



NEWS & VIEWS

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NEPA Changes Take Nation in Wrong Direction

The disappointing decision by the Trump Administration to change the environmental review process for infrastructure projects will make the United States less able to tackle the climate crisis, according to a joint statement issued July 15 from ASFPM and the American Planning Association (APA).

Kurt Christiansen, FAICP, APA President, and Chad Berginnis, CFM, ASFPM Executive Director, wrote:

"Reform can be achieved while maintaining the ability to make thoughtful, informed decisions that don't saddle taxpayers with repeated disasters, increased risk, and escalating climate impacts. We can advance projects while also hearing the needs and healing the wounds that afflict vulnerable communities. We can, we must, do better."

[Read the full statement](#)

NEPA reviews are an important part of the built environment development process, designed to identify potential environmental impacts the proposed project might create. They also enable the community to have a voice in the development process. This is especially important to ensure environmental impacts do not unevenly harm communities of color, risking their environment and health.

Members of both APA and ASFPM help residents and officials make decisions about the resiliency and long-term prosperity of their communities. This past January, both organizations jointly [spoke out](#) against the proposed changes, citing increased costs of development and future disaster recovery shouldered by taxpayers and communities, in addition to making us all more vulnerable to the impacts of climate change.

The New York Times reporter [Lisa Friedman](#) called the dismantling of the NEPA regulations "one of the biggest — and most audacious — deregulatory actions of the Trump administration, which to date has moved to roll back 100 rules protecting clean air and water, and others that aim to reduce the threat of human-caused climate change."

On-Demand Access to the ASFPM Virtual Conference Now Available

If you didn't get a chance to join us last month for the 2020 ASFPM Virtual Conference, you can now access the entire program on-demand. That's three plenary presentations and 54 concurrent sessions for a total of more than 150 presentations dedicated to all aspects of flooding and floodplain management.

Certified Floodplain Managers will earn one continuing education credit (CEC) for each session watched, up to 12 CECs. After each session is over, simply download the certificate for that session and submit it to ASFPM for your CFM certification.



With nearly 2,000 attendees, the virtual conference was our largest ever and the feedback has been overwhelmingly positive with nearly 85% rating it as good or excellent. In commenting on the breadth of content delivered, one attendee said: *"The program was broad to cover several tracks to accommodate all people attending. Everyone could get new information for their specialized area or learn about another area!"*

Registration for the on-demand conference is \$300, which includes access to the entire program until Jan. 31, 2021. [Go here to register.](#)

FEMA to Update State and Local Mitigation Planning Guides

This year, FEMA is updating both the State and Local Hazard Mitigation Plan Review Guides. Plan Review Guides are the FEMA's official interpretation of Title 44 of the Code of Federal Regulations (CFR), Section 201.4-7, which outlines requirements for State and Local hazard mitigation plans.

Both policies are available to read on FEMA's website:

- [State Mitigation Plan Review Guide](#) (March 2015)
- [Local Mitigation Plan Review Guide](#) (October 2011)

FEMA has an online presentation providing a high-level overview of State and Local Hazard Mitigation Planning guidance, and shares information on how you can provide feedback on existing policies. You can access the video on [FEMA's YouTube channel](#).

ASFPM encourages members to provide ideas and feedback on either guidance. Please send them to fema-mitplan-guide-updates@fema.dhs.gov through **August 14, 2020**. Afterwards, FEMA will provide a summary of the feedback received.

Additional information on hazard mitigation planning is available on [FEMA's website](#).

From the Director's Desk

By Chad Berginnis, CFM
Executive Director, ASFPM



Impacts and Implications of New “Big Data” Models Showing Flood Risk

For the majority of community floodplain managers, the one and only source of flood data are the FEMA flood maps. Flood studies can be expensive and while some larger communities and states have their own mapping programs, many more do not. When I was a local floodplain manager in the 1990s, we did have the benefit of the NRCS study, which showed flood hazard information in a newfangled way – on aerial base maps. However, this study was done with the intent of being incorporated into future FEMA flood maps.

Fast forward to today and the landscape has changed a lot. For several years now, catastrophic flood risk modeling has been available to the private sector, like insurance companies and others, to inform decision making. But these data were usually not made available to the general public or if they were, they were aggregated at the state or regional level. You see, these “big data” models often rely on national level analyses that may or may not include adjustments for more granular local information.

In late June, the First Street Foundation came out with its Flood Factor tool, which is geared toward the general public and billed as a tool that “makes it easy for Americans to finally find their property’s current and future risk of flooding.” It models four major types of flooding nationwide — tidal, pluvial (stormwater), fluvial (riverine), and storm surge. It also recognizes changing sea levels and provides a future conditions analysis. It provides the estimated flood depth on individual properties to the nearest 0.1 foot, resulting in a Flood Risk Factor between 1 to 10 based on the depth of flooding and probability that it will happen over a cumulative 30-year period. Since the first floor elevation for a structure on a property is not an input to the model, the risk factor is estimated using a low ground elevation at the footprint of the structure or an elevation at the center of the property, if it is undeveloped. The tool also provides some general measures that can be taken to reduce risk, grouped by low to high cost, but should not be used for specific mitigation measures. At the time of the tool’s release, ASFPM sent out [talking points](#) to members, state floodplain managers, CTP contacts, and SHMOs listing our initial thoughts on the tool.

The author Margaret Atwood once said, “Science is a tool, and we invent tools to do things we want. It’s a question of how those tools are used by people.” I feel this quote has particular relevance here as we begin to see new tools and data sets emerge that hope to better paint the picture of true flood risk in a particular area. Given the technological innovation that we are seeing today, it will not surprise me that in the next decade there will be other tools and data sets that floodplain managers will have to interpret and understand. For any of these tools, having a basic understanding of the limitations of the model and proper context is key. So how should a tool like Flood Factor be integrated in a way that is helpful? Let’s explore three possibilities.

Flood risk communication. Let’s face it, we could use a lot of help here. Trying to communicate flood risk is hard work and it needs to be repeated over and over and over. Of course we have the familiar fault lines —should we say “1% chance flood” or “100-year flood” — but we don’t have good public availability of flood data from a variety of flood risks in the U.S. and the data we do have is limited. We’ve only produced FEMA special flood hazard areas for a third of the streams, rivers, and coastlines in the U.S. Also, we know that flood risk as shown on the FIRM tends to focus on whether flood insurance is needed (or at least that is what most people care about). So, what if a tool like Flood Factor can communicate risk

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in another way, such as through a rating or score? Are our current tools and products easy to use by the general public?

