Boiling down 175 pages on the Final Guidelines for Implementing EO 13690 and the Federal Flood Risk Management Standard
Written by ASFPM Executive Director Chad Berginnis

After hundreds of public comments and nine listening sessions, the final guidelines and appendices for federal agencies to use when implementing Executive Order 13690 and the Federal Flood Risk Management Standard were approved by the Water Resources Council Oct. 8. The purpose of EO 13690 and the FFRMS is to improve the nation’s resilience to current and future flood risks. EO 13690 and FFRMS expand on concepts introduced in EO 11988 by calling for agencies to use a higher vertical flood elevation and corresponding horizontal floodplain than the base flood for federally-funded projects to address current and future flood risk and ensure that projects last as long as intended. Because EO 13690 amended EO 11988, and did not repeal or replace it, the approach in the final guidelines sets up a system where older standards under EO 11988 and the new FFRMS apply, depending on the situation.

The final guidelines emphasize that the new FFRMS is a resiliency standard, not necessarily an elevation standard. The vertical flood elevation and corresponding horizontal floodplain determined using the approaches in the FFRMS establish the level to which a structure or facility must be resilient. This may include using structural or nonstructural methods to reduce or prevent damage, elevating a structure, or, where appropriate, designing it to adapt to, withstand and rapidly recover from a flood event. In particular the following note is included in the final guidelines: “As such, neither EO 11988 nor the FFRMS should be construed to establish a required size, crest elevation, or scale for levees, floodwalls, dunes, or other infrastructure features of flood risk management systems.” It will be interesting to see how agencies interpret this as they update their own regulations and procedures.

Another important element is the applicability of the new FFRMS. A major change from the draft guidelines that were first released this past January is that there is now a distinction between federally-funded projects and federal actions. Federally-funded projects are subject to the new FFRMS while any other federal actions must meet the old flood standard under EO 11988 (the old flood standard is the base flood elevation for non-critical actions and the .2 percent chance flood for critical actions). So what is a...
federally-funded project? It’s a type of federal action where federal funds are used for new construction, substantial improvement or to address substantial damage to structures and facilities. A facility is further defined as any man-made or man-placed item other than a structure (examples include but are not limited to bridges and roads). In other words, most if not all federally-funded infrastructure should be subject to the FFRMS.

The new guidelines did add exceptions to using the FFRMS for actions in the interest of national security, where application to a federal facility or structure is demonstrably inappropriate, or where the agency action is a mission-critical requirement related to a national security interest or an emergency action. However, such excepted activities must still meet the requirements of the decision making process (i.e., the requirement for the consideration of nature-based approaches when considering alternatives). These are in addition to the emergency work exemption provided previously in EO 11988 and continued in EO 13690.

Another important element of the guidelines is the definition of the FFRMS floodplain. The final guidelines use the term FFRMS floodplain to distinguish between the 1 percent chance floodplain (or base floodplain) and the .2 percent chance floodplain commonly used by floodplain managers, because it not only includes the vertical flood elevation but also the corresponding horizontal floodplain (a new concept to many floodplain managers) as the area subject to flooding. The FFRMS floodplain can be determined by one of the following approaches:

- **Climate-informed Science Approach (CISA)** – The elevation and flood hazard area that result from using a CISA that uses the best-available, actionable hydrologic and hydraulic data and methods that integrate current and future changes in flooding based on climate science. This approach will also include an emphasis on whether the action is a critical action as one of the factors to be considered when conducting the analysis.

- **Freeboard Value Approach (FVA)** – The elevation and flood hazard area that result from using the freeboard value, reached by adding an additional 2 feet to the base flood elevation for non-critical actions and from adding an additional 3 feet to the base flood elevation for critical actions.

- **0.2-percent-annual-chance Flood Approach (0.2PFA)** – The area subject to flooding by the 0.2-percent-annual-chance flood.

The final guidelines emphasize that CISA is preferred, however, they also acknowledge that in riverine areas in particular, the science is immature and evolving. Consistent with previous guidance for EO 11988, the final guidelines emphasize that the FEMA-identified floodplain on Flood Insurance Rate Maps should only be considered a starting point and that other data sources should be used, including developing flood data when necessary. New in the final guidelines is the recommendation to use preliminary FIRMS and Advisory Base Flood Elevations as best available data, especially when flood elevations are higher.

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**WHAT IS EO 11988 IN A NUTSHELL?**

EO 11988 was issued by President Jimmy Carter in 1977 and directed federal agencies to reduce flood losses and impacts, and preserve the natural and beneficial functions of floodplains when undertaking nearly any federal action. It led to the establishment of an eight-step decision making process to ensure this goal was being met:

1. Determine if a proposed action is in the base floodplain
2. Provide for public review
3. Identify and evaluate practicable alternatives to locating in the base floodplain
4. Identify the impacts of the proposed action
5. Minimize threats to life and property and to natural and beneficial floodplain values
6. Reevaluate alternatives
7. Issue findings and a public explanation
8. Implement the action

Additionally, EO 11988 established the original federal flood risk standard, which was equivalent to the NFIP minimum standards and required agencies to conspicuously post past and probable future flood heights on structures and other places used by the general public.
During the public comment period, a frequent question related to multiple agencies being involved in a federally-funded project – which method is to be used? The final guidelines indicate where more than one federal agency is engaged in a federally-funded project, they should begin to coordinate early in the process to select the most appropriate approach for determining the floodplain. They further explain that the processes for coordination are typically determined on a project-specific basis and/or will be described in an agency’s implementing procedures. What is unknown at this time is how agencies will approach selecting among the three FFRMS alternatives, whether it will be one approach for an entire agency, one approach for a particular program, or one approach for a particular project type.

The final guidelines elaborate on one of the new significant requirements of EO 13690, which requires, where possible, the use of natural systems, ecosystem processes and nature-based approaches when developing alternatives for consideration. First, this requirement applies to all federal actions, not just federal projects. Second, natural systems can include natural and engineered features, which could mean that there is an opportunity to build in natural systems into many if not all of the alternatives considered. Sometimes, a nature-based or nonstructural alternative could appropriately be used in lieu of action proposed in a floodplain. For example, a stand-alone nature-based alternative to construction of a sea wall for shoreline stabilization could be the creation of a “living shoreline” using strategic placement of habitat components to accomplish the same purpose. When a nature-based approach is implemented in lieu of or to complement a proposed action in a floodplain, there may be reduced flood risk as well as less potential for degradation to the natural and beneficial floodplain values.

