



2020 MA State Model Floodplain Bylaw Questions & Answers for Local Officials

DCR Flood Hazard Management Program

Introductions

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Purpose of the Model

This document has been prepared in order to assist NFIP communities in Massachusetts to understand the minimum requirements of the NFIP, and to assure that their local bylaws or ordinances contain the necessary and proper language for compliance with the Program.

Facts:

1. All NFIP communities participate voluntarily.
2. All NFIP communities agree to locally adopt and enforce NFIP requirements as found in the Title 44 CFR.
3. Congress wrote the rules, FEMA administers the program, the State assists communities to enforce the program.
4. **This model is a tool to help** communities know and understand the NFIP requirements that are not already found elsewhere in mandatory MA regulations (e.g. building code or Wetlands Protection Act.)

Key Dates

- ▶ Congress created the National Flood Insurance Act of 1968
- ▶ First Massachusetts community to officially participate in the NFIP was the Town of Wareham, who joined the NFIP on May 28, 1971.
- ▶ Most other MA communities quickly followed suit in the 1970s and early 1980s.
- ▶ State NFIP Coordinating Office was created by Executive Order of the Governor in 1978.

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Section 2. Local Required Bylaws

The suggested language in this section is compliant with the federal requirements.

The requirements of the NFIP can be found in the US Code of Federal Regulations, Title 44 Emergency Management, generally in sections 59 through 75, although the requirements that most specifically address development in the floodplain are found in section 60.3.



1. Stated local purpose for flood-resistant standards

The purpose of the Floodplain Overlay District is to:

- ▶ 1) Ensure public safety through reducing the threats to life and personal injury
- ▶ 2) Eliminate new hazards to emergency response officials
- ▶ 3) Prevent the occurrence of public emergencies resulting from water quality, contamination, and pollution due to flooding
- ▶ 4) Avoid the loss of utility services which if damaged by flooding would disrupt or shut down the utility network and impact regions of the community beyond the site of flooding
- ▶ 5) Eliminate costs associated with the response and cleanup of flooding conditions
- ▶ 6) Reduce damage to public and private property resulting from flooding waters



2. Use of FEMA maps and supporting studies

Option A

Bylaw text for communities with “Community-Based” FIRMs, FBFM and FIS

The Floodplain District is herein established as an overlay district. The District includes all special flood hazard areas designated on the [Town or City]’s Flood Insurance Rate Map (FIRM) issued by the Federal Emergency Management Agency for the administration of the National Flood Insurance Program, dated (effective map dates on FIRM) and on the Flood Boundary & Floodway Map (if applicable) dated (FBFM effective date.) These maps indicate the 1%-chance regulatory floodplain. The exact boundaries of the District shall be defined by the 1%-chance base flood elevations shown on the FIRM and further defined by the Flood Insurance Study (FIS) report dated (FIS date.) The effective FIRM, FBFM, and FIS report are incorporated herein by reference and are on file with the Town Clerk, Planning Board, Building Official, Conservation Commission and [other.]

2. Use of FEMA maps and supporting studies

Option B

Bylaw text for communities with “Countywide” FIRMs and FIS

The Floodplain District is herein established as an overlay district. The District includes all special flood hazard areas designated within [Town or City]’s [Name County] Flood Insurance Rate Map (FIRM) issued by the Federal Emergency Management Agency for the administration of the National Flood Insurance Program. The exact boundaries of the District shall be defined by the 1%-chance base flood elevations shown on the FIRM and further defined by the [Name County] Flood Insurance Study (FIS) report dated (FIS date.) The FIRM and FIS report are incorporated herein by reference and are on file with the Town Clerk, Planning Board, Building Official, Conservation Commission and [other.]



3. Abrogation and greater restriction section

The floodplain management regulations found in this Floodplain Overlay District section shall take precedence over any less restrictive conflicting local laws, ordinances or codes.