The Flood Factor website is relatively easy to use and produces a set of specific data for the address entered. At the same time, people will certainly have questions when there is a discrepancy between a FIRM and let's say a Flood Factor result – especially if that discrepancy appears to show low to no risk on the non-FEMA product vs. the FEMA map showing it in the high risk area. What then? Will people become even more suspect of any flood risk data because they feel they cannot trust it?

Of course, the hope for any flood risk communication effort is that somebody will actually do something. Might a flood risk rating score actually compel somebody to buy a flood insurance policy? Will knowing that a parcel or structure may be more flood prone in the future affect a decision to build, buy, or occupy? Will a property owner doing their own research purchase a floodproofing system based on the implied precision that coming with a Flood Factor result stated in tenths of a foot (without consulting the local floodplain manager first)? What if that estimate of flood depth is significantly different than what the FIRM shows? Ultimately, one of the hats that you wear as the floodplain manager is to better help others understand the mitigation actions that can be taken given a certain situation, and that need will not change.

Planning. This is perhaps the area where new big data tools could be especially valuable. For example, Flood Factor not only attempts to provide one kind of estimate for future conditions (tied to 30 years and based on the IPCC model, RCP 4.5 scenario) but it also attempts to provide an estimate of urban stormwater flooding exposure. I could envision how Flood Factor could be an input into future scoping meetings where flood map needs for an area are discussed and prioritized. Or, perhaps for capital improvements planning, an investment in a large infrastructure asset is scrutinized more closely because a tool like Flood Factor shows a flooding risk that is not shown on a FIRM. At the same time, we must also understand that while a big data tool may be able to give a preliminary indication of flood risk, even down to a parcel level, that it should be followed up with a more detailed level analysis to ensure local factors, such as community stormwater adaptations, are taken into consideration.

Property level decision making. This is where I have the most concern about big data tools being applied at a parcel level scale — implied precision. Nightmare scenario: New FIRMs come out for an area based on a detailed engineering model. After extensive due process, they are adopted by the community. Now a tool like Flood Factor basically says that there is no 1% chance flood risk on the parcel or in the vicinity. Property owners get upset, file for map changes, and argue with floodplain managers on permitting issues, etc. Let's face it, a situation where a tool with no regulatory implications shows a more extensive floodplain than FEMA isn't likely to cause too many problems. However, if that same tool basically says flood risk doesn't exist and the FEMA floodplain maps do...well grab the torches and pitchforks! It is going to be critical that local floodplain managers are not only aware of these new tools and data sets, but also able to explain to the public the nature of the discrepancies. Although you likely had zero input into these new tools, you will be the trusted local expert upon which your community's leaders as well as the public go to for answers.

Recently ASFPM received feedback from a local floodplain manager who works in a county the size of the state of New Hampshire. He is analyzing the flood hazard areas in his jurisdiction to find out where the Flood Factor data differs from their own or FEMA data (and there appears to be numerous instances). The reality is that big data models are not going away and as floodplain managers, we have to ultimately adapt and contextualize these new datasets for our communities and the public. On a national level, ASFPM will continue to identify and work with the providers of these new datasets and tools so that they better understand the landscape view of the programs, regulations, standards, tools, and data that we work with and to ultimately improve their product so that it is complementary to your efforts in the field.

Your partner in loss reduction,

Chad

Policy Matters!

By Larry Larson, P.E., CFM

Director Emeritus – Senior Policy Advisor, ASFPM



Good flood maps require good rainfall data

This may seem like a “duh” statement, but the reality in the United States is that we do not have up-to-date rainfall data throughout the nation. This manifests itself in, for example, Houston during Hurricane Harvey where flooding greatly exceeded not only the identified 1% chance (100 year) floodplain, but also the 0.2% chance (500 year) floodplain. All of you have likely seen instances in your community or state where floods in the last 10 years or so have exceeded the identified 1% chance floodplain, and when you look into it, you discover the predicted 1% chance rainfall used to calculate that flood event is now outdated. The example is again Houston, where the rainfall estimates in the National Weather Service’s Atlas 14 were just being updated while Harvey occurred. The 1% rainfall changed from 13” in 24 hours to 18”: a 38% increase. The Houston flood maps were based on the old data, so were obviously way too low.

The above example is not unusual. Increases of 30 to 40% are not unusual as we see the impacts of climate change increasing temperatures, where the warmer air holds more water.

Why is this issue so critical? The first step in calculating flood levels is the hydrology. You start with estimates of the amount of rain that will fall and the amount that will runoff into the waterway, which you then put into your hydraulic model to establish the 1% chance flood level that will be shown on your flood map. Engineers typically get that rainfall data from Atlas 14 —the National Weather Service (NWS) produces about a dozen of these publications for the nation, breaking them down in groups of states and watersheds. NWS tries to update the Atlas 14 reports on some regular basis, but they have no funding from NOAA (their parent agency) to do so. Instead, NWS tries to cobble together funding from states and federal agencies for those updates.

This hat-in-hand funding approach has been seriously failing. As a result, some of the Atlas 14 regional volumes have not been updated for decades (more than 50 years for the northwest area of the U.S.). This is especially troubling in today’s climate where hydrology is no longer stationary and where state budgets will now be even more seriously strained due to the COVID-19 pandemic (some states that had committed or hoped to commit funding to update their regional Atlas 14 are now saying that money cannot be found or may likely be pulled back). The flood map in your community may be more than 10 years old, and worse yet, the hydrology may have been pulled from an Atlas 14 that is even older. Therefore, the rainfall estimates do not include the more intense rainfall events we have experienced in the last couple of decades, making your map woefully out of date.

The floodplain management profession agrees the Atlas 14 publications need to be updated every five years. What is disappointing is that the amount of money for NWS to accomplish this is not even a blip in the federal budget: estimated in the range of \$3 million/year. For some reason NOAA has not proposed this in its budget request, so Congress is not even aware of the problem until organizations like ASFPM bring it to their attention. The issue has recently received some attention on Capitol Hill, but it competes with every other request for federal funding.

What makes this issue even more critical is that these rainfall estimates are used for much more than producing good flood maps, and includes much of the siting, designing, repairing, and rebuilding of our nation’s infrastructure. The U.S. Department of Transportation uses these estimates to design bridges and culverts as well as ensure key roadways are usable for evacuation routes; the Corps of Engineers uses this

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data to design flood control structures; consultants use this data for designing and building water supply treatment plants and wastewater plants; the military uses it for defense facilities; and the private sector uses it for their development. Where the data is recognized as out of date, some of these entities may decide to use other data, but we need one uniform set of data for all entities to use, so we don't have this hodgepodge of protections or flood risk from one facility or community to the next.

