table above. No CRS points for freeboard are available solely for utilities and mechanicals but to receive CRS credit points this requirement must be also included in the ordinance.

Freeboard	No filling restrictions	Compensatory storage required	Fill prohibited
1 foot	100	110	120
2 feet	225	250	280
3 feet	375	440	500

1C: Protection of Critical Facilities

A critical facility is defined as a structure or other improvement that, because of its function, size, service area, or uniqueness, has the potential to cause serious bodily harm, extensive property damage, or disruption of vital socioeconomic activities if it is destroyed or damaged or if its functionality is impaired. Critical facilities include health and safety facilities, utilities, government facilities, and hazardous materials facilities. For the purposes of a local regulation, a community may also use the [International Codes' definition for Category III and IV buildings](#). Critical facilities and their access routes should be located and elevated to prevent damage and inaccessibility to these facilities during a flood event. A critical facility provides services and functions essential to a community, especially during and after a disaster. For a critical facility to function, building systems and equipment must remain operational. Therefore, if at all possible, critical facilities should be located outside all high-risk special flood hazard areas, including Zones A, AE, AO, and VE. If a critical facility must be in a special flood hazard area, it should be designed to higher protection standards and have flood evacuation plans.

NH State Building Code Requires Protection of Critical Facilities in Special Flood Hazard Areas

The [2018 IBC/ASCE 24-14](#), which are referenced in the NH State Building Code, requires all structures and buildings that are proposed to be located in a special flood hazard area and are classified as essential or critical facilities ([Flood Design Class 4](#)), be elevated or protected to the base flood elevation plus 2 feet or elevated or protected to the 0.2-percent-annual-chance flood elevation, whichever is higher.

NH MUNICIPALITIES WITH HIGHER STANDARD

- Dover
- Hampton
- Madbury
- Rollinsford

SAMPLE ORDINANCE LANGUAGE

Municipality Ordinance Examples

A. City of Dover: Prohibition of New Critical Facilities and Required Elevation or Protection Standards for Existing Critical Facilities in Special Flood Hazard Areas

Zoning Ordinance in Article V, Chapter 170-25 (K)(8)

(8) Critical facilities

- All new critical facilities are prohibited within areas of special flood hazard.*
- Critical facilities that are to be replaced, substantially improved or meet the definition of substantial damage shall be constructed so that the lowest floor, including basement, shall be elevated or dryflood proofed at least two (2) feet above the areas of special flood hazard. A critical facility shall have at least one access road connected to land outside the areas of special flood hazard and is capable of accommodating emergency services vehicles. The top of the access road shall be no lower*

than six inches below the base flood elevation of the area of special flood hazard.

B. Town of Hampton: Prohibition of New Critical Facilities and Required Elevation or Protection Standards for Existing Critical Facilities in Special Flood Hazard Areas

Zoning Ordinance in Article II, Section 2.4.7 Floodplain Development Requirements

- C. *Critical Facilities: The construction of critical facilities (those that are vital to public health and safety, e.g., police stations, fire and rescue stations, shelters, schools, nursing homes and water supply and waste treatment facilities) are prohibited within a special flood hazard area unless the project has been reviewed using the NH coastal Flood Risk Guidance (using the “very low tolerance for flood risk” standard) or most recent guidance, and the following criteria are met:*
- a. *No feasible alternative location exists,*
 - b. *The facility is designed to higher protection standards,*
 - c. *An emergency operations plan, including evacuation procedures, has been developed.*
 - d. *The facility shall have at least one access road connected to land outside the 0.2% annual chance floodplain that is capable of accommodating emergency services vehicles. The top of the access road shall be no lower than six inches below the elevation of the 0.2% annual chance flood event.*
 - e. *Existing critical facilities located in a SFHA that are to be replaced, substantially improved, or meet the*
 - f. *definition of substantial damage shall be constructed so that the lowest floor shall be elevated or dry-floodproofed at least one foot above the elevation of the 0.2% annual flood height (500-year floodplain), or three feet above the base flood elevation, whichever is higher.*

COMMUNITY RATING SYSTEM (CRS)

Activity 432f – Protection of Critical Facilities (PCF) (Up to 80 points)

Full credit (80 points) is provided for regulations that prohibit critical facilities in the 0.2 percent annual chance floodplain (includes the entire special flood hazard area plus other land that is lower than the 0.2 percent annual flood elevation). Partial credit (40 points) is provided for regulations that protect critical facilities to at least one foot above the 0.2 percent annual chance flood elevation.

1D: Cumulative Substantial Improvement and Substantial Damage

The minimum NFIP regulations allows improvements valued at up to 50 percent of the building's pre-improvement value to be permitted without meeting the municipality's floodplain regulations for new construction of buildings located in a special flood hazard area. Over the years, a municipality may issue a succession of permits for different repairs or improvements to the same structure. This can greatly increase the overall flood damage potential to that building as well as the insurance liability to FEMA. A cumulative substantial improvement regulation requires improvements and repairs to a building to be tracked cumulatively over a specific period of time (e.g., 3, 5, or 10 years). A cumulative substantial damage regulation requires counting repairs cumulatively by adding the cost of each successive repair over a specific period of time (e.g., 3, 5, or 10 years). A municipality must have a good system for recording and accessing records to administer a cumulative substantial improvement and damage requirements. The municipality should also have administrative procedures to track all improvements and repairs.

