

MAINE MODEL FLOODPLAIN MANAGEMENT ORDINANCE WITH COMMENTARY

ARTICLE I – PURPOSE AND ESTABLISHMENT

Certain areas of the (Town/City) of _____, Maine are subject to periodic flooding, causing serious damages to properties within these areas. Relief is available in the form of flood insurance as authorized by the National Flood Insurance Act of 1968.

Therefore, the (Town/City) of _____, Maine has chosen to become a participating community in the National Flood Insurance Program, and agrees to comply with the requirements of the National Flood Insurance Act of 1968 (P.L. 90-488, as amended) as delineated in this Floodplain Management Ordinance.

It is the intent of the (Town/City) of _____, Maine to require the recognition and evaluation of flood hazards in all official actions relating to land use in the floodplain areas having special flood hazards.

The (Town/City) of _____ has the legal authority to adopt land use and control measures to reduce future flood losses pursuant to Title 30-A MRSA, Sections 3001-3007, 4352, 4401-4407, and Title 38 MRSA, Section 440.

The National Flood Insurance Program, established in the aforesaid Act, provides that areas of the (Town/City) of _____ having a special flood hazard be identified by the Federal Emergency Management Agency and that floodplain management measures be applied in such flood hazard areas. This Ordinance establishes a Flood Hazard Development Permit system and review procedure for development activities in the designated flood hazard areas of the (Town/City) of _____, Maine.

The areas of special flood hazard, Zones A, A1-30, AE, AO, AH, V1-30, and/or VE, are identified by the Federal Emergency Management Agency in a report entitled "Flood Insurance Study - (Town/City) of _____, Maine, _____ County," dated _____ with accompanying "Flood Insurance Rate Map" dated _____ with panels: (list panel numbers with suffix) derived from the county wide digital Flood Insurance Rate Map entitled "Digital Flood Insurance Rate Map, _____ County," are hereby adopted by reference and declared to be a part of this Ordinance.

ARTICLE II - PERMIT REQUIRED

Before any construction or other development (as defined in Article XIV), including the placement of manufactured homes, begins within any areas of special flood hazard established in Article I, a Flood Hazard Development Permit shall be obtained from the _____ except as provided in Article VII. This permit shall be in addition to any other permits which may be required pursuant to the codes and ordinances of the (Town/City) of _____, Maine.

COMMENTARY

The first four paragraphs were added to Article I in 1996. These paragraphs were formerly in the Statement of Purpose and Intent. These paragraphs clarify the purpose of the community's participation in the National Flood Insurance Program.

This article establishes the purposes of the ordinance and references the federal statutes and programs.

The last paragraph references the Flood Insurance Study (FIS) and/or Flood Insurance Rate Maps (FIRMs) that have been prepared for the community. It incorporates these documents as part of the ordinance. If your community is not a coastal community, your ordinance should not include reference to zones V1-30 or VE. Communities with FIRM maps after 1986 will not have A1-30 Zones. Likewise, communities with older FIRMs will not have AE Zones. AO and AH are typically coastal flooding zones. If a detailed study has not been done for your community, your ordinance should only refer to Zone A and will not reference a FIS, only the FIRM.

Sometimes, a community may have a FIRM that includes Base Flood Elevations (BFEs) derived from a FIS done for an adjoining community. This may occur when two or more communities share a water body.

Article II establishes the requirement for a permit prior to development within the floodplain. The key word here is "development." The NFIP defines development more broadly than do most communities for regulatory purposes.

The blank here identifies the official administering the ordinance, usually the Code Enforcement Officer (CEO) or Planning Board (PB).

MAINE MODEL FLOODPLAIN MANAGEMENT ORDINANCE WITH COMMENTARY

ARTICLE III - APPLICATION FOR PERMIT

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

- A. The name, address, and phone number of the applicant, owner, and contractor;
- B. An address and a map indicating the location of the construction site;
- C. A site plan showing location of existing and/or proposed development, including but not limited to structures, sewage disposal facilities, water supply facilities, areas to be cut and filled, and lot dimensions;
- D. A statement of the intended use of the structure and/or development;
- E. A statement of the cost of the development including all materials and labor;
- F. A statement as to the type of sewage system proposed;
- G. Specification of dimensions of the proposed structure and/or development;

[Items H-K.3. apply only to new construction and substantial improvements.]

- H. The elevation in relation to the National Geodetic Vertical Datum (NGVD), North American Vertical Datum (NAVD), or to a locally established datum in Zone A only, of the:
 - 1. base flood at the proposed site of all new or substantially improved structures, which is determined:
 - a. in Zones A1-30, AE, AO, AH, V1-30, and VE from data contained in the "Flood Insurance Study - (Town/City) of _____, Maine," as described in Article I; or,
 - b. in Zone A:
 - (1) from any base flood elevation data from federal, state, or other technical sources (such as FEMA's Quick-2 model, FEMA 265), including information obtained pursuant to Article VI.K. and IX.D.; or,

The blank here needs to identify the local official responsible for accepting the permit application, usually the CEO or PB.

The Maine Floodplain Management Program (MFMP) has a state model application and permit package that the community may use as is or in developing their own permitting forms.

The questions asked in Article III (and the information requested on the model application and permit forms) are required for the CEO or PB to properly administer the community's ordinances in order to meet the minimum standards of NFIP.

NGVD or NAVD should be used, even in Zone A, when feasible. The datum on the community's FIRM must be the datum used for permitting purposes. Elevations should be certified by an architect, professional engineer or professional land surveyor, and submitted with the permit application. As communities are provided digital maps, the datum will change to North American Vertical Datum 1988 (NAVD). NGVD or NAVD should not be confused with mean high or mean low water.

If a community has not undergone a detailed study, the reference will only be made to Zone A. Communities without velocity zones should not reference zones V1-30 or VE.

[FEMA's Quick-2](#) program can be used to calculate BFEs in open flow channels. Quick-2 will provide flood depth and the elevation in NGVD or NAVD. That conversion must be done separately.

MAINE MODEL FLOODPLAIN MANAGEMENT ORDINANCE WITH COMMENTARY

- (2) in the absence of all data described in Article III.H.1.b.(1), information to demonstrate that the structure shall meet the elevation requirement in Article VI.F.4.b., Article VI.G.4.b., or Article VI.H.4.b.
2. highest and lowest grades at the site adjacent to the walls of the proposed building;
3. lowest floor, including basement; and whether or not such structures contain a basement; and,
4. level, in the case of non-residential structures only, to which the structure will be floodproofed;
- I. A description of an elevation reference point established on the site of all developments for which elevation standards apply as required in Article VI;
- J. A written certification by a Professional Land Surveyor, registered professional engineer or architect, that the base flood elevation and grade elevations shown on the application are accurate;
- K. The following certifications as required in Article VI by a registered professional engineer or architect:
 1. a Floodproofing Certificate (FEMA Form 81-65, as amended), to verify that the floodproofing methods for any non-residential structures will meet the floodproofing criteria of Article VI.G.; and other applicable standards in Article VI;
 2. a V-Zone Certificate to verify that the construction in coastal high hazard areas, Zones V1-30, VE, and Coastal AE Zone, will meet the criteria of Article VI.P.; and other applicable standards in Article VI;
 3. a Hydraulic Openings Certificate to verify that engineered hydraulic openings in foundation walls will meet the standards of Article VI.L.2.a.;
 4. a certified statement that bridges will meet the standards of Article VI.M.;
 5. a certified statement that containment walls will meet the standards of Article VI.N.

If there is no base flood elevation information available from any existing source, the applicant can either: (1) choose to build so that the top of the lowest floor is elevated two feet above the highest adjacent grade to the outside of the building, or (2) hire a professional engineer to calculate the base flood elevation. This language was added to the model ordinance in 2017 to clarify the requirement that basements or crawlspaces should not be sunk underground in Zone A. Any "walk out" area in Zone A (that has one side at grade), should have hydraulic openings (i.e., flood vents). Unlike flood zones that have a BFE, flood insurance in Zone A is rated on the differential between the highest adjacent grade and the lowest floor of the building. The lower the floor is below the highest adjacent grade, the more expensive flood insurance will be.

