

THE INSIDER



An exclusive publication for ASFPM members

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Remembering Hurricane Floyd & its role in Community-Based Planning that Moved 12,000 Structures Out of the Floodplain

Written by [Todd Davison](#), Director, Southern Region – NOAA Office of Ocean & Coastal Resource Management and Coastal Services Center, and formerly FEMA Region IV Mitigation Division Director



Fifteen years after Hurricane Floyd, the images of overwhelming physical, human and environmental impacts are still vivid.

The late 1990s was an unprecedented time for North Carolina. Floyd was the sixth hurricane to hit the state in four years. Hurricane Dennis soaked the landscape a few weeks before, and then Floyd dumped 20 plus inches of rain. The impacts were devastating: 51 fatalities, about 100,000 damaged homes, inundated sewage treatment plants and millions of lost livestock.

On the evening of Sept. 17, the day after Floyd's landfall, I met with Eric Tolbert and Gavin Smith in the parking lot of the North Carolina Emergency Operations Center in Raleigh. Eric was the director of the NC Division of Emergency Management. Gavin was the deputy director for mitigation. Leaning on the hood of an operations vehi-

cle, I listened as they laid out an ambitious vision for buying out and relocating flooded homes and businesses in the most heavily affected areas.

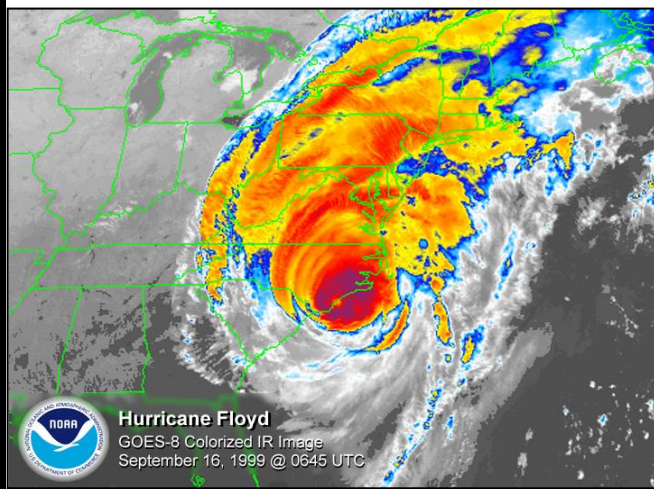
The foundation for these voluntary buyouts would be community-based planning. We agreed that FEMA and North Carolina would work in close partnership to implement this vision. It was my job to identify and deploy appropriate staff to help accomplish this effort.

The weeks and months that followed were intensely busy. There were hundreds of public and community meetings. There were thousands of difficult and emotional decisions by flood survivors faced with options to rebuild or move.

The keys to the success of this program proved to be experience and trust. The leadership and staff from FEMA, North Carolina and the communities of eastern North Carolina had worked together since 1996 during Hurricanes Bertha, Fran, Bonnie and Dennis. Tommy Lee, the building official in Kinston, would often note that his community was able to capitalize on the trust and relationships that had been built after Hurricane Fran in 1996. Across the state, established relationships made the Floyd buyout process more streamlined. While far from easy, the public, and local, state and federal officials had all gained experience and confidence in the goals of the buyout process during previous events. The final tally was approximately 12,000 buildings removed from the floodplain.

It is noteworthy and commendable that as a result of Floyd, North Carolina has developed the nation's most advanced statewide floodplain mapping program. Fifteen years later it's important to acknowledge that through partnerships we can build resilient communities and reduce damages in flooded communities. It took many federal, state and local staff to accomplish the vision of Eric Tolbert. In North Carolina and in working for FEMA, he left a solid foundation for emergency management for the nation.

Photos and images below document the aftermath of Hurricane Floyd's destruction. Photos from FEMA's photo library.



Successful property buyout programs are happening around the nation

In **Cedar Rapids, Iowa**, just five years after the historic 2008 flooding, the city, with federal government financial assistance, has purchased 1,356 floodprone properties, for a grand total of nearly \$94 million. According to this Sept. 14 [article](#) from *The Gazette*, "...FEMA funds were used for the first 97 buyouts while Community Development Block Grant funds were used to buy out the majority of the rest of the properties. City funds in the form of revenue from the city's local-option sales tax helped in 167 buyouts, which for one reason or another didn't qualify for federal funds.

"Jennifer Pratt, the city's interim development director, said the buyout program's purpose was to move people out of harm's way and help those move on who otherwise didn't have resources to do so. In addition, the buyouts and subsequent demolitions freed up ground near the river where the city plans to build its flood-protection system."

New York Gov. Andrew Cuomo embraced buyouts and devoted \$600 million of federal Hurricane Sandy relief money to the project, according to this [piece](#) from KQED for National Public Radio.

It goes on to say, "That'll cover roughly 750 homes, not just here in Fox Beach, but in other sites on Staten Island and on Long Island as well. The buyouts aren't cheap, but environmentalists say they're well worth it.

"The problem is a national problem. Population in coastal counties is increasing. Taxpayer subsidies for flood insurance is increasing. More property and more lives are at risk now along the coast in terms of endangerment and future storms than perhaps ever before," says Eric Goldstein, a senior attorney at the Natural Resources Defense Council.

"The idea of buyouts, or retreating from flood-prone areas, took root about 20 years ago. Government agencies calculated that in some cases it would cost less money than repeatedly bailing out homeowners for every flood.

"Living along the coast and having an ocean view is very enticing. Unfortunately, there are some coastal areas where that is problematic," Goldstein said.

"On Staten Island, where more than 40 homes have been torn down so far, the buyouts not only are removing people from dangerous areas — they are also creating open space that will act as a buffer to blunt the force and absorb some of the water of the next storm surge."

Coming up next month in the October **News&Views**, ASFPM interviews **Kevin Shafer**, the executive director of the **Milwaukee Metropolitan Sewerage District in Wisconsin**. Find out about MMSD's ambitious goal of working with its partners to achieve zero structures in the 1 percent probability floodplain by 2035.

ASFPM Develops Strategies for Using High Water Marks in Floodplain Mapping

~The silver bullet to ensure flood map accuracy~

By ASFPM Science Services Program Director Alan R. Lulloff, P.E., CFM

Flood hazard maps are one of the most valuable products the federal government provides to communities. However, instead of being welcomed as an important tool for community planning, the mandatory flood insurance requirements associated with the FEMA Special Flood Hazard Area, mapping can create significant angst within a community. When owners of buildings within the mapped flood hazard area are required to purchase flood insurance, they often feel betrayed. “You gave me a permit to build here. Therefore, it should be safe. How can it be that I am now informed that my building is in a flood hazard area?”

This is a challenging enough situation. However, when there are instances that the new flood maps incorrectly show well-sited homes or businesses in the flood hazard area, it unfortunately shifts the focus from avoiding flood hazard areas or mitigating flood risks, to questioning the accuracy of the maps.

In folklore, a bullet cast from silver is often the only effective weapon against a werewolf, witch, or other monsters. In that context, a high water mark (HWM) is the “silver bullet” to deal with inaccurate flood hazard maps. ASFPM has developed guidance through its report, [“Strategies to Establish Flood Frequencies Associated with Flood Event High Water Marks,”](#) that helps enable the thousands of HWMs that have been collected over many decades across the nation to be the weapons that slay the inaccurate map dragon.

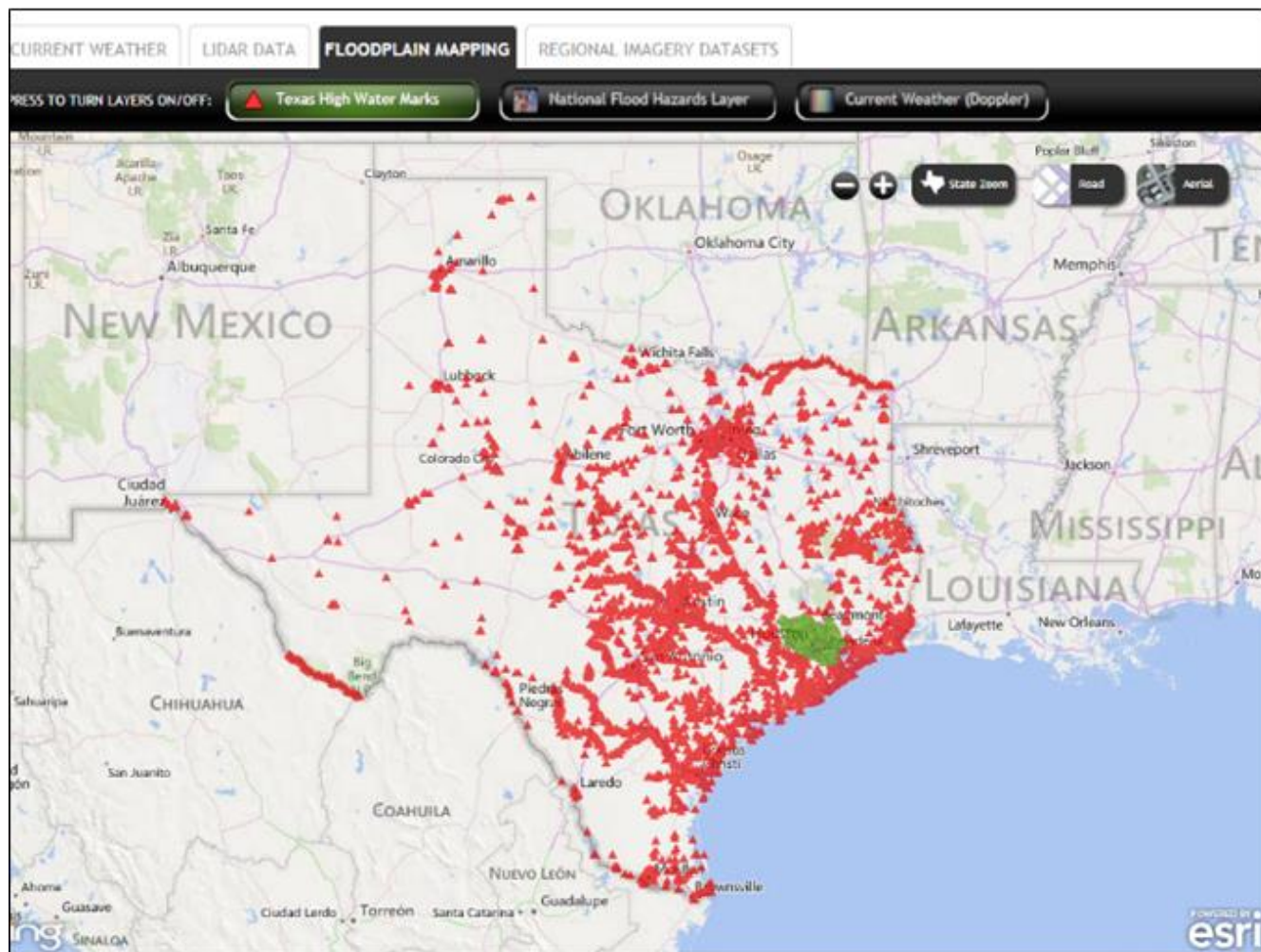
Streams gages and HWMs on streams with no gages document historic flood events. Floodplain engineering modeling that has been calibrated or validated against historic flood events can be deemed “accurate.” The reason it can be deemed accurate is that while the uncertainty can never be reduced to zero, it can be quantified. In instances where engineering models have not been calibrated or validated against historic flood events – the uncertainty is unknown. No accuracy “uncertainty” can be determined; therefore, these maps can then be appropriately deemed inaccurate.

