

Association of State Floodplain Managers



*Dedicated to reducing flood
losses & protecting
floodplain resources*

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NEWS&VIEWS

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Federal Leadership Needed to Rebuild Houston Smarter

Our hearts go out to the people of Houston and surrounding areas. The devastation, suffering and struggles they are feeling will continue long after the media coverage ends.

But a common thread runs through most images coming out of Houston, Texas right now—hospitals, airports, railroads, roads, bridges and underpasses were allowed to be built in areas that exposed them to flooding. When Houston rebuilds—as it should—every penny of federal funding (aka taxpayer money) should go toward rebuilding to higher standards (up and/or out of the way of the next flood).

And there will be another flood. Houston, which is largely flat, has experienced several recent major floods. Tropical Storm Allison in 2001 caused nearly \$5 billion in damage. The Memorial Day flood event of 2015 dumped almost 12 inches of rain in 10 hours. And last year, 1,200 people were rescued after a flood on Tax Day.

And each time, the American taxpayer has paid for structures to be rebuilt. It must be stressed that they were often not rebuilt to be more resilient to the next flood.

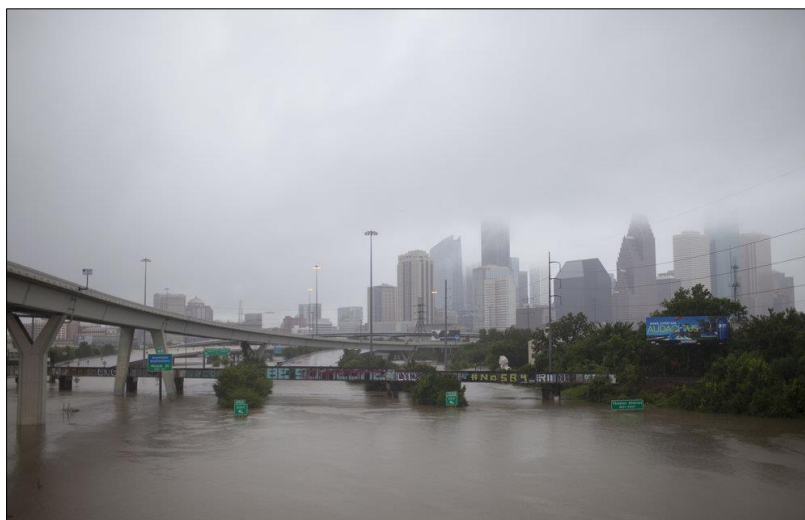


Photo credit: The National Weather Service said Sunday afternoon it expected up to 50 inches of rain in some areas of Houston. Katie Hayes Luke for NPR [from this story](#).

The devastation happening in Houston should not be allowed to happen again. The [Association of State Floodplain Managers](#) knows that while this flood is devastating and deadly, it is also an opportunity to do things differently.

Buildings and infrastructure that have been repeatedly rebuilt (with taxpayer money) should be bought out and removed from the floodplain whenever possible. Further development of that land should not be allowed. It could instead be turned into green space such as parks (an excellent asset to any city and can serve double duty to help retain and absorb stormwater). This is especially true with repetitive flood loss properties, in deep floodplains and areas below dams that are inundated due to the operation of the emergency spillways.

Critical facilities such as hospitals, fire and police stations, nursing homes and schools should not be rebuilt in the floodplain. When there are no alternatives, these facilities should be elevated (without fill) above flood levels from these extreme floods, not just the 1% chance flood, and required to have a flood response plan that addresses evacuations in these types of events.

Transportation infrastructure (roads, bridges, underpasses, etc.) should be rebuilt 1, 2 or even three feet above the flood of record to ensure dry land access during flood events, and taxpayer money should not be wasted by having to rebuild after the next flood.

For the last 42 years, ASFPM has been dedicated to sound (and smart) floodplain management to reduce loss of life and property due to flooding, along with protecting the American taxpayer.

Building to higher standards after a natural disaster is not a novel or “outside of the box” idea. The federal government implemented it after Hurricane Sandy by simply requiring that any use of federal taxpayer money to rebuild must be elevated 1 foot above the 1% chance flood.

[Executive Order 13690 and the Federal Flood Risk Management Standard](#) was enacted in January 2015. These new standards would have made communities more resilient to the next flood and protected taxpayer investments by requiring higher standards for projects with federal funding (such as building 2-3 foot above the base flood elevation or not building within the 500-year flood level). This ensures taxpayers are not rebuilding infrastructure time and time again after flood disasters. This higher standard was repealed Aug. 15. ASFPM urges that the FFRMS be reinstated for the rebuilding of Houston.

Setting People Straight on Six NFIP Myths

By Larry Larson, ASFPM Senior Policy Advisor



Every time the NFIP comes up for renewal by Congress there are always those who call for doing away with the entire program. Some in Congress don't think the NFIP matters in their district at all. The Senate Authorizing Committee chair is from Idaho, and sees wildfire as far more important to his state than floods. And during the high wildfire season this year, one can see why he thinks that. The House Committee chair says the NFIP is not important in his district because they don't have flooding in Dallas. This one is a little harder to comprehend.

When explaining or discussing the NFIP, we find many common misconceptions people have. These beliefs have existed so long, we can now call them “myths.” Like all myths, they start with a grain of truth, but are then extrapolated to a false outcome or to blame the wrong cause or party. Let's explore how you might be able to respond to these major misguided beliefs to help educate folks.

Myth one: The NFIP is \$24.6 billion in debt because FEMA manages it poorly.

RESPONSE: The NFIP debt was caused by Congress, not FEMA:

- Congress directed the NFIP to subsidize premiums for buildings built before the community map was in place—and left those directives in place for 44 years.
- There are about 1 million subsidized premiums (20% of the 5 million policies).
- Congress directed the NFIP to set premiums to cover the average loss year, and ignore catastrophic loss years.
- Congress pushed rates quickly to actuarial in the 2012 reauthorization.
- To no one's surprise, in 2014 Congress changed some rules and quickly rolled back some of the increased rates, but did keep them on long-term path to actuarial.

Myth two: The NFIP is just an insurance program.

RESPONSE: Absolutely wrong. THE NFIP IS THE NATION'S ONLY COMPREHENSIVE FLOOD RISK MANAGEMENT PROGRAM with four components

- (1) Flood mapping to identify and map flood-risk areas;
- (2) Floodplain management to protect people and development in the high flood-risk areas;
- (3) Flood mitigation (ICC and FMA) to help reduce risk to existing property; and
- (4) Provide flood insurance so those living at risk pay at least part of the cost that risk.



