

**Article ##:** To see if the Town will vote to amend the Medfield Town Code Chapter 300, Zoning, Article 10, Floodplain District, by striking the existing section and replacing it as follows:

*[To be relocated] Summary: The Charles Watershed RiskMAP mapping update for Norfolk County was recently completed and the subsequently updated Flood Insurance Rate Map (FIRM) and Flood Insurance Study (FIS) are to become effective six months from the date of the Final Determination (LFD), expected to be issued in December 2021 or January 2022. Communities that participate in the National Flood Insurance Program (NFIP), which includes Medfield, are required to update their local zoning bylaw to reflect the updated mapping. Updates to local regulations must also be consistent with the State's model bylaw, which includes all standards necessary to be compliant with NFIP regulations.*

## **300-10. Floodplain District**

**10.1. Purposes.** The purposes of the Floodplain District are to ensure public safety by reducing threats to life and personal injury; eliminate new hazards to emergency response officials; prevent the occurrence of public emergencies resulting from water quality contamination and pollution due to flooding; 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; eliminate costs associated with the response and cleanup of flooding conditions; and reduce damage to public and private property resulting from flooding waters.

**10.2. Overlay District.** The Floodplain District shall be deemed to be superimposed over other districts in this Zoning Bylaw. The floodplain management regulations found in this Floodplain Overlay District section shall take precedence over any less restrictive conflicting local laws, by-laws or codes. The degree of flood protection required by this bylaw is considered reasonable but does not imply total flood protection. Property owners constructing structures and improvements in a Floodplain District do so at their own risk. Natural changes can occur over time which may affect the flood elevations. In the event any regulations of this Floodplain District are in conflict with the regulations of any other districts, the more restrictive regulation shall govern. The Town designates the position of Town Administrator (or their designee) to be the official floodplain administrator for the Town of Medfield.

**10.3. Applicability.** The Floodplain District includes: All special flood hazard areas designated as Zone A or AE on the Norfolk County Flood Insurance Rate Map (FIRM) issued by the Federal Emergency Management Agency (FEMA) for the administration of the National Flood Insurance Program as may be updated or revised. These maps indicate the 1%-chance regulatory floodplain. The exact boundaries of the District may be defined by the 100-year base flood elevations shown on the FIRM and further defined by the Norfolk County Flood Insurance Study (FIS) with an effective date of **July 16, 2015 (this date will change)** and further defined by the Norfolk County Flood Insurance Study (FIS) report dated **July 16, 2015 (this date will change)**. The FIRM and FIS report are incorporated herein by reference and are on file with the Town Clerk and Land Use Department.

**10.4. Definitions.** As used in this Section, the following terms shall have the following meanings:

**Area of Special Flood Hazard:** The land in the floodplain that is subject to a one percent or greater chance of flooding in any given year. The area may be designated as Zone A, AO, AH, A1-30, AE, A99, V1-30, VE, or V.

**Base Flood:** The flood having a one percent chance of being equaled or exceeded in any given year.

**Development:** Any manmade 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.

**District:** Floodplain district.

**Federal Emergency Management Agency (FEMA):** The agency that administers the National Flood Insurance Program. FEMA provides a nationwide flood hazard area mapping study program for communities as well as regulatory standards for development in the flood hazard areas.

**Flood Hazard Boundary Map (FHBM):** An official map of a community issued by FEMA where the boundaries of the flood and related erosion areas having special hazards have been designated as Zone A or E.

**Flood Insurance Rate Map (FIRM):** An official map of a community on which FEMA has delineated both the areas of special flood hazard and the risk premium zones applicable to the community.

**Flood Insurance Study:** An examination, evaluation, and determination of flood hazards, and, if appropriate, corresponding water surface elevations, or an examination, evaluation and determination of flood-related erosion hazards.

**Floodway:** The channel of a 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.

**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

**Highest Adjacent Grade:** the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure

**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

**Lowest Floor:** The lowest floor of the lowest enclosed area (including basement or cellar).

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 of NFIP Regulations 60.3.

**New Construction:** For floodplain management purposes, new construction means structures for which the "start of construction" commenced on or after the effective date of the first floodplain management code, regulation, by-law, or standard adopted by the authority having jurisdiction, including any subsequent improvements to such structures. *New construction includes work determined to be substantial improvement.*

**One-Hundred-Year Flood:** See Base Flood.

**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

**Regulatory Floodway:** See Floodway

**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, or AH.

**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

**Structure:** As used in this Section and for floodplain management purposes, “structure” means a walled and roofed building, including a gas or liquid storage tank that is principally above ground, as well as a manufactured home.

