



An official publication of the Maryland Association of Floodplain and Stormwater Managers

Message from the Chair

As we bid farewell to a hot summer and look forward to our 20th Annual MAFSM Conference on November 12, 2024, I'm reminded of how grateful I am for my long association with this organization, for the founding and current members, and for the meaningful connections I have made that have enriched my professional and personal growth. I'm excited to see you at the conference where we can reflect on our strength and contemplate our future initiatives.

I'm confident that MAFSM will continue to play a key role in bringing public- and private-sector floodplain and stormwater management professionals together to find solutions to the challenges ahead as the world of floodplain and stormwater management becomes increasingly complex in the face of climate change and resiliency planning.

Our continuing engagement in local, state, and regional efforts to promote floodplain and stormwater management sets a high standard. In April 2023, we partnered with the Pennsylvania Association of State Floodplain Managers and the Susquehanna River Basin Commission to host a Conowingo Dam Field Tour, and in June 2024, we partnered with VFMA and the City of Crisfield to host a Smith Island Workshop and Field Tour. Our members engage in state initiatives such as advising on the A StoRM initiative, sitting on legislative advisory groups, and drafting a Maryland Quick Guide.

This level of commitment and engagement is as exciting as it is rewarding, so I encourage you to become a member of our active team of volunteers. With our dedicated MAFSM members, we look forward to providing a platform for public- and private-sector floodplain and stormwater management professionals to connect and grow.

Thank you for your continued support and hard work. See you in November!

Amy G. Moredock, CFM
MAFSM Chair



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MAFSM Chair

Announcing the 20th Annual MAFSM Conference

[Register now](#) for our **20th Annual MAFSM Conference** in Linthicum Heights, MD, on November 12, 2024. The conference will feature:

- Approximately 20 technical presentations on topics such as flood resilience, sensed permeable pavement, watershed modeling, flood prediction, climate change and cybersecurity, and the Federal Flood Risk Management Standard
- Networking opportunities: Every year, the conference draws over 175 engineers, planners, water resource professionals, and NFIP Coordinators from local, state, and federal governments and the private sector in Maryland and surrounding states
- Vendor exhibits
- An opportunity to earn six Association of State Floodplain Managers (ASFPM) Continuing Education Credits
- Post-conference training on National Flood Insurance Program (NFIP) 101, Introduction to Floodplain Management, November 13

20th ANNUAL
CONFERENCE

NOVEMBER 12, 2024

Maritime Conference Center
692 Maritime Boulevard
Linthicum Heights, MD 21090

Group tours Smith Island, learns about recent projects

Bryan Lightner, CFM

MAFSM, Virginia Floodplain Management Association (VFMA), Smith Island United, and the City of Crisfield hosted a workshop on June 4, 2024, that included a ferry ride to Smith Island, courtesy of Smith Island Cruises, and a tour of the island led by local resident Duke Marshall. Attendees learned about recent projects that will help reduce erosion from high tides. The projects range from a large living shoreline project on the island's west side to the drainage system maintenance program in Somerset County, where Smith Island is located.

Highlights of the workshop were visits to the communities of Ewell and Tylerton, a video on the history of the island at the Smith Island Cultural Center, and the following presentations at the Crisfield Public Library:

- Selected projects on Smith Island: Mary Phillips and Woody Barnes, Somerset County
- Flood mitigation plan for the City of Crisfield: Anna Johnson, Bayland Engineers
- Grant funding strategies to help implement the City of Crisfield's flood mitigation plan: Jen Merritt and Darlene Taylor, City of Crisfield
- City of Virginia Beach Sea Level Wise Project: Brian Batten, Dewberry Engineers

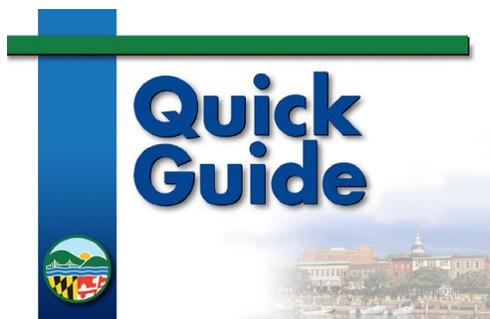
In addition to providing information about recent projects, the event was an excellent opportunity for two ASFPM chapters to partner and for attendees to make connections with Smith Island and the City of Crisfield. We look forward to planning similar events in the future with our state partner chapters!