A PLS or PE needs to establish a reference mark (RM) or Temporary Bench Mark (TMB) on site for convenient referencing by the applicant and the CEO during planning and construction.

Elevations should be certified by an architect, professional engineer or professional land surveyor, and submitted with the permit application. They do not need to be on an Elevation Certificate.

Non-residential structures can be dry floodproofed in lieu of elevating. An architect or PE must certify that the building design meets this standard.

Inland communities or communities without velocity zones will not have this language in the ordinance.

There is a model V-Zone Certificate included in the state application and permit forms.

For further guidance, see [FEMA Technical Bulletin 1, Openings in Foundation Walls](#).

There is a model Hydraulic Openings Certificate included in the state application and permit forms. This certificate is not required if designing openings to the minimum standard as outlined in Article VI.L.2.b.

MAINE MODEL FLOODPLAIN MANAGEMENT ORDINANCE WITH COMMENTARY

- L. A description of the extent to which any water course will be altered or relocated as a result of the proposed development; and,
- M. A statement of construction plans describing in detail how each applicable development standard in Article VI will be met.

Altered or relocated watercourses usually require other Federal and State permits (USACE and DEP) before a local permit is issued. The community has notification responsibilities under Article V.E. and other responsibilities under 44 CFR 65.3 since altering or relocating a watercourse will trigger the need for a Letter of Map Revision (LOMR).

ARTICLE IV - APPLICATION FEE AND EXPERT'S FEE

A non-refundable application fee of \$ _____ for all minor development and \$ _____ for all new construction or substantial improvements shall be paid to the (Town/City) Clerk or Code Enforcement Officer and a copy of a receipt for the same shall accompany the application.

The MFMP suggests that communities charge a fee to help offset the costs of administering the ordinance. Many communities charge a split fee of \$25 for minor permits and \$50 for new construction or substantial improvement. Alternative fee options are available for consideration.

An additional fee may be charged if the Code Enforcement Officer, Planning Board, and/or Board of Appeals needs the assistance of a professional engineer or other expert. The expert's fee shall be paid in full by the applicant within 10 days after the town submits a bill to the applicant. Failure to pay the bill shall constitute a violation of the ordinance and be grounds for the issuance of a stop work order. An expert shall not be hired by the municipality at the expense of an applicant until the applicant has either consented to such hiring in writing or been given an opportunity to be heard on the subject. An applicant who is dissatisfied with a decision to hire expert assistance may appeal that decision to the Board of Appeals.

This paragraph allows the community to collect an additional fee for applications of greater technical difficulty to allow the community to hire the necessary technical assistance. This allows for additional information or clarification on issues needing expert review.

ARTICLE V - REVIEW STANDARDS FOR FLOOD HAZARD DEVELOPMENT PERMIT APPLICATIONS

The _____ shall:

- A. Review all applications for the Flood Hazard Development Permit to assure that proposed developments are reasonably safe from flooding and to determine that all pertinent requirements of Article VI (Development Standards) have been, or will be met;
- B. Utilize, in the review of all Flood Hazard Development Permit applications:
 - 1. the base flood and floodway data contained in the "Flood Insurance Study - (Town/City) of _____, Maine," as described in Article I.;
 - 2. in special flood hazard areas where base flood elevation and floodway data are not provided, the _____ shall obtain,

This blank must identify the official administering the ordinance, usually the CEO or PB. The MFMP recommends the CEO due to available training and certification requirements for CEOs.

Required by NFIP: 44 CFR 60.3(a)(3)

*Again, Identify the official administering the ordinance.
Required by NFIP: 44 CFR 60.3(b)(4)*

MAINE MODEL FLOODPLAIN MANAGEMENT ORDINANCE WITH COMMENTARY

review and reasonably utilize any base flood elevation and floodway data from federal, state, or other technical sources, including information obtained pursuant to Article III.H.1.b.(1); Article VI.K.; and Article IX.D., in order to administer Article VI of this Ordinance; and,

3. when the community establishes a base flood elevation in a Zone A by methods outlined in Article III.H.1.b.(1), the community shall submit that data to the Maine Floodplain Management Program.

- C. Make interpretations of the location of boundaries of special flood hazard areas shown on the maps described in Article I of this Ordinance;

Required by NFIP: 44 CFR 60.3(a)(3) and 44 CFR 59.22(a)(8)

- D. In the review of Flood Hazard Development Permit applications, determine that all necessary permits have been obtained from those federal, state, and local government agencies from which prior approval is required by federal or state law, including but not limited to Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1344;

Required by NFIP: 44 CFR 60.3(a)(2)
Federal regulations cited above require that all other permits must have been issued and be in hand prior to the issuance of the Flood Hazard Development Permit. The Flood Hazard Development Permit is the last permit to be issued in the chain of permits.

- E. Notify adjacent municipalities, the Department of Environmental Protection, and the Maine Floodplain Management Program prior to any alteration or relocation of a water course and submit copies of such notifications to the Federal Emergency Management Agency;

Required by NFIP: 44 CFR 60.3(b)(6)
Alteration or relocation of a waterway requires a Letter of Map Revision (LOMR) as provided in 44 CFR 65.

- F. If the application satisfies the requirements of this Ordinance, approve the issuance of one of the following Flood Hazard Development Permits, based on the type of development:

Required by NFIP: 44 CFR 60.3(b)(1)

The Decision Tree located in the state model application and permit package may be helpful in determining which type of permit to issue.

1. A two-part Flood Hazard Development Permit for elevated structures. Part I shall authorize the applicant to build a structure to and including the first horizontal floor only above the base flood level. At that time the applicant shall provide the Code Enforcement Officer with an "under construction" Elevation Certificate completed by a Professional Land Surveyor, registered professional engineer or architect based on the Part I permit construction, for verifying compliance with the elevation requirements of Article VI, paragraphs F., G., H., or P. Following review of the Elevation Certificate data, which shall take place within 72 hours of receipt of the application, the Code Enforcement Officer shall issue Part II of

A two-part permit system is not required by the NFIP but is strongly recommended by the MFMP and is incorporated into the model ordinance. It is much easier to correct a problem of lowest floor elevation before the structure is completed.

The Model FMO requires the use of the Elevation Certificate. Credit is given under the Community Rating System (CRS) for using the FEMA Elevation Certificate.

Please use the most current Elevation Certificate available. FEMA may not accept outdated forms for insurance purposes or Letter of Map Corrections. At least 2 photos are also required showing the front and the back of the building.

MAINE MODEL FLOODPLAIN MANAGEMENT ORDINANCE WITH COMMENTARY

the Flood Hazard Development Permit. Part II shall authorize the applicant to complete the construction project; or,

2. A Flood Hazard Development Permit for Floodproofing of Non-Residential Structures that are new construction or substantially improved non-residential structures that are not being elevated but that meet the floodproofing standards of Article VI.G.1.a., b., and c. The application for this permit shall include a Floodproofing Certificate signed by a registered professional engineer or architect; or,
3. A Flood Hazard Development Permit for Minor Development for all development that is not new construction or a substantial improvement, such as repairs, maintenance, renovations, or additions, whose value is less than 50% of the market value of the structure. Minor development also includes, but is not limited to: accessory structures as provided for in Article VI.J., mining, dredging, filling, grading, paving, excavation, drilling operations, storage of equipment or materials, deposition or extraction of materials, public or private sewage disposal systems or water supply facilities that do not involve structures; and non-structural projects such as bridges, dams, towers, fencing, pipelines, wharves, and piers.

For development that requires review and approval as a Conditional Use, as provided for in this Ordinance, the Flood Hazard Development Permit Application shall be acted upon by the Planning Board as required in Article VII.

Conditional Use Permits are not part of the NFIP requirements but have been approved for use in Maine by FEMA as specified in this ordinance.