Unfortunately, the final guidelines do not generally mandate the use of higher state and local standards flood risk reduction standards. There are two exceptions. The first is in coastal states where National Oceanic and Atmospheric Administration has approved such standards as part of the state’s coastal management program. Generally, federal consistency requires that federal actions, within and outside of the coastal zone that have reasonably foreseeable effects on any coastal use (land or water) or natural resource of the coastal zone, be consistent with the enforceable policies of a state's federally-approved coastal management program. The second is where higher state and local standards are used to establish a more restrictive floodway rise as recognized by the National Flood Insurance Program itself through the production of FIRMs and Flood Insurance Studies that are based on this more restrictive standard. The final guidelines direct federal agencies to consider higher state, tribal, territorial and local standards and even recommends their use if the federal agency determines the application of such standards is “reasonable in light of the goals of EO 11988,” but falls short of requiring them. As part of its public notice requirements, the only requirement of the federal agency is to include a statement indicating whether the actions conform to applicable state or local floodplain protection standards.

Where do we go from here?

Beginning now and lasting over the next several years, agencies will be identifying their regulations and procedures that need updated to comply with the new EO and FFRMS and will begin working on them. FEMA will continue to serve in its traditional role as a technical advisor, assisting other federal agencies seeking to update its regulations and procedures and ensuring that they are consistent with the NFIP. Agencies will also have to consult with the President’s Council on Environmental Quality. In the interim, it is important to keep the following in mind:

- Even though they are final, the guidelines continue to be advisory. This will give agencies some flexibility in implementation. ASFPM has reviewed several agency’s compliance procedures with EO 11988 and found they are quite varied. For example, HUD’s most recent compliance procedures for EO 11988 (updated in 2013) creates a streamlined five-step process for certain categories of actions, and exempts other actions from the entire eight-step process. ASFPM be on the lookout for and carefully comment on each agency’s draft compliance procedures as they become publically available.
• Unfortunately, the new guidelines did not create any type of oversight or enforcement mechanism. Traditionally, community and state officials having issues with a particular federal agency reach out to their FEMA regional office for someone who can at least consult with the other agency. However, FEMA does not have any enforcement authority over the other federal agency. Still, this will remain the best approach for dealing with such situations.

• The new FFRMS does not go into effect until an agency has completed the update of their compliance procedures.

Great Resource: Floodplain Management Videos

Steve Samuelson, a CFM and NFIP specialist with the Kansas Department of Agriculture, alerted us through his October floodplain management tips bulletin of a series of 20 videos that explain everything from the NFIP to floodplain mapping and regulation to the CRS.

Floodplain Management and Dam Safety Program of the Iowa Department of Natural Resources partnered with Iowa State University Extension and Outreach to create the videos.

While one set of videos are Iowa-centric, a second set of the videos were created that have been scrubbed of any Iowa reference so that everyone can use them no matter where they live.

“Each topic is broken up in to a few short videos,” Samuelson wrote. “Most of the videos are about five minutes long...You can easily watch a short video in your spare time at your desk in this way. Come back and watch more videos as you have time...Each video has excellent information that is well presented. These videos are an excellent way for people to learn about floodplain management without leaving their office and at a time that they can set for themselves. Some of the videos on flood mapping would be good to use in a community that is getting a new flood map. Video 20 is about the Community Rating System and would be a good video to have linked on a community website when the community has applied for CRS. The videos discuss the basic requirements for floodplain management that apply anywhere.”

| Video 1: The NFIP: History and Goals | Video 11: Changing Floodplain Maps: Letters of Map Changes |
| Video 2: History and Purpose of the NFIP | Video 12: Floodplain Maps: Accessing Maps, Creating FIRMettes |
| Video 3: The NFIP: How do we join? What are the benefits? | Video 13: What is Development? When is a Permit Required? |
| Video 4: The NFIP: Community Responsibilities | Video 14: Local Floodplain Development Regulations |
| Video 5: Watersheds, Rivers and Floodplains | Video 15: Substantial Damages & Substantial Improvements |
| Video 6: Types of Flooding | Video 16: Local Floodplain Regulation: Variances |
| Video 7: Factors affecting Flooding | Video 17: Beyond Fed and State Minimum Standards |
| Video 8: Intro to Floodplain Maps: Understanding Floodplain Maps and Flood Risk | Video 18: Flood Insurance: Is Purchase Required? What can be Insured? |
| Video 10: Floodplain Maps: Understanding Flood Zones | Video 20: The Community Rating System |

“What’s not to LOVE about being @FloodsOrg member? Access to experts, education community, resources, knowledge share, GREAT people,” said John A. Miller, a water resources engineer and legislative chair of New Jersey Association for Floodplain Management.

Renew your membership here.
Historic Buildings in the SFHA: Tools for Floodplain Managers
Written by Rod Scott, CFM, of L&R Resources, LLC in Mandeville, Louisiana

Rod Scott will be writing a series of columns on the issue of historic buildings and the challenges when attempting to mitigate them.

Does your work involve floodplain leadership activities in a coastal or riverine community? As leaders in managing flood risk, we are not only faced with regulatory and mitigation activities, we are also more engaged in helping citizens who own pre-Flood Insurance Rate Map buildings get them mitigated.

These Pre-FIRM historic buildings are more at risk from flooding due to being built before we had flood mapping, local flood ordinances, civil engineering design standards and building codes that reduce flood risk. Many of these buildings are designated historic and many have not been evaluated for historic designation, especially in the higher density, new development pressure areas of the coast or older historic manufacturing/housing areas of our communities. For more than 40 years these buildings have benefitted from a discounted flood policy rate that was artificially low compared to the actual cost of the risk should they be flooded. These older historic buildings are now going to pay much higher actuarial-based premiums for flood insurance. The rise in premiums for these pre-FIRM buildings is going to encourage many property owners to mitigate their buildings, driving a substantial increase in flood hazard mitigation projects.

So where are the historic buildings in relation to the Special Flood Hazard Area? Recently the National Park Service and National Trust for Historic Preservation partnered with FEMA GIS flood map information and have released a GIS mapping web tool that identifies historic buildings located in the SFHA at various levels of historic designation under the National Register program. This new web-based tool is going to be very helpful for state and local governments, as well as non-profit historic preservation organizations, in identifying where their historic buildings are in the SFHA. Locating the historic buildings in the floodplain is a valuable tool for flood hazard mitigation planning. Say you have 100 historic buildings in the SFHA. Now your community can identify the properties and provide education outreach to those property owners about flood hazard mitigation. Additionally, elected officials can benefit from understanding the significance of these properties and the impacts to the community if they are not mitigated. Currently this tool is only available for federally-designated historic buildings. State and local historic designation lists are not yet available for the GIS floodplain mapping.

