# THE INSIDER

September 2022

**An exclusive publication for ASFPM members**

# More than $3 Billion in Funding for BRIC, FMA

FEMA has published funding notices for two hazard mitigation assistance grant programs and there's more than $3 billion available during the Fiscal Year 2022 application period to help communities become more resilient to climate change and associated extreme weather events and other hazards.

Funding levels for the Building Resilient Infrastructure and Communities (BRIC) program will more than double to nearly $2.3 billion while the Flood Mitigation Assistance (FMA) program will see a five-fold increase to $800 million. Funding for the two programs has increased from $700 million in FY20 and $1.16 billion in FY21. Yet despite the historic levels of funding, the need for mitigation investments continues to outpace available dollars as FEMA received application requests for a combined $4.7 billion for BRIC and FMA this past year.

A large portion of the FY22 funding increase is coming from last year's bipartisan infrastructure law, which is infusing $900 million into the two HMA programs — $700 million for FMA and $200 million for BRIC. The rest will come from FEMA's Disaster Relief Fund.

**A Focus on Equity and Capacity-Building**
Aligning with the Biden administration's Justice40 Initiative, the BRIC and FMA programs aim to deliver 40% of the overall benefits to disadvantaged communities that are overburdened and underserved.

Using money from President Biden's Bipartisan Infrastructure Law, FEMA is increasing the federal cost share to 90% for socially vulnerable communities to lower the financial burden on certain resilience activities. The agency plans to assist federally recognized tribal governments and disadvantaged communities with conducting the Benefit-Cost Analysis for resilience projects to meet eligibility requirements.

FEMA is also expanding investment in the BRIC's non-financial Direct Technical Assistance to at least 40 communities in the next grant cycle to help build capacity and capability at the local level.

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# A Megaflood Scenario in California

*By David Colgan, UCLA*

California lives with a sleeping giant — an occasional flood so large that it inundates major valleys with water flows hundreds of miles long and tens of miles across.

Motivated by one such flood that occurred in 1862, scientists investigated the phenomenon in 2010. They called it the "ArkStorm scenario," reflecting the potential for an event of biblical proportions.

To account for the additional flood-worsening effects of climate

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# The Insider

The members-only newsletter of the Association of State Floodplain Managers (ASFPM). Published 6X/year (Jan., March, May, July, Sept., Nov.)

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**Editorial**
ASFPM welcomes articles and news announcements from our members and partners. We reserve the right to edit articles for space, grammar, punctuation, spelling, and clarity. We encourage you to include artwork with your article in the form of photos, charts, and illustrations. If the artwork is not yours originally, you must include expressed, written consent granting ASFPM permission to use the art in our publications.

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## Inside this issue:

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"Disasters themselves don't discriminate, but their impacts are often felt hardest by our most vulnerable communities, which can make it even harder to get help to the people who need it most," said FEMA Deputy Administrator Erik Hooks. "This is why FEMA is expanding opportunities for better access to disaster resilience grants by making Direct Technical Assistance more available for communities who seek this critical funding."

FEMA will share additional information on BRIC's Direct Technical Assistance with stakeholders soon. Interested applicants may also visit the BRIC Direct Technical Assistance webpage to find information and detailed instructions on how to submit an application once available.

**BRIC Priorities and Key Changes**
The BRIC program, now in its third year, aims to shift the federal focus away from reactive disaster spending and toward research-supported, proactive investment in community resilience. It supports states, local communities, tribes and territories as they undertake hazard mitigation projects, reducing the risks they face from disasters and natural hazards.

In Fiscal Year 2022, the BRIC program's priorities are to:

- Incentivize natural hazard risk reduction activities that mitigate risk to public infrastructure and disadvantaged communities, as referenced in Executive Order 14008 - Tackling the Climate Crisis at Home and Abroad
- Incorporate nature-based solutions, including those designed to reduce carbon emissions
- Enhance climate resilience and adaptation
- Increase funding for adoption and enforcement of the latest published editions of building codes
- Encourage hazard mitigation projects that meet multiple program priorities

In addition to more than doubling the overall funding levels, BRIC also increased the State/Territory Allocation subtotal from $1 million to $2 million and the Tribal Set-Aside from $25 million to $50 million.

Other changes include:

- Removed the subapplicant hazard mitigation plan requirement for certain Capability and Capacity Building Activities: (1) hazard mitigation planning and planning-related activities, (2) partnerships, and (3) building code activities.
- Allowed entities working in collaboration with an Economically Disadvantaged Rural Community (EDRC) to build and submit a subapplication on their behalf and include an authorization letter with the subapplication permitting them to do so and receive the 90% federal cost share increased funding. This change was introduced to increase equitable access to the program.
- FEMA may assist EDRCs, federally recognized tribal governments, or disadvantaged communities (CDC SVI score greater than .80) with developing a Benefit-Cost Analysis for mitigation projects after submission of the project, as the Benefit-Cost Analysis requirement has been removed as a condition to apply for a grant.

Download the BRIC Fact Sheet for details on these and other changes

**The FMA Priorities and Changes**
The FMA program provides funds to state, local, tribal and territorial governments to reduce or eliminate the risk of repetitive flood damage to buildings insured under the National Flood Insurance Program (NFIP). In addition to the increase in funding, some of the changes to this year's FMA program include:

- Increased the federal cost share for disadvantaged communities to 90% for Capability and Capacity Building activities, Localized Flood Risk Reduction Projects, and Individual Flood Mitigation Projects up until the IIJA funds are exhausted.
- Added Capability and Capacity Building Activities as a new program priority activity to enhance the knowledge, skills and expertise of the local community to expand or improve the administration of flood mitigation assistance. Examples of activities include: (1) develop or update hazard mitigation

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plans, (2) support technical assistance to states, (3) project scoping, (4) partnership development, (5) enhancing local floodplain management, and (6) Severe Repetitive Loss and/or Repetitive Loss strategy plan development. See detailed fact sheet on C&CB
- Increased the funding cap for Capability and Capacity Building Project Scoping subapplications to $900,000.
- Assisting federally recognized tribal governments or disadvantaged communities (CDC Socially Vulnerable Index score greater than .80) with developing a Benefit-Cost Analysis for mitigation projects after submission of the project, as the Benefit-Cost Analysis requirement has been removed as a condition to apply for a grant.
- Renamed Community Flood Mitigation Projects to Localized Flood Risk Reduction Projects and increased funding from $30 million to $50 million.
- Allowing Phased Projects to receive funding under the Local Flood Risk Reduction Project category that are complex and require technical or environmental and historic preservation data beyond what is required for a typical Flood Mitigation Assistance project. For more information, review the Phased Projects fact sheet.

Download the FMA Fact Sheet for details on these and other changes.

**Getting Started**
There are numerous resources available on the FEMA website to help you understand eligibility requirements, capability and capacity building activities, technical assistance, and more for both the BRIC program and the FMA program. FEMA is also hosting a 10-part webinar series to help potential applicants navigate the application process. State or tribal program managers for these funds (typically it is the state hazard mitigation program) may also have additional resources and capacity to assist.

Although the application period for both grants officially opens Sept. 30, **you must contact your state or tribal program manager** for these funds to identify internal state or tribal deadlines and procedures for application submission (these will likely be different and earlier than the FEMA deadlines. (ASFPM maintains a list of state hazard mitigation officers here). Eligible applicants must apply for funding using FEMA Grants Outcomes, the agency's grants management system. Full application submittals are due from the state or tribe to FEMA no later than 3:00 p.m. ET on Jan. 27, 2023.

# Coastal GeoTools 2023 Call for Abstracts Now Open

Coastal GeoTools 2023 heads to Charleston, S.C. and we need your help in building out the program. Submit an abstract, or two, to share your geospatial application story, tool, or resource. Abstracts should profile proven approaches that support one or more of these coastal management goals: healthy ecosystems, resilient communities, or vibrant and sustainable economies.

COASTAL GEOTOOLS
FEBRUARY 6 TO 9, 2023

Sessions will be organized within the following tracks:

- Coastal Inundation
- Equitable Service Delivery
- Habitat Conservation
- Ocean Planning
- Emerging Technologies

The deadline is Friday, October 7. **Submit your abstract.**

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change, scientists from UCLA and the National Center for Atmospheric Research have completed the first part of ArkStorm 2.0.

"In the future scenario, the storm sequence is bigger in almost every respect," said Daniel Swain, UCLA climate scientist and co-author of the paper, which was published last month in the journal Science Advances. "There's more rain overall, more intense rainfall on an hourly basis and stronger wind."

In total, the research projects that end-of-the-century storms will generate 200% to 400% more runoff in the Sierra Nevada Mountains due to increased precipitation and more precipitation falling as rain rather than snow. The researchers used a combination of new high-resolution weather modeling and existing climate models to compare two extreme scenarios: one that would occur about once per century in the recent historical climate and another in the projected climate of 2081-2100. Both would involve a long series of storms fueled by atmospheric rivers over the course of a month.

The paper also simulated how the storms would affect parts of California at a local level.