NH MUNICIPALITIES WITH HIGHER STANDARD

- New Castle
- Rye

SAMPLE ORDINANCE LANGUAGE

Model Ordinance Language

The following ordinance language comes from the [FEMA Substantial Improvement and Damage Desk Reference](#).

A. Cumulative Substantial Improvement Language

“Substantial improvement” means any combination of repairs, reconstruction, rehabilitation, addition, or other improvement of a structure taking place during [insert period of time selected by the community] the cost of which equals or exceeds fifty percent of the market value of the structure before the work is started. This term includes structures that have incurred ‘substantial damage,’ regardless of the actual repair work performed.

B. Cumulative Substantial Damage Language (Two Options)

1. Adopt the following definition:

“Repetitive loss” means flood-related damages sustained by a structure on two separate occasions during a 10-year period for which the cost of repairs at the time of each such flood event, on the average, equals or exceeds 25 percent of the market value of the structure before the damage occurred.

THEN Modify the “Substantial Improvement” definition as follows:

“Substantial improvement” means any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the start of construction of the improvement. This term includes structures which have incurred “repetitive loss”

or “substantial damage,” regardless of the actual repair work performed.

OR . . .

2. Modify the “Substantial Damage” definition as follows:

“Substantial damage” means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred. Substantial damage also means flood related damage sustained by a structure on two (2) separate occasions during a 10-year period for which the cost of repairs at the time of each such flood event, on the average, equals or exceeds 25 percent of the market value of the structure before the damage occurred.

Municipality Ordinance Language

A. Town of New Castle: Cumulative Substantial Improvement and Damage

Zoning Ordinance Section 9.1 Flood Plain Development District, 9.1.1 Definition of Terms

Substantial improvement: means any combination of repairs, reconstruction, alteration, addition, or other improvements of a structure for which a building permit is required, taking place during a five-year period in which the cumulative cost equals or exceeds fifty percent of the market value of the structure. For each structure, the five-year period begins on the date of the first permit issued for improvement or repair of that structure subsequent to May, 10, 2022. This term applies to structures which have incurred substantial damage, regardless of actual repair work performed.

B. Town of Rye: Cumulative Substantial Improvement and Damage

Floodplain Management Ordinance: Section 60-6 Substantial improvement and damage determinations

A. *For all development in a special flood hazard area that proposes to improve an existing structure, including alterations, movement, enlargement, replacement, repair, additions, rehabilitations, renovations, repairs of damage from any origin (such as, but not limited to, flood, fire, wind or snow) and any other improvement of or work on such structure, including within its existing footprint, the Floodplain Administrator, in coordination with any other applicable community official(s), shall be responsible for the following:*

4. *Determine if the proposed work constitutes substantial improvement or repair of substantial damage as defined in this chapter, taking place during a five-year period in which the cumulative cost equals or exceeds fifty percent (50%) of the market value of the structure. For each structure, the five-year period begins on the date of the first permit issued for improvement or repair of that structure subsequent to March 12, 2024.*

COMMUNITY RATING SYSTEM (CRS)

Activity 432d: Cumulative Substantial Improvements (CSI) (Up to 90 points available)

A municipality can earn the following points for cumulative substantial improvement EITHER:

- a. 40 points, if the regulations require that improvements, modifications, and additions to existing buildings are counted cumulatively for at least 10 years.

OR

- b. 20 points, if the regulations require that improvements, modifications, and additions to existing buildings are counted cumulatively for at least 5 years.

A municipality can earn the following points for cumulative substantial damage EITHER:

- a. 40 points, if the regulations require that reconstruction and repairs to damaged buildings are counted cumulatively for at least 10 years.

OR

- b. 20 points, if the regulations require that reconstruction and repairs to damaged buildings are counted cumulatively for at least five years.

1E: Lower Substantial Improvement and Substantial Damage Threshold

The minimum NFIP regulations allows improvements valued at up to 50 percent of the building's pre-improvement value to be permitted without meeting the municipality's floodplain regulations for new construction of buildings located in a special flood hazard area. A lower substantial improvement and substantial damage threshold triggers the requirement for buildings to be brought into compliance at a lower percent threshold and helps bring older buildings into compliance more quickly. Compliance is required when the ratio of costs compared to market value equals or exceeds the lower percentage specified in the municipality's regulations. Municipalities should ensure that they uniformly apply the lower threshold to all buildings in special flood hazard areas, even after events that cause damage to many buildings, regardless of the cause of the damage.

NH MUNICIPALITIES WITH HIGHER STANDARD

- Portsmouth

SAMPLE ORDINANCE LANGUAGE

Model Ordinance Language

The following ordinance language comes from the [FEMA Substantial Improvement and Damage Desk Reference](#).

“Substantial damage” means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed (xx) percent of the market value of the structure before the damage occurred.

“Substantial improvement” means any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds (xx) percent of the market value of the structure before the “start of construction” of the improvement. This term includes structures that have incurred “substantial damage,” regardless of the actual repair work performed.