4. Disclaimer of liability

The degree of flood protection required by this bylaw [ordinance] is considered reasonable but does not imply total flood protection.



5. Severability section

If any section, provision or portion of this bylaw [ordinance] is deemed to be unconstitutional or invalid by a court, the remainder of the ordinance shall be effective.



6. Designation of community Floodplain Administrator (FPA)

The Town/City of _____ hereby designates
the position of _____ to be the
official floodplain administrator for the
Town/City.



7. Requirement to submit new technical data

If the Town/City acquires data that changes the base flood elevation in the FEMA mapped Special Flood Hazard Areas, the Town/City will, within 6 months, notify FEMA of these changes by submitting the technical or scientific data that supports the change(s.) Notification shall be submitted to:

FEMA Region I Risk Analysis Branch Chief
99 High St., 6th floor, Boston, MA 02110

And copy of notification to:

Massachusetts NFIP State Coordinator

MA Dept. of Conservation & Recreation, 251 Causeway Street,
Boston, MA 02114



8. Variances to building code floodplain standards

Option A

A. If the State issues variances to the flood-resistant standards as found in the state building code, the community will use this text for local adoption:

The Town/City will request from the State Building Code Appeals Board a written and/or audible copy of the portion of the hearing related to the variance and will maintain this record in the community's files.

The Town/City shall also issue a letter to the property owner regarding potential impacts to the annual premiums for the flood insurance policy covering that property, in writing over the signature of a community official that (i) the issuance of a variance to construct a structure below the base flood level will result in increased premium rates for flood insurance up to amounts as high as \$25 for \$100 of insurance coverage and (ii) such construction below the base flood level increases risks to life and property.

Such notification shall be maintained with the record of all variance actions for the referenced development in the floodplain overlay district.



8. Variances to building code floodplain standards

Option B

B. Certain communities have the authority to issue variances to the state building code. If your community has this authority from the BBRS, you will use this text for local adoption:

Variances to floodplain development regulations shall only be issued upon (i) a showing of good and sufficient cause, (ii) a determination that failure to grant the variance would result in exceptional hardship to the applicant, and (iii) a determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.

A written justification for the variance will be maintained in the Town's/City's building permit files, delineating the technical reason for the variance, and stating that the variance is the minimum necessary (considering the flood hazard) to afford relief.

The Town/City shall also issue a letter to the property owner regarding potential impacts to the annual premiums for the flood insurance policy covering that property, in writing over the signature of a community official that (i) the issuance of a variance to construct a structure below the base flood level will result in increased premium rates for flood insurance up to amounts as high as \$25 for \$100 of insurance coverage and (ii) such construction below the base flood level increases risks to life and property.

Such notification shall be maintained with the record of all variance actions for the referenced development in the floodplain overlay district.



9. Variances to local Zoning Bylaws related to community compliance with the National Flood Insurance Program

A variance from these floodplain bylaws must meet the requirements set out by State law, and may only be granted if:

- 1) Good and sufficient cause and exceptional non-financial hardship exist;
- 2) the variance will not result in additional threats to public safety, extraordinary public expense, or fraud or victimization of the public; and
- 3) the variance is the minimum action necessary to afford relief.



10. Permits are required for all proposed development in the Floodplain Overlay District

The Town/City of _____ requires a permit for all proposed construction or other development in the floodplain overlay district, including new construction or changes to existing buildings, placement of manufactured homes, placement of agricultural facilities, fences, sheds, storage facilities or drilling, mining, paving and any other development that might increase flooding or adversely impact flood risks to other properties.



11. Assure that all necessary permits are obtained

(Town/City)_____’s permit review process includes the use of a checklist of all local, state and federal permits that will be necessary in order to carry out the proposed development in the floodplain overlay district. The proponent must acquire all necessary permits, and must submit the completed checklist demonstrating that all necessary permits have been acquired.