The 2012 and 2014 reforms were focused on insurance rates. The 2017 reauthorization in the House again is mostly focused on insurance, whereas the Senate bills to date are more comprehensive.

Myth three: Some states are “donor” states and should pull out of the NFIP.

RESPONSE: Florida says it has paid more in premiums than received in claims. Well,

- That is called insurance—just like auto or other insurance, it protects you financially for the big loss.
- If Hurricane Matthew in 2016 had gone 75 miles west, Florida would be a receiver state for a long time.
- California dodged a bullet when Oroville Dam's near failure happened last year—same outcome.

Myth four: The increase in premiums (1) was to pay off the debt from Katrina and Sandy or (2) resulted in poor people and inland states subsidizing the rich people on the coast.

RESPONSE: Wrong:

- The premiums are set to pay for future flooding, not past flooding.
- The poor or inland states do not subsidize coastal states.
- NFIP sets rates for A zones (mostly rivers) and V zones (coastal velocity zones) separately.
- Each pays for rates based on their zone and the elevation of the first floor in comparison to the BFE.

Myth five: There are barriers to private flood insurance to prevent them from selling flood insurance.

RESPONSE: Private insurers expanding since 2012 provided language that allowed private flood policies as long as the policy is “as least as broad as” the NFIP policy to protect the consumer.

Private flood insurance now has about 200,000 policies in the nation and growing. Many 2017 bills based on the false assumption that the private market is unable to compete right now—which data demonstrates is not the case.

Myth six: The NFIP encourages people to build and stay in high flood-risk areas.

RESPONSE: As stated

above, this one has a grain of truth in it, but in the past there was no assistance available—BUT:

- If owner has assistance they will mitigate, so in 1994 ICC added to flood policy.
- ICC is triggered to provide mitigation assistance if substantial damage/substantial improvement happens.
- The cost of that can be from \$50,000 to over \$100,000 to elevate or mitigate.
- Even if people had flood insurance, it did not cover the cost of mitigation.
- The local floodplain manager was under pressure to not say home is substantially damaged unless there is funding help.
- Unless mitigated, homes will be damaged again.
- ICC is probably the most effective mitigation tool we have. And these ICC provisions in the draft bills would demonstrate Congress is beginning to understand the value and cost-effectiveness (\$4 return for every \$1 in mitigation funding) of mitigation assistance to reduce the loss of life and property.

While the above is not a list of all the NFIP myths, it hits the big ones—and goes on to say how we can address some of them and improve the NFIP. ASFPM members and others are invited to provide comments on any aspect of this article.

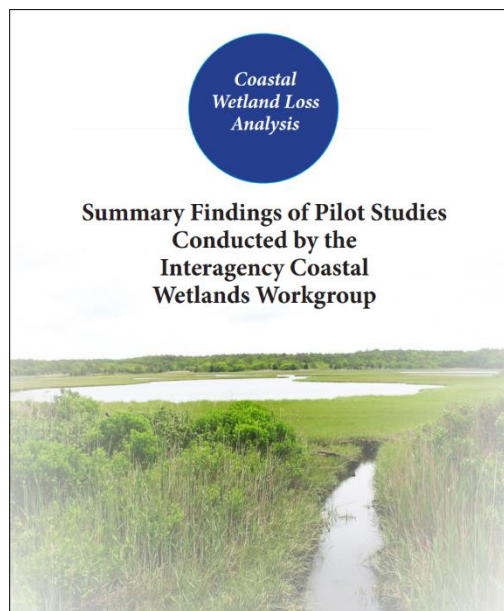


Flooding Threatens Public Schools Across the Country: Infrastructure analysis evaluates county-level flood risk



The Pew Charitable Trusts examined flood risks that schools across the country face. It developed an overall flood risk score for counties to determine the vulnerability of their schools. The chartbook also offers recommendations for helping schools—and the communities that depend on them—be more prepared to withstand the impact of storms and hurricanes. [Read the report here.](#)

Coastal Wetland Loss Analysis: Summary Findings of Pilot Studies Conducted by the Interagency Coastal Wetlands Workgroup



The **Interagency Coastal Wetlands Workgroup** released its findings document describing the results from its wetlands loss assessment conducted in four coastal watersheds over the past few years. In response to concerns about the rate of net wetland loss in coastal watersheds, ICWWG was convened to identify the causes as well as strategies to reduce and ultimately reverse the loss. The ICWWG is comprised of EPA, Army Corps of Engineers, Fish and Wildlife Service, U.S. Geological Survey, National Oceanic and Atmospheric Administration, Natural Resources Conservation Service and Federal Highway Administration.

ICWWG conducted a series of pilot studies in four coastal watersheds across the country—San Francisco, CA; Galveston, TX; Cape Fear, NC; and Tampa, FL—for the time period of approximately 1996-2010, in order to gain a deeper understanding of the factors behind coastal wetland loss. Using geospatial information from the NOAA's Coastal Change Analysis Program, U.S. Fish and Wildlife Service National

Wetlands Inventory Program, and Google Earth, as well as U.S. Army Corps of Engineers' permitting data, and interviews with local-area staff, the ICWWG identified the main drivers behind wetland loss in these coastal watersheds as:

- intense development pressure, both urban and suburban;
- some drainage practices that are associated with [silvicultural](#) activities; and
- insufficient restored wetland acres to offset wetland acres lost in coastal watersheds.

The pilot studies also identified additional important issues that contributed to understanding the overall trend of coastal wetland loss. These issues include unregulated sand and gravel mining in [palustrine](#) forested wetlands and a need for continual collection of spatial data in order to improve mapping and monitoring of wetland trends over time.

The document can be accessed here: [Summary Findings of Pilot Studies Conducted by the Interagency Coastal Wetlands Workgroup](#).

Please direct questions about the Summary Findings document to Susan-Marie Stedman (NOAA) at Susan.Stedman@noaa.gov, Megan Lang (FWS) at megan_lang@fws.gov, or Dominic MacCormack (EPA) at Maccormack.Dominic@epa.gov.

If you have a story you'd like to share with ASFPM newsletter readers, contact ASFPM editor Michele Mihalovich at michele@floods.org.

Time to start planning for September's National Preparedness Month



The Ready Campaign recently released the September 2017 National Preparedness Month theme and [social media toolkit](#), which includes graphics, hashtags and social media content to share.

This year's theme is "Disasters Don't Plan Ahead. You Can." In addition to the overarching theme for the month, each week has a theme highlighting different preparedness actions.

