Association of State Floodplain Managers

Dedicated to reducing flood losses & protecting floodplain resources

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ASFPM Shining Chapter Star in Lone Star State

The <u>Texas Floodplain Management Association</u> was this year's ASFPM Outstanding Chapter, an annual honor bestowed to chapters for going above and beyond, and for creating and implementing programs that other ASFPM chapters can do as well.



TFMA, with 2,300 members, was selected for several innovative programs, which include:

"Ask the Expert" program, formally known as the Mentor Program, is made up of 56 Certified Floodplain Managers in good standing who have at least five years of floodplain management experience. They provide technical assistance to those in the floodplain management profession, but also to the general public. And the program serves as a resource for those looking to get into the field and/or get their CFM. Incidentally, Texas currently has 2,000+ CFMs.

Initiated the "TFMA Annual Higher Standards Survey" to encourage communities to adopt floodplain management standards that exceeded the minimum NFIP requirements.

Created the **Intrastate Floodplain Management Training** program in cooperation with FEMA Region VI and ASFPM chapters in New Mexico, Oklahoma, Arkansas and Louisiana.



TFMA President Jessica Baker and TFMA Vice President Joe Fernandez accept the Outstanding Chapter Award at ASFPM's national conference June 2016 from ASFPM Executive Director Chad Berginnis (left) and ASFPM Chair Ceil Strauss (right). After the deadly floods in 2015, TFMA took the lead in post-disaster coordination by facilitating a meeting with state and federal agencies. TFMA leadership, FEMA Region VI, USACE Fort Worth District, Texas Water Development Board and Texas Division of Emergency Management sat down and brought together thoughts, ideas and action plans, not only for the current disaster, but also a plan for the future.

And new this year is the **Texas FloodED** program, a grassroots education effort to introduce TFMA to the state's elected officials. Not only is it a great networking opportunity for TFMA members, but it's also a great way to make an impact on potential future flood-related policy, legislation and funding in Texas.

Jessica Baker, current TFMA president and a Halff Associates vice president, said teams began setting up meetings this May. "The goal is to complete all meetings before the November 2016 election. The Texas Legislature only meets for five months every other year, so it is critical we meet as many state reps and senators as possible before the next session starts in January."

When asked how TFMA is able to do the follow through for these programs, and what makes your member volunteers so dedicated, Baker said, "TFMA's member volunteers understand the importance of our FloodED campaign following the devastating flooding our state has faced in 2015-2016. There is a heightened awareness of flood risks in our state, including the highest levels of our state government. Gov. Greg Abbott proclaimed May 23-27, 2016 as Flood Awareness Week in Texas. TFMA utilized this opportunity as an outreach campaign and many of our members, corporate partners, communities and even local news stations participated with 'Wear Blue for

OTHER ASFPM OUTSTANDING CHAPTER AWARD WINNERS

Oklahoma Floodplain Managers Association (2015)

Colorado Association of Stormwater and Floodplain Managers (2014)

New Jersey Association for Floodplain Management (2013)

Would you like to nominate your chapter for the 2017 award? Learn how to submit an application <u>here</u>.

Texas Flood Week.' We plan to continue this effort annually after the great success we experienced in 2016. "



News anchors from KEYE TV taking part in the "Wear Blue for Texas Flood Week."

Baker said the TFMA volunteer dedication is why being named ASFPM's Outstanding Chapter was such an "incredible honor. We are lucky to have a very large chapter with dedicated members and strong partnerships throughout our state and region. Thank you to ASFPM for this outstanding recognition!"

TFMA is just one of <u>36 ASFPM chapters</u> doing great work across this nation. The <u>Arizona Floodplain Management Association</u> became the first ASFPM chapter in 1985, and the <u>Connecticut Association of Flood Managers</u> made history in 2015 by earning the title "ASFPM's 36th chapter."

Larry Larson, one of the founders of ASFPM and currently serving as our director emeritus and senior policy advisor, said that while ASFPM was growing and affecting changes on a national level in the 1970s, people in some states thought it would be useful to organize state floodplain manager groups.

"Arizona and Illinois became our first chapters because they wanted to focus on state issues, but also have a national connection," he said. "ASFPM was doing work on national flood policy and programs, meeting with federal agency program managers in Washington DC. Chapters were not able to do that, but had connections at the working level of these programs, so it made a good partnership."

When asked what the value is to having state chapters and what does it bring to ASFPM, Larson said it was a two-way street. "Chapters have someone to help them get adjustments to national programs that are not working at local level; receive FPM education and training; and help with getting organized and meeting IRS and other guidelines. ASFPM gains boots-on-the-ground FPM professionals who provide input as we shape and promote changes in national programs. The many locals and private sector members in chapters also let us know of new approaches or techniques that could be models for best management practices."

It's a win-win situation, which is why Larson encourages everyone to join their state or regional chapter.

"They will benefit immensely by joining a chapter and going to the chapter meetings," he said. "They can interact with peers who do the same thing they do. Whereas in their community, there may be no, or limited, peers to bounce ideas off of or consult with. This helps them dialogue and learn from each other, clarify how to meet the participation requirements of the NFIP, or learn of other federal programs that can help their community. Local chapters hold training sessions and exams so more locals can become CFMs—often the only professional recognition they may have that gives them standing in their work.

"Likewise locals can develop contacts with state organizations representing other professionals like realtors, insurance agents, lenders, groups promoting community resilience and more. The biggest challenge at the local level is the need to integrate the many stove pipes of programs or assistance coming from different sources. Peers can help them do that, and the chapter can invite those agencies and organizations to chapter meetings in order to interact and work with local floodplain management professionals.

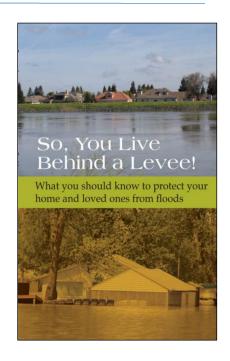
"It truly takes a family of agencies and programs to effectively manage flood risk, and the local floodplain manager needs to become the cog in that machine. He or she may not be the expert in everything related to flood risk, but needs to know who is an expert and where to find them.