Municipal Ordinance Language

A. Portsmouth: Lower Substantial Improvement Threshold

Zoning Ordinance Section 10.622.20 Terms Defined for the Flood Plain District

Substantial improvement: Any combination of repairs, reconstruction, additions, rehabilitation, alterations, or improvements to a structure in which the cost equals or exceeds 40 percent of the market value of the structure. The market value of the structure should equal: (a) the appraised value at the time of the submission of a building permit application for the repair or improvement; or (b) in the case of damage, the value of the structure prior to the damage occurring. For the purposes of this definition, substantial improvement is considered to occur when the first alteration of any wall, ceiling, floor, or other structural

part of the building commences, whether or not that alteration affects the external dimensions of the structure. This term includes structures which have incurred substantial damage, regardless of actual repair work performed. The term does not, however, include any project for improvement of a structure required to comply with existing health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions or any alteration of a historic structure, provided that the alteration will not preclude the structure's continued designation as a historic structure.

COMMUNITY RATING SYSTEM (CRS)

Activity 432e – Lower Substantial Improvements Threshold (LSI) (Up to 20 points available)

Full credit is provided if the regulatory threshold for determining if a building is substantially improved or substantially damaged is less than 50 percent.

Ten points is provided if either:

(a) the regulatory threshold is no more than 25 percent of the square footage of the building's lowest floor,

OR

(b) the regulatory threshold applies to either improvements, modifications, and additions or reconstruction and repairs, but not both.

1F: Enclosure Limits below the Base Flood Elevation

Regulations to limit enclosures below the base flood elevation have two objectives. First, they protect the structural integrity of the building from wave action or hydrostatic pressure. Second, they discourage property owners from finishing the area below the base flood elevation and storing valuable or hazardous items in that area. These regulations are particularly useful in Zone VE and other coastal areas subject to wave damage.

In areas where fully enclosed areas below the lowest floor are allowed, property owners may be tempted to convert enclosed areas below the base flood elevation to living space rather than using it solely for parking, building access, or storage as mandated by NFIP requirements. Non-conversion agreements require property owners with enclosures below the base flood elevation that are more than four feet in height to sign a Non-Conversion Agreement verifying that they will use the enclosed area for authorized uses only.

NH MUNICIPALITIES WITH HIGHER STANDARD

- Rye
- Hampton

SAMPLE ORDINANCE LANGUAGE

Model Ordinance Language

The following ordinance language can be added to prohibit enclosures below the base flood elevation:

All new construction and substantial improvements shall not have enclosures below the base flood elevation.

The following ordinance language comes from Section 11 – Structure and Manufactured Home Requirements for Zone VE of the *2018 Model Floodplain Management Ordinance for NH Communities with Zone VE*.

B. The space below the lowest floor of new construction of a structure or an existing structure to be substantially improved or replaced, or that incurred substantial damage, or the placement or substantial improvement of a manufactured home located in Zone VE shall be:

- 1. Used solely for the parking of vehicles, building access, or storage; and either be:*
- 2. Free of obstructions as detailed in the FEMA “Technical Bulletin 5, Free of Obstruction Requirements for Buildings Located in Coastal High Hazard Areas in Accordance with the National Flood Insurance Program;” or*
- 3. Enclosed by walls that shall meet the following requirements:*
 - a. Constructed to enclose 299 square feet of area or less (exterior measurement);*
 - b. Designed to break away under flood loads and are not part of the structural support of the structure;*
 - c. Electrical, mechanical, and plumbing system components are not to be mounted on or penetrate through walls that are designed to break away under flood loads; and*

- d. *Walls intended to break away under flood loads shall be constructed with insect screening or open lattice, or shall be designed to break away or collapse without causing collapse, displacement or other structural damage to the elevated portion of the building or supporting foundation system. Such walls, framing and connections shall have a design safe loading resistance of not less than 10 pounds per square foot and no more than 20 pounds per square foot.*

To require a non-conversion agreement of enclosed areas below the lowest floor in Zones A, AE, and AO, add the following language to the section that applies to enclosed areas below the lowest floor:

A Non-Conversion Agreement signed by the applicant shall be recorded on the property deed prior to the issuance of a Certificate of Occupancy if the permit application includes an enclosed area below the lowest floor that is more than four feet in height.

COMMUNITY RATING SYSTEM (CRS)

Activity 432g – Enclosure Limits (ENL) (Up to 390 points available)

Credit points are available for regulatory standards that prohibit the enclosure of the building's area that lies below the base flood elevation. Credit is also available for communities that execute non-conversion agreements, whereby owners agree not to modify the enclosed area to make it more susceptible to flood damage.

240 points, if regulations prohibit any building enclosures, including breakaway walls, below the base flood elevation,

OR

100 points, if regulations prohibit breakaway walls and enclosures of areas of greater than 299 square feet below the base flood elevation,

AND/OR

If regulations require that the owner of a building sign a nonconversion agreement that is filed with the deed and other property records, then

- (a) 90 points, if the community will inspect the enclosed area at least once a year, OR
- (b) 60 points, if the community is granted the right to inspect the enclosed area at any time, OR
- (c) 30 points, if the agreement does not mention inspection

1G: Coastal A Zone Requirements

The Flood Insurance Rate Maps (FIRMs) for NH's coastal municipalities along the Atlantic Ocean include a map feature called the Limit of Moderate Wave Action (LiMWA), which is shown as a black line with arrows to delineate the landward limit of the Coastal A Zone. The Coastal A refers to that portion of the SFHA that is subject to waves with heights of between 1.5 and 3 feet during a 1 percent annual chance storm. The NFIP regulations do not define or have specific provisions for Coastal A Zone.