"There are localized spots that get over 100 liquid-equivalent inches of water in the month," Swain said, referring to the future scenario. "On 10,000-foot peaks, which are still somewhat below freezing even with warming, you get 20-foot-plus snow accumulations. But once you get down to South Lake Tahoe level and lower in elevation, it's all rain. There would be much more runoff."

The increased runoff could lead to devastating landslides and debris flows — particularly in hilly areas burned by wildfires.

The paper, which was coauthored by climate scientist Xingying Huang, found that historical climate change has already doubled the likelihood of such an extreme storm scenario, building on previous UCLA research showing increases in extreme precipitation events and more common major floods in California. The study also found that further large increases in "megastorm" risk are likely with each additional degree of global warming this century.

**"Modeling extreme weather behavior is crucial to helping all communities understand flood risk even during periods of drought like the one we're experiencing right now,"** said Karla Nemeth, director of the California Department of Water Resources, which provided funding for the study. "The department will use this report to identify the risks, seek resources, support the Central Valley Flood Protection Plan, and help educate all Californians so we can understand the risk of flooding in our communities and be prepared."

With drought and wildfire getting so much attention, Californians may have lost sight of extreme flooding, Swain said. "There is potential for bad wildfires every year in California, but a lot of years go by when there's no major flood news. People forget about it."

The state has experienced major floods over the years, but nothing on the scale of the Great Flood of 1862. During that disaster — when no flood management infrastructure was in place — floodwaters stretched up to 300 miles long and as wide as 60 miles across in California's Central Valley. The state's population then was about 500,000, compared to nearly 40 million today. Were a similar event to happen again, parts of cities such as Sacramento, Stockton, Fresno and Los Angeles would be under water even with today's extensive collection of reservoirs, levees and bypasses. It is estimated that it would be a $1 trillion disaster, larger than any in world history.

Further research and preparations to respond to such a scenario — including advanced flood simulations supported by the California Department of Water Resources — are planned to follow, Swain said. This will include collaborations with partner agencies including the California Office of Emergency Services and the Federal Emergency Management Agency. Researchers next hope to map out where flooding could be worst and inform statewide plans to mitigate it. That could mean letting water out of reservoirs preemptively, allowing water to inundate dedicated floodplains and diverting water away from population centers in other ways.

# Flood Insurance Committee Corner

## Estimating Premiums in a Risk Rating 2.0 World

Over the past several decades, floodplain managers across the U.S. have received calls from property owners asking about what savings in flood insurance there might be if they do some sort of mitigation on their house (e.g., flood openings, elevation). Although not being an insurance agent, it was fairly easy for the floodplain manager to look at one of the rate tables in the flood insurance manual and quickly estimate the savings. One could easily promote the ol' ***Reduce the Risk. Reduce the Rate*** tagline!

But now we have Risk Rating 2.0 (RR 2.0) where there are many more rating variables involved in determining the premium. In addition, the premium calculations are done by the rating engine, to which only insurance agents have access. Consequently, it is exceedingly difficult for a floodplain manager to give an answer when asked to approximate how much savings there might be, say…if someone was to elevate their home.

### Risk Rating 2.0 Resources

FEMA RR 2.0 Webpage

FEMA RR 2.0 Marketing Material

FEMA RR 2.0/Flood Insurance Training

FEMA Rate Explanation Guide

ASFPM RR 2.0 Fact Sheets + Webinar Recording

ASFPM and its RR 2.0 Workgroup have been raising this concern, even before the formal rollout of RR 2.0 on September 1, 2021. The good news is that FEMA has listened, and a small workgroup has been formed with ASFPM members and FEMA staff (including a representative from Floodplain Management Division and FEMA Regional Flood Insurance Liaisons). We held a two -day kick-off meeting at the end of July to help determine what a "Premium Estimator" might look like, what data might be needed, how information might be presented, and more.

While this kind of tool will be a positive step forward, don't expect it to be built overnight. Rest assured, however, your Flood Insurance Committee Co-Chairs will keep you updated via the Insurance Corner as to its progress …along with any new learnings about RR 2.0!

Meanwhile, please continue to share your thoughts, challenges, and examples about any RR 2.0 issues you are facing or coming across…and we will continue to share them with our ASFPM RR 2.0 Workgroup … and FEMA. Send them to InsuranceCorner@Floods.org.

Humbly yours,
Your Flood Insurance Committee Co-Chairs
Bruce A. Bender, CFM and Ceil Strauss, CFM

## Resources on Group Flood Insurance Policies (GFIPs)

FEMA offers Group Flood Insurance Policies to individuals who do not have flood insurance and have received assistance from FEMA after a presidentially declared disaster strikes. Here are some resources that you might find helpful:

- Brochure in English and Spanish on the flood insurance requirement
- GFIP factsheet in English and Spanish
- GFIP Toolkit for community outreach

# After FEMA Overhaul, Hundreds of Thousands Are Forgoing Federal Flood Insurance

*By Lylla Younes. Grist*

Hundreds of thousands of Americans have dropped their flood insurance through the National Flood Insurance Program, or NFIP, since last October, E&E News found in a review of federal records. The sharp decline in coverage comes after the Federal Emergency Management Agency overhauled the program's insurance pricing system, a move that was meant to make premiums more accurately reflect the flood risk of a property.

When the agency reviewed the NFIP last year, it discovered inequities in the way that insurance premiums were priced. Homes in the less risky areas of flood zones were overpaying for their premiums, and shouldering a higher burden of the costs of flood risk. The system overhaul was meant to address these inequalities, adjusting premium rates according to level of risk.

"[W]e have a responsibility to make sure that we have actuarily sound, fair, and equitable rates. And so that's what's driving the change," NFIP senior executive David Maurstad told CNBC last year.

While this restructuring has caused some homeowners to see decreases in their insurance premiums, others saw their rates spike to over $4,000 annually from just around $700, according to Jeremy Porter, chief research officer at First Street Foundation, a nonprofit research group that quantifies and communicates climate risks.

E&E News found that the total number of NFIP policies declined by nearly 9 percent, from 4.96 million to 4.54 million, between the end of September 2021 and the end of June 2022. The drops in coverage come at a time when it is more important than ever for people living in flood zones to buy insurance. FEMA estimates that climate change will cause the size of areas with a high flood risk to increase by 55 percent along the nation's coastlines and up to 45 percent along major river systems by the end of the century.

Sarah Pralle, an associate professor of political science at Syracuse University, said that while the preliminary numbers of dropped policies are concerning, they're part of a wider problem that extends back before the NFIP's restructuring. Americans living in flood-prone areas tend not to buy insurance, making premiums higher for those who do, because the insurance pool is smaller.

This problem could be partly addressed through enforcement: Although federal law requires homeowners paying off federally backed mortgages in high-risk areas to purchase flood insurance, many choose not to, or drop their policy after a few years.

But the bigger problem, she believes, is rooted in FEMA's flood maps, which depict current levels of disaster risk using data from the past, instead of projections for the future.

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"You might buy a house just outside the edge of a flood zone, thinking you're safe, but you're going to have that mortgage for 30 years," she said. "And probably within 30 years your house is going to be in a flood zone."

The solution, Pralle believes, is to adjust FEMA's flood maps to encompass a larger number of people, thereby widening the insurance pool and bringing down premiums for everyone.

But requiring more people to buy flood insurance is a politically unpopular policy that risks overburdening low-income homeowners who are already struggling to pay their mortgages. Recognizing this, Pralle said an equitable national flood insurance program would offer subsidies to low-income families to incentivize them to seek coverage.

After all, she said, it is in everyone's best interest to have flood insurance. Individuals without coverage must often rely on FEMA disaster relief funds, which are typically only several thousand dollars, as opposed to the up to $250,000 that NFIP policyholders may receive for structural damage to a single-family home.

"If you look at outcomes, people with insurance do a lot better after disasters," she said. The goal should be to make sure low-income homeowners have access to those better outcomes. "Subsidize those premiums so that they have that security and they don't lose everything," Pralle said. "I don't think the solution is just don't make people buy insurance."

*This story was originally published by Grist.*

Resilient Nation Partnership Network

## Alliances for Inclusive Resilience Series Begins Next Month

Resilient Nation Partnership Network (RNPN) is proud to announce the Seventh Annual Partnership Forum, "*Alliances for Inclusive Resilience*," developed in partnership with the Mississippi River Cities and Towns Initiative (MRCTI). The virtual series will occur every Wednesday from 1 to 3 p.m. ET. Each week, we'll discuss how to advance community trust and inclusive resilience at the national, state, and local levels.

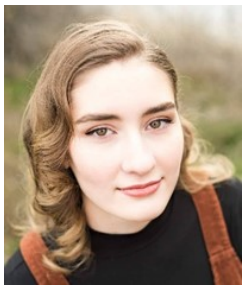
- October 5 – Social Cohesion: Making Access, Inclusion and Equity Priorities in Resilience
- October 12 – Making Resilience Priorities Complementary
- October 19 – Inclusive Design: Building a Sense of Resilient Belonging
- October 26 – Voices of Inclusive Resilience

The four-week event will provide opportunities for partners to engage with other industry peers, to network, and to identify actionable future partnerships. **Register**

# Thank You for Helping Us Build a Brighter Future!

It has been a banner year for the ASFPM Foundation. Coming out of the "COVID fog," the Foundation wanted to restore some of the excitement and enthusiasm we have enjoyed in past years and set the stage for many good things to come.