The amount of funding necessary to develop this key data is small, and ASFPM is working with our partners, NOAA, and Congress to recognize this need and address it. We believe one of the key roles for the federal government in managing flood risk is developing and maintaining accurate and up-to-date precipitation and hydrologic information that provides a consistent, uniform data set to ensure resiliency for all communities and states in the nation. ASFPM will continue to push this issue and will keep all of you informed. We may reach out to ask your help at key points in the process.

Member News

Congratulations to **Paul Osman, CFM**, who is the first ever recipient of the Community Assistance Program – State Support Services Element (CAP-SSSE) Lifetime Achievement Award! Paul is the Chief of Statewide Floodplain Programs at the Illinois Department of National Resources – Office of Water Resources.

Loren Wobig, director of the OWR, wrote, "Paul knows more about every floodplain of every NFIP community in Illinois than anybody else and has stood in about every floodplain of every NFIP community in Illinois. Paul is more than a floodplain manager, he is an activist for floodplain management and engages with Illinois communities to get things done to reduce flood risk and flood damages in Illinois before, during and after floods. I believe Paul sees his work more as a mission than a job. He has been a faithful disciple of sound floodplain management for the benefit of Illinois citizens."

Congratulations to **Lisa Sharrard, CFM, ANFI, CPM**, who was recently appointed to the Flood Insurance Task Force at the Independent Insurance Agents & Brokers of America, Inc. (IIABA). Her one-year, renewable term begins in September. In commenting on her appointment with the "Big I," Sharrard said, "With my background in both floodplain management and insurance, I hope to bridge the knowledge gap within the industry and bring a different perspective and understanding to both industries. By doing so, I hope to contribute to the simplification of insurance rating rules and regulations agents have to follow, for the benefit of our customers."

Sharrard has been a member of ASFPM since 1987 and served as chair from 1999-2001. She is currently a regent of CBOR, and in the past has co-chaired the mitigation and floodplain management communities as well as having served on the ASFPM's Foundation board of directors.

Monroe County (Florida) Board of County Commissioners presented a 25 Years of Service award to **Mary Wingate, CFM**, chief of Floodplain Regulatory Operations in the Monroe County Building Department. During her 25 years, Wingate has done floodplain compliance, permitting, and regulations and works closely with FEMA for communitywide discounts on flood insurance through the Community Rating System.

Chris Tagert, P.E., CFM, has been promoted to Regional Practice Lead – Water for the Mountain Region at Michael Baker International. In his new role, he will lead the Region's efforts to grow the firm's Water Practice and ensure the highest levels of technical capabilities and quality. Tagert is a member of the Association of State Floodplain Managers (ASFPM) and the Colorado Association of Stormwater and Floodplain Managers (CASFM).

Please send member news to editor@floods.org.

Coastal Flooding Puts Superfund Sites at Risk

More than 800 Superfund sites are at risk of flooding in the next 20 years with even low levels of sea-level rise along the East or the Gulf Coast, according to a new study from the Union of Concerned Scientists.

The study published last month found that at least 918 Superfund sites in the next 20 years are at risk of flooding if there is a moderate rate of sea-level rise and 876 Superfund sites are at risk if there is a low rate.

"As sea levels continue to rise, multiple types of industrial facilities, and the contaminants they store, could be in the paths of extreme coastal floods — but the flooding of Superfund sites is particularly worrisome," according to the report. "These sites include manufacturing facilities, processing plants, landfills, and mining sites. And they are contaminated with some of the most hazardous chemicals known to humankind."

Millions of people live within five miles of the various Superfund sites the study found to be at risk of extreme coastal flooding. Communities of color and low-income communities make up high proportions of the populations surrounding these sites.

The study authors urged decisionmakers to take immediate steps to improve the resiliency of Superfund sites to extreme floods, including requiring new federal infrastructure to incorporate the best available climate change science when considering the effects of future floods, implementing strategies for ensuring the resilience of older infrastructure still in use, and increasing funding and capacity for agencies to undertake this work.

Read the report [A Toxic Relationship: Extreme Coastal Flooding and Superfund Sites](#)

Welcome New ASFPM Members

Bonne C. Sharp, City of Lakeport, CA

Richard A. MacKenzie, Exxon Mobil, TX

Agnes Afia Akyaa Adjei, Charles Cnty., MD

Lu Guan, Michael Baker International, VA

Trace E. Dittenhofer, Remington & Vernick Engineers, NJ

Troy A. Dittenhofer, Remington & Vernick Engineers, NJ

Eugene P. Fowler, Jr., CPG, Pinelands Municipal Council, NJ

Karen M. Menne-Jacobsen, P.E., CFM, Ayres Associates, WI

John J. Keenan, P.E., Clark Nexsen, Inc., VA

Caleb B. Kjetland, P.E., Clark Nexsen, Inc., VA

Adam R. Pitts, E.I., Kimley-Horn & Associates, Inc., FL

Daniel James Gustave Schreiber, J.D., LEED AP O+M, FL

Stacy Gillman, Douglas Cnty., NE

Nicholas Jayne, P.E., R.H. Batterman & Co., Inc., WI

John Jay Sergent, CFM, Town of Vienna, VA

Luke J. Sherry, P.E., CPESC, CFM, Christopher B. Burke Engineering, IN

Jordan C. Rasmussen, SmartVent, Inc., NJ

Preston T. Bales City of Tarpon Springs, FL

James J. Mellett, P.E., CFM, Churchill Consulting Engineers, NJ

Erynn O. Sullivan, Harmsen, LLC, WA

Steven Y. Hong, RA, CFM, New York City Dept. of Buildings, NY



High and Dry: Managing Multifamily Buildings in the Floodplain

By H. Martin Koch, CFM, LEED Green Associate

According to National Multifamily Housing Council and U.S. Census Bureau data, nearly [390,000](#) new residential multifamily housing starts occurred in 2019. This is more than triple the number that occurred just a decade ago. While the COVID-19 public health emergency may result in changes to real estate development patterns, multifamily structures will likely remain a key source of dwelling units across the U.S., especially in major metro areas and communities home to large colleges. For instance, advances in building codes and fire-resistant materials have allowed for the [growth in popularity](#) of mid-rise wood-framed “podium buildings,” which often incorporate four to five residential stories above a concrete-framed commercial-use “podium” at the ground level.