NH State Building Code includes Zone VE Requirements in Coastal A Zones

The [2018 IBC/ASCE 24-14](#) and [2018 IRC](#), which are referenced in the NH State Building Code, requires that new construction and substantial improvements of structures located in a Coastal A Zone meet the same requirements as Zone VE buildings.

NH MUNICIPALITIES WITH HIGHER STANDARD

Although none of the coastal municipalities that have Coastal A zones delineated on a FEMA FIRM has adopted Coastal A zone requirements in their floodplain regulations, those municipalities have a building official that is required to ensure compliance with the State's Building Code. It is highly recommended that these municipalities adopt the Coastal A zone requirements contained in the International Codes that have been adopted by the State to ensure compliance with the State Building Code and understanding for applicants.

SAMPLE ORDINANCE LANGUAGE

Amend existing floodplain regulations to meet the following requirements:

- Add definition of Coastal A Zone (see definition in Section 202 of [2018 IBC](#)).
- Require all development in the Coastal A Zone to be subject to the same building requirements enforced by the community in Zone VE.
- Breakaway walls should include the appropriate number of flood openings to equalize hydrostatic loads in the enclosure.

COMMUNITY RATING SYSTEM (CRS)

Activity 432k – Coastal A Zones (CAZ) (Up to 500 points available)

Credits points is provided to coastal communities that enforce Zone VE regulations in their mapped Coastal A zone areas. Full credit (500 points) is provided 500 points, if all new buildings in the FEMA-mapped Coastal A Zone must meet the requirements for buildings in Zone VE and for flood openings in A Zones. If only some of the Zone VE regulations are enforced in the Coastal A Zone, the points are prorated based on the regulations enforced.

2. Land Development and Preservation Standards

2A: Compensatory Storage

Compensatory storage is an approach to offset any loss of flood storage capacity caused by filling in the floodplain. Communities that require compensatory storage can preserve areas of the floodplain that can store flood water and minimize increases in flood heights due to development. Floodplains provide the critical and beneficial functions of flood storage, natural habitat, and water quality. The placement of fill impairs these functions and should be avoided. Where some placement of fill is unavoidable, requiring compensatory storage can mitigate some of the negative impacts of floodplain fill.

NH MUNICIPALITIES WITH HIGHER STANDARD

- Allenstown
- Epsom
- Keene
- Raymond
- Salem

SAMPLE ORDINANCE LANGUAGE

Municipality Ordinance Examples

A. Town of Salem: Compensatory Storage

Zoning Ordinance Section 490-705 Floodplain Development

D (9) Any encroachment, including fill, new construction, substantial improvement, or other development, within a special flood hazard area shall provide compensatory floodplain storage equal to twice the amount of encroachment. All parking areas located within a special flood hazard area shall be tiered, sloped, or otherwise designed to flood during a base flood event. A licensed professional engineer shall prepare the floodplain storage site plan and/or certify that the proposed compensatory floodplain storage is properly designed and that the floodplain storage capacity is of adequate volume to accommodate the water displaced by the proposed development. After construction of the approved compensatory site, an as-built plan shall be certified by a professional engineer and submitted to the Town for inclusion in the project file.

B. City of Keene: Compensatory Storage Requirements

Land Development Code Article 23 Floodplain Regulations

23.5 COMPENSATORY FLOOD STORAGE No floodplain development permit shall be issued unless it can be demonstrated to the satisfaction of the Floodplain Administrator that the project will result in no reduction in the net flood storage capacity of the floodplain.

The section is further broken down into the following subsections: 23.5.1 Location Requirements; 23.5.2 Storage Credit; and 23.5.3 Hydrologic Impact.

C. Town of Allenstown: Compensatory Storage Requirements

Zoning Ordinance Chapter 15, Section 1511 Development Standards

2. General Standards within the Flood Hazard Overlay District:

- 8. The space occupied by fill, including mounded septic systems, or structure below the level which is two feet above the base flood elevation shall be compensated for and balance by a hydraulically equivalent volume of excavation taken from below the base flood elevation. All such excavations shall be constructed to drain freely to the watercourse.*

COMMUNITY RATING SYSTEM (CRS)

Activity 432a Compensatory Storage (DL1b) (Up to 280 points available)

Compensatory storage credit is part of the Development limitations element (432.a) related to the prohibition of fill. Credit is provided for regulations that require new developments to provide compensatory storage at hydrologically equivalent sites up to a ratio of 1.5 to 1. Credit is not provided for: compensatory storage requirements in floodways only or in Zone VE only, and stormwater management regulations that require a developer to compensate for any increase in runoff created by the development.

2B: Floodplain Development Limitations

Floodplain development limitation regulations prohibit and permit certain uses and/or buildings in the floodway or the entire special flood hazard area. Prohibiting fill and other ground-altering measures in special flood hazard areas can protect existing development and habitat, improve water quality, and maintain the flood attenuating benefits of natural areas. Restricting uses of the floodplain which can be dangerous to health, safety or property in times of flood, or which increase flood heights will make the community safer and more resilient to future floods.