12. Subdivision proposals

All subdivision proposals and development proposals in the floodplain overlay district shall be reviewed to assure that:

- (a) Such proposals minimize flood damage.
- (b) Public utilities and facilities are located & constructed so as to minimize flood damage.
- (c) Adequate drainage is provided.



13. Base flood elevation data for subdivision proposals

When proposing subdivisions or other developments greater than 50 lots or 5 acres (whichever is less), the proponent must provide technical data to determine base flood elevations for each developable parcel shown on the design plans.



14. Unnumbered A Zones

In A Zones, in the absence of FEMA BFE data and floodway data, the building department will obtain, review and reasonably utilize base flood elevation and floodway data available from a Federal, State, or other source as criteria for requiring new construction, substantial improvements, or other development in Zone A as the basis for elevating residential structures to or above base flood level, for floodproofing or elevating nonresidential structures to or above base flood level, and for prohibiting encroachments in floodways.



15. Floodway encroachment

In Zones A, A1-30, and AE, along watercourses that have not had a regulatory floodway designated, the best available Federal, State, local, or other floodway data shall be used to prohibit encroachments in floodways which would result in any increase in flood levels within the community during the occurrence of the base flood discharge.

In Zones A1-30 and AE, along watercourses that have a regulatory floodway designated on the Town's/City's FIRM or Flood Boundary & Floodway Map (choose map which delineates floodways for your community) encroachments are prohibited in the regulatory floodway which would result in any increase in flood levels within the community during the occurrence of the base flood discharge.



16. Watercourse alterations or relocations in riverine areas

In a riverine situation, the _____ (appropriate official in community) shall notify the following of any alteration or relocation of a watercourse:

- Adjacent Communities, especially upstream and downstream
- Bordering States, if affected
- NFIP State Coordinator
Massachusetts Department of Conservation and Recreation
251 Causeway Street, 8th floor, Boston, MA 02114
- FEMA NFIP Program Specialist
Federal Emergency Management Agency, Region I
99 High Street, 6th Floor, Boston, MA 02110



17. AO and AH zones drainage requirements

Within Zones AO and AH on the FIRM, adequate drainage paths must be provided around structures on slopes, to guide floodwaters around and away from proposed structures.



18. Recreational vehicles

In A1-30, AH, AE Zones, V1-30, VE, and V Zones, all recreational vehicles to be placed on a site must be elevated and anchored in accordance with the zone's regulations for foundation and elevation requirements or be on the site for less than 180 consecutive days or be fully licensed and highway ready.



19. Protection of dunes

Alteration of sand dunes is prohibited when the alteration would increase potential flood damage.



20. Local Enforcement

This is not sample bylaw text, but rather an instruction:

Please read the explanation in Section 4 about the importance of being able to point to specific local enforcement procedures for non-compliant floodplain development.

Questions?



We are pausing here to address questions from the chat.



Please continue to send your questions in the chat. We will answer additional questions at the end of the presentation.

The Model-

Section 3. Required Definitions

Per FEMA Region I, these additional definitions must be included in local bylaws or ordinances.

National Flood Insurance Program (NFIP) definitions are found in Title 44 of the Code of Federal Regulations, section 59.1.

The definitions below refer to their source; if the definition is from the MA building code, it is from the 9th Edition, which meets the minimum standards of the NFIP.



DEVELOPMENT

Any man-made change to improved or unimproved real estate, including but not limited to building or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials. [US Code of Federal Regulations, Title 44, Part 59]



FLOOD BOUNDARY AND FLOODWAY MAP

An official map of a community issued by FEMA that depicts, based on detailed analyses, the boundaries of the 100-year and 500-year floods and the 100-year floodway. (For maps done in 1987 and later, the floodway designation is included on the FIRM.)