To help floodplain managers address these trends, FEMA recently released FEMA P-2037 ([Flood Mitigation Measures for Multi-Family Buildings](#)). The topics covered by this publication correspond to issues that are relevant to building officials, urban planners, and real estate developers in today’s rapidly-changing urban landscapes. Please note that my suggestions are based on interpretation and experience, and do not necessarily represent an official position of my employer. For official guidance, floodplain administrators should contact their NFIP state coordinator or FEMA regional office.

One helpful focus area concerns ancillary residential uses. Many new apartment buildings compete for tenants by adding amenities such as package delivery lockers, fitness centers, and even bicycle repair and pet-washing stations. Since these functions often substitute for services provided by local businesses, permit applicants may assume that areas with these uses are considered nonresidential and eligible for dry floodproofing in A zones. However, as P-2037 clarifies, “From a floodplain management perspective, buildings with multiple dwelling units and ancillary use areas that support the dwelling units are not considered mixed-use buildings, so the **entire building is considered residential.**” [emphasis added]. Therefore, even components of a residential multifamily structure that do not serve as dwelling units must be elevated above the design flood elevation in the given community. “Electrical, heating, ventilation, plumbing, air conditioning, and other service equipment...” that serves residential uses must also be elevated.

Local floodplain managers can help developers choose pathways to compliance that build environmental and economic resilience.

Floodplain managers who are familiar with permitting new homes may be aware of the exception listed in 44 CFR 60.3(c)(5) that allows garages, crawlspaces, and other enclosures used only for parking of vehicles, access, or storage to be wet-floodproofed rather than elevated. The same applies to multifamily structures. P-2037 clarifies that “For the purposes of this publication, a lobby refers to a space designed to provide separation and control access between public spaces and commercial or residential spaces, including access to dwelling units. The term includes vestibules, foyers, and spaces or areas that provide access to elevators.... Lobbies with furniture, sitting areas, trash receptacles, or other contents or fixtures change the use of the area to something other than strictly building access. Tenant mailboxes, security desks, and tenant services would be considered uses other than building access.”

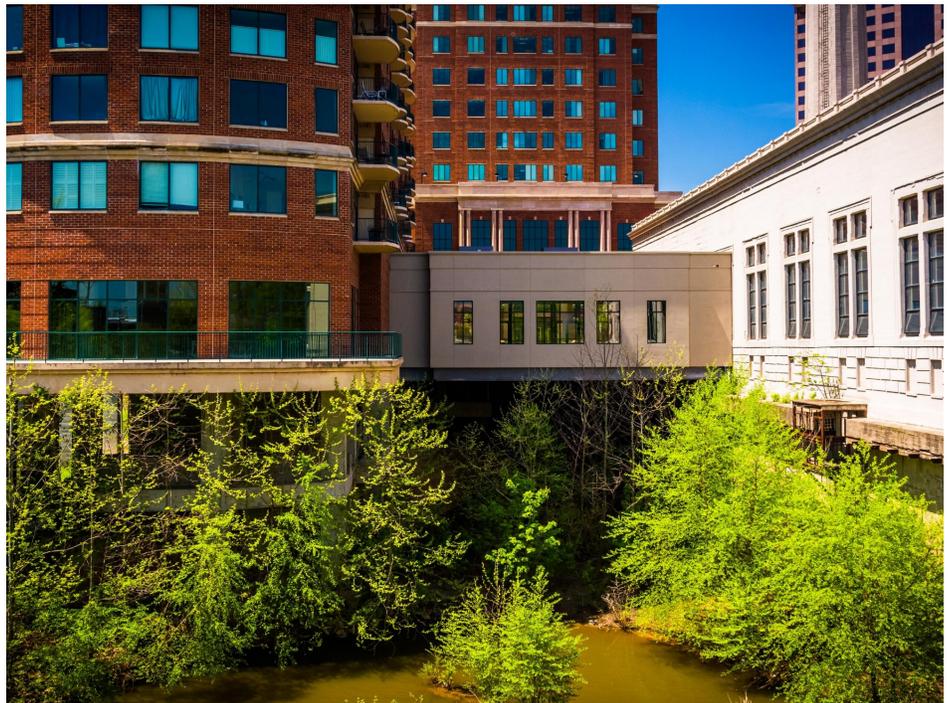
The fine distinction between access lobbies, which can be wet-floodproofed, and ancillary residential use areas, which must be elevated, means that a non-conversion agreement or covenant would be a good tool for local floodplain administrators to use in such scenarios. Floodplain administrators should also be sure to verify that elevators comply with all requirements of [NFIP Technical Bulletin 4](#) (*Elevator*

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Installation for Buildings Located in Special Flood Hazard Areas in Accordance with the National Flood Insurance Program).

Another distinction that floodplain administrators should note when permitting multifamily structures is the greater level of regulatory flexibility afforded to mixed-use structures compared to those that are solely residential. P-2037 states that “When properly designed, constructed, and certified to be dry floodproofed, the lowest floor of a mixed-use building is allowed below the BFE; however, the lowest floor can only be used for non-residential purposes.” Additionally, “Lobbies that provide access to both commercial and residential spaces are allowed to be dry floodproofed...[however]...there [must be] separate...building access for the residential spaces that is either wet floodproofed or elevated...”



Multifamily structures bring unique rules and challenges. Photo by Canva.

To illustrate why this separate access point is required, imagine that a fire or other emergency occurs in the midst of an emerging flood event at a mixed-use building. If the commercial spaces had been closed in advance of the flood and shielded with waterproof barriers, then the evacuation routes through those spaces would no longer be a viable path of egress for occupants of the residential spaces. A separate wet-floodproofed access route provides a continuously-operational escape path for continuously-occupied residential areas of the structure.

Permit applicants can maximize the space available for generating revenue by choosing a mixed-use, rather than completely residential, design for a multifamily building in a flood hazard area. For instance, a resident-only fitness center or pet-washing facility would need to be elevated, while a commercial gym open to all paying members or a pet grooming business could be dry-floodproofed and located on the ground floor. The latter option would maximize the number of units available for lease in a height-restricted area, while ensuring that dwellings are securely elevated.

Another regulatory flexibility afforded to mixed-use structures compared to those that are solely residential is below-grade parking. P-2037 states that “...in Zone A, professionally designed buildings that have both commercial (non-residential) and residential uses may be designed with floodproofed below-grade parking garages.” Installing parking spaces in mixed-use buildings below grade further maximizes the number of levels that are available for commercial or residential tenants.