Many historic communities are now integrating historic resources into their multi-hazard mitigation plans. Traditionally flood mitigation of historic resources/buildings have not been identified in multi-hazard mitigation plans. Several states are now utilizing the FEMA P386-6 manual, “Integrating historic property and cultural resource considerations into hazard mitigation planning.” This manual has been embraced by multiple historic

Above left, is an unmitigated 1840 National Register listed home in Mandeville, Louisiana, named Little Flower. The home on the right is also an 1840 historic home in Mandeville, but it is mitigated. Photos by Rod Scott.
Mitigating historic properties identified in mitigation plans are the next step. First we need to make sure all pre-FIRM buildings are architectural/historical surveyed and combined with traditional land surveying/elevation certificates to provide critical planning data. This data can be used to map previously undesignated historic areas of the community and new historic designations can be completed. Two coastal/riverine states that received FEMA mitigation funding post Hurricane Sandy (Pennsylvania and Maryland) are currently undertaking this type of project. From this information, preservationists, communities and building owners will be able to develop mitigation projects for inclusion into local hazard mitigation plans and start to look at group or individual flood mitigation projects. FEMA publication P 467-2 addresses flood mitigation projects for historic buildings, but will require updating since it outlines on page 8 how the flood ordinance variance process doesn’t impact the subsidized rates for the National Flood Insurance Program, which is no longer the case. It is a whole new world out there. Another opportunity for mitigation planning/project identification is the USACE “Silver Jackets Program.” This valuable program can identify mitigation treatments and benefit cost analysis of those proposed mitigation actions. More about this program can be found at: http://silverjackets.nfrmp.us/.

Historic preservation as a movement has been delayed in getting into the flood hazard mitigation business. Flood mitigation projects like elevation and dry flood proofing can make substantial changes in the historic exterior of a building, especially if done without regard to the intent of preserving as much original materials, or how the building sits in relationship to its neighbors or street level elevation, and utilizing compatible building materials. Flood ordinances have allowed a variance for elevation requirements, which many building owners have taken advantage of in substantial damage and substantial improvement situations. This has allowed many buildings to avoid the activities involved with either elevation or dry flood proofing, and as a result, those buildings are still at a higher risk of flood damage. Those of us in floodplain leadership need to educate the historic preservation field about the adverse financial ramifications to the building owners if the floodplain ordinance variance process is being requested and flood insurance is going to be carried by the current or future owners. Flood insurance premium rates on these old historic buildings are going up.

In each State Historic Preservation office is the conduit to financial incentives for historic rehabilitation, and also for “Protecting Historic Properties: A Citizen’s Guide to Section 106 Review.” Grants and income tax credit programs are the most common programs administered by these state offices. You can find your state office at the National Conference of State Historic Preservation Officers. Currently I am not aware of any flood mitigation orientation/awareness training programs for the staff of these offices regarding flood hazard mitigation and how

Above left is a historic 1890 Owego, New York home that was not mitigated when it suffered flood damage in October 2011. The right photo show an 1850 National Register home, also in Owego, during a mitigation project this September. Photos by Rod Scott.
it works. We need to understand the reluctance of these state government offices and local government offices involved in managing historic resources to endorsing or encouraging changes to historic buildings that could alter them or cause them to not be designated historic. The state preservation offices often work closely with the local government historic preservation commissions, which review permitted activities within the boundaries of a historic district. The National Alliance of Preservation Commissions work closely with federal agencies funding or permitting projects in or around historic buildings. Currently most historic preservation flood mitigation in coastal communities is primarily focused on sea level rise planning, and not on the coming rapid increases in flood policy rates for these buildings and the real need to get flood mitigation projects going now.

There are a couple FEMA mitigation publications for historic properties, which have been published or are in the process of publishing, relating to the elevation of historic buildings for flood hazard mitigation. These are good first attempts at the issue. The one everyone in preservation is making reference to is “Elevation Design Guidelines for Historic Homes in the Mississippi Gulf Coast Region.” Some of the drawbacks to this publication that have surfaced in subsequent discussions is the lack of building science/codes and flood ordinance requirements in the front of this publication. That information is at the back of the document and is now seriously out of date due to changes in NFIP policy premiums. The document also encourages lots of site fill to enable the relative distance between the ground and the structure to remain as close as possible without regard to adverse impact. There is also very little discussion about freeboard and the multiple benefits derived from the additional height required above the flood map minimum elevation. Historic preservation is at the core of community resiliency. In 2003, the United Nations issued a global report, “Heritage and Resilience: Issues and Opportunities for Reducing Disaster Risks.” It noted the connection between physical and social resilience. “The symbolism inherent in heritage is a powerful means to help victims recover from the psychological impact of disasters. In such situations, people search desperately for identity and ‘self-esteem,’ and find it in reclaiming their heritage and historic places...Heritage contributes to social cohesion, sustainable development and psychological well-being. Protecting heritage promotes resilience.”

In the next article, I will examine the actual implementation/construction activities for these important older historic buildings in the US.

Administration released a new memorandum directing federal agencies to factor the value of ecosystem services into federal planning and decision-making

Written by Tamara Dickinson, Principal Assistant Director for Environment & Energy at the White House Office of Science and Technology Policy; Timothy Male, Associate Director for Conservation and Wildlife at the Council on Environmental Quality; and Ali Zaidi, Associate Director for Natural Resources, Energy, and Science at the White House Office of Management and Budget.

Our natural world provides critical contributions that support and protect our communities and economy. For instance, Louisiana’s coastal wetlands provide billions of dollars worth of flood protection and other benefits. Preserving and restoring forests in the Catskill Mountains enables New York City to access clean water at a cost several times less than the cost of building a new water-filtration plant. And current efforts to plant trees along Oregon’s salmon-rich rivers will improve local water quality – saving costs associated with installing expensive machinery to achieve the same purpose.

But these “ecosystem services” are often overlooked. Integrating ecosystem services into planning and decision-making can lead to better outcomes, fewer unintended consequences, and more efficient use of taxpayer dollars and other resources.

That is why President Obama Oct. 7 issued a memorandum directing all federal agencies to incorporate the value of natural, or “green,” infrastructure and ecosystem services into federal planning and decision making. The memorandum directs agencies to develop and institutionalize policies that promote consideration of ecosystem services, where appropriate and practicable, in planning, investment and regulatory contexts. It also establishes a process for the federal government to develop a more detailed guidance on integrating ecosystem-service assessments into relevant programs and projects to help maintain ecosystem and community resilience, sustainable use of natural resources, and the recreational value of the nation’s unique landscapes.
From the Chair
Ceil C. Strauss, CFM

As we move toward the year’s end, it will soon be time to renew our ASFPM memberships. So it’s a good time to reflect on why I became an ASFPM member in the first place, how my view of ASFPM and the benefits of being a CFM and member has changed over the years.