FLOOD HAZARD BOUNDARY MAP (FHBM)

An official map of a community issued by the Federal Insurance Administrator, where the boundaries of the flood and related erosion areas having special hazards have been designated as Zone A or E. [US Code of Federal Regulations, Title 44, Part 59]



FLOODWAY

The channel of the river, creek or other watercourse 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 a designated height. [Base Code, Chapter 2, Section 202]



FUNCTIONALLY DEPENDENT USE

A use which 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.

[US Code of Federal Regulations, Title 44, Part 59] Also

[Referenced Standard ASCE 24-14]



HIGHEST ADJACENT GRADE

The highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure. [US Code of Federal Regulations, Title 44, Part 59]



HISTORIC STRUCTURE

Any structure that is:

- (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 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.

[US Code of Federal Regulations, Title 44, Part 59]



NEW CONSTRUCTION

Structures for which the start of construction commenced on or after the effective date of the first floodplain management code, regulation, ordinance, or standard adopted by the authority having jurisdiction, including any subsequent improvements to such structures. New construction includes work determined to be substantial improvement. [Referenced Standard ASCE 24-14]



RECREATIONAL VEHICLE

A vehicle which is:

- (a) Built on a single chassis;
- (b) 400 square feet or less when measured at the largest horizontal projection;
- (c) Designed to be self-propelled or permanently towable by a light duty truck; and
- (d) Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

[US Code of Federal Regulations, Title 44, Part 59]



SPECIAL FLOOD HAZARD AREA

The land area subject to flood hazards and shown on a Flood Insurance Rate Map or other flood hazard map as Zone A, AE, A1-30, A99, AR, AO, AH, V, VO, VE or V1-30. [Base Code, Chapter 2, Section 202]



START OF CONSTRUCTION

The date of issuance for new construction and substantial improvements to existing structures, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement or other improvement is within 180 days after the date of issuance. The actual start of construction means the first placement of permanent construction of a building (including a manufactured home) on a site, such as the pouring of a slab or footings, installation of pilings or construction of columns.

Permanent construction does not include land preparation (such as clearing, excavation, grading or filling), the installation of streets or walkways, excavation for a basement, footings, piers or foundations, the erection of temporary forms or the installation of accessory buildings such as garages or sheds not occupied as dwelling units or not part of the main building. 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, whether or not that alteration affects the external dimensions of the building. [Base Code, Chapter 2, Section 202]



STRUCTURE

For floodplain management purposes, a walled and roofed building, including a gas or liquid storage tank, that is principally above ground, as well as a manufactured home. [US Code of Federal Regulations, Title 44, Part 59]



SUBSTANTIAL REPAIR OF A FOUNDATION

When work to repair or replace a foundation results in the repair or replacement of a portion of the foundation with a perimeter along the base of the foundation that equals or exceeds 50% of the perimeter of the base of the foundation measured in linear feet, or repair or replacement of 50% of the piles, columns or piers of a pile, column or pier supported foundation, the building official shall determine it to be substantial repair of a foundation. Applications determined by the building official to constitute substantial repair of a foundation shall require all existing portions of the entire building or structure to meet the requirements of 780 CMR. [As amended by MA in 9th Edition BC]



VARIANCE

A grant of relief by a community from the terms of a flood plain management regulation. [US Code of Federal Regulations, Title 44, Part 59]



VIOLATION

The failure of a structure or other development to be fully compliant with the community's flood plain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in §60.3(b)(5), (c)(4), (c)(10), (d)(3), (e)(2), (e)(4), or (e)(5) is presumed to be in violation until such time as that documentation is provided. [US Code of Federal Regulations, Title 44, Part 59]



Questions?



Questions about the definitions?



Any additional questions related to the model?

We're here to help

State (MA DCR):

Eric Carlson, Floodplain Manager

617-626-1362 or eric.carlson@mass.gov

OR

Joy Duperault, CFM, Floodplain Manager

617-626-1406 or joy.duperault@mass.gov

FEMA Region I:

Katie Rand, Emergency Management
Specialist

617-832-4716 or katie.rand@fema.dhs.gov