The NPM 2017 Weekly Themes are as follows:

- Week 1: Sept. 1-9—Make a Plan for Yourself, Family and Friends.
- Week 2: Sept. 10-16—Plan to Help Your Neighbor and Community.
- Week 3: Sept. 17-23—Practice and Build Out Your Plans.
- Week 4: Sept. 24-30—Get Involved! Be a Part of Something Larger.

For more information, visit www.ready.gov/september.

CFM Exam Workgroup

The Certified Floodplain Manager Exam Workgroup, appointed by [CBOR](#) and made up of regents, subject matter experts and ASFP staff, were at the executive office in Madison, WI July 31-Aug. 2 for their annual meeting. The group analyzes the performance of questions, creates possible new questions for the 500+ exam question pool, discusses FEMA developments that might affect the exam, reviews most and least missed questions, updates the technical reference guidance and prep guide and discusses guidance and training needs of examinees prior to people taking the exam.

This year there was particular interest in evaluating the performance of the new mapping and EC sections of the exam. A complex analysis was done on all 120 questions of the exam rollout Jan. 1, 2017. The analytics showed that of the 550+ exams taken since then, 48 questions fell into the range where 80% got those questions right, and only one question fell below 20% where only 19% of exam takers got that one right. The analytics also showed the mapping and EC questions fell within the accepted range. After adjusting or replacing questions in the 80/20 ranges, and evaluating comments from exam takers, the group will be rolling out an improved exam Jan. 1, 2018.

The final item reviewed by the Exam Workgroup was a new [Technical Reference Guide](#), prepared by CBOR. The guide takes all the technical references and separates them into topic areas that are tested. This allows an exam taker to focus on their area of need and the materials to support that need, rather than having to scour a running list of reference materials.



*In the photo above from left to right: Metro Nashville Water Services Program Manager **Roger Lindsey**; FEMA Emergency Management Specialist **Erin Cobb**; ASFP Certification Coordinator **Anita Larson**; Western Kentucky University Civil Engineering Professor and Chair of the Exam Workgroup **Dr. Warren Campbell**; dkcarlton & associates Principal **David Carlton**; ASFP Deputy Director **Ingrid Wadsworth**; and Metro Nashville Stormwater Division Assistant Director **Thomas Palko**. Not pictured was ASFP Chapter and Training Coordinator **Kait Laufenberg**.*



How can we improve perception and involvement in the NFIP?

Jim Nadeau, surveyor, CFM and author of the monthly newsletter "Welcome to the Flood Zone," lists four strategies.

1) Be aware that Flood Insurance Rate Map accuracy is limited due to natural processes and development in the watershed. Use the maps as a guide to make more informed decisions.

We receive feedback from many homeowners and stakeholders as to the weaknesses of the flood maps and how the NFIP can be improved by simply making the maps more accurate. As a land surveyor, I do agree more accurate maps will help the program evaluate perceived risk more appropriately and implement regulation more efficiently, but this strategy should never be accepted as the end-all solution. Storm size, development since the effective date of the flood map, and erosion are just a few of the many reasons why making a perfect flood map is not a practical expectation. Even if they were deemed perfect at the effective date, they would slowly become imperfect from the many changes occurring in a watershed. Map revisions are expensive and slow to occur, so mitigation strategies and community preparedness will always be acceptable strategies to improve flood program perception.

2) Understand the difference between actual and perceived flood risk when applying mitigation strategies. With proper planning, many program obstacles can be eliminated.

I have often emphasized the importance of making sure the separation of actual risk and perceived risk exists. As an example, we have a client who has a vacant parcel of land not currently in a Special Flood Hazard Area, but the parcel is shown in the SFHA per the preliminary Digital Flood Insurance Rate Map, which should become effective in 2018. To help our client protect the value of his property and increase personal safety, we will use a multifaceted approach. Upon completion of a topographic survey and with the aid of a civil engineer, we will create volume computations and use properly compacted fill to elevate the portion of the site where he desires to build his home above the proposed Base Flood Elevation. Once the DFIRM becomes effective, we will use the appropriate Letter of Map Change process to remove that portion of the parcel with a metes and bounds description.

So what does this accomplish? Actual risk for the new home will be reduced since it will be elevated above the BFE, and program perceived risk will also be reduced since flood insurance will probably not be required. As always, we would recommend the purchase of a non-mandatory Preferred Risk Policy during and after construction since an actual storm can exceed a flood map line or an engineer-calculated BFE. And make sure it is understood that the preliminary flood map may change before it becomes effective. Being pro-active is a much better option than doing nothing.

3) Learn about the purpose of the mandatory flood insurance requirement in the lending process. Know what to expect and what options are available.

Unfortunately, I also hear from homeowners when expensive and unexpected mandatory flood insurance is placed on a home because a lender's flood zone determination placed it in a SFHA. Please remember, much of the money on the line in case of mortgage default is not the homeowners, but the lenders or investors. They have the right to protect their investment! The program does not require mandatory flood insurance for a cash deal or a private mortgage because the federal government is not insuring the money involved.

Another component of this process is timing. Why is going into the flood zone so stressful? Of course, it is the added mandatory insurance premium and the fear of how flood will impact value, but is this not also compounded by the timing of the news? The notice of mandatory flood insurance often surfaces later in the

process, around step eight or nine of a real estate transaction. This creates a foul taste for all involved since qualifying for the loan may no longer be possible, or the buyer's options may become very limited. Our recommendation: Bring it up earlier in the transaction through the Seller's Property Disclosure.

4) Consider how addressing flood appropriately within real estate disclosure could provide opportunities to protect clients, reduce risk and assess value realistically.

The Realtor is often the first "boots in the mud" in a real estate transaction, and clients rely on Realtors to tell them what they need to know. We realize there is a fear of increased liability for Realtors in discussing flood hazard information due to lack of education/experience with flood, but I think it would be just the opposite if disclosure is used as a guide to create consistency in property evaluation. This process should be no different than if the electrical or plumbing is an issue. Identify the potential issue, explore the options with your client, then seek guidance or service from a qualified professional. If a fear exists that flood may ruin a deal, isn't "the sooner the better" for all involved?

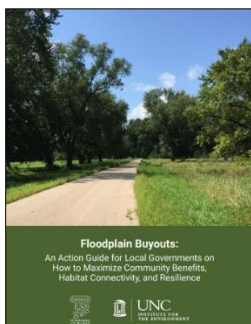
Disclosure should require more in-depth evaluation of flood hazards and can provide an excellent opportunity to educate all parties involved. One state's Seller's Property Disclosure document asks, "Do you have an elevation certificate? If yes, please attach a copy." Think about the dialogue this would create between a real estate agent and their client. This is a great opportunity to improve client representation, reduce potential liability, and create a more accurate value on the real estate. Each state should strongly consider strengthening flood hazard disclosure since most, if not all, professions promise to follow the canon of public safety. This does not mean a reduction in effort and obligation behind the Latin term "Caveat Emptor" should occur. Each buyer and representative must accept responsibility to perform appropriate due diligence, but an improved disclosure will greatly enhance this process for the buyer side.

