Q & A with Randy Behm

ASFPM organized a Question & Answer with Randy Behm, PE, CFM, and Chair of the National Nonstructural Flood Proofing Committee with the United States Army Corps of Engineers for the Omaha District.

Q: How about we start with your background. Where did you go to college, and what is your degree in?

A: I graduated in May 1985 from the University of Nebraska (Omaha and Lincoln) with a Bachelor of Science in Civil Engineering.

Q: Did you go into college knowing you wanted to be an engineer, or did something happen that moved you in that direction?

A: When I was 10 years old, my grandfather and I hiked along a portion of the Missouri River in western Iowa and he told me stories of how he had worked for the Corps of Engineers as a young man during the early 1900s, assisting in the construction of willow mats and timber structures for use as stream bank protection along the Missouri River. From that point forward, I always had an interest in becoming an engineer and being involved with river engineering and floodplain management.
Q: How long have you been with the USACE? Always in the Omaha District?
A: I started with USACE in June 1985, right after college graduation. While I have always been located in the Omaha District, my interests in flood risk management and nonstructural flood proofing have enabled me to become involved in and support a variety of studies and projects from across the country. The NFPC committee has provided me numerous opportunities to observe flood risk across the country and participate in activities leading to a reduction in those risks.

Q: Have you been the chair of the National Nonstructural Flood Proofing Committee since it was founded in 1985?
A: The Charter for the National Nonstructural Flood Proofing Committee was established during 1985 with the objective of supporting HQUSACE by providing leadership in the development and use of nonstructural flood risk adaptive measures by providing support for all USACE floodplain and flood risk management activities. I came onto NFPC during 2001 as an advisor and worked my way into a member role and then the executive secretary position, prior to assuming the duties of the chair during 2011. The current committee has had the benefit of previous members who were influential in establishing the first committee and laying the foundation for the nonstructural and floodplain management activities, which we still advocate today.

Q: When did you become a Certified Floodplain Manager? Was it required or was it something you felt you needed?
A: I became a CFM during January 2003. After becoming chief of the Flood Risk and Floodplain Management Section in Omaha during 2001, I heard about the CFM® program and felt that my entire office should consider certification under this program, as the program was very relevant to the work we were conducting within the Omaha District. I requested the exam be proctored in Omaha, and with that exam our group became the first CFMs certified in the state of Nebraska. Certification through the CFM program is an exceptional way to illustrate one's understanding of the basic principles of floodplain management and to establish a network of people and resources dedicated to these same principles.

Elevation of a residential structure in Tehama, California. Photo courtesy of Randy Behm.

An elevated fire station in Natomas, California. While this wasn’t a USACE project, Behm (who provided the photo) says it’s a great example of a nonstructural flood proofing project.
Q: Can you discuss briefly some of the nonstructural flood proofing measures communities can take?

A: There are a large number of physical and nonphysical nonstructural measures which may be considered by communities for reducing their overall flood risk. The physical measures are directed toward specific structures (residential, commercial, industrial, public) which are exposed to flood risk. These physical measures, when applied correctly, allow the structure to adapt to the natural characteristics of the floodplain so that there may be a reduction in future flood damages. Several of the typical physical nonstructural flood proofing techniques are acquisition, relocation, elevation (on piers, columns, post, fill), dry flood proofing, wet flood proofing, and basement removal with utility addition. Nonphysical nonstructural measures include floodplain mapping, flood warning systems, emergency action plans, land use regulations, evacuation plans, risk communication and flood insurance. While these nonphysical measures do not result in a reduction in flood damages to a structure, they may provide knowledge and critical time to the inhabitants of at-risk structures to implement precautionary measures (move valuables, evacuate) to limit damages and to prevent loss of life.

Q: Can you give an example of a community (or two) that moved from say, a levee control, to a more nonstructural approach? Have they been put to the test yet—like held back flood waters after a hard or sustained rain event?

A: There are pockets of successful nonstructural mitigation located all across the US, with more occurring every day. Many communities that have opted for nonstructural mitigation over structural measures are doing so through USACE programs, FEMA Hazard Mitigation Grant programs, Housing and Urban Development programs, through personal desires, or through other state and federal programs. Examples of successful nonstructural flood risk adaptive measures occur in Tehama, CA; Darlington, WI; Roseville, CA; Pierre, SD; New Orleans, LA; Boulder, CO; the Tug Fork Valley of Kentucky and West Virginia; as well as the area recovering from Hurricane Sandy. While the level to which many of these projects have been tested varies, the important thing to remember is that successful efforts are taking place to reduce an individual’s or community’s exposure to flood risk.

In a screenshot from this video, Bev Anderson shows how downtown Darlington, Wisconsin, essentially rose two feet in its flood mitigation effort. While this wasn’t a USACE project, Behm says it’s a great example of a nonstructural flood proofing project.
Q: Larry Larson, ASFPM’s director emeritus, was talking about a fairly recent flood event, maybe 2011, on the Missouri, where the levee kept getting washed out. So you suggested to the property owners that they set aside land so that the levee could be built farther back from the river. Can you talk a bit about that?