At the 2022 ASFPM Annual National Conference in Orlando, FL, the Foundation took steps to further our message regarding building a brighter future. During the Foundation-sponsored Tuesday luncheon, Doug Plasencia, Foundation President, announced our funding of a second Future Leaders Scholarship (FLS) beginning in 2023. Up until now, we only had the financial capacity to fund the FLS every other year; *as a result of your generosity we are now able to offer a $20,000 scholarship annually instead of every other year.*



The Foundation continues to change lives and develop future leaders who can strengthen our profession and help guide the future of flood risk management with the establishment of this second FLS. You can learn more about our past and current scholars by visiting ASFPM Foundation. Our most recent recipient, **Esme Nelson**, is already using scholarship dollars to continue to further her academic career at Gonzaga University in Spokane, Washington. This important undertaking by the Foundation is only possible through the generous donations we receive.

It goes without saying that the floodplain management community owes a great deal of its success to the dedication and hard work of our corporate partners. They not only provide financial support, but also support their staff's contribution of time, expertise, and energy to actively participate on Foundation committees, conduct policy events, and plan and carry our special projects. The ASFPM Foundation recognizes that without the financial and in-kind contributions of our corporate partners, our success in accomplishing our mission would be diminished. *A heartfelt "thank you" to the following corporate partners, who donated more than $95,000 in 2022 alone*:

AECOM
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The ASFPM Foundation also fully recognizes the importance of the financial contributions of the ASFPM chapters. Recognizing the need to fund their own important initiatives to further flood risk management, we want to thank the following chapters for helping the Foundation achieve our mission through their generous donations of over $19,000 in 2022:

Alabama
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Colorado
Connecticut
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FMA
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Illinois
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Maryland
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Minnesota
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North Carolina
Ohio
Oklahoma
Rhode Island
South Carolina
Tennessee
Texas
Utah
Virginia
Wisconsin

With the coming year brings a renewed commitment to the work we do, which can only be accomplished because of the generosity of our corporate partners and participating chapters. Together, through your generosity and commitment, we are all striving to make our nation a more resilient one.

For more information about the ASFPM Foundation, its important initiatives, and ways to help sustain us financially or through your active participation, please visit the ASFPM Foundation website.

You can also contact George Riedel, ASFPM Foundation Donor Coordinator at George@asfpmfoundation.org.

## SAVE THE DATE

***Giving Tuesday will be here before you know it!***

Again this year, the Foundation is participating in the nation's Giving Tuesday event, with all donations helping fund the two ASFPM Foundation Future Leaders Scholarships. Be sure to put **Tuesday, November 29** on your calendar and consider making a donation.

## Billion-Dollar Disasters Mapping Tool Updated

NOAA has released a comprehensive update to the billion-dollar disasters mapping tool, which now includes U.S. census tract data providing community-level awareness of hazard risk, exposure, and vulnerability across 100+ combinations of weather and climate hazards.

Users can now visualize a community's combined physical exposure, socioeconomic vulnerability, and markers of resilience to natural hazards. View to mapping tool.

Floodplain Manager's Notebook

*By Rebecca Quinn, CFM*

# Definitions Are More Important Than You Might Think

Take a look at your floodplain management regulations — if yours are like most I've seen, about a third or more is definitions. When I'm asked a question, the first thing I do is check definitions. How often have you had someone argue that some type of development isn't regulated because it's not covered by NFIP flood insurance? That was the basis for an association representing the swimming pool industry trying to justify why communities that participate in the NFIP weren't supposed to regulate swimming pools and equipment that serves pools. Nope, that's not a valid argument. Just take a look at the definition for development: "any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials."

Yes, I know, we spend 99.9 percent of our time regulating buildings. So I can understand that many local floodplain managers don't have much experience regulating what I call "non-building structures" such as gazebos, viewing stands, utility towers, salt domes, solar farms, outdoor sculptures and the like. See the November 2018 Insider for the Notebook column about requirements for non-building structures and July 2020 and March 2022 for pools.

**But Let's Get Back to Definitions ...**
Most states and communities that adopt building codes base their codes on the International Code® that is developed and maintained by the International Code Council, Inc. The I-Codes have provisions that apply to buildings and structures in flood hazard areas. FEMA considers the flood provisions of the 2018, 2021, and upcoming 2024 editions to meet or exceed the NFIP requirements for buildings and structures.

## Resources

- 44 Code of Federal Regulations, Sec. 59.1 Definitions
- International Code definitions: Chapter 2 in each volume (IBC, IRC, IEBC, etc.)
- 2021 I-Code: Excerpts of the Flood Provisions
- 2018 I-Code Excerpts of the Flood Provisions
- Highlights of ASCE 24-14

FEMA encourages states and communities that enforce building codes with flood requirements to make a careful comparison with their local floodplain management regulations to identify differences and determine ahead of time how to resolve those differences to avoid conflict. Those who are interested in relying on the building codes should look at Reducing Flood Losses Through the International Codes: Coordinating Building Codes and Floodplain Management Regulations. And as always, communities should check with their state NFIP coordinators for help preparing ordinance amendments.

Many local building officials are also designated as their community's floodplain administrator. However, many of us don't regularly deal with both codes and floodplain management regulations. As the two disciplines are brought together, I've become aware that some terms used in the building codes and by building officials are similar to terms that floodplain managers have used for years. But there are some important differences and nuances to keep in mind. Let's take a look at some of the more significant ones.

**Special Flood Hazard Area and Flood Hazard Area.** The NFIP regulations actually define "area of special flood hazard," but we all call it the SFHA. It's the area shown on Flood Insurance Rate Maps as subject to a one-percent or greater chance of flooding. The I-Codes use the term "flood hazard area" (FHA) which allows communities to adopt a map (or designate an area) other than what's shown on FIRMs. Enforcement of the flood provisions of the I-Codes is required within flood hazard areas — and at a minimum, FHAs are SFHAs. Why might a community adopt another map? Well, a growing number of communities are developing "future condition" maps that take into consideration anticipated sea level rise or upland development. And

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sometimes, when significant events exceed the boundaries shown on FIRMs, some communities decide to regulate based on the flood of record. Communities that use other maps regulate the FHA (or a combination of FHA and SFHA). However, for most communities, the FIRM is the adopted map, which means the FHA is the same as the SFHA.

**Base Flood Elevation and Design Flood Elevation.** These terms often cause confusion. Base Flood Elevation is the elevation of the base flood, which is the 1%-annual-chance (100-year) flood. The I-Codes use both BFE and Design Flood Elevation (DFE). The DFE traces back many years, originating in two standards developed by the American Society of Civil Engineers and referenced by the codes: ASCE 7 *Minimum Design Loads for Buildings and Other Structures* and the first edition of ASCE 24 *Flood Resistant Design and Construction*.

Similar to the BFE, the DFE is the elevation of the design flood, and just as the SFHA is related to the FHA, the BFE is related to the DFE. The DFE is always at least the BFE — indeed, the two are exactly the same in the vast majority of communities because those communities adopt FIRMs as the basis for floodplain management. The DFE is higher than the BFE only in communities that adopt a map that shows flood hazard areas that are greater than the SFHAs shown on their FIRMs. Another twist has started to appear, and that is related to freeboard. Some jurisdictions have modified the I-Codes by putting freeboard into the definition of DFE, for example defining the DFE as BFE+1′ or 2′. You may recall from the January 2022 Insider when I wrote about delineating and regulating the land area under the freeboard.

**Residential and Nonresidential.** The NFIP regulations require all new construction of buildings, and buildings that are substantially improved (or that incur substantial damage), to be elevated to or above the BFE. But in zones on FIRMs labeled as Zone A, AE, AO, AH, and A1-30, nonresidential buildings must either be elevated or dry floodproofed to or above the BFE. You might have noticed your local regulations — and the NFIP regulations — do not define "residential" and "nonresidential." While the distinction seems clear at first, there are examples of buildings that aren't easy to classify. The building codes use a different way to distinguish which code applies to which buildings. The International Residential Code is used to regulate one- and two-family dwellings and townhomes, all limited to three stories high. The International Building Code (sometimes called the "commercial" code) applies to all other buildings, and each must be classified by occupancy.

On the surface, it looks like the two codes line up with the NFIP's distinction between residential and nonresidential. But it's not so simple. The Use and Occupancy Classifications spelled out in the IBC include Assembly, Business, Educational, Factory, High-hazard, Institutional, Mercantile, Storage, Utility & Miscellaneous, and Residential. That last classification, Residential, includes all residential occupancies other than the dwellings that are within the scope of the IRC. What might those be? Well, residential occupancies include boarding houses, hotels, motels, apartment buildings, convents, monasteries, dormitories, vacation timeshares, and certain residential care/assisted living facilities. So the question when applying the IBC is whether those residential occupancies governed by the commercial code can be dry floodproofed. Since we know FEMA deems the flood provisions of the I-Codes to be consistent with the NFIP, we can be assured the answer is no. But where do we find that limitation? IBC Sec. 1612.4 refers to ASCE 24, which includes all the familiar design requirements (and more), including dry floodproofing. It's important to note that ASCE 24 does define the terms "residential" and "nonresidential" to make clear which buildings or portions of buildings can be dry floodproofed. Only nonresidential buildings and nonresidential portions of mixed-use buildings may be dry floodproofed. You'll find the definition for "mixed-use" in the ASCE 24 commentary.