I do not believe real estate value will be impacted as much as many may believe if flood is properly disclosed at the beginning of a real estate transaction. In my opinion, there is nothing else on a Seller's Disclosure that could impact value more than flood when overlooked at transaction inception. Flood should not quietly rest somewhere between "buyer beware" and the lack of proper disclosure. A flood insurance premium is a monthly payment for the life of the loan, and not a one-time expense, so the age of the roof shingles or when the furnace was last serviced should never be given the same or more space on disclosure than flood. Improved disclosure must play a larger role in the flood program to reduce fear and create a more practical understanding of the impact of flood on real estate.



This article from the August 2017 issue of "Welcome to the Flood Zone," was reprinted with permission from Jim Nadeau. View the [full newsletter issue here](#).

Floodplain Buyouts: An Action Guide for Local Governments on How to Maximize Community Benefits, Habitat Connectivity & Resilience



This action guide on buyouts was produced by the University of North Carolina-Chapel Hill's Institute for the Environment and the Environmental Law Institute. It's designed to help local governments across the country leverage hazard mitigation buyouts to protect, restore and connect habitats in local communities. Greatly informed by the information gathered through in-depth [case studies](#) and conversations with key players in local buyout programs, the guide highlights management approaches that will be useful and practicable for the local officials and managers who have the ability to target their acquisitions in ways that improve habitat connectivity and resilience while also reducing flood hazards. [You can download the report here](#).



What's the ASFPM Foundation been up to?

The [ASFPM Foundation](#) presented the third [Larry A. Larson Speaker Series event](#) July 9 as part of the Annual Natural Hazards Research and Applications Workshop in Broomfield, Colorado. The topic, presented to about 200, was “*Floodplain Management and Community Resilience in a World with Changing Contextual Factors.*”

The featured speaker was **Dr. Dennis Mileti**, director emeritus of the Natural Hazards Center. **Sam Medlock**, senior vice president with Willis Towers Watson; **Gerry Galloway**, professor of engineering with the University of Maryland; **Gavin Smith**, *professor of city and regional planning with the University of North Carolina at Chapel Hill*; and **Brian Varrella**, *professional engineer with the Colorado Department of Transportation and current vice chair of ASFPM*, joined Mileti for a panel discussion following his remarks.

The evening proved to be full of provocative statements and challenge assertions. Over-arching themes emerged. We are failing. We are failing to get citizens and elected official to understand what we as floodplain professionals know. We need to do better to change the way people perceive floods and flood risk. We must change the way we address flood risk at all levels of government if we hope to stop flood losses from continuing to increase.

Larry Larson, ASFPM's senior policy advisor, introduced Mileti by highlighting his most important comment, as a sociologist, to floodplain managers, and during the second assessment of **Gilbert White's** work that “you think you're managing hazards, but if you can't get people to understand hazards, then you're not doing your job.”

At the onset, Mileti offered, “My conclusion will be that the context in which we do our work is more decisive than the work we do no matter how well we do it...Gilbert asked, ‘Why do flood losses continue to increase?’ The answer is, it's about the context. Our flood management context is changing rapidly and is tied to



Dr. Dennis Mileti. Photo by Diane Brown (ASFPM).

WHAT IS THE ASFPM FOUNDATION?

In 1996, ASFPM established a non-profit, tax exempt foundation, which serves as an advocate for the profession and as a voice for you, the practitioner, supplier or service provider.

The foundation seeks and directs funds to help ASFPM meet its goals and support floodplain management activities that originate outside of ASFPM.

Foundation donations have supported development of the [CFM](#) program, [No Adverse Impact](#) publications, [college student paper competitions](#), [higher education opportunities](#) in FPM, and specialty think tank meetings, including the [Gilbert F. White National Flood Policy Forums](#) and [Larry Larson Speakers Series](#).

ASFPM Foundation promotes public policy through strategic initiatives and serves as an incubator for long-term policy development that promotes sustainable floodplain and watershed management. Learn more or donate [here](#).

our society's structure and the people who inhabit our society, who are becoming increasingly unable to cope, and never have really perceived flood risk well," Mileti said. Contextual variables in which flood mitigation work are performed include people, the physical world, climate change, sea level rise, population concentration, globalization, income disparity, infrastructure and political ideology (oligarchs, verses those who want to work for the common good).

Humans are the "the mother of all contexts...When it comes to human beings there is no objective reality; it's all made up. When it comes to perceiving flood risk, the risk that people perceive or don't perceive is the result of mental constructions about the real world. And they rarely match objective risk. Reality, when it comes to people, isn't real. It's made up and they believe it's real. It's about fake reality; not fake news. Risk personalization? Most people don't personalize [flood] risk. They believe there is none. And every day that goes by that doesn't flood is evidence that they're right...Objective risk is the risk that scientists perceive. It's based on accumulated evidence collected at a particular point in time, and it changes over time as new scientific evidence is obtained. There's a gap between flood perceived risk by the public and by scientists, engineers and others...The bottom line, is that those of us interested in flood hazard mitigation, we don't have a constituency. Until there's the next flood," Mileti said.

In discussing the contexts of our physical world, Mileti noted our challenges in fighting the forces who are "working to convince people that climate change is not human caused" when evidence is clear that it is. His most pointed comments came with considering sea level rise. "I want to ask the people in this room, how dare you try and to construct a flood resistant-resilient coastal community knowing it's going to be under water in 100 years. How is that resilient? Knowing what Manhattan [will] look like. Knowing that half of the state of Florida will be submerged. Knowing that most of Louisiana will be gone. How is that resilient? What are you doing? Where's your head? And we're worried about marketing more flood insurance policies?" Mileti said, adding that he is in favor of flood insurance and has a flood insurance policy.

Mileti provided an assessment of other contextual realities of our society: wealth, globalization and ideology struggles, and summarized by saying, "When considering all contexts and factors, we have some hefty battles in front of us. The context of the stream, that we're padding our flood mitigation canoe in, is going so fast and so hard, try as we might to move in that direction, we're actually moving backwards. Because the context is definitum. The net effects of these contexts are grim. The Earth's physical systems are becoming more violent.