A: Over the past 30 years I have seen significant flooding firsthand. While I believe that we should utilize all non-structural and structural tools available to reduce flood risk, it has become an opinion of mine that, in some instances, we continue to encounter "trouble spots" along some levee systems, where time and again segments of these levees are significantly damaged during a flood, repaired, and then damaged again during the next flood. In essence, we as a nation are promoting repetitive loss infrastructure, where we continue to do the same thing after each flood event, hoping that we will see different results in the future. During and after the Missouri River flood of 2011, I had the opportunity, the available resources, and the interest of other engineers to assess several areas of repetitive damages downstream from Omaha. Our assessment indicated that if specific segments of damaged levees could be setback from the river instead of being rebuilt in-place, the result would be lower flood stages, lower velocities, and a more resilient and sustainable levee system. Additionally, the lower flood stages could result in more benefit by allowing the water trapped by interior drainage to flow back into the river sooner. What was also significant about this assessment is the fact that numerous property owners were supportive of doing something different. They had seen some of these levees compromised in the past, and were more than ready to try something different. Approximately seven miles of federal levees were setback from the Missouri River after the 2011 flood event. High flows during subsequent years have supported our rationale for the levee setbacks, as the stages have been lower, the velocities have been lower, and the overall system appears to be more resilient to flooding.

Q: What are some Corps programs communities can take advantage of to implement nonstructural flood proofing measures before a disaster hits, and after a disaster hits.

A: USACE has an assortment of programs that can provide planning assistance or project implementation for managing flood risk. USACE’s National Nonstructural Flood Proofing Committee website, provides program details under "Planning Programs Factsheets." Several of the programs identified have the functionality of providing planning assistance only, without authorization to lead to implementation of nonstructural measures. Others have the functionality of implementing nonstructural and/or structural measures, which have been determined to be economically feasible through a detailed plan formulation process. Most programs have cost-share requirements for the plan formulation phase, as well as the implementation phase. An additional benefit to utilizing these programs is that they may be initiated pre-flood or post-flood and aren’t dependent upon a declared disaster.

Q: A lot of people aren’t aware of the ASFPM/FM Global/Corps testing and certification program. Can you explain a bit about the program and how communities could be using the testing program (or at least the results)?

A: The desire to prevent flood damages from occurring to buildings and facilities requires products that are suitable and reliable for use during a flood. ASFPM, in partnership with FM Approvals and the US Army Corps of Engineers’ NFPC, have initiated implementation of a national program of testing and certifying temporary flood barrier products used for flood proofing and flood fighting. This program currently tests barrier products for temporary flood barriers and closure devices. While the purpose of the program is to provide an unbiased process of evaluating flood barrier products, a program objective is to raise awareness of products that have achieved certification so that local, state and federal officials may consider these products when developing emergency action plans. Evaluation is accomplished by standardized testing of the products against water related and material forces in a laboratory setting and periodic inspection of the manufacturing process for product consistency. Upon products meeting the consistency of manufacturing criteria and meeting the established standards for the material and water testing, certification becomes available to the product. Since the testing is conducted in a controlled laboratory setting, not all natural forces and potential impacts can be tested. Product certification reflects,
in terms of flood proofing, the suitability and performance of the product based on the product deployment, the durability and reliability of the product, as well as the product’s consistency. Brian MacDonald (FM Approvals) and Alan Lulloff (ASFPM) have provided exemplary leadership on the advancement of this program. This website provides additional information of the national testing and certification program, and a list of certified products.

Q: Larry also said you, or the Corps in general, can offer "technical assistance" for small communities that don’t have a lot of money, or have small staff, no floodplain maps, etc. So what kinds of "technical assistance" is there, and how do communities go about applying?

A: There are several excellent USACE programs that have been established to provide technical assistance to communities, such as the Flood Plain Management Services Program, Planning Assistance to States Program, and the Silver Jackets Program. All three programs address flood risk, but may have subtle differences from one program to another. It would be my recommendation that rather than a community identifying which program should be considered for their particular conditions, that the community contact its USACE district through this website in order for the appropriate district personnel to determine which program meets the community's needs.

Q: Is there anything I did not ask that you’d really like our members to know about?

A: Flood risk is a significant threat to too many communities across the United States. The risks exist for coastal areas and riverine areas alike. At a cost of approximately $10 billion annually in flood damages, this natural hazard affects almost all of us directly or indirectly. We must continue to identify flood risk, communicate flood risk, and leverage resources and tools to mitigate flood risk. Flood risk management truly is a shared responsibility and the current limitations to funding and resources requires each of us to be more collaborative in our partnerships and innovative in our efforts to eliminate flood risk.

Randy Behm (and others) will be conducting a training workshop at ASFPM’s conference in Atlanta called “Nonstructural Flood Risk Adaptive Measures for Reducing Flood Damages from 8 a.m.-noon June 5. Click here for details.
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 2015! 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.

The National Research Council's Water Science and Technology Board recently released the "Review of the Everglades Aquifer Storage and Recovery Regional Study."

The report reviews an 11-year regional study carried out by the US Army Corps of Engineers and the South Florida Water Management District to assess the regional effects of large-scale aquifer storage and recovery in the Everglades. The report finds that despite uncertainties about the ecological impacts of large-scale implementation of aquifer storage and recovery in the Everglades, it could be phased in to answer several scientific questions and provide some restoration benefits.

The full report is now available for free PDF download, along with a report in brief (two-page lay summary).

ASFPM needs your items for the Silent Auction at our National Conference in Atlanta

Silent and live auction fundraisers are held annually at ASFPM national conferences. Each year attendees have the opportunity to bid on valuable goods and services donated by local businesses, ASFPM chapters, corporate sponsors, and individuals. All proceeds from the auctions go to the ASFPM Foundation, created in 1997, to support research and education that promote wise and sustainable floodplain management.

When, where and how you can bid and buy?
The next auctions will be held June 1-3 at our national conference in Atlanta.

How to make your tax-deductible donation?
Provide the following information to Luci Sherwood, our silent auction coordinator:

- Description of item (and number of each unit donated if applicable),
- Fair market value (minimum value $25 and include any shipping costs separately),
- Company or affiliation,
- Your phone, email, and address,
- When and how the item will available for table placement,
- Name and address for acknowledgement letter if applicable.