An obstacle limiting the use of these “silver bullets” is that the SFHA map is intended to represent the 1 percent annual chance flood event. At stream gages the flood frequency associated with flood elevations is established by the US Geologic Survey. However, the frequency of the flood event that caused a HWM not near a gage is often unknown.

One of the goals of ASFPM’s study, published in June, was to document best practices in computing or estimating flood frequencies associated with documented flood events. Once the flood frequency associated with a flood event has been determined, HWMs established after the flood event can be used to calibrate/validate floodplain modeling.

Science Services staff interviewed personnel at agencies responsible for collecting HWM data across the country to identify best practices, but to also develop broad recommendations for policy that would make HWMs more useful and the collection of HWMs more consistent. One of the four recommendations in-

cludes establishing a “nationwide geospatial database for archiving high water mark data and making it available to the public,” using the [Texas Highwater Mark Inventory](#) as an excellent example. Through a collaboration with federal agencies, local governments and the private sector, the Texas floodplain management program has compiled a collection of more than 15,000 HWMs that are accessible via the Texas Natural Resource Information System (TNRIS).



Above is a screen shot of the Texas Highwater Mark Inventory from the Texas Natural Resources Information System. ASFPM is recommending a similar national program.

Floodplain Management Training Calendar

For a full nationwide listing of floodplain management-related training opportunities, visit [ASFPM Online Event Calendar](#). Looking for training opportunities to earn CECs for your CFM? Check out our event calendar with LOTS of training opportunities listed for 2014! Search the calendar by state using the directions below, or use the category drop down menu to search by event category. Go to the calendar and click on the search feature icon at the top of the calendar. Type your state’s initials in parenthesis (for example (WI)) into the search field and it will pull all the events that are currently listed on the calendar for your state. The only events without a state listed in the event title are EMI courses, which are listed with their FEMA course number and are all held in Emmitsburg, MD.

Public Outreach Tip...

We are a society of visual learners. Are you using videos as a teaching tool for your community?

The City of Key West, FL, recently released two videos on YouTube. [One](#) explains the benefits of elevation and freeboard to its citizens. The [second](#) explains a pending referendum question on its November ballot that would allow buildings to exceed the height restrictions when being raised to BFE with up to 4-feet of freeboard.

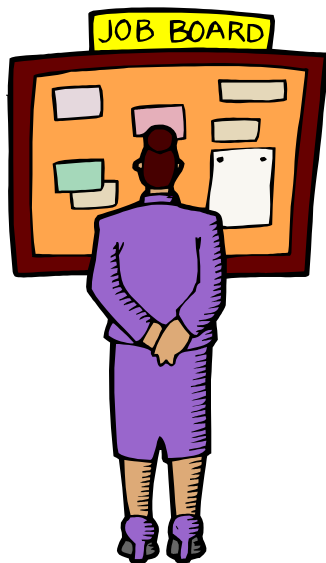
Scott Fraser, CFM, FEMA/CRS coordinator and floodplain administrator in Key West, told ASFPM, “We’ve been playing them at various city board meetings that are televised, before local NGO stakeholders and on the city’s website.”

That’s an excellent beginning. But we also suggested the city send out a press release with the links to all of the local media outlets. The press release should include a contact person for the reporter so that an interview can be set up. It’s a great way to really get the message out to the public – plus, it costs nothing.

If you happen to live in an area with TV stations, you might consider making separate videos specifically with TV commercials in mind during the production process. These two videos were 4- to 8-minutes long, and did an excellent job of really explaining complex issues in simple terms the public could understand. But if you’d also like to air videos on TV, then separate videos, approximately 15- to 30-seconds long (the typical length of a TV commercial), could be easily aired on local TV stations. Note: TV commercials DO cost money to air.



*ASFPM wants to hear how your community is reaching out and educating the public.
Email Michele Mihalovich at michele@floods.org.*



Job Corner

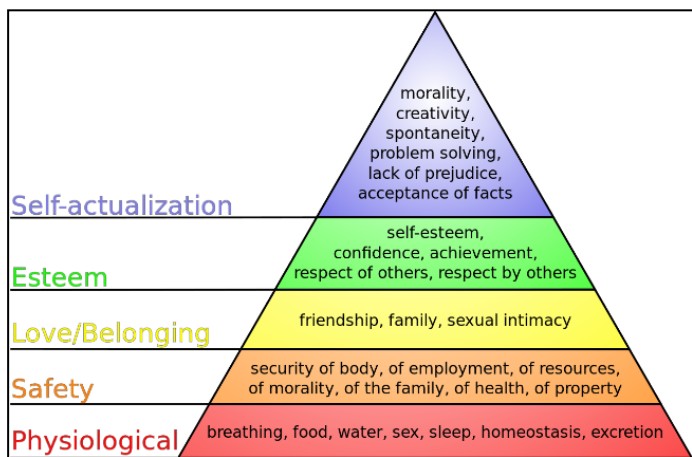
Visit [ASFPM Job Corner](#) for up-to-date job listings. Have a job opening you’d like to post? It’s free!

Deputy Director – Operations Report – Ingrid Danler

It's hard to not be inspired and inquisitive about the events that are binding and separating our global world. On the one hand, there is a general shift toward more connectedness among people who have strong belief systems and cultures. At the same time there is movement towards separation as these smaller focused groups, no longer feeling connected to the larger, work to separate. The recent vote by Scotland to remain a part of the greater UK, will have ripple effects worldwide as many countries deal with their own connectedness and separateness, in a world that has information and options at their fingertips 24 hours a day.



When managing people and systems, and also in marketing to them, it is hard to ignore human psychology and sociology. I recently revisited [Maslow's Hierarchy of Needs](#), and it reminded me that after basic needs are met (food, water, shelter), the next tier is safety, which is what we as floodplain managers and



An interpretation of Maslow's hierarchy of needs, represented as a pyramid with the more basic needs at the bottom. Credit: Wikipedia.

CFMs do every day. Safety is security of body, employment, resources, family, health and property. I can think of no other profession that hits so close to the basic needs of the human spirit and impacts people on such a dramatic level. Remind yourself daily that you are providing not only a technical service, but satisfying a hugely human need for safety in an unstable world.

Let ASFPM help you on your mission. We are so proud to be launching so many valuable training opportunities, websites, resources and papers. We will continue to represent the floodplain management industry on "The Hill" as we educate lawmakers and members on reasonable solutions, and

provide well-thought out and vetted proposals. We will continue to help build professional leadership opportunities through our board, committees, Certification Board of Regents and foundation. And, we will also never forget the human touch when you call our Madison office. We want you to feel connected and supported.

Best,

A handwritten signature in black ink, which appears to read "Ingrid Danler".

Mitigation on my Mind!

*ASFPM's 39th Annual National Conference,
Atlanta, Georgia – May 31-June 5, 2015*



Call for Presenters Now Open

Submittals due Oct. 31, 2014

It's time to start pulling together the program for #ASFPM2015, and we need your help! Submit a presentation, or two, to share your flood loss mitigation story, tool or resource. Go to the [conference website](#) and follow the directions for the online submission.

This Call for Presenters seeks a broad range of professionals who address the many issues and problems associated with managing flood risk, making communities more sustainable, and protecting floodplain and fragile natural resources. ASFPM is seeking Concurrent Session and Workshop submissions for our 2015 national conference.

Questions? Contact ASFPM Conference Planner Chad Ross at chad@floods.org.

Upcoming ASFPM Events – Mark your Calendar

2015 May 31-June 5 – ASFPM 39th Annual National Conference – Atlanta, GA

2016 June 19-24 – ASFPM 40th Annual National Conference – Grand Rapids, MI

2017 May 21-26 – ASFPM 41st Annual National Conference – Kansas City, MO

Terri Turner, Georgia Association of Floodplain Management's local host team coordinator, said that in addition to learning about the latest in floodplain management, there are plenty of things conference attendees can do while in Atlanta. Below is her "Things to Do while in Atlanta" list.

Retail Therapy and Sports Galore

[Atlanta Braves MLB](#): One of the oldest, continuously operating professional sports franchises in the US.

[Atlantic Station](#): The national model for smart growth and sustainable development with unsurpassed architectural quality, a fusion of functionality and finesse that combines an attractive mix of affordable, middle-income, and up-scale housing with world-class restaurants, theaters and retailers.

[Historic Fourth Ward Skatepark](#): Atlanta's first public skatepark was greeted with great excitement – with real life skateboard legend Tony Hawk breaking it in. The park offers world-class skateboard amenities as well as a playground and multi-use athletic field.

[Dick Lane Velodrome](#): Plenty of great bicycle spectating options for you. If you are looking to catch racing action with some of the best riders in the US, check out its [Pro Race Series](#) events. If you're looking for something a little more laid back and casual, go to [weekly race events](#).

[Georgia Dome](#): Home of the Atlanta Falcons NFL team.

[Lenox Square Mall](#): Since 1959, Lenox Square has been the premier shopping destination for fashionistas throughout the Southeast.