"Being the local person in charge of helping manage the flood risk in their community is a tough job," Larson said. "The national association and ASFPM chapters are there to help the local do their job better and provide the training and support as best we can."

Did you know...

The <u>American Society of Civil Engineers</u> published "So, You Live behind a Levee!" ASFPM Executive Director **Chad Berginnis** said of the 30-page document, "It is one of the best publications for the general public/property owners I have seen in years. I recommend it all of the time to explain levee risk."

This ASCE free document is available here.



First D.C. Flood Summit held in September



"Together we learned about past flood events and ongoing experiences, best practices and new initiatives. We developed new partnerships and hopefully sparked the flame for new collaborations towards building a resilient Washington, DC. And throughout we were reminded that reducing flood risk is a shared responsibility that requires collaboration, communication and leadership," said **Phetmano Phannavong**, a DC Silver Jackets Co-leader who helped organize the event.

More than 150 experts gathered to discuss D.C. flooding at Gallaudet University Sept. 8, marking the first flood summit of its kind in Washington.

"We live in a flood-prone area, and we better face it," said Rep. **Eleanor Holmes Norton** during opening remarks. "You wouldn't know it because there's been too little discussion."

The congresswoman set the tone for the summit, impressing upon attendees that the Capital should be considered front and center nationally for issues on climate change and flood risk.

According to **Jason Elliott**, National Weather Service, Baltimore/Washington, senior service hydrologist and summit panelist, Washington is a three-way street for flooding. Not only is it located next to two major rivers that can flood, the Potomac and Anacostia, it is susceptible to coastal storm surge and interior flooding when storm drains are overwhelmed.

The summit, which was organized by the DC Silver Jackets, occurred the week of the 20th anniversary of Hurricane Fran that engulfed Washington in 1996. While Washington has experienced several large floods since, the Potomac River is due for a major one, said Elliott.

And since that time, Washington has only grown, putting more people and businesses at risk when the next flood comes.

Reducing Flood Risks

Corps of Engineers in the Capital

The U.S. Army Corps of Engineers (is a member of the D.C. Silver Jac)

Current Corps flood risk management provints the District of Columbia and visual member of the D.C. Silver Jac)

And This Assessment work of the District of Columbia and visual member of the District of Columbia and

Joe Reed (right), USACE, Baltimore District, Levee Safety
Program manager, and Stacey Underwood (left), USACE,
Baltimore District, DC Silver Jackets Program coordinator, discuss
high flood risks in our nation's capital and ways the Baltimore
District is helping to reduce these risks at the 2016 DC Flood
Summit held at Gallaudet University, Washington, Sept. 8.
(USACE photo by David Gray).

Read the full story, written by Sarah Gross,

USACE, and find resources, links to presentations and photos of the event here.

Job Corner

Cascade County, Montana is hiring a planning division administrator. An H&H and stormwater civil engineer is needed in Huntsville, Alabama. And Miami is looking for a director of its Department of Public Works. Check out these jobs and all the others listings on <u>ASFPM's Job Corner</u>. Or post your own job opening. It's completely free!



Three Upcoming ASFPM Webinars

Implementation and Impacts of the 2012 and 2014 Flood Insurance Reform Legislation Noon-1:30 p.m. CDT—Nov. 9

HFIAA affects every NFIP policyholder and its reforms could result in higher total flood insurance costs for some property owners than under Biggert-Waters. Flood insurance affordability continues to be an issue. There are several changes related to flood mapping processes, outreach and information on the maps. FEMA is trying to fast track many of these changes, but will be slowed down due to rulemaking on others. In this webinar, presented by ASFPM Executive Director **Chad Berginnis** and ASFPM Flood Insurance Committee Co-chair **Bruce Bender**, you will learn:

- What changes have already been implemented and which will be in the near future;
- How to be better prepared for questions on implementation of reform laws; and
- Strategies and actions to help policyholders reduce flood insurance premiums and address affordability.

Learn more and register here.

New! Structural Elevation (Raising Buildings) for Flood Hazard Mitigation—1-2:30 p.m. CDT—Nov. 22

Structural elevation is a proven method for flood hazard mitigation. Elevation reduces flood risk and lowers flood insurance rates. Elevation can stabilize property values thereby preserving vital tax revenues to local schools and governments. Private capital and grant programs have helped to elevate tens of thousands of buildings in the US, but at least 2 million pre-FIRM buildings remain that are not compliant with minimum NFIP Flood Insurance Rate Map elevation requirements. As NFIP flood insurance rates increase for all pre-FIRM buildings in the Special Flood Hazard Area, it is important for floodplain administrators to understand how structural elevation projects are put together, where to find financing and how to educate property owners about elevation. In this webinar, presented by **Roderick Scott**, principal of L&R Resources, you will:



- Learn how to field questions from property owners about elevation for flood mitigation;
- Gain a broad understanding about structural elevation for flood hazard mitigation; and
- Get information on how to plan, finance and execute a structural elevation project.

Learn more and register here.

New! Using Tolerable Risk Guidelines to Manage and Communicate Flood Risk—Noon-1:30 p.m. CDT—Dec. 1

Flood risk in the California Delta cannot be eliminated. Design standards specifying levels of flood protection address the hazard, while discounting consequences. In contrast, a risk analysis approach considers probability of flooding and consequences. Tolerable risk guidelines (TRG) recognize that society is willing to live with some risk in order to secure certain benefits. TRGs are useful in communicating risk and allocating resources. This webinar, presented by Arcadis Principal Engineer **Larry Roth** and Arcadis Water Resources Planner **Jessica Ludy**, will show how risk analysis and TRGs have been applied and can be used to inform decisions on flood risk management. After participating in this webinar, attendees will be able to:

- Define flood risk, residual risk and tolerable risk;
- Identify advantages of a risk-informed vs. limitations of a "level of protection" approaches;
- Describe the four basic steps in applying TRGs to flood management;
- Provide three examples of risk metrics; interpret the information shown on an F-N plot; and describe how knowledge of flood risks can be used to inform decisions.