Shipping and delivery information is here. Here are a few of the 2015 auction donations to date: One week timeshare in Sedona, Arizona; wine, cheese, and cracker baskets; Jewelry; State-themed gift baskets; Gourmet chocolates; Four Atlanta Braves tickets for June 5; Restaurant gift cards nears the Hyatt Regency.
Insurance on My Mind

With the theme of “Mitigation on My Mind,” the 39th annual ASFPM national conference will be held in Atlanta May 31-June 5 at the Hyatt Regency in downtown Atlanta. Since the mitigation melody is risk reduction, that tune harmonizes well with insurance and reducing the rate; and combined, that makes for a sweet song property owners love to hear.

These tunes will resonate at this year’s conference. The Insurance Committee will be holding its annual meeting from 1-3:30 p.m. June 1. While we will review the year and receive updates on CRS, the FloodSmart campaign and the National Flood Determination Association, a major discussion will be around the recent and upcoming changes to the NFIP flood insurance program. FEMA Risk Insurance Division Underwriting Branch Chief Jhun de la Cruz will provide the update and participate in a question and answer period. The planned agenda and the 2014-15 committee annual report are on the Insurance Committee’s webpage for you to review and download.

Another session the Insurance Committee is hosting is an early bird session Wednesday morning from 7-8:15 a.m. on Increased Cost of Compliance. While ICC has been effective at increasing mitigation, it is not being utilized to its fullest potential. The 2004 legislation promoting ICC as a match for HMGP grant recipients has not been widely recognized or promoted. It’s a program ripe for expansion and improvement. In this very lively interactive early bird session, we will share current challenges, explore ways to improve the ICC process, and brainstorm other ways ICC can be expanded to further mitigation. Ideas discussed in this session may lead to a paper from the ASFPM Insurance Committee that could be used as a guide for ICC improvements. So, if you plan to be at the conference on Wednesday the 3rd, grab a cup of Joe in the Exhibits Hall and head on down!

Finally, you will notice on our committee webpage, we have cleaned out a lot of the older documents and also created a section just for reform-related material links. We have heard many complaints about the difficulty of finding specific reform material on FEMA’s reform legislation webpages, so we picked the most current and topical ones and placed the links there. We’ll share this at the conference too.

So, don’t miss the conference, and definitely if you are there, don’t miss the Monday committee meeting. To paraphrase Ray Charles:

No peace, no peace I find
Just this old, sweet Mitigation song
Keeps Insurance on my mind.

See you in Atlanta!

--Your Humble Insurance Committee Co-chairs
Bruce Bender and John Gerber and 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.
Deputy Director Report – Ingrid D. Danler

Well, as Miss Scarlet O’Hara said, “I’m going to Atlanta for that $300 and I gotta go looking like a queen.” Your wardrobe does not need to be like Miss Scarlet’s, but we do hope to see you in Atlanta for ASFPM’s 39th national conference, the largest gathering of flood risk management professionals in the nation. As has become our tradition, and in continued salute to David Letterman, here is my Top 10 List with reasons why you should attend this year’s Mitigation on My Mind conference:

No. 10. The Eastern Continental Divide that separates the Gulf of Mexico watershed from the Atlantic Ocean watershed runs smack through Atlanta—a floodplain manager’s dream city;

No. 9. For fellow “Walking Dead” fans, Atlanta was originally named Terminus, but we do promise sanctuary, for real.

No. 8. Do not under any circumstance tie a giraffe to a street post in Atlanta. It may seem like a good idea after enjoying yourself immensely at Thursday night’s zoo event, but it’s not. In Atlanta, it’s officially illegal. But there’s no law against tying a CFM whose let his certification lapse;

No. 7. We give CECs for rafting and kayaking – who else does that?

No. 6. Where else but in the South does the phrase “bless your heart,” really mean, according to Urban Dictionary, “You are being dumb, but I like you and care about you’ so I don’t want to hurt your feelings.”

No. 5. The Hyatt is huge and we are all going to be in the same building, so expect to brush with greatness…often;

No. 4. Alphabet soup talk will be abundant: LOMA, BFE, CFM, EC, NFPPR, NFFA, FEMA…;

No. 3. Two words: swag bags. Your kids will thank you;

No. 2. This year, CFM shall stand for “Can’t forgo mitigation”;

And the No. 1 reason for attending the Mitigation on my Mind conference in Atlanta? Reconnecting with people who know you, love you, and want to do business and share the best ideas and practices in the country – until midnight, every night, in every available lobby!

See you in Atlanta!

Best,

[Signature]

The Insider May 2015
What’s happening around the world?

A collection of the most viewed stories on our Facebook page

**Louisiana**—The retired systems analyst with Boeing sounds like he could get a side gig as a floodplain manager. Read what this New Orleans resident had to say about flood risk, and oh so much more in this opinion piece. And take a look at his home, pictured right. He marked his home like a ship’s hull to mark the difference between Hurricane Katrina and the average flood. Photo by: Jed Horne.

South Louisiana business leaders agree legislation passed last year to curb skyrocketing federal flood insurance rate hikes has reeled the region back from the edge of economic calamity. But they say the fight is far from over. Read the article, “6 ways to fix flood insurance: Louisiana business leaders offer ideas to curb rate hikes,” from NOLA.com.