The lesson here is that those of us who deal primarily with NFIP-based regulations should be aware that when we say "residential," our building code colleagues might think of the IRC, and not realize that dry floodproofing cannot be used for buildings that are classified "Residential" under the IBC.

**Critical Facilities and Essential Facilities.** FEMA has done a lot of post-disaster examination of critical facilities – a term that is not defined in NFIP or disaster regulations, but is generally considered to include buildings occupied by important services that should remain functional even after significant disasters. The NFIP doesn't have specific requirements for buildings and facilities that serve those vital functions. The IBC defines "essential facilities" as "buildings and other structures that are intended to remain operational in the event of extreme environmental loading from flood, wind, snow or earthquakes." In addition, the IBC requires that each building be assigned a risk category according to a table that describes four risk categories. Risk Category IV includes buildings and structures that the emergency management community considers to be

critical and essential facilities. But look closely and you'll see that Risk Category III includes some that we also consider critical, including many schools, health care facilities, water treatment facilities for potable water, wastewater treatment facilities, power generation stations, and some buildings containing specific quantities of toxic or explosive materials.

However, when it comes to flood, IBC Sec. 1603.1.7 requires each building in flood hazard areas also to be assigned a Flood Design Class according to ASCE 24. The IBC, by reference to ASCE 24, requires all buildings to be elevated or protect to at least BFE + 1 foot. However, Flood Design Class 4 critical and essential facilities must be elevated or protected to or above the 500-year flood elevation or the BFE + 2 feet, whichever is higher. Of course, the floodplain managers among us would prefer to see critical and essential facilities located on higher ground outside of flood hazard areas whenever possible. The "Highlights of ASCE 24" prepared by FEMA includes a table that describes the four Flood Design Classes and a table that summarizes all of the elevation requirements.

**Livable and Habitable.** Many people use the term "liveable" to refer to portions of buildings in which people live or occupy, but that term is not defined in the I-Codes or the NFIP. The term "habitable" is defined in the I-Codes. The reason I draw your attention to this is because occasionally someone will say "in a floodplain all habitable (or liveable) spaces have to be elevated." So, take a close look at the code definition of habitable space: "A space in a building for living, sleeping, eating or cooking. Bathrooms, toilet rooms, closets, halls, storage or utility spaces and similar areas are not considered habitable spaces." We're all familiar with the NFIP limitation on enclosures below the BFE — they may be used only for parking of vehicles, building access and storage. It's easy to see the disconnect — there are certain uses that are not habitable spaces, but also are not allowed below the BFE. Therefore, it is incomplete and misleading to say habitable (or liveable) spaces have to be elevated. As repetitive as it may seem at times, when talking about enclosures below elevated buildings it's always best to repeat the allowed uses: parking of vehicles, building access, and storage.

**Under-floor Space and Crawl Space.** Both terms refer to a type of foundation that is surrounded by solid perimeter, load-bearing walls. We all know a crawl space when we see it — it's the space between the ground (whether earth or concrete/sealed) and the floor system above. But when that space gets taller than about three feet, what do we call it? It's rather awkward to refer to a 7-foot high space as a crawl space. This is where the term "under-floor space" is helpful. The I-Codes don't define "under-floor space," although it is described in IRC Section R408.1 as the "space between the bottom of the floor joists and the earth beneath any building (except space occupied by a basement)." The definition for "crawl space" was added in the 2018 IRC: "an under-floor space that is not a basement." NFIP Technical Bulletin 1, Requirements for Flood Openings in Foundation Walls and Walls of Enclosures, uses the term "full-height under-floor space" to describe solid perimeter walls that have enough headroom that the enclosed area can be used for parking of vehicles, building access, and storage.

**Registered Design Professional.** The NFIP regulations require that certain things be done by a "registered professional engineer or architect," but do not specifically state that elevations should be certified by licensed surveyors. Individual states regulate the professions of engineering, architecture, and land surveying. States may call them licensed professionals or registered professionals. Each state also specifies what constitutes the scope of what it means to "practice" each profession. For example, in some states engineers can't do land or elevation surveys and architects can't do structural engineering. To make it easier all around, the I-Codes use the collective noun "registered design professional" which is defined as "an individual who is registered or licensed to practice their respective design profession as defined by the statutory requirements of the professional registration laws of the state or jurisdiction in which the project is to be constructed."

So, when you read in the I-Codes that documentation prepared by a registered design professional must be submitted, it doesn't automatically mean that architects and engineers can do the surveys, or that architects and surveyors can do floodway encroachment analyses. Whether they can depends on the applicable laws of the state where the project is located. Note this also applies to the NFIP Elevation Certificate and NFIP Non-Residential Floodproofing Certificate. For example, the Elevation Certificate states that the form "is to be signed and sealed by a land surveyor, engineer, or architect authorized by law to certify elevation information." Because there are no federal laws governing those professions, it falls to the laws of each state.

*Submit your own items or suggestions for future topics to column editor Rebecca Quinn, CFM, at rcquinn@earthlink.net. Comments welcomed! Explore back issues of the Floodplain Manager's Notebook.*

Floodplain Manager's Notebook
MARKET VALUE SUPPLEMENT

*By Ray Carroll, MAI, SRA, CFM*

# New Resources for Actual Cash Value Practitioners

This month I have the pleasure of sharing with you a new website created for floodplain administrators and licensed professional property appraisers who are engaged by property owners to develop appraisal reports to provide Actual Cash Value (ACV) estimates of market value. Market value is needed to calculate whether work on existing buildings meets the definitions of Substantial Improvement or Substantial Damage.

**FloodPointUSA.com**
Launched in late July 2022, www.floodpointusa.com is an educational website designed specifically for appraisers, floodplain administrators, and the public. The site is dedicated to clarifying the "market value" used in the NFIP definitions for Substantial Improvement and Substantial Damage. On the site, everyone can find free downloads of the Local Official Appraisal Checklists and the Physical Life Calculator, two tools I've written about in previous ASFPM Insider Market Value Supplements articles. Also available for the first time is a free download of The ACV Guidebook (1st edition). I prepared it as a common guide for appraisers and floodplain administrators. Filling out a single contact information form is all you need to do to get the downloads.

**Why A Website About Actual Cash Value?**
Floodpointusa.com is the culmination of a mission that started in the summer of 2014 when a particularly challenging 50 Percent Rule appraisal assignment drove me to seek help. I found help from then Florida NFIP Coordinator/State Floodplain Manager Steve Martin. Steve suggested some reading material (the SI/SD Desk Reference) and some education (FEMA's Course EO 273). During that training course I came to realize that most floodplain administrators have no real estate background and get no training in reviewing appraisals. Since then, my objective has been to understand and rectify the disconnects between floodplain administrators and appraisers. I want the website to be common ground where appraisers and floodplain administrators can agree on what is needed and how to get it done. This will help communities meet the expectations of the NFIP and enforce their floodplain management regulations. When that happens, floodplain administrators, appraisers, and the public will benefit.

**Using the Website Content**
The Local Official Appraisal Checklists (one strictly for ACV and the other for traditional whole-property appraisals) were originally developed as training tools for floodplain administrators. The checklists have evolved, and the latest version is much improved. The checklists follow the same appraisal valuation process outlined in The ACV Guidebook. Be sure to use the latest checklist and download the correct checklist for the kind of appraisal report you're examining. Floodplain administrators might find it helpful to share the checklist with permit applicants. That way, property owners can share with their appraisers who will see, in advance, what is expected. I'll post new checklists when FEMA revises the SI/SD Desk Reference and when The Appraisal Foundation revises the *Uniform Standards of Professional Appraisal Practice* (USPAP).

Another tool available on the website, the Physical Life Calculator, is an appraisal tool to assist the process of estimating physical depreciation, a critical part of developing an Actual Cash Value. Chapter 7 in The ACV Guidebook is about depreciation, with a detailed discussion about what to do and how to use the Physical Life Calculator. The download offers the Calculator Excel document, and a PDF that details how the Calculator works and how to use it. Anyone who wants to use the Physical Life Calculator should download both files. Floodplain administrators might find the Physical Life Calculator a good "quick check" of depreciation estimates included in appraisal reports for Actual Cash Values.

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The ACV Guidebook is essentially a how-to guide that follows the ACV appraisal valuation process from beginning to end, merging the appraisal assignment conditions set by the SI/SD Desk Reference with the USPAP appraisal standards. In that way, the Guidebook offers insights for floodplain administrators and appraisers alike. The Guidebook helps appraisers become competent in this specialized practice area, and it is a supplement to the ACV checklist. It is my hope that appraisers and floodplain administrators will find that the Guidebook encourages communication and helps avoid misunderstandings. I'll update the Guidebook when FEMA revises the SI/SD Desk Reference and when the USPAP are revised.