Learn more and register here.

Let this be the year to make your life easier. Join ASFPM today.

2016 was a record flood disaster year, and based on ample research and reports, we don't anticipate future years will be any less busy or costly. As a floodplain manager, often wearing many hats, you don't have time to read up on all the latest law changes, mitigation practices and tools that you and your community or clients need. This is where <u>ASFPM</u> comes in. We keep up, read up and summarize, repackage and advocate for those things that matter to you. And for the low cost of an annual membership you get all this at your fingertips, along with a community of more than 17,000 other member/peers across the country sharing their success stories. Let this be the year to make your life easier. <u>Join ASFPM today</u>.

ASFPM membership also means we can help you:

- Stay on top of industry trends,
- Earn professional credibility through our Certified Floodplain Manager program at a discounted price,
- Be the first to hear about ASFPM created tools and resources, like the <u>No Adverse Impact How-to Guides</u>, <u>Flood Mapping for the Nation</u> report, legal research/guidance and technical papers,
- Get your voice heard on The Hill, especially with national policies that could impact your community,
- Receive email blasts explaining complicated issues, like <u>FO 13690 and Federal Flood Risk Management Standard</u>,
- Attend webinars critical for your day-to-day activities at a discounted rate,
- Get the members-only newsletter, "The Insider," packed with information you need to be an effective floodplain manager,
- Contribute your perspective through our 14 policy committees, and
- Receive discounted rates to <u>ASFPM's annual national conference</u> and specialty workshops.

<u>New members can join now</u> and get the rest of 2016 for free and be 2017 members. For existing members, look for your renewal email, coming soon, and be sure to renew your membership by Dec. 31.

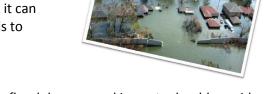
If you have any questions about membership, please email memberhelp@floods.org.



Promoting Flood Resilience for Water and Wastewater Systems

As you know, water and wastewater utilities are particularly vulnerable to flooding because they are often located in low-lying areas near water bodies. Also, extreme precipitation may overwhelm current water management and flood control infrastructure. Potential flooding impacts to drinking water and wastewater utilities include service disruptions, power outages and damage to infrastructure such as treatment plants, intake facilities and water conveyance and distribution systems and pump stations.

While flooding can be a challenge for water and wastewater utilities, it can be more cost-effective to mitigate the impacts from flooding than it is to repair the damage.



Utilities can build resilience by implementing hazard mitigation and climate adaptation measures. A comprehensive approach to reducing flood damage and impacts should consider measures that:

- update and practice emergency planning activities (e.g., flood response plan);
- upgrade or modify equipment to reduce vulnerabilities (e.g., elevate electrical equipment); and
- invest in new projects to build resilience or relocate critical assets (e.g., barrier around influent chamber).

The U.S. Environmental Protection Agency collaborated with drinking water and wastewater utilities, water sector associations, climate science experts, risk assessment experts and other federal agencies to create a number of tools and resources (below) to assist utilities and communities vulnerable to flooding.

• The EPA's <u>Flood Resilience: A Basic Guide for Water and Wastewater Utilities</u> is a user friendly resource with interactive worksheets, flood data and videos. The guide presents a four-step process to help flood-prone utilities become more resilient by understanding their flooding threat and identifying practical mitigation options to protect their critical assets. It provides instruction on how to use FEMA flood maps and helps utilities compare the existing elevation of assets to expected flooding levels to identify potential vulnerabilities.



City of LaSalle, Illinois' wastewater plant office building with about 10 feet of water over site. Taken at high water crest of about 33.7 (~elev. 465) Sept. 16, 2008. Photo by Pam Broviak via Flickr.

- Also useful is the EPA's <u>Hazard</u>
 <u>Mitigation for Natural Disasters: A Starter</u>
 <u>Guide for Water and Wastewater Utilities</u>,
 which guides utilities to join local mitigation
 efforts and incorporate their projects into
 local mitigation plans so that they are
 eligible for state and federal funding.
- For utilities considering a longer planning horizon to deal with the dual threats of climate change and flooding, the EPA's *Adaptation Strategies Guide* serves as an introduction to climate change adaptation options for drinking water, wastewater and stormwater utilities. Organized by region and climate-related impact, the guide provides a better understanding of what challenges utilities might anticipate in

addition to adaptation strategies that can be used to prepare systems for the projected impacts of increased flooding.

• The EPA's Climate Resilience Evaluation and Awareness Tool was designed to help utilities complete a climate change risk assessment that would help a utility to mitigate flood threats. Through an intuitive process, CREAT assists users with meeting specific goals—such as building awareness of the latest climate science related to increased precipitation events and sea level rise or quantifying potential consequences—which will enable utilities to select and justify investments in adaptation measures. Use of CREAT has benefitted cities and utilities of all sizes across the United States. CREAT is available through the website of EPA's Climate Ready Water Utilities (CRWU) Initiative.



Beyond the review and consideration of adaptation strategies, water utilities can review and select the
climate data that apply to the system today and to potential future threats. Most utilities do not have an
expert to evaluate climate model projections relevant to their community. To assist utilities in using
climate data, EPA has posted climate projections of precipitation, temperature, extreme weather events
and sea level rise (CREAT Climate Scenarios Projection Map). EPA has also mapped storm surge and
hurricane strike frequency based on historical data (CRWU Storm Surge Inundation Map). Both maps
provide descriptions of the datasets and advise utilities to consider multiple scenarios to ensure that
assessments include multiple, future climate conditions. These tools are available through the CRWU
website.

This article was written by **J. Stephen Fries** (EPA), **David Goldbloom-Helzner** (EPA), **Mikko McFeely** (ORISE Participant, EPA), and **Zachary Rybarczyk** (ORISE Participant, EPA).