**New York**—Since 2012, when Hurricane Sandy brought catastrophic flooding to this Staten Island neighborhood, Oakwood Beach, 99 percent of its residents have sold their homes to the state of New York. The land is to be permanently cleared, then returned to nature to become a blue-green buffer zone protecting inland communities. Read, “Sea level Rise Poses Hard Choice for Two Neighborhoods: Rebuild or Retreat?” Since Hurricane Sandy in 2012 (left), NY is letting some coastal neighborhoods go back to nature. Photo by: Andrew Burton/Getty Images.

Laura Sager, executive director of the Soil and Water Conservation District in Columbia County, New York, spends an increasing amount of time on a topic that many people consider mundane: culverts. Read this Climate.gov article, “Extreme Rainfall Analysis Can Point to the Right Size for Culverts.”

**Australia**—Australia says after mopping up after another severe storm, it's time to start rethinking land use policies. Read The Sydney Morning Herald article here. The photo (right) was taken by Peter Stoop.

**Kentucky**—Several Louisville homeowners to file a lawsuit against the Metropolitan Sewer District because they said they were unaware of a Metro Louisville flood ordinance that will force them to move from their home. According to MSD officials, the ordinance states if damages from flooding over a 10 year period cost more than 50 percent of the value of the home or business, a permit to rebuild will not be issued. Read article here.

**Pretty much anywhere**—Vertical Datums? Who Cares? We ALL Should! From an Intermap blog post titled, “What’s up with vertical datums?”

Great SHORT video on tidal flooding and sea level rise due to the impacts of climate change. Put out by Union of Concerned Scientists in November 2014.
Nearly 30 states, the District of Columbia, and all US territories adopt building codes at the state level and mandate local enforcement. Thousands of communities in other states voluntarily adopt building codes. FEMA estimates nearly 70 percent of communities in the NFIP enforce building codes (that’s about 15,400 of the slightly more than 22,000 participating communities). Almost without exception, codes that govern the design and construction of buildings are based on the International Codes® (I-Codes). FEMA deems the flood provisions of the 2015, 2012, and 2009 editions of the I-Codes meet or exceed the minimum requirements of the NFIP for buildings and structures (see related story on p. 12).

In many communities the floodplain administrator is also the building official, but in many others, the two positions are held by different people, sometimes in different departments. I-Codes have included flood provisions for more than a decade. It’s past time for floodplain and building professionals to come together to do what FEMA calls “coordinating.” There are several benefits to relying on building codes to meet NFIP requirements, laid out in detail in Chapter 2 of the latest edition of Reducing Flood Losses Through the International Codes: Coordinating Building Codes and Floodplain Management Regulations and summarized at the end of this column.

The description of the importance of this coordination is prefaced with what is, in my opinion, an understatement: “As a rule, having multiple regulatory instruments govern the same thing can be problematic.” Two reasons are given: wording differences may be interpreted to be meaningful and there are differences in requirements. The I-Codes have several provisions that exceed the NFIP minimums and many that are more detailed than NFIP regulations. Importantly, Chapter 3 of Reducing Flood Losses lays out the differences in considerable detail.

Perhaps the most important reason to “coordinate” isn’t explicitly addressed in that publication: liability. I understand each state may have differences in how professional responsibility is set forth in statute or regulation, and every state probably has case law bearing on liability for enforcement of building codes and local regulations. But let’s lay aside those possible differences and consider liability in a broader sense.

I’ve met many local floodplain managers who were unaware their mandated building codes include flood provisions (to be fair, I’ve met plenty of building officials in the same boat!). My guess is they’ve been handling applications to build in flood hazard areas the way they always have – applying locally adopted regulations. Of course, unless an owner has a knowledgeable design engineer or architect, that could mean some buildings don’t comply with the building code. By itself, that might expose the building official – or the community – to some liability.

Let’s consider a scenario that happens to be based on a real situation, although I won’t identify the community or the state. Consider “Shoreville,” a community with floodplain management regulations that require buildings to meet the NFIP minimum elevation requirements (i.e., no freeboard). Shoreville is also required to enforce the state building codes.

Not long ago Shoreville’s building department issued multiple permits for large buildings in the special flood hazard area and all were constructed with the lowest floors at the BFE. Unfortunately, the code that governs buildings other than 1- and 2-family dwellings (i.e., the International Building Code) refers to ASCE 24 for elevation requirements. And those elevations are higher than what’s called for in the city’s regulations.
If you haven’t already checked out ASCE 24, you may not know its minimum elevation requirement is BFE plus 1 foot (and even more freeboard depending on the importance of the building). FEMA posts *Highlights of ASCE 24* (in the 2005 and 2014 editions) on the Building Code Resources webpage.

So, Shoreville has differences between two regulatory instruments and, as illustrated in FEMA’s documents comparing NFIP and I-Codes, some of those differences are meaningful. Thus, designers, buildings and owners who meet local flood rules by placing the lowest floor of a commercial building at the BFE violate the building code. In my opinion, the building official shares some responsibility.

I’m not sure how the situation came to light, but an investigative body found misconduct on the part of Shoreville’s structural plans reviewer and the building official for wrongly approving permits that didn’t meet the flood zone requirements in the state building code. One was quoted saying he’d not been aware of the building code requirements. Neither is still employed with Shoreville and the findings were referred to the state’s professional licensing board.

A good question might be why would an owner get upset if the community didn’t require BFE plus 1 foot, which, after all, costs at least marginally more than building at the BFE? My guess is the owners of the buildings in Shoreville raised the issue because they were just as concerned (if not more so) with not qualifying for lower flood insurance premiums due to that “plus one foot” as they were with not complying with the code.

