



Local Flood Risk Actions

In collaboration with EEA, DCR, and CZM, the Executive Office of Economic Development (EOED) is developing a guide for cities and towns to take impactful local actions to reduce flood risk and promote flood-resilient construction. The following is a preliminary list of actions that the Project Team identified based on a comprehensive literature review of floodplain management publications. **Please note that this is not a final list.** It reflects the realm of possibilities for local action based on the following considerations:

- The action does not conflict with the Massachusetts State Building Code
- The action holds up when considering statewide climate change projections
- The action will reduce flood damage and risk
- The action is justifiable and appropriate based on recurring appearances in publications, its existing use by Massachusetts municipalities, its identification in the National Flood Insurance Program (NFIP), and its successful use in the past, as observed by the Project Team's subject matter experts

The final content of the Local Action Guide will incorporate feedback and recommendations from online engagement sessions and survey responses. **We encourage and value all input.** [Take the survey here.](#)



Limitation and Restrictions

Title	Description
Restrictions Based on Depth and Velocity	Restrict development, or just new construction, on sites where flood depths are greater than 4 to 5 feet and on sites where velocities are faster than 10 feet per second. This could include requiring applicants to assess locations on their parcels that are outside of mapped flood zones or where flood depths are shallower.
Limit Development within the Flood Zone	Limit new development within the flood zone. This could include all development or a list of activities (new structures for human habitation, dry cleaners, septic systems, critical facilities, etc.).
Restrict New Structures in Floodways	Restrict new structures in floodways (areas where the deepest and fastest flowing water is expected). This could include all occupiable structures or only residential structures.
Non-Substantial Additions	Limit non-substantial additions to nonconforming buildings, e.g., no more than 20% of the base building footprint.
Limit Fill within the Flood Zone	Limit fill or allow no fill within the flood zone.

Title	Description
Hazardous Materials Manufacture and Storage	Restrict manufacturing and/or storage of hazardous materials in the flood zone.
Limitations on Location of Manufactured Homes	Restrict new installations of manufactured homes in high-risk flood zones, including floodways and/or coastal high hazard areas.

Zoning Bylaws

Title	Description
Flood Hazard Setbacks	Limit development within a specified distance from a body of water (typically the stream bank, stream centerline, floodway edge, or landward boundary of a mapped floodplain).
Dry Land Access	Require new subdivisions and developments to have a “dry land access” to allow safe entry and exit of emergency vehicles during flooding up to the base flood conditions.
Protect New Buildings from Local Drainage	Require the ‘finished floor’ of all new buildings to be at or above a specific number of inches above the adjacent grade or the crown of the nearest road or street.
Low-Impact Overlay Districts	Develop an overlay zone for flood zones to control the impact of allowed uses. Low-impact uses could include agriculture, conservation, forestry, passive recreation, and low-density residential zoning districts.
Low-Density Overlay Districts	Develop an overlay zone for flood zones to control the number of structures per area. This can be done by limiting the lot sizes and/or the number of structures per lot.
Adopt Additional Flood Risk Maps	Communities may adopt other flood risk data products (studies and maps) in addition to FEMA’s Flood Insurance Study (FIS) and Flood Insurance Rate Map (FIRM) and regulate using the most restrictive data (widest extent or highest elevation).
Areas Protected by Levees	Regulate areas protected by levees as Zone A (FEMA-mapped flood zone).
Environmental Buffer Zones	Create a buffer zone (riparian buffer or stream buffer) to protect and preserve the natural benefits of the riparian ecosystem.
Land Under MSBC Freeboard Requirements	Regulate land under the freeboard required by the Massachusetts State Building Code (MSBC) the same as flood zones by extending the elevation represented by the Base Flood Elevation (BFE) at the landward boundary of the flood zone plus 2 feet of freeboard landward and apply requirements to the land that is below that elevation.

Title	Description
Impervious Surface Overlay Districts	Create zoning districts where only a specified percentage of a lot can be impervious.
Shaded Zone X Requirements	Apply Zone A requirements in shaded Zone X (500-year floodplain and other areas where FEMA uses shaded Zone X), with elevation to 2 feet above grade or the 500-year elevation, whichever is higher, if provided in the FEMA Flood Insurance Study (FIS).



Policies and Procedures

Title	Description
FEMA Certificates: Elevation Certificate and Dry Floodproofing Certificate	Require use of FEMA Elevation Certificates and FEMA Dry Floodproofing Certificates.
Non-Conversion Agreements for Enclosures Under Elevated Buildings, with Deed Restriction	Require property owners to sign non-conversion agreements to acknowledge the restrictions on use of enclosures below elevated buildings and to agree not to modify or convert the enclosures. The non-conversion agreement is then recorded with the property deed to inform future owners of use limitations.
Interlocal Agreements for Administration	Develop model interlocal agreements that can be used by two or more municipalities to cooperate on administration of floodplain management bylaws.
Inspections of Enclosures Under Elevated Structures	Develop an administrative inspection procedure to periodically inspect enclosed areas under elevated structures, including perimeter wall foundations taller than 4-5 feet, attached garages, and detached accessory structure larger than a specific size.
Require Statements of Purpose and Extent in Proposals to Use Fill in Flood Zones	Communities can limit proposals to use fill in flood zones by requiring applicants to specify the purpose for the fill and demonstrate that the extent of proposed filled areas is the minimum necessary for the stated purpose.
Cumulative Substantial Improvement	Track the cost of improvements and repairs for floodplain structures over a specified period of time and require compliance when the cumulative costs equal or exceed 50% of the market value of the structure. Allow communities to select the time period. In general, periods of 5 years or longer are selected to gradually reduce the number of nonconforming buildings, and periods of 1 or 3 years are selected to discourage owners from deliberately phasing improvements sequentially to avoid the 50-percent compliance requirement.



Incentives, Exemptions, and Other Tools

Title	Examples
Freeboard Incentives	<ul style="list-style-type: none">• Permit fee reductions/waivers
Special Permits	<ul style="list-style-type: none">• Density bonuses• Flexibility with setback and frontage requirements• Allowing higher height limits for elevated buildings
Exemptions or Streamlined Approvals	<ul style="list-style-type: none">• Alternate permitting procedures• Site plan reviews
Tax Benefit or Rewards	<ul style="list-style-type: none">• Tax incentives• Conservation easements• Floodplain/drainage easements
Elevation Grant Assistance	<ul style="list-style-type: none">• Home elevation programs
Other Tools	<ul style="list-style-type: none">• Quotient/points systems• Cluster subdivision

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