- G. Maintain, as a permanent record, copies of all Flood Hazard Development Permit Applications, corresponding Permits issued, and data relevant thereto, including reports of the Board of Appeals on variances granted under the provisions of Article X of this Ordinance, and copies of Elevation Certificates, Floodproofing Certificates, Certificates of Compliance and certifications of design standards required under the provisions of Articles III, VI, and VIII of this Ordinance.

Required by NFIP: 44 CFR 59.22(a)(9)(iii), 44 CFR 60.3(b)(5)(iii), 44 CFR 60.3(c)(4)(ii), and 44 CFR 60.6(a)(5) and (6)

Elevation certificates are necessary for documentation of building compliance and insurance rating for post-FIRM buildings or buildings that have been substantially improved.

ARTICLE VI - DEVELOPMENT STANDARDS

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

- A. **All Development** All development shall:

Required by NFIP: 44 CFR 60.3(a)(3)(ii)

MAINE MODEL FLOODPLAIN MANAGEMENT ORDINANCE WITH COMMENTARY

1. be designed or modified and adequately anchored to prevent flotation (excluding piers and docks), collapse or lateral movement of the development 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 shall be designed to minimize or eliminate infiltration of flood waters into the systems.

C. Sanitary Sewage Systems - All new and replacement sanitary sewage systems shall 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 shall 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 shall be constructed and maintained in such a manner that no reduction occurs in the flood carrying capacity of the watercourse.

F. Residential - New construction or substantial improvement of any residential structure located within:

1. Zones A1-30, AE, AO, and AH shall have the lowest floor (including basement) elevated to at least one foot above the base flood elevation.
2. Zones AO and AH shall have adequate

Development that is not anchored may become part of the debris generated by a flood event. Debris can cause damage to other structures and additional flooding when it comes to a narrow restriction like a bridge or culvert.

Required by NFIP: 44 CFR 60.3(a)(3)(ii) Flood-resistant materials are required below the base flood elevation. For further guidance, see FEMA Technical Bulletin, TB 2, [Flood Damage Resistant Materials Requirements](#).

Required by NFIP: 44 CFR 60.3(a)(3)(iii)

Required by NFIP: 44 CFR 60.3(a)(3)(iv) Paying for the replacement and repair of furnaces is one of the larger expenses incurred under the NFIP following a flood event.

Required by NFIP: 44 CFR 60.3(a)(5)

To meet the standards of Article VI paragraphs B., C., and D., permit officials should have verification from design professionals that the specific flooding risks at the site were taken into account when designing the system.

Required by NFIP: 44 CFR 60.3(a)(6)(i)

Required by NFIP: 44 CFR 60.3(a)(6)(ii)

Required by NFIP: 44 CFR 60.3(b)(7) Changes to a water course will bring 44 CFR 65 into play (LOMR).

Required by NFIP: 44 CFR 60.3(c)(2) The NFIP requires structures to be at or above the BFE. Maine standards require a one foot freeboard. Some Maine communities have chosen to require a freeboard of two or more feet. Shoreland Zoning requires a one foot freeboard.

Required by NFIP: 44 CFR 60.3(c)(11)

MAINE MODEL FLOODPLAIN MANAGEMENT ORDINANCE WITH COMMENTARY

drainage paths around structures on slopes, to guide floodwater away from the proposed structures.

Communities without detailed studies would include only Zone A, paragraph 1, but not include paragraphs F.2., F.3., and F.5.

Most AO and AH zones occur in coastal communities.

3. Zone AO shall have the lowest floor (including basement) elevated above the highest adjacent grade:

Required by NFIP: 44 CFR 60.3(c)(7)

The NFIP requires elevation to the depth specified. Maine requires that one-foot freeboard be added. A community may be more restrictive and add additional freeboard.

- a. at least one foot higher than the depth specified in feet on the community's Flood Insurance Rate Map; or,

Two feet is required by NFIP: 44 CFR 60.3(c)(7)

- b. at least three feet if no depth number is specified.

4. Zone A shall have the lowest floor (including basement) elevated:

Required by NFIP: 44 CFR 60.3(b)(4)

The NFIP requires structures to be at or above the BFE. The Maine standards require that communities adopt a freeboard of one foot.

- a. to at least one foot above the base flood elevation utilizing information obtained pursuant to Article III.H.1.b.(1); Article V.B.; or Article IX.D., or;

The applicant can choose to build with the lowest floor two feet above the highest adjacent grade to the building or they can hire an engineer to calculate the BFE.

Inland communities or communities without velocity zones should not include this paragraph.

- b. in the absence of all data described in Article VI.F.4.a., to at least two feet above the highest adjacent grade to the structure.

5. Zone V1-30, VE and Coastal AE Zone (as defined) shall meet the requirements of Article VI.P.

- G. **Non-Residential** - New construction or substantial improvement of any non-residential structure located within:

1. Zones A1-30, AE, AO, and AH shall have the lowest floor (including basement) elevated to at least one foot above the base flood elevation, or together with attendant utility and sanitary facilities shall:

Required by NFIP: 44 CFR 60.3(c)(3)

- 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;

The Maine standards require that communities adopt a one-foot freeboard.

- 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 floodproofing design and methods of

Required by NFIP: 44 CFR 60.3(c)(4)

Most floodproofing is appropriate only where

MAINE MODEL FLOODPLAIN MANAGEMENT ORDINANCE WITH COMMENTARY

construction are in accordance with accepted standards of practice for meeting the provisions of this section. Such certification shall be provided with the application for a Flood Hazard Development Permit, as required by Article III.K. and shall include a record of the elevation above mean sea level to which the structure is floodproofed.

floodwaters are less than three feet deep, since walls and floors may collapse under higher water levels. It is relatively expensive and difficult to overcome the buoyancy issues.

2. Zones AO and AH shall have adequate drainage paths around structures on slopes, to guide floodwater away from the proposed structures.

Required by NFIP: 44 CFR 60.3 (c)(11)

3. Zone AO shall have the lowest floor (including basement) elevated above the highest adjacent grade:

Required by NFIP: 44 CFR 60.3 (c)(8)

- a. at least one foot higher than the depth specified in feet on the community's Flood Insurance Rate Map; or,
- b. at least three feet if no depth number is specified; or,
- c. together with attendant utility and sanitary facilities be floodproofed to meet the elevation requirements of this section and floodproofing standards of Article VI.G.1.a., b., and c.

NFIP requires elevation to the depth specified. Maine requires a one foot freeboard be added. A community may be more restrictive and add additional freeboard.

The NFIP only requires two feet. Maine recommends three feet.

Furnaces, air conditioners, and other related pertinent equipment must be elevated above the base flood elevation.

4. Zone A shall have the lowest floor (including basement) elevated:

Required by NFIP: 44 CFR 60.3(b)(4)

- a. to at least one foot above the base flood elevation utilizing information obtained pursuant to Article III.H.1. b.(1); Article V.B.; or Article IX.D., or,
- b. in the absence of all data described in Article VI.G.4.a., to at least two feet above the highest adjacent grade to the structure; or,
- c. together with attendant utility and sanitary facilities, be floodproofed to one foot above the elevation established in Article VI.G.4.a. or b., and meet the floodproofing standards of Article VI.G.1.a., b., and c.

The Maine standards require that a community adopt a freeboard of one foot.

The applicant can choose to build with the lowest floor two feet above the highest adjacent grade to the building or they can hire an engineer to calculate the BFE.

5. Zone V1-30, VE and Coastal AE Zone (as defined) shall meet the requirements of Article VI.P.

Inland communities or communities without velocity zones should not include this paragraph.

