



# 2023 massFM ANNUAL CONFERENCE A Great Success!

If you were there, then you know it was! Over 100 people convened at Holy Cross College in Worcester to hear 13 presentations by 15 speakers, with an optional walking field trip. Whether you attended or not, read about it [here](#).



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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](http://www.massFM.org) for additional articles and resources, and to sign up to receive future editions via email.

Contact: [massfloodplain@gmail.com](mailto:massfloodplain@gmail.com)

## 2023 MassFM Annual Conference Recap

Written by Linda Hutchins, CFM



### 4th Annual massFM Conference

*My how we've grown! MassFM's 2023 Conference hit 100 registrants and we had a great day at Holy Cross College in Worcester on October 23.*



*This year's conference featured Stephanie Smith, Vermont's State Hazard Mitigation Officer (SHMO) as our keynote speaker recounting the Great Flood of July 2023, a field trip to Middle River Park in the Blackstone River floodplain, as well as three sessions of presentations and a post-conference social hour.*

*Ms. Smith compared July 2023 flooding with other historic Vermont flood events, lessons learned, and continuing challenges.*

*Massachusetts State Initiatives were presented during Session 1 including introduction of the State Climate Scientists, updates on the Municipal Vulnerability Program at its five-year mark, and the 2023 Resilient Mass Plan to analyze and address climate hazard priorities.*

*Session 2 Case Studies included modeling analysis of the Upper Nemasket River on a herring run to the Assawompsett Pond Complex in southeastern Massachusetts; alternative crossings and routes being considered for a wide Chicopee Brook wetland floodplain in Monson; and evaluating watershed scale flood mitigation options in the densely populated Charles River watershed involving 35 communities.*

*Attendees enjoyed a catered lunch followed by the massFM Annual Meeting.*

*Session 3 was split between the Middle River Floodplain Park field trip and a session on Equity, Justice, and Engagement. Case studies of planning for sea level rise in Hull and an inland green infrastructure project on Lord Pond in Athol were given in Session A.*

*Robert Antonelli of the City of Worcester Department of Parks & Recreation, Jacquelyn Burmeister of the City of Worcester Department of Public Works and Parks, and Casey-Lee Bastien with the BSC Group led a walking tour of the 0.25 mile boardwalk in the Middle River Park. The boardwalk features educational displays and offers a natural oasis in an urban environment. Design, permitting, and construction challenges were discussed.*



*Afternoon session 4 featured discussion of floodplain administrator duties, new NOAA coastal mapping tools, and a presentation from the Blackstone Watershed Collaborative.*

*The conference registration list and copies of many of the presentation slides are available on the massFM website here: [2024 massFM Annual Conference](#)*

*THANK YOU to our sponsors and conference organizers! We look forward to getting together again in 2024 and invite members to participate in committees and events throughout the year.*

*Linda is a Hydrologist and Environmental Protection/Floodplain Specialist with FEMA Region 1's Office of Environmental Planning and Historic Preservation.*



## massFM Annual Meeting Business and Board Elections

The massFM Annual Meeting was held during lunch at the Annual Conference on October 23, 2023. We reviewed chapter events, membership statistics, financial status, and board member election results.

Congratulations to our new board members and many thanks to our outgoing board members Joe Rossi, and especially Bin Wang, who has served 5 years as Chair and was instrumental in spearheading the founding of massFM!

There were four positions on the board filled during this year's elections:

Chair—Rosalie Starvish, GZA GeoEnvironmental, Inc.

Treasurer—Matt Shultz, Woods Hole Group

Central Regional Representative—Ellie Baker, Horsley Witten Group

Southeast Regional Representative—Rebecca Haney, MA Office of Coastal Zone Management.



Current and recent Board Members at the massFM Annual Conference, October 23, 2023

CONGRATULATIONS!

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

Written by Shannon Hulst, CFM

### Activity 530: Flood Protection

Activity 530 provides credit for actions that protect structures from flooding through small flood control projects, elevation, floodproofing, and other types of mitigation retrofits. It's important to note that not all actions in Activity 530 are allowed in Massachusetts (such as new seawalls for parcels that didn't have a structure on them prior to 1978) or may not be considered a best practice with the development of efforts to protect natural floodplain functions and maximize use of green infrastructure. But in locations where credited projects are in place or are the best option, credit is available.

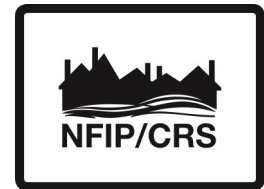
Activity 530 can take significant effort. It ranks high among the activities that should NOT be pursued solely for the purpose of CRS credit. However, if creditable activities are happening in your community, they might be worth documenting. One big hint: if your CRS coordinator is tied in closely with the building department, they can collect the required documentation every time there is a demo/rebuild (which happens in a fair amount of our communities). While these new structures are required to be built to code, they're also removing a pre-existing non-compliant structure, which is an overall improvement.

For flood control measures, many coastal communities are unlikely to have the infrastructure that would be creditable. Riverine communities tend to have the geography and infrastructure that fits this category a bit better. At this point, only three Massachusetts CRS communities get credit for this activity. Could yours be the fourth?