**Substantial Damage:** As defined in the Massachusetts State Building Code.

**Substantial Improvement:** As defined in the Massachusetts State Building Code.

**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.

**Variance:** a grant of relief by a community from the terms of a floodplain management regulation.

**Violation:** the failure of a structure or other development to be fully compliant with the community's Floodplain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in 44 CFR §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

**Zone A:** an area of special flood hazard without water surface elevations determined.

**Zone A1-30 and Zone AE:** an area of special flood hazard with water surface elevations determined.

**Zones B, C, and X:** Areas identified in the Flood Insurance Study as areas of moderate or minimal flood hazard. Zone X replaces Zones B and C on new and revised maps.

## **10.5. Base Flood Elevation and Floodway Data.**

1. Floodway Data. In Zones A 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.
2. In A Zones, in the absence of FEMA BFE data and floodway data the Applicant shall submit to the Town for review of 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.

3. In Zones A1-30 and AE, along watercourses that have a regulatory floodway designated on the Town's FIRM encroachments are prohibited in the regulatory floodway unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result ~~which would result~~ in any increase in flood levels within the community during the occurrence of the base flood discharge.
4. 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.
5. Base Flood Elevation Data. 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.
6. If the Town acquires data that changes the base flood elevation in the FEMA mapped Special Flood Hazard Areas, the Town 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 1 Risk Analysis Branch Chief, 99 High Street, 6<sup>th</sup> floor, Boston, MA 02110, copy to: Massachusetts NFIP State Coordinator, MA Dept. of Conservation and Recreation, 251 Causeway Street, Boston, MA 02114

**10.6.** In a riverine situation, the Conservation Agent shall notify the following of any alteration or relocation of a watercourse: adjacent communities, NFIP State Coordinator (Department of Conservation and Recreation), and NFIP Program Specialist (FEMA Region 1).

**10.7. Use Regulations.**

1. Permitted Uses. The following uses shall be permitted in the Floodplain District provided that the Conservation Commission has acted within the scope of its jurisdiction under G.L. c. 131, § 40.
  - a) Uses permitted in the underlying zoning district are allowed provided they meet the requirements of this Section and the State Building Code dealing with construction in floodplains.
  - b) Uses directly related to the conservation of water, plants and wildlife.
  - c) Outdoor recreation activities and facilities, including unpaved play areas nature study; boating; fishing and hunting where otherwise legally permitted.
  - d) Wildlife management areas, landings; foot, bicycle and/or horse paths and bridges; provided such uses do not affect the natural flow pattern of any watercourse.
  - e) Grazing and farming, including truck gardening and harvesting of crops.
  - f) Forestry and nurseries.

- g) Small non-residential structures of less than 100 square feet of floor area used in connection with recreation or the growing, harvesting, storage, or sale of crops raised on the premises.
- h) Creation of ponds with a total water surface area at normal elevation not in excess of 40,000 square feet.
- i) Removal of salt and other accumulated debris from a watercourse which tends to interfere with natural flow patterns of the watercourse.
- j) Access driveways to land outside the Floodplain District not otherwise accessible.
- k) Buildings lawfully existing prior to the adoption of these provisions.

2. All manmade changes to improved or unimproved real estate, including but not limited to building or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, including structural and nonstructural activities, whether permitted by right or by special permit, shall comply with G.L. c. 131, § 40, and the following:

- a. Sections of the State Building Code (780 CMR) which address floodplain and coastal high hazard areas;
- b. Wetlands Protection Regulations, Department of Environmental Protection (DEP) (currently 310 CMR 10.00);
- c. Inland Wetlands Restriction, DEP (currently 310 CMR 13.00).
- d. Minimum Requirements for the Subsurface Disposal of Sanitary Sewage, DEP (currently 310 CMR 15, Title 5).

7. Any variances from the provisions and requirements of the above-referenced state regulations may only be granted in accordance with the required variance procedures of these state regulations.