The website homepage "Tools & Resources" tab offers downloads of the 10 Market Value Supplements published in the Floodplain Managers Notebook column since September 2020, together with some FAQs. There's even a "Read Our Blog" button under "Tools & Resources" where we can wrestle with questions of general interest. Send me a question. If it sparks a blog post, I'll anonymize the query before publication so no one's name is mentioned.

It would be a great help to me, other floodplain administrators, and professional appraisers if you let me know if and how the website is helpful and suggest changes to make the site, the checklists, and the ACV Guidebook better. You can also ask questions about the "market value" that you need to make your SI/SD determinations. Please get in touch at Rayman4454@gmail.com. I look forward to hearing from you.

# NOAA Releases First Comprehensive Mitigation Policy

The National Oceanic and Atmospheric Administration (NOAA) has released its first comprehensive **Mitigation Policy for Trust Resources**, which aims to improve conservation through effective mitigation of adverse impacts to marine, estuarine, and freshwater resources.

Under the policy, NOAA will use climate resilient mitigation principles to reach its program objectives, expand best practices across the country, and incentivize private-sector investments in mitigation banks. The policy emphasizes collaborating with underserved communities and stakeholders to incorporate social equity objectives into mitigation planning.

Eight principles will guide NOAA's mitigation decisions:

1. Apply the mitigation sequence appropriately.
2. Employ the best scientific information available.
3. Apply a holistic landscape and/or seascape approach.
4. Promote mitigation strategies that have a high probability of success.
5. Consider climate change and climate resilience when evaluating and developing mitigation measures.
6. Implement mitigation that is proportional to impacts to NOAA trust resources and offsets those impacts to the full extent provided by NOAA authorities.
7. Use preservation of intact habitat as compensation appropriately, taking into account the high risk of habitat loss in many coastal and marine landscapes and seascapes.
8. Collaborate with partner agencies and stakeholders.

The draft policy was released for public comment in May 2021 and revisions were made based on input received from a wide range of stakeholders. View the final policy.

# Stormwater Management Ponds Not Adequate Replacement for Wetlands, Study Says

Relying on stormwater management (SWM) ponds to restore the depleting wetlands is not sustainable and lacks the critical ecosystem services vital for biodiversity, a new study out of Canada found.

With the continued losses of wetlands projected in the near future and emphasis on the underestimation of provincial wetland loss, the study captures the contributions of SWM ponds in a changing network of water bodies and the effects of land use and land cover on this change.

University of Waterloo researchers led by Waverley Birch examined wetland loss, SWM pond creation and land use-based trends in seven southern Ontario municipalities within the most populated ecozones in Canada from 2002 to 2010 using a geographic information system.

"Wetland loss contributes to loss of ecosystem services in Ontario, with the likelihood of natural disasters such as droughts and floods becoming more common in urban areas," Birch said.

For the years under study, the findings show that the total number of created SWM ponds was 1.6 times greater than the number of wetlands lost for all municipalities combined and that an overall rate of 0.13 percent of wetland area was lost per year.

"This is concerning because of the low proportion of wetlands left in these areas and the fact that the average SWM pond was smaller than the average lost wetland, which poses a big environmental challenge," Birch said. The researchers argue that wetland losses will continue with trends towards their replacement by SWM ponds. They observed that losses are concentrated among wetlands that are generally not protected by provincial policies because of their small size.

"We recommend that protections be strengthened for wetlands of all sizes, in turn protecting communities by retaining the important ecosystem services that are vital for biodiversity as well as human health and wellbeing, which wetlands provide," Birch said.

The study, authored by Waterloo's Birch, Michael Drescher, Jeremy Pittman and Rebecca Rooney, was recently published in the *Journal of Environmental Management* .

# Washington Legislative Report

*By David Conrad, ASFPM Water Resources Policy Senior Advisor, CFM and Meg Galloway, ASFPM Senior Policy Advisor, P.E.*

July and early August saw a major flurry of legislative activity in Washington DC, including work on and passage of legislation of much interest to floodplain managers. This came in advance of the month-long August recess and in anticipation of a large push in September and October, prior to the November mid-term elections that will elect all 435 members of the U.S. House of Representatives and a third of the U.S. Senate for the new 118th Congress, which begins in January 2023.

Most notable was passage of H.R. 5376, the **Inflation Reduction Act of 2022**, which authorizes revenue-raising tax provisions, especially through setting minimum corporate tax rates; health care provisions expanding public health program benefits, including reducing drug costs especially for seniors; and provisions to direct and extend major investments/incentives to combat climate change and reduce greenhouse gasses to move society away from a carbon-based energy economy. The bill includes funds for coastal and other flood hazard risk reduction as well as other natural hazards such as drought and wildfire, and major investments in improved science, risk assessment, modelling, and planning of particular interest to floodplain managers.

Congressional Appropriations committees have also continued working on the FY 2023 Appropriations legislation, although as in past years, the bills are considerably delayed from the 'normal' schedule for the October 1 start of the fiscal year. This, again, means a high likelihood of a continuing resolution to maintain spending at FY 2022 levels — at least in the next few to several months.

Congress is also continuing to work on a biennial Water Resources Development Act (WRDA) for 2022, authorizing legislation for U.S. Army Corps of Engineers, which has a relatively high likelihood of enactment yet this year; and — somewhat more behind the scenes — the House Financial Services and the Senate Banking committees are continuing to work toward an eventual comprehensive reauthorization of the National Flood Insurance Program. In the meantime, we are expecting the NFIP will again likely be given a short-term extension, with more work on the longer-term legislation expected in the next Congress.

**Inflation Reduction Act of 2022**

It was just days before Congress' was scheduled to break for August recess that Senators Joe Manchin (D-WV) and Majority Leader Chuck Schumer (D-NY) announced a deal —reached after months of behind the-scenes negotiating — that resulted in final passage of **H.R. 5376, the Inflation Reduction Act of 2022.** The bill was a much-reduced and reworked version of the original House-passed **Build Back Better Act** from November 2021. It passed the Senate Sunday, August 7, (by a 51-50 vote), before the Senate adjourned for the remainder of August through Labor Day. The Senate returns to work on Tuesday, September 6. With the Senate bill passed, the House reconvened for a day, Friday, Aug 12, interrupting their August recess to pass the bill (ultimately 220 – 213), which was then signed into law by President Biden on August 16.

The complicated, multi-faceted bill with portions written by numerous committees was 273 pages long in the enrolled version — 61 pages in the Congressional Record's small print. Official numbers are still being generated, but initially the Congressional Budget Office estimated the bill's cost at $485 billion in direct spending or tax credits and would eventually generate $790 billion in offset revenues from increased taxes and other savings.

The Office of Management and Budget (OMB) issued a report August 24 estimating the bill's investments in atmospheric carbon reduction and other areas could cut the "social costs of climate change" by up to $1.9 trillion by 2050. A previous report estimated that climate change could result in annual federal revenue losses

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of 7.1 percent — the equivalent of $2 trillion (in today's dollars) by the end of the century. OMB also found that by 2100, the federal government could be spending an additional $25 billion – $128 billion annually, due to just six climate-related financial risks — from **disaster relief, flood insurance, crop insurance, healthcare expenditures and wildland fire suppression and flood risk at federal facilities**, with many other climate change related risks and costs, as yet unquantified (such as national security, damage to ecosystems, and infrastructure expenses). So the basic argument is the bill amounts to a significant down payment toward reducing large future costs of changing climate.

Overall, the bill authorizes new tax collections, various tax credits and a range of spending over varying time periods above current basic appropriations levels. Major areas affected are setting minimum tax levels for larger corporations, providing expanded health benefits, capping certain copays and lowering prescription costs, investing in lower-income and economically-disadvantaged communities and reducing their health and climate-related risks, reducing global warming and climate change and otherwise likely future risks (especially by incentivizing non-fossil fuel energy sources — particularly wind and solar, energy conservation and efficiency, but also numerous others (e.g. hydrogen, biofuels, nuclear, etc.), incentivizing development of a "clean vehicles" non-carbon-based automotive and transportation industry, investing in various agencies' science, technology, and data collection, reducing the impacts and risks associated with drought, wildfires and improving water-use efficiency, and improving carbon sequestration through public and private forest management, investments in agricultural lands, and other public land management.

While the bill lays out the largest U.S. response thus far for addressing and reducing greenhouse gas emissions as well as instituting technology transformation to that end, it includes several components that could directly or indirectly impact on floodplain management.

It is worth emphasizing the approximately $8.5 billion authorized for Department of Agriculture investments in conservation practices to improve soil carbon or reduce nitrogen losses or greenhouse gas emissions on private and public lands, $1 billion for the Natural Resources Conservation Service (NRCS) to provide conservation technical assistance to producers and land managers, and $300 million for a large field-data assessment to develop recommendations in this area. The bill also includes $1.8 billion for the National Forest System for wildland-urban hazardous fuel reduction, $200 million for National Forest vegetation management and $50 million for national old-growth forest inventory and protection, with emphasis on restoring sustainable recreation infrastructure and access.

