



The B.F.E.*

*Base Flood Elevation



OKLAHOMA FLOODPLAIN MANAGERS ASSOCIATION

MARCH 2015

VISIT

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FOR UPCOMING
TRAINING

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OFMA TURNS 25 YEARS OLD - BY JOE REMONDINI, PE, CFM

The Oklahoma Floodplain Managers Association (OFMA) is celebrating 25 years of promoting wise floodplain management. The association was formed in 1990 for the purpose of organizing a group of professionals to communicate a uniform position on current concerns, rule changes, local programs and other issues impacting floodplain management nationally and especially in the state of Oklahoma. A unified membership presents one strong voice to communicate the collective views of Oklahoma communities to the state legislature. OFMA is a Chapter of the National Association of State Floodplain Managers (ASFPM) Inc. that provides a voice that can influence regional and national issues that affect flood hazard managers.



Members of OFMA through training gain a better understanding of the state's floodplain management efforts and develop a cooperative, harmonious relationship through participation in Association activities. Critical issues stem from the National Flood Insurance Program requirements as administered by the Federal Emergency Management Agency (FEMA). Local Communities under guidance from the Oklahoma Water Resources Board (OWRB) are responsible for adopting and enforcing development regulations

that ensure wise use of flood-prone land. As a partner, the Oklahoma Emergency Management (OEM) Office oversees flood disaster response and mitigation measures critical to citizens of Oklahoma.

This association has grown tremendously in the last 25 years due to the support and efforts of the Local Communities, State Agencies OWRB and OEM, as well as Federal Agencies like FEMA, The Corps of Engineers, US Geological Services, and NRCS etc. However what has set OFMA apart is the great support from Statewide Engineering and Planning Consultants.

The Oklahoma Floodplain Managers Association brings together people with a common interest in floodplain management. Members include concerned citizens, public employees and elected officials, engineers, planners, contractors, lenders, insurance agents, real estate professionals, students, corporate partners and local, state and federal agencies. Our objectives include promoting interest in flood damage abatement, improving cooperation among government agencies, and encouraging innovative approaches to managing Oklahoma's floodplains.

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OFMA 2015 ANNUAL SPRING TECHNICAL WORKSHOP: THE TECHNICAL SIDE OF FLOODPLAIN MANAGEMENT - BY MONICA CARDIN, CFM

This year's Spring Technical Workshop will be held on **Thursday, April 2, 2015**, at the **Hard Rock Hotel and Casino, 777 W. Cherokee Street, Catoosa, Oklahoma 74015.**

A block of rooms has been reserved at the Hotel and are available on a first come first serve basis. You can make your reservations

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CHANGING OF THE GUARD – BY GAVIN BRADY, CFM STATE NFIP COORDINATOR

As some of you already know, I will be retiring from the Oklahoma Water Resources Board (OWRB) on September 30 of this year. I began working for the OWRB in September of 1982 in the OKC office's Groundwater Division and a couple of years later accepted a position in the Tulsa office. Located in the field office, I worked all programs the OWRB was responsible for. It wasn't until the floods of 1986 that I became interested in floodplain management and quickly began spending more time that program. Being in Tulsa, I was surrounded by leaders in the industry like Joe Remondini, Bill Smith, Ann Patton, Carol Williams, Janet Meshek and Ron Flanagan to name a few. Tulsa had just experienced the deadly Memorial Day flood a couple years earlier so floodplain management was very much in everybody's interest.

Ken Morris became the NFIP State Coordinator in the 1985 and worked closely with the Tulsa office and the other field branches (FEMA's Donetta Walsh (Blanlott) coordinated floodplain management activities in the McAlester office) to show the importance of floodplain management as it related to the loss of property and in some cases, life. Ken, Donetta and I spent considerable time on the road recruiting communities to join the NFIP. As you know, participation in the NFIP is voluntary and sometimes a tough sell, especially in rural Oklahoma. With persistence and showing the need,

The OWRB has added over 140 communities to the NFIP since 1986 with the total currently standing at 400.