- H. **Manufactured Homes** - New or substantially

Required by NFIP: 44 CFR 60.3(c)(6)

MAINE MODEL FLOODPLAIN MANAGEMENT ORDINANCE WITH COMMENTARY

improved manufactured homes located within:

1. Zones A1-30, AE, AO, and AH shall:
 - a. be elevated such that the lowest floor (including basement) of the manufactured home is at least one foot above the base flood elevation;
 - b. 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,
 - c. be securely anchored to an adequately anchored foundation system to resist flotation, collapse, or lateral movement. Methods of anchoring may include, but are not limited to:
 - (1) over-the-top ties anchored to the ground at the four corners of the manufactured home, plus two additional ties per side at intermediate points (manufactured homes less than 50 feet long require one additional tie per side); or by,
 - (2) frame ties at each corner of the home, plus five additional ties along each side at intermediate points (manufactured homes less than 50 feet long require four additional ties per side).
 - (3) all components of the anchoring system described in Article VI.H.1.c.(1) & (2) shall be capable of carrying a force of 4800 pounds.
2. Zones AO and AH shall have adequate drainage paths around structures on slopes, to guide floodwater away from the proposed structures.
3. Zone AO shall have the lowest floor (including basement) of the manufactured home elevated above the highest adjacent grade:
 - a. at least one foot higher than the depth specified in feet on the community's

Most AO and AH zones occur in coastal communities.

Communities without detailed studies would only reflect Zone A under H.1. and should not include paragraphs H.2., H.3., and H.5.

See also: [FEMA P-85, Protecting Manufactured Homes from Floods and Other Hazards](#).

Maine standards require a one-foot freeboard.

The permanent foundation requirement is found in the [Flood Insurance Manual, General Rules](#). In order for a manufactured home to be insurable under the NFIP, it must be elevated, affixed to a permanent foundation, and be adequately anchored in accordance with manufacturer's specifications or be in compliance with the community's floodplain management ordinance.

Required by NFIP: 44 CFR 60.3(b)(8) and (c)(6)

Required by NFIP: 44 CFR 60.3(c)(11)

The NFIP only requires two feet. Maine recommends three feet.

MAINE MODEL FLOODPLAIN MANAGEMENT ORDINANCE WITH COMMENTARY

Flood Insurance Rate Map; or,

- b. at least three feet if no depth number is specified; and,
- c. meet the anchoring requirements of Article VI.H.1.c.

4. Zone A shall:

- a. be elevated on a permanent foundation, as described in Article VI.H.1.b., such that the lowest floor (including basement) of the manufactured home is at least one foot above the base flood elevation utilizing information obtained pursuant to Article III.H.1.b.(1); Article V.B.; or Article IX.D.; or,
- b. in the absence of all data described in Article VI.H.4.a., to at least two feet above the highest adjacent grade to the structure; and,
- c. meet the anchoring requirements of Article VI.H.1.c.

Required by NFIP: 44 CFR 60.3(b)(4) and (b)(8)

Communities without detailed studies should modify this paragraph to include the standards in Article VI.H.1.

The applicant can choose to build with the lowest floor two feet above the highest adjacent grade to the building or they can hire an engineer to calculate the BFE.

5. Zones V1-30, VE, and Coastal AE Zone (as defined) shall meet the requirements of Article VI.P.

Inland communities or communities without Velocity Zones should not include this paragraph.

I. **Recreational Vehicles** - Recreational Vehicles located within:

Required by NFIP: 44 CFR 60.3(c)(14)

1. Zones A, A1-30, AE, AO, and AH shall either:

- a. be on the site for fewer than 180 consecutive days; and,
- b. be fully licensed and ready for highway use. A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions; or,
- c. be permitted in accordance with the elevation and anchoring requirements for "manufactured homes" in Article VI.H.1.

2. Zones V1-30, VE, and Coastal AE Zone (as defined) shall meet the requirements of either Article VI.I.1.a. and b., or Article VI.P.

*Required by NFIP: 44 CFR 60.3(e)(9)
Inland communities or communities without Velocity Zones should not include this paragraph.*

MAINE MODEL FLOODPLAIN MANAGEMENT ORDINANCE WITH COMMENTARY

J. **Accessory Structures** - Accessory Structures, as defined in Article XIV, located within Zones A1-30, AE, AO, AH, and A, shall be exempt from the elevation criteria required in Article VI.F. & G. above, if all other requirements of Article VI and all the following requirements are met. Accessory Structures shall:

1. have unfinished interiors and not be used for human habitation;
2. have hydraulic openings, as specified in Article VI.L.2., in at least two different walls of the accessory structure;
3. be located outside the floodway;
4. 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;
5. have only ground fault interrupt electrical outlets. The electric service disconnect shall be located above the base flood elevation and when possible outside the Special Flood Hazard Area; and,
6. be located outside the Coastal AE Zone.

K. **Floodways** -

1. In Zones A1-30 and AE riverine areas, encroachments, including fill, new construction, substantial improvement, and other development shall not be permitted within a regulatory floodway which is designated on the community'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 within the community during the occurrence of the base flood discharge.
2. In Zones A1-30, AE, and A riverine areas, for which no regulatory floodway is designated, encroachments, including fill, new construction, substantial improvement, and other development shall not be permitted in the floodway as determined in Article VI.K.3. unless a technical evaluation certified by a registered professional engineer is provided demonstrating that the

Accessory structures are not specifically addressed in the NFIP regulations. The standards for accessory structures have been developed by the State of Maine based on guidance from FEMA.

Required by NFIP: 44 CFR 60.3(d)(3)

Communities without detailed studies/base flood elevations should not include this paragraph.

Required by NFIP: 44 CFR 60.3(c)(10)

MAINE MODEL FLOODPLAIN MANAGEMENT ORDINANCE WITH COMMENTARY

cumulative effect of the proposed development, when combined with all other existing development and anticipated development:

- a. will not increase the water surface elevation of the base flood more than one foot at any point within the community; and,
 - b. is consistent with the technical criteria contained in [FEMAs guidelines and standards for flood risk analysis and mapping](#).
3. In Zones A1-30, AE, and A riverine areas for which no regulatory floodway is designated, the regulatory floodway is determined to be the channel of the river or other water course and the adjacent land areas to a distance of one-half the width of the floodplain as measured from the normal high water mark to the upland limit of the floodplain.

- L. **Enclosed Areas Below the Lowest Floor-** New construction or substantial improvement of any structure in Zones A1-30, AE, AO, AH, and A that meets the development standards of Article VI, including the elevation requirements of Article VI, paragraphs F., G., or H. and is elevated on posts, columns, piers, piles, 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 Article XIV;
2. Enclosed areas shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of flood water. Designs for meeting this requirement must either:
 - a. be engineered and certified by a registered professional engineer or architect; or,
 - b. meet or exceed the following minimum criteria:
 - (1) a minimum of two openings having a total net area of not less than one square inch for every square foot of the enclosed area;
 - (2) the bottom of all openings shall be below the base flood elevation

This paragraph exceeds the minimum NFIP standards for floodways that have not been designated on the FIRM. The State of Maine chose to regulate on the conservative end of the scale. If an applicant wishes to hire an engineer to determine the actual floodway width, it is recommended that the engineer's determination be followed.

Required by NFIP: 44 CFR 60.3(c)(5)

Communities without detailed studies should only reference Zone A in this subsection.

Under the NFIP, a "basement" is defined as being below grade on all four sides.

See [FEMA Technical Bulletin, TB 1, Openings in Foundation Walls](#).

It is recommended that the two openings be in two different walls.

This is more restrictive than the federal regulations at 60.3(c)(5).

MAINE MODEL FLOODPLAIN MANAGEMENT ORDINANCE WITH COMMENTARY

and no higher than one foot above the lowest grade; and,

- (3) openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the entry and exit of flood waters automatically without any external influence or control such as human intervention, including the use of electrical and other non-automatic mechanical means;

Required by NFIP: 44 CFR 60.3(c)(5)

3. The enclosed area shall not be used for human habitation; and,
4. The enclosed areas are usable solely for building access, parking of vehicles, or storage.

The limited uses permitted in paragraph 4 preclude human habitation, utilities, machinery, and equipment.

- M. **Bridges** - New construction or substantial improvement of any bridge in Zones A1-30, AE, AO, AH, A, V1-30 and VE shall be designed such that:

NFIP does not specify elevation requirements for bridges. Maine chose to be more restrictive in an effort to mitigate the potential for damage to bridges and to minimize obstructions to flow during a base flood event.

