DEPARTMENT OF AGRICULTURE, CONSERVATION AND FORESTRY

MAINE LAND USE PLANNING COMMISSION

Chapter 2 and Chapter 10 Rule Revisions:

Activities in Flood Prone Areas

Adopted February 12, 2025

With edits based on comments received

The following amendments propose changes to Chapter 2, Definitions and Chapter 10, Land Use Districts and Standards for Areas within the Jurisdiction of the Maine Land Use Planning Commission. This document only includes relevant sections and indicates additions in underline, deletions with a ~~strikethrough~~, and relocated text in double underline and double ~~strikethrough~~. Most revisions are self-evident. Where necessary, further explanations of some changes have been included in [revision notes]. These explanatory notes would not be included in the final rule.

Rulemaking Introduction and Overview

This update to the Commission's standards on development in flood prone areas increases consistency with the Federal Emergency Management Agency's (FEMA) rule and guidance and with the current Maine Model Floodplain Ordinance to comply with the ongoing requirements for the Commission's membership in the National Flood Insurance Program (NFIP). Other proposed changes serve to clarify sections of rule. Updates to increase consistency or clarify sections of rule include those related to:

- Accessory and agricultural structures;
- Utilities;
- Physical changes to the natural landscape;
- Wharves, piers, docks, and breakwaters;
- Engineering certifications;
- Residential structures and manufactured homes;
- Nonresidential structures;
- Development in coastal floodplains; and
- Substantial improvement and substantial damage, among others.

The proposed changes also allow legally existing structures in flood prone areas to exceed limitations on height above grade when elevated to provide additional freeboard, increasing safety and minimizing structural damage during a flood event.

Chapter 2 - Definitions

…

2.02 DEFINITIONS

…

[**Revision Note:** Definitions of Accessory Structure and Agricultural Structure are added following FEMA's Floodplain Management Bulletin P-2140, "Floodplain Management Requirements for Agricultural Structures and Accessory Structures" and the Maine Model Floodplain Ordinance. See also proposed changes in 10.25,T,2,l on Accessory Structures.]

1. Accessory Use or Accessory Structure:
"A use or structure subordinate to a permitted or conditional use or structure and customarily incidental to the permitted or conditional use of the structure." 12 M.R.S. § 682. Accessory structures include but are not limited to garages, decks, porches, accessory solar energy generation facilities, and sheds. For purposes of regulating development in flood prone areas, accessory structures are walled and roofed, detached from the principal structure, and located on the same lot as a principal structure; involve a use that is incidental to the use of the principal structure; and are used only for parking or storage.

…

#. Agricultural Structure:
For purposes of regulating development in flood prone areas, walled and roofed structures that are used exclusively for the production, harvesting, storage, raising, or drying of agricultural commodities and livestock, including aquaculture. Structures that house tools or equipment used in connection with these purposes or uses are also considered to be agricultural structures. Processing and production of agricultural commodities outside of harvesting, storage, raising, or drying are not considered agricultural purposes or uses. Structures used for human habitation or used by the public are not considered agricultural structures.

…

[**Revision Note:** The definition of containment wall clarifies the application of development standards in 10.25,T,2 for containment walls and has been added to the Maine Model Ordinance.]

#. Containment Wall
A wall surrounding all sides of an aboveground tank to contain any spills or leaks.

…

[**Revision Note:** References to Zones A1-30 have been deleted throughout as there are no Zones A1-30 in the Commission's service area. The Maine Model Ordinance has also removed references to Zones A1-30.]

66. Elevated Building:
A building, without a basement,

a. built, in the case of a building in FEMA zones A or AE, to have the top of the elevated floor, or in the case of a building in Zone VE, to have the bottom of the lowest horizontal structural member of the elevated floor, elevated above the ground level by means of pilings, columns, post, piers, or "stilts;" and

b. adequately anchored so as not to impair the structural integrity of the building during a flood of up to one foot above the magnitude of the base flood.

In the case of Zones A or AE, elevated building also includes a building elevated by means of fill or solid foundation perimeter walls with hydraulic openings sufficient to facilitate the unimpeded movement of flood waters, as required in Chapter 10, Section 10.25(T)(2)(n). In the case of Zone VE, elevated building also includes a building otherwise meeting the definition of elevated building, even though the lower area is enclosed by means of breakaway walls, if the breakaway walls meet the standards of Chapter 10, Section 10.25(T)(2)(r)(2)(b)(iii).

…

75. Flood, Area of Special Flood Hazard:
The land in the floodplain having a one percent or greater chance of flooding in any given year, as specifically identified in a Flood Insurance Study, where available, and/or as delineated on the Flood Insurance Rate Map, Flood Hazard Boundary Map, or Commission's Land Use Guidance Map.