Insurance against Extreme Events: Pairing Short-term Incentives with Long-term Strategies



An Issue Brief by **Howard Kunreuther**, co-director of the Wharton Risk Management and Decision Processes Center

Consumers tend to purchase too little insurance or purchase it too late. Consequently, taxpayers wind up bearing substantial burdens for paying reconstruction costs from extreme events. The 2005 and 2012 hurricane seasons alone cost taxpayers nearly \$150 billion. There is much that can be done to better facilitate the role that insurance can play in addressing losses from extreme events, both natural and man-made. To better meet its objectives, insurance must implement two guiding principles. One, premiums should accurately reflect risk. Two, special financial assistance should be made available to homeowners who would no longer be able to afford their premiums. Collectively, these measures would lead to less property damage, lower costs to homeowners, more secure mortgages and lower costs to government and taxpayers for disaster assistance. *Read Kunreuther's full brief here*.

From the Chair

Ceil C. Strauss, CFM & State Floodplain Manager in St. Paul, Minnesota

And Then the Flood Came . . .

I remember a commercial that used to run on the radio that had someone calling from the "office of inconvenient illnesses" to "schedule" an illness a few days later. The call recipient responded that wouldn't be convenient and started listing off their schedule, but the scheduler responded the illness was all set for that busy day.



Floods show as much consideration for our schedules as that fictional illness scheduler! We've had big national floods recently in Louisiana, and even more recently in the areas impacted by Hurricane Matthew.

When floods hit Minnesota and neighboring Wisconsin last September, we had already experienced several smaller flooding events over the summer. We were in the midst of a series of local official floodplain management workshops and map update meetings around the state. Plus we were working with 42 communities in our most populated county to get updated ordinances and help the communities be prepared for calls from citizens who will not be happy with the new countywide map, much of which used "digital capture" and did not redraw the boundaries using the LiDAR that has been available for several years. So while it was not a convenient time to have a flood, we had the biggest flood we'd had in at least a couple years, with up to 13 inches in an area that had experienced a wet summer.

So what can we do to minimize the disruption due to the floods? Here are a few points we've talked about extensively in the past and that were reinforced during our most recent flood:

- Past mitigation pays off—Communities that have done past mitigation projects benefited when the most recent flood hit. One local official in a community that had done many types of flood reduction projects told me flood waters were mainly in the buyout areas. And a gate that was installed in a levee in accordance with the city's flood response plan prevented flooding of an apartment complex.
- Enforcing regulations pays off—There was little damage to newer (post Flood Insurance Rate Map) structures in mapped high flood risk areas with floodplain management regulations.
- Need to map the unmapped risk—The cities hit hardest were unmapped communities or those where
 the maps were rescinded during the late 1970s and early 1980s. There are many small communities in
 that era where development was not expected to expand in flood-prone areas, so the areas were not
 mapped. Times have changed.
- Need to map the residual risks—There was at least one house left partially cantilevered over the river
 due to the river erosion from flooding. And nearby in Wisconsin a house caught in a landslide caused one
 of the state's deaths. A "slow" dam failure avoided damage downstream, but it could have been bad with
 a faster failure.
- Urban flooding—In several areas there was damage due to urban flooding. Development had
 not been allowed in the mapped flood-prone areas, or had been removed with past mitigation
 efforts.

We still have plenty of work to do to identify risk, enforce regulations, prepare response plans and mitigate the existing buildings at risk. But the more we do in all these areas, the less inconvenient that next big flood will be!

Navigating the Crazy Social Media World, Tip No. 12

By Michele Mihalovich, ASFPM's public information officer

This month, I'm going to do something a bit different here because I need to get something off my chest. If you are one of the millions of humans using an 's to make a noun plural...STOP! This grammar faux pas is so rampant, editors have nightmares about it. It makes us even more cranky than normal. Proper and downright WRONG examples below:

NO! I'm glad photos of my hair from the **1980's** aren't on the Internet. (plural, representing multiple years in that decade)

YES! Of all the 1980's hair bands, *Loverboy* was my favorite. (possession, with a special note. If you write, "I loved hair bands from the 1980's," you will be WRONG! See the difference?)

NO! I have six dog's. (plural)

YES! I always forget my dog's leash at home. (possession)

NO! How many CEC's can I earn from the workshop? (plural)

YES! A total of 29 CFMs attend the workshop. (plural)

Clear as mud, right? Here is all you have to remember: If you need to indicate something is plural, just add an "s" (or change the "y" to "i" and add "es," etc.).

Need some advice on how to navigate the crazy social media world? Please contact **Michele Mihalovich** at <u>michele@floods.org</u>.

NOAA awards \$44 million for climate research to improve community resilience

NOAA's <u>Climate Program Office</u> has awarded \$44.34 million for 73 new projects designed to help advance the understanding, modeling and prediction of Earth's climate system and to



foster effective decision making. Some anticipated outcomes include more accurate forecasts, early warning hazards of drought, more robust decision support services, enhanced community and drought preparedness, and improved ability to respond and adapt to climate-related public health impacts. *Read full article here*.



ASFPM's 41st Annual National Conference Kansas City, MO April 30-May 5, 2017

ASFPM will convene the world's largest and most comprehensive floodplain management conference – our 41st annual gathering—April 30-May 5, 2017 at the Kansas City Convention Center in downtown Kansas City, Missouri—<u>the city of fountains</u>. We invite you to share your experiences with local, state, regional, tribal and federal officials, industry leaders, consultants and a wide variety of subject matter experts from diverse fields who will give presentations relevant to our theme, "Managing Flood Risk in the Heartland."

Time is running out if you plan to submit an abstract for a presentation at the conference. Deadline is Oct. 31. Go to the <u>conference website</u> and follow directions to submit online.

Conference registration doesn't open until February, but that doesn't mean you can't book your hotel room now. We have contracted with <u>Kansas City Marriott Downtown</u>, which is within easy walking distance to the convention center. And there is sooo much to do in Kansas City. Check out this <u>VisitKC website</u> that highlights "things to do," lists events and cool restaurants and even "how to get around town" advice.

ASFPM's conference website is constantly being updated, so check it often!