8. In A1-30, AH, and AE Zones, 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.

9. Prohibited Uses. The following shall be prohibited in the Floodplain District:

- a) New construction of a building or structure except as otherwise provided in this District;
- b) Movement, alteration, or expansion of an existing building or structure so as to increase its ground coverage by more than a total of 20 percent;
- c) Dumping or filling or relocation of earth materials except as may be required for the uses permitted in Section 10.7.(h) (i) and (j).

- d) Storage of road salt, fertilizer, manure, or other organic or chemical leachable material.

**10.8. Subdivisions.** All subdivision proposals shall be designed to assure that:

1. Such proposals minimize flood damage;
2. All public utilities and facilities are located and constructed to minimize or eliminate flood damage; and
3. Adequate drainage is provided to reduce exposure to flood hazards.
4. Existing contour intervals of site and elevations of existing structures must be included on plan proposal.

**10.9. Lot Area Allowance.** Minimum lot area shall be calculated to include only contiguous land which is not in the Floodplain District. No building or structure shall be erected on the portion outside the Floodplain District unless it contains suitable space for a building or structure, for installation of adequate sewage disposal facilities in accordance with Title V of the State Environmental Code, and for meeting the setback, frontage, and other dimensional requirements of this Zoning Bylaw, but in no case less than 10,000 square feet.

**10.10.** A lot with a dwelling existing thereon at the time of the adoption of this Zoning Bylaw shall not be deemed a non-conforming lot solely because any portion of it lies within the Floodplain District.

**10.11. Special Permits.** The Board of Appeals may grant a special permit for any of the following upon finding that the purposes of the Floodplain District have been met.

1. A special permit from the Board of Appeals shall be required for construction on any lot in a commercial or industrial district when a portion of the lot is overlaid by the Floodplain District.
2. Determination of Flooding and Suitability.
  - a. The Board of Appeals may grant a special permit for a use permitted in the underlying district if the Board determines that:
    - i. The proposed use of such land will not interfere with the general purposes for which the Floodplain District has been established, and will not be detrimental to the public health, safety and/or welfare; and
    - ii. The proposed use or structure will comply with all other provisions of the underlying district within which the land is located.
  - b. The Board of Appeals shall refer such special permit applications to the Planning Board, Conservation Commission, and Board of Health for review and comment, and shall not act until these agencies have reported their recommendations or thirty-five days have elapsed after such referral and no report has been received.

- c. Any special permit granted hereunder shall be conditional upon receipt of all other permits or approvals required by local, state, or federal law.
3. No construction requiring a public utility, including electric, water, gas, and telephone lines or waste disposal or drainage facilities, shall be permitted unless the Board of Appeals determines that all such utilities are located, elevated, and constructed so as to minimize or eliminate flood damage and that methods of disposal of sewage, refuse, and other wastes and methods of providing drainage are adequate to reduce flood hazards.
4. Special permit application, review, and decision procedures shall be in accordance with Section 14 of this Zoning Bylaw and the rules and regulations of the Board of Appeals.

**10.12. Variances from Floodplain Bylaw.** A variance from this floodplain bylaw must meet the requirements set out by State law, and in addition 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.

**10.13. Variance from State Building Code.** The Town will request from the State Building Code Appeals Board a written and/or audible copy of the portion of the hearing related to the any variance granted by that Board from the requirements for floodplain construction, and will maintain this record in the Town's files.

The Town may 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 will be maintained with the record of all variance actions for the referenced development in the floodplain overlay district.

**10.14.** The Town of Medfield 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. The town's permit review process includes the requirement that the proponent obtain 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 demonstrate that all necessary permits have been acquired.

**10.15 Limits of authority.** Nothing contained in this Article 10 shall limit the authority of the Board of Health with respect to premises in the Floodplain District or limit the applicability of the Commonwealth of Massachusetts State Building Code to any structure in the Floodplain District.

- 10.16 **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.
- 10.17 **Disclaimer of liability.** The degree of flood protection required by this bylaw is considered reasonable but does not imply total flood protection.
- 10.18 **Severability section.** If any section, provision or portion of this bylaw is deemed to be unconstitutional or invalid by a court, the remainder of the ordinance shall be effective.



Response is everything.

## **What are the different flood hazard zone designations and what do they mean?**

### **Zone A**

Zone A is the flood insurance rate zone that corresponds to the 1-percent annual chance floodplains that are determined in the Flood Insurance Study by approximate methods of analysis. Because detailed hydraulic analyses are not performed for such areas, no Base Flood Elevations or depths are shown within this zone. Mandatory flood insurance purchase requirements apply.