1. when possible, the lowest horizontal member (excluding the pilings, or columns) is elevated to at least one foot above the base flood elevation; and,
2. a registered professional engineer shall certify that:
 - a. the structural design and methods of construction shall meet the elevation requirements of this section and the floodway standards of Article VI.K.; 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 shall be those associated with the base flood.

- N. **Containment Walls** - New construction or substantial improvement of any containment wall located within:

NFIP does not contain development standards for containment walls. The State of Maine chose to be more restrictive to avoid contamination from or to flood water.

1. Zones A, A1-30, AE, AO, AH, V1-30 and VE shall:
 - a. have the containment wall elevated to at least one foot above the base flood elevation;

MAINE MODEL FLOODPLAIN MANAGEMENT ORDINANCE WITH COMMENTARY

- b. have structural components capable of resisting hydrostatic and hydrodynamic loads and the effects of buoyancy; and,
- c. be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting the provisions of this section. Such certification shall be provided with the application for a Flood Hazard Development Permit, as required by Article III.K.

2. Zones AO and AH shall have adequate drainage paths around containment walls on slopes, to guide floodwater away from the proposed walls.

3. Zone AO shall have the top of the containment wall elevated above the highest adjacent grade:

- a. at least one foot higher than the depth specified in feet on the community's Flood Insurance Rate Map; or,
- b. at least three feet if no depth number is specified; and,
- c. shall meet the requirements of Article VI.N.1.b. & c.

O. **Wharves, Piers and Docks** - New construction or substantial improvement of wharves, piers, and docks are permitted in Zones A1-30, AE, AO, AH, A, V1-30, and VE, in and over water and seaward of the mean high tide if the following requirements are met:

NFIP requires permitting of wharves, piers, and docks as development in the floodplain. The standards in Article VI.A.1.-4. (as applicable) will apply.

1. wharves, piers, and docks shall comply with all applicable local, state, and federal regulations; and,
2. for commercial wharves, piers, and docks, a registered professional engineer shall develop or review the structural design, specifications, and plans for the construction.

Design and construction standards are outlined in the U.S. Army Corps of Engineers (USACE) [Coastal Engineering Manual](#).

P. **Coastal Floodplains** -

1. All new construction located within Zones A1-30, AE, A, V1-30 and VE shall be located landward of the reach of mean high tide except as provided in Article VI.P.6.
2. New construction or substantial

Required by NFIP: 44 CFR 60.3(e)(3)

Inland communities or communities without velocity zones should not include this section.

No solid foundation walls are allowed below the base

MAINE MODEL FLOODPLAIN MANAGEMENT ORDINANCE WITH COMMENTARY

improvement of any structure located within Zones V1-30, VE, or Coastal AE Zone (as defined) shall:

a. be elevated on posts or columns such that:

(1) 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;

(2) the pile or column foundation and the elevated portion of the structure attached thereto is anchored to resist flotation, collapse, and lateral movement due to the effects of wind and water loads acting simultaneously on all building components; and,

(3) water loading values used shall be those associated with the base flood. Wind loading values used shall be those required by applicable state and local building standards.

b. have the space below the lowest floor:

(1) free of obstructions; or,

(2) constructed with open wood lattice-work, or insect screening intended to collapse under wind and water without causing collapse, displacement, or other structural damage to the elevated portion of the building or supporting piles or columns; or,

(3) constructed to enclose less than 300 square feet of area with non-supporting breakaway walls that have a design safe loading resistance of not less than 10 or more than 20 pounds per square foot.

[NFIP flood insurance premiums will be higher for breakaway walls that exceed 299 square feet. The larger the square footage of the enclosure, the higher the cost of insurance. Developers are advised to inquire into flood insurance premiums rates before commencing construction.]

flood elevation. Structures must be permitted on an open foundation system. See [FEMA Technical Bulletin, TB 5, Free of Obstruction Requirements for Buildings Located in Coastal High Hazard Areas](#) for further guidance.

See NFIP: 44 CFR 60.3(e)(4)(i)

Elevation for V Zones is measured differently than those of A Zones. Note that the bottom of the lowest horizontal member must be one foot above BFE.

Required by NFIP: 44 CFR 60.3(e)(4)(ii)

Required by NFIP: 44 CFR 60.3(e)(4)(ii)

See [FEMA – 55 Coastal Construction Manual](#)

Required by NFIP: 44 CFR 60.3(e)(5)

Required by NFIP: 44 CFR 60.3(e)(5)

Required by NFIP: 44 CFR 60.3(e)(5)
Please note: The regulatory side of the NFIP does not limit the size of enclosures, however, enclosures over 300 SF will be rated as having an obstruction, which will mean higher insurance rates.

Although the NFIP recognizes the use of breakaway walls, this practice is discouraged because once the walls have been constructed, the owner frequently finishes off the interior and provides for human habitation in violation of the ordinance and the NFIP.

MAINE MODEL FLOODPLAIN MANAGEMENT ORDINANCE WITH COMMENTARY

Required by NFIP: 44 CFR 60.3(e)(4).

- c. require a registered professional engineer or architect to:

Link to [Coastal Construction Manual](#)

- (1) develop or review the structural design, specifications, and plans for the construction, which must meet or exceed the technical criteria contained in the FEMA-55 *Coastal Construction Manual*; and,

A V-Zone Certificate can be used to accomplish this. Severe hurricanes have proven that structures built to meet the Coastal Construction Manual standards survive with very little damage when compared to structures that were built before the program standards were developed.

- (2) certify that the design and methods of construction to be used are in accordance with accepted standards of practice for meeting the criteria of Article VI.P.2.

Required by NFIP: 44 CFR 60.3(e)(6)

Required by NFIP: 44 CFR 60.3(e)(7)

3. The use of fill for structural support in Zones V1-30 and VE is prohibited.

Required by NFIP: 44 CFR 60.3(e)(5)

4. Human alteration of sand dunes within Zones V1-30 and VE is prohibited unless it can be demonstrated that such alterations will not increase potential flood damage.

5. The area below the lowest floor shall be used solely for parking vehicles, building access, and storage.

Provisions for Conditional Use are not included in the NFIP regulations. Due to the State of Maine's strict variance criteria it would be difficult for lobster and fishing sheds to obtain a variance from the requirements of Article VI.G. and VI.P.1. The State Maine Floodplain Management Program received guidance from FEMA on developing standards and procedures (see Article VII) for allowing Conditional Use Permits for these specific structures. The standards set forth in the ordinance are not negotiable and must be the same as the model ordinance.

6. Conditional Use - Lobster sheds and fishing sheds may be located seaward of mean high tide and shall be exempt from the elevation requirement in Article VI.G. only if permitted as a Conditional Use following review and approval by the Planning Board, as provided in Article VII, and if all the following requirements and those of Article VI.A., VI.K., and VI.L. are met:

- a. The conditional use shall be limited to low value structures such as metal or wood sheds 200 square feet or less and shall not exceed more than one story.
- b. The structure shall be securely anchored to the wharf or pier to resist flotation, collapse, and lateral movement due to the effect of wind and water loads acting simultaneously on all building components.
- c. The structure will not adversely increase wave or debris impact forces affecting nearby buildings.
- d. The structure shall have unfinished interiors and shall not be used for human habitation.

MAINE MODEL FLOODPLAIN MANAGEMENT ORDINANCE WITH COMMENTARY

- e. Any mechanical, utility equipment and fuel storage tanks must be anchored and either elevated or floodproofed to one foot above the base flood elevation.
- f. All electrical outlets shall be ground fault interrupt type. The electrical service disconnect shall be located on shore above the base flood elevation and when possible outside the Special Flood Hazard Area.

ARTICLE VII - CONDITIONAL USE REVIEW

The Planning Board shall hear and decide upon applications for conditional uses provided for in this Ordinance. The Planning Board shall hear and approve, approve with conditions, or disapprove all applications for conditional uses. An applicant informed by the _____ that a Conditional Use Permit is required shall file an application for the permit with the Planning Board.