Not unlike many ASFPM members, I became one when I decided to take the CFM exam. I had some involvement with floodplain management in earlier positions with the Minnesota DNR, but when I started with the state floodplain program in 2002 I became fully immersed in all aspects of floodplain management. That’s when it really hit home that the more I learned, the more I realized how much I didn’t know! The Minnesota Association of Floodplain Managers was brand new, and the inaugural annual conference was being organized. The CFM exam was to be offered (for the first time in the state, I believe). My coworker, Suzanne Jiwani, and I decided we should learn more about the national program, so we took (and passed) the exam.

The first couple years as an ASFPM member I didn’t realize many of the benefits. My focus was more at the state level as I got involved with the MnAFPM chapter and helping plan for those early annual conferences. At the state conference level we had speakers and workshop trainers with national and regional perspectives who encouraged us to look at topics like No Adverse Impact and legal issues in addition to the new technical and regulatory approaches.

My first real exposure to the full breadth of what ASFPM has to offer was when I attend my first national conference in Madison, Wisconsin in 2005. Eight tracks of sessions with way too many topics of interest, the policy and agency updates, and a chance to sit in on policy committees and hear about the broad range of issues and efforts drawing upon the expertise of local officials and others from around the country (and world).

In addition to those great annual conferences, most members know about benefits such as the informative Insider and News&Views newsletters. But recently, ASFPM has been able to provide even more benefits to members than in the past, like email alerts on emerging policies and law changes, quarterly webinar calls to provide a forum to support chapters and states, discounted educational webinars, and support for field deploying the Emergency Management Institute’s 273 class to many more places around the country.

Behind the scenes, ASFPM staff provide benefits such as: supporting our chapters, monitoring the latest significant law proposals, policies and projects of Congress and federal agencies that affect us as floodplain managers and providing comments and reviews to agencies and congressional staff based on the input from our members across the county. Input from ASFPM is respected since it is recognized the issues and recommendations are coming from our members, those with “boots on the ground.”

Another area where ASFPM is supporting members is in the great work the Science Services staff are doing. An example from a few years ago is the “Flood Mapping the Nation” paper frequently used for educating decision makers on the direction needed for mapping flood risks, and the level of funding that represents. More recent projects underway include: the Great Lakes Coastal Resilience Planning Guide, Community Floodplain Management Survey (based on the past state program surveys), NOAA Digital Coast Partnership, No Adverse Impact workshops, mentoring program for state floodplain management programs, and many more. See more on the website at Current Projects and On-Going Programs.

Over the years, as I’ve gotten more involved with ASFPM, I’ve become much more aware and appreciative of what we do as an association. ASFPM was doing a lot when I first became a member, but we are doing even more now. Evolving technology, many committed and knowledgeable members, and a larger professional staff have allowed for many opportunities to be involved, learn and share. As an ASFPM member, you not only grow with the association, you help shape it.
We are very sad to report that on Oct. 22, Greg Main succumbed quietly to the illness that plagued him this past year, surrounded by his family at home. ASFPM has lost one of our own, the first chair to pass. He will be sorely missed and long remembered. Greg was a true floodplain management leader, dedicated ASFPM member, wonderful father to two sons and loving husband to wife Melanie, consummate hunter and fisher, and a great friend to many.

Greg served in numerous ASFPM leadership roles, including chair, vice chair, treasurer, Region 5 board director, 2001 conference program chair, CRS Task Force state representative and ASFPM Awards Committee member.

He received our prestigious “Jerry Louthain Service to Members Award” this year in Atlanta for helping promote effective national and state policy and practice in floodplain management. He also received numerous awards from Indiana and FEMA Region V for his long-time work as the Indiana NFIP state coordinator and co-founder of the Indiana Association for Floodplain and Stormwater Management. Greg not only brought practical on-the-ground experience, but also a sense of practicality to get things done and help communities and people be safer and think about how they could reduce their risk of flooding.

Not one to seek or revel in the limelight, he led ASFPM and thousands of professionals with honor and dignity. He was deeply admired by his colleagues for his quiet but strong leadership, perennial positive outlook and grace under pressure. We'll never forget Greg's humanity, humor, laugh and ability and willingness to work with everyone to accomplish our mission. Rest in peace, dear friend.

This PowerPoint tribute was developed by several of our leaders to honor Greg and his time with ASFPM. We hope you enjoy it even if you did not know Greg personally. The visitation and service were held Oct. 26-27 in Parker City, Indiana. Your thoughts and memories can be shared with his wife Melanie and his sons James and Zach at 123 E. Central Way, Pendleton IN 46064.

Contributions to the ASFPM Foundation in Greg’s memory can be sent to:
ASFPM Foundation
575 D’Onofrio Drive, Suite 200
Madison, Wisconsin 53719
608-828-3000
Policy Matters!

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

I just read “Understanding the Intersection of Resilience, Big Data and the Internet of Things in the Changing Insurance Marketplace,” written by FLASH’s Leslie Chapman-Henderson, and a senior policy analyst Audrey K Rierson. Afterwards, I reflected on how the explosion of data has changed what we do as flood risk managers. This column will look at how our efforts to map, manage, insure and mitigate flood risks are all entwined with big data. Challenges include efforts to collect, standardize, store and provide practitioners user-friendly data access.

How Managing Flood Risk relates to Big Data

Think about how your job in managing flood risk has changed in the last five years (or for some of us over a much longer period of time). Think about how we do flood mapping now compared to 15 years ago when so many flood maps were created. Contour mapping with LiDAR, engineering models that can be done with or without field data, digital maps, the ability to produce depth grids showing variable flood risk instead of just a shaded area where it appears all properties are at the same risk of flooding even though we know they are not.

Then consider how we can use data to produce better mitigation plans and options. Using GIS combined with flood mapping, we can determine the average annual damage for each structure, helping us do Benefit Cost Analysis and Return of Investment for mitigation. A huge amount of data is collected by various entities on buildings, including their elevation compared to flood levels, structure type, age, building materials and flood damage history. Not all of this is organized, standardized, archived or made accessible to those who need the information to manage the flood risk, such as the building owner, the community and state officials, etc.