The bill also provides the National Oceanic and Atmospheric Administration (NOAA) with $2.6 billion through FY 2026 for coastal states, tribal communities, and nonprofits for conservation, restoration, and protection of coastal and marine habitats to prepare and enable coastal communities to better withstand extreme storms and support natural resources and sustainable futures.

The bill additionally provides $150 million through FY 2026 for NOAA "to accelerate advances and improvements in research, observation systems, modeling, forecasting, assessments and dissemination of information to the public" regarding weather, coasts, oceans, and climate, plus an additional $50 million for climate research and another $190 million for advanced high-performance computing to support such research.

The Department of the Interior receives $500 million for conservation and resilience investments, along with somewhat smaller amounts for the U.S. Geological Survey and U.S. Fish and Wildlife Service and the White House Council on Environmental Quality. And, finally, the Department of Homeland Security receives an additional $500 million for sustainability and environmental programs.

Together with huge sums now starting to become available through the **Infrastructure Investment and Jobs Act of 2021** (IIJA) and other recent legislation, funding levels for many programs affecting floodplain management **are among the highest ever in numerous areas.** Congress in these bills has also become wiser, to specifically authorize staffing for the agencies to implement many of these programs, which go well beyond the basic programs from past authorizations — although increasingly we do hear federal agencies voicing concerns about their current abilities to smartly spend these funds within the timeframes set.

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There is no doubt these will be continuing themes going forward.

**Appropriations.**
On July 20 the House passed H.R. 8294, a package of six out of the dozen regular fiscal year 2023 funding bills. The package covers FY 2023 appropriations for Transportation/HUD, Agriculture, Energy and Water Development, Financial Services/General Government, Interior and Environment, and Military Construction and Veterans' Affairs. In the case of the Department of Homeland Security (DHS) appropriations bill (which includes FEMA programs), while the bill markup was completed and reported on June 24, there was considerable Republican concern on matters dealing with immigration and border control, so the bill was not brought to a vote before the full House Appropriations committee.

The Senate Appropriations subcommittees spent the month of July working on draft bills. Overall, work on the appropriations may have been slowed after Chairman Pat Leahy (D-VT) broke his hip in a fall. On July 28 Senate Democrats unveiled their 12 appropriations bills for the upcoming fiscal year. The drafts have not been marked up and will likely be used as a basis for negotiations between House and Senate appropriators in the remainder of the Congress. This will set stage for a clash with Republicans over defense spending, abortion policy, border security, climate change, and other issues.

There will clearly be little time for completion of action on regular appropriations bills before the end of the fiscal year on September 30. It appears increasingly likely that adoption of a continuing resolution to fund much of the government at FY 2022 levels will be necessary. Eventually at least some of the 12 regular appropriations bills could again be combined into an omnibus appropriations measure. It will be important to assure that an extension of the National Flood Insurance Program would in all likelihood be tucked into such a "must-pass" piece of legislation to maintain continuity.

**Floodplain Map Funding**
A particular appropriation focus for ASFPM is the level of funding for FEMA's floodplain mapping program. The current draft of the Senate Appropriations bill for the Department of Homeland Security allocates $275.5 million for floodplain mapping, the same as what was requested in the President's budget. This is less than the $350 million in the House Appropriations bill, and far shy of the ASFPM-suggested funding level of $800 million that is needed to accelerate the mapping process and given the major federal, state, and local investments about to be made in infrastructure improvements nationwide. Flood risk information is essential for resilient planning, siting, engineering, and design. Although 10 years ago the 2012 Biggert-Waters flood insurance reform legislation required a number of critical new mapping tasks, including mapping **all** flood risk areas of the nation for current and future conditions, and mapping the flood risk associated with failure of levees, dams and other flood control structures, FEMA has thus far failed to implement these mapping requirements due to lack of resources.

To highlight concern about the level of funding for floodplain mapping in the Senate Appropriation Bill, ASFPM sent a letter on July 22 to the Chair and Ranking Member of the Senate Appropriations Homeland Security subcommittee urging that the Senate provide a minimum of $350 million for funding for floodplain mapping efforts in FY 2023. ASFPM will also be encouraging our members to make similar arguments to their Senators through an upcoming ASFPM Engage outreach effort this September.

**NFIP Reauthorization**
A number of NFIP reauthorization bills have been introduced in Congress, including one Senate bill that would simply reauthorize the current NFIP for one year, through September 30, 2023. Given the lateness in this session and the need to tackle other high priorities, it is unlikely that reauthorization will happen before the end of the fiscal year. More likely, the NFIP will be extended for the short term as part of any continuing resolution extending the FY 2022 budget into FY 2023. This would make it the 22nd such short-term extension since 2012. While there still may be the remote possibility of passing a more comprehensive reauthorization before the end of the 117th Congress, this issue is just as likely to carry forth into the new session ahead.

**FEMA 17-Point Plan for NFIP Reauthorization**
As Congress began to consider a comprehensive NFIP reauthorization, on May 11, Alice Lugo, Assistant

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Secretary for Legislative Affairs at DHS, sent legislators a letter that requested a 10-year extension for the NFIP, along with 17 reforms "to ensure more Americans are covered by flood insurance, build the nation's climate resilience, reduce disaster suffering, and establish a sound and transparent financial framework for the NFIP."

At a June 23 hearing before the Senate Banking Committee, David Maurstad, Deputy Associate Administrator for FIMA and Senior Executive of the NFIP testified for FEMA, largely on DHS' 17-point proposal. Some of these ideas have been included in various bills that have been introduced in the House and Senate for NFIP reform. This FEMA webpage breaks down the proposed changes with accompanying proposed legislative text.

ASFPM has reviewed the entire DHS proposal and has developed initial opinions on each of the concepts. More recently we have been focusing on five areas that seem to be the highest priority for FEMA/DHS to include in NFIP reauthorization. The numbers below correspond with the numbers in the DHS' 17-point plan:

> #2. Borrowing authority which includes cancellation of $20 billion of NFIP debt acquired since 2005 due to ever increasing severe storm events and hurricanes.
>
> #3. Establishing financial "resilience" for the NFIP, including a "sufficiency" standard that would allow the NFIP to manage risk up to a 1-in-20 occurrence exceedance loss level, while above this level the Administrator would notify Congress and request an emergency supplemental appropriation.
>
> #5 Disclosure of flood risk information to prospective buyers/renters prior to real estate transactions by requiring participating communities to establish certain flood risk reporting requirements.
>
> #9. Means-tested assistance program offering a graduated discount to benefit policy holders who meet the HUD definition of low- to moderate-income household.
>
> #10. Establish a new category of Excessive Loss Property (XLP) defined as structures with four or more paid losses of at least $10,000 each and prevents FEMA from offering flood insurance coverage for XLPs. Allows a structure to be removed from an XLP classification if the structure is mitigated in line with state and local requirements. Updates the definitions of Repetitive Loss Structures and Severe Repetitive Loss Structures.

ASFPM believes some of the 17 proposals put forth will require substantial changes in language or approach to be acceptable, however it is a notable step forward to have positive, proactive proposals from FEMA and DHS as Congress begins work on a comprehensive NFIP reauthorization.

## WRDA

The House Transportation and Infrastructure Committee passed its version of the Water Resources Development Act (H.R. 7776) on June 8, by vote of 384-37, and the Senate Environment and Public Works Committee substituted its version of a WRDA (originally reported from Committee as S. 4136) as H.R. 7776, passed in the full Senate on July 28 by a vote of 93-1. Both Committees, working with their leaderships, continue to work — particularly behind the scenes — in preparation to merge their respective Water Resources Development Act (WRDA) packages, and with hopes in September or October to pass a final version, prior to Congress breaking for the November mid-term elections.

While these are mostly "projects" bills, ASFPM has especially focused attention on provisions to improve and expand Corps' technical assistance programs, such as the Planning Assistance to States (PAS) and Flood Plain Management Services (FPMS). The House WRDA bill would increase from $15 million to $30 million the annual authority for the Corps' PAS direct technical assistance services, and the Senate bill would add an additional $30 million for staffing Corps district offices to support PAS technical assistance work. ASFPM is urging both sets of increases, along with numerous other provisions supporting Corps' efforts to update flood programs, better assist economically disadvantaged communities, and to include nonstructural, nature-based approaches in project planning and evaluation.

# FEMA NEWS

Updates from the Federal Emergency Management Agency

## Hazard Mitigation Assistance Summer Engagement Series

The 2022 Hazard Mitigation Assistance (HMA) Summer Engagement Series is well underway and continues until Oct. 4. The series features experts and special guests to provide information and insight on the Building Resilient Infrastructure and Communities (BRIC) and Flood Mitigation Assistance (FMA) programs, as well as the Hazard Mitigation Grant Program (HMGP). There are also webinars that focus specifically on the fiscal year 2022 Notice of Funding Opportunity (NOFO) for BRIC and FMA.