The OWRB began meetings with local floodplain managers in hopes of starting an Oklahoma Association. After a year of planning, the Oklahoma Floodplain Management Association, later changed to Managers Association was created in 1990. With over 465 members and 317 CFM's, OFMA has helped the State of Oklahoma gain the reputation as one of the national leaders in floodplain management. The Association of State Floodplain Managers Association (ASFPM) has awarded the OWRB with the Tom Steed Award for Excellence and thought highly enough of OFMA to bring their national conference to Oklahoma in 1994 and 2010.

The 1990's brought us OFMA's CFM program, the OWRB's accreditation program and the L-273 "Managing Floodplain Development through the NFIP" was brought to Oklahoma. With ever increasing demands from FEMA's Community Assistance Program (CAP), the OWRB and OFMA realized the need for more involvement with community outreach so the 2,000's brought OFMA onboard to teach the Advanced Series of the states Accreditation program. The State recognizes a Floodplain Administrator as a person who has obtained at least 6 hours of annual training or a CFM in good standing. OFMA has taken the responsibility,



with its large membership base, to locate qualified instructors and develop a curriculum approved by ASFPM. We also see Map Modernization during this decade. Map Mod was an approach to digitize the Flood Insurance Rate Maps (FIRM's) for the majority of Oklahoma's population.

In the 2010's the state agrees to activate its Cooperative Technical Partnership (CTP) with FEMA. The OWRB and FEMA are now looking at ways to identify risks (RiskMap) in the state while at the same time addressing some of the issues that were exposed during Map Modernization.

As I turn the State Coordinators position over to Matt Rollins, I know floodplain management is now his passion and I can't think of a person more dedicated than he. He already has and will continue to represent Oklahoma in the most professional manner.

I want to "Thank You" Oklahoma for an incredible journey the past 32 years with the OWRB. I will always appreciate the people I've meet and the valuable strives we've made during that time.

THANK YOU GAVIN - WE COULDN'T HAVE DONE IT WITHOUT YOU!

LEGISLATIVE UPDATE, BY TOM LEATHERBEE, CFM

The 2015 Oklahoma Legislative Session is just past the half-way point, with bills that are still active having been sent to the opposite House for action. In the coming weeks, committee action will give way to floor action and then to conference committee work. OFMA continues to monitor a number of bills that have the potential to impact floodplain management and remains ready to provide relevant information to legislators and other stakeholders that could help during the lawmaking process.

Much of OFMA's focus this session has been on providing information regarding potential unintended consequences of a



number of bills designed to preempt local regulation of oil and gas exploration and production. Three bills on this topic are currently active - **SB 809**, **HB 2178** and **SB 341**. Each bill approaches the issue slightly differently, but all have the potential to cause NFIP communities to be out of compliance with their minimum obligation to regulate development within flood-prone areas. OFMA will continue to work with the authors of these bills to attempt to find compromise language that will preserve the ability of communities to remain in compliance with NFIP regulations.

OFMA has also monitored the progress of a number of other bills on topics relevant to our members. OF these, four remain active: **HB 1008** regarding urban renewal, **HB 1328** regarding disaster response, **SB 647** regarding improvement districts, and the proposed Constitutional Amendment **HJR 1012** entitled "Right to Farm".

On March 2nd, OFMA held its annual Legislative Reception at the State Capitol. This year's event



was very well attended, particularly by legislative staff. During the reception, OFMA Board members were able to personally assist several Senators and Representatives who had legislative or constituent service questions.

Please do not hesitate to be in touch with any questions or concerns regarding legislative or regulatory issues. We have established a special legislative affairs email address - legislative@okflood.org to ensure that these matters are given the highest priority.

- Tom Leatherbee is the chair of the OFMA Legislative Committee.