Coastal GeoTools is set for Feb. 6-9, 2017 in North Charleston, South Carolina

The dates for <u>Coastal GeoTools 2017</u> have been set! Mark your calendars for Feb. 6-9, 2017 to make sure you don't miss out on sharing your geospatial expertise and experiencing the opportunity to learn from your peers. We'll be convening in North Charleston, South Carolina. So start planning now.

Online registration will become available in early November and the early-bird rate will be \$375. The hotel room block will open up at the same time with a nightly rate of \$146 plus tax.

Sign up for <u>the mailing list</u> to receive email updates such as registration and lodging information.

Is your company interested in sponsoring or exhibiting at Coastal GeoTools? Check out the *variety of opportunities*.

Have questions? Contact us at info@coastalgeotools.org.



What's happening around the world?

A collection of the most viewed stories on our <u>Facebook</u> page

The World

Read "The Point of No Return: Climate Change Nightmares Are Already Here. The worst predicted impacts of climate change are starting to happen — and much faster than climate scientists expected," from the Rolling Stone.



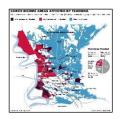
The Nation



No matter how often the U.S. is hit with storms, wildfires and other natural disasters, cities and states remain poorly prepared. Houses are destroyed, transit systems are swamped, roads and bridges are wiped out. FEMA sweeps in to help with cleanup, temporary shelter and rebuilding. But then life goes on, with little concern for next time—because the political and financial incentives work against being prepared. Read this *Bloomberg article here*.

Louisiana

While many of the East Baton Rouge Parish residents who flooded lived in relatively affluent suburban neighborhoods, low-income areas washed out, too. Those poorer residents may be in for a rebuild that is slower, tougher and more bound in red tape than the wealthier folks across town. Many may never come back home. Read, "Why residents in Baton Rouge's poorest areas could face slower, tougher rebuild after floods."

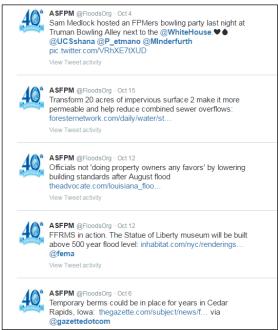


Texas

This confirms that the life of a floodplain administrator can be a tough job. Rancho Viejo Waste Management announced it has filed a lawsuit against Webb County's floodplain administrator due to her alleged overreaching power and unlawful interference with the permit process for the proposed Pescadito Environmental Resource Center. Read the *full article here*.

Top Tweets in October



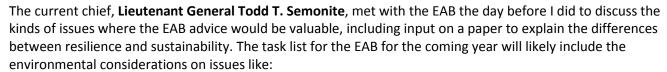


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Policy Matters!

Larry Larson, PE, CFM Director Emeritus – Senior Policy Advisor, ASFPM

I recently had the opportunity to travel to Pittsburgh to meet and discuss key issues with the Environmental Advisory Board to the US Army Corps of Engineers. The EAB was created by the Chief of Engineers in 1970, as a means for the chief to gain outside, expert and independent advice on environmental issues facing the Corps. The board is made up of 5-10 experts from a range of professions, including biological sciences, engineering and policy experts, etc.



- 1. Aging infrastructure (levees, dams and locks and other USACE facilities)
- 2. Climate change and what it means to USACE programs and policies
- 3. Adaptive management to address the aspects of a changing climate
- 4. Environmental restoration and regional issues
- 5. The next big environment-related issues that will impact USACE

As most of you know, the Corps has an annual budget from \$5 billion to \$10 billion, with disaster supplemental funding that may exceed its regular budget. Some interesting facts about Corps of Engineering programs and mission include: (1) the annual budget to operate, maintain and rehabilitation (OMR) their existing infrastructure projects has exceeded the budget for constructing new projects for years and that gap continues to grow. It is also more difficult to get funding from Congress for OMR for obvious reasons. (2) Environmental restoration was added as a mission area for USACE years ago, with the classic example being the Everglades restoration with spending well into the billions over decades and still ongoing. (3) USACE is the largest producer of hydropower in the federal government, with about 75 hydropower facilities at its 750 USACE owned dams. Additional information about the *Corps of Engineers Water Resources Infrastructure* can be found in this report from the National Academies of Science.

Collaboration between ASFPM and the EAB provides real opportunities to discuss many matters of mutual concern. For example, I was able to explain to the EAB the long-term evolution of focus in the Corps regarding broader consideration of environmental and social issues related to Corps policies and programs. The issue of impediments to environmental restoration is a topic being addressed by the <u>Natural Floodplain Functions</u> <u>Alliance</u>, which is led by the <u>Association of State Wetland Managers</u>, ASFPM and <u>American Planning Association</u>, along with others. An interesting evolution is the change from the term "flood control" to "flood risk management." The Corps has a <u>Flood Risk Management newsletter</u> now that covers a broad range of flood risk issues, reports from some of the Silver Jackets teams, and the levee safety collaboration taking place between the Corps and FEMA. The initial steps of this collaboration are to develop a levee inventory and align their levee safety policies.

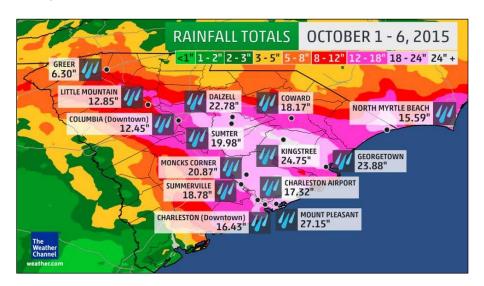
In today's changing world, interagency and inter-organizational collaborations are essential. These collaboration efforts allow us to share the successes and obstacles encountered by our members throughout the nation.

Not an ASFPM member yet? <u>Join now</u> for access to countless member benefits, like deep discounts on our webinars and national conference, receipt of our member-only newsletter "The Insider," and member alerts keeping you informed about national policies and issues that could impact your community, state, agency or company. Have questions? Contact our Member Services Coordinator **Jim Dunham** at <u>memberhelp@floods.org</u>.