The lessons? Clearly one lesson is local officials should pay attention to the specifics of their requirements. But the bigger takeaway is simple. I encourage NFIP state coordinators to read *Reducing Flood Losses*, look at their state model ordinances, and work through the Chapter 4 questions related to coordinating I-Codes and floodplain management regulations. Local officials can do the same, especially in those states that don’t mandate enforcement of building codes. As more communities start paying attention to the benefits of relying on the flood provisions in building codes, there will likely be a growing demand for code-coordinated model ordinances – FEMA’s model ordinance is a good place to start. In conjunction with the Florida State Floodplain Management Office, I helped develop such a model in 2013. More than half of Florida’s 468 NFIP communities have adopted it and the rest are expected to do so in the next two years.

See Chapter 2 of *Reducing Flood Losses* to read the advantages of relying on building codes to govern the design and construction of buildings in SFHAs, among them:

- Fewer conflicts (or no conflicts) between two sets of regulations – eliminating burdens on owners, engineers, architects, builders, and local officials who no longer need to identify and resolved differences;
- All hazard-related building requirements are in one place, making it easier on designers;
- Improved construction quality;
- Codes have some “higher standards” and some more specific provisions than the NFIP;
- Strengthened enforcement, because enforcement procedures and authority are established in building codes;
- Effective, routine inspections, because building departments conduct multiple inspections at different times during construction; and
- Improved compliance with requirements for existing buildings.

Submit your own items or suggestions for future topics to column editor Rebecca Quinn, CFM, at rcquinn@earthlink.net. Comments welcomed!
2015 I-Codes Increase Protection of Buildings in Flood Hazard Areas

By John Ingargiola, Senior Engineer, FEMA Building Science Branch

Since the International Code Council released the 2015 International Codes (I-Codes) in December 2014, some jurisdictions have already adopted the full suite of codes, and others have started the adoption process. While the number of early adopters is still small, many more will follow suit in the coming months. Floodplain managers should learn how the flood provisions have changed in the latest I-Codes.

It’s also a good time to download and read the completely revised latest edition of Reducing Flood Losses Through the International Codes: Coordination Building Codes and Floodplain Management Regulations (see related story on p. 10).

While many changes to the flood provisions were approved for the 2015 I-Codes, the following are the most significant that increase protection of buildings:

- **Freeboard.** In all flood zones, one- and two-family dwellings and townhomes must have the applicable reference point at or above the Base Flood Elevation plus 1 foot.
- **Critical facilities.** Buildings classified as Flood Design Class 4 (essentially Risk Category IV) must be elevated or protected to the higher of the 500-year flood elevation or the BFE plus freeboard specified in ASCE 24.
- **Coastal A Zone.** If a Limit of Moderate Wave Action is delineated or a community designates a Coastal A Zone, then the CAZ is subject to the requirements for coastal high hazard areas (Zone V), with the exception that filled perimeter wall foundations (stemwalls) are allowed if designed for wave load and scour.

As with the 2009 and 2012 I-Codes, FEMA deems the 2015 I-Codes meet or exceed the minimum NFIP requirements for buildings and structures. To help floodplain managers, building code officials and design professionals, FEMA Building Science developed several resources available for download on the Building Code Resource webpage:

- **Flood Resistant Provisions of the International Codes.** A compilation of flood resistant provisions of the 2015 I-Codes (IBC, IRC, IEBC, IMC, IPC, IFGC, IPSDC, IFC)
- **2015 I-Codes: Summary of Changes to Flood Provisions** (between the 2012 and 2015 editions) from the 2012 I-Codes to the 2015 I-Codes
- **Highlights of ASCE 24-14.** ASCE 24-14 (updated from 2005) is a referenced standard in the 2015 I-Codes. When applicable, it has the same force as the codes.

New webinars are now available and can be requested by contacting your NFIP state coordinator or the Building Science Point of Contacts in the FEMA Regional Offices. One webinar covers the flood provisions in all the I-Codes (full day) and the other focuses on the IRC (half-day). Coming soon is a half-day webinar highlighting key elements of coordinating codes and regulations, based on Reducing Flood Losses Through the International Codes.
Navigating the Crazy Social Media World, Tip No. 3
By Michele Mihalovich, ASFPM’s public information officer

As I mentioned last month, this tip will focus on posting to LinkedIn. However, Tip No. 4 (in our next News&Views) will focus on a request from a CFM in Indiana. He asked me the age old question, “How can I increase my Twitter followers?” So, if you have a social media conundrum, don’t hesitate to email me at michele@floods.org. I’ll do my best to help figure out the answer.

Posting to LinkedIn is easier, I think, than posting to Facebook or Twitter. Fewer steps, that’s for sure. So, if you see something from the Internet that you’d like to share, copy the link from your browser, then head over to your LinkedIn page.

Toward the top of the page, I put my cursor over “Interests” and click on the “Groups” option. I find ASFPM’s page and click on it. I then click in the box that says, “Start a discussion or share something with the group.” In the box that says, “Add more details,” is where I paste the link I want to share. That typically loads up the first paragraph from the story I’m sharing, possibly a photo, and people can just click on that and get to the story I’m sharing.

Now, back in the box where it says “Start a discussion or share something...” is where I type in the hook. This is where I pitch why this is such an interesting article, photo or video. I’m only allowed 200 characters, which is far more liberating than Twitter’s 140 restriction. If I paste text in this box, which I usually do, it will show up as bright red. I’ve found that if I simply delete one letter and then type it in again, the red goes away (providing the text is under 200 characters). It will let you know whether it’s right or not, because if something is wrong, it won’t let you click the share button. When the share button darkens, click it and wait for the discussions to begin.

