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Massachusetts Association for Floodplain Management (massFM)

We educate, promote, & inform on practices related to floodplain management.

We welcome and encourage readers to send us notices of training and other events, articles or other contributions to share with others in our community.

Please visit our website at www.massFM.org for additional articles and resources, and to sign up to receive future editions via email.

Contact: massfloodplain@gmail.com



2024 massFM Annual Conference Recap

Written by Ellie Baker, AICP

We loved connecting with you at massFM's 2024 Conference last month! And as we learned from our keynote speaker, building our social connections can be surprisingly helpful in increasing our resiliency to climate change impacts! Dr. Daniel Aldrich of Northeastern University kicked us off with a very convincing discussion of the importance and effectiveness of social capital and social infrastructure in climate resilience; the social bonds among individuals at the family, neighborhood, municipal and broader levels are all worthy of investment to improve our resilience. And now we all want to throw block parties for resilience!



In Session 1, we focused on coasts and heard from two speakers at the MA Office of Coastal Zone Management (CZM). Deanna Moran, Chief Coastal Resilience Officer at CZM, described the Resilient Coasts effort that is underway in MA to consider the shoreline in regions, creating framework for resilience efforts at a regional level. We listened to an overview of many wonderful case studies of local and regional coastal resilience efforts that have been funded by CZM's Coastal Resilience Grant program over its inaugural 10 years. Tricia Bowie described projects ranging from proactive climate resilience planning at the House of the Seven Gables in Salem to the relocation of a vulnerable parking lot at Nauset Beach in Orleans.

Session 2 turned inland to watershed restoration efforts focused on addressing pluvial (rainfall) and fluvial (riverine) flows. Broad Meadow Brook in Worcester was the subject of a restoration planning effort that used HEC-RAS modelling to consider both green and grey infrastructure improvements. We learned about this work from Alexis Simpson and Deanna Lambert from Weston & Sampson. Jim LeNoir from USGS described a new method under development to incorporate future projected stream flows, resulting from climate change, to map future riverine floodplains. And we learned about the restoration efforts along Cooley Brook in Longmeadow, MA, aimed at building climate resiliency in concert with public input and park enhancements. Julie Busa and Andy Bohne from Fuss & O'Neill presented this work, with a variety of park and restoration renderings to help tell the story.

At the lunchtime Annual Meeting, massFM President Rosalie Starvish announced the election results for the Board of Directors; all of the 2024 board members will be returning in 2025. We are grateful for their time and leadership as we continue to grow as an organization!

After lunch, we turned to the topic of regulatory codes. A recent BRIC-funded project in MA worked to develop recommendations and guidance to strengthen flood protection at the state and local levels. This work, wrapping up in January 2025 with the publication of a Local Action Guide, led to a recommendation for a higher flood standard in the statewide building code, as well as various actions that local municipalities can take to reduce flood risk. That was followed by a presentation about how to use FEMA FIRM maps to identify the pertinent coastal flood zones that are regulated under the statewide building code and the Wetland Protection Act, specifically Land Subject to Coastal Storm Flowage (LSCSF). Nate Corcoran and Mia MacDonald, from Mass DEP Wetlands Program, and Rebecca Haney, from MA CZM and a massFM Board Member, walked us through the process of identifying flood zones and determining the relevant flood elevations for a variety of different coastal settings.

(See Conference Recap on Page 3)





Conference Recap (continued from Page 2)

Our last session focused loosely on the topic of roads and included four presentations. Viki Zoltay, MA State Hydrologist, presented the work of the statewide groundwater flooding assessment, which is wrapping up and being made available online in the coming months. Katie Rand from FEMA Region 1 provided an overview of how FEMA is now implementing the Federal Flood Risk Management Standard, including an online FFRMS Support Tool. We learned from Heather McElroy about efforts at the Cape Cod Commission to support flood vulnerability analyses for low-lying roads on Cape Cod. And our final speaker of the day, Gardner Bent of USGS, described how a GIS-based hydraulic model is being developed to potentially provide preliminary stream crossing replacement designs through the Stream Stats tool.