**Remaining Webinars**

- Sept. 1: BRIC/FMA Notice of Funding Opportunity Webinar #2
- Sept. 15: BRIC/FMA Notice of Funding Opportunity Webinar #3 (tribal focused)
- Sept. 22: BRIC Notice of Funding Opportunity Technical and Qualitative Criteria
- Sept. 29: Environmental Planning and Historic Preservation Review 101
- Oct. 4: Using Grant Funding to Build Resilience: The How, When, and Where of Applying for the Hazard Mitigation Grant Program (HMGP)

If you are in need of special accommodations, please contact fema-hmacomms@fema.dhs.gov. See details on each webinar and **register.**

## Guidance on 90/10 Cost Share Changes

FEMA recently published Hazard Mitigation Grant Program (HMGP) guidance to help state, local, tribal, and territorial governments better understand FEMA's interpretation of the cost share change that was signed into law on March 15 (H.R. 2471, Consolidated Appropriations Act, 2022). This law granted a minimum 90% federal cost share for any emergency or major disaster declaration declared from or having an incident period beginning between, Jan. 1, 2020, and Dec. 31, 2021.

This newly released guidance provides information about:

- Funding
- Application period extensions
- FEMA, state, tribe, territory agreements
- HMGP administrative plans and
- Periods of performance

**Learn more**

# FEMA NEWS

**Updates from the Federal Emergency Management Agency**

## Public Comment Period for HMA Program and Policy Guide

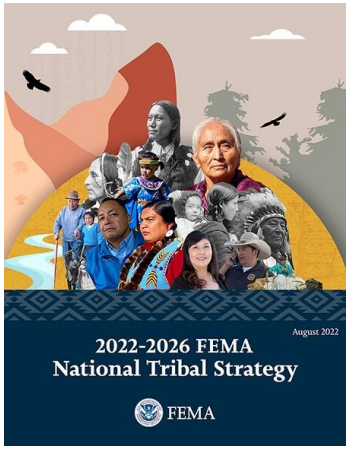
FEMA has published a notice in the Federal Register seeking public comment on updates to its Hazard Mitigation Assistance Program and Policy Guide. The primary purpose of the HMA Guide updates is to incorporate existing policies and guidance materials issued since 2015, simplify and clarify guidance, and incorporate strategic mitigation priorities.

ASFPM members who are interested in submitting comments are encouraged to **send them to Joy Duperault at joy.duperault@mass.gov by September 16.** She will compile the comments for submission.

The current draft can be accessed at the Federal eRulemaking Portal and reference Docket ID FEMA-2022-0023. Comments will be accepted there until September 23.

## FEMA Releases 2022-2026 FEMA National Tribal Strategy

For the first time, FEMA released a national tribal strategy to better address its responsibilities to federally recognized Tribal Nations when responding to and preparing for disasters affecting tribal lands.




Key issues include resources tailored to support tribal emergency management programs, including:

- Initiating a national study on tribal emergency management capacity and capabilities.
- Developing a comprehensive FEMA guide of programs.
- Developing tribal-specific technical assistance resources.
- Convening an annual meeting of national and regional tribal liaisons.
- Expanding training opportunities for tribal nations

To download the 2022-2026 National Tribal Strategy, visit FEMA.gov.

## Revolving Loan Fund Established to Enhance Resiliency

FEMA is launching a new program to fund resilience projects that will make communities safer from natural hazards. The Safeguarding Tomorrow Revolving Loan Fund (Safeguarding Tomorrow RLF) will make up to $50 million available in capitalization grants for low-interest loans to local governments.

Funds can be used for hazard mitigation projects that reduce disaster risks for homeowners, businesses, nonprofit organizations, and communities. Other uses of loans include satisfying a local government's non-federal cost-share match for FEMA Hazard Mitigation Assistance programs, updating building codes adoption and enforcement, and making zoning and land use changes.

FEMA expects to publish the Safeguarding Tomorrow RLF funding opportunity before the end of the calendar year and receive applications through spring 2023.

# NEWS BRIEFS

Resources, reports, and the latest curated news

**'We thought we were safe': Kentucky disaster shows how US is ill-prepared and under-insured for devastating floods**
The destruction in Eastern Kentucky is a warning for other communities around the US that once-unthinkable floods are becoming more common. Federal flood zone maps substantially underestimate the risk in many parts of the country, and the nation as a whole is underprepared for the financial ruin left in the wake of powerful floods.

**Eastern Kentucky Floods Continue Cycle of Poverty**
For an area already beset with poverty, recovery presents obstacles almost as daunting as the floods. The four hardest-hit counties have a median annual income about 40% lower than the national average, with about a quarter of residents living below the poverty line.

**The next extreme floods could be even worse, a new study shows. But there's a way to prevent that**
While it's hard to imagine flooding more frightening than what the St. Louis area and Kentucky saw last week, new research shows that more extreme events are coming, and if the communities impacted don't build back smarter, the devastation will be worse the second time around.

**Floods strike new blow in place that has known hardship**
Evelyn Smith lost everything in the deadly floods that devastated Kentucky, saving only her grandson's muddy tricycle. But she's not planning to leave the mountains that have been her home for 50 years.

**What Are Multiform Floods? One More Thing to Worry about with Climate Change.**
Not all floods are the same. Each of flood subtype requires different approaches to reduce risk, build resilience, adapt and prepare for future events, and implement effective policy solutions

**U.S. Army Corps of Engineers, 4 other organizations and Great Lakes states to look at coastal resiliency**
The Great Lakes Coastal Resiliency Study will work to identify coastal areas that could be vulnerable to future flooding, erosion, and accretion; provide design parameters to inform sustainable coastal projects; and establish a risk-informed decision framework to support the identification and prioritization of coastal investments.

**Risky Renting: Renters Should Have the Right to Know their Flood Risk**
This report summarizes the state of flood disclosure laws for renters in the seven states that have them, and, building on these laws as well as other renter disclosure laws in other contexts, puts forth recommendations for states to adopt strong, protective, laws to ensure renters are made aware of potential flood risks to apartments before it is too late

**Estimated $29.4B in Property Damage from Severe Weather Not Covered by Insurance in Past 5 Years**
Of the weather events analyzed by ValuePenguin, flash floods caused the most property damage despite occurring less frequently than other leading weather events. In total, flash floods caused $49.1 billion in damage between 2017 and 2021 — an average of $9.8 billion a year.

**How will 'managed retreat' fit into Canada's climate-change adaptation plans? Communities face hard choices in any scenario**
Canadians from Merritt, B.C., to Pointe-Gatineau, Que., have had to decide whether to move or rebuild after floods — and soon, a federal climate strategy could change the calculus of who stays and who goes.

**Natural disaster review for first half of 2022 by Munich Re**
The natural disaster picture for the first half of 2022 is dominated by weather-related catastrophes. Extreme tornadoes in the US caused billions in damage, parts of eastern coastal Australia were submerged by floods, and southern Europe struggled with extreme heat, wildfires, and drought.

*(Continued on page 24)*

# NEWS BRIEFS

Resources, reports, and the latest curated news

**PROTECTing Transportation Infrastructure from Climate Change**
The PROTECT program — which includes a new competitive grant-making program as well a "formula" program — aims to help make surface transportation more resilient to natural hazards with funding for planning activities, resilience improvements, community resilience and evacuation routes, and at-risk coastal infrastructure.

**Hundreds of thousands drop flood insurance as rates rise**
Records reviewed by E&E News show that since October, more than 425,000 people have discontinued the coverage they had through FEMA's National Flood Insurance Program.

## STATE NEWS

### CONNECTICUT

**Legal Issues and Flood Resilience**
This 18-minute educational video from Adapt CT aims to help viewers recognize the planning and zoning interests related to flooding, describes actions that can reduce liability related to planning and zoning decisions, and identifies key resources for further information.

### FLORIDA

**Mapping Natural and Developed Resources to Positively Impact Responsible Growth**
Inventorying and mapping the elements that influence quality of life in Santa Rosa County will form a critical foundation for any number of future community science initiatives, including creating and advocating for good policy, applying for FEMA and other grants, and building a sustainable development plan.

### HAWAII

**Kauai Wants to Disaster-Proof New Buildings by Putting Them on Stilts**
The Kauai Planning Department submitted a draft ordinance that would mitigate the intensifying effects of climate change by requiring owners to hoist up new construction on stilts in areas susceptible to impacts from a projected 3.2-foot increase in sea level.

### ILLINOIS

**MWRD and partners break ground on transformative project to protect Robbins from flooding**
The Robbins Stormwater Park and Midlothian Creek restoration will increase the existing stormwater drainage system from less than a five-year storm level of protection to a 100-year level of service. As a result, the project will remove approximately 140 acres from the floodplain, protect 92 structures and remove more than 1,300 parcels from the 100-year floodplain.

### IOWA

**Iowa's Watershed Approach provides a model for tackling big challenges on the Mississippi River**
Iowa, a state in the basin, recently celebrated five years of its Iowa Watershed Approach (IWA). Three elements that made the program a success can be adapted to other watersheds across the basin: natural infrastructure, watershed approaches, and shared science.

### KANSAS

**A Flood of Information About Floods**
Visualizing and understanding flood risk in a specific area by use of 2D maps is challenging for the general public and others who may not be familiar with the type of data present on the map. To better communicate flood risk, a city in Kansas started using an augmented reality application for floodplain modeling.