[Mall at Peachtree Center](#): A three-tiered retail mall located in the heart of Atlanta at the corner of Peachtree Street and International Boulevard.

[Philips Arena](#): Not only is it the home of the Atlanta Hawks NBA team, but the arena was the world's first LEED certified NBA arena.





News you can Use...

2014 Individual and Community Preparedness Award Winners Announced

FEMA announced Sept. 3 the winners of the 2014 FEMA Individual and Community Preparedness Awards, recognizing the outstanding efforts of individuals, programs, and organizations throughout the country working to prepare their communities for emergencies.

“Strong emergency management requires teamwork, community engagement, innovation and strong relationships at all levels before disasters occur,” FEMA Administrator Craig Fugate said in a press release. “This year, we recognize individuals and organizations that exemplify this approach, and I congratulate them on their dedication to make our nation stronger and safer.”

This year’s honorees developed and implemented innovative tools, programs and resources, which provided opportunities for a wide variety of stakeholders to make their communities better prepared and more resilient. Some examples include:

- The Mississippi State University Extension Service launched the **Mississippi Youth Preparedness Initiative**, a grassroots effort to train and educate approximately 3,500 teens annually about emergency preparedness. Participating youth also completed service projects to prepare families in their communities for disaster.
- The **Delaware State Citizen Corps Council**, **Partnerships in Assistive Technologies**, and the **Massachusetts Department of Public Health’s Office of Preparedness and Emergency Management** supported the development of smartphone apps to enhance communications between professional responders and people with disabilities and others with access and functional needs.
- The **Smyrna Emergency Management Agency** in Georgia became the nation’s first municipality to participate in [America’s PrepareAthon!](#), conducting a community-wide tornado drill involving 200 businesses.
- The **New York City Office of Emergency Management’s Ready New York for Seniors Program** conducted approximately 200 presentations to more than 8,000 older Americans living in the city.

This year’s winners of FEMA’s Individual and Community Preparedness Awards are:

- **Outstanding State Citizen Corps Council Initiatives:** Delaware State Citizen Corps Council;

- **Outstanding Community Emergency Response Team Initiatives:** Southwestern Missouri Regional CERT;
- **Outstanding Local Citizen Corps Council Initiatives:** Albany, NY, County Citizen Corps;
- **Outstanding Achievement in Youth Preparedness:** Mississippi Youth Preparedness Initiative;
- **Community Preparedness Heroes:** Lieutenant Brian K. Rand of Massachusetts, and the Coalition for the Upper South Platte, Colorado;
- **Awareness to Action:** Michigan's Do 1 Thing;
- **Technological Innovation:** Partnerships in Assistive Technologies in West Virginia;
- **Survivor Empowerment and Integration:** Massachusetts Department of Public Health, Office of Preparedness and Emergency Management;
- **Fourth Annual Recipients of the John D. Solomon Whole Community Preparedness Award:** Smyrna Emergency Management Agency in Georgia, and New York City Office of Emergency Management: Ready New York for Seniors.

FEMA received more than 230 applications for the awards from individuals, public, private, tribal and nonprofit organizations. Leadership from the National Oceanic and Atmospheric Administration, International Association of Emergency Managers, National Emergency Management Agency, American Red Cross, Target and FEMA selected winners from among applicants from 43 states, the District of Columbia and Puerto Rico.

The award recipients will be recognized at a ceremony during National Preparedness Month in DC.

More information on this year's award recipients, along with details on the honorable mentions, is available at www.ready.gov/citizen-corps/citizen-corps-awards.

FEMA Announces First Meeting of the Technical Mapping Advisory Council

The US Department of Homeland Security's Federal Emergency Management Agency announced Sept. 15 the first public meeting of the Technical Mapping Advisory Council, scheduled for Sept. 30-Oct. 1, at the USGS auditorium in Reston, VA. The TMAC was established to review and make recommendations to FEMA on matters related to the national flood mapping program authorized under the Biggert-Waters Flood Insurance Reform Act of 2012 and Homeowners Flood Insurance Affordability Act of 2014.

TMAC is tasked with developing recommendations for FEMA's flood mapping program to ensure that flood insurance rate maps reflect the best available science and are based on the best available methodologies for considering the impact of climate change and future development on flood risk.

They will also be required to produce a Review of the Mapping Program, a Future Conditions Risk Assessment and Modeling Report, and an Annual Report on Activities containing required recommendations. During the meeting, members will elect a council Chair, develop a meeting schedule, organize into sub-committees, identify subject matter experts to support the development of their recommendations, and receive briefings on FEMA's National Mapping Program

If you have any questions, please contact FEMA's Intergovernmental Affairs Division at (202) 646-3444 or at FEMA-IGA@fema.dhs.gov.

Did you submit an application for FEMA Pre-Disaster Mitigation or Flood Mitigation Assistance grants?

FEMA has completed its review of applications received for the Fiscal Year 2014 Pre-Disaster Mitigation and Flood Mitigation Assistance grant cycle and has posted the status of the applications on its website.

FEMA will not send notification letters to each applicant regarding their FY 2014 applications, according to the press release. Rather, applicants should review the status of their applications online:

Check the status of your Pre-Disaster Mitigation applications [here](#), and your Flood Mitigation Assistance application status [here](#).



The Best Practice Portfolio has just released 11 new stories describing the use of Hazus-MH

A Best Practice tells a story, generally with a human-interest approach, of how a mitigation activity or project worked. The Portfolio itself is searchable by project, keyword, hazard and region. The [Best Practices Portfolio](#) is a way to recognize individuals and communities that have undertaken successful mitigation projects and to encourage others to undertake similar projects to reduce loss of life and property. Following are the 11 news stories found in the portfolio.

[Arkansas Tech University Uses Hazus-MH for Mitigation & Business Continuity Planning](#)
[California Uses Hazus Multi-Hazard \(Hazus-MH\) to Reassess Safety of Hospitals](#)
[Gallatin County, Montana Completes Hazus-Multi Hazard Earthquake Study](#)
[Harris County, Texas Uses Hazus-Multi Hazard for Risk Assessment & Hurricane Preparedness](#)
[U.S. Multi-Hazards Used in Support of Utah Seismic Safety Legislation](#)
[Hospitals Get a Jolt of Reality with Hazus-MH Earthquake Analysis Results](#)
[Maryland Hazus-Multi Hazard Flood Study](#)
[Pennsylvania Emergency Management Completes Statewide Flood Study Using Hazus-Multi Hazard](#)
[Using Hazus for Flood Loss Estimates & Community Rating System Flood Mitigation Planning](#)
[Technology Helps Safeguard Citizens](#)
[Earthquake Loss Estimation Study for the New York City Area](#)

Best Practice Portfolio also shows how communities are successfully using Risk MAP

[FEMA's Risk Mapping, Assessment, and Planning](#) program provides communities with flood information and tools it can use to enhance their mitigation plans and take action to better protect citizens. Through more precise flood mapping products, risk assessment tools, and planning and outreach support, Risk MAP strengthens local ability to make informed decisions about reducing risk. Here are eight new Risk MAP success stories.

[Fairbanks, AK: A Benchmark for Cooperation](#)
[Blaine County, ID: A Reservoir of Effective Communication](#)
[Clackamas County, OR: Can Risk MAP Turn on a Dime?](#)
[Coweta County, GA: Enhancing Countywide Hazard Mitigation Plan Using Flood Risk Product](#)
[Gwinnett County, GA: Revamps Stormwater Infrastructure Improvement Plans](#)
[New York Catskills Watersheds: Partnerships and Products for More Resilient Communities](#)
[New Orleans Area: Robust Outreach Leads to Expedited Updates to the Flood Insurance Rate Maps](#)
[The Herbert Hoover Dike Presented a Unique Challenge; FEMA Responded With a Unique Solution](#)

What's happening around the nation?

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

California

"In the next large-scale disaster, a new people-finding device could save lives. Now under development by NASA's Jet Propulsion Laboratory in Pasadena, Calif., the Finding Individuals for Disaster and Emergency Response device is ready for commercial deployment, JPL Engineer Jim Lux told *Government Technology*." Read the article [here](#).



Buildings in Paso Robles, Calif., crumble during the 6.5 magnitude San Simeon Earthquake in 2003.
[FLICKR/HEY PAUL](#)

Any Beach in the World



Several houses washed away by the tidal surge during Hurricane Sandy in Seaside Heights, NJ, Oct. 31, 2012.

Photo by Steve Nesius/Reuters

Sarah Zielinski writes an opinion piece for Slate called, "Do Not Buy Oceanfront Property: Recent TV series about beach living are some of the most unreal reality shows." She says, "What's never mentioned are the piles of sandbags sitting between the back fence and the high tide line. Does the house flood during storms? During exceptionally high tides? Is the ocean eating away at the land?" Read the full column [here](#).

Louisiana

The *Times-Picayune* photographer Ted Jackson was at ground zero of Hurricane Katrina's full fury, documenting the wind, rain, floods, human suffering and human perseverance. On the 9th anniversary of Katrina, Jackson and others stand at the identical vantage point they did nine years ago to create interactive "then and present-day" slide photos. View them [here](#).



Today, BW Cooper Housing Development in New Orleans is nearing the end of a rebuild initiative, but several of these buildings remain to provide visual context for what once was. Photo by Alex Brandon

New York

Clarkstown, NY, to use eminent domain for West Nyack flood mitigation. The [article](#) says, “Residents and business owners in West Nyack, NY, have suffered multiple flooding incidents over the years. In August 2011, Tropical Storm Irene hit the area, inundating homes and businesses ... James Owen said when Deputy Town Attorney Paul Schofield asked him to sell the property last spring, he told Schofield that the property was not for sale. Then in January, Owen received an official notice from the town, stating its intention to use eminent domain to take two thirds of his property, or about 2.6 acres of his property.”