Provisions for Conditional Use are not included in the NFIP regulations. Due to the State of Maine's strict variance criteria, the Maine Floodplain Management Program received guidance from FEMA on developing a Conditional Use review and permitting process.

- A. Review Procedure for a Conditional Use Flood Hazard Development Permit
 - 1. The Flood Hazard Development Permit Application with additional information attached addressing how each of the conditional use criteria specified in the Ordinance will be satisfied, may serve as the permit application for the Conditional Use Permit.
 - 2. Before deciding any application, the Planning Board shall hold a public hearing on the application within thirty days of their receipt of the application.
 - 3. If the Planning Board finds that the application satisfies all relevant requirements of the ordinance, the Planning Board must approve the application or approve with conditions within 45 days of the date of the public hearing.
 - 4. A Conditional Use Permit issued under the provisions of this Ordinance shall expire if the work or change involved is not commenced within 180 days of the issuance of the permit by the Planning Board.
 - 5. The applicant shall be notified by the Planning Board in writing over the signature of the Chairman of the Planning Board that flood insurance is not available

MAINE MODEL FLOODPLAIN MANAGEMENT ORDINANCE WITH COMMENTARY

for structures located entirely over water or seaward of mean high tide.

B. Expansion of Conditional Uses

1. No existing building or use of premises may be expanded or enlarged without a permit issued under this section if that building or use was established or constructed under a previously issued Conditional Use Permit or if it is a building or use which would require a Conditional Use Permit if being newly-established or constructed under this Ordinance.

ARTICLE VIII - CERTIFICATE OF COMPLIANCE

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

A. For New Construction or Substantial Improvement of any elevated structure the applicant shall submit to the Code Enforcement Officer:

1. an Elevation Certificate completed by a Professional Land Surveyor, registered professional engineer, or architect, for compliance with Article VI, paragraphs F., G., H., or P.; and,
2. for structures in Zones V1-30, VE, and Coastal AE Zone (as defined), certification by a registered professional engineer or architect that the design and methods of construction used are in compliance with Article VI.P.2.

B. The applicant shall submit written notification to the Code Enforcement Officer that the development is complete and complies with the provisions of this ordinance.

C. Within 10 working days, the _____ shall:

1. review the required certificate(s) and the applicant's written notification; and,
2. upon determination that the development conforms to the provisions of this ordinance, shall issue a Certificate of Compliance.

This section is designed to assist in administration, enforcement and record keeping.

A final Elevation Certificate is required and will assure that the "as built" elevations render the development in compliance with the elevation requirement in Article VI.

An Elevation Certificate is also required in order to purchase flood insurance for Post-FIRM structures.

The number of working days is a community option. It may be changed to fit your community's criteria.

Required certificates may include an Elevation Certificate, Floodproofing Certificate, V Zone Certificate, and/or Hydraulic Openings Certificate.

ARTICLE IX - REVIEW OF SUBDIVISION AND

MAINE MODEL FLOODPLAIN MANAGEMENT ORDINANCE WITH COMMENTARY

DEVELOPMENT PROPOSALS

The Planning Board shall, when reviewing subdivisions and other proposed developments that require review under other federal law, state law, local ordinances or regulations, and all projects on 5 or more disturbed acres, or in the case of manufactured home parks divided into two or more lots, assure that:

- A. All such proposals are consistent with the need to minimize flood damage.
- B. All public utilities and facilities, such as sewer, gas, electrical and water systems are located and constructed to minimize or eliminate flood damages.
- C. Adequate drainage is provided in order to reduce exposure to flood hazards.
- D. All proposals include base flood elevations, flood boundaries, and, in a riverine floodplain, floodway data. These determinations shall be based on engineering practices recognized by the Federal Emergency Management Agency.
- E. Any proposed development plan must include a condition of plan approval requiring that structures on any lot in the development having any portion of its land within a Special Flood Hazard Area, are to be constructed in accordance with Article VI of this ordinance. Such requirement will be included in any deed, lease, purchase and sale agreement, or document transferring or expressing an intent to transfer any interest in real estate or structure, including but not limited to a time-share interest. The condition shall clearly articulate that the municipality may enforce any violation of the construction requirement and that fact shall also be included in the deed or any other document previously described. The construction requirement shall also be clearly stated on any map, plat, or plan to be signed by the Planning Board or local reviewing authority as part of the approval process.

This is more restrictive than the NFIP standards at 44 CFR 60.3 (b)(3) which sets a threshold of development greater than 50 lots or 5 acres, whichever is the lesser.

Required by NFIP: 44 CFR 60.3(a)(4)(i)

Required by NFIP: 44 CFR 60.3(a)(4)(ii)

Required by NFIP: 44 CFR 60.3(a)(4)(iii)

Required by NFIP: 44 CFR 60.3(b)(3), and by Title 30-A MRSA §4404. In Zone A, the developer/sub-divider is responsible for determining the base flood elevation using a FEMA approved engineering method.

Required by the State Subdivision Law, Title 30-A MRSA §4404.

Several Maine communities did not require a subdivision to meet this standard at the time of approval but were later directed to correct the problem after the subdivision was recorded in the Registry of Deeds.

ARTICLE X - APPEALS AND VARIANCES

The Board of Appeals of the (Town/City) of _____ may, upon written application of an aggrieved party, hear and decide appeals where it is alleged that there is an error in any order, requirement, decision, or determination made by, or failure to act by, the Code Enforcement Officer or Planning Board in the administration or enforcement of the provisions of this Ordinance.

MAINE MODEL FLOODPLAIN MANAGEMENT ORDINANCE WITH COMMENTARY

The Board of Appeals may grant a variance from the requirements of this Ordinance consistent with state law and the following criteria:

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

Required by NFIP: 44 CFR 60.6(a)(1)

B. Variances shall be granted only upon:

1. a showing of good and sufficient cause; and,

Required by NFIP: 44 CFR 60.6(a)(3)(i)

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, public expense, or create nuisances, cause fraud or victimization of the public or conflict with existing local laws or ordinances; and,

Required by NFIP: 44 CFR 60.6(a)(3)(iii)

3. a showing that the issuance of the variance will not conflict with other state, federal or local laws or ordinances; and,

Required by NFIP: 44 CFR 60.6(a)(3)(iii)

4. a determination that failure to grant the variance would result in "undue hardship," which in this sub-section means:

Required by State law: Title 30-A MRSA §4353

a. that the land in question cannot yield a reasonable return unless a variance is granted; and,

b. that the need for a variance is due to the unique circumstances of the property and not to the general conditions in the neighborhood; and,

c. that the granting of a variance will not alter the essential character of the locality; and,

d. that the hardship is not the result of action taken by the applicant or a prior owner.

C. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief, and the Board of Appeals may impose such conditions to a variance as is deemed necessary.

Required by NFIP: 44 CFR 60.6(a)(4)

D. Variances may be issued for new construction, substantial improvements, or other development for the conduct of a functionally dependent use provided that:

Required by NFIP: 44 CFR 60.6(a)(7)

MAINE MODEL FLOODPLAIN MANAGEMENT ORDINANCE WITH COMMENTARY

1. other criteria of Article X and Article VI.K. 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. Variances may be issued for the repair, reconstruction, rehabilitation, or restoration of Historic Structures upon the determination that:

Required by NFIP: 44 CFR 60.6(a)

1. the development meets the criteria of Article X, paragraphs A. through D. above; and,
2. the proposed repair, reconstruction, rehabilitation, or restoration 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. Any applicant who meets the criteria of Article X, paragraphs A. through E. shall be notified by the Board of Appeals in writing over the signature of the Chairman of the Board of Appeals that:

Required by the NFIP: 44 CFR 60.6(a)(5)

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;

Required by NFIP: 44 CFR 60.6(a)(5)(i)

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

Required by NFIP: 44 CFR 60.6(a)(5)(ii)

3. the applicant agrees 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 municipality 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 municipality from any claims the applicant may have against the municipality that are related to the use of land located in a floodplain.