Don’t forget, I want to hear specific questions you have about social media. Send them to michele@floods.org and I will answer them in upcoming newsletters.
EPA's Mid-Atlantic Regional Office Releases Integrated Green Stormwater Infrastructure Guide

EPA's Mid-Atlantic Regional Office has released a publication titled: "Community Based Public-Private-Partnerships (CBP3s) and Alternative Market-Based Tools for Integrated Green Stormwater Infrastructure: A Guide for Local Governments." This guide is the result of a multi-year effort to identify tools to help Mid-Atlantic communities address water quality challenges through faster, cheaper, and greener methods. This report introduces the CBP3s approach as a flexible, performance-based platform for implementing affordable, integrated green stormwater infrastructure to meet a variety of regulatory and community needs. Click here to download the PDF version of this document.

EPA Announces Campus RainWorks Challenge Winners

On Earth Day 2015, EPA announced the winners of its Campus RainWorks Challenge, a design competition to engage college and university students in reinventing water infrastructure. Student teams proposed innovative green infrastructure designs to reduce stormwater pollution and develop sustainable communities. More than 60 teams participated, and four winners were chosen: University of Illinois at Chicago; University of Maryland, College Park; University of Illinois at Urbana-Champaign; and Queens College, City University of New York. The winning designs proposed innovative additions to their respective campuses that would reduce stormwater impacts while providing educational and recreational opportunities. Click here to learn more about the challenge and winners.

EPA's Climate Ready Water Utilities Initiative Announces 2015 Extreme Events Workshops and Coastal Resilience Training Series

EPA's Climate Ready Water Utilities initiative is offering workshops for drinking water, wastewater, and stormwater utilities that focus on understanding and adapting to challenges from extreme events, featuring training on the Climate Resilience Evaluation and Awareness Tool (CREAT)

**Extreme Events & Climate Adaptation Planning Workshops for the Water Utility Sector**
- June 3-4: Pueblo of Santa Ana, New Mexico
- June 23-24: Portland, Oregon
- July 14-15: Des Moines, Iowa

The Climate Ready Water Utilities Initiative is also offering a series of trainings for water sector technical assistance providers. The trainings will focus on how to support utilities in understanding and adapting to impacts from coastal storm events and related threats using two new EPA tools: the Climate Resilience Evaluation and Awareness Tools (CREAT) Version 3.0 and the Storm Surge Inundation and Hurricane Strike Frequency Map.

**Coastal Resilience for the Water Sector: Training for Technical Assistance Providers**
- June 16-17: Boca Raton, Florida
- June 22-23: Houston, Texas
- June 25-26: Mobile, Alabama

**...NEWS YOU CAN USE**
Tell us why you love being an ASFPM member & you could win a free registration to next year’s Grand Rapids conference!

Whether you’re a new ASFPM member, or you’ve been one for years, we want to hear how membership in the nation’s largest floodplain management association has been valuable or beneficial to you. Entering is easy:

Tweet us using ASFPM’s official hashtag for the Atlanta conference, which is #ASFPM2015.

Share it on our Facebook page using the official hashtag: #ASFPM2015.

Send an email to michele@floods.org with #ASFPM2015 in the subject line.

Or you can do it old school by filling out a sheet of paper and putting it in the box at our registration table. Don’t forget: #ASFPM2015.

Win a free registration to ASFPM’s 2016 national conference in Grand Rapids, Michigan simply by telling us why being an ASFPM member is important to you!

THE RULES: Your entry MUST include ASFPM’s official Atlanta conference hashtag #ASFPM2015 to be considered. All other hashtags will disqualify you. Entry into the contest constitutes permission to use each entrants’ name and submission for promotional purposes without further permission or compensation. ASFPM’s executive office will determine the best answer and announce the winner this July in “The Insider” newsletter and on social media sites.

The contest begins today and ends at midnight June 6, 2015.
CHAPTER CORNER

ASFPM Chapter Meeting 2015 in ATLANTA

Chapters members are invited to attend the ASFPM chapter meeting in Atlanta June 3 from 1:30-3 p.m. (Check your on-site pocket guide for room location). Chapters’ board members and committee chairs are strongly urged to attend this meeting.

All chapter contacts will receive electronic copies of the chapter meeting materials afterward, so you can review them even if you aren't able to attend. We look forward to seeing you in Atlanta!

June 3 is CHAPTER DAY in Atlanta!

Bring your shoes for the Third Annual “Running of the Chapters” 5K June 3, 2015

The 3rd Annual “Running of the Chapters” Run/Walk will be held June 3 at the conference. Buses will depart from the Hyatt beginning at 7a.m. The 5K road race is designed for a seasoned runner or a casual walker. Separate registration required. Click here to register.

Wednesday, June 3rd

7 a.m. – “Running of the Chapters” 5K Run/Walk

1:30-3 p.m. – 2015 Chapter Meeting

3-5 p.m. – FREE* Workshop: Presenter Training for the WARD’s 3D Flood Model

*Registration required – click here to register.

CFM® Corner

Email for certification questions is cfm@floods.org. This section will appear in each issue of The Insider. For suggestions on specific topics or questions to be covered, please send an email to Anita Larson at cfm@floods.org.

Earn 12 core CECs at ASFPM national conference in Atlanta
While learning and meeting floodplain experts from all over the nation, you will be earning 12 core CECs for attending the conference. ASFPM automatically enters the CECs for you after the conference, so there’s no need for a paper certificate.

CFM Renewal
ASFPM CFMs who are up for their biennial CFM® certification renewal July 31, 2015, should expect a US mail letter shortly. If you have not received yours by May 31, please contact cfm@floods.org so your CFM does not expire.