The American Planning Association’s [Smart Growth principles](#) for efficient and sustainable land development support “mixed-use development patterns” as a means to strengthen the economic and social fabric of neighborhoods. By leveraging their knowledge of NFIP regulatory requirements for multifamily structures in flood hazard areas, local floodplain managers can help developers choose pathways to compliance that build environmental and economic resilience.

H. Martin Koch, CFM, LEED Green Associate is an environmental protection specialist with the District of Columbia Department of Energy and Environment.

ASFPM Comments on US Army Corps of Engineers Levee Safety Program

The US Army Corps of Engineers is developing an Engineering Circular (EC), which will outline policies and procedures for its [Levee Safety Program](#). The guidance consolidates and formalizes the principles, policies, and key processes used by USACE in the program.

During the public comment period, ASFPM submitted comments on the proposed guidance.

Here are the key themes that emerged during our review of the document:

- **Levee inspection** – the required frequency for inspections is too long in some cases, especially for high risk dams, or is not mandated in circumstances where it is warranted.
- **Levee Sponsor activities** – in many places in the document Sponsors are encouraged to do activities when they should be required to do the activity.
- **Levee evaluation process** – at points when alternatives to the levee status quo must be evaluated (e.g. advance measures permanency, risk assessment, levee failure, upgrade, mitigation) full consideration of all alternatives and adequate analysis of the full cost and benefits, including long term sustainability, of all alternatives must be completed.
- **Impacts of increasing levee height** – prior to undertaking any activity which would temporarily or permanently increase the height of the levee, the impact on properties outside the levee, upstream, downstream and landward, are identified and fully evaluated.
- **Potential for loss of life** – both the risk rating process and tolerable risk determination allow for the potential of loss of life without requiring standards that would normally be required in a high risk situation and would appear to trade loss of life for financial savings. Loss of life should be paramount.
- **For Official Use Only** – the implementation of this determination limits adequate dissemination to of risk information to entities that are impacted, responsible for responding or charged to mitigate that risk.

[Read the comments.](#)

ASFPM Offers Recommendations to TMAC Regarding FEMA Flood Mapping

ASFPM has responded to a request from the Technical Mapping Advisory Council for input to help shape its recommendations to FEMA on the future flood hazard and flood risk identification program.

The association identified four key issues that it believes are critical to developing a proposed vision statement for the flood mapping program and should be incorporated into the 2020 TMAC report or the 2021 work plan.

These issues pertain to:

- Atlas 14 updates
- Future conditions mapping
- Publicly available dam failure inundation maps
- Integrating flood risk and natural floodplain functions

[Read the full commentary and recommendations from ASFPM.](#)

Flood Mitigation Isn't Keeping Up with Climate Change

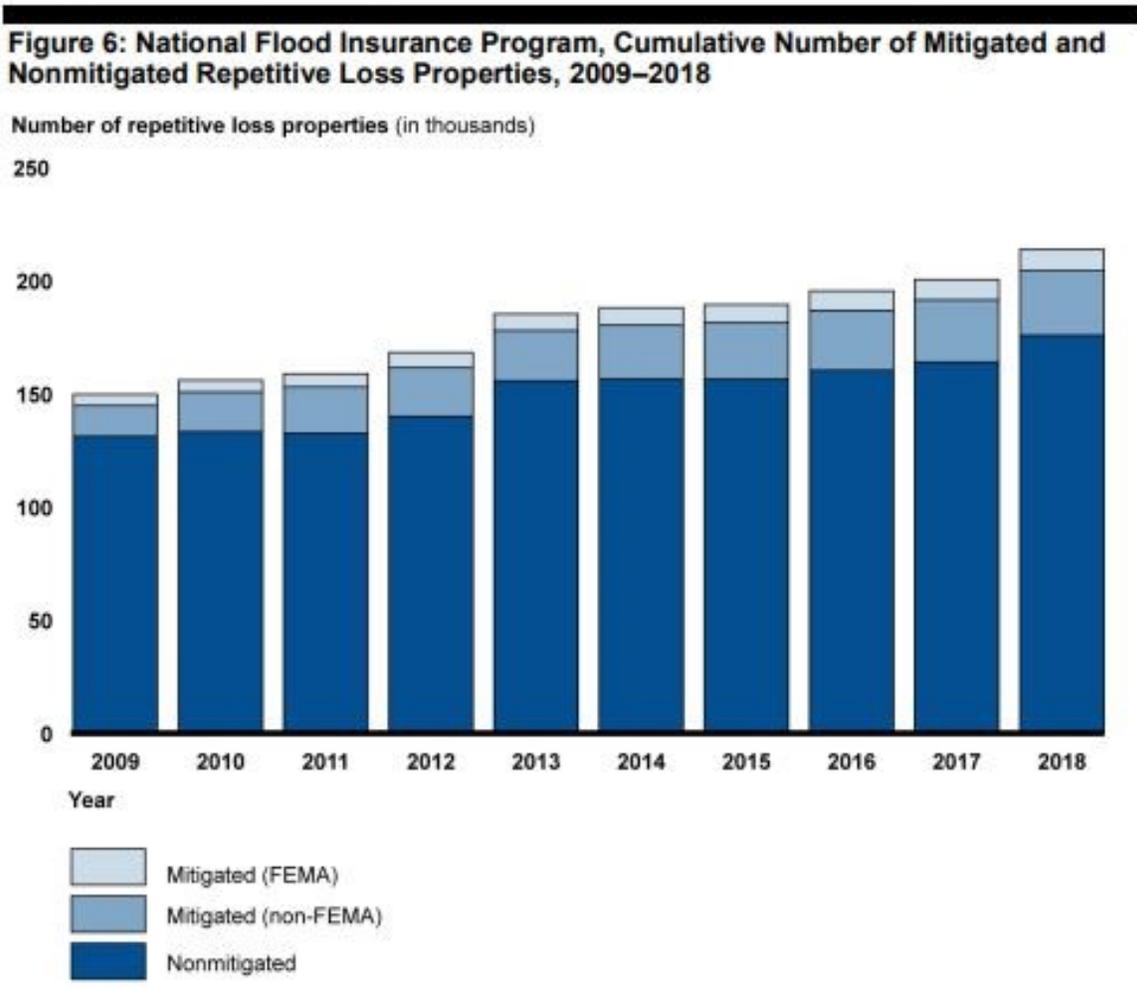
By Anna Weber

The federal government has paid to reduce the flood risk of tens of thousands of homes in the past 30 years—but it hasn't been enough.