The big data movement is driven by increased data—largely unstructured. Currently an estimated 80 percent of existing data is unstructured. In 2005 there were 150 Exabytes of available digital data at the global level, and in 2010 that number grew to 1,200 Exabytes. As illustrated in the graphic at left from Chapman-Henderson’s article, an Exabyte equals 1 trillion Megabytes.

This number is projected to increase 40 percent every year for the next several years—approximately 40 times the growth of the world’s population. It’s been said that 90 percent of the world’s data was created in the last two years, but that makes it more difficult for us to get through the noise to data that is useful.

Chapman-Henderson stated that the National Academies of Science report Facing Hazards and Disasters identifies that standardization and data archiving together pose potentially the most consequential challenge to social science hazards and disaster research.

She went on to explain that there are global efforts underway that should help all of us in our duties, such as the United Nations’ Global Pulse, a focus on the intersection of big data, sustainable development and humanitarian action. It’s a network of innovation labs where big data for development research is conceived and coordinated, in partnership with UN agencies, governments, academia and the private sector. Objectives of Global Pulse include: “(1) Achieve a critical mass of implemented innovations; (2) Lower systemic barriers to adoption and
scaling; and, (3) Strengthen the big data innovation ecosystem.” The vision of Global Pulse is the safe and responsible leveraging of big data as a public good. In this spirit, Global Pulse addresses the advancement of the conversation around Data Philanthropy, or the partnership among private sector companies sharing data for public benefit.

ASFPM has long supported open source data, especially any data developed using public money. In addition to the above movement on data sharing, we see others promoting that theme. In August 2013 the Rockefeller Foundation’s Bellagio Center wrote “Big Data, Communities and Ethical Resilience: A Framework for Action,” and developed a draft “Code of Conduct” regarding resilience building projects integrating big data and advanced computing, which identified seven core principles: (1) Open Source Data Tools; (2) Transparent Data Infrastructure; (3) Develop and Maintain Local Skills; (4) Local Data Ownership; (5) Ethical Data Sharing; (6) Right Not To Be Sensed; and (7) Learning from Mistakes. Again, these are principles ASFPM espouses.

As with everything in society, the changes we have seen in data with regards to our profession will happen even more rapidly in the next decades. That doesn’t mean this nation or others will reduce the costs or exposure to flood risk, mostly because people often make decisions on reducing flood risk based on financial costs rather than safety. It is our challenge as flood risk management professionals to use all this data in a way that helps communities and citizens be more safe and resilient to floods and other natural hazards.

“I am a part of ASFPM’s work to reduce suffering,” said Janet Thigpen, a CFM in New York and ASFPM’s district 1 chapter director.

Why I love being an ASFPM member?

#ASFPM2015

Learn how you can become an ASFPM member here.

No Adverse Impact – Focus on Implementation

*Written by ASFPM Science Services Program Director Alan Lulloff*

ASFPM provided a No Adverse Impact workshop at the Northwest Regional Floodplain Management Association conference in Post Falls, Idaho Sept. 24. The Idaho Department of Natural Resources requested us to present specifically on NAI implementation. I conducted the workshop with assistance from David Miles with the city of Meridian, Idaho, and Angela Gilman with Ada County, Idaho. I provided highlights of each of the NAI tools, associated best practices and then focused heavily on how to ensure new proposed encroachments into the floodplain do not adversely impact existing development.

From left: David Miles, city of Meridian, Idaho; Alan Lulloff, ASFPM; and Angela Gilman, Ada County, Idaho.
Mapping full-conveyance (zero-rise) floodways—During mapping projects, FEMA narrows the natural floodway, allowing new development to cause up to 1 foot of increased flooding. ASFPM research has documented that on average this causes the natural, full-conveyance floodway to be reduced in width by one-half; flood flow velocities to be increased by one-third; and the area inundated to be increased by 10 percent. Due to the requirement that when issuing building permits for new construction, communities must certify that it is reasonably safe from flooding, ASFPM suggests that communities officially request full conveyance floodways for FEMA mapping projects to avoid this increase in flood heights in their community.

Analyzing Proposed Encroachments into the Floodway—Once floodways are mapped, communities should ensure new floodway development proposals do not have adverse impacts by requiring a No Adverse Impact certification in addition to a No Rise certification. Sometimes engineers will show an encroachment will not cause a rise simply by cutting trees to reduce the roughness coefficient in the engineering model or making a portion of the floodway deeper to offset fill. Not only is this condition temporary, it can result in residential buildings in the floodway turning into an island during flood events, which puts emergency response personnel at risk should these homeowners need to be rescued or evacuated during a flood.

A Best Practice Highlighted—To prevent inappropriate development in the floodway, Brevard, North Carolina requires engineers to provide a “No Adverse Impact” certification showing that proposed encroachments not only will cause No Rise in flood elevations, but also, no increase in flood flow velocity and will not reduce the effective base flood storage volume of the floodplain. View the ordinance language here.

Attendees were also provided guidance FEMA has developed showing how the cumulative impacts of encroachments can be addressed by requiring an equal degree of encroachment analysis be conducted. Finally attendees were provided sample language associated with requirements for dry land access so that people can safely evacuate during a flood event and a sample form that can be used for new development to obtain easements from existing development if adverse impacts are identified.

The objective of the workshop was to provide tools and sample ordinance language that local officials can use to minimize adverse impacts of new development on existing residents in their community. If other chapters or organizations are interested in a similar No Adverse Impact Implementation workshop, email me at alan@floods.org.

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Job Corner

North Carolina State University is hiring an assistant professor of hydrology and water resources. A policy director is needed at the Massachusetts River Alliance and CH2M is looking for an intermediate geologist/environmental engineer. These are just a handful of jobs being offered on ASFPM’s Job Corner. Check it out for more information and the most up-to-date job listings. Or post your own job opening. It’s completely free!
What’s the ASFPM Foundation been up to?

Reflection’s on the ASFPM Foundation Forum on Climate-Informed Science
Written by Foundation President Doug Plasencia

The ASFPM Foundation hosted the 5th Gilbert F. White Flood Policy Forum Sept. 17 in Washington D.C. The Forum was titled Climate-Informed Science and Flood Risk Management: Opportunities and Challenges. The topic was chosen due to the release of the Federal Flood Risk Management Standard via executive order and the intriguing introduction of the use of climate-informed science as the preferred method to estimate hydrologic and hydraulic conditions for the future. This event was attended by nearly 100 of the nation’s leading experts in floodplain management, flood insurance, hydrologic and climate sciences, and the environmental community. Representatives included federal, state and local agencies in addition to non-government policy organizations and the private sector. The entire event was underwritten by generous corporate donations and significant volunteer time. This rich cross section of perspectives contributed to a successful day.