This month in Flood History

October 2015 North and South Carolina flooding

The October 2015 North American storm complex was a high precipitation event that caused historic flash flooding across North and South Carolina. The incipient cold front traversed the eastern United States on Sept. 29–30, producing heavy rain in multiple states. The system subsequently stalled just offshore. Tapping into moisture from the nearby Hurricane Joaquin, a developing surface low brought heavy, continuous rain to southeastern states, with the worst effects concentrated in South Carolina where catastrophic flooding occurred. The event culminated in South Carolina Oct. 4 when numerous rivers burst their banks, washing away roads, bridges, vehicles and homes. Hundreds of people required rescue, and at least 25 deaths have been attributed to the weather complex: 19 in South Carolina, 2 in New York, 2 in North Carolina, 1 in Florida and 1 in New Brunswick. Damage in South Carolina alone is estimated at \$12 billion. Read this article about how the flood changed Columbia, SC. Another interesting story comes from Property Casualty 360: "8 lessons learned one year after the South Carolina floods."



Hurricane Sandy

Hurricane Sandy, which initially developed from a tropical wave in the western Caribbean Sea Oct. 22, 2012, slammed into Brigantine, New Jersey Oct. 29. It was the deadliest and most destructive hurricane of the 2012 Atlantic hurricane season, and the second-costliest hurricane in United States history. It affected 24 states, including the entire eastern seaboard from Florida to Maine and west across the Appalachian Mountains to Michigan and Wisconsin, with particularly severe damage in New Jersey and New York. Its storm surge hit New York City, flooding streets, tunnels and subway lines and cutting power in and around the city.



Damage in the United States amounted to \$71.4 billion (2013 USD). At least 233 people were killed along the path of the storm in eight countries. Photo above shows streets damaged during Hurricane Sandy in Ortley Beach, New Jersey. Photo credit: Reuters/Tim Larsen/Governor's Office



What's the ASFPM Foundation been up to?

Second Larry Larson Speakers Series a Success

ASFPM Foundation's second Larry Larson Speaker Series: Creating Flood Resilient Communities was held Oct. 6 at the NOAA Center for Weather and Climate Prediction connected to the University of Maryland. The keynote speaker was **Dr. Donald Boesch**, professor of marine science and president of the University of Maryland Center for Environmental Science. A native of New Orleans, Boesch received his B.S. from Tulane University and Ph.D. from the College of William and Mary. He was a Fulbright Postdoctoral Fellow at the University of Queensland and subsequently served on the faculty of the Virginia Institute of Marine Science. In 1980 he became the first executive director of the Louisiana Universities Marine Consortium, where he was also a professor of marine science at Louisiana State University.

"Effective coastal adaptation requires getting a 'fix' on sea level rise," Boesch said. As atmospheric greenhouse gasses increase measurably, some 43.5 percent over pre-industrial concentration, global mean temperatures have increased. Sea level rise is a result of heat building up in oceans, which causes them to expand, thus raising the ocean levels, he explained. If we reduce greenhouse gasses rapidly (see the Paris Agreement), we can stabilize global warming. But if not, temperatures will continue to escalate. Through tide gauges and satellite data, scientists



Keynote speaker at 2nd Larry Larson Speaker Series **Dr. Donald Boesch**, professor of marine science and president of the University of Maryland Center for Environmental Science, accepts award from ASFPM Foundation President **Doug Plasencia**. Photo credit: **Veronica Villalobos-Pogue**.

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

supported development of the <u>CFM</u> program, <u>No</u>
<u>Adverse Impact</u>
publications, <u>college student</u>
<u>paper competitions</u>, <u>higher</u>
<u>education opportunities</u> in
FPM, and specialty think
tank meetings, including the
<u>Gilbert F. White National</u>
<u>Flood Policy Forums</u> and
<u>Larry Larson Speakers</u>
<u>Series</u>.

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.

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observe sea level rising and land subsidence on upward trends. While the Corps of Engineers, NOAA, Department of Defense and other infrastructure resiliency groups have developed scenarios for worldwide—estimates of sea level rise using probability projections. He said the "wild card" is the West Antarctica loss of ice mass, which adds great amounts of water into the ocean. With storm surge riding on top of sea level rise, he cited some dire consequences unless nations change practices of transportation, flood supply and depletion of soil organic matter. Following his address, a question and answer session followed where he responded to questions about sea level rise and greenhouse gas emissions. Audience members included representatives of academia, environmental scientists, private sector companies and government.

Also at the Speaker Series, **Margaret Davidson**, J.D, acting director of the NOAA Office of Ocean and Coastal Resource Management and senior advisor for

Acting Director Office of Coustal 8

NOAA Senior Leader for Coastal II

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Keynote speaker at 2nd Larry Larson Speaker Series **Dr. Donald Boesch**, professor of marine science and president of the University of Maryland Center for Environmental Science, talked about his respect for **Margaret Davidson**, J.D, acting director of the NOAA Office of Ocean and Coastal Resource Management, who was awarded the foundation's first "Shaping our Future Award." Photo credit: **Diane Brown**.

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Coastal Inundation and Resilience Science and Services, was awarded the foundation's first "Shaping our Future Award." This award is intended for individuals who have been visionary in how we change and strive to address the flood-related issues throughout our nation. NOAA's Maria Honeycutt accepted the award for Davidson, saying she deserved the award for getting science in the hands of practitioners, including floodplain managers and risk assessment professionals. She cited Davidson's contributions as her "role of an agitator; role of an innovator; and role of communicator of the art of the possible."

Watch a video of the 2nd Larry Larson Speakers Series here.

Five inaugural Foundation Fellows were introduced at the event and presented with pins: **Scott Edelman**, **Mike Moye**, **Larry Olinger** (unable to attend), **Michael Pavlides** and **Wallace Wilson**. The purpose of the ASFPM Foundation Fellows Program is to provide an opportunity for long-standing supporters of the foundation (volunteerism and/or financial supporters) to remain engaged and active with in a role that helps promote the vision of the ASFPM Foundation.

The next Larry Larson Speaker Series is planned for mid-2017 and a Gilbert F. White Flood Policy Forum is planned for next fall 2017. Details on these events will be announced in the near future.