OFMA 2015 ANNUAL SPRING TECHNICAL WORKSHOP: THE TECHNICAL SIDE OF FLOODPLAIN MANAGEMENT- BY MONICA CARDIN, CFM

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by calling (918) 384-7800 or via internet at [OFMA Spring Technical Workshop Hotel Reservations](#) and enter FLOODPLAINSPRING2015 to make your reservation. This year's theme is "The technical side of Floodplain Management."

The three tracks will be [Mapping and GIS](#), [Administration of Floodplain Management](#), [Case Studies in Stormwater Quality and Low Impact](#)

Development. Potential presenters are requested to submit topics prior to March 1, 2015. Presentation preferences will be given to case studies regarding technical aspects and project based presentations, administration of floodplain regulations, and technical issues relating to GIS and mapping.

Also, if you have been a member of the organization for more than five (5) years, we welcome you to include an excerpt about OFMA and what value it has brought to you as we celebrate our **25th Anniversary**.

THE VOICE - INCREASING AWARENESS, ENCOURAGING MITIGATION ACTION FEMA REGION VI

FEMA Region 6 has just released the latest issue of our newsletter, The Voice, and it is available on our website at http://www.riskmap6.com/documents/resource/TheVoice_Mar2015_Vol10508.pdf. You can sign up on RiskMAP6.com to receive future issues of The



Voice newsletter upon publication release.

The March 2015 issue includes articles,

Articles on the changes, surcharges, additional training for agents, and links to current resources and our latest audio-recorded presentation on the HFIAA are included.

Beginning with this issue, The Voice newsletter has expanded staff to include more FEMA Region 6 contributors from the Mitigation Division. This will allow us to provide you a wider variety of topics and information from subject matter experts within our staff. Our focus will continue to be mitigation and actions communities, stakeholders and citizens can take to reduce their risk.

information, and links related to the April 2015 Changes to the NFIP.

We encourage our readers to share local Mitigation Success stories with us for future issues of The

Voice. You may now reach us through R6-Mitigation-Outreach@fema.dhs.gov.

Local officials looking for ways to easily and effectively share and communicate flood risk information with their community are encouraged to browse through the Risk Communications Guidebook for Local Official, available online at <http://www.riskmap6.com/guidebook.aspx>.

The Voice has been in publication since 2009 and previous issues are available at www.RiskMAP6.com.

RiskMAP6.com

"Helping communities understand a complete picture of their natural hazard risk"

MAIN COMPLAINTS OF PEOPLE WHO LIVE IN A FLOOD PLAIN:



Every flood-plain resident now required by law to own a pair of pontoon shoes.

Rowdies zooming back and forth in front your house in their souped-up rowboats.

Ducks always knocking on your door at 3 AM to ask directions.

Flood Insurance/Lawyer Joke

A lawyer and an engineer were fishing in the Caribbean. The lawyer said, "I'm here because my house burned down, and everything I owned was destroyed by the fire. The insurance company paid for everything."

"That's quite a coincidence," said the engineer. "I'm here because my house and all my belongings were destroyed by a flood, and my insurance company also paid for everything."

The puzzled lawyer asked, "How do you start a flood?" (hahahahaha)

ASPPM—NATIONAL CONFERENCE 2015

The Association of State Floodplain Managers will convene the world's largest and most comprehensive floodplain management conference - our 39th annual gathering - the of week May 31 - June 5, 2015, at the Hyatt Regency in downtown Atlanta, Georgia.

The theme for the 2015 conference is a focus on mitigation. FEMA defines "Mitigation" as the effort to reduce loss of life and property by lessening the impact of disasters. Mitigation is taking action now—

before the next disaster—to reduce human and financial consequences later (analyzing risk, reducing risk, insuring against risk).

For more information, go to <http://www.asfpmconference.org/>.