For more information, see section 530 of the [CRS Coordinators Manual](#).

*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 [www.fema.gov/floodplain-management/community-rating-system](http://www.fema.gov/floodplain-management/community-rating-system) and [crsresources.org](http://crsresources.org).*

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



## Environmental Justice and Flooding

Written by Nadia Madden, CFM

All across America, Black, Indigenous, other communities of color, and low-income communities have been organizing at the grassroots level to advocate for environmental justice for many decades. Here in Massachusetts, these requests have been most recently recognized by the MA Executive Office of Energy and Environmental Affairs 2021 update of the [Massachusetts Environmental Justice Policy](#), which states:

*Environmental justice is based on the principle that all people have a right to be protected from environmental hazards and to live in and enjoy a clean and healthful environment regardless of race, color, national origin, income, or English language proficiency. Environmental justice is the equal protection and meaningful involvement of all people and communities with respect to the development, implementation, and enforcement of energy, climate change, and environmental laws, regulations, and policies and the equitable distribution of energy and environmental benefits and burdens.*

Massachusetts has pledged to implement this policy in partnership with Environmental Justice (EJ) communities, building on federal guidelines established in [Federal Executive Order 12898](#). The policy addresses the impact of climate change and flooding, including ensuring that residents are prepared for and resilient to the effects of climate change (such as heat island effect or flooding) and that these effects are minimized during development. The policy also aims to create equity in protection from future hazards and health risks from climate change, including flooding.

In the [Flood Hazard Management Program](#), we want to bring this policy to life to make our services better at addressing the risks faced by vulnerable communities. We are starting by compiling what the state does know about flooding in EJ communities. This means looking closely at the new [MA Environmental Justice Maps](#) and comparing them against current FEMA flood maps, past records of flooding and projections of future flood vulnerability to identify gaps. Then we will reach out to community leaders at both the grassroots and municipal level, to learn more about lived experiences of flooding and ground-truthing information about flooding and flood risk that is collected and shared by the state. Our first conversations will be with people and communities in the twenty-six [Gateway Cities](#) across the state.

We expect to learn many lessons from these conversations, which we ultimately plan to have in every community in the state where environmental justice is a known issue. If you are doing any related work in your community and would like to share your experiences and insights, we'd be very happy to hear them! Please email [nadia.madden@mass.gov](mailto:nadia.madden@mass.gov) for more information on this project.

*Nadia is a Floodplain Management Specialist with the Massachusetts Department of Conservation & Recreation's Flood Hazard Management Program.*

## NOAA Coastal Change Analysis Program Moves to High Resolution

*Written by Becky Love*

NOAA's Office for Coastal Management is phasing in new high-resolution (1-meter) coastal land cover products, to be delivered free of charge through the Digital Coast website.

NOAA has provided 30-meter, regionally-focused coastal land cover data for decades through the Coastal Change Analysis Program (C-CAP). These data document 20 land cover types, including forests, wetlands, and impervious surfaces. While the 30-meter product is useful on a regional scale, acquiring higher-resolution products for use at the local level has been cost prohibitive for many communities. Now, thanks to funding through the Bipartisan Infrastructure Law, partnerships with the private sector and others, and the savings realized when buying in bulk, NOAA is able to fulfill this need.

There are three phases of the data release:

- The first phase will focus on foundational data layers—impervious, canopy, and water—and will be available by this fall.
- In the second phase, NOAA will build on those foundational data layers to create a full scheme C-CAP land cover data offering, which includes up to 20 data categories and up to nine wetland types for the entire coast by the end of 2025. The state of Maine will be among the first coastal states to have this land cover produced for 2021 (anticipated to be complete this winter).
- The third phase will focus on data updates and providing communities with land cover change maps and information. These data are expected to be updated every four to six years, and will be the basis for future C-CAP change information. In the short-term, this new and improved data will be used to update existing C-CAP products in Massachusetts, Rhode Island, and Connecticut.

Communities will be able to use the high-resolution data to improve storm surge modeling, sea level rise projections, stormwater management, and more. In New Hampshire, for example, high-resolution wetland mapping was used to evaluate current conditions and the future resilience of salt marshes. This information was used to pinpoint, marsh-by-marsh, where restoration, experimental science, land conservation, and land use planning could be most effective.

Impervious surfaces, such as roads, parking lots, and buildings, absorb and retain heat, contributing to the urban heat island effect. By using high-resolution data to map impervious surfaces, communities can identify areas with high levels of heat retention and implement targeted mitigation strategies like green infrastructure, tree planting, and cool roofs. Impervious surface is also a key factor in modeling the potential impacts from water and pollutant runoff, as these surfaces prevent natural infiltration of rainwater, which picks up pollutants like oil, sediment, heavy metals, fertilizers, and more.