…

81. Flood, Zones A, AE, VE:
The areas identified by FEMA as areas of special flood hazard on Flood Insurance Rate Maps or Flood Hazard Boundary Maps. The Commission adopts the FEMA maps and incorporates them by reference into the P-FP subdistrict. The adopted maps are referenced on the applicable Official Land Use Guidance Maps.

…

114. Locally Established Datum:
For purposes of regulating development in flood prone areas, an elevation established for a specific site to which all other elevations at the site are referenced. This elevation is generally not referenced to the National Geodetic Vertical Datum, North American Vertical Datum, or any other established datum and is used in areas where Mean Sea Level data is too far from a specific site to be practically used.

…

117. Lowest Floor:
The lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access or storage in an area other than a basement area is not considered a building's lowest floor, provided that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements described in Chapter 10, Section 10.25(T)(2)(n).

…

[**Revision Note:** Increasing the limit to 120 consecutive days corresponds to the Commission's criteria for transient occupancy. See also Section 10.25,T,2,k on Recreational Vehicles.]

127. Manufactured Home:
A structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities. For purposes of regulating development in flood prone areas, the term manufactured home also includes park trailers, travel trailers, and other similar vehicles placed on a site for greater than 120 consecutive days.

…

132. Mean Sea Level:
For purposes of regulating development in flood prone areas, the National Geodetic Vertical Datum of 1929, North American Vertical Datum of 1988, or other datum, to which base flood elevations shown on a Flood Insurance Rate Map are referenced.

…

147. National Geodetic Vertical Datum (NGVD):
The national vertical datum, whose standard was established in 1929, which is used by the NFIP. NGVD was based upon mean sea level in 1929 and also has been called "1929 Mean Sea Level".

…

159. North American Vertical Datum (NAVD):
The national datum, established in 1988, which is the new vertical datum used by the NFIP for all new FIRMs.

…

228. Structure:
"[A]nything constructed or erected with a fixed location on or in the ground, or attached to something having a fixed location on or in the ground, including, but not limited to, buildings, mobile homes, retaining walls, billboards, signs, piers and floats. It does not include a wharf, fish weir or trap that may be licensed under Title 38, chapter 9." 12 M.R.S. § 682. For purposes of regulating development in flood prone areas, a structure is a walled and roofed building or a gas or liquid storage tank that is principally above ground.

…

[**Revision Note:** Changes proposed to the definitions of Substantial Damage and Substantial Improvement are intended to clarify the application of Substantial Damage and Substantial Improvement to structures without walls and roofs such as bridges, containment walls, wharves, piers, docks, and breakwaters as it may be difficult to accurately determine the market value of such structures.]

237. Substantial Damage:
For purposes of regulating development in flood prone areas, damage of any origin sustained by a structure whereby the cost of restoring the structure to its before-damage condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.

In the case of damage to a bridge, containment wall, wharf, pier, dock, or breakwater, the substantial damage determination is based on the present-day replacement cost in lieu of market value.

238. Substantial Improvement:
For purposes of regulating development in flood prone areas, any reconstruction, rehabilitation, renovation, expansion, normal maintenance and repair 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 also includes structures which have incurred substantial damage, regardless of the actual repair work performed. The term does not, however, include either:

a. Any project for improvement of a structure exclusively to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by any state or local enforcement official and which are the minimum necessary to assure safe living conditions; or

b. Any alteration of an historic structure, provided that the alteration will not preclude the structure's continued designation as an historic structure, and a variance is obtained from the Commission in conformance with Chapter 10, Section 10.10.

In the case of a bridge, containment wall, wharf, pier, dock, or breakwater, the substantial improvement determination is based on the present-day replacement cost in lieu of market value.

…

272. Zones A, AE, VE: See Flood, Zones A, AE, VE

…

Chapter 10 – Land Use Districts and Standards

10.10 VARIANCES

The Commission may grant variances pursuant to 12 M.R.S. § 685-A(10) and adopts this section to interpret and implement the statutory provision.

…

[**Revision Note:** The proposed change adds a section on variances for agricultural structures in flood prone areas, consistent with FEMA's Floodplain Management Bulletin P-2140, "Floodplain Management Requirements for Agricultural Structures and Accessory Structures" and the Maine Model Floodplain Ordinance.]