CHANGES TO FEMA'S APPROACH TO MITIGATION PLANNING BY JOHNNY BARRON, PE, CFM

FEMA just issued its State Mitigation Plan Review Guide (FP-302-094-2) released March 2015. There are some significant changes that local mitigation planners should be aware of. While this guidance applies only to State Hazard Mitigation Plans, it seems likely that these changes will become requirements of local plans as well.

Climate Change

One new requirement is that Hazard Mitigation Plans must account for climate change. This element has attracted national attention. On March 20, 2015, the Oklahoman reported, "...beginning in March 2016, states seeking preparedness money will have to assess how climate change threatens their communities." (*FEMA Warns States to Plan for Climate, Oklahoman*, March 20, 2015, page 4A.)

We knew this was coming. Climate Change has been a focus of FEMA for years. In January 2012 FEMA released its Climate Change Adaptation Policy Statement (2011-OPPA-01). In this statement, FEMA commits to several "high-level actions to integrate climate change adaptation considerations into the agency's programs, policies and operations." (Section IV.A, page 2). Among the high-level actions is that "FEMA will seek to understand how climate change will impact local communities and engage them in addressing those impacts." (Section IV.A.5, page 3).

For information on impacts of climate change to Oklahoma, see

Chapter 19 of the National Climate Assessment published in 2014. This Chapter describes the anticipated climate change impacts to the Great Plains regions of the United States. Mark Shafer of the Oklahoma Climatological Survey served as a lead author of that Chapter. To find the report, go to <http://nca2014.globalchange.gov/report/regions/great-plains>

National Preparedness System

Another significant change is that FEMA is now allowing human-caused hazards to be part of Hazard Mitigation Plans. This is due to an effort by the White House to encourage a comprehensive approach to mitigation planning.

In March 2011, President Obama issued Presidential Policy Directive PPD-8: National Preparedness directing the Secretary of Homeland Security to establish the National Preparedness System. While this effort applies only to federal agencies, the intent was for these guidelines to eventually extend to the local level. The President said, "Our national preparedness is the shared responsibility of all levels of government, the private and nonprofit sectors, and individual citizens. Everyone can contribute to safeguarding the Nation from harm. As such, while this directive is intended to galvanize action by the Federal Government, it is also aimed at facilitating an integrated, all-of-Nation, capabilities-based approach to preparedness."

From this new approach, guidance was issued for the development of local Threat and Hazard Identification and Risk Assessment (THIRA) in Comprehensive Preparedness Guide (CPG) 201, August 2013. A THIRA includes an assessment of natural, technological and human-caused threats and hazards and determines capabilities needed to effectively respond to them. We are now approaching a point where planning for train wrecks, school shootings and cyber attacks can be discussed in the same document as natural hazards. This does not mean that mitigation actions for human-caused hazards will qualify for funding under the Stafford Act. Grant programs have not been changed. At this point there is no incentive offered for local communities to develop a THIRA. However, funding opportunities may be announced in the future.

While THIRA elements may be included in Hazard Mitigation Plans, FEMA does not yet have a procedure for reviewing them. The new guidance states, "Manmade or human-caused hazards may be included in the risk assessment but are not required. FEMA will neither review these hazards nor require the removal of this extra information prior to plan approval."

The guidance for State Plans will be effective March 2016. Remember that none of this is required for local mitigation planning...yet. However, it is the nature of mitigation planners to look ahead at what's on the horizon. It's coming.

FLOODPLAIN STORAGE 101 - AMMUNITION FOR FLOODPLAIN MANAGERS, BY JANET MESHEK, PE, CFM



Most floodplain managers have seen this slide from the ASFPM "No Adverse Impact - A Common Sense Strategy for Floodplain Management" power point presentation available at www.floods.org. The central message of this presentation is that even if we perfectly implement current standards, damages will increase. This means that we are being taught how to build in a floodplain instead of how to minimize future damages.