The following are my personal observations from the forum:

1. The decisions we are making today on housing and infrastructure will impact that next five or more generations. A straw poll of the participants indicate that the vast majority live in homes that are more than 20 years old. Approximately 10 percent of the participants live in homes more than 70 years old.
2. Nearly 1/3 of the participants can point to unusual and extreme rainfall events in their communities beginning in the past several years. While clearly anecdotal, this group is in-tune with what is normal vs. extreme.
3. The disaster damage exposure to the federal taxpayer is getting worse and will accelerate due to climate change.
4. As engineers and scientists, our predecessors have been at this point before, providing estimates for design with limited and incomplete data. We can do it again.
5. Climate-informed science does not change the underlying rainfall runoff models used by engineering and hydrologists today. What we do need to change are the rainfall and land cover assumptions to reflect a changing climate.
6. Assumptions in the hydrologic and hydraulic sciences are not new, and our current approaches are based on a number of simplifying assumptions.

If I were to chart a direction for implementing climate-informed science, it would include the following elements:

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

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

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

ASFPM Foundation promotes public policy through select strategic initiatives and serves as an incubator for long-term policy development that promotes sustainable floodplain and watershed management. If you’d like to learn more or donate to the foundation, click here.
1. Bring together experts on a regional or sub-regional basis to develop the input assumptions to be used in current tool sets. For those who doubt it can be done, I will merely add we have done it before.
2. Invest in data to allow us to fine tune our approaches and course, and adjust with time.
3. The FFRMS approach, while focused on federal investment, should be evaluated for use in non-federal investments.

Currently the Forum planning team is working towards preparation of a formal document capturing the discussion and ideas from the Forum and shaping these into recommendations. We will share it with you as soon as it’s available.

Above: Foundation Trustee Jerry Sparks of Dewberry takes a break from notetaking during one of three breakout sessions at the 5th Gilbert White National Flood Policy Forum, held Sept. 17 in D.C. Photo by Michele Mihalovich.

### Gilbert White National Flood Policy Forum 2015—By the Numbers

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ASFPM Foundation Outreach Committee has been BUSY, Spreading the Word of Foundation Activities

In the last column, the committee asked state chapters to contact them if they were interested in a trustee stopping by an annual chapter conference to explain what the foundation is all about, and what the foundation could do to assist chapters and its members to better manage flood risk. As you can see from the graphic below, foundation trustees spoke from one end of the U.S. to the other. But there are still plenty of state chapter conferences happening. So if you’d like to hear about the foundation first hand, contact Sonja Wood (sonja@h2opartnersusa.com) or Maribel Marquez (mmarquez@espassociates.com).

Foundation presentations to ASFPM state chapters in 2015

Would you like to donate to the ASFPM Foundation so that it can continue to promote public policy through strategic initiatives and serve as an incubator for long-term policy development that promotes sustainable floodplain and watershed management? Click here to donate.

Why I love being an ASFPM member?

#ASFPM2015

Learn how you can become an ASFPM member here.
Pennsylvania
Fran McClunkey, the deputy director of planning for Lycoming County, Pennsylvania, thinks these changes are serving as a long-overdue wake-up call. For her, flood insurance isn't the problem...living or having a business in the floodplain is the problem. Because, she says, "nobody recovers from a flood. Flood insurance does not make a person whole after a flood." Read “Wake-up call or washout: flood insurance reform threatens PA river towns.”

United States
Before clicking on the link for “Top 10 states for National Flood Insurance Program payouts in 2014,” guess which state you think received the most payouts. Photo at left shows flood waters filled the streets in the Meadow section of Boynton Beach, Florida, Jan. 10, 2014, trapping cars. Boynton Beach got nearly two feet of rain in a 24-hour period. (AP Photo/J Pat Carter).

Why don't property owners have flood insurance? Benjamin Franklin said it best. "By failing to prepare, you are preparing to fail." This article from Property Casualty 360° takes an in-depth look at this perplexing issue.

Japan
Within hours of the levee breach in Japan, about 2,500 people had been taken to shelters, but the high volume of water flooded two of those shelters, The Japan Times reports in the article, “Japanese River Levee Fails; Flooding Spurs Evacuation Order for 130,000.” Photo at right shows floodwaters from the burst Kinugawa River (left) flow into a residential area (right) in Joso, Ibaraki Prefecture Sept. 10. Jiji Press/AFP/Getty Images.

The World
Animated map of what Earth would look like if all the ice melted. It is NOT looking good for Florida, folks. At left is a screenshot from the video showing New Orleans and Miami under water.

Laser scanning has helped England do everything from discovering new things about Stonehenge to planning better flood infrastructure. Now, the country has made the entirety of its massive trove of scans available for free—in part because of requests from everyone from researchers to Minecraft players. Read the Gizmodo.com article here.

North Carolina
This op-ed piece comes from The News&Observer, and highlights why the “North Topsail Beach debacle is no way for NC to management its coasts.” Photo at right shows North Topsail Beach got permission to build a sandbag seawall in the ocean that required a special variance from the Coastal Resources Commission. Photo by Todd Miller.
South Carolina...kind of

FINALLY! The next time you hear someone say something crazy, like "this is a once in a 1000 year flood event," send them this link. PLEASE!!!

We need to do a better job as CFMs, emergency managers, firefighters and risk communicators, during emergencies. Using words and phrases that are common in our industries, means nothing to the general public. Walk up to any person you see on the street right now and ask them what “shelter in place” means. All those blank stares should be a pretty good indicator that “shelter in place” should NOT be used, especially in emergency alerts. This article from Project Literacy explains more.

South Carolina for sure

"Long before the historic floods of the past week, crumbling roads, bridges and dams and aging drinking water systems plagued South Carolina — a poor state that didn't spend much on them in the first place and has been loath to raise taxes for upkeep. Now the state faces hundreds of millions if not billions of dollars' worth of additional bills to fix or replace key pieces of its devastated infrastructure." Read this ABC News article here. At left is an AP photo by Mic Smith showing some of the road damage on Oct. 6.

In Charleston, South Carolina, alone, census data records nearly 144,000 households, but the NFIP reports that it has only 24,000 policies in the area. Statewide, South Carolina holds nearly 2.2 million housing units, yet fewer than 200,000 flood insurance policies. Read the full article from CNBC here. AP photo at right by Gerry Broome shows a vehicle and home swamped with floodwater from nearby Black Creek in Florence, South Carolina Oct. 5, 2015.