B. GRANTING OF A VARIANCE

…

5. In addition to the provisions of Section 10.10,B above, in flood prone areas, variances:

a. Must not be granted within any designated regulatory floodway if any increase in flood levels during the base flood discharge would result.

b. Must be granted only upon:

(1) A showing of good and sufficient cause; and,

(2) A determination that should a flood comparable to the base flood occur, the granting of a variance will not result in increased flood heights, additional threats to public safety, or public expense; create nuisances; or cause fraud or victimization of the public; and,

(3) A showing that the issuance of the variance will not conflict with other state or federal laws.

c. Must only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief, and the Commission may impose such conditions to a variance as it deems necessary.

d. May be issued for development for the conduct of a functionally dependent use provided that:

(1) Other criteria of Section 10.10 and Section 10.25,T,2,m are met; and,

(2) The structure or other development is protected by methods that minimize flood damages during the base flood and create no additional threats to public safety.

e. May be issued for Historic Structures upon the determination that the development:

(1) Meets the criteria of Sections 10.10,B,5,a through c above; and,

(2) Will not preclude the structure's continued designation as a Historic Structure and the variance is the minimum necessary to preserve the historic character and design of the structure.

f. May be issued for new construction and substantial improvement of agricultural structures being used for the conduct of agricultural uses provided that the development:

(1) Meets the criteria of Sections 10.10,B,5,a through c; and

(2) Meets the criteria of Sections 10.25,T,2,m, and n.

C. ISSUANCE

The Commission may issue a variance only after making written findings of fact and conclusions indicating that the petition, as modified by such terms and conditions as the Commission deems appropriate, has met the standards of Section 10.10,B. If the Commission denies the requested variance, it must provide the petitioner with written explanation of the reasons for denial.

D. VARIANCES IN SPECIAL FLOOD HAZARD AREAS

Any applicant who meets the criteria of Sections 10.10,B,5,a through f above must be notified by the Commission in writing over the signature of the Director that:

1. The issuance of a variance to construct a structure below the base flood level will result in greatly increased premium rates for flood insurance up to amounts as high as $25 per $100 of insurance coverage;

2. Such construction below the base flood level increases risks to life and property; and

3. The applicant must agree in writing that the applicant is fully aware of all the risks inherent in the use of land subject to flooding, assumes those risks and agrees to indemnify and defend the state against any claims filed against it that are related to the applicant's decision to use land located in a floodplain and that the applicant individually releases the state from any claims the applicant may have against the state that are related to the use of land located in a floodplain.

…

10.23 PROTECTION SUBDISTRICTS

Pursuant to the Commission's Comprehensive Land Use Plan, the following protection subdistricts are established:

…

C. FLOOD PRONE AREA PROTECTION SUBDISTRICT (P-FP)

1. Purpose

The purpose of the P-FP subdistrict is to regulate in all flood prone areas, including areas of special flood hazard, certain land use activities in order to minimize the human, environmental, and financial costs of floods and flood cleanup programs, by protecting on-site, adjacent, upstream and downstream property from flood damage; and by minimizing danger from malfunctioning water supply and waste disposal systems in flood prone areas; and to comply with the cooperative agreement between the Land Use Planning Commission and the Federal Emergency Management Agency (FEMA) regarding the regulation of land use according to the requirements of 44 CFR Part 60.3 of the National Flood Insurance Program, so that flood insurance can be made available to persons in flood prone areas.

2. Description

Areas located within the 100-year frequency floodplain, also known as areas of special flood hazard, as identified by the Commission after consideration of relevant data including, without limitation, areas determined to be flood prone by state or federal agencies, including Flood Insurance Studies, Flood Insurance Rate Maps, Flood Boundary and Floodway Maps, or Flood Hazard Boundary Maps prepared by the Federal Emergency Management Agency, historical data, and the National Cooperative Soil Survey.

The areas identified by FEMA as areas of special flood hazard (Zones A, AE, and VE) on Flood Insurance Rate Maps, Flood Boundary and Floodway Maps, or Flood Hazard Boundary Maps qualify as flood prone areas appropriate for protection within this subdistrict. The Commission adopts the FEMA maps, and a note on the corresponding Official Land Use Guidance Maps must refer to the FEMA maps so adopted. In any case where the boundaries of a Commission-mapped P-FP subdistrict on an Official Land Use Guidance Map differ from the boundaries of the FEMA zones, the FEMA boundaries also apply. The FEMA zones must be regulated according to the provisions of the P-FP subdistrict.

3. Land Uses

a. Uses Allowed Without a Permit

The following uses are allowed without a permit from the Commission within P-FP subdistricts:

…

b. Uses Allowed Without a Permit Subject to Standards

The following uses are allowed without a permit from the Commission within P-FP subdistricts subject to the applicable requirements set forth in Sub-Chapter III:

…

c. Uses Requiring a Permit

The following uses, and related accessory structures, may be allowed within P-FP subdistricts upon issuance of a permit from the Commission pursuant to 12 M.R.S., §685-B, and subject to the applicable requirements set forth in Sub-Chapter III:

…

[**Revision Note:** The requirement for trails has been moved to a new section on trails in the development standards for flood prone areas, 10.25,T,2,s.]