That's the message from a new U.S. Government Accountability Office (GAO) report, which describes how federal efforts to reduce flood risk are being outpaced by repeated flooding. The report, "[National Flood Insurance Program: Fiscal Exposure Persists Despite Property Acquisitions](#)," focuses on so-called "repetitive loss" (RL) properties, which have flooded—and received National Flood Insurance Program (NFIP) payments—multiple times. Despite over \$2 billion in federal investment in recent years, GAO found that the number of RL properties continues to grow, increasing the burden on taxpayers and demonstrating the inadequacy of the nation's current work to reduce flood risk.

Using FEMA data, GAO identified 228,728 properties that qualified as RL between 1989 and 2018. Of those, only 25% received some form of mitigation to reduce their flood risk. "As a result," the report authors write, "the number of nonmitigated RL properties increased by 44,618—more than double the number of RL properties that were mitigated in that time period."

[Read more of Anna Weber's piece on the NRDC website.](#)



Source: GAO analysis of Federal Emergency Management Agency (FEMA) data. | GAO-20-508
Note: FEMA provided these data as of June each year.

What Happens if the NFIP Lapses?

The National Flood Insurance Program (NFIP) is the primary source of flood insurance coverage for residential properties in the United States with more than 5 million flood insurance policies providing over \$1.3 trillion in coverage, with over 22,400 communities in 56 states and jurisdictions participating. The program collects about \$4 billion in annual premium revenue and fees.



The NFIP is currently authorized until September 30, 2020. A report from the Congressional Research Service provides a short overview of what would happen if the NFIP was not to be reauthorized by that date and allowed to lapse.

According to the report, the cancellation of \$16 billion of NFIP debt (P.L. 115-72) had no effect on the impact of a lapse of NFIP authorization. Unless reauthorized or amended by Congress, the following will occur on September 30, 2020:

- The authority to provide new flood insurance contracts will expire. Flood insurance contracts entered into before the expiration would continue until the end of their policy term of one year.
- The authority for NFIP to borrow funds from the Treasury will be reduced from \$30.425 billion to \$1 billion.

The NFIP was extended 17 times between 2008 and 2012, and lapsed four times, with lapses ranging between one and 17 days. Since the end of FY2017, 15 short-term NFIP reauthorizations have been enacted. [Read the CRS Report.](#)

JALBTCX Team Surveys NY and NJ Coastlines

Earlier this year, the U.S. Army Corps of Engineers tapped the expertise of the Joint Airborne Lidar Bathymetry Technical Center of Expertise (JALBTCX) to obtain cutting-edge survey data about the current condition along 157 miles of New York and New Jersey's coasts.

The center's team members perform operations, research, and development in various airborne geospatial technologies to support the coastal mapping and charting requirements for the Army Corps. In addition, the JALBTCX team will soon provide the Army Corps with what is called a Change Analysis. To perform this analysis, JALBTCX used this newly-acquired 2020 continuous digital elevation dataset and compared it to their dataset from the last time they flew in 2017. Results will reveal where erosion or loss of sand occurred and where deposition or accumulation of sand occurred along the coastlines of New Jersey and New York between 2017 and now.

To view the dataset the JALBTCX gathered for the Army Corps' New York District, please visit the data access viewer on NOAA's [Digital Coast website.](#)

ASFPM in the News

As a trusted voice on all aspects of flooding and floodplain management issues, ASFPM leadership is often interviewed by members of the media looking for experienced insight into these topics.

We've created a new page on our site to highlight some of the recent coverage.

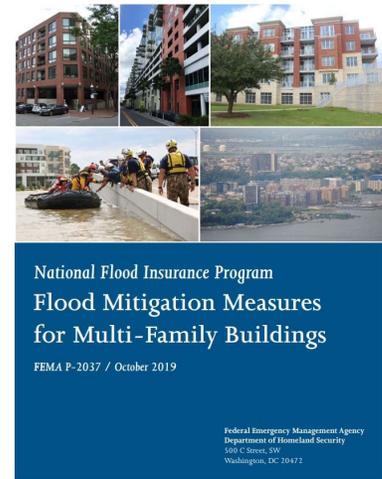
[Take a look.](#)



FEMA News You Can Use

Flood Mitigation Measures for Multi-Family Structures

FEMA recently released the National Flood Insurance Program *Flood Mitigation Measures for Multi-Family Buildings, P-2037*. This publication provides guidance for building owners, designers, investors, builders/contractors, institutional partners, housing agencies and residents, and property and facility managers on flood risk evaluation and mitigation of large multi-family buildings located within floodplains, particularly in urban areas. The publication is also useful for local officials responsible for enforcing floodplain management regulations or building codes.



The focus of the publication is mid-rise and high-rise buildings, although many of the approaches could be applied to low-rise buildings. To help develop and implement a comprehensive mitigation approach, this publication describes the steps and process for developing and applying a mitigation strategy by describing the floodplain management regulatory framework, the process for determining flood risk, potential mitigation measures to address that risk, and information on flood insurance considerations. This publication also provides example scenarios of mitigation strategies for existing multi-family buildings.

FEMA P-2037 is available [here](#). A two-page fact sheet is also available [here](#) to help communicate key takeaways from the publication.

FEMA Issues Q&A on Remote Claim Adjusting

The April 2, 2020, [Bulletin](#) W-20004 provided FEMA guidance for adjusting National Flood Insurance Program (NFIP) claims remotely during the COVID-19 pandemic. For clarity and consistency of remote claims adjustment, FEMA developed the following questions and answers for the adjusting community.

The policyholder should receive, at a minimum, directions describing:

- How to document a General Condition of Flood (GCF), as defined by the Standard Flood Insurance Policy (SFIP), and explain the process used to determine the GCF;
- How to locate and measure interior and exterior water lines;
- The importance of exterior and interior photos, including damaged and undamaged building and contents;
- Building equipment and Contents Claim requirements – photo make, model, and serial numbers of major appliances, electronics, and other items of exceptional value;
- That when removing debris, retain swatches of carpet, drapes, and upholstery of unrepairable contents. In addition, all materials that must be removed should be carefully photographed;
- Why room measurements are needed and how to assist the adjuster in obtaining them; and
- Why a claim may not be a candidate for remote adjusting and requires a physical inspection, if necessary.

[See the full Q&A.](#)

NFIP Update and Clarifications Final Rule Published

Last week FEMA published the NFIP Update and Clarifications final rule in the Federal Register, setting an effective date of October 1, 2021. The NFIP Update and Clarifications final rule:

- Implements through regulation certain provisions of the Biggert-Waters Flood Insurance Reform Act of 2012 (BW-12) and the Homeowner Flood Insurance Affordability Act of 2014 (HFIAA); and
- Organizes and revises the NFIP regulations (including the Standard Flood Insurance Policy forms) to ensure the content is clear and consistent.