TOURING SMITH ISLAND

Introducing the Floodplain Management in Maryland Quick Guide

Mark D. James, CFM



The Floodplain Management in Maryland Quick Guide, which will be released at the 20th Annual MAFSM Conference, is a way to help property owners, elected officials, realtors, insurance agents, and others understand inland and coastal floodplain management. Using clear language and simple graphics, the Quick Guide covers:

- The basics of watersheds; floodplains along coastal waterways, rivers, streams, and creeks; and flood map development
- Factors that are considered when development in a coastal or riverine floodplain is proposed
- Community planning, resilience, and adaptation strategies
- Floodplain data and resources
- Regulated development and planning considerations
- Permit applications, reviews, and elevations
- Building requirements in flood zones A/AE, V, and Coastal A
- Other structures and development
- Existing buildings
- Flood protection, mitigation, and safety
- Resources

The Maryland Quick Guide is a combined Maryland Department of the Environment (MDE) and MAFSM effort. It was partially funded through a grant provided by the ASFPM Foundation.



DNR asks residents to share photos of local flooding using MyCoast Maryland

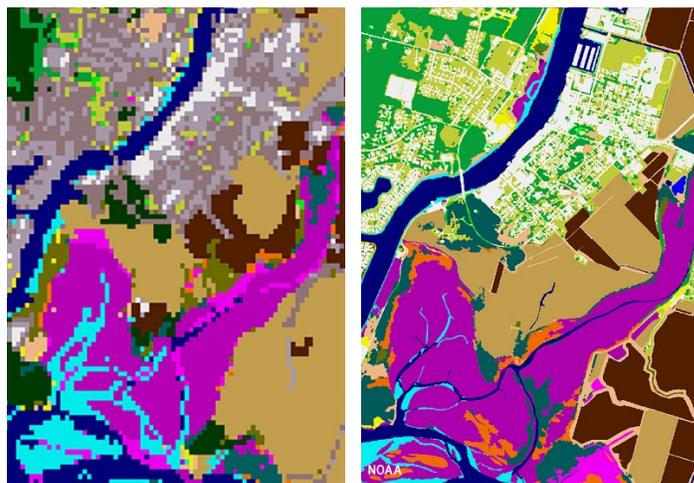
Using MyCoast Maryland, a free app, you can upload photos of flooding conditions in your neighborhood to help scientists at Maryland’s Department of Natural Resources (DNR) and other government agencies in Maryland understand the extent of flooding in certain areas, compare pre-storm or pre-high tide flooding estimates with actual effects, and plan long-term mitigation projects to reduce flooding.

When you see flooding and it is safe to do so, take photos of the flooding or flooding damage and using the app, select the type of flooding and hit submit.

Your photos are very important! Thank you in advance for contributing to resilience efforts in Maryland. For more information, see:

- [DNR Asks Residents to Share Flood Photos on MyCoast Maryland \(has links to the app\)](#)
- [MyCoast Data Shows Impact of January Flooding](#)
- [Maryland Coastal Reports from MyCoast Website](#)

NOAA phases in high-resolution land cover data for coastal areas



30-METER RESOLUTION

1-METER RESOLUTION

Land cover data are foundational data that communities need in order to assess coastal resources, analyze land use, prepare for disaster risks, adapt to a changing climate, and document landscape changes over time.