(17) Trailered ramps:
  (a) Commercial trailered ramps; and
  (b) Public trailered ramps;

(18) Trails~~constructed and maintained so as to reasonably avoid sedimentation of water bodies~~;

d. Special Exceptions

The following uses, and related accessory structures, may be allowed within P-FP subdistricts as special exceptions upon issuance of a permit from the Commission pursuant to 12 M.R.S. § 685-A(10), the criteria of Sections 10.24,B,1 through 3, and subject to the applicable requirements set forth in Sub-Chapter III:

…

[**Revision Note:** The addition of lobster sheds and fish sheds to the Special Exception list follows from the current requirement in 10.25,T,2 that under the circumstances listed below, lobster sheds and fish sheds are permitted as a Special Exception.]

(3) Lobster sheds and fish sheds located on a wharf, pier, or dock; that are seaward of the reach of the mean high tide; and that meet the criteria in Sections 10.25,T,2,r,(6),(a),(i) through (ix);

(4) Recreational lodging facilities: Level B except as provided for in Section 10.23,C,3,c, and Level C having not more than 10,000 square feet of gross floor area for all principal buildings; provided that any recreational lodging facility must rely upon the water resource for their existence, including their reconstruction, relocation, or replacement; new construction, reconstruction or replacement of a permanent foundation; substantial improvement or accessory structures;

(5) Residential: Single family dwellings, including their reconstruction, relocation, or replacement; new construction, reconstruction or replacement of a permanent foundation; substantial improvement or accessory structures;

(6) Trailered ramps: Private trailered ramps, in accordance with Section 10.27,L,1; and

(7) Water-access ways, in accordance with Section 10.27,L,1.

…

f. Prohibited Uses

All uses not expressly allowed, with or without a permit or by special exception, must be prohibited in P-FP subdistricts.

…

N. WETLAND PROTECTION SUBDISTRICT (P-WL)

…

3. Land Uses

…

c. Uses Requiring a Permit

Except as provided for in Sections 10.23,N,3,b,(3) and (5), the following uses, and related accessory structures, may be allowed within P-WL subdistricts upon issuance of a permit from the Commission according to 12 M.R.S. § 685-B and subject to the applicable requirements set forth in Sub-Chapter III:

…

d. Special Exceptions

Except as provided for in Sections 10.23,N,3,b,(3) and (5), the following uses, and related accessory structures, may be allowed within P-WL subdistricts as special exceptions upon issuance of a permit from the Commission according to 12 M.R.S. § 685-A(10), the criteria of Sections 10.24,B,1 through 3, and subject to the applicable requirements set forth in Sub-Chapter III:

…

[**Revision Note:** The proposed change clarifies the circumstances under which lobster sheds and fish sheds are a special exception in the P-WL subdistrict following existing language in 10.25,T,2.]

(4) Lobster sheds and fish sheds located on a pier, wharf, or dock; in the P-FP subdistrict; that are seaward of the reach of the mean high tide; and that meet the criteria in Sections 10.25,T,2,r,(6),(a),(i) through (ix);
(5) Marinas;
(6) Mineral exploration activities: Level A mineral exploration activities, except as provided for in Section 10.23,N,3,b,(7), and Level B mineral exploration activities;
(7) Road projects: Level C road projects;
(8) Trailered ramps: Trailered ramps except as provided in Section 10.23,N,3,b and c;
(9) Utility facilities, including service drops except as provided for in Section 10.23,N,3,b; and
(10) Water-access ways, in accordance with Section 10.27,L,1.

…

10.25 DEVELOPMENT STANDARDS

This section contains review standards for structures and uses that require issuance of a permit from the Commission, or as otherwise required in Sub-Chapter II. Except as herein provided, development not in conformance with the standards of this section is prohibited.

Nothing in this section precludes the Commission from imposing additional reasonable terms and conditions in its permits as the Commission may deem appropriate to satisfy the criteria for approval and purposes set forth in the Commission's statutes, rules and the Comprehensive Land Use Plan.

…

T. ACTIVITIES IN FLOOD PRONE AREAS

All development in flood prone areas, including areas of special flood hazard, as identified by P-FP subdistricts or Federal Emergency Management Agency (FEMA) Flood Boundary and Floodway, Flood Hazard Boundary, or Flood Insurance Rate maps, must meet the following applicable requirements and standards:

1. Procedural Requirements.

a. Where a special flood hazard area is indicated solely by a Commission-mapped P-FP subdistrict, the area will be regulated according to standards applicable to the A zone.

b. Determinations of base flood elevations (bfe) in Commission-mapped P-FP subdistricts, A zones, and other flood prone areas must be made in a consistent manner, according to methods outlined in the document "Dealing with Unnumbered A Zones in Maine Floodplain Management" (Maine Floodplain Management Program, September 25, 2013).