Gerry Galloway, Dr. Dennis Mileti, Sam Medlock, Brian Varrella and Gavin Smith. Photo by Diane Brown (ASFPM).

Our constructed environment is becoming more brittle. Our people in social systems are poorer, losing power and less able to cope, and we continue to put more concentration of people in the most vulnerable places in the country.”

He said, “What’s our path forward? We can’t take on oil oligarchs. What are we to do?...I see promise in a handful of directions that we can invent and move in tonight...We need a broader view of hazard mitigation. What we’re working on, as important as it is, is it getting at the big root causes of increasing flood losses?...We need to formalize mitigation practices.”

He explained that mitigation means something different to different people and “we haven’t brought together in one place what mitigation means. How do we expect to achieve anything if we haven’t written it down?...We need to change our culture.”

Mileti related that in his high school years, to be sexy and get good dates, one had to be a smoker. That is not true today. We changed our culture. The required culture change is to “make mitigation a fundamental human value.” He praised FEMA’s former “Project Impact” program, and said we need to integrate our specialized approaches – engineers, planners, sociologist and legislative folks—and need to work together.

Medlock stressed the importance of data and relationship in our work. “Data underpins every decision that we make and the more robust the body of data and information going into a decision, the better that decision invariably, is going to be...We need to advance the incorporation of data into the decision making, and the work of research professionals and practitioners into decision making is absolutely direct, its fundamental and terribly important.” She also said, “Our work begins and ends with the relationships that people have with each other. During a disaster is not the ideal time to exchange business cards. Build on your network of relationships.”

Galloway agreed that we are faced with an education problem, but he has, “long been convinced that we have a medical problem. An awful lot of people that don’t have a spine. We have a tremendous number of people who are elected representatives who do not choose to be educated and choose not to act on what they know.” He said members of Congress have told him, “‘I agree with you, but my constituents don’t and I have got to stick with my constituents.’ This absence of spine is a real problem...How do we change this? We all have to put the heat on our elected officials and educate them. We’ve got to learn to convey our message, and it’s about building spine.”

Smith focused on the policy context and asserted that “our current policy has a whole host of perverse incentives...influencing people to make choices that puts them in harm’s way...We rarely use land use planning as a risk reduction measure. We use land use planning as means to further develop areas, including those at high risk. Mitigation tools aren’t being used effectively. A study of hazard mitigation plans found that they were weak and weren’t forward looking. Rather they were a means to an end in gaining post-disaster dollars to take on issues or mistakes made in the past. We have continued to not hold communities accountable and until we do, I would argue, we’re just going to continue to face this downward spiral.”

Varrella added to Mileti’s comments regarding reality and perception. He offered a quote from Martin Booth, “It is better to change the manner in which a man perceives the world than it is to change the world he perceives.” Varrella said, “If the reality we’re perceiving is not real, and we’re making it up as we go, then we have an opportunity. Dr. Mileti has pointed out in the past – the best way to garner support for an idea is to get other people to make that idea their own—monkey see, monkey do.” Varrella shared a comment by Mike Brown, former FEMA Administrator to the Colorado Association of State Floodplain Managers that reminds us that we are very good about talking among yourselves, but the challenge is to send our messages out.”

The ASFPM Foundation thanks the Natural Hazards Center for partnering on this third event in the LALSS; our sponsor: Willis Towers Watson, ESP, Compass, Dewberry, CH2M and Ideation; and everyone who attended. The ASFPM Foundation plans to provide a video of the highlights the event, and the video will be available at the Foundation’s website, www.asfpmfoundation.org.

Policy Matters!

Larry Larson, P.E., CFM
Director Emeritus – Senior Policy Advisor, ASFPM



How does national flood policy affect the local floodplain manager?

Some floodplain managers, especially at the local level (but it can be state or private), tell me they don't see what national policy has to do with their daily job. I submit it does relate to your job and in this column will explain how, with a focus on that local floodplain manager.

If your job involves issuing development permits or building codes, the standards for those permits come from the NFIP or clean water or stormwater regulations in EPA. If you are a community planner who is planning or implementing hazard mitigation projects, those requirements come from the NFIP or the Stafford Act or from Corps of Engineers water resource projects requirements. If you are an emergency manager, your guidance comes from the Stafford Act (commonly called the Disaster Relief Act). If you are a state or private sector floodplain manager, you are helping that local person do these things or doing them yourself.

What does ASFPM do on national flood policy that helps you do your job? Let's use the example of a local issuing development permits in flood hazard areas, and I'll show what ASFPM does on the flood policy front to help you do your job.

First you need a flood map, which tells you whether the property owner needs a floodplain permit for any proposed development if the land is in the floodplain. If the area proposed for development is not shown as in the floodplain, a permit is not needed under the NFIP. But wait! Is it not shown as in the floodplain because it is indeed above the floodplain, or is it because it was simply not mapped? The "not mapped" could be for a couple reasons. Maybe the mapping was old and based on poor hydrology or poor contour maps. Or it could be in the head waters of a stream, and the NFIP stops mapping when the watershed area is less than 1 or 2 square miles. Either of these reasons could mean you tell the property owner no FP permit is needed. Later the area might be remapped with better data or topography and the building you allowed is now shown in the floodplain with unwelcome results:

(1) the property is newly mapped into the floodplain (which has always been there, but not shown on floodplain map and,

(2) the property owner will have to buy flood insurance if they have a mortgage--and the premium will be high because you were unable to give them a flood elevation to build above.

ASFPM works on the following national policy issues related to flood mapping: (1) We work with FEMA to promote mapping standards that give you a more accurate flood map that maps all potential areas of flooding. (2) We work with Congress and the president's office to provide sufficient funding for FEMA to map all flood hazard areas in the nation. (3) We work with all federal agencies that provide or produce data for flood maps, including USGS, Corps of Engineers, NOAA, EPA, NWS, DOT and others (there are 26 federal agencies that can make flood risk better or worse).



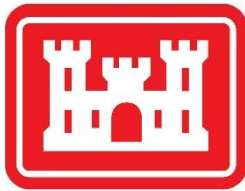
Second, what regulations apply to the permit you issue? If the area is shown as floodplain on the NFIP map, the regulations that apply must meet the minimum regulations of the NFIP. If it's stormwater or wetland related, it may be regulated by the EPA stormwater or water quality regulations. At the same time, you may need to ensure an activity receives the appropriate permit from the Corps for anything impacting U.S. waters or wetlands, or permits from other state programs that have jurisdiction.