Florida

Sen. Jeff Brandes is looking to help Florida communities address the effects of coastal flooding. On Oct. 20, the St. Petersburg Republican filed SB 584, a bill to create a statewide flood mitigation and assistance program, providing up to $50 million per year in matching grant money. The money would help reduce the risk and severity of coastal flooding. Read the article here.

California

Nice seeing this trend in California, which is a big about face from a month ago when we read that lots of Californians were canceling their flood insurance because of the four-year drought. According to this Southern California Public Radio piece, Farmers Insurance has seen a 152 percent increase in flood insurance sales in California versus the same period last year, according to Jeff Hinesly, the National Flood Insurance Program Director for Farmers Insurance Group. Nationwide sales have been flat. "I would say it's definitely El Niño related," said Hinesly. Photo above, taken by Benjamin Brayfield from KPCC, shows a home that had been inundated with mud and debris after an August 2014 mudslide.
Rachel Sears named as new Branch Chief for the Floodplain Management Branch Oct. 7.

“Rachel is returning to the Floodplain Management Branch after a five-year hiatus, during which time she served on the NFIP Reform and Reauthorization teams and subsequently was selected as the Senior Policy Advisor for FIMA,” said Michael M. Grimm, assistant administrator for mitigation at FEMA. “During Rachel's term as the Senior Policy Advisor she helped to establish an integrated approach to policy development and review across the insurance and mitigation enterprise, led the development of insurance and mitigation strategies for input into the 2014-2018 FEMA Strategic Plan, worked with FIMA components to articulate how our programs collectively advance climate adaptation, created and managed the Resilience Fellowship as a way to provide an internal professional development opportunity, and led the interagency efforts to advance the Federal Flood Risk Management Standard.”

“Rachel’s previous experiences and floodplain management expertise will serve the Floodplain Management Branch well as we continue to advance floodplain management in communities across the nation through the NFIP and CRS, implement the revised Executive Order on Floodplain Management with federal partners, and better establish the value floodplain management creates for policyholders and taxpayers,” Grimm said.

Sears assumed her new duties Oct. 13.

New and updated FloodSmart tools and resources for agents

FloodSmart, the marketing and education campaign of the National Flood Insurance Program, recently developed new resources for insurance agents, such as webinars now being available on Agents.FloodSmart.gov, public service announcement materials with the message: Protect What Matters. Get Flood Insurance, and social media messages that promote flood insurance and flood safety.

FEMA to Assess Future Over-the-Air Broadcast Alerting Technology

FEMA’s National Continuity Programs Integrated Public Alert and Warning System Division has begun to assess the feasibility of a public alert and warning capability that is being developed in the private sector.

New technologies could deliver detailed emergency information to the public with pictures and videos of evacuation routes, storm tracks, and shelter information “increasing community preparedness before, during, and after a disaster. The media alerts will be able to include multilingual and multi-format information to warn non-English speaking populations and people with access and functional needs.

“FEMA is committed to working with the private sector to examine and improve future alerts and warnings,” said Roger Stone, acting assistant administrator for NCF. “New systems could someday include pictures and video as part of the advanced alert and warning information provided to the general public.” Learn more here.

No need to put your career on hold while you earn your master degree. UW is offering a mostly online Master of Infrastructure Planning and Management, with two summer classes lasting only two weeks each. Check out the curriculum here. Classes set to start next summer. Western Kentucky University offers a Bachelors of Interdisciplinary Studies degree with a concentration in floodplain management. For information on that program, contact Warren Campbell at warren.campbell@wku.edu.
Why I love being an ASFPM member?

#ASFPM2015

Learn how you can become an ASFPM member [here](#).

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It’s that time of year again. Time to renew your ASFPM membership

ASFPM is recognized worldwide as a leader in floodplain management. With floods happening more frequently and severely today, your role as a floodplain manager and ASFPM member is crucial and more important than ever.

ASFPM membership means:

- Continually helping you stay on top of industry trends,
- Earning professional credibility through our [Certified Floodplain Manager](#) program at a discounted price,
- Contributing to the tools and resources we create to make your job easier, like the [No Adverse Impact how-to guides](#), [Flood Mapping for the Nation](#) report, legal research/guidance and technical papers,
- Knowing your voice will be heard on The Hill, especially with national policies that could impact your community,
- Receiving email blasts explaining complicated issues, like EO 13690 and Federal Flood Risk Management Standard,
- Attending [webinars](#) critical for your day-to-day activities, at a discounted rate,
- Getting the members-only newsletter, “The Insider,” packed with information you need to be an effective floodplain manager,
- Contributing your perspective through our 14 policy committees, and
- Discounted rates to ASFPM’s [annual national conference](#) and specialty workshops.

Be sure to renew your membership by Dec. 31 and help ASFPM keep doing great work—nationally and locally!

Click [here](#) to renew your ASFPM 2016 membership.

If you have any questions about your membership, please email [memberhelp@floods.org](mailto:memberhelp@floods.org).

Remember, as an ASFPM member, you not only grow with the association, you help shape it.
The Danger of Calling Major Floods Extreme Events

As I sit down and write this, Hurricane Patricia is bearing down on Mexico’s Pacific Coast and is being called by CNN the “most dangerous storm in history,” and on NPR, “the most powerful storm ever.” No doubt it is big and dangerous and I can only pray that folks will heed warnings and get out of harm’s way. However, a Category 5 hurricane is going to cause extensive damage whenever and wherever it makes landfall. Similarly, the large flooding event that hit South Carolina in early October caused dam failures, widespread infrastructure damage, property damage and death. Unfortunately, the categorization of this event was as hyperbolic—called by some a 1,000-year storm/flood or the worst flood in history. Except that these events are not.

And worse, by talking about events in this way, we are preprogramming the human psyche to accept such events as so extreme that there may be nothing we can do, nor nothing we should do differently during rebuilding. I am already hearing about communities in South Carolina considering repealing parts of their floodplain regulations like cumulative substantial damage that lead to better community resiliency over time so folks can quickly get back to normal. After all, these were historic events, right? So there is no chance that it could happen again? Wrong.