c. Base flood elevations for AE and VE zones must be those determined by FEMA in a Flood Insurance Study, where available.

d. If Commission-mapped P-FP zones and A, AE, or VE zones apply to an area where FEMA has issued a Letter of Map Amendment (LOMA) or Letter of Map Revision (LOMR) to an applicant determining that the structure or property is not located in the area of special flood hazard, the requirements of Sections 10.23,C and 10.25,T, do not apply to the structure or property specified in the LOMA or LOMR.

e. Applicants must notify adjacent towns, plantations and townships in writing prior to any alteration or relocation of a watercourse when project applications propose alterations or relocations of flowing waters in a Commission-mapped P-FP Subdistrict or FEMA zone.

2. Development Standards.

a. Development in flood prone areas, including areas of special flood hazard, must be reasonably safe from flooding and must:

(1) Be designed or modified and adequately anchored to prevent flotation (excluding floating piers and docks), collapse, or lateral movement resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy;

(2) Use construction materials that are resistant to flood damage;

(3) Use construction methods and practices that will minimize flood damage; and

(4) Use electrical, heating, ventilation, plumbing, and air conditioning equipment, and other service facilities that are designed and/or located to prevent water from entering or accumulating within the components during flooding conditions.

b. Water Supply. All new and replacement water supply systems must be designed to minimize or eliminate infiltration of flood waters into the systems.

c. Sanitary Sewage Systems. All new and replacement sanitary sewage systems must be designed and located to minimize or eliminate infiltration of flood waters into the system and discharges from the system into flood waters.

d. On-Site Waste Disposal Systems. On-site waste disposal systems must be located and constructed to avoid impairment to them or contamination from them during floods.

e. Watercourse Carrying Capacity. All development associated with altered or relocated portions of a watercourse must be constructed and maintained in such a manner that no reduction occurs in the flood carrying capacity of the watercourse.

[**Revision Note:** The new section on utilities is a new section in the Maine Model Ordinance intended to meet FEMA requirements.]

f. Utilities. New construction or substantial improvement of any structure (including manufactured homes) must:

(1) Have the bottom of all electrical, heating, plumbing, ventilation and air conditioning equipment, permanent fixtures and components, HVAC ductwork and duct systems, and any other utility service equipment, facilities, machinery, or connections servicing a structure, elevated:

(a) To at least one foot above the base flood elevation; or

(b) In the absence of all data described in Sections 10.25,T,1,b, and c, to at least two feet above the highest adjacent grade to the structure; and

(2) When located within Zone VE, meet the requirements of Section 10.25,T,2,r,(2),(c).

[**Revision Note:** The new section on physical changes to the natural landscape is a new section in the Maine Model Ordinance and is added to meet a community's obligation to monitor development that may affect any aspect of a Flood Insurance Rate Map.]

g. Physical Changes to the Natural Landscape. Certain projects, including but not limited to, retaining walls, sea walls, levees, berms, and riprap, can cause physical changes to the natural landscape that affect flooding conditions.

(1) All development in Zones AE and VE that causes physical changes to the natural landscape must be reviewed by a professional engineer to determine whether the

project changes the base flood elevation, flood zone, or the flood hazard boundary line. Review may be waived for projects that are unlikely to change the base flood elevation, the flood zone, or the flood hazard boundary line, such as those that are too small or are located at grade.

(a) If the professional engineer determines, through the use of standard practices, that the project would not necessitate a LOMR, a certified statement must be provided to that effect.

(b) If the professional engineer determines that the project may cause a change to the base flood elevation, the flood zone, or the flood hazard boundary line, a technical hydrologic and hydraulic analysis that meets FEMA standards for flood hazard mapping must be performed.

(2) If the hydrologic and hydraulic analysis performed indicates a change to the base flood elevation, flood zone, or the flood hazard boundary line:

(a) The applicant may submit a Conditional Letter of Map Revision (C-LOMR) request to FEMA for assurance that the as-built project will result in a change to the FIRM. Once the development is completed, a request for a LOMR must be initiated; or

(b) as soon as practicable, but no later than 6 months after the completion of the project, the applicant must submit the technical data to FEMA in the form of a LOMR request.