The National Oceanic and Atmospheric Administration (NOAA) is phasing in [high-resolution land cover data for the nation’s coastal areas](#) through 2025. The new 1-meter resolution is an increase from the previous 30-meter resolution (or 900 times more detail).

The new data include coastal and Great Lakes states, the territories, and for the first time, Alaska. The higher resolution means the data can be used at a site or local level. For example, residents of Pawleys Island, South Carolina, used the data to map open space in a floodplain and earn their community a 25 percent discount on FEMA flood insurance premiums.

To learn more, [read the full story](#).

FEMA raises bar for flood protection with new FFRMS Rule

The Federal Flood Risk Management Standard (FFRMS) was established in 2015 by Executive Order (EO) 13690 to encourage federal agencies to consider and manage flood risks when taxpayer dollars are used to build or rebuild near floodplains. EO 13690 required a higher level of flood resilience than EO 11988 (1977), which required that federal actions avoid supporting development in the floodplain. EO 13690 was revoked by EO 13807 in 2017 and reinstated by EO 13990 in 2021.

FFRMS applies to:

- New construction, substantial improvement, and repairs to substantial damage
- Grants under FEMA programs such as Individual Assistance, Public Assistance, and Hazard Mitigation Assistance (HMA)
- HMA projects involving structure elevation, dry floodproofing, and mitigation reconstruction
- Grants for preparedness activities that are processed by FEMA's Grant Programs Directorate

On July 11, 2024, FEMA issued a Final Rule updating floodplain management and protection of wetlands regulations to implement FFRMS (89 Fed. Reg. 56929–057046 (July 11, 2024)). The Final Rule amends 44 CFR Part 9 and took effect on September 9, 2024. The major updates are as follows:

- **Future flood risk and best available science.** Federal agencies are now required to consider the future (in addition to previous and current) risk of flooding in taxpayer-funded projects and are allowed to consider the best available and actionable climate science in making communities more resilient to increases in flood conditions due to sea level rise and other environmental changes. According to FEMA Administrator Deanne Criswell, “previous approaches, based on historical data, have become outdated” and “by using the best available science,” FEMA will be strengthened in “protecting federal investments and reducing the risk of damage and loss.” The amended standard will result in higher elevated and better-fortified buildings and could help stop the costly cycle of destruction–reconstruction–destruction.
- **Natural features and nature-based solutions.** Natural features and nature-based solutions have greater emphasis.
- **Floodplain expansion.** The floodplain is defined in 44 CFR Part 9 as the “100-year floodplain (1 percent annual chance) for non-critical actions and the 500-year floodplain (0.2 percent annual chance) for critical actions” (89 Fed. Reg. 56929–057046 (July 11, 2024)) and reflects only current flood risk. For actions subject to FFRMS, the amended FFRMS expands the floodplain “from the current 1 percent annual chance (100-year) floodplain based on the one percent annual chance elevation to a higher vertical elevation and corresponding horizontal floodplain” (89 Fed. Reg. 56929–057046 (July 11, 2024)).

The new rule will allow communities to avoid or recover from future disasters more efficiently and effectively. Joel Scata, a senior attorney at the nonprofit Natural Resources Defense Council and an expert on flood policy said FEMA is “going to be building in a way that’s not setting people and infrastructure up for future failure.” National Climate Advisor Ali Zaidi said, “by using common-sense solutions like elevating or floodproofing critical infrastructure, today’s rule will help local communities harness the best in science and engineering to better prepare for flood risks from rising sea levels and damaging storms.”

For help determining the FFRMS floodplain (both vertical and horizontal), see the [Federal Flood Standard Support Tool](#).