ASFPM works with all the mentioned agencies to insist their programs talk to each other, do not have conflicting regulations and coordinate their permitting with your local or state permitting so the property owner does not get a federal permit thinking they don't need a permit from you.



Third, what standards and procedures apply to property owners who rebuild after a disaster? Here you will not only have floodplain regulations from the NFIP that apply, but you will likely have to make sure any requirement under the Disaster Relief Act are followed or the property owner may not be eligible to receive mitigation funding to help them rebuild. Other agencies, like HUD, SBA, EDA, USDA (NRCS) and other agencies may also provide funds for recovery, and each of them will have standards that need to be met.



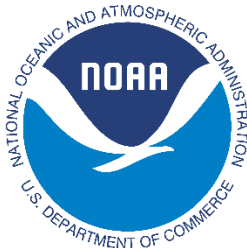
A building may have been substantially damaged (more than 50% of value) or be a repetitively flooded property. A flood insurance policy provides coverage to financially assist in rebuilding to new standards for these damaged properties—it is called Increased Cost of Compliance. This means you have an obligation to determine if the building was substantially damaged or if it now qualifies as a repetitive loss property. If your job is to develop hazard mitigation plans and work with property owners to encourage them to be part of a mitigation project and properly rebuild their home, the standards in the NFIP, Disaster Relief Act, ICC rules and mitigation funding rules are all ones you need to be at least familiar with or become an expert in. The same is true of all the rules for those other agencies that provide recovery money like HUD, SBA, EDA, etc.



FEMA



ASFPM works closely with different parts of FEMA that come into play following a disaster, specifically the NFIP and disaster recovery side. Over the years we have worked to ensure mitigation is a major part of recovery. Prior to 1988 all disaster relief could only help people rebuild exactly as they were prior to the flood. We and others convinced Congress and the Administrations this was a bad deal for property owners and the taxpayer. The property owner would be flooded by the same storm next time and the taxpayer would be helping rebuild time and again (the old definition of insanity). Many in Congress now realize the great importance of mitigation and how it will reduce the cost of future disasters. We are now working to increase funding for pre-disaster mitigation, so citizens and communities can address these issues before they have to suffer through tragic loss of life and property.

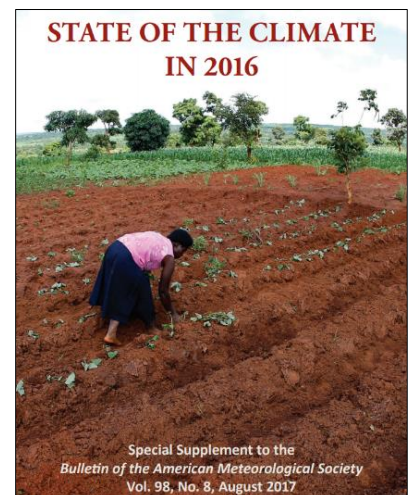


ASFPM has led efforts to increase funding and use of ICC, which is really the most effective form of post-disaster mitigation. It is available immediately after the flood to help elevate or otherwise mitigate the building, rather than wait a year or two hoping to be part of a mitigation project under HMGP. We joined with the Administration after the 1993 floods to increase the funding formula for HMGP so FEMA has now mitigated around 40,000 buildings using that program. We continue to insist mitigation expertise needs to be in the disaster recovery office so property owners understand their mitigation options before they start to do anything to rebuild their home. All of these policy actions are directed toward giving you the tools and information to do your job and serve your community. Many of our private sector members also have specific expertise to help you pre- and post-disaster.

As you can see, national flood policy really does impact nearly every aspect of your job. So when we ask for your input on national issues, it's because we want and need to hear from the local floodplain manager so national policy works for you. This is how real change happens.

International Report Confirms 2016 was 3rd Consecutive Year of Record Global Warmth

The [*State of the Climate*](#) report series, published by the American Meteorological Society for the past 27 years, is the most comprehensive annual summary of Earth's climate. Led by NOAA National Centers for Environmental Information, the 2016 report is based on contributions from nearly 500 scientists from more than 60 countries around the world and reflects tens of thousands of measurements from multiple independent datasets. Several climate indicators set new records in 2016, including greenhouse gas concentrations, sea level and sea surface temperature.



Job Corner

ASFPM hit a milestone this month. Our job board had 100 jobs listed! That's 100 jobs relevant to your flood risk professional career. If you're looking for a job, it's well worth a look. And if you're an employer, job postings are absolutely FREE! Below are just a few of the jobs currently on our board. Check out these and others on [ASFPM's Job Board](#).

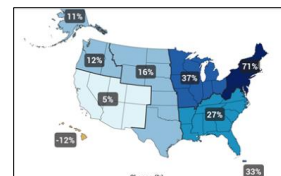
- **DeKalb County, Georgia is hiring a flood management supervisor.**
- **A state floodplain manager is needed in Santa Fe, New Mexico.**
- **North Dakota State Water Commission is hiring a water resources engineer III.**

What's happening around the nation?

A collection of the most viewed stories on our [Facebook](#) page

United States—Very disappointing news out of the White House Aug. 15! Read, "[Trump to roll back Obama's flood standards for infrastructure](#)." You can also read [ASFPM's reaction to the news here](#).

"Donald Trump continued his crusade earlier this week to undo everything that President Obama accomplished. This time, he issued an executive order that wipes out one of the most progressive standards of our time for reducing the taxpayer costs and risks that weather disasters pose for new roads, bridges, railroads, electric transmission lines and other infrastructure." Read this [*piece from William Becker with Presidential Climate Action Project.*](#)



Taxpayers for Common Sense weighed in on Trump's repeal of EO 13690 and FFRMS in this piece titled, "[*Flooding Costs Taxpayers Dearly.*](#)"

"Congress created the NFIP close to 50 years ago, undoubtedly with good intentions. Those intentions, however, have allowed the program to incur a federal debt of over \$24 billion, in part because it keeps on insuring properties that suffer repeated flooding. It's time for the nonsense to stop." [*Read this opinion piece from Craig Fugate and Alice Hill.*](#)



For those already heeding federal forecasters' advice back in May to prepare for an unusually active hurricane season, the news just got more interesting: Get ready for an "extremely active" one. Read [*"Bad to worse: NOAA says buckle up for an 'extremely active' hurricane season."*](#)



Louisiana—A veritable who's who of ASFPM members quoted about building permits after the Baton Rouge flood last year. Read "[*Why some are worried Baton Rouge's post-flood rebuilding process will come back to haunt city-Parish.*](#)"

We asked for people's thoughts on the NOLA.com come story, "[FEMA should pull its \\$2 billion back from New Orleans, government watchdog says.](#)" While no one did comment, there sure was a lot of reactions and sharing.



