Introducing the new MAPC web resource

Climate Resilient
Land Use Strategies

Regulatory Language and Policy Examples

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NSTF
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Examples of Climate Resilient Regulatory Language
Click below to see specific examples in each category.

- Floodplain Overlay Districts
- Floodplain Zoning Relief
- Stormwater Regulations
- Wetlands Regulations
- Site Plan Review
- Water Conservation Regulations
- Tree Protection Regulations
- Design Standards & Guidelines
- Other Zoning Districts

Additional Resources
- Resilience Checklists
- Trainings/Videos
- Glossary of Terms
Floodplain Overlay Districts

New construction and substantial improvement prohibited in the Floodplain District
• Rockport, Lynnfield

Incorporate Sea Level Rise
• Swampscott

Special Permit required
• Wakefield – review by local boards and commissions
• Salem, Wilmington, Woburn

Limits on expansion of existing structures
• Lynnfield – no expansion of existing dwellings
• Salem – limits residential expansion to 15% of lot coverage
Encourage Floodplain Elevation

Existing structures allowed to elevate above height limit
• Scituate, Dennis (by right)
• Hull (Special Permit)

Measure building height from base flood
• Dennis, Nantucket

Allow setback encroachment for utilities
• Hull
March 2010
Rainfall recorded at the Blue Hill Observatory
March 13-15: 9.41 inches
March 23-24: 2.65 inches
March 29-31: 5.64 inches
17 days 17.7 inches

In MAPC region: 19,222 disaster and insurance claims
93% were not in the FEMA 1% flood zone
Stormwater Bylaws

Apply regulations to less than one-acre
• Apply to 500 square feet – Winchester, Dedham, Arlington
• Many communities apply bylaws to 5,000, or 10,000 sq/ft

Update rainfall rates
• Cambridge – uses NOAA 14 upper 90% confidence level
• Woburn, Braintree, Millis – Use NOAA 14 rainfall rates

Increase infiltration requirements
• Dedham – requires 2” x impervious surfaces
• BWSC – 1.25” for projects greater than 100,000 sq/ft
• Cambridge - difference between the post-project discharge for the 25-year 24-hour rainfall event and the 2-year 24-hour rainfall event pre-project discharge.

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<thead>
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<th>Inches</th>
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<tr>
<td>Woburn</td>
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<tr>
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<td>5.20</td>
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<tr>
<td>NOAA Atlas 14 ++</td>
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Wetland Bylaws

Performance standards for LSCSF
• Duxbury, Hingham, Kingston, Marshfield, Scituate

Buffer zone for LSCSF
• Lynn, Marblehead, Saugus, Revere

Buffer zone for LSF
Hamilton, North Reading, Peabody, Wenham

Lower minimum for Isolated Land Subject to Flooding
• Gloucester, Lynn, Saugus, North Reading

Protect compensatory storage
• Arlington, Dedham 2:1 ration
• Marblehead – authority to require additional storage

Water quantity protection
• Medway, Sharon

Wetland regulations updated to include Climate Resilience
Arlington, Boston
Site Plan Review

Design guidelines require consideration of future sea level rise
• Hull

Require incorporation of sustainability and resiliency principles
• Concord

Address heat islands, minimize water use, energy efficiency
• Watertown
Drought

- Water use restrictions apply to private wells (Wenham and Topsfield)
- Prohibit use of public water supply for irrigation systems (Scituate, Pembroke)
- Automatic irrigations systems must have moisture sensors and timing device to comply with water use restrictions (Concord)
- New development fee to mitigate water demand with 2:1 ratio (Danvers, Wenham)
- Require installation of water efficient faucets and utilities (Danvers, Wenham)
- Require analysis of cost savings and implementation of water conservation strategies (Natick)
Tree Protection and Heat Reduction

- Two shade trees required for every 5 parking lot spaces (Bedford, Somerville)
- Trees in setback area are protected, removal prohibition extends to 12 months before building permit, removal requires replanting or payment to town fund (Concord)
- Landscape regulations protect trees, tree canopy, and encourage shading structures, paving, and pedestrians (Maynard)
- Wetland permit required for tree removal in resource areas and buffers (Bedford)
- Design review standards address heat islands, green roofs, solar reflectance (Watertown, Somerville)
Questions?

Feedback?

Climate Resilient Land Use: Site Plan Review – MAPC

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