[**Revision Note:** The changes proposed to the sections on residential structures, nonresidential structures, and manufactured homes incorporate the option that in the absence of all information on base flood elevation, property owners may elect to elevate 2 ft above the highest adjacent grade. This option is included in the document "Dealing with Unnumbered A Zones in Maine Floodplain Management" (Maine Floodplain Management Program September 25, 2013), was incorporated into the Maine Model Ordinance in 2017, and has been reviewed and approved by FEMA during review of the Maine Model Ordinance. See also 10.25,T,1,b.]

h. Residential Structures. New construction or substantial improvement of any residential structure must:

(1) Have the lowest floor (including basement) and utilities elevated:

(a) To at least one foot above the base flood elevation; or

(b) In the absence of all data described in Sections 10.25,T,1,b, and c to at least two feet above the highest adjacent grade to the structure; and

(2) When located within Zone VE, meet the requirements for coastal floodplains in Section 10.25,T,2,r.

i. Nonresidential Structures. Notwithstanding Section 10.25,T,2,f, new construction or substantial improvement of any nonresidential structure must:

(1) Have the lowest floor (including basement) elevated to at least one foot above the base flood elevation and comply with Section 10.25,T,2,f, or

(2) Together with attendant utility and sanitary facilities:

(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 the passage of water;

(b) Have structural components designed to resist hydrostatic and hydrodynamic loads and the effects of buoyancy; and

(c) Be certified by a registered professional engineer or architect that the floodproofing design and methods of construction are in accordance with accepted standards of practice for meeting the provisions of Section 10.25,T. Such certification must include a record of the elevation above mean sea level to which the structure is floodproofed.

(3) When located within Zone A and in the absence of all data described in Sections 10.25,T,1,b, and c:

(a) Have the lowest floor and utilities elevated to at least two feet above the highest adjacent grade to the structure; or

(b) Together with attendant utility and sanitary facilities, be floodproofed to at least two feet above the highest adjacent grade to the structure and meet the floodproofing standards of Sections 10.25,T,2,i,(2),(b), and (c).

(4) When located within Zone VE, meet the requirements for coastal floodplains in Section 10.25,T,2,r.

j. Manufactured Homes. New manufactured homes or substantial improvements of any manufactured home must:

(1) Be elevated such that the lowest floor (including basement) and utilities of the manufactured home are:

(a) At least one foot above the base flood elevation; or

(b) When located within Zone A and in the absence of all data described in Sections 10.25,T,1,b, and c, at least two feet above the highest adjacent grade to the structure.

(2) Be on a permanent foundation, which may be poured masonry slab or foundation walls, with hydraulic openings, or may be reinforced piers or block supports, any of which support the manufactured home so that no weight is supported by its wheels and axles; and

(3) 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:

(a) 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 (manufactured homes less than 50 feet long require one additional tie per side); or

(b) Frame ties at each corner of the home, plus five additional ties along each side at intermediate points (manufactured homes less than 50 feet long require four additional ties per side).

All components of the anchoring system described in subsections (a) and (b) above must be designed to carry a force of 4,800 pounds.

(4) When located within Zone VE, meet the requirements for coastal floodplains in Section 10.25,T,2,r.

[**Revision Note:** Increasing the limit to 120 consecutive days corresponds to the Commission's definition for transient occupancy.]

k. Recreational Vehicles. Recreational vehicles must either:

(1) Be on the site for fewer than 120 consecutive days and 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

(2) Be permitted in accordance with the elevation and anchoring requirements for manufactured homes in Section 10.25,T,2,j.

(3) When located within Zone VE, be on the site for fewer than 120 consecutive days and be fully licensed and ready for highway use, or meet the requirements for coastal floodplains in Section 10.25,T,2,r.

[**Revision Note:** Changes to the section on Accessory Structures are proposed following FEMA's Floodplain Management Bulletin P-2140, "Floodplain Management Requirements for Agricultural Structures and Accessory Structures."]

l. Accessory Structures. Accessory structures, as defined, and agricultural structures meeting the definition of accessory structure are exempt from the required elevation criteria if all other requirements of Sections 10.25,T and 10.25,T,2,l,(1) through (7) are met. Exempt accessory and agricultural structures must:

(1) Be limited in size:

(a) Within Zones A and AE, to a one-story building with a floor area of no more than 600 square feet; and

(b) Within Zone VE, to a one-story building with a floor area of no more than 100 square feet;

(2) Have unfinished interiors and not be used for human habitation;

(3) Have hydraulic openings, as specified in Section 10.25,T,2,n,(2), in at least two different walls of the accessory structure;

(4) Be located outside the floodway, as determined by the provisions of Section 10.25,T,2,m;

(5) When possible be constructed and placed on the building site so as to offer the minimum resistance to the flow of floodwaters and be placed further from the source of flooding than is the primary structure;

(6) Have only ground fault interrupt electrical outlets; and

(7) Have the electric service disconnect located:

(a) At least one foot above the base flood elevation; or

(b) In the absence of all data described in Sections 10.25,T,1,b, and c to at least two feet above the highest adjacent grade to the structure; or

(c) When possible outside the Area of Special Flood Hazard.

[**Revision Note:** FEMA allows technical evaluation to be waived for projects that are unlikely to cause an increase in the base flood level, such as projects that are too small or that are located at grade.]

m. Development in Floodways.