"It might be tempting to think that higher levees and more pumps will save New Orleans and the region. The triple threat of sinking land, rising seas and ever-increasing record rainfall suggests a new reality however. Sooner or later—and likely sooner—areas at the mouth of the Mississippi need to be elevated, or relocated. Otherwise they will be inundated." [John Englander, a sea level rise expert and author, wrote this piece.](#)



Florida—Interesting article on real estate trends in Miami area due to current and projected flooding. Read [*“Rising sea levels may add to developers’ interest in Miami’s inland areas.”*](#)

From the Chair

**Maria Cox Lamm, CFM &
South Carolina State Floodplain Manager**



Old Habits are hard to break!

When a community voluntarily joins the National Flood Insurance Program, there is an agreement that the community will adopt and enforce a Flood Damage Prevention Ordinance and in return federal flood insurance will be made available. Many communities only look at floodplain development through what is allowed based upon regulations. This causes a singular approach of what is allowed versus what is not.

Most local floodplain managers know the areas in their communities prone to flooding. When a singular approach is implemented, the local floodplain manager's perspective and knowledge is not taken into account. This can lead to development occurring in areas that are prone to flooding, but are not mapped in a Special Flood Hazard Area—resulting in buildings being built in harm's way. When buildings are put in harm's way, so are lives.

This also leads people to believe flooding only occurs in the mapped SFHA. All anyone has to do is ask a floodplain manager in a community that has flooded recently if flooding occurred outside of the mapped SFHA, and they will almost always respond with an emphatic YES!

Once people believe they are not at risk for flooding all kinds of bad decisions can occur. These decisions occur at all levels—from citizens not protecting themselves through the purchase of flood insurance to people being allowed to rebuild in areas known to flood.

There is a movement in floodplain management in regards to relaying true flood risk. The movement is guiding us away from using the terminology of "in or out" of the floodplain, to using clear, consistent communication to help the community understand its levels of risk. The levels of risk are shown as low, moderate or high risk. The hope is that communicating levels of risk gives citizens a more accurate and visual understanding of their true level of flood risk. The [Risk MAP Flood Risk Products](#) can be used to assist a local floodplain manager in explaining levels of risk.

We all know old habits are hard to break. It will take time to change people's perception about flood risk. Meanwhile flooding events are occurring and people are being impacted.

For now, we as floodplain managers must open our eyes and keep in mind local governments have control over repeat bad decisions. Also, remember just because it is allowed does not mean it is a good idea or the right thing to do.



FEMA News You Can Use

Application period officially open for more than \$250M in FMA and PDM FEMA grants

FEMA announced Aug. 14 that the application period for more than \$250 million in grants is now open. Eligible applicants including state, local, tribal and territorial governments may apply for the Flood Mitigation Assistance and Pre-Disaster Mitigation grants through 3 p.m. Nov. 14, 2017 at <https://portal.fema.gov>. To learn more about the [grants in general, read this](#).

Navigating the Crazy Social Media World, Tip No. 17

By Michele Mihalovich, ASFPM's public information officer

Smorgasbord of Social Media News

First, if you're not on **Pinterest**, you're missing out on a lot. I for one would have no idea how to get my nails done or which hairstyle to choose if not for passionate Pinterest posters to help guide the way. So I have no idea why I was so surprised when I came across a [Pinterest "Floodplain Management" Board](#). But there it was, full of "pins" on storm surge, flood photos, quirky floodplain stories, along with research, infographics, maps, elevated home designs, a handsome pic of Gilbert White and so much more. You really should check this out because this means "floodplain management" went full on "mainstream."

Overheard at the national conference in Kansas City—TWICE—so it must be true!

Two people were floored to learn that they could, in fact, tweet on Twitter from their computers. They were under the mistaken impression that you could only use Twitter on your phone. So I figure if two people thought that, there might be more. And now you know, that just ain't true!

And lastly, I want to welcome ASFPM chapter [Missouri Floodplain and Stormwater Managers Association](#) that **took the social media plunge** this month by creating a Twitter page. Be sure and "follow" them at @Missouri_Floods!



Managing Floods where the Mountains Meet the Desert

*ASFPM's 42nd Annual National Conference
Phoenix, AZ
June 17-22, 2018*

Hey, if you can believe it, the "call for presenters" for our annual national conference in Phoenix will go out mid-September. You can get prepared now by viewing the [information page](#). Also, be sure and check out our [Facebook](#) and [Twitter](#) pages for when the call for presenters opens.

Mark Your Calendars for our Upcoming National Conferences

[Phoenix, Arizona, June 17-22, 2018](#)

[Cleveland, Ohio, May 19-24, 2019](#)

[Fort Worth, Texas, June 7-12, 2020](#)

From the Director's Desk

Chad Berginnis, CFM
Executive Director, ASFPM



What do we make of Harvey?

As I sit down to write this, heartbreaking images of Hurricane Harvey have been coming out of Texas for some five days. It now is a historically significant event. The National Weather Service reported Tuesday that Harvey has now set a record for total rainfall from a single tropical cyclone in the continental U.S., with Cedar Bayou weather station in Texas reporting total rainfall of 51.88 inches with rain still falling. A prediction by the founder of AccuWeather believes Harvey could be the worst natural disaster in American history. Also today (Aug. 29), President Trump said of Harvey, “This was of epic proportions. Nobody’s ever seen anything like this.” Time and again we see these large events attributed as “once in a lifetime,” “epic,” “biblical”...you get the drift. And time and again that seems to set off a whole process of justifying why not to do much of anything about it when it’s time to rebuild. Claims of the rarity of the event are quickly followed by “we must rebuild as quickly as possible.” We then see misplaced compassion, such as waiving higher flood standards as part of rebuilding, which is then followed by lots of excuses of why a community cannot do more to decrease its flood risk. And boom, just like that, we have just created tomorrow’s flood disaster.

Over the past several days ASFPM Director Emeritus Larry Larson and I have given many media interviews. At this point, we are primarily discussing national policy adjustments needed to reduce the nation’s flood risk (you can find over 400 suggested ones in ASFPM’s [National Flood Programs & Policies in Review – 2015](#)). But for this column I want to focus on what is really stirring in my heart and hearken back to the days when I was a state and local floodplain manager. That is, what a community—more specifically a local or regional floodplain manager—can do in the aftermath of a flood disaster to make their community more resilient to flooding.

I think there are three primary activities that should be done.