Examples of floodplain development limitations include the following:

- Prohibiting construction of new buildings (such as residential and non-residential), placement of manufactured homes, or placement of fill.
- Permitting only certain uses (such as agricultural or recreational uses).
- Prohibiting storage or processing of hazardous, flammable, or explosive materials.

NH MUNICIPALITIES WITH HIGHER STANDARD

- Allenstown
- Bath
- Deerfield
- Easton
- Franconia
- Hancock
- Salem

SAMPLE ORDINANCE LANGUAGE

Municipality Ordinance Examples

A. Town of Allenstown: Permitted and Prohibited Uses

Zoning Ordinance Chapter 15, Section 1507 Permitted Uses

The following uses are permitted provided they are consistent with the purposes of this ordinance and do not involve placement, expansion or construction of permanent structures of other materials that could impede floodwaters or become flood-carried debris: (includes list of permitted uses such as agricultural activities, outdoor recreation, wildlife or fisheries management, substantial improvement not involving an addition, etc.)

Zoning Ordinance Chapter 15, Section 1508 Prohibited Uses

1. New buildings or other structures except as allowed below (includes list of uses) by Special Exception.

B. Town of Salem: Prohibited Uses

Zoning Ordinance Section 490-705 Floodplain development

- C. *Restrictions on mobile homes in the floodway. No mobile home shall be placed in the floodway as shown on the Flood Insurance Rate Maps referred to in Subsection A, unless the area is zoned for mobile homes and there is an existing mobile home park at such location at the time of the adoption of this section.*
- D. *(2) The construction or placement of new buildings and structures in any special flood hazard area is prohibited. Other proposed development such as additions to existing buildings or replacement of existing buildings in any special flood hazard areas shall require a permit.*

COMMUNITY RATING SYSTEM (CRS)

Activity 432a Development Limitations (DL): (Up to 1,330 points available)

This element has three parts, crediting different aspects of the regulation of floodplain development:

- Prohibiting all filling in the regulatory floodplain (DL1a)(Up to 280 points);
- Prohibiting all new buildings in the special flood hazard area (DL2)(Up to 1,000 points); and
- Prohibitions on outdoor storage of materials within the special flood hazard area (DL3)(Up to 50 points).

2C: Open Space Preservation

Open space preservation regulations help keep areas open and undeveloped. Specific types of open space preservation regulations include but are not limited to: buffers or setback rules; deed restrictions; cluster development requirements; and low density zoning. Preserving floodplain areas as open space allows these areas to function the way nature intended, which includes the conveyance and storage of flood waters. Keeping the floodplain free of development will also reduce the potential for flood damage to buildings and infrastructure and allow the community to return to normal more quickly after a flood happens. These areas can also serve as habitat for wildlife and recreational opportunities (e.g. parks, bike paths) for people.

NH MUNICIPALITIES WITH HIGHER STANDARD

- Albany (open space preservation)
- Piermont (setback)
- Plainfield (setback)
- Windham (buffer)

SAMPLE ORDINANCE LANGUAGE

Municipality Ordinance Examples

A. Town of Piermont Setback Requirement

Floodplain Management Ordinance, Section 2 Flood Plain Setback

All parts of any structure, residential, non-residential, commercial, industrial or agricultural, including mobile homes, must be set back at least 75 feet from the floodplain boundary as delineated by the FIRM. Further, that no substantial improvements be permitted to any structure already existing in the delineated flood hazard area.

COMMUNITY RATING SYSTEM (CRS)

Activity 420 – Open Space Preservation (Up to 2,020 points).

Credit is given for areas in a regulated floodplain that are permanently preserved as open space. Additional credit is given for parcels of open space that are protected by deed restrictions or that have been preserved in or restored to their natural state. Credit is also given for measures that require or encourage less development in floodplains, and for the protection of natural channels and shorelines. Credit can be based on development restrictions placed by the property owners or those found in local regulations.

2D: Dry Land Access

Dry Land Access requires that new development proposals be designed so that building sites, walkways, driveways, and roadways are located on land with a natural grade with an elevation above the base flood elevation or higher. Requiring dry land access provides safe egress for residents and property owners and reduces risk to first responders that may need to access the location during a flood emergency.

NH MUNICIPALITIES WITH HIGHER STANDARD

- Dover
- Newport

SAMPLE ORDINANCE LANGUAGE

Model Ordinance Example

New development proposals shall be designed, to the maximum extent practicable, so that building sites, walkways, driveways, and roadways are located on land with a natural grade with an elevation at least [Insert either: at, one foot, two feet, or three feet above] the base flood elevation.

Municipality Ordinance Examples

a) City of Dover Dry Land Access

Zoning Ordinance, Article V, Chapter 170-25 (K)(7)(8)

(7) All new residential structures or residential developments and all new nonresidential structures and non-residential developments shall have all driveways and/or all road access or streets constructed with the driving surface at or above base flood elevation to ensure safe ingress and egress during a 100-year flood.

(8) Critical facilities

b) A critical facility shall have at least one access road connected to land outside the areas of special flood hazard and is capable of accommodating emergency services vehicles. The top of the access road shall be no lower than six inches below the base flood elevation of the area of special flood hazard.