The day closed out with a well-attended and very chatty reception. Thank you to our presenters for sharing their work, and for generating such great discussion throughout the day. And thank you to our sponsors!

Once again, Holy Cross College's Hogan Center proved to be a fantastic host to our annual conference activities. We appreciate the team at the Hogan Center for their hospitality.

Ellie Baker, AICP, is a Senior Associate at the Horsley Witten Group, where she practices environmental planning and serves as the staff climate change lead.

Community Rating System Corner A Handy Place to Stay Current on CRS Matters



Written by Shannon Hulst, CFM

Building Code Update Will Result in Higher CRS Scores

The 10th Edition of the Massachusetts State Building Code became effective in October, with concurrency with the 9th Edition until January 1, 2025. The new building code has several advanced floodplain provisions to provide our communities with greater protection from more intense precipitation and related flooding, as well as the potential for larger coastal storms and sea level rise. Three primary changes will result in increased CRS credit for participating communities, especially along the coast:

Enforcement of V-Zone regulations in Coastal A-Zones, or areas seaward of the Limit of Moderate Wave Action

V-Zone freeboard increasing from 2' to 3'

A-Zone freeboard increasing from 1' to 2'

These provisions will earn higher credit in CRS Activity 430. Within this activity, credit for freeboard is provided and points increase based on higher freeboard levels (2' is worth 225+/- points, and 3' worth 375+/- depending on other restrictions and prorating). There is also separate credit for enforcing V-Zone regulations in Coastal A-Zones, which can be worth up to 500 points (and prorated from there). Finally, there is additional credit for regulations mandated by the state, which add a small amount of bonus points. Taken together, these building code changes have the potential to substantially increase credit in this category for coastal communities in particular.

It is worth noting that the forthcoming Land Subject to Coastal Storm Flowage regulations from the Department of Environmental Protection will also regulate the Coastal A Zone.

For more information on the new building code and managing Coastal A Zones, see the *From the State Flood Hazard Management Program Office* in this newsletter (page 4) and keep an eye out for trainings from

(See CRS Corner continued on Page 4)



CRS Corner (continued from page 3)

MASSFM Newsletter

the flood Hazard Management Program with the Department of Conservation and Recreation (list available **DCR Floodplain Management Training Calendar**, see Page 5.), the Department of Environmental Protection, and the Coastal Zone Management Program.

The Community Rating System (CRS) is a voluntary program within the National Flood Insurance Program that offers discounts on flood insurance in exchange for actions taken within a community that improve flood resilience. More information can be found at <u>www.fema.gov/floodplain-management/</u> <u>community-rating-system</u> and <u>crsresources.org</u>.

Shannon is the CRS & Floodplain Coordinator for Barnstable County through the Cape Cod Cooperative Extension & Woods Hole Sea Grant.

From the State Flood Hazard Management Program Office.....

Written by Joy Duperault, CFM at the MA DCR Flood Hazard Management Program

Greetings, fellow floodies! Elsewhere in this newsletter you'll find reference to changes in the 10th Edition of the MA State Building Code in Shannon's CRS article, so we thought you'd want the full skinny here. **The 10th Edition flood construction standards include:**