FLOODING: THE MOST FREQUENT (NEARLY A DAILY OCCURRENCE) AND COSTLY NATURAL DISASTER IN THE NATION
SOURCE: ASFPM, THE INSIDER, JULY 2024

MAFSM works with MDE to advance stormwater resiliency in Maryland

Necolle Maccherone, CFM

In 2021, Maryland amended its stormwater management law by enacting Maryland Senate Bill 227 to address urban flooding. The bill tasks MDE with developing plans to evaluate flooding risks and update regulations to improve urban stormwater flood management. As a result, MDE developed the Advancing Stormwater Resiliency in Maryland (A-StoRM) initiative to update Maryland stormwater regulations by, for example, incorporating recent precipitation data more effectively to address urban flooding.

Since May 2022, MAFSM, as part of the A-StoRM Stakeholder Consultation Group, has participated in discussions and provided feedback on proposed changes to the state’s stormwater management regulations. In 2024, MAFSM and others in the Stakeholder Consultation Group has continued to attend meetings and provide feedback on MDE’s refined proposal for modifications to the regulations.

More information, see:

- [Advancing Stormwater Resiliency in Maryland](#)
- [A-StoRM Year 1 Accomplishments](#)

MAFSM member participates in Flood and Resilience Dialogue Expedition (FReDx) in Puerto Rico

Necolle Maccherone, CFM

MAFSM has been an ASFPM chapter since the early 2000s and a frequent contributor to ASFPM initiatives and events. One such initiative is the ASFPM International Committee's Flood and Resilience Dialogue Expedition (FReDx).



ASFPM DELEGATION VISITING THE LEVEE IN BARCELONETA, PUERTO RICO

FReDx was created to serve as a platform for local, regional, and federal officials, academics, and practitioners to explore flood risk management from perspectives outside the continental United States. The most recent FReDx was in Puerto Rico in March 2024 to explore flood risk management in an island territory, foster information exchange, build relationships, discuss solutions for current and future flood risks, and facilitate dialogue on advancing flood risk management practices. The event included multiday workshops, technical presentations, and field visits.

MAFSM member Necolle Maccherone, CFM, was part of the continental U.S. delegation. She brought her MAFSM experience and insights as a long-time MAFSM board member. She and other MAFSM members are working with the Puerto Rican delegates as they consider developing a state/territory floodplain management association.

FReDx delegates are committed to supporting ongoing collaboration with the Puerto Rican delegation to enhance flood risk management practices on the island, strengthen professional relationships, increase the number of Certified Floodplain Managers (CFMs), and support resilience initiatives in Puerto Rico.

MAFSM demos 3D floodplain simulation model for area youth

Necolle Maccherone, CFM

Phelps Luck Elementary students examine the 3D floodplain simulation model

Prince George's County high school students and MAFSM's 3D floodplain simulation model at the Student Environmental Alliance Summit

In 2024, MAFSM continued its youth outreach using the 3D floodplain simulation model, a tool designed to educate youth about floodplain management and the impacts of human activity on watersheds. These types of models are effective in showing how development and environmental changes affect floodplains. The hands-on demonstrations have been integral to teaching students, especially in flood-prone areas, about the importance of flood risk awareness and prevention strategies.

The two demos in 2024 were:

- April: An evening of outdoor science experiments and 3D floodplain simulation model demos at Phelps Luck Elementary Science Night in Columbia, MD. Community organizations described their work including how they support many efforts throughout Maryland.
- May: Demo of MAFSM's 3D floodplain simulation model and conversations about floodplains and water quality with Prince George's County high school students at the Student Environmental Alliance Summit hosted by Bowie State University. The Prince George's County Clean Water Partnership supported the summit as part of its Treating and Teaching Program.



PRINCE GEORGE'S COUNTY HIGH SCHOOL STUDENTS AND MAFSM'S 3D FLOODPLAIN SIMULATION MODEL AT THE STUDENT ENVIRONMENTAL ALLIANCE SUMMIT



PHELPS LUCK ELEMENTARY STUDENTS EXAMINE THE 3D FLOODPLAIN SIMULATION MODEL

MAFSM TREASURY BALANCE

\$30,120.35 as of 11/01/2024

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