### **Zone AE and AI-A30**

Zones AE and AI-A30 are the flood insurance rate zones that correspond to the 1-percent annual chance floodplains that are determined in the Flood Insurance Study by detailed methods of analysis. In most instances, Base Flood Elevations derived from the detailed hydraulic analyses are shown at selected intervals within this zone. Mandatory flood insurance purchase requirements apply.

### **Zone AH**

Zone AH is the flood insurance rate zone that corresponds to the areas of 1-percent annual chance shallow flooding with a constant water-surface elevation (usually areas of ponding) where average depths are between 1 and 3 feet. The Base Flood Elevations derived from the detailed hydraulic analyses are shown at selected intervals within this zone. Mandatory flood insurance purchase requirements apply.

### **Zone AO**

Zone AO is the flood insurance rate zone that corresponds to the areas of 1-percent shallow flooding (usually sheet flow on sloping terrain) where average depths are between 1 and 3 feet. Average flood depths derived from the detailed hydraulic analyses are shown within this zone. In addition, alluvial fan flood hazards are shown as Zone AO on the Flood Insurance Rate Map. Mandatory flood insurance purchase requirements apply.

### **Zone AR**

Zone AR is the flood insurance rate zone used to depict areas protected from flood hazards by flood control structures, such as a levee, that are being restored. FEMA will consider using the Zone AR designation for a community if the flood protection system has been deemed restorable by a Federal agency in consultation with a local project sponsor; a minimum level of flood protection is still provided to the community by the system; and restoration of the flood protection system is scheduled to begin within a designated time period and in accordance with a progress plan negotiated between the community and FEMA. Mandatory purchase requirements for flood insurance will apply in Zone AR, but the rate will not exceed the rate for an unnumbered Zone A if the structure is built in compliance with Zone AR floodplain management regulations.

For floodplain management in Zone AR areas, the property owner is not required to elevate an existing structure when making improvements to the structure. However, for new construction, the structure must be elevated (or flood proofed for non-residential structures) so that the lowest floor, including basement, is a minimum of 3 feet above the highest adjacent existing grade, if the depth of the Base Flood Elevation (BFE) does not exceed 5 feet at the proposed development site. For infill sites, rehabilitation of existing structures, or redevelopment of previously developed areas, there is a 3- foot

elevation requirement regardless of the depth of the BFE at the project site.

The Zone AR designation will be removed and the restored flood control system will be shown as providing protection from the 1-percent annual chance flood on the National Flood Insurance Program map upon completion of the restoration project and submittal of all the necessary data to FEMA.

**Zone A99**

Zone A99 is the flood insurance rate zone that corresponds to areas within the 1-percent annual chance floodplain that will be protected by a Federal flood protection system where construction has reached specified statutory milestones. No Base Flood Elevations or depths are shown within this zone. Mandatory flood insurance purchase requirements apply.

**Zone D**

The Zone D designation is used for areas where there are possible but undetermined flood hazards. In areas designated as Zone D, no analysis of flood hazards has been conducted. Mandatory flood insurance purchase requirements do not apply, but coverage is available. The flood insurance rates for properties in Zone D are commensurate with the uncertainty of the flood risk.

**Zone V**

Zone V is the flood insurance rate zone that corresponds to areas within the 1-percent annual chance coastal floodplains that have additional hazards associated with storm waves. Because approximate hydraulic analyses are performed for such areas, no Base Flood Elevations are shown within this zone. Mandatory flood insurance purchase requirements apply.

**Zone VE**

Zone VE is the flood insurance rate zone that corresponds to areas within the 1-percent annual chance coastal floodplain that have additional hazards associated with storm waves. Base Flood Elevations derived from the detailed hydraulic analyses are shown at selected intervals within this zone. Mandatory flood insurance purchase requirements apply.

**Zones B, C, and X** Zones B, C, and X are the flood insurance rate zones that correspond to areas outside the 1-percent annual chance floodplain, areas of 1-percent annual chance sheet flow flooding where average depths are less than 1 foot, areas of 1-percent annual chance stream flooding where the contributing drainage area is less than 1 square mile, or areas protected from the 1-percent annual chance flood by levees. No Base Flood Elevations or depths are shown within this zone. Insurance purchase is not required in these zones.