(1) In Zone AE adjacent to areas of flowing water, encroachments, including fill, new construction, substantial improvement and other development are not permitted within a regulatory floodway which is designated on the township's, plantation's, or town's Flood Insurance Rate Map or Flood Boundary and Floodway Map, unless a technical evaluation certified by a registered professional engineer is provided demonstrating that such encroachments will not result in any increase in flood levels during the occurrence of the base flood discharge. Technical evaluation may be waived for projects that are unlikely to cause an increase in the base flood level due to small size or location at grade.

(2) In Zones A and AE adjacent to areas of flowing water, for which no regulatory floodway is designated, encroachments, including without limitation fill, new construction, substantial improvement and other development are not permitted in the floodway as determined in Section 10.25,T,2,m,(3) below 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; and

(b) Is consistent with the technical criteria contained in FEMA's guidelines and standards for flood risk analysis and mapping.

Technical evaluation may be waived for projects that are unlikely to cause an increase in the base flood level due to small size or location at grade.

(3) In Zones A and AE adjacent to areas of flowing water for which no regulatory floodway is designated, the regulatory floodway is determined to be the channel of the river or other flowing water 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.

n. Enclosed Areas Below the Lowest Floor. New construction or substantial improvement of any structure in Zones A and AE that meets the development standards of Section 10.25,T, including the elevation requirements, 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 Chapter 2 of the Commission's rules;

(2) Enclosed areas must 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 certified by a registered professional engineer or architect; or

(b) Meet or exceed the following minimum criteria:

(i) 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;

(ii) The bottom of all openings must be below the base flood elevation and no higher than one foot above the lowest grade; and

(iii) 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) Enclosed areas must not be used for human habitation; and

(4) Enclosed areas are usable solely for building access, parking of vehicles, or storage.

o. Bridges. New construction or substantial improvement of any bridge must 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 must certify that:

(a) The structural design and methods of construction meet the elevation requirements of Section 10.25,T,2,o,(1) above and the floodway standards of Section 10.25,T,2,m; and

(b) The foundation and superstructure attached thereto are designed 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 must be those associated with the base flood.

p. Containment Walls. New construction or substantial improvement of any containment wall must:

(1) Have the top of the containment wall elevated to at least one foot above the base flood elevation;

(2) Have structural components designed to resist hydrostatic and hydrodynamic loads and the effects of buoyancy; and

(3) 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 Section 10.25,T.

[**Revision Note:** The proposed change requiring engineering certification for all wharves, piers, and docks is consistent with the Maine Model Ordinance. Engineering certification is proposed to be required in coastal AE and VE zones and the standards of certification are added, following existing standards for certification of bridges, containment walls, and nonresidential structures. Breakwaters are added as a use requiring engineering certification.]

q. Wharves, Piers, Docks, and Breakwaters. New construction or substantial improvement of wharves, piers, docks, and breakwaters is permitted in and over water and seaward of the mean high tide if the following requirements are met:

(1) In coastal floodplains, a registered professional engineer must certify that the design:

(a) Resists flotation, collapse, and lateral movement due to the effects of wind and water loads, including the effects of buoyancy, acting simultaneously on all structural components during a base flood;

(b) Meets the standards in Sections 10.25,T,2,a,2 through 4 and does not increase flood risk; and

(c) Is in accordance with accepted standards of practice for meeting the provisions of Section 10.25,T and ensuring that development is reasonably safe from flooding.

(2) In non-coastal floodplains, wharves, piers, and docks must meet the standards in Section 10.25,T,2,a and must not increase flood risk.

[**Revision Note:** FEMA has clarified the requirement that development be located landward of the mean high tide applies to new construction only. This change is consistent with the latest version of the Maine Model Ordinance, as are the proposed requirements for utilities in VE Zones. Proposed changes to the section on lobster sheds and fishing sheds serve to clarify the rule.]

r. Coastal Floodplains.

(1) New construction must be located landward of the reach of mean high tide except for wharves, piers, docks, and breakwaters or as provided in Section 10.25,T,2,r,(6) below.

(2) New construction or substantial improvement of any structure located within Zone VE, with the exception of accessory structures meeting the requirements for wet floodproofing in Section 10.25,T,2,l, must:

(a) Be elevated on posts or columns such that:

(i) The bottom of the lowest horizontal structural member of the lowest floor (excluding the pilings or columns) is elevated to one foot above the base flood elevation; and

(ii) 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.

Water loading values used must be those associated with the base flood. Wind loading values used must be based on the "Coastal Construction Manual" (FEMA P-55, August 2011) or equivalent Maine building standards.