Thank you to our 2016 Speaker Series Sponsors

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ASFPM Foundation & Partners to host Digital Coast Fellow

Jake Thickman was selected to become a "fellow" in the 2016 <u>Digital Coast Fellowship Program</u>, where he will be helping states achieve adaptive management of changing coastal hazards, risks and ecosystems. Thickman's two-year fellowship is part of the Coastal Management Fellowship program offered by <u>NOAA's Office for Coastal Management</u>. The fellowship, a collaboration between NOAA OCM, <u>ASFPM Foundation</u> and <u>Coastal States</u> <u>Organization</u>, began in September and runs through August 2018.



We know coastal ecosystems are under increasing

pressure as a result of growing development and sea level rise. A number of policy guidance documents have been produced by organizations representing coastal management professionals, including ASFPM, ASFPM Foundation and CSO, in an effort to update coastal management policies and practices in light of these changing threats to productive ecosystems. To this point, however, no framework exists for implementing the progressive policies put forth. Finding ways to implement recommendations within the ASFPM Foundation's "Holistic Coasts" report was a key driver in developing the fellowship proposal.

This fellowship aims to fill this gap in knowledge through a review and synthesis of federal and state coastal management policies, identifying model policies at the state level, seeking policy avenues for increased funding and collaboration in the management of coastal areas, and ultimately providing guidelines for the development of a holistic approach to coastal zone management.

The fellowship has four tasks with set milestones and outcomes:

Task 1 - Orientation, Strategic Objectives, Literature and Policy Review

Timeline: August 2016 – June 2017

Outcomes/Milestones:

- Annotated bibliography of federal resources related to coastal flood risk and management
- Summary memo describing federal policies and programs related to coastal flood risk and management
- Cross-walk of ASFPM, CSO coastal policy issues
- Initiate the Digital Library Coastal Policy Special Collection

Task 2 – Review and Synthesis of Coastal Zoning Policies from Local, State and Federal

Timeline: November 2016 – August 2017

Outcomes/Milestones:

- Annotated bibliography of local and state resources related to coastal zoning, flood risk and management
- Summary memo describing local and state policies and programs related to coastal zoning, flood risk and management
- Add to the Digital Library Coastal Policy Special Collection
- Initiate Digital Coast Tools and Policy Matrix

Task 3 – Silver Jackets and Coastal Floodplain Emphasis

Timeline: July 2017 – March 2018

Outcomes/Milestones:

Silver Jackets guidance for coastal and floodplain managers

- Digital Coast Tools Matrix for <u>Silver Jackets</u> projects
- Identify technical and financial assistance opportunities for coastal programs and floodplain managers through participation in Silver Jackets

Task 4 – Initiate Research to help establish a Holistic Coasts Framework

Timeline: January 2018 – August 2018

Outcomes/Milestones:

- Process guidelines for developing Holistic Coasts framework
- Publically-accessible Digital Library Coastal Policy Special Collection
- Holistic Coasts Appendix: Linkages of Sea Level Rise, FFRMS and Coastal NAI

Thickman, who will have an office at the ASFPM executive office in Madison, Wisconsin and at the CSO office in DC, said he's looking forward to navigating the coastal management policy landscape.

"My passion for coastal environments is rooted in my time spent growing up in and around the estuaries and beaches of Florida," he said. "As an undergraduate I attended the University of Florida where I earned my B.S. in Environmental Science. Upon graduation I turned my focus more towards marine and coastal issues, relocating to Long Island, New York and beginning an M.A. program in Marine Conservation and Policy at Stony Brook University. Within my first two months of living in New York, Hurricane Sandy made landfall. It was an eye-opening experience for me, seeing the impact of this storm having dealt with several hurricanes growing up in Florida. With Sandy still fresh in my mind, I began work on recovery efforts through the New York State Resiliency Institute for Storms and Emergencies once my degree was complete, conducting analyses of storm impacts on coastal ecosystems and infrastructure in New York. It was there that I met my eventual M.S. advisor Dr. Chris Gobler, and have since completed a Master's in Marine Science in which I focused on improving coastal water quality monitoring in local estuaries."

ASFPM Foundation President **Doug Plasencia** said, "**Margaret Davidson** of NOAA always challenges organizations to 'rub their nickels together' to make something big happen. That is what is occurring with this fellowship. The foundation, by providing the non-federal cost share, and by partnering with ASFPM, CSO and NOAA, is providing an opportunity to link a number of partner activities while at the same time immersing a rising star in the practical world of coastal zone flood risk and resource management. This investment in Jake will lead to immediate and worthwhile products, and perhaps most important, is an investment in a person who will pay dividends for years to come."



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ASFPM Submits Comments on FEMA's Proposed Rule to Implement FFRMS

Read the full document, where ASFPM outlines its overall impressions, as well as concerns, <u>here</u>. ASFPM would also like to thank all who helped in crafting the comments, and well as state chapters and other organizations that submitted comments.

Mayor De Blasio and FEMA Announce Plan to Revise NYC's Flood Maps

Mayor Bill de Blasio and FEMA announced Oct. 17 an agreement to revise New York City's flood maps. This is the result of the de Blasio administration's 2015 appeal of FEMA's flood risk calculations for New York City and the region, which mapped 35,000 more homes and buildings across the city into highest flood risk areas. Read the *full press release here*.

Working with Local Media to Raise Risk Awareness

A <u>Risk Mapping</u>, <u>Assessment and Planning (Risk MAP) Success Story</u> highlights how Region X FEMA officials worked with a local reporter in Kitsap County, Washington to get the word out on risk awareness and mitigation. The publicity before a southwest Washington "resilience" meeting boosted attendance from local officials and the public in general. Reporters generally know how to talk to and engage the public and are often an overlooked resource for flood risk professionals.