# NEWS BRIEFS

Resources, reports, and the latest curated news

**LOUISIANA**

**Louisiana officials stall flood funds over abortion**

A Louisiana commission has twice voted to delay approval of a $39M line of credit for a power station to run New Orleans drainage pumps due to city officials' opposition to the state's strict abortion ban.

**MASSACHUSETTS**

**One idea to reduce coastal flooding in Boston: create an artificial wetland**

A bobbing ball is part of a test run for a new climate resiliency project — a system of floating wetlands designed to reduce coastal flooding by knocking down waves. Boston is projected to see more flooding in the coming decades because of climate change and it has plans for berms, raised walkways, and a deployable seawall to block part of the neighborhood's greenway.

**NEW JERSEY**

**Bold New Jersey Shore Flood Rules Could Be Blueprint for Entire U.S. Coast**

New policy would use projections of how climate change will increase flooding into the next century to develop regulations that would vastly enlarge flood zones where development is restricted and would require new buildings in the zones to be elevated well above current flood levels.

**NEW YORK**

**City Comptroller Denies Every Single Financial Claim for Hurricane Ida Flooding**

All 4,703 claims filed by New Yorkers against the city after their homes flooded were denied. The crux of the claims is that the city's negligence in sewer maintenance led to flooding. But the decisions rely on a case from 1907 that ruled municipal governments are not liable for damage from "extraordinary and excessive rainfalls."

**NORTH CAROLINA**

**Shifting Sands: Carolina's Outer Banks Face a Precarious Future**

Despite the risks of building on barrier islands, developers kept constructing homes on North Carolina's Outer Banks. Now, as sea level rises and storms become more frequent and powerful, the famed vacation spot is fighting an increasingly difficult battle to keep from washing away.

**OHIO**

**Governor DeWine Announces Plans for New H2Ohio Wetlands in 22 Counties**

Twenty-five new wetland projects will soon launch in 22 Ohio counties in an effort to improve water quality across the state. The projects will be funded through ODNR's $25 million H2Ohio allocation in the current state operating budget.

**SOUTH CAROLINA**

**Conservation groups challenge permit for Cainhoy development**

The Southern Environmental Law Center filed a lawsuit over the authorization of a massive development that would fill protective wetlands in an area already vulnerable to flooding. The development would add around 45,000 people to the Cainhoy peninsula and place 45% of the planned housing in the floodplain.

**Rising seas are trouble for Charleston's booming community. This method may prevent disaster**

Charleston's flood mitigation plans, much like its flooding, are huge and intricate undertakings, but Dale Morris is neither a developer nor an engineer. He's an economist and strategist, pulling together local, state and federal leaders to ensure Charleston doesn't become the next New Orleans.

**WISCONSIN**

**Seawalls ease property owners' fears of erosion – but not for their neighbors**

After a private university built a 2,700ft rock wall to protect its beach and bluff, neighbors saw their own beaches begin to wash away.

# MEMBER NEWS

The latest news about ASFPM members

## Welcome New Members!

Aaron R. Roberts, P.E., ENV SP
Ahmed F. Karimi
Aleksandr Yakhnitskiy, P.E.
Alicia L. Lanier
Allie M. Smith
Angela N. Armijo
Anthony J. Young
Belinda A. Gonzalez
Benjamin J. Harris
Binita Shrestha, EIT
Brady A. Hoffman, P.E.
Brandon Cramer
Brenda L. Davis
Brendan C. Hines, P.E.
Brian G. Davis
Bruce Murphy, Jr.
Caryn Nezat, MS, EIT
Cassidy L. Budge, E.I.T.
Charles A. Taylor
Christian I. Portillo-Mendez, E.I.T.
Chunyan Li, Ph.D., P.E.
Chun-Yao Yang, P.E.
Curtis J. Weller
Dalia I. Fadl, P.E.
Darshan Baral, Ph.D., P.E.
Emily G. Schlager, P.E.
Estevan Ochoa
Ethan B. Tidwell
Garrett P. Ahern
Gian-Paolo Caminiti
Gloria Y. Thompson
Haley Koesters, P.E.
Hannah J. Rebholz
Ian O. Ghanavati
Janice M. Bedford-Hughes, P.E., CFM
Jarod Thomas, P.E.
Jason R. Cantrell
Jennifer L. Caummisar-Kern, P.E.
Jennifer V. Buchanan
John J. Judge, IV
Jose F. Regalado
Justin Jones
Justin D. Le
Kelly Colvin
Kristine I. Mapili
Luis D. Molina, P.E.
Luke A. Heinzelman, CFM
Manik Sethi
Mark K. Gillitzer
Mark Lee
Marta E. Villazon, P.E.
Matthew A. Rack
Matthew C. Love
Matthew I. Armstrong, P.E.
Michael Aaron Lee
Nandakishor Hanumenahalli Srinivasamurthy, E.I.T., CFM
Omar D. Adina
Owen N. MacNeill
Peggy Ann Curtis
Raymond F. Gomez
Ryan E. Aldrich, CFM
Ryan J. Paul
Scott A. Putty
Steven Chappuis, P.E.
Sungman Kim, Ph.D., CFM
Sydney G. Salzwedel, E.I.T.
Tanzina Afrin
Theodore Gillespie, E.I.T.
Trevor B. Igel
Troy J. Winterfield
Victoria L. Arnot
Walter P. Rubalcava, P.E.


ASSOCIATION OF STATE FLOODPLAIN MANAGERS

If you have questions about your membership, please contact Cate Secora at memberhelp@floods.org. She'll answer any questions and help make sure you take advantage of all your member benefits, such as discounts to our annual conference, CFM exam, and more.

# ASFPM Members in the News

**David Cross, PE, CFM** has joined Freese and Nichols and will lead the firm's transportation services in northeastern Oklahoma. Cross has expertise that spans a wide range of transportation-related services, including roadways and bridges, trails, pedestrian walkways and stormwater drainage.

An engineer with decades of experience with state and local agencies, his career includes leading teams and projects as a city engineer and working for more than 12 years for the Oklahoma Department of Transportation (ODOT).

**Fritz Buchman, CFM** was recently appointed Public Works Director for San Joaquin County, CA. Buchman joined the Public Works Department in 2011 as the Deputy Director of Development Services and has more than 30 years of public works experience ranging from flood management, water resources, and transportation, to community infrastructure planning and delivery. Buchman is a Certified Floodplain Manager, as well as a Registered Civil Engineer and Registered Traffic Engineer with the State of California.

**Alexander Hernandez** was among six recent appointee by Gov. Ron DeSantis to the Florida Building Code Administrators and Inspectors. Hernandez is the chief building official for the City of Coral Springs, Florida. In addition to being a member of ASFPM, he is a member of the Building Officials Association of Florida.

Freese and Nichols, Inc. has expanded its Stormwater Engineering team with the addition **Brian Edmondson, PE, CFM, and Morgan White, CFM, CTCM,** both who bring experience working at the forefront of flood mitigation in Texas.

**Edmondson**, a senior project manager based in Houston, has helped deliver some of the first regional flood plans developed in Texas. His 14 years of experience include serving as the program manager for Harris County Flood Control District's MAAPnext Program (Modeling, Assessment and Awareness Project), the largest flood hazard study in the district's history.

**White**, a program manager based in Central Texas, has substantial flood planning and project management expertise from working for a variety of state agencies, including the Texas Commission on Environmental Quality, Texas Department of Agriculture and Texas Water Development Board. She also has insights into the impact of legislation on flood planning from her experience working for the Texas Legislature.

**Merrie Inderfurth,** ASFPM's longtime Washington liaison who retired this summer, was recognized on the floor of the U.S. House for her lifetime of public service. Inderfurth received the Goddard-White Award in 2007 and was awarded the ASFPM Honorary Member Award in 2022. Rep. Ed Perlmutter noted in his remarks, that "It is impossible to count how many members of Congress have benefited from Merrie's thoughtful, consistent counsel." Watch the video clip

# Report Provides Estimate of Undisclosed Flood Risk in Real Estate Transactions

A new study by Milliman found that a home buyer can incur tens of thousands of dollars in flood damage costs over the course of their mortgage, if they purchase a previously flooded home. The study, which was commissioned by Natural Resources Defense Council (NRDC) assessed the potential impact of prior flood damage to home buyers in New Jersey, New York, and North Carolina. These states generally do not have strong disclosure laws that require sellers to inform potential buys about past flood damage, insurance costs, and other important information. Download

## ASFPM Editorial Guidelines

ASFPM accepts and welcomes articles from our members and partners. "The Insider" and "News & Views" have a style format, and if necessary, we reserve the right to edit submitted articles for space, grammar, punctuation, spelling, potential libel and clarity. If we make substantive changes, we will email the article back to you for your approval before using. We encourage you to include artwork with your article in the form of photos, illustrations, charts, and graphs. Please include a description of the art, along with the full name of who created the art. If the art is not yours originally, you must include expressed, written consent granting ASFPM permission to use the art in our publications.



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