US Rep. Nita Lowey spoke in March alongside Clarkstown Supervisor Alex Gromack, left, Town Board members Shirley Lasker and Stephanie Hausner, Assemblyman Kenneth Zebrowski (behind Lowey) and state Sen. David Carlucci. The officials gathered at West Nyack's green to celebrate a total of \$9.8 million in funding -- including the \$1 million grant for West Nyack flood mitigation -- awarded for the Town of Clarkstown. Akiko Matsuda /The Journal News

Arizona

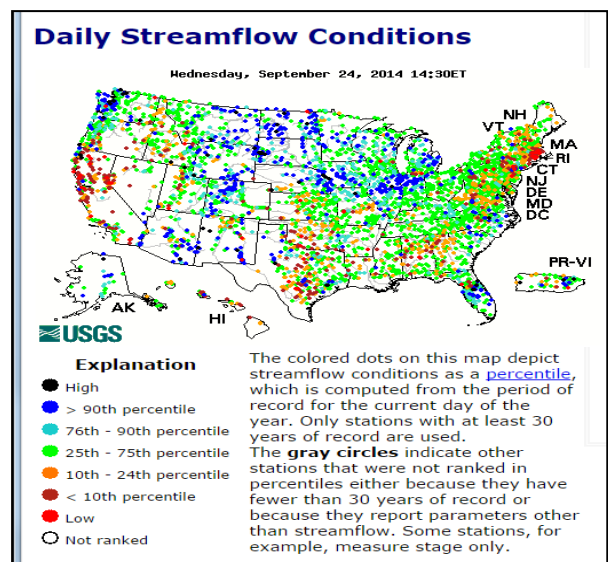


AzCentral.com writes about, “How the Mesa Flood Happened, and Why,” after record rainfall hit the Valley this month. Read the article [here](#).

City of Mesa worker Michael Baldoneger (left) operated a Vactor truck to clear a flooded street in Mesa. Photo by David Wallace/The Republic.

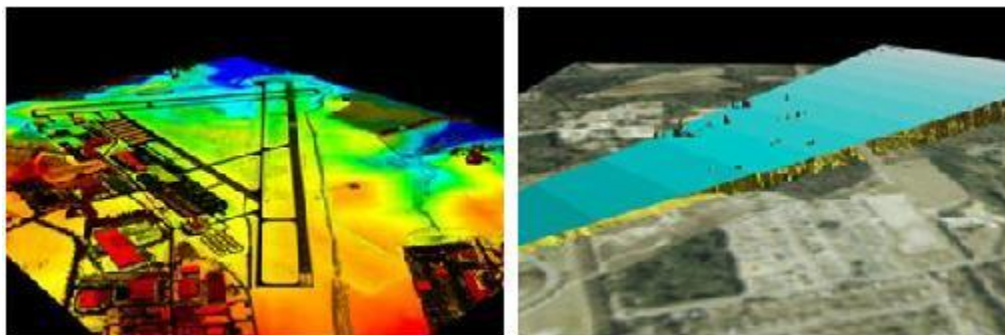
Pennsylvania

The editorial board at *The Scranton (PA) Times-Tribune* is making no bones about the fact that spending on gauges will save on damages. “Flooding is the most common natural disaster in the United States and its costs are enormous. Every state experiences at least one flood a year on average. From Oct. 1, 2012, through Sept. 30, 2013, flooding killed 82 Americans and caused \$2.15 billion in property damage, according to the National Weather Service. And it was a below-average year ... It would make sense, then, for the federal government to fully fund flood-warning systems to ensure maximum protection. But that is not the case.” Read the full opinion piece [here](#).



Screenshot of USGS's Daily Streamflow Conditions website. View the USGS current water data for the nation [here](#).

3-D Mapping Every Inch of the US for \$150M in Eight Years? Completely Doable with Partnerships.



The 3D Elevation Program (3DEP) initiative is being developed to respond to growing needs for high-quality, topographic data and for a wide range of other 3D representations of the nation's natural and constructed features, according to the United State Geological Survey. Elevation data are essential for flood mitigation, conservation management, infrastructure development, national security and many other applications.

The primary goal of 3DEP is to systematically collect enhanced, elevation data in the form of Light Detection and Ranging (LiDAR) data over the conterminous US, Hawaii, and the US territories, with data acquired over an 8-year period. Interferometric Synthetic Aperture Radar (IfSAR) data will be collected over Alaska, where cloud cover and remote locations preclude the use of LiDAR over much of the state.

According to a USGS PowerPoint, only 4 percent of the lower 49 states and territories has LiDAR data that meet the high-quality levels needed. If fully funded, USGS estimates that 3DEP could return more than \$690 million annually in new benefits to public and private sectors through improved government program services. Today, about \$50 million is invested annually in LiDAR and IfSAR data by all public agencies.

Larry Larson, ASFPM director emeritus, said he'd love to see states and locals supporting this effort. "They should be contacting USGS, and chapters can be influencing legislators for state funding," he said. "3DEP would eliminate a lot of the patchwork funding that's resulted in patchwork mapping."

To learn more about the 3DEP initiative, which is based on the results of the [National Enhanced Elevation Assessment](#), click [here](#).

Grant Opps...

Grant opportunities are being offered from the National Science Foundation for "Interdisciplinary Research in Hazards and Disasters." Click [here](#) for the listings.

Just a reminder to bookmark the Florida Climate Institute's website for a comprehensive list of [funding opportunities](#). It's a fabulous resource.



The National Building Museum with the US Capitol Building in the background. Photo by F.T. Eyre.



(Left) National Building Museum President and Executive Director Chase Rynd; ASFPM Director Emeritus Larry Larson; and URS Vice President Dale Lehman, attended a private reception and tour of the "Designing for Disaster" exhibit in DC Sept. 10. ASFPM and ASFPM Foundation are sponsors of the exhibit, which examines how we assess risks from natural hazards and how we can create policies, plans and designs yielding safer, more disaster-resilient communities. Photo by Merrie Inderfurth.

Praise for Designing for Disaster

"The exhibit's most compelling demonstrations show how innovative engineering solutions can reduce the impact of disasters and, in fact, already are."—[The Washington Post](#)

"Mother Nature, flexing her muscles in the most destructive ways, weather disasters are a costly, deadly reality in the United States. But there are ways to build safer, disaster-resilient communities. At the National Building Museum in Washington, D.C. they're looking for new solutions."—[The Weather Channel](#)

"It's as much the story of seismic engineers, researchers, architects, planners, and landscape architects as it is about the disasters themselves, given that the goal is blunting the destructive impacts of disasters." — [Landscape Architecture Magazine](#)



Floodplain Manager's Notebook

By Rebecca Quinn, CFM

With some regularity I'm asked about agricultural buildings and structures. Many states have laws that explicitly exclude farm buildings from state building codes. Indeed, some states have attempted to explicitly prohibit any and all local regulation of agricultural buildings, including farm buildings in flood hazard areas. That'll get you in trouble with the National Flood Insurance Program every time.

We know the NFIP requires participating communities to regulate all development – and that term is very broadly defined: “*Development* means any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials.” There are no exemptions, no exceptions. All development must be regulated.

Let me qualify that a bit. Sometimes I get asked whether the act of working the land is a “man-made change.” Cultivating the land, whether on a commercial farm operation or in your back yard vegetable garden, does not create a significant, permanent alteration of the landform, such that the flow of floodwater over it would be affected. However, if someone proposes grading that changes the landform through cut and fill, then you need to pay attention, especially if the work will be done in a floodway. A floodway encroachment analysis would need to be prepared to show the potential impact. There are other aspects to examine, but floodway development is not the topic for today.

Back to agriculture buildings. Definitions may vary. One state has a broad definition, “... a structure used solely in conjunction with agriculture use, and not for human occupancy.” Another state's definition is detailed, “...any temporary or permanent building or support structure on a farm or that is used primarily for agricultural purposes, is located on land that is an integral part of a farm operation or is classified as agricultural land, and is not intended to be used as a residential dwelling. The term may include, but is not limited to, a barn, greenhouse, shade house, farm office, storage building, or poultry house.”

Every now and then we hear FEMA weighs in if a state's Legislature contemplates giving agricultural buildings or other types of buildings special protection from regulation. The most recent example was fish or hunt “camps” (described to me as often several times larger than the modest home I raised my kids in and likely much nicer). That state's Legislature did exempt such camps from building code, but explicitly stated that camps located in Special Flood Hazard Areas were not exempt.

States certainly have the right to exempt certain buildings from the state's building code. But communities that join the NFIP agree to regulate all development in SFHAs – and a state's building code exemption doesn't relieve them of that obligation. Instead of using a building permit to authorize non-building development and buildings exempt from the building code, the most common permit type or approval I've seen is a Floodplain Development Permit.

Now let's take a look at regulating agriculture buildings in SFHAs. For convenience, let's consider there are two general types: those that are walled and roofed and those that aren't. I call the latter “non-building

structures” or structures that aren’t buildings. Note that non-building structures are within the scope of building codes (unless specifically exempted, see previous discussion).

Walled and roofed agriculture buildings. These farm buildings should be required to meet the elevation and other requirements that apply to all other buildings. My very first meeting with floodplain management staff in FEMA headquarters was during my second or third month on the job as Maryland’s NFIP state coordinator. My staff member who handled NFIP responsibilities arranged a meeting to talk about chicken houses. Our agency was getting a lot of political pressure to help commercial chicken farmers avoid the elevation requirement (if I recall correctly, Frank Purdue was making huge moves in the industry). Mind you, this was about 1986 – and even then these structures cost upwards of half a million dollars! But a significant part of the argument against elevation had to do with the fact that the NFIP doesn’t insure chickens. About the same time I heard Midwest states were getting pressure to avoid elevating hog barns, but the argument was about the weight loss associated with walking up ramps!

That day I heard one of the most memorable statements in my 30-plus-year career: we do floodplain management because it’s the right thing to do to protect people and property; we don’t do it because something is or isn’t insured by the NFIP.¹ How many times have you had someone argue that they shouldn’t be subject to the rules because they promise they’ll never, ever get a flood insurance policy? My favorite story is the Pizza Hut developer who made that promise and more, trying to avoid elevating because, he claimed, people on the sidewalk wouldn’t smell the enticing aromas from an elevated building. Nope, sorry, not a good enough reason.