FEMA Releases State Mitigation Planning Key Topics Bulletin—Mitigation Capabilities

The <u>State Mitigation Planning Key Topics Bulletin: Mitigation Capabilities</u>, is now available. This document provides a framework states can use to inventory and assess their hazard mitigation capabilities, including the authorities, policies, programs, staff, funding and other resources available to accomplish mitigation and reduce long-term vulnerability. The bulletin also provides approaches for analyzing local and tribal mitigation planning capabilities for incorporation into the State Mitigation Plan. This is the third document to be released in the State Mitigation Planning Key Topics Bulletins series covering the components of state mitigation planning, including risk assessment, the planning process, mitigation capabilities and mitigation strategy. For more information and updates on FEMA's Hazard Mitigation Planning Program, *go here*.



Heads up from FEMA on April 1, 2017 NFIP changes

Roy Wright, Deputy Associate Administrator for Federal Insurance Federal Insurance and Mitigation Administration, sent <u>Bulletin W-16071</u> late September that provides notice of the changes NFIP will implement effective April 1, 2017. Several changes result from continued implementation of the Homeowner Flood Insurance Affordability Act of 2014 and Biggert-Waters Flood Insurance Reform Act, which will require modifications to the NFIP Flood Insurance Manual, Transaction Record Reporting and Processing plan, and the Edit Specifications document. Highlights of program changes include:

- Updated premium rates conforming to the premium rate caps established by BW-12 and HFIAA;
- Updated premium multiplier tables for policies rated under the Newly Mapped procedure; and
- Clarifications for policy rating and loss adjustment for Pre-Flood Insurance Rate Map substantially improved properties.

From the Director's Desk

Chad Berginnis, CFM Executive Director, ASFPM

The Impact of Hurricane Matthew

Back in April, I used my column to comment on issues related to dams, and a particular dimension of the 2015 South Carolina flood disaster that was the large number of dam failures (now 50+ and counting). Since then we have had a number of large, possibly



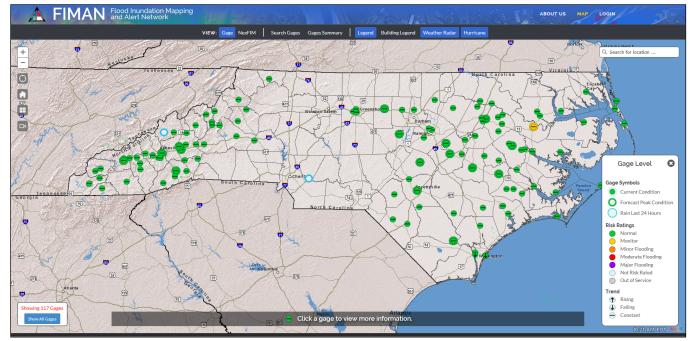
flood-of-record type events in other areas of the country and most recently we have had to deal with Matthew. Like the 2015 South Carolina event, Matthew also has a unique dimension to it—in North Carolina where it has wrought the most damage, we also have one of the most advanced state flood mapping, warning and risk information programs in the nation.

To quickly recap the history of the North Carolina flood mapping program, after Floyd hit North Carolina in 1999, the state quickly realized the limitations of their flood hazard data provided by FEMA. The state put an aggressive plan together to remap the state within seven years. That plan, in addition to more than \$30 million appropriated by the state Legislature, got the program rolling. As with any of these kinds of big initiatives, there are always other benefits and opportunities. With statewide LIDAR and flood data, the state also realized it was in need of a state-of-the-art warning system that provides not only forecasting, but inundation information. Beginning in 2002, in partnership with the National Weather Service, work was underway on the warning system as well. Fast forward to 2016. The current flood mapping program is called the Flood Risk Information System, and the warning system is called Flood Inundation Mapping and Alert Network. Both have a clean, easy-to-use web interface. Both build upon statewide datasets that were developed as part of the mapping program—statewide LIDAR, and a statewide building inventory/building footprints. I have to say, after poking around on these websites, I am impressed. With FRIS, a person can not only get flood mapping information, but also risk information and personal vulnerability information. With FIMAN, mapping libraries were developed around streamgages and with the accurate LIDAR and building footprint information, accurate projections of damage, inundation and impact could be generated very quickly.

In talking to ASFPM members in North Carolina working with these tools during Matthew, early indications are that FIMAN helped provide accurate, advanced flood inundation forecasts that were used by local emergency managers to make decisions on evacuations. For example, I understand that FIMAN predicted the inundation of the historic community of Princeville (which was devastated under Floyd), not because of the levee breaking (it held), but because of water backing up behind it and eventually inundating the town. Luckily by the time the water came up, the community had already been evacuated by local officials.

So here is my hope. I hope that federal agencies, academia the state of North Carolina and communities are able at some point to conduct post event assessments as Matthew provides an unprecedented opportunity to evaluate some of the most modern mapping and risk communication tools available today. Here are some of the questions that come to mind:

- What products worked and what didn't?
- Did the use/availability of these products influence local, state and federal policies or approaches to the event?
- Did individual property owners use FRIS to evaluate flood risk to their individual structures? Did that data lead to any action to reduce risk (like purchase flood insurance)? If so, what data made a difference? If not, why? Would there be other data products that make a difference?



- What are the gaps in products? In a recent meeting I attended, some North Carolina folks indicated they
 had trouble identifying what roads were closed and which were open during the event, and that there
 was no comprehensive website or app to provide that data.
- Of the products that did work, what can be incorporated into FEMA's National Flood Mapping Program? I am sure more research questions will come to mind as the recovery gets underway.

In our profession, we should never let an event pass by without trying to learn the important lessons it can show us about our approaches to flood risk management (in fact, I might write a whole column on the deplorable state of our efforts to do post-event analysis). In the midst of widespread damage and destruction, I can't help but believe that the investments in flood hazard and risk data in North Carolina made a difference. So let's spend the next several years studying the effectiveness of these tools and products with the intent to integrate the lessons learned into our national efforts. Thank you North Carolina for your investment and vision—an investment from which we can all benefit.

Your partner in loss reduction,

Chad

Just wanted to make sure you all saw this AWESOME map of the complex network of rivers and streams in the U.S. Read the <u>full</u> <u>article and watch a video on how it was created here</u>.



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