(b) Have the space below the lowest floor:

(i) Free of obstructions; or

(ii) 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

(iii) 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) Have the bottom of all electrical, heating, plumbing, ventilation and air conditioning equipment, permanent fixtures and components, HVAC ductwork and duct systems, and any other utility service equipment, facilities, machinery, or connections servicing a structure, elevated to at least one foot above the base flood elevation. Systems, fixtures, equipment, and components must not be mounted on or penetrate through walls intended to break away under flood loads.

(d) Require a registered professional engineer or architect to certify that:

(i) The structural design, specifications, and planned methods of construction meet or exceed the technical criteria contained in the "Coastal Construction Manual" (FEMA P-55, August 2011); and that

(ii) The design and planned methods of construction are in accordance with accepted standards of practice for meeting the criteria of Section 10.25,T,2,r,(2).

(3) The use of fill for structural support in Zone VE is prohibited.

(4) Human alteration of sand dunes within Zone VE is prohibited unless it can be demonstrated that such alterations will not increase potential flood damage.

(5) Areas below the lowest floor may be used solely for parking vehicles, building access, and storage.

(6) A lobster shed or fishing shed on a wharf, pier, or dock:

(a) May be located seaward of mean high tide if the requirements of Section 10.23,C,3,d and all of the following are met:

(i) The shed is 200 square feet or less and does not exceed one story;

(ii) The shed is a low value structure such as a metal or wood shed;

(iii) The shed is securely anchored to the wharf, pier, or dock to resist flotation, collapse, and lateral movement due to the effect of wind and water loads acting simultaneously on all building components;

(iv) The shed will not adversely increase wave or debris impact forces affecting nearby buildings;

(v) The shed has an unfinished interior and is not used for human habitation;

(vi) Mechanical equipment, utility equipment, and fuel storage tanks are securely anchored and either elevated or floodproofed to one foot above the base flood elevation;

(vii) All electrical outlets are ground fault interrupt type;

(viii) The electrical service disconnect is located on shore above the base flood elevation and when possible outside the Special Flood Hazard Area; and

(ix) The requirements of Sections 10.25,T,2,a,m, and n are met.

A lobster shed or fishing shed permitted under the requirements of Section 10.23,C,3,d requires a variance to be expanded.

(b) Is exempt from the elevation requirement if the standards in Sections 10.25,T,2,r,(6),(a),(i) through (ix) are met.

s. Trails. Trails must:

(1) Be constructed and maintained so as to reasonably avoid sedimentation of water bodies; and

(2) Meet applicable requirements in Sections 10.25,T,2,a, e, m, and r.

…

10.26 DIMENSIONAL REQUIREMENTS

The following dimensional requirements apply to all lots on which structural development is proposed unless otherwise provided by Section 10.26,G.

…

F. MAXIMUM STRUCTURE HEIGHT

1. Except as provided for in Section 10.26,F,2, 4, and 5 below, the maximum structure height must be:

a. 75 feet for residential uses, campsites, and residential campsites; and

b. 100 feet for commercial, industrial, and other non-residential uses involving one or more structures.

2. Structures within 500 feet of the normal high water mark of a body of standing water 10 acres or greater or coastal wetland must be no higher than 30 feet. The Commission may apply this provision at greater distances from the normal high water mark of bodies of standing water having significant or outstanding scenic values where there is the likelihood that such structures would have an adverse impact on scenic values. Bodies of standing water having such scenic values are shown in Appendix C.

3. Features of structures which contain no floor area such as chimneys, towers, ventilators and spires and freestanding towers and turbines may exceed these maximum heights with the Commission's approval.

4. Structure Height in Prospectively Zoned Areas.

a. In areas beyond 500 feet of the normal high water mark of a body of standing water 10 acres or greater, structure height in the D-GN, D-GN2, D-GN3, D-RS, D-RS2, D-RS3, D-CI, and D-ES in prospectively zoned areas must be limited to 35 feet. Structures used for agricultural management, structures with no floor area, or features of buildings which contain no floor area such as chimneys, towers, ventilators, and spires may exceed these maximum heights with the Commission’s approval.

b. Structures within 500 feet of the normal high water mark of a body of standing water 10 acres or greater in size must conform to the provisions of Section 10.26,F,2 above.

5. Structure Height in Trescott Township. Structures within 500 feet of State Route 191 in Trescott Township must be no higher than 40 feet.

6. Structures in Flood Prone Areas. Notwithstanding the provisions of Sections 10.11,C,1,a; 10.11,C,1,b; 10.26,F,1; and 10.26,F,2, the applicable maximum structure height may be increased for any structure in a P-FP subdistrict to allow for raising the structure a maximum of either:

a. two feet above the nearest adjacent grade; or

b. two feet above the base flood elevation as determined by any method given in Sections 10.25,T,1,b, or c.