Now let’s get back to requirements for the design and construction of agriculture buildings in SFHAs. Must they all be elevated? NFIP Technical Bulletin 7, [Wet Floodproofing Requirements](#), is a good place to start if someone doesn’t want to fully elevate a walled and roofed farm building. But just like all FEMA guidance publications, you need to read the whole thing to understand what those requirements are and the circumstances where wet floodproofing can be used. There’s no way to shorten the guidance and still preserve all the important content – and you should understand that there are some insurance implications (just as there are any time someone gets a variance to allow buildings without elevation):

Certain Agricultural Structures: FEMA recognizes that wet floodproofing may be appropriate for certain types of agricultural structures located in wide, expansive floodplains. A variance may be issued only if the structure is used solely for agricultural purposes in which the use is exclusively in connection with the production, harvesting, storage, drying, or raising of agricultural commodities, including the raising of livestock. Only in circumstances when it can be demonstrated that agricultural structures can be designed in such a manner that results in minimal damage to the structure and its contents and will create no additional threats to public safety, may a variance be issued. Because the wet floodproofing of a new agricultural structure with the lowest floor below the BFE is not in conformance with NFIP requirements, any variance issued must address both the nonconform-

¹ The old-timers out there won’t be surprised to learn that Mike Robinson, at the time a floodplain management specialist with FEMA HQ, not only set me straight that day, but helped shape my commitment to “doing the right thing” throughout my career in floodplain management. He was a force at FEMA, from the early days of the NFIP to his untimely passing in 2007. He is missed every day.

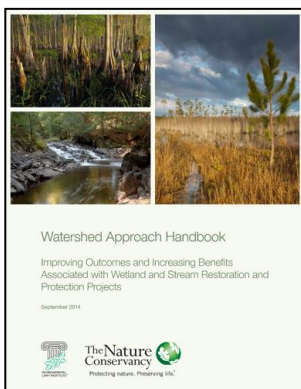
ing flood protection technique and the restriction of use to the above-described agricultural purposes. Types of agricultural structures that may be wet flood-proofed following the issuance of a variance are: farm storage structures used exclusively for the storage of farm machinery and equipment (e.g., pole and pre-fabricated metal frame structures with open or closed sides); grain bins; corn cribs; and general purpose barns for temporary feeding of livestock, provided they remain open on at least one side.

Non-building structures. Examples of non-building structures include towers, gazebos, viewing stands, detached decks, and the like. They are not walled and roofed and don't have a "lowest floor" (read the definition again to see why). The NFIP elevation requirements refer to the elevation of the lowest floor (or bottom of the lowest horizontal structural member of the lowest floor). If a non-building structure doesn't have a lowest floor, then the elevation requirements don't apply. What's left? All local floodplain management regulations have general performance statements for development in SFHAs. The requirements often take the following form:

- (1) Be located and constructed to minimize flood damage;
- (2) If located in a floodway, meet the limitations of [the section that requires floodway encroachment analyses];
- (3) Be anchored to prevent flotation, collapse or lateral movement resulting from hydrostatic loads, including the effects of buoyancy, during conditions of the design flood;
- (4) Be constructed of flood damage-resistant materials; and
- (5) Have mechanical, plumbing, and electrical systems above the design flood elevation, except that minimum electric service required to address life safety and electric code requirements is permitted below the design flood elevation provided it conforms to the provisions of the electrical part of building code for wet locations.

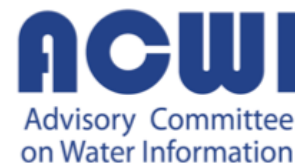
Submit your own items or suggestions for future topics to column editor Rebecca Quinn, CFM, at rcquinn@earthlink.net. Comments welcomed!

Improving Outcomes and Increasing Benefits Associated with Wetland and Stream Restoration Projects



The [Environmental Law Institute](#) and [The Nature Conservancy](#) released a new handbook to advance the use of a watershed approach in the selection, design, and siting of wetland and stream restoration and protection projects, including projects required as compensatory mitigation for permitted activities. The joint report, "[*Watershed Approach Handbook: Improving Outcomes and Increasing Benefits Associated with Wetland and Stream Restoration Projects*](#)," demonstrates how using a watershed approach can help ensure that these projects also contribute to goals of improved water quality, increased flood mitigation, improved quality and quantity of habitat, and increases in other ecological services and benefits.

The [Advisory Committee on Water Information](#) met Aug. 19-20 at the USGS headquarters in Reston, VA. ACWI, which meets annually, has a goal to improve water information for decision making about natural resources management and environmental protection.



ACWI is composed of representatives from many government agencies and organizations with a stake in water and water resources data, and ASFPM is one of the NGO members. The group in August covered the activities of the many subcommittees that make up ACWI and considered some special initiatives. The following are some of the highlights most relevant to ASFPM members:

- The ACWI Subcommittee on Hydrology is updating Bulletin 17B, "[Guidelines for Determining Flood Flow Frequency](#)," which was last updated in 1982. The subcommittee is comprised of representatives from federal agencies, private consultants, academia and water management agencies. This group has been working since 2000, mostly through email and conference calls, to update this document. The update, titled, "Guidelines for Determining Flood Flow Frequency, Bulletin 17C," will include updated statistical methods for determining flood frequency, and include updates to reflect the current understanding of climate change. More information of the Bulletin 17B update can be found at [Frequency Update](#).
- A proposal came before ACWI to start an Open Water Data Initiative to make water data better integrated and more accessible to the public and other users. Many water related data sets are out there, but are often difficult to access. Aggregating data from different sources is challenging and often nearly impossible. With the focus now on extreme weather, climate change and other water-related challenges, there is keen interest in bringing these different data sets together to provide for national analysis. Under the OWDI, web services and other tools would be used to pull from multiple sources for users, leveraging existing databases where they reside, rather than assembling a new national database. ACWI voted to support the initiative and will coordinate with the [Federal Geographic Data Committee](#) to work out plans and develop pilot projects. A copy of the presentation made to the ACWI can be found at [Open Water Initiative](#).
- A special ACWI subgroup was asked to develop recommendations on "Challenges of Monitoring in a Shrinking Budget Environment", in light of tight budgets USGS and other federal and state agencies have faced in recent years. In its report to the ACWI, the group recommended a priority on collection of data; reasoning that it is important to maintain the continuity of data, even if some analysis has to be deferred temporarily. The subgroup also highlighted the importance of partnerships and cooperation with groups outside USGS to improve funding opportunities and increase efficiency. A summary of the recommendations can be found at [Shrinking Budget Recommendations](#).

There were several other presentations related to water quality, groundwater and sedimentation. View highlights and relevant documents [here](#). This article was written by [Bill Brown](#), stormwater executive manager with the City of Arlington, TX, who attended the meeting on behalf of ASFPM.

Upcoming ASFPM webinars touch on BFEs and Ethics

Up first is an encore presentation of **Brian Varrella's "Finding that Base Flood Elevation,"** which will be held from 1-2:30 p.m. CDT Oct. 10.



Varrella, ASFPM's Region 8 director, is also the co-owner of Forum V Consulting; floodplain administrator of Fort Collins, CO; and chair of the Colorado Association of Stormwater and Floodplain Managers. His approach in this webinar uses all available resources to determine BFEs to prepare local permits and complete ECs in riverine Special Flood Hazard Areas. He says determining BFEs is not an impossible task, and the demand for more detailed information is increasing.

Recent National Flood Insurance Program reforms make determining precise flood risk more important than ever in response to rising flood insurance costs. Identifying a BFE with confidence helps to determine actuarial flood insurance rates and plan for possible flood mitigation actions. In some cases the BFE is already available, in others it must be calculated. Register [here](#).

The second webinar is a new offering, called, **"Ethics in Floodplain Management: Understanding and Avoiding Ethical Dilemmas in your Role as a Floodplain Manager,"** which will be held from 1-2:30 p.m. CDT Oct. 15.

Far too often, being a floodplain manager means making decisions that are made more difficult due to political pressure, project deadlines, supervisor or peer pressure, financial impacts or NFIP compliance and regulations, which have the potential to lead to ethical dilemmas for FPMs.



Presenters **Jessica Baker** and **John Ivey** have diverse backgrounds and experiences in floodplain management, and frequently provide ethics instruction in Texas. Baker, ASFPM's Region 6 director and Professional Development Committee co-chair, is a PE and CFM, and Water Resources Dept. Manager with Halff Associates. She's also serves as the vice president of Texas Floodplain Management Association. Ivey, a PE, CFM and vice president of Halff Associates, serves on ASFPM's Certification Board of Regents. Register [here](#).



The webinars each cost \$70 for non-members, and \$40 for ASFPM individual members. Not a member yet? [Join Now](#)

All ASFPM scheduled webinars are posted on our online [Event Calendar](#). If you have questions about upcoming webinars, contact training@floods.org. You can also follow us on Twitter [@FloodTraining](#) to be the first to hear about webinars, as they are scheduled, like our Oct. 23 ["Introduction to Social Media for Floodplain Managers."](#)

Wetland Restoration Webinar Series Being Offered



The Association of State Wetland Managers is excited to announce its newest monthly restoration webinar series as part of its efforts to tackle some of the biggest challenges for wetland restoration and share insights and lessons learned from experts in the field. Twenty five experts, including restoration practitioners, regulators, policy makers and academics, have formed a working group to develop a series of 13 informational webinars. This project is part of a larger ASWM effort to examine the underlying reasons for restoration failure and provide solutions.

Webinars will be held monthly beginning in September 2014 and running through September 2015. Webinars will start at 3 p.m. EDT, and will be recorded and posted on ASWM's website. You can register and stay up-to-date by checking the [website](#).

2014 – 2015 Webinar Schedule:

Sept. 9: How Restoration Outcomes are Described, Judged and Explained. Presented by: Joy Zedler, Aldo Leopold Chair of Restoration Ecology, University of Wisconsin; Robin Lewis, Lewis Environmental Services, Inc. & Coastal Resource Group, Inc.; Richard Weber, NRCS Wetland Team, CNTSC; Bruce Pruitt, USACE Engineer Research & Development Center; Larry Urban, Montana Department of Transportation.

Oct. 2 (Rescheduled from Oct. 16): History of Wetland Drainage in the U.S. Presented by Tom Biebigbauer, Center for Wetlands & Stream Restoration.

Nov. 4: How to Prepare a Good Wetland Restoration Plan. Presented by: Richard Weber, NRCS Wetland Team, CNTSC; Tom Harcarik, Ohio EPA, Division of Environmental & Financial Assistance; John Teal, Woods Hole Oceanographic Institution (Scientist Emeritus); Lisa Cowan, Studio Verde.

Dec. 9: Atlantic/Gulf Coast Coastal Marshes & Mangrove Restoration. Presented by: Robin Lewis, Lewis Environmental Services, Inc. & Coastal Resource Group, Inc.; John Teal, Woods Hole Oceanographic Institution (Scientist Emeritus); Joseph Shisler, ARCADIS; Jim Turek, NOAA Fisheries Restoration Center.