Required by Title 14 MRSA §8101 et. seq. and 42 USC § 1983

G. Appeal Procedure for Administrative and Variance Appeals

1. An administrative or variance appeal may be taken to the Board of Appeals by an

G.1. through 5. and G.7. were added based on guidance received from the Office of the Maine Attorney General.

MAINE MODEL FLOODPLAIN MANAGEMENT ORDINANCE WITH COMMENTARY

aggrieved party within thirty days after receipt of a written decision of the Code Enforcement Officer or Planning Board.

2. Upon being notified of an appeal, the Code Enforcement Officer or Planning Board, as appropriate, shall transmit to the Board of Appeals all of the papers constituting the record of the decision appealed from.
3. The Board of Appeals shall hold a public hearing on the appeal within thirty-five days of its receipt of an appeal request.
4. The person filing the appeal shall have the burden of proof.
5. The Board of Appeals shall decide all appeals within thirty-five days after the close of the hearing, and shall issue a written decision on all appeals.
6. The Board of Appeals shall submit to the _____ a report of all variance actions, including justification for the granting of the variance and an authorization for the _____ to issue a Flood Hazard Development Permit, which includes any conditions to be attached to said permit.
7. Any aggrieved party who participated as a party during the proceedings before the Board of Appeals may take an appeal to Superior Court in accordance with State laws within forty-five days from the date of any decision of the Board of Appeals.

Required by NFIP: 44 CFR 60.6(a)(6)

In both blanks, identify the appropriate community official, i.e. the Code Enforcement Officer and/or Planning Board, as appropriate.

ARTICLE XI - ENFORCEMENT AND PENALTIES

- A. It shall be the duty of the Code Enforcement Officer to enforce the provisions of this Ordinance pursuant to Title 30-A MRSA § 4452.
- B. The penalties contained in Title 30-A MRSA § 4452 shall apply to any violation of this Ordinance.
- C. In addition to other actions, the Code Enforcement Officer shall, upon identifying a violation, submit a declaration to the Administrator of the Federal Insurance Administration requesting a flood insurance denial. The valid declaration shall consist of;
 1. the name of the property owner and address or legal description of the property sufficient to confirm its identity or location;

Required by NFIP: 44 CFR 73.3

MAINE MODEL FLOODPLAIN MANAGEMENT ORDINANCE WITH COMMENTARY

2. a clear and unequivocal declaration that the property is in violation of a cited State or local law, regulation, or ordinance;
3. a clear statement that the public body making the declaration has authority to do so and a citation to that authority;
4. evidence that the property owner has been provided notice of the violation and the prospective denial of insurance; and,
5. a clear statement that the declaration is being submitted pursuant to Section 1316 of the National Flood Insurance Act of 1968, as amended.

ARTICLE XII - VALIDITY AND SEVERABILITY

If any section or provision of this Ordinance is declared by the courts to be invalid, such decision shall not invalidate any other section or provision of this Ordinance.

ARTICLE XIII - CONFLICT WITH OTHER ORDINANCES

This Ordinance shall not in any way impair or remove the necessity of compliance with any other applicable rule, ordinance, regulation, bylaw, permit, or provision of law. Where this Ordinance imposes a greater restriction upon the use of land, buildings, or structures, the provisions of this Ordinance shall control.

ARTICLE XIV - DEFINITIONS

Unless specifically defined below, words and phrases used in this Ordinance shall have the same meaning as they have at common law, and to give this Ordinance its most reasonable application. Words used in the present tense include the future, the singular number includes the plural, and the plural number includes the singular. The word "may" is permissive; "shall" is mandatory and not discretionary.

Accessory Structure - means a structure which is on the same parcel of property as a principal structure and the use of which is incidental to the use of the principal structure.

Adjacent Grade - the natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

Area of Shallow Flooding - a designated AO and AH zone on a community's Flood Insurance Rate Map (FIRM) with a one percent or greater annual chance of flooding to an average depth of one to

Definition taken from NFIP: 44 CFR 59.1

MAINE MODEL FLOODPLAIN MANAGEMENT ORDINANCE WITH COMMENTARY

three feet where a clearly defined channel does not exist, where the path of flooding is unpredictable, and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.

Area of Special Flood Hazard - land in the floodplain having a one percent or greater chance of flooding in any given year, as specifically identified in the Flood Insurance Study cited in Article I of this Ordinance.

Definition taken from NFIP: 44 CFR 59.1

Base Flood – a flood having a one percent chance of being equaled or exceeded in any given year, commonly called the 100-year flood.

Definition taken from NFIP: 44 CFR 59.1

Basement - area of a building that includes a floor that is subgrade (below ground level) on all sides.

Definition taken from NFIP: 44 CFR 59.1

Breakaway Wall - a wall that is not part of the structural support of the building and is intended through its design and construction to collapse under specific lateral loading forces, without causing damage to the elevated portion of the building or supporting foundation system.

Definition taken from NFIP: 44 CFR 59.1

Building - see **Structure**.

Certificate of Compliance - a document signed by the Code Enforcement Officer stating that a structure is in compliance with all of the provisions of this Ordinance.

Definition taken from NFIP: 44 CFR 59.1

Coastal AE Zone – The portion of the Coastal High Hazard Area with wave heights between 1.5 feet and 3.0 feet and bounded by a line labeled the “Limit of Moderate Wave Action” (LiMWA) on a Flood Insurance Rate Map (FIRM). VE Zone floodplain construction standards are applied to development, new construction, and substantial improvements in the Coastal AE Zone.

Coastal High Hazard Area - An area of special flood hazard extending from offshore to the inland limit of a primary frontal dune along an open coast and any other area subject to high velocity wave action from storms or seismic sources. Coastal High Hazard Areas are designated as Zone VE and Zone AE bounded by a line labeled “Limit of Moderate Wave Action” (LiMWA) on a Flood Insurance Rate Map (FIRM).

Definition taken from NFIP: 44 CFR 59.1

Code Enforcement Officer – a person certified under Title 30-A MRSA, Section 4451 (including exceptions in Section 4451, paragraph 1) and employed by a municipality to enforce all applicable comprehensive planning and land use laws.

Conditional Use - a use that, because of its potential impact on surrounding areas and structures, is permitted only upon review and approval by the Planning Board pursuant to Article VII.

Not required by NFIP. Definition developed by the State of Maine as part of the Conditional Use review and permitting process.

Containment Wall – wall used to convey or direct storm water or sanitary water from the initial source to the final destination.

Definition from www.structurecast.com

Development – a manmade change to improved or unimproved real estate. This includes, but is not limited to, buildings or other structures; mining, dredging, filling, grading, paving, excavation, drilling operations or storage of equipment or materials; and the storage, deposition, or extraction of materials.

Definition taken from NFIP: 44 CFR 59.1

Digital Flood Insurance Rate Map (FIRM) – see **Flood Insurance Rate Map**

Elevated Building - a non-basement building that is:

Definition taken from NFIP: 44 CFR 59.1

- a. built, in the case of a building in Zones A1-30, AE, A, AO, or AH, so that the top of the elevated floor, or in the case of a building in Zones V1-30, VE, or Coastal AE Zone, 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, or piers; and,
- b. adequately anchored to not 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 A1-30, AE, A, AO, or AH, **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 Article VI.L. In the case of Zones V1-30, VE, or Coastal AE Zones, **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 Article VI.P.2.b.(3).

Elevation Certificate - an official form (FEMA Form 81-31, as amended) that:

- a. is used to verify compliance with the floodplain management regulations of the National Flood Insurance Program; and,
- b. Is required for purchasing flood insurance.

Flood or Flooding

- a. A general and temporary condition of partial or complete inundation of normally dry land areas from:
 1. The overflow of inland or tidal waters.

Definition taken from NFIP: 44 CFR 59.1

MAINE MODEL FLOODPLAIN MANAGEMENT ORDINANCE WITH COMMENTARY

2. The unusual and rapid accumulation or runoff of surface waters from any source.
- b. The collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in flooding as defined in paragraph a.1. of this definition.