COMMUNITY RATING SYSTEM (CRS)

Activity 432o - Other Higher Standards (OHS) (Up to 100 points available)

Credits points have been given for requiring all new multi-family and commercial buildings to provide access to dry land.

2E: Overlay Districts including Advisory Climate and Sea Level Rise Areas

Overlay Districts allow communities to enforce regulations and promote flood resiliency in areas outside of special flood hazard areas identified on FEMA’s maps. FEMA’s maps are good starting points for determining flood-prone areas within a community. However, these maps do not account for other factors, such as but not limited to: additional development that has occurred since the map was completed; flood prone areas that were not mapped as special flood hazard areas when map was completed; events that exceed the 1 percent annual chance flood; and future conditions such as increased future development and increased precipitation and sea-level rise. All these additional factors can lead to flooding above the base flood elevation and to flooding in areas outside of the mapped special flood hazard areas. It is strongly recommended that communities consider utilizing other sources of mapping and data in addition to FEMA’s maps and consider establishing an overlay district that includes regulations for developing in these additional areas.

NH MUNICIPALITIES WITH HIGHER STANDARD

- Campton
- Durham
- Exeter
- New Hampton

SAMPLE ORDINANCE LANGUAGE

Municipality Ordinance Examples

A. Town of Campton: River Corridor Protection Zone

Zoning Ordinance, Article 3.04 and 4.02(D)

3.04 RIVER CORRIDOR PROTECTION ZONE

The intent of creating this zone is to provide a long range plan to conserve, protect, and promote the integrity and naturalness of the Mad, Pemigewasset, and Beebe Rivers, and their shorelines and views to the best advantage of the Town, the landowners, the public and posterity.

This zone shall include all land in the 100-year floodplains of the Mad, Pemigewasset, and Beebe Rivers in the Town of Campton. It shall also include any other land in the Town within 500 feet of the ordinary high water mark of these rivers. (Land excluded from this zone are detailed in the zoning ordinance).

D. RIVER CORRIDOR PROTECTION ZONE

The following provisions will apply to this zone:

1. *Minimum frontage along the ordinary high water mark of the river shall be 200 feet per dwelling unit.*

2. *Building setback from the ordinary high water mark of the river shall be a minimum of 50 feet.*
3. *Septic system setback from the ordinary high water mark shall be a minimum of 125 feet.*
4. *Any construction within the floodplain area of this zone shall conform to the Floodplain Zone section of this Ordinance except where restrictions in this zone are more severe, in which case they shall apply.*

B. City of Durham: Advisory Climate Change Risk Areas

Zoning Ordinance, Article XV, Section 175-77(A) and 175-83(C)

A. Purpose

Advisory Climate Change Risk Areas. As a coastal community with significant waterfront property along Great Bay, Little Bay, and tidal portions of the Oyster River, the Town of Durham recognizes the future threats that climate change and projected sea level rise pose to the health, safety, and general welfare of its citizens. The Town of Durham, in its “Vulnerability Assessment of projected impacts from sea-level rise and coastal storm surge flooding” identified areas likely to be at risk to coastal flooding in the future under projections for rising sea-levels associated with global climate change. These areas may be subject to a higher likelihood of flood damage, and as base flood elevations change over time, may be added to FEMA special flood hazard areas in the future. The map titled “Advisory Climate Change Risk Areas” dated February 21, 2018 (for moderate level projected rise of 3.9 feet, as referred to on the map under Map Feature Notes) is declared to be an advisory and non-binding part of this ordinance and is hereby incorporated by reference. The Town of Durham recommends (but does not require) that landowners, homeowners, developers, and any parties seeking to build in lands designated as advisory climate change risk areas elevate proposed structures to the levels, and follow best practices, as presented herein.

C. Advisory Climate Change Risk Areas.

The Town of Durham recommends (but does not require) that landowners, homeowners, developers, and other parties seeking to build on properties located in advisory climate change risk areas as designated on the Advisory Climate Change Risk Areas map, but not in a special flood hazard area, review the provisions of this chapter and apply them proactively to construction and development projects as applicable. All applicants seeking to build in these areas shall inform the Durham Building Official which standard they intend to follow. See purpose statement, above.

Flood Elevation Determination. In Advisory Climate Change Risk Areas where base flood elevation is not available, applicants are advised to determine the flood elevation by adding at least two feet above the highest point around the perimeter of the building footprint.

C. Town of Exeter: Advisory Climate Change Risk Areas

Zoning Ordinance, Article 9.4.3(A) and 9.5

- A. **Advisory Sea Level Rise Risk Areas:** *Areas in Exeter projected to be impacted by 4 feet of sea level rise plus a 1% annual chance flood event as depicted on Map titled Exeter Zoning Ordinance – Amended March 2024 9-30 “Advisory Sea Level Rise Risk Areas for the Town of Exeter” as*

amended. Sea level rise data derived from the Town of Exeter CRISE Vulnerability Assessment and the NH Coastal Flood Risk Guidance Part I: Science

9.5 Advisory Sea Level Rise (SLR) Risk Areas

The Town of Exeter recommends, but does not require, that landowners, homeowners, developers, and any parties seeking to build in lands located within the designated SLR Risk Areas as defined in section 9.4.3 and shown on map titled Advisory Sea Level Rise Risk Areas for the Town of Exeter, review the provisions of the floodplain development ordinance and apply them proactively to construction and development projects where applicable. The Exeter SLR Risk Areas are intended to be an advisory, non-binding part of this ordinance for the purpose of educating landowners of the potential risks to property and to encourage more stringent building and design standards for development within SLR risk areas.