Other Topics (dates and presenters to be confirmed):

- Pacific Coast Wetland Restoration
- Temperate and Tropical/Subtropical Eelgrass Restoration
- Riverine/riparian wetland restoration
- Peat land restoration
- Playa and Rainwater Basin restoration
- Prairie Pothole restoration
- Vernal Pool & Pocosin restoration
- Low Impact Development wetland "restoration" in urban landscapes
- Novel ecosystems and restoration

Pacific Northwest Advanced Flood Warning System Workshop

Opportunities and Challenges for Improved Preparedness

Oct. 21-22, 2014
Grand Mound, WA

Join the National Hydrologic Warning Council for a workshop on advanced flood warning system technologies and learn how to build upon recent flood warning system successes. A preliminary agenda has been posted on the [workshop website](#).

The program features flood warning system experts at local, state and national levels. Forward-looking presentations and discussions will explore new advances in weather and precipitation forecasting, instrumentation, hydrologic modeling, and warning communication; with emphasis on enhancing the existing flood warning infrastructure. The agenda also includes Interactive panel discussions and table top flood warning exercises. [Register Now!](#) Contact workshop@hydrologicwarning.org for more information.

Time is running out to register for ASFPM's National Mitigation and FloodProofing Workshop in Broomfield, CO!

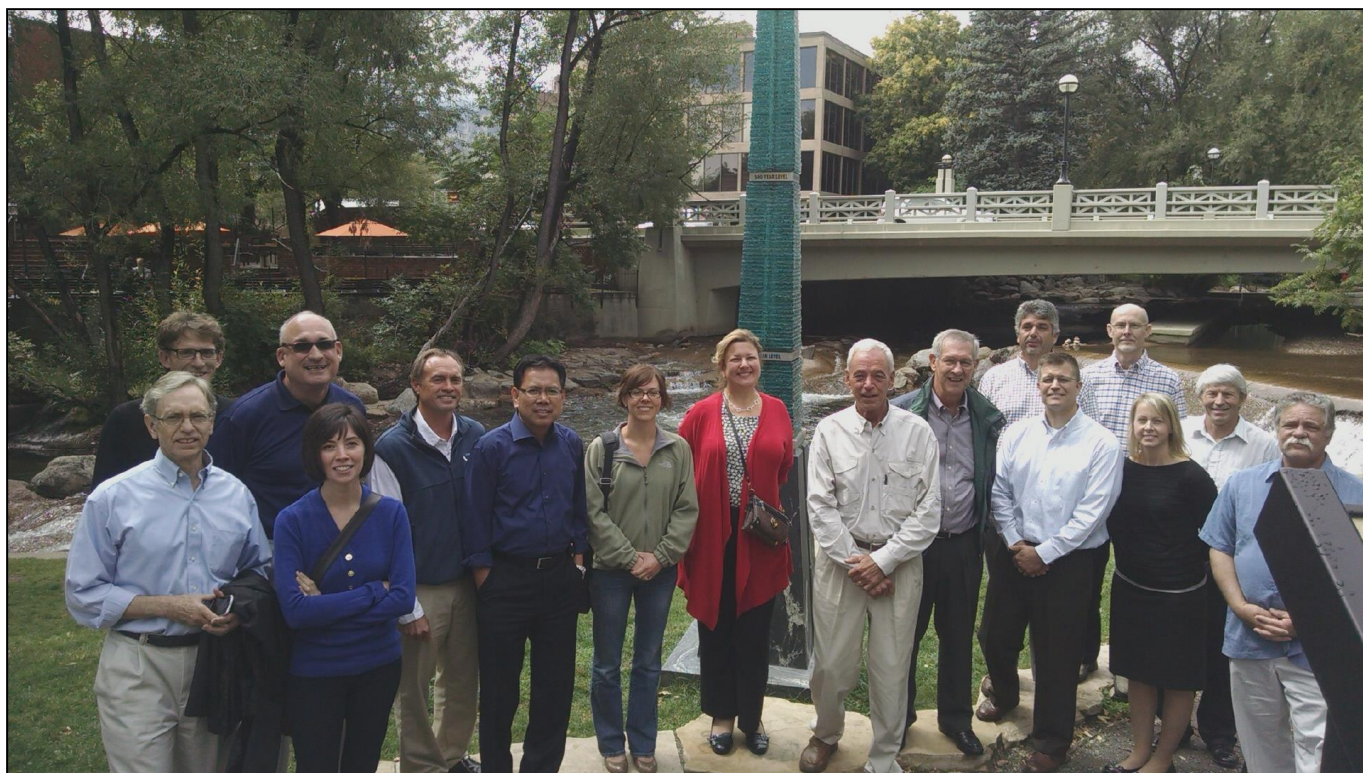
Early registration period ends Oct. 4 – Register now and save money!

ASFPM will bring together experts from across the country Oct. 27-30 for the [National Flood Mitigation and Floodproofing Workshop](#) to discuss a wide array of flood loss reduction techniques including:

- Building elevations and floodproofing
- Using loans to promote flood hazard mitigation
- Mitigation planning
- Hazard identification and mapping, including flood erosion zones
- Codes and regulations
- Flood warning systems
- Establishing state and community mitigation programs
- Risk communications
- Easement programs



Exhibitor and sponsorship opportunities still remain. Contact Chad Ross at chad@floods.org for more information. Register for the workshop [here](#).



The Community Rating System Task Force met in Boulder, CO, this September. Here are just a few of the members who attended the meeting, standing in front of the Gilbert White Memorial. (Left) Dan Spafford, FEMA/HQ; Wes Shaw, consultant; Ross Richardson, FEMA/Region VI; Cristina Martinez, Insurance Services Office; Russell Jackson, NOAA; Jhun de la Cruz, FEMA/HQ; Stephanie Holtey, City of Central Point, OR; Ingrid Danler, ASFPM; Mike Sutfin, City of Ottawa, IL; Tom Powell, retired (CRSTF chair); Tim Murphy, National Association of Flood & Stormwater Management Agencies; Brad Bain, ISO; Danny Hinson, Florida Emergency Management; Kelly Bronowicz, FEMA/HQ; Dave Carlton, consultant; Mike Gambino, City of Miami Gardens, FL. Photo by Barb Fitzpatrick.

CRS Task Force Meets in Boulder

By ASFPM Deputy Director Ingrid Danler

The National Flood Insurance Program's [Community Rating System](#) is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum NFIP requirements. As a result, flood insurance premium rates are discounted to reflect the reduced flood risk resulting from the community actions meeting the goals of CRS.

The CRS Task Force is a voluntary/appointed group of local, state and federal partners who serve as the Board of Directors for the governance and direction of the program, as well as work on continual improvements to the program. Twice yearly the group meets, and this time they were also able to visit the memorial to the father of floodplain management, Gilbert White (see photo above). ASFPM is proud to be represented on the Task Force by former ASFPM Chair Greg Main. For more information about the task force and its goals, feel free to contact Ingrid Danler at ingrid@floods.org.

Flood Insurance Committee Corner



Elevation Certificates and more...

While the latest Homeowner Flood Insurance Affordability Act legislation rolled back some of the higher rate requirements put on some pre-FIRM buildings by the Biggert-Waters bill, there is still strong interest in Elevation Certificates. While there are many resources to learn about ECs, we want to highlight two from the National Flood Insurance Program Training Contractor that could help you or your staff become more knowledgeable, as well as direct insurance agents, surveyors and other stakeholders to learn more about them or refresh their memory.

Using the different diagrams for information for an EC, [The Theory of Elevation Rating](#) is a seven-part series of video tutorials that walk you through how to obtain the Lowest Floor Elevation for different scenarios in A and V zones. You can watch all seven, or any one of the series – allowing you to go at your own pace in this 66-minute tutorial (and skip the V zone ones if you are in Iowa!).

If you are a beginner or novice, you may wish to start with [EC Made EZ](#). This nine-part tutorial provides an overview of the FEMA Elevation Certificate. Each part walks through the EC section-by-section, so again, you can go at your pace and watch it all, or just a part that is specific to a section of the EC you might need brushing up on.

And here's the more...

The updated NFIP Flood Insurance Manual for Oct. 1 changes is out, which include the rollback of the rates and refunds (which begin Oct. 1 and should be done by the end of the year). In addition, the April 1, 2015 changes will be released soon (if they haven't already by the time this goes to print). These include the implementation of the surcharges (\$25 on primary residences/\$250 on all other policies, the new \$10,000 deductible, and using the Preferred Risk Policy rate for the first year for newly-mapped-into-high-risk area buildings). Go to www.NFIPiService.com to see the latest bulletins and links to the latest NFIP Flood Insurance Manual.

--Your Humble [Insurance Committee Co-Chairs](#)

Bruce Bender and John Gerber & Liaison Gary Heinrichs

This column is produced by the ASFPM Insurance Committee. Send questions about flood insurance issues to InsuranceCorner@floods.org and they will be addressed in future "Insider" issues.

CFM® Corner



This section appears in each issue of "The Insider." For suggestions on specific topics or questions to be covered, please send an email to Anita at cfm@floods.org.

Keeping us updated – Please remember to notify cfm@floods.org when you move. CFM renewals and other certification related mailed material is sent to your **HOME ADDRESS**. Also, make sure we always have your current employment information and a working email address.

Continuing Education Credits (CECs)

ASFPM certification staff recently completed certification renewal for about 1,200 CFMs. One of the main issues with the certification renewal process was submittal of proper documentation for CECs. A CFM must submit verification of attendance for training they have taken during the previous two years. A copy of a Certificate of Attendance is great, but please plan ahead when attending training. If no certificates are given out, have a CEC verification form with you to have signed by the entity providing the training. Submit the verification along with a copy of the agenda with dates of training, location, and timelines to ASFPM when submitting your CEC documentation. For more information go to: http://www.floods.org/ace-files/documentlibrary/CFM/CECPolicy_11-1-12.pdf

CECs needed per year

This is a reminder that the 16 CECs required for your CFM two-year renewal period are calculated on the yearly dates based on your CFM expiration date. If your CFM expiration date is 7/31, then the CECs must be earned between 7/31-7/31 of each year and not on a calendar year.