- The freeboard requirements for all A and V flood zones have been raised one foot in the 10th Edition Code.
- Coastal A Zones: "coastal A zones" are delineated on the FEMA maps by the Limit of Moderate Wave Action. CZM & DEP have a wonderful training on this; the recording and slides are available online: https://www.mass.gov/guides/wetlands-information#-climate-resilience-https://www.mass.gov/guides/wetlands-information#-climate-resilience-https://www.mass.gov/guides/wetlands-information#-climate-resilience-https://www.mass.gov/guides/wetlands-information#-climate-resilience-https://www.mass.gov/guides/wetlands-information#-climate-resilience-https://www.mass.gov/guides/wetlands-information#-climate-resilience-https://www.mass.gov/guides/wetlands-information#-climate-resilience-https://www.mass.gov/guides/wetlands-information#-climate-resilience-https://www.mass.gov/guides/wetlands-information#-climate-resilience-https://www.mass.gov/guides/wetlands-information#-climate-resilience-https://www.mass.gov/guides/wetlands-information#-climate-resilience-https://www.mass.gov/guides/wetlands-information#-climate-resilience-https://www.mass.gov/guides/wetlands-information#-climate-resilience-https://www.mass.gov/guides/wetlands-information#-climate-resilience-https://www.mass.gov/guides/wetlands-information#-climate-resilience-https://www.mass.gov/guides/wetlands-information#-climate-resilience-https://www.mass.gov/guides/wetlands-information#-climate-resilience-https://www.mass.gov/guides/wetlands-information#-climate-resilience-https://www.mass.gov/guides/wetlands-information#-climate-resilience-https://www.mass.gov/guides/wetlands-information#-climate-resilience-https://www.mass.gov/guides/wetlands-information#-climate-resilience-https://www.mass.gov/guides/wetlands-information#-climate-resilience-https://www.mass.gov/guides/wetlands-information#-climate-resilience-https://www.mass.gov/guides/wetlands-information#-climate-resilience-https://www.mass.gov/guides/wetlands-information#-climate-resilience-https://www.mass.gov/guides/wetlands-information#-climate-resilience-https://www.mass.gov/guides/wetlands-infor
- In these areas of moderate damage risk due to waves, flood construction regulations will now be the same as regulations for V zones, with one exception: Existing non-residential structures and non-residential portions of existing mixed-use structures in Coastal A Zones shall be allowed to meet the A Zone requirements.

The 10th Edition is published and can be utilized now, although there's a concurrency period with the 9th Edition <u>until June 30, 2025</u>.

DCR's Flood Hazard Management Program is working with the MA Board of Building Regulations & Standards (BBRS) to develop training for 10th Edition flood standard changes—more to come on that. You can find all our upcoming trainings here: **DCR Floodplain Management Training Calendar** (see page 5).

P.S. We're also looking forward to offering trainings in early 2025 on the new **"Building Flood Resili**ence: A Local Action Guide for promoting Flood-Smart Development." Stay tuned!

Joy is the Massachusetts NFIP coordinator. She can be reached by email at <u>Joy.duperault@mass.gov</u>



Floodplain Management Training Calendar

MassFM Newsletter

From Joy Duperault, CFM, at the MA DCR Flood Hazard Management Program

For the first time ever, the Flood Hazard Management Program has an annual training calendar! You can see what's coming up and also register now for any trainings you'd like through June 30, 2025. Visit the calendar here: DCR Floodplain Management Training Calendar (https://www.mass.gov/doc/dcr-fhmp-floodplain-management-training-calendar/download)

Trainings include:

- All about the MA model floodplain bylaw
- How to be a local Floodplain Administrator
- Substantial Improvement/ Substantial Damage Requirements
- The NFIP beyond the Building Code (oriented for conservation commissioners)
- Buying & Selling in the Floodplain (for realtors)
- Understanding FEMA's Flood Maps & Other Products
- 9th/ 10th edition state building code flood-resistant standards

If our classes show numbers that are too high we may offer a second session, so don't worry about how many are already registered. And please know that we may add something here or there, so you may want to check in from time to time.

For courses that list building code associations—these are almost always courses scheduled during that event that deal with flood-resistant standards in the state building code. Once the 10th edition is in place, most of the code training will be centered on that. For these sessions you will most likely need to register with the association that's holding the event; click on the link that's titled "Learn more."

Finally, if you don't see a training that you want, please let us know!

Notes on Hurricane Helene

By Ellie Baker, AICP

Hurricane Helene was the deadliest hurricane to hit mainland US since Katrina 20 years ago. The most damage from Helen occurred in Ashville, NC, an area that had been dubbed a climate haven or climate refuge. Is that a misnomer? In reality, every location is experiencing climate changes. We need to reorient our thinking to the idea that our baseline condition is simply no longer static. Nobody ever thought this area would see the kind of damage it is seeing. Interestingly, the FEMA flood maps do show a significant area of flooding, but the static sterile flood maps also don't translate the strength of moving flood waters that comes with flood elevation shown on the maps. Of note, one of the four NOAA National Centers of Environmental Information is located in Ashville and experienced damage and communication challenges. The Blue Ridge Parkway suffered catastrophic damage and is closed indefinitely while damages are assessed, and repairs begin. The Blue Ridge Parkway was the #1 most visited National Park Service site in 2023. If you are interested in reading more about the sheer magnitude of the rainfall and flooding in North Carolina from Helene, the state climate office provides a sobering overview here: <u>https://climate.ncsu.edu/blog/2024/09/rapid-reactionhistoric-flooding-follows-helene-in-western-nc/</u>