Flood Elevation Study - an examination, evaluation and determination of flood hazards and, if appropriate, corresponding water surface elevations.

Definition taken from NFIP: 44 CFR 59.1

Flood Insurance Rate Map (FIRM) - an official map of a community, on which the Federal Insurance Administrator has delineated both the special hazard areas and the risk premium zones applicable to the community.

Definition taken from NFIP: 44 CFR 59.1

Flood Insurance Study - see **Flood Elevation Study**.

Floodplain or Floodprone Area - land area susceptible to being inundated by water from any source (see flooding).

Definition taken from NFIP: 44 CFR 59.1

Floodplain Management - means the operation of an overall program of corrective and preventive measures for reducing flood damage, including but not limited to emergency preparedness plans, flood control works, and floodplain management regulations.

Definition taken from NFIP: 44 CFR 59.1

Floodplain Management Regulations - zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as a floodplain ordinance, grading ordinance, and erosion control ordinance) and other applications of police power. The term describes such state or local regulations, in any combination thereof, which provide standards for the purpose of flood damage prevention and reduction.

Definition taken from NFIP: 44 CFR 59.1

Floodproofing - any combination of structural and non-structural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and contents.

Definition taken from NFIP: 44 CFR 59.1

Floodway - see **Regulatory Floodway**.

Floodway Encroachment Lines - the lines marking the limits of floodways on federal, state, and local floodplain maps.

Definition taken from NFIP: 44 CFR 59.1

Freeboard - a factor of safety usually expressed in

feet above a flood level for purposes of floodplain management. Freeboard tends to compensate for the many unknown factors, such as wave action, bridge openings, and the hydrological effect of urbanization of the watershed, which could contribute to flood heights greater than the height calculated for a selected size flood and floodway conditions.

Functionally Dependent Use - a use that cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term includes only docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and ship building and ship repair facilities, but does not include long-term storage or related manufacturing facilities.

Definition taken from NFIP: 44 CFR 59.1

Historic Structure - means any structure that is:

Definition taken from NFIP: 44 CFR 59.1

- a. Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;
- b. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary of the Interior to qualify as a registered historic district;
- c. Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or,
- d. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:
 1. By an approved state program as determined by the Secretary of the Interior, or,
 2. Directly by the Secretary of the Interior in states without approved programs.

Limit of Moderate Wave Action (LiMWA) – The landward limit of the 1.5 foot breaking wave within a Coastal AE Zone. These areas are bounded by a line labeled “Limit of Moderate Wave Action” (LiMWA) on a Flood Insurance Rate Map (FIRM). The LiMWA line delineates that portion of the Special Flood Hazard Area (SFHA) landward of a VE zone in which the principal sources of flooding are astronomical high tides, storm surges, or tsunamis, not riverine sources. These areas may be subject to wave effects, velocity flows, erosion, scour, or

If the community is mandated to enforce the IBC/IRC, then the community must also enforce V Zone standards in the LiMWA area.

If the community is not mandated to enforce the IBC/IRC, then enforcement of the LiMWA is optional.

MAINE MODEL FLOODPLAIN MANAGEMENT ORDINANCE WITH COMMENTARY

combinations of these forces. The floodplain development and construction standards for VE Zones will be applied in the Coastal AE Zone.

Locally Established Datum - for purposes of this ordinance, 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 (NGVD), North American Vertical Datum (NAVD), 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.

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 Article VI.L. of this Ordinance.

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 floodplain management purposes the term manufactured home also includes park trailers, travel trailers, and other similar vehicles placed on a site for greater than 180 consecutive days.

Manufactured Home Park or Subdivision - a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

Mean Sea Level – when related to the National Flood Insurance Program, the National Geodetic Vertical Datum (NGVD) of 1929, North American Vertical Datum (NAVD), or other datum, to which base flood elevations shown on a community's Flood Insurance Rate Map are referenced.

Minor Development - means all development that is not new construction or a substantial improvement, such as repairs, maintenance, renovations, or additions, whose value is less than 50% of the market value of the structure. It also includes, but is not limited to: accessory structures as provided for in Article VI.J., mining, dredging, filling, grading, paving, excavation, drilling operations, storage of equipment or materials, deposition or extraction of materials, public or private sewage disposal systems or water supply facilities that do not involve structures; and non-structural projects such as bridges, dams, towers, fencing, pipelines, wharves, and piers.

National Geodetic Vertical Datum (NGVD) - the national vertical datum, a standard established in 1929, which is used by the National Flood Insurance Program (NFIP). NGVD is based upon mean sea level in 1929 and also has been called "1929 Mean

Definition taken from NFIP: 44 CFR 59.1

Definition taken from NFIP 44 CFR 59.1

Definition taken from NFIP: 44 CFR 59.1

Definition taken from NFIP: 44 CFR 59.1

Definition developed by the MFMP to support the review and permitting process of development projects that do not involve new construction or substantial improvement of structures.

Sea Level (MSL)".

New Construction - structures for which the "start of construction" commenced on or after the effective date of the initial floodplain management regulations adopted by a community and includes any subsequent improvements to such structures.

Definition taken from NFIP: 44 CFR 59.1

North American Vertical Datum (NAVD) - means the national datum whose standard was established in 1988, which is the new vertical datum used by the National Flood Insurance Program (NFIP) for all new Flood Insurance Rate Maps. NAVD is based upon vertical datum used by other North American countries such as Canada and Mexico and was established to replace NGVD because of constant movement of the earth's crust, glacial rebound and subsidence, and the increasing use of satellite technology.

100-year flood - see **Base Flood**.

Recreational Vehicle - a vehicle that is:

Definition taken from NFIP: 44 CFR 59.1

- a. built on a single chassis;
- b. 400 square feet or less when measured at the largest horizontal projection, not including slideouts;
- c. designed to be self-propelled or permanently towable by a motor vehicle; and,
- d. designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

Regulatory Floodway –

Definition taken from NFIP: 44 CFR 59.1

- a. the channel of a river or other water course and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot, and,
- b. when not designated on the community's Flood Insurance Rate Map or Flood Boundary and Floodway Map, it is considered to be the channel of a river or other water course and the adjacent land areas to a distance of one-half the width of the floodplain, as measured from the normal high water mark to the upland limit of the floodplain.

Riverine - relating to, formed by, or resembling a river (including tributaries), stream, brook, etc.

Definition taken from NFIP: 44 CFR 59.1

Definition taken from NFIP: 44 CFR 59.1

Special Flood Hazard Area - see **Area of Special Flood Hazard**.

Start of Construction - the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition,

Definition taken from NFIP: 44 CFR 59.1

MAINE MODEL FLOODPLAIN MANAGEMENT ORDINANCE WITH COMMENTARY

placement, substantial improvement or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, or modification of any construction element, whether or not that alteration affects the external dimensions of the building.

Structure - means, for floodplain management purposes, a walled and roofed building. A gas or liquid storage tank that is principally above ground is also a structure.

Definition taken from NFIP: 44 CFR 59.1

Substantial Damage - means, 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.

Definition taken from NFIP: 44 CFR 59.1

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 substantial damage, regardless of the actual repair work performed. The term does not, however, include either:

Definition taken from NFIP: 44 CFR 59.1

- a. Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions; or
- b. Any alteration of a Historic Structure, provided that the alteration will not preclude the structure's continued designation as a historic structure, and a variance is obtained from the Board of Appeals.

Variance - means a grant of relief by a community from the terms of a floodplain management regulation.

Definition taken from NFIP: 44 CFR 59.1

Violation - means the failure of a structure or development to comply with a community's floodplain management regulations.

Definition taken from NFIP: 44 CFR 59.1

ARTICLE XV - ABROGATION

This ordinance repeals and replaces any municipal ordinance previously enacted to comply with the National Flood Insurance Act of 1968 (P.L. 90-488, as amended).

State Model Ordinance 60.3(e) LiMWA