CFMs, View Your Submitted CECs Online

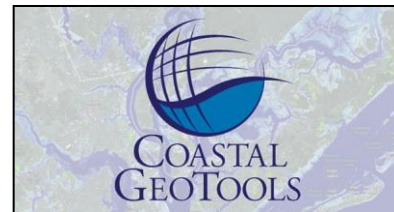
As a reminder, CFMs who are current ASFPM individual members can log on to the members site and can view their certification file for continuing education credits (CECs). This site shows how many CECs the person has earned, what year the CECs were earned, and the type of CECs (Core or Parallel). You can also submit your certification of attendance to request CEC credit here. If you have problems logging on or have questions about your CECs, contact Anita at cfm@floods.org.

Call for Abstracts for Coastal GeoTools 2015 Now Open

~Submittals due Oct. 6, 2016~

March 30-April 2, 2015
Embassy Suites Hotel & Convention Center
North Charleston, SC

It's time to start pulling together the program for Coastal GeoTools 2015 and we need your help. Submit an abstract, or two, to share your geospatial application story, tool, or resource. Go to the [conference website](#) and follow the directions for the on-line submission. Abstracts are due by Oct. 6. Questions? Contact info@coastalgeotools.org.



Gilbert F. White Memorial Marker Gets Much Needed Repairs and Updates



The ASFPM Foundation contributed funds to rebuild and update the signs that explain the Gilbert F. White Memorial Marker on Boulder Creek in Boulder, CO, according to ASFPM Director Emeritus Larry Larson.

He said, "The signage was damaged some in the 2013 floods and also needed updated data and information. Clancy Philipsborn led the effort in Boulder to get city approval to build the sign, as well as the updating. We thank him for the efforts of him and others who made this possible. Gilbert's daughter Mary White designed the marker and produced a small replica of the marker, which we presented to the recipient of the Goddard-White award in Seattle this year—a tradition we hope to continue.

"You may recall that both the Foundation and ASFPM provided support to build the memorial monument a few years ago. It has markers at different layers identifying various flood levels, and importantly, markers for historical floods over the past 125 plus years. This serves as key information to citizens who travel by it in significant numbers each day as there is a walking/hiking/bike trail that follows the river for a number of miles through Boulder. The memorial is right adjacent to the trail and creek."

Larson said, "For those who may get to Boulder at some time, be sure to stop by and see the memorial—Gilbert is not only important to the history of floodplain management in the nation, but is also a key part of the history of ASFPM."

--Photos by Clancy Philipsborn, CFM, Boulder, CO.



Sixty-six representatives from all levels of government, engineering, consulting, research, academia, insurance, banking, real estate, and non-profit organizations gathered Aug. 21 at the University of South Florida's Patel College of Global Sustainability in Tampa to participate in the first Florida Flood Risk Symposium, hosted by the Florida Floodplain Managers Association and the Association of State Floodplain Managers Foundation. These experts pondered techniques to reduce flooding and its effects "before" floodwaters rise, the surest and most effective option for reducing the effects of floods and potential losses to life and property.



Facilitators: Brad Anderson, Del Schwalls, Jeff Sparrow and coordinator, Matt Koch.

Trained facilitators, provided by ASFPM, led the discussions of key topics that included: Developing Future Funding Sources for Flood Mitigation Projects; Current and Future Impacts to Florida's Coastlines; Natural and Beneficial Functions of Floodplains; Flood Risk: Insurance vs. Regulation; and the Role of the Certified Floodplain Manager program in Florida. An action plan and roadmap will be developed by FFMA from the discussions at the symposium to improve floodplain management practices and communications in the state by supporting comprehensive floodplain management and related water resources. This overall plan will be revisited at future meetings.

Annual flood damages in Florida continue to increase, despite millions of dollars spent on flood control projects and numerous advances in non-structural floodplain management. Through collaboration and



FFMA Chapter and ASFPM Foundation volunteers provided assistance to symposium invitees, contributing to the event's success.

education, the public and private sectors can reduce losses of life and property from floods and avoid actions that increase flood hazards. Understanding that flood risk impacts a broad range of community services, FFMA partnered with USF/PCGS and the ASFPM Foundation, a national organization that has assisted other states in this venture, to collaborate on understanding flood risk, implementing effective outreach, and identifying long-term solutions.

CONTACTS:

Local: Cece McKiernan, FFMA Executive Director, (813) 765-3362, www.flfloods.org.

National: Diane Brown, ASFPM Outreach and Events Manager, (608) 828-3000, diane@floods.org.

Shedding Some Light on ASFPM's Policy Committees

In the coming year, [ASFPM](#) will be highlighting our committees in “The Insider.” Maybe you’ve heard a little bit about our 14 policy committees, but really don’t know what they are all about. Hopefully, these features will help clear up any questions you may have, and perhaps, inspire you to get involved. This month we’re focusing on our Watershed Pod, which includes the Natural and Beneficial Functions, No Adverse Impact, and Stormwater Management Committees. The graphic (on page 35) includes contact information for the Watershed Pod facilitator, as well as the co-chairs for each committee. However, if you’d like to learn more about the other committees, simply click on the committee’s icon.

Watershed Pod

Nearly everyone interviewed for this story said that once they attended their first ASFPM national conference, they were hooked and wanted to find ways to be more involved.

David Fowler, senior project manager for the Milwaukee Metropolitan Sewerage District in Wisconsin, currently serves as the pod facilitator, who coordinates the committees and serves as a liaison between

the ASFPM board and co-chairs. He said he first started getting involved in 1995 with the [Illinois Association for Floodplain and Stormwater Management](#), attending workshops and conferences.

"I don't think at the time I was really even aware that there was a national association," he said.

Fowler was also instrumental in helping to set up the [Wisconsin Association for Floodplain, Stormwater and Coastal Management](#).

"When you're involved in committees, you begin to understand that what's happening at the national level, really does affect what's happening at the local level. And being involved with committees, you begin to see what you can do help local voices be heard."

-- David Fowler, Watershed Pod Facilitator

He attended his first ASFPM national conference in 1998, which just happened to be held in Milwaukee that year, and has only missed one since that time. Fowler said he got involved with ASFPM committees right away, after encouragement from **Karen Kabbes, Dave Carlton, Dave Conrad, French Wetmore, Larry Larson and Bill Brown** (a few of the early and future "big picture" visionaries of ASFPM).

Fowler said his first committee work was with the Multi-Objective Management committee, the genesis of today's NBF Committee. And he said it wasn't until he started getting involved with committees that he began to understand how all the pieces of the ASFPM puzzle fit together.

"Some people may have issues with something FEMA or other agencies are doing," Fowler said. "This is a way to get your voice heard. I don't live in Washington, but because I'm involved with ASFPM, I have a voice. You get to see up close and personal how things work, and help get things done. I've written comments to federal agencies and I've met with members of the Wisconsin Congressional Delegation several times. It's fascinating to see how much credibility ASFPM has in Washington. When you're involved in committees, you begin to understand that what's happening at the national level, really does affect what's happening at the local level. And being involved with committees, you begin to see what you can do help local voices be heard."

[Natural and Beneficial Functions Committee](#)

Kimberly Berginnis and **Rebecca Pfeiffer** serve as co-chairs for this committee.

Berginnis, an all-hazards planner in the Department of Military Affairs, Wisconsin Emergency Management, said, "I joined ASFPM in 2005 while working for the Ohio Department of Natural Resources, Floodplain Management Program, because it was a job requirement for me to become a CFM. I decided to get involved in the committees because I found national policy fascinating and it provided a wonderful opportunity to connect with and learn from other states struggling with similar problems. It was such a relief to find a forum for honest discussion, a place to vent, a way to share struggles/successes, and a chance to learn from experienced colleagues. Also, I found it therapeutic to connect with other people who speak our "floodplain language" and who are similarly passionate about these issues!"

Pfeiffer, the assistant NFIP coordinator and Northern Vermont Floodplain Manager for the Vermont Agency of Natural Resources, also said a CFM was a job requirement.

“After earning my CFM, I attended my first conference in Norfolk, VA (in 2007),” she said. “I have to admit that I thought the association would just be talking about FEMA-centric issues, but I was delighted to find other state and local floodplain programs and ASFPM committees grappling with non-inundation flood hazards and actually discussing the intrinsic values of floodplains. I was hooked and from then on, attended as many of the Watershed Pod meetings, concurrent sessions and early bird sessions that I could. A few years later, there was an opportunity to become the co-chair of the Natural and Beneficial Functions Committee. I was so busy at work that I didn’t think that I would be able to give the time to the position that would be needed. But I realized that everyone involved in the association was busy and that you have an entire committee to rely on.”

Regarding the NBF itself, Berginnis said, “I see our committee’s primary function both within and outside of ASFPM as convincing decision-makers that naturally beneficial functions of floodplains (such as space for floodwater storage, channel stabilization and reduced peak flow), have great potential to reduce flood risk to the built environment. Essentially, our committee works to add rehabilitation/preservation of natural connected floodplains to the priority list of tools to reduce flood risk. Our committee is working on several outreach projects to describe some of the tools available to community leaders to use NBF to reduce flood risk. We are looking for help and especially for successful case studies!”

Pfeiffer added, “At this time, we are providing support and information to continue to promote the benefits provided by naturally functioning floodplains and avoiding further hazards, rather than trying to use engineered stabilization and structural control measures to reduce risk. We are also working to promote the need for awareness of other flood hazards that are not identified by FEMA. We’ve recently been working on trying to enhance the information on our website by providing information and project examples for people interested in learning more about successful natural and beneficial floodplain projects and approaches. We are currently helping to organize a subcommittee to write a white paper about approaches to managing riverine fluvial erosion.”

What advice do they have for ASFPM members who haven’t joined a committee yet?

“This is your chance to add your voice to the national conversation and be part of the team working to improve the programs we work with every day. ASFPM leadership truly is at the table with our federal partners and they are actively seeking your input through the committees,” Berginnis said.

Pfeiffer said she understands that it might feel intimidating at first to get involved with ASFPM committees, “But the committees will only be stronger when you voice your questions, contribute your experiences and assist in projects that interest you. It is always helpful to have new opinions and experiences as part of a committee discussion. It is individual members who help to make the association strong!”

[No Adverse Impact Committee](#)

Alisa Sauvageot and **Terri L. Turner** serve as co-chairs for this committee.