So what really happened in South Carolina? Well, as some folks have attempted to explain, it is much more complicated than to say the flood was a 1,000-year event. On some small watersheds that received 15+ inches of rain over the entire watershed, yes, a person could say that statistically, it saw a 1,000-year precipitation event. However, does that translate into a 1,000-year flood? Maybe, but usually not. In fact, ASFPM developed a short resource guide to explain the difference. During the South Carolina event, I examined some of the resources available over the web to get a sense of what was going on. I looked at the USGS streamgage on the Congaree River at Columbia (the Congaree and Saluda Rivers are the major flooding source in Columbia). Then I compared that data to the FEMA FIRM and FIS data. Luckily, the FIS contained discharge values at the gaging station in the summary of discharges table. I was mentally preparing myself to be blown away by the values. However, based on discharge, it appeared this event was between a 10-year and 50-year flood. Based on stage, it appears that the Congaree peaked at around 146 feet Mean Sea Level and the 100-year elevation on the FIRM is 153 feet. Further, thanks to a well-developed FIS, it appears that the three worst floods on the Congaree River in Columbia occurred in 1908, 1928 and 1929 and had discharges of 364,000 cubic feet per second, 311,000 cfs and 303,000 cfs, respectively. The most recent event had an estimated peak discharge around 200,000 cfs! I have not heard any media coverage or politicians able to justify calling the recent event the worst flood in history or the 1,000-year flood with historical fact.

It is a disservice to the public, businesses and local officials to make such claims when describing floods or hurricanes. Instead, I personally prefer the National Weather Service’s categorization of floods when they hit various stages: action, minor, moderate and major. I think calling an event a major flood aptly describes an event like the one that happened this month in South Carolina without implying that it might not happen again in a very long time. The same problem exists with our flood maps. Might we be better served if our flood zones shown on those maps were simply labeled as minor, moderate and major?

What happened in South Carolina was a major flood event over a large area of the state, however, such a major flood event could happen again next year or the year after that. It is not to imply that it wasn’t devastating to
some property owners and families. Rather, in communities where flooding is a perennial threat, a major flood just seems like it could happen again and again. But I am very concerned that as individuals and local elected officials reflect on the event and what they should do next, they will do much less about a 1,000 year event versus a major flood.

By the way, on Oct. 17, a 1,000-year storm hit the Antelope Valley in southern California. And I bet it won’t be the last 1,000-year storm this year in the US. Isn’t calling these events “major floods” enough?

Your partner in loss reduction,

Chad

Great Lakes—Grand Partners
ASFPM’s 40th Annual National Conference
June 19-24, 2016

Our 2016 conference, which will be held in Grand Rapids, Michigan, focuses on partnerships. Partner is defined as a person (or entity) who engages in an undertaking with another or others, especially in a business or company with shared risks and profits; being united with others in an activity or sphere of common interest. Michigan has long been a strong partner and leader in the Midwest with innovative mitigation tools and regulations to protect its people and environment.

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

Conference registration doesn’t open until February, but that doesn’t mean you can’t book your hotel now. The conference takes place at the DeVos Place Convention Center. ASFPM has contracted with three conference hotels within easy walking distance to DeVos Place. Click here for hotel and booking information, and click here to find out all the great attractions available in Grand Rapids and the state itself. Remember that staying at the conference hotels helps ASFPM meet its obligations, avoid penalties and keep registration prices lower. And besides, there are more networking opportunities!
Ethics in Floodplain Management

Written by John Ivey, CFM, retired PE from Halff Associates, and instructor on “Ethics in Floodplain Management”

ASFPM’s Certification Board of Regents thought a “Code of Ethics” in the floodplain management field was so important, that signing it is a requirement when applying to take the CFM® exam.

The role of today’s floodplain managers is expanding due to increases in disaster losses; the emphasis on mitigation to alleviate the cycle of damage-rebuild-damage; and a recognized need for professionals to adequately address these issues. And occasionally, ethical dilemmas could result from political pressure; project deadlines; supervisor or peer pressures; company, agency or community policy; unclear standards or regulations; and possible financial impacts.

In the coming articles, I will be highlighting a “CFM ethics” situation and possible outcomes. But first, let’s review the tenets of the CFM “Code of Ethics.”

As a CFM, you agree to:

• Protect the health, safety, property and welfare of the public in the practice of your profession;
• Establish and maintain a high standard of integrity and practice;
• Practice honesty and integrity in all of your professional relationships with the public, peers and employer;
• Be truthful and accurate in your professional communications;
• Not express a professional opinion in deposition or before a court, administrative agency or other public forum, which may be contrary to generally-accepted scientific and floodplain management principle, without fully disclosing the basis and rationale for such an opinion;
• Foster excellence in floodplain management by staying abreast of pertinent issues;
• Enhance individual performance by attention to continuing education and technology;
• Avoid conflicts of interest resulting in personal gain or advantage;
• Be economical in the utilization of the nation’s resources through the effective use of funds, accurate assessment of flood-related hazards, and timely decision-making;
• Maintain the confidentiality of privileged information;
• Promote public awareness and understanding of flood-related hazards, floodplain resources and flood hazard response; and
• Be dedicated to serving the profession of floodplain management and to improving the quality of life

But in reality, you can melt down floodplain management ethics into a simple checklist:

• Is the action legal?
• Does it comply with FPM values and ethics?
• If you do it, will you feel bad?
• How would it look in the newspaper?

I look forward to sharing some CFM ethics dilemmas in the coming months.
National Wildlife Federation and ASFPM looking for climate change adaptation case studies

The National Wildlife Federation, in cooperation with ASFPM, is putting out a call for climate change adaptation case studies to highlight in a national report on ecological approaches to natural hazard risk reduction to human communities. We’re particularly interested in hearing about innovative uses of natural and nature-based features to reduce impacts from floods, heavy precipitation and storms, sea level rise, erosion and related hydro-meteorological hazards to human communities. For this project, NWF is specifically interested in hearing about projects that reduce risks to human communities while generating co-benefits to ecosystems and fish and wildlife habitat. Potential areas of focus for the case studies include, but are not limited to:

- Conservation of existing natural systems
- Restoration or management of ecological processes (e.g. water or sediment flow, plant community succession)
- Ecosystem restoration
- Risk reduction measures that include nature-based features that mimic natural processes
- Hybrid gray-green infrastructure for stormwater management and flood risk reduction
- Living shorelines projects that incorporate ecological processes and use site-appropriate biological materials
- Community relocation efforts, moving people out of harm’s way
- Community efforts to prevent at-risk development in floodplains
- Policy innovations that preserve, promote and protect natural systems for flood risk reduction
- Local zoning and land use policy that intentionally incorporates natural buffers to flood hazards
- Managing fish, plant or wildlife species in ways that increase ecological and community resilience

If you are interested in seeing a particular project highlighted, please send a brief (500 word limit) summary to Nicole Holstein at holsteinn@nwf.org and alan@floods.org. Inquiries may be directed to Karl Schrass at schrassk@nwf.org, Stacy Small-Lorenz at smalls@nwf.org or Alan Lulloff at alan@floods.org. The deadline for submissions is Nov. 30.
ASFPM Editorial Guidelines

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

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