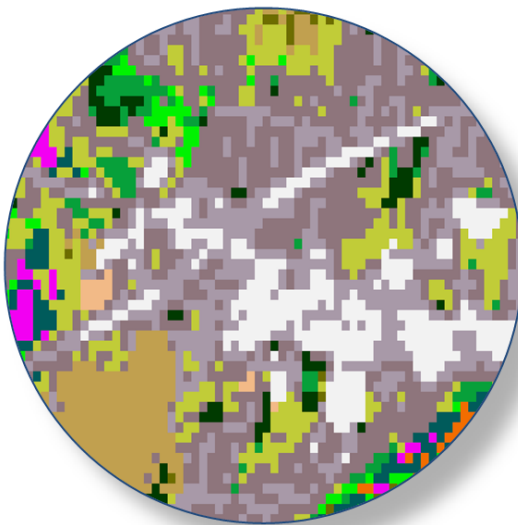
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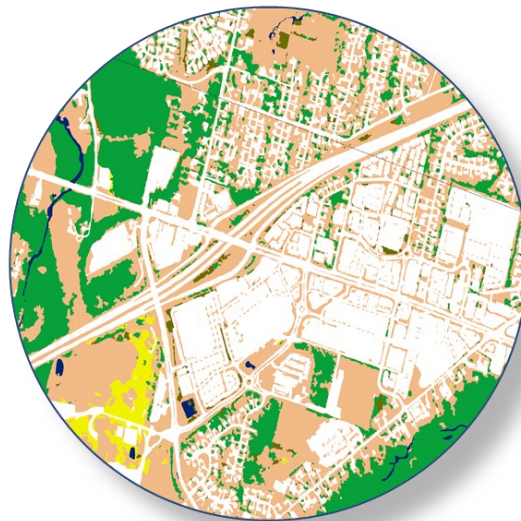
## NOAA Coastal Change Analysis (cont'd)

NOAA is also offering several buy-up options that go beyond the currently funded land cover. These include additional coverage (for example, the entire state), more detailed coverage (salt marsh habitat types or development features), change maps, and offering data layers sooner. Please consider partnering with NOAA if you're interested in any of these options.

### Comparison of Resolutions



Regional (30-meter)



Local (1-meter)

More detailed impervious surface and urban area mapping can be used to support better hydrodynamic modeling, flood risk assessment, and stormwater management.

*Becky is a Senior Coastal Management Specialist with CSS, Inc. at NOAA's Office for Coastal Management, providing outreach and technical assistance for tools and resources within the Digital Coast.*

*Becky presented this topic at the recent massFM Annual Conference in October. She can be reached at [rebecca.love@noaa.gov](mailto:rebecca.love@noaa.gov).*

## massFM Lunch and Learn

### [Register Now](#) for our *January Members Only Lunch & Learn*

Members only “Lunch & Learn” meetings will be held every other month on Thursdays at noon. A notification will be sent to members prior to each upcoming Lunch & Learn meeting. Earn 1 CEC for attending the full meeting.

**Our next scheduled Members Only Lunch & Learn meeting is Thursday January 11, 2024 at noon.**

Not a member, yet? Join today by going to our *Become a Member* page [here](#) and complete the Application/Renewal Form.

### **The January Lunch & Learn topic is *Flood Risk and Historic Structures***

Shannon Hulst and Sarah Korjeff will provide an overview of the practical application of the exemption of historic structures from Substantial Improvement regulations and share lessons learned from qualifying historic projects in the floodplain on Cape Cod.

**Sarah Korjeff** works as Historic Preservation Specialist and Planner for the Cape Cod Commission, a regional planning and regulatory agency in Barnstable County, Massachusetts. She is a primary author of the Commission's cultural heritage and community design guidance documents, and she has led planning efforts to make zoning consistent with community design goals in several towns and historic districts in the region. She provides training and technical assistance to Historical Commissions and Historic District Committees across Cape Cod. Sarah holds a master's degree in Historic Preservation from the University of Pennsylvania.

**Shannon Hulst** is Floodplain Specialist for Barnstable County, MA with Cape Cod Cooperative Extension and Woods Hole Oceanographic Institution Sea Grant. She is a Certified Floodplain Manager with a master's degree in Marine Affairs from the University of Rhode Island. She provides technical assistance on all things related to flooding to communities, residents, and businesses on Cape Cod. Shannon has received national awards for her work in regional floodplain management from the Federal Emergency Management Agency and the Association of State Floodplain Managers.

## Job Postings, Notices, and Announcements

### **NEW CFMs!**

Congratulations to massFM members [Nadia Madden](#) and [Brittney Ferber](#) for recently passing the CFM exam!!!

### **CALL FOR NEWSLETTER ARTICLES**

The massFM Winter Newsletter is scheduled to be published by February 28, 2024 and we are seeking articles and announcements. 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. In the Winter Newsletter, we specifically would like to publish first-hand accounts of the Summer 2023 extreme precipitation events that caused flooding around Massachusetts and the region. If you were directly affected by flooding, were involved in a project in response to the flooding, or were in a position of public emergency or policy response, we want to hear your stories.

Send an email message to Nat Arai at [nathaniel.arai@gza.com](mailto:nathaniel.arai@gza.com) 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](mailto: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.