As part of New Hampshire’s Coastal Watershed and the Great Bay Estuary, portions of Exeter are vulnerable to sea level rise impacts including increased flooding from coastal storms, riverbank flooding and erosion. The town’s Climate Risk in the Seacoast Vulnerability Assessment (C-RiSe) conducted by the Rockingham Planning Commission in 2017 identified several areas in town likely to be impacted by increased flooding under future projections for sea level rise. These areas may be subject to increased flood damage and as base flood elevations change over time, may be added to a FEMA special flood hazard areas in the future. The map titled Advisory Sea Level Rise Risk Areas for the Town of Exeter, identifies areas in town projected to be impacted by four feet of sea level rise plus a 1% annual chance flood event by 2100 (sea level rise scenarios based on The New Hampshire Coastal Flood Risk Summary Part 1: Science.

COMMUNITY RATING SYSTEM (CRS)

Activity 412d – Higher Study Standards (HSS) (Up to 200 points)

Higher Study Standards credits the use of study standards higher than those required by FEMA including future- conditions hydrology for land use changes and climate.

Higher Study Standards credit is provided for the following higher study standards:

- a. Using a factor of safety of at least 25% when calculating the 100-year discharge,
- b. Using future-conditions hydrology (land use changes);
- c. Using future-conditions hydrology (climate, including sea level rise and changing precipitation, as appropriate); and
- d. Mapping the area encompassed by the base flood elevation plus the community’s freeboard when freeboard is at least one foot.

3. Administrative Procedures Standards

3A: Floodplain Administrator Procedures

Community adoption of administrative procedures for managing floodplain development is a key tool for ensuring a community fulfills its responsibilities as an NFIP participating community and therefore remains in good standing in the NFIP. The purpose of administrative procedures is to ensure community adherence and consistency for all properties and to ensure a seamless transition when there are community staff changes.

Although the number, ability, and expertise of community staff responsible for administering and enforcing the local floodplain management program can vary by community, the floodplain administrator's responsibilities related to the community's participation in the NFIP program remain the same. Administrative procedures should be customized to work for and benefit the community so that the community can be successful in implementing their local floodplain management program.

NH MUNICIPALITIES WITH HIGHER STANDARD

- Multiple Municipalities

SAMPLE ORDINANCE LANGUAGE

NH Model Floodplain Ordinance

The following ordinance language comes from the *2018 Model Floodplain Management Ordinance for NH Communities*.

SECTION 4 – FLOODPLAIN ADMINISTRATOR DUTIES AND RESPONSIBILITIES

- A. *The [Insert Designated Municipal Position Title] is hereby appointed to administer and implement these regulations and is referred to herein as the "Floodplain Administrator."*
- B. *The duties and responsibilities of the Floodplain Administrator shall include, but are not limited to:*
- 1. Ensure that permits are obtained for proposed development in a special flood hazard area.*
 - 2. Review all permit applications for completeness and accuracy, and coordinate with the applicant for corrections or further documentation, as needed.*
 - 3. Interpret the special flood hazard area and floodway boundaries and determine whether a proposed development is located in a special flood hazard area, and if so, whether it is also located in a floodway.*
 - 4. Provide available flood zone and base flood elevation information pertinent to the proposed development.*
 - 5. Make the determination as to whether a structure will be substantially improved or has incurred substantial damage as defined in this Ordinance and enforce the provisions of this Ordinance for any*

structure determined to be substantially improved or substantially damaged.

- 6. Issue or deny a permit based on review of the permit application and any required accompanying documentation.*
- 7. Ensure prior to any alteration or relocation of a watercourse that the required submittal and notification requirements in this Ordinance are met.*
- 8. Review all required as-built documentation and other documentation submitted by the applicant for completeness and accuracy and verify that all permit conditions have been completed in compliance with this Ordinance.*
- 9. Notify the applicant in writing of either compliance or non-compliance with the provisions of this Ordinance.*
- 10. Ensure the administrative and enforcement procedures detailed in RSA 676 are followed for any violations of this Ordinance.*
- 11. Submit to FEMA, or require applicants to submit to FEMA, data and information necessary to maintain FIRMs, including hydrologic and hydraulic engineering analyses prepared by or for the [Insert Community Name](#), within six months after such data and information becomes available if the analyses indicate changes in base flood elevations, special flood hazard area boundaries, and/or floodway boundaries.*
- 12. Maintain and permanently keep and make available for public inspection all records that are necessary for the administration of these regulations, including: local permit documents, flood zone and base flood elevation determinations, substantial improvement and damage determinations, variance and enforcement documentation, and as-built elevation and dry floodproofing data for structures subject to this Ordinance.*
- 13. Delegate duties and responsibilities set forth in these regulations to qualified technical personnel, inspectors, or other community officials as needed.*

COMMUNITY RATING SYSTEM (CRS)

Although there are no CRS points associated with this higher standard, the administrative procedures for the municipality's floodplain administrator can assist municipalities with remaining in good standing in the NFIP and to ensure a consistent transition when there is staff turnover.