CFMs—View your submitted CECs online
As a reminder, CFMs who are current members can log onto the members site and view their certification file for continuing education credits. This ASFPM site shows how many CECs the person has earned, in what year the CECs were earned, and the type of CECs (core or parallel). If you have problems logging on or have questions about your CECs, contact Anita at cfm@floods.org.
The Cost of Flooding

Flood alerts, watches and warnings have been sounding across the US for weeks now. Just as a reminder, FEMA put out this great interactive tool about how much a flood might cost a property owner. If you know someone on the fence about whether to get flood insurance or not, this might help them get off the fence. Click here to learn more.

Job Corner

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

Grant Opps...

Just a reminder to bookmark the Florida Climate Institute’s website for a comprehensive list of funding opportunities. It’s a fabulous resource.
**Washington Legislative Report**

*Meredith R. Inderfurth,*  
ASFPM Washington Liaison

**Appropriations, the Watch for Policy Riders, and Other Bills and Hearings**

As Congress approaches its week-long Memorial Day recess, appropriations bills have begun to move. The first out of the gate are Energy & Water and Military Construction/VA. Both have passed the House and the Senate versions have been reported out of committee and are likely to be considered on the Senate floor soon after Congress reconvenes. The Senate is expected back in session May 31 and the House shortly thereafter.

The big picture for appropriations remains problematic. Congress has adopted a budget resolution that sets caps significantly below the President’s budget requests. House and Senate Appropriations Committees have now set allocations for their subcommittees based on the budget resolution, but acknowledge that the overall budget agreement could be adjusted later in the year. This would include the possibility of avoiding the “sequestration” requirements and replacing them with an agreement comparable to a 2013 bipartisan two-year budget agreement that has been the framework for the past two years.

The possibility of policy “riders” on appropriations bills is very real. The House Energy and Water Appropriations bill already carries a rider prohibiting use of funds in that bill for implementation of the proposed Federal Flood Risk Management Standard. So far, the Senate Appropriations have worked to avoid such riders in subcommittee and full committee, but note that amendments proposing riders can be expected during Senate floor consideration.

**Appropriations – US Army Corps of Engineers**


The bill so far provides $864.7 million over the President’s budget request. That budget request included what the administration described as $31 million for the Corps’ technical assistance programs. There is no one line item for technical assistance, but rather the amount will be drawn from several other programs such as Flood Plain Management Services (FPMS), Planning Assistance to States (PAS), National Flood Risk Management Program (NFRMP) and Flood Control and Coastal Emergencies (FCCE).

The requests for those programs and the amounts approved by the House and by the Senate Appropriations Committee are as follows:

<table>
<thead>
<tr>
<th>Program</th>
<th>Request</th>
<th>House</th>
<th>Senate Committee</th>
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<tr>
<td>PAS</td>
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<td>FCCE</td>
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Although there is no line item for the Silver Jackets program, the proposed amount is $10 million, with $3 million coming from NFRMP and $7 million from FPMS. ASFPM submitted Outside Witness Testimony supporting the President’s budget request for technical assistance programs.

The bill includes language (Section 105) that prohibits use of funds in the bill to “develop, adopt, implement, administer or enforce any change to the regulations and guidance pertaining to the definition of waters under the Federal Water Pollution Control Act”. During House floor consideration, an amendment offered by Rep. Don Beyer (D-VA) to strike Section 105 failed on a voice vote. The measure also contains language prohibiting use of funds pursuant to the Administration’s National Oceans Policy. The White House has issued a threat to veto the bill.

House adopted amendments of particular interest are:
- Rep. Gosa (R-AZ) – prohibits use of funds in the bill to remove any federally-owned or operated dam.
- Rep. McClintock (R-CA) – prohibits use of funds in the bill to purchase water to supplement or enhance the instream flow requirements in California that are mandated under the Endangered Species Act and other legislation.

Appropriations – Homeland Security

It is likely that this bill will be one of the last marked up in the House. Timing in the Senate committee is less clear. The delay in the House pertains to concern about the same difficulties the FY15 bill faced over the President’s announced immigration policy.

Hearings on the proposed FEMA budget were held in the House Subcommittee April 23 and in the Senate Subcommittee April 22. FEMA Administrator Craig Fugate testified at both. ASFPM submitted Outside Witness Testimony to House and Senate subcommittees expressing strong support for the budget increases requested for mapping, pre-disaster mitigation and flood mitigation assistance.

The Senate hearing was relatively uneventful and focused largely on the allegations of fraud associated with settlement of flood insurance claims following Hurricane Sandy. Subcommittee Chairman Hoeven (R-ND) spoke about the need for flood insurance premium rate increases to work in tandem with map updates. He indicated a focus on the importance of tracking effectiveness of mitigation expenditures and preparedness grants. Sen. Shaheen (D-NH), Ranking Democrat on the Subcommittee, asked why the administration keeps proposing consolidation of programs into a National Preparedness Grant Program when the Congress has repeatedly rejected the idea. She also asked about development of the Office of the Flood Insurance Advocate and the need for assistance in public understanding of flood maps.

The House hearing was more contentious because some members expressed their reservations about the Federal Flood Risk Management Standard. However, Rep. Frelinghuysen (R-NJ) expressed great appreciation for FEMA’s work in the aftermath of Hurricane Sandy and did ask about the claims fraud litigation. Ranking Democrat, Rep. Roybal-Allard (D-CA) focused on the disaster declaration process and asked about the proposed transfer of the Emergency Food and Shelter program to HUD. Rep. Price (D-NC) asked about lessons derived from the Hurricane Sandy experience, about the greatest challenges and the anticipated reflection of all of this in the Strategic Planning Process.
Rep. Harris (R-MD) grilled Fugate about the use of FEMA funds and staff time with regard to the FFRMS, noting that language in the FY15 appropriations measure prohibited use of funds for implementation of the FFRMS. Fugate explained that indeed staff time had been utilized for outreach and to conduct many listening sessions around the country. Congress had also indicated that more outreach was needed prior to any implementation.