Turner is the development administrator for Augusta Planning and Development in Georgia, and is also the host coordinator for ASFPM's national conference in Georgia next year. She said, "My first conference was Norfolk, VA. I was there representing the [Georgia Association of Floodplain Management](#) chair who could not attend. I was hooked – bad – and I vowed no matter what I had to do, that Norfolk would be the first of many conferences to come. As for committee work, I never have been one to sit in the cheap seats in the stands and watch what is going on. I am one to get involved. Committees seemed like the logical solution and I fell in love with NAI from the split second I was introduced to it. It's just a natural fit and represents who I am and what I strongly believe in."

Sauvageot, a water resources project manager for Michael Baker International in Arizona, first got involved at the Portland, OR, conference in 1999. She tried to concisely describe NAI and the work the committee does. "We are dedicated to promoting an NAI approach to floodplain management – at the citizen level, local level, elected official level and on up the chain. Society is more knowledgeable than ever about impacts to the environment and the NAI committee is busy providing input to the production of [NAI How-To Guides](#) for local officials.

"There are so many good NAI examples that we are looking for a few volunteers to help us with administrative tracking of all these ideas. Helping us with bi-monthly committee calls, taking minutes and providing timely responses to requests for comments are all areas where a new committee member can get involved," Sauvageot said. "The update of our strategic plan is another on-going project where we need some assistance. This plan allows the committee to prioritize the focus of additional goals and ideas, without losing track of the work we need to do in promoting NAI."

Turner added that a considerable amount of consideration is also given to legal issues, such as "community liability and property rights that surround floodplain management, especially at the local level. While nothing can prevent all legal challenges, following the NAI approach can help to reduce the number of lawsuits filed against local governments, and greatly increase the chances that local governments will win legal challenges to their floodplain management practices."

When asked what she would say to new ASFPM members to encourage them to get involved in committees, Sauvageot, who has served several terms as an ASFPM board director, said, "I recommend you join a committee (or two) and become an active part of that committee. I started by reviewing a white paper on a subject I wanted to learn more about. The knowledge you learn from being an active part of a national committee, can give you the tools you just might need in your job tomorrow. When I got involved with ASFPM, I knew how to do parts of my job, in just my state. I was asked to represent my peers in other states and be their voice. I did not know a lot about mitigation, floodplain management or the focus of ASFPM, but I wanted to learn and expand my knowledge. I am not an expert on any of these subjects, I just have a passion for doing the right thing, and learning. If I don't help to make a change in the culture of how the world views floodplains today, I won't have a voice in the outcome. A big thanks to **Mark Matulik** and **Karl Christens** for pushing me to get involved...I never looked back!"

[Stormwater Management Committee](#)

Bill Brown and **Jeff Sickles** are the co-chairs for this committee.

Sickles, the principal and founder of Enginuity Engineering Solutions in Denver, CO, said he attended his first ASFPM conference in 2005, and just two years later, he was elected to a Board of Director seat. He said, "I served on the board for five years (three terms) and had the opportunity to learn and be a part of everything ASFPM was doing. This time also allowed me to familiarize myself with each of the Committee Pods and the work they were doing...In 2013, an opening became available for the Stormwater Committee and I again jumped at the chance to serve."

Sickles explained that the Stormwater Committee primarily deals with issues related to stormwater runoff

"ASFPM is an organization filled with many amazing and talented people. The relationships you find here will last a lifetime, and I would encourage anyone interested in getting involved to get off the fence and join the party."
-- Jeff Sickles, Stormwater Committee Co-Chair

prior to its discharge into drainageways and floodplains. "We currently have several work assignments, including evaluating how low-impact development might reduce flooding, how to address residual shallow flooding zones in urban areas, water rights issues related to stormwater detention and retention, and finding ways to support the No Adverse Impact Committee as they develop tools for local floodplain administrators to develop strategies for flood mitigation."

Brown, the stormwater executive manager for the City of Arlington, TX, said he would encourage new ASFPM members to find something that interests them. "Or if you need help with something and bring it to the attention of a committee, in all likelihood, you are not alone. The committee can serve as a resource for you and you are a resource to the committee."

He said something similar happened to him in 1997 when he was serving on the [Mapping & Engineering Standards Committee](#). "I had been work at DuPage County Illinois' Department of Environmental Concerns managing the floodplain mapping efforts. The county had been seeking approval to use a continuous hydrologic model, dynamic wave model, and an alternative statistical method to map the floodplains in the county. The Mapping & Engineering Standards Committee offered an opportunity to get input and feedback from other local, regional and state agencies. It also afforded an opportunity to promote change."

The bottom line is that committee work gives you a national voice. It benefits your local communities, expands your knowledge, and affords you the opportunity to make a real difference. But Sickles also wanted to add, "ASFPM is an organization filled with many amazing and talented people. The relationships you find here will last a lifetime, and I would encourage anyone interested in getting involved to get off the fence and join the party."

*This article was written by Michele Mihalovich,
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Washington Legislative Report

*Meredith R. Inderfurth,
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Long Pauses in Congressional Activity

After its month-long August recess, Congress was back in session for only two weeks before recessing again until after the elections in early November. The House and Senate will reconvene for a lame duck session Nov. 12.



The most important work during the two-week September session was passage of a Continuing Resolution (HJ Res 124) to provide funds for the federal departments and agencies through Dec. 11. Funding for the remainder of Fiscal Year 2015 will be the major focus of the session.

The outcome of the elections will significantly affect the rest of the agenda of the session. Although it is assumed that the leadership of the House of Representatives will remain with the Republican Party, it is unclear whether or not the Senate leadership will remain with the Democratic Party. That may not be resolved by November elections, since there is a definite possibility of run-off elections. Because of the possibility of change in Senate majority, there is already momentum building to prepare many bills and nominations for House and Senate floor consideration during the lame duck.

Appropriations for FY15

It is widely assumed that, once again, the rest of the fiscal year will be funded by an Omnibus Appropriations bill. The Continuing Resolution funds government programs through Dec. 11. Earlier this year, there had been high hopes of actually passing some of the regular appropriations bills. The House did pass seven of the 12 regular appropriations measures and reported another four out of the Appropriations Committee. The Senate did not pass any bills, but did report eight regular bills out of Committee. Neither the House nor Senate Appropriations Committees acted on their Labor, Health and Human Services, and Education bills.

An Omnibus Appropriations bill, when cobbled together, will utilize the passed or committee reported versions of the various bills and reflect some negotiated compromise between funding levels approved or recommended by each body.

The process of arriving at these compromise levels is considerably less transparent than the “regular order” procedure of taking House and Senate passed bills to a House-Senate Conference Committee to resolve differences.

To review the appropriations bills with elements of interest to floodplain managers, go to www.Congress.gov and type in the following bill numbers:

Agriculture: H.R. 4800 and S. 2389

Commerce/Justice/Science: H.R. 4660 and S. 2437

Energy and Water: H.R. 4923
Homeland Security: H.R. 4903 and S. 2534
Interior & Environment: H.R. 5171

Possible Action in Lame Duck Session

Two measures of interest other than appropriations could be considered during the lame duck session.

H.R. 5266, a bill to reauthorize the National Estuary Program, was reported out of the House Transportation and Infrastructure Committee. As reported, the bill also included the language of H.R. 5117, a bill to increase available funding for estuaries with critical needs. This measure could be considered on the House floor during the session.

S. 2664, a bill to modernize the Integrated Public Alert and Warning System, was introduced and referred to the Senate Committee on Homeland Security and Governmental Affairs on July 24. The bill directs modernization of the system and establishes a subcommittee of FEMA's National Advisory Council to be known as the "Integrated Public Alert and Warning System Subcommittee." It is likely that this bill will be reported out of Committee early in the lame duck session and subsequently considered on the Senate floor. A House bill reauthorizing several FEMA programs including IPAWS was reported out of Committee in October 2013, but has not been considered on the House floor.

Other Action

Digital Coast Act

On Sept. 18, Senator Tammy Baldwin (D-WI) introduced the Digital Coast Act (S. 2890) to authorize the Digital Coast program at NOAA. The Digital Coast project is "a collaborative online database of the most up-to-date coastal information, "which is made available to both public and private sectors for use in community planning and disaster response." The program's motto is "More Than Data," because it makes the data available in readily usable ways to assist local officials in decision-making. ASFPM is one of several Digital Coast Partners.

This legislation would authorize the project as a NOAA program. It has been referred to the Senate Committee on Commerce, Science and Transportation for consideration. A similar bill (H.R. 1382) was introduced earlier in the House in April 2013 and referred to the House Committee on Natural Resources.

Executive Branch Items of Interest

Climate Change

The new director of the Office of Management and Budget, former HUD Secretary Shaun Donovan, is taking a strong stance on the need to "mitigate" climate change and to promote climate adaptation strategies. In collaboration with the President's Climate Initiative, he has pointed to the recovery from Hurricane Sandy to note the coordination among many federal agencies to "provide financial assistance, climate change data and technical expertise to help rebuild communities and make them more resistant to future storms." He added, "When federal agencies work together, it's not just good governance – it's

good for families who need help, citizens who want to take action, and businesses that need certainty to invest in resilience.”

FEMA Mitigation Policy Guidance Change

This June FEMA issued new policy guidance for its Hazard Mitigation Assistance programs. Under the new policy (FEMA Mitigation Policy FP 204-078-112-1) the Hazard Mitigation Grant Program and Pre-Disaster Mitigation program can now be used to fund major flood control structures. For at least the last 20 years, FEMA funding has been restricted to non-structural hazard mitigation (such as voluntary buyouts or building elevations) and minor, localized flood control (such as local drainage improvements). ASFPM is analyzing the new policy and is concerned on a number of aspects of the policy including consistency with the Stafford Act, consistency with longstanding federal water resources policy for development and construction of major flood control structures, and the development and announcement of the policy without any apparent interagency consultation.

Legislation mentioned can be reviewed by going to www.Congress.gov and typing in the bill number or title.

By: Meredith R. Inderfurth, ASFPM Washington Liaison

This report appears regularly as a Member benefit in “The Insider,” ASFPM’s member newsletter produced in the odd months. See [ASFPM 2013 Legislative and Policy Priorities](#) on ASFPM’s website. This and other documents are also available at [National Policy and Programs > Working with Congress](#).

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