3B: Substantial Improvement and Damage Administrative Procedures

The administration and enforcement of the substantial improvement and substantial damage regulations and making determinations for structures located in a special flood hazard area are important components of a municipality's floodplain management program. The minimum NFIP requirements do not clearly state that municipalities must make determinations of substantial improvements and damage and what the process is to do so. Therefore, the addition of administrative procedures in a municipality's ordinance will further strengthen their local floodplain program by ensuring that both the municipality and the applicant understand the determination process and the associated requirements, which will help reduce the likelihood of compliance issues and decrease the overall flood damage potential to that structure.

NH State Building Code Requires Review and Determinations of Substantial Improvements and Substantial Damage

The [2018 IBC/ASCE 24-14](#) and [2018 IRC](#), referenced in the NH State Building Code, requires the building official to examine construction documents to determine whether the proposed work is substantial improvement or repair of substantial damage. The adoption of substantial improvement and substantial damage administrative procedures will assist municipalities with process of making these determinations and complying with the State Building Code.

NH MUNICIPALITIES WITH HIGHER STANDARD

- Multiple Municipalities

SAMPLE ORDINANCE LANGUAGE

Model Floodplain Ordinance

The following ordinance language comes from the *2018 Model Floodplain Management Ordinance for NH Communities*.

SECTION 6 – SUBSTANTIAL IMPROVEMENT AND DAMAGE DETERMINATIONS

- A. *For all development in a special flood hazard area that proposes to improve an existing structure, including alterations, movement, enlargement, replacement, repair, additions, rehabilitations, renovations, repairs of damage from any origin (such as, but not limited to flood, fire, wind or snow) and any other improvement of or work on such structure including within its existing footprint, the Floodplain Administrator, in coordination with any other applicable community official(s), shall be responsible for the following:*
1. *Review description of proposed work submitted by the applicant.*
 2. *Use the community's current assessed value of the structure (excluding the land) to determine the market value of the structure prior to the start of the initial repair or improvement, or in the case of damage, the market value prior to the damage occurring. If the applicant disagrees with the use of the community's assessed value of the structure, the applicant is responsible for engaging a licensed*

property appraiser to submit a comparable property appraisal for the total market value of only the structure.

- 3. Review cost estimates of the proposed work including donated or discounted materials and owner and volunteer labor submitted by the applicant. Determine if the costs are reasonable for the proposed work, or use other acceptable methods, such as those prepared by licensed contractors or professional construction cost estimators and from building valuation tables, to estimate the costs.*
- 4. Determine if the proposed work constitutes substantial improvement or repair of substantial damage as defined in this Ordinance.*
- 5. Notify the applicant in writing of the result of the substantial improvement or damage determination. If the determination is that the work constitutes substantial improvement or substantial damage, the written documentation shall state that full compliance with the provisions of this Ordinance is required.*
- 6. Repair, alteration, additions, rehabilitation, or other improvements of historic structures shall not be subject to the elevation and dry floodproofing requirements of this Ordinance if the proposed work will not affect the structure's designation as a historic structure. The documentation of a structure's continued eligibility and designation as a historic structure shall be required by the Floodplain Administrator in approving this exemption.*

COMMUNITY RATING SYSTEM (CRS)

Although there are no CRS points associated with this higher standard, these administrative procedures can assist municipalities with understanding and ensuring administration and enforcement of other higher standards in this section, cumulative substantial improvement and substantial damage and a lower threshold for cumulative substantial improvement and substantial damage, is completed as required by the NFIP.

4. Higher Floodplain Regulation Standards Resources

General Resources:

- [A Guide for Higher Standards in Floodplain Management \(ASFPM\)](#)
- [Comparison of Select NFIP and 2018 I-Code Requirements for Special Flood Hazard Areas](#)
- [Critical Facilities and Higher Standards Fact Sheet](#)
- [FEMA P-348, Protecting Building Utility Systems From Flood Damage](#)
- [Free of Obstruction Requirements For Buildings Located in Coastal High Hazard Areas in Accordance with the National Flood Insurance Flood Insurance Program, NFIP Technical Bulletin 5, February 2020 \(fema.gov\)](#)
- [NFIP Increased Cost of Compliance Coverage \(FEMA 301\)](#)
- [NH Floodplain Management Program: Best Practice for an Effective Local Floodplain Management Program Fact Sheet and Floodplain Development Administrative Procedures for Local Communities Sample Template](#)
- [Substantial Improvement/Substantial Damage Desk Reference \(FEMA P-758\)](#)
- [Sample Non-Conversion Declaration](#)
- [Using the Limit of Moderate Wave Action to Build Resilient Coastal Communities](#)

CRS Resources:

- [CRS 400 Series: Mapping & Regulations Resources](#)
- [CRS Class 8 Freeboard Prerequisite](#)
- [CRS Coordinator's Manual](#)
- [CRS for Community Resilience Green Guide \(ASFPM\)](#)
- [FEMA Critical Facilities and Higher Standards](#)
- [FEMA Discount Explanation Guide: Machinery and Equipment Flood Insurance Discount](#)
- [NH Floodplain Management Program CRS Resources](#)
- [Surging Seas CRS Guide](#)