Ellie Baker, AICP, is a Senior Associate at the Horsley Witten Group, where she practices environmental planning and serves as the staff climate change lead.



News from Neighboring New England States

Flashfloods in Southwestern Connecticut

A historic storm event dropped record breaking rainfall on southwestern Connecticut on August 18, 2024, causing deadly and destructive flash flooding in our neighboring state. The Connecticut Department of Energy and Environmental Protection publishes a quarterly newsletter entitled *Sound Outlook* featuring environmental news and events of the Long Island Sound region of the state. The Fall 2024 *Sound Outlook* (No. 72) carried an extensive report on the August 18 flash floods at <u>Sound Outlook Fall 2024</u> where you can also sign up to receive the *Sound Outlook* newsletter via email.

massFM Lunch & Learn

December Members Only Lunch & Learn - Register Now!

Members only "Lunch & Learn" meetings will be held every other month on Thursdays at noon. A notification will be sent out prior to our next Lunch & Learn meeting.

Our next scheduled meeting is on December 12, 2024 noon ET.

The <u>10th Edition of the Massachusetts State Building Code</u> includes several changes to improve the safety of new and substantially improved buildings in coastal flood zones. First, it adds standards for Coastal A Zones, which are coastal areas predicted to have 1.5- to 3-foot breaking waves in a 1% chance coastal storm. The 10th Edition State Building Code adopts standards for Coastal A Zones, as delineated on the FEMA Flood Insurance Rate Maps (FIRMs). It requires, in part, that new, substantially improved, or substantially damaged buildings in Coastal A Zones be built on open pilings, above the 1% chance flood elevation, consistent with the International Building Codes. It also requires higher freeboard, which is the elevation of buildings above the predicted 1% chance flood elevation to allow for the uncertainties of mapping as well as increasing precipitation and sea level rise. The freeboard requirements for all A and V flood zones have been raised one foot in the 10th Edition Code. The 10th Edition of the Massachusetts Building Code became effective on October 11, 2024. The 9th Edition of the Building Code will apply concurrently with the 10th Edition until June 30, 2025. The 10th Edition will go into full effect on July 1, 2025.

This month's Lunch & Learn will be presented by:

Eric Carlson, Assistant Director, DCR Flood Hazard Management Program, and **Rebecca Haney**, CFM, Coastal Geologist, MA Office of Coastal Zone Management.

Job Postings, Notices, and Announcements

Winter massFM Newsletter CALL FOR ARTICLES

Have an idea for an article for the next newsletter? Something flood-related that you experienced or observed? A flood event? A flood mitigation or community resiliency project? A policy or law? The massFM Winter Newsletter is scheduled to be published in February 2025, and we are seeking articles now! Please consider writing about a floodplain management-related topic that you may have direct experience with or have observed. Just about anything related will be considered for publication. Articles should be submitted by January 31, 2025. Send an email message to Nat Arai at <u>nathaniel.arai@gza.com</u> if you have questions or to submit an article.

We would like to extend a Thank You to our Sponsors!



BECOMING A SPONSOR

If you are interested in becoming a sponsor please download the sponsorship form by clicking **here** or contact us at **massfloodplain@gmail.com**

Our mission at massFM is to create a forum for the exchange of local knowledge about floodplain management, to share that knowledge with the public, to inform municipal and statewide policies and procedures, and to improve the Commonwealth's ability to mitigate flood hazards now and in the future. massFM strives to be inclusive across multiple disciplines, regardless of means. We welcome you to join us.





Flood Management Culture Corner

Your place to nerd out and expand your Flood Manager mind!