1) Effective floodplain permit administration. First things first. You’ve got to do substantial damage determinations followed up by consistent issuance of permits for reconstruction! In communities that have several hundred or more flooded structures, this will be a significant undertaking. But there are resources that can help. Every state has a floodplain management office that must, among other things, coordinate the NFIP. Most have job aids, handbooks or other helpful information and may even be able to assist you directly in your efforts. ASFPM maintains a listing of state floodplain managers [here](#). ASFPM also has chapters in 36 states and some of them like Oklahoma, Ohio and Georgia have chapter-based response teams that focus on in-state assistance to local floodplain managers needing this help. In addition to technical resources like FEMA’s [Substantial Improvement/Substantial Damage Desk Reference](#), the agency can, in large federally-declared disasters, utilize its contractors to help with conducting substantial damage determinations. If a community does nothing else, effective floodplain permit administration post-disaster can be one of the most impactful efforts affecting future flood resiliency.

2) Review and update plans, codes and standards. Often after a large disaster there is the tendency to roll back standards, especially those higher than NFIP minimums. For example, Baton Rouge and some area communities rolled back their higher standards after its 2016 flood event, making tens of thousands of buildings less resilient in the future. I say that after a flood is time to reflect and enhance local codes and standards. In terms of floodplain regulations, some of the following techniques have been successfully used by other communities in the nation:

- Implement a temporary moratorium on rebuilding, giving local officials time to plan and carefully consider standards that can increase resiliency.

- Increase the flood protection elevation by adopting a freeboard (a freeboard of 3-4 feet can result in up to a 75% discount on flood insurance premiums).
- Decrease the substantial damage threshold to 40, 30 or 25% to require more buildings to be elevated (this can increase the availability of Increase Cost of Compliance funds through NFIP policies).
- Implement use standards to prohibit certain critical uses from flood hazard such as hospitals, fire and police stations.
- Increase the areas to which floodplain standards apply to the 500-year floodplain and/or the area that was inundated by the most recent flood event. Consider increasing the flood protection elevation to the most recent flood event if it exceeds the base flood elevation (this can increase the number of homes that will have access to ICC funds through NFIP policies that can be applied to mitigation).
- Strengthen standards for new subdivisions—this addresses how and where to build before it is built, saving heartbreak and damage when flooding occurs.
- Adopt standards specific to critical facilities like hospitals to ensure they are built, at a minimum, to the 500-year flood or flood of record (whichever is greater).

The ASFPM Floodplain Regulations Committee developed a helpful [Guide for Higher Standards in Floodplain Management](#) that describes 25 higher standards that can be adopted locally. Our No Adverse Impact Committee worked to develop [NAI How-to Guides](#), with each one containing at least five NAI-level actions a community can take. Currently five of them have been published, including ones for [Planning](#) and [Regulations and Development Standards](#). With support from FEMA, ASFPM and the American Planning Association jointly developed a Planners Advisory Service report titled [Subdivision Design and Flood Hazard](#) (PAS-584) that includes more than 60 higher standards communities can use to strengthen their subdivision regulations.

In addition to specific regulations, communities should review their zoning maps/standards to determine whether areas that have extreme flood risk are zoned appropriately. For example, if you have two regional detention basins like they have in Houston—in those inundation zones flooded when the gates are wide open or the emergency spillway is operating—what is the zoning in those downstream areas that will eventually be flooded? Will those homes flood because the spillways had to be used? Finally, post-disaster recovery planning can be very effective to holistically consider many planning and rebuilding decisions. APA's [Planning for Post Disaster Recovery: Next Generation](#) is a helpful guide.

As part of updating codes and standards, don't forget to update maps and areas where such standards apply! In communities or areas that the FEMA mapped flood zone is approximate, an effective approach going forward is to adopt and regulate to the historic flood elevation.

3) Pursue mitigation options for older at-risk buildings and infrastructure. While the notion of doing mitigation during a sunny day, before a disaster, is appealing philosophically, it runs headlong into the reality of human nature, which has shown time and again that people don't want to undertake such drastic measures when not mandatory without funding assistance. Instead, what most practitioners who have been through a flood disaster know, the BEST opportunity to mitigate older, at-risk buildings and infrastructure is after a flood event. Typically the State's Hazard Mitigation Office (usually found in the state emergency management agency) is responsible for administering grants that can be used to floodproof, elevate, acquire, demolish or relocate buildings, upsize drainage systems for neighborhoods, and similar such measures. ASFPM maintains a list of state mitigation officers [here](#), and these same folks likely are aware of other funding opportunities such as those available through HUD's Community Development Block Grant program. After a federal disaster declaration, the Small Business Administration has low interest loans to rebuild damaged or destroyed buildings and some of that funding can be used to mitigate. HUD's Federal Housing Administration has a loan program, FHA 203K loans, which show great promise to be the nation's go-to source for loans to do flood mitigation. It is available anytime, has a competitive interest rate, and can be obtained as long as the borrower has a decent credit score. It was widely used in Middletown, New Jersey after Hurricane Sandy for rebuilding. ASFPM will be doing a webinar later this year on the 203K loan program.

Did you know that after a federal disaster declaration, there are resources available to do flood mitigation to public infrastructure? This program, called 406 Mitigation, is made available by FEMA through its Public Assistance program. So make sure your public works director or other community officials in charge of infrastructure assets are aware of this program. In fact, on Nov. 9, ASFPM's Research Scientist Robyn Wiseman, former public assistance officer for Wisconsin, will be teaching a [webinar](#) on the 406 mitigation program.

Finally, we know your job as a floodplain manager can be made infinitely more difficult if elected officials in your community are in denial about their flood risk or maybe are not so embracing of some of these ideas. Through funding from the [ASFPM Foundation](#) and the [Westfield Insurance Foundation](#), ASFPM is updating its popular but dated [Guide for Elected Officials on Addressing Your Community's Flood Problems](#) by making it more interactive, adding interviews and allowing it to be viewed/downloaded on tablets and other mobile devices.

ASFPM knows the importance of your work to make your communities safer and more resilient against future flood risk after a disaster, and we will continue to develop information, tools and other aids to make that a reality. Even if you cannot do all of these after a flood, PLEASE DO NOT let complacency take root because the event was too large or too extreme. Remember, as bad as Harvey has been so far, we have seen equal or greater rain levels from a cyclone before (and the old record for the continental U.S. was Texas), we have seen far more deaths and injury (Galveston storm of 1900 and Katrina), and we have seen equally huge economic damage (Katrina). These events can and will happen again in the future and that is not under our control (notwithstanding the things we can do to limit the impacts of climate change). What is under our control is how we react and respond to them.

Your partner in loss reduction,

Chad

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