The final rule – titled “National Flood Insurance Program (NFIP): Conforming Changes to Reflect the Biggert-Waters Flood Insurance Reform Act of 2012 (BW-12) and the Homeowners Flood Insurance Affordability Act of 2014 (HFIAA), and Additional Clarifications for Plain Language” – is available in the [Federal Register](#).

The NFIP will implement the final rule through updates to the Flood Insurance and Claims manuals and by producing and distributing new SFIP forms. The existing NFIP regulations and SFIP forms will apply until October 1, 2021.

Most of the BW-12 and HFIAA provisions have been implemented through policy and the final rule organizes the provisions in NFIP regulations. However, FEMA needs to make some changes to existing NFIP manuals and plans to announce updates in April 2021 and integrate them into the October 2021 Flood Insurance Manual and October 2021 Claims Manual.

FEMA will update the SFIP forms based on the revised text in the final rule. Write Your Own companies will then develop corresponding versions. NFIP insurers will deliver or make available the new policy forms to policyholders for renewals effective on or after October 1, 2021. FEMA and NFIP insurers will need to make corresponding updates to training.

ASFPM was one of three individuals/organizations to submit comments on this ruling. Both recommendations were accepted, which you can read about [here](#) and [here](#).

BRIC Summer Engagement Series Recordings

FEMA's Building Resilient Infrastructure and Communities (BRIC) Summer Engagement Series brought together FEMA subject matter experts and partners one day a week during the month of July to discuss key elements of the newly developed BRIC program.

Recordings of the first few presentations are now available on [YouTube](#). Check back later in the month as the final sessions will be added soon.



American Rivers Report Includes Call for Investing in Flood Management

A new report by American Rivers makes the case for boosting federal water infrastructure and river restoration spending and suggests a framework for equitable investment that will strengthen communities nationwide. *Rivers as Economic Engines* calls on Congress to invest \$500 billion over 10 years in the following three areas:

- [Improve Water Infrastructure \(\\$200 billion\)](#): Prioritize investment to improve water infrastructure and encourage “One Water” solutions to maximize economic, social and environmental benefits. This includes ensuring safe and affordable clean water and sanitation – particularly in Black, Indigenous, Latinx and other marginalized communities – by funding the improvement of water systems, and prioritizing investments that focus on green infrastructure and water efficiency.
- [Modernize Flood Management \(\\$200 billion\)](#): Prioritize investments to incentivize a shift from outdated flood management policies to a multi-benefit approach that protects communities, ensures public safety, and restores river health. This includes incentivizing natural infrastructure solutions for flood management and community resiliency and ensuring flood management plans that include climate resiliency planning and prioritize natural infrastructure or nature-based solutions.
- [Revitalize Watersheds \(\\$100 billion\)](#): Increase funding to communities to restore rivers, make agriculture more efficient and sustainable and improve recreation opportunities. This includes prioritizing integrated water management plans, incentivizing agricultural improvements, and developing a new 21st Century Civilian Conservation Corps that will restore river and riparian habitat and improve recreational access.

[Read the full report](#)

INVEST in RIVERS			
MILWAUKEE, WI	SEATTLE, WA	COLORADO	MASSACHUSETTS
BENEFITS OF GREEN STORMWATER INFRASTRUCTURE MILWAUKEE METROPOLITAN SEWERAGE DISTRICT projects achieved \$44 MILLION in avoided costs and CREATED 660 JOBS in maintenance & construction per year Improving Recreation Opportunities Keeping water rates affordable	RESTORING FLOODPLAINS 24 FULL-TIME JOBS GENERATED including 14 DIRECT JOBS & \$3.5 MILLION IN ECONOMIC OUTPUT RECONNECTED & RESTORED CRITICAL FLOODPLAINS AND Restored habitat for salmon	RIVER RECREATION SUPPORTS ECONOMIES 131K+ JOBS and \$18.8 BILLION IN ECONOMIC OUTPUT RIVER RECREATION SUPPORTS JOBS like outfitters, hoteliers, restaurants, outdoor shops	REMOVING OUTDATED DAMS CREATES JOBS Removing 2 dams opened up important habitat and improved public safety 2 DAM REMOVAL PROJECTS CREATED 17 JOBS generating \$2.8 MILLION IN ECONOMIC ACTIVITY Removing dams saved money on repairs, inspection and maintenance
American Rivers RIVERS CONNECT US* AMERICANRIVERS.ORG/INVESTINRIVERS			

NEWS BRIEFS

Agency updates, grant deadlines & the latest curated news

Sow Nature's Lessons, Reap Better Protection

This op-ed offers advice on how we can better work with — rather than against — nature to reduce our risks from these natural hazards, and makes recommendations actions Congress can take now to help make it happen. [Read more](#)

Barriers to Floodplain Management in Rural Communities

Rural communities face specific challenges when it comes to managing floodplains: inadequate or non-existent flood maps; lack of staff and resources to meet community needs; barriers to federal programs; and misalignment between federal dollars and community action. Steve Samuelson, CFM, the National Flood Insurance Program Coordinator for the state of Kansas, explores each of these issues in a recent presentation. [Here's a summary.](#)

2019 State of U.S. High Tide Flooding with a 2020 Outlook

NOAA tide gauges are measuring rapid changes in coastal flooding along U.S. coastlines due to rises in relative sea levels (RSL). The most noticeable impact of RSL rise is the increasing frequency of high tide flooding (HTF), whose cumulative impacts are damaging to infrastructure and cause other economic impacts (transportation delays, businesses closed, tourism impacts, etc.) in coastal communities. Thus, HTF is of a growing concern to coastal residents, emergency managers, community planners and resource managers. In response, NOAA will continue to provide not only projections for the coming decades but also for the coming year to support planning and preparedness. [Read the report](#)



Ocean Justice: Where Social Equity and the Climate Fight Intersect

Marine biologist Ayana Elizabeth Johnson sees her work on ocean conservation as linked to issues of social justice and climate. In an e360 interview, she talks about the need to diversify climate science and activism and bring in the perspectives and energy of people of color and women. [Read more](#)

State News

CALIFORNIA

Sea Level Rise Means a 2,250-ton Building Lift at SF's Pier 70

As part of the Pier 70 redevelopment project on San Francisco's southeast waterfront, a 4.5 million-pound Building 12, where workers toiled during World War II to build metal ship plates, is being raised 10 feet to protect it from sea level. Preparation included digging down 8 feet for new elevator pits and the construction of a new foundation, installing 136 temporary jacks, and 68 temporary shoring towers.