Rep. Culberson (R-TX) spoke strongly about the concerns expressed by homebuilders that the FFRMS would drive up costs and would also drive up NFIP premiums. He asserted that the FFRMS could require changes in local building codes and create many problems. Chairman Carter (R-TX) indicated that he shared Rep. Culberson’s concerns. Fugate promised he would arrange a full briefing for the Subcommittee.

**Overall Appropriations Status**

So far, the House has passed three of the 12 regular appropriations bills (Energy and Water, Military Construction/VA and Legislative Branch). Two others have been reported out of committee and are ready for House floor consideration (Commerce, Justice, Science and Transportation, Housing and Urban Development). The House Agriculture Appropriations bill is likely to be marked-up in mid-June. No appropriations bills have been considered yet on the Senate floor.

**Other Hearings**

*April 22* House Transportation and Infrastructure Committee Subcommittee on Water Resources  
The subcommittee held a hearing on the Corps of Engineers budget request for FY16. Assistant Secretary for Civil Works, Jo-Ellen Darcy and Chief of Engineers, Lt. Gen. Thomas Bostwick testified. Overall, concern was expressed that the budget request was too low and that it reflected too little focus on the magnitude of deferred maintenance needs.

*May 1* Senate Small Business and Entrepreneurship Committee  
A field hearing was held in New Orleans, led by Chairman Vitter (R-LA). The subject was, “How Flood Insurance Rate Increases and Flood Mapping Policy Changes Will Impact Small Businesses and Economic Growth.” Testimony was heard from Roy Wright and Brad Kieseran, FEMA Deputy Associate Administrators for Mitigation and Insurance respectively, Dwayne Bourgeois of the North Lafourche Conservation, Levee and Drainage District, David McKey of Coldwell Banker One and Jerry Passman of the Louisiana Home Builders Association.

*May 15* Senate Environment and Public Works Committee  
The Committee held a field hearing in New Orleans titled “Providing Necessary Flood Protection for Coastal Communities.” Among those testifying was Shirley Laska, professor emerita of the University of New Orleans. She was joined by the regional directors of the Southeast Louisiana Flood Protection – East and West, and the executive director of the Plaquemines Association of Business and Industry as well as the USACE commander of the New Orleans District.

**Future Hearings**

*June 10* House T & I Committee, Water Resources Subcommittee  
The subcommittee will hold a hearing titled, “One Year Anniversary After Enactment: Implementation of the Water Resources Reform and Development Act of 2014.”

- The subcommittee intends to hold a hearing on the President’s EO 13690 and the FFRMS.
- Another hearing is likely on FEMA’s State Mitigation Plan Guidance.
Active Bills

**H.R. 1471 FEMA Disaster Assistance Reform Act**

The bill was reported out of the House T & I Committee May 22. The measure has bipartisan support from the Committee and efforts are underway to arrange for House floor consideration soon. It reauthorizes several FEMA programs, reinstates a three-year statute of limitations on FEMA reclaiming funds, establishes new aggregate limits on management costs under the Hazard Mitigation Grant Program and under Section 406(PA) mitigation. ASFPM provided a letter of support for this bill.

**H.R. 1732 Regulatory Integrity Protection Act**

This bill passed the House May 12 with a vote of 261-155 and was sent to the Senate for consideration. The accompanying committee report is: H Rept. 114-93. It would require withdrawal of the administration’s proposed rule defining “waters of the US” within 30 days of enactment. It further provides instructions for development of a new rule to define “waters of the US.” The bill had 70 co-sponsors and the lead sponsor was Chairman Bill Shuster (R-PA) of the House T & I Committee. Shuster said, “The administration’s process was flawed from the beginning, and it’s no surprise the result is a proposed rule that broadly expands federal power.”

**S. 544 Secret Science Reform Act**

The bill was reported out of the Senate Environment and Public Works Committee (EPW) April 28. An identical bill, HR 1030, passed the House in March and was accompanied by H. Rept. 114-34. It would prohibit the EPA from “proposing, finalizing, or disseminating a covered action unless all scientific and technical information relied on to support such action is the best available science, specifically identified, and publicly available in a manner sufficient for independent analysis and substantial reproduction of research results. A covered action includes a risk, exposure, or hazard assessment, criteria document, standard, limitation, regulation, regulatory impact analysis, or guidance.”

Other Actions

**Briefing on Inland Flooding**

The American Meteorological Society organized a briefing May 6 for Congressional staff and NGOs on inland flooding. ASFPM co-sponsored the event. Among the several speakers were ASFPM Chair Bill Nechamen and ASFPM Vice Chair Ceil Strauss. They were joined by John Dorman, director of the NC Floodplain Mapping Program, Stacy Underwood, Silver Jackets program coordinator with USACE, Baltimore District, and Stephen Bekanich, director of the PA Emergency Management Agency’s Bureau of Recovery and Mitigation.

**Resources for the Future Event**

RFF organized a group briefing and discussion May 11 on “Resiliency, Future Storms and the Role of Insurance.” Much of the briefing and discussion centered on the RFF study of the feasibility of community-based flood insurance.

**SmarterSafer Coalition Report Release**

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

Written 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’s Goals and Objectives for FY15 here.

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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