[Read more](#)

(Continued on page 17)

NEWS BRIEFS

Agency updates, grant deadlines & the latest curated news

(Continued from page 16)

CONNECTICUT

Local Officials Eye Strict Height Restrictions for Buildings in Old Lyme

Most communities along the Connecticut shoreline have zoning regulations that allow for 30 to 35-foot-high construction for buildings raised above the height of the storm surge in compliance with FEMA guidelines. Old Lyme stands out as nearly the only town along the Connecticut shoreline with a maximum 24-foot height for buildings in the floodplain, which limits the options of property owners who elevate their homes. [Read more](#)

FLORIDA

Sea Level Studies for Coastal Public Construction Projects Required

Florida's new Public Financing of Construction law requires contractors to study the potential of damage from sea level rise before construction begins, looking at impact on public safety and the environment and providing alternatives to lower the risk. The law took effect on July 1. Those publicly-funded governments who do not perform a study and execute construction could face civil penalties. [Read more](#)

MARYLAND

Ellicott City Watershed Master Plan

If you are interested in seeing the public draft of the Ellicott City (Maryland) watershed master plan, you can do so [here](#). The plan represents the culmination of a multi-year public outreach process that began in response to the 2016 flooding and builds upon County Executive Calvin Ball's "Ellicott City Safe and Sound" flood mitigation plan. The draft master plan establishes goals, desired outcomes and policies for the next 20 years. It also features conceptual illustrations that can serve as inspiration should specific opportunities arise over time.

MICHIGAN

Stopping Another Edenville Requires More Than a Panel of Experts

In an op-ed, the author argues that relying solely on technical experts should generate valuable technical findings and warnings about the dangers we face. But said confronting and solving the problems that led to the dam failure can only come when the public's elected representatives in Lansing take up the challenge of performing rigorous oversight of how our federal and state government work to regulate private entities that hold public safety in their hands. [Read more](#)

NORTH CAROLINA

New Flood Maps Say Outer Banks is Getting Safer. Local Officials Disagree

New federal flood maps say nearly 13,000 Outer Banks properties are no longer in flood zones, but local officials are issuing warnings to anyone thinking about dropping their flood insurance. Don't do it, said Donna Creef, planning director for Dare County. [Read more](#).

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NEWS BRIEFS

Agency updates, grant deadlines & the latest curated news

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North Carolina Studies Repetitive Flooding Risk

As the state uses federal disaster recovery money to rebuild hurricane-damaged homes, the North Carolina Office of Recovery and Resiliency (NCORR) is trying to make up for the shortcomings of the federal flood maps. When they replace a home, the state officials are not only considering the block grant program's requirement that homes be elevated two feet above FEMA's base flood elevation, but also the high-water mark that inspectors find in the homes. If the high-water mark is higher than the base flood elevation, that is the point from which the home is raised two feet. [Read more](#)

SOUTH CAROLINA

Rising Waters - Forget about climate change. Real story is climate speed.

The Post and Courier newspaper has launched a new series called Rising Waters, which explores the crippling effects of sea rise and flooding on people's lives and the greater Charleston economy. Definitely worth a look even if you don't live in South Carolina. [Read more](#)

Richland County to Spend More Than \$20 Million to Fix Damage Caused by 2015 Floods

Richland County (SC) approved a plan to distribute \$21.8 million in federal dollars from the U.S. Department of Housing and Urban Development to help fortify the county against future flooding. Funds will be used for a variety of purposes, including buying or repairing floodprone properties and upgrading stormwater and drainage infrastructure. [Read more](#)

TEXAS

3 Years After Hurricane Harvey, Many Houston Homeowners Don't Know Who's At Risk Next

Hurricane Harvey put the limitations of the government's maps into sharp relief in Houston: Almost three-quarters of the homes that flooded were outside FEMA's floodplain and about 80% of Harvey's victims had no flood insurance. While the agency is updating maps, funding cuts and opposition to the preliminary updated maps have slowed the process, trapping people in flood-prone homes and driving inequality. [Read more](#)

VIRGINIA, TEXAS

States Prepare To Spend Millions To Address Flooding

With more and more communities competing for federal funds, a handful of states are preparing to spend millions of dollars to address flooding, as extreme rain and sea level rise threaten communities along rivers and coastlines. [Read more](#)

Report: Communities of Color More Likely to be Nature Deprived

Black, Latino, Asian, Native American, and low-income families are far more likely than white families to live in a place that is deprived of the benefits that nature provides, including nearby places that allow them to get outside safely and access clean water, clean air, and a diversity of wildlife.

Using a new analysis by Conservation Science Partners (CSP), commissioned by Hispanic Access Foundation (HAF) and the Center for American Progress, a [new report](#) examines the distribution of America's natural areas to understand the types and extent of disparities in nature access that exist in the United States.

The data in the report help confirm the scale of racial and economic disparities in U.S. nature access. In particular, it finds that the United States has fewer forests, streams, wetlands, and other natural places near where Black, Latino, and Asian American people live. Notably, families with children—especially families of color with children—have diminished outdoor recreation opportunities and access to nature; deteriorated drinking water quality; worsened air pollution; greater vulnerability to heat, drought, and floods; greater exposure to disease; and less resilience to the impacts of climate change.

Hurricane Flood Risk Campaign Continues

While much of the country continues to battle surges in COVID-19 cases, communities along the Gulf and Atlantic coast of the United States and Hawaiian Islands are also in the midst of hurricane season. The National Flood Insurance Program (NFIP) is asking community leaders to help their **residents prepare for hurricane season by following these four easy steps:**

1. Encourage members of your community to reach out to their local agent to purchase a flood insurance policy before peak hurricane season
2. Share NFIP materials including social media resources, brochures, posters, flyers, and videos on your website, via e-mail, and through your network's newsletter or listserv
3. Use our sample media content to post on platforms such as Twitter and Facebook
4. Embed the NFIP Cost of Flooding Tool and other engaging materials such as Survivor Stories to your website

Attendees of the 2020 ASFPM Virtual Conference can access the exhibit hall, including the NFIP's virtual [booth](#) and a wide range of hurricane season materials created specifically for you to help amplify your community outreach efforts. You can also access hurricane season resources on the [FloodSmart site](#) and [watch a video](#) to learn more about how to use the outreach materials to help residents and businesses prepare for this year's hurricane season.

Do you have a story or important news announcement you'd like to share with ASFPM newsletter readers?

Email us at editor@floods.org.

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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