The natural floodplain acts in the same way as a reservoir, by accepting the inflow from upstream and allowing it to spread out and fill the reservoir slowly. Even if the reservoir is fed by several swift-moving streams, it reaches the downstream end of the lake (dam and spillway) slowly, metering out the water that is sent on downstream.

Now imagine filling in the lake so that all of the water is funneled into a swift-moving stream with no place to slow down and be stored. The peak flow rates into the reservoir would not have a chance to be attenuated, or held back, and would move downstream faster. This would allow the peak flows to catch up with downstream tributaries before those tributaries would have had a chance to enter the main

channel and to have moved out already.

A study prepared by Meshek & Associates, PLC showed the effect of the loss of floodplain storage on Harlow Creek in Tulsa. A floodway model was produced that used the maximum allowable encroachment, i.e. removing as much floodplain storage as possible.

The hydrologic model uses the amount of floodplain storage between locations along the stream to measure the change in peak flow rates as well as when those peak flows occur. The study showed that when the "allowable" floodplain storage was reduced, the flow rates increased 12-15% due to the loss of floodplain storage.

Additionally, once the new higher flow rates were applied to the hydraulic model, the water surface elevations were increased by 1 foot at the upper reaches to 3 feet at the lower reaches. This does not take into account the increased impervious areas do to the development that would want to fill in the floodplain.

So the next time you get into an argument with a developer over wanting to fill right up to the limit of the floodway, keep in mind that you have science on your side! Plus the added benefit of knowing that you are saving lives and property!



Harlow Creek, Tulsa, OK

OFMA TURNS 25 YEARS OLD BY JOE REMONDINI, PE, CFM

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We encourage and support, with our partners, flood safe development and flood mitigation. We promote sound floodplain management practices and the natural and cultural benefits of the floodplain. We support the floodplain management profession through education and certification. The Oklahoma Floodplain Managers Association advocates the protection of the natural functions of the

floodplain through education, training and service to Oklahomans. Saving lives and reducing property loss from floods are our ultimate goals!

March each year is declared by the Governor to be Flood Insurance Awareness Month so OFMA and partners provide training workshops then as well as year round. Information on the Oklahoma Floodplain Managers Association can be found on the web at www.okflood.org.



THE RATIONAL METHOD, EXCERPTED FROM “VOODOO HYDROLOGY: ANDY REESE ON ‘PITFALLS OF URBAN HYDROLOGY METHODS & WHAT YOU NEED TO KNOW’”

The Rational Method

With the Rational Method, there are only a few “knobs” to fiddle with: area, time of concentration, and C factor. It is a conveyance model for peak flow. Use beyond that is at your own risk—as we will touch on later.

The voodoo comes in when we have to begin to figure what to do if what we are dealing with is not a pane of glass but a mixed-use urban environment. There are losses, delays, undersized systems, and strangely shaped areas that are hard to represent. Because we are so scientific, we use a single, simple factor to account for all these potential influences: “C.” So the equation becomes $Q = CiA$

As soon as the surface begins to look less and less like a pane of glass and more and more like a complex array of fields, parking lots, undersized culverts, clogged ditches, and mud puddles, the farther and farther away from reality our C factor becomes, and the more voodoo we must employ. For example, have we considered that C must also account for detention ponds (planned or otherwise) in the basin? They reduce peak every bit as much as infiltration losses.

This fact has led some local governments to limit the use of the Rational Method to 25 acres or less. Beyond that, there is a need for models, routing, measurements, subdivision of the areas, etc. Other places allow its use for 10 times that area. Are they right? How much voodoo can you stand? But they are consistent.



Figure 1. Example Site

Just for fun let’s look at just one insidious problem with misuse of the Rational Method that bears pointing out. Let me illustrate with an example.

Let’s say a 6-acre site is two-thirds pavement and one-third grass and that the whole site drains to the back of the property as in Figure 1. When we apply the Rational Method for a peak flow estimate to the whole site, making standard assumptions for sheet flow and shallow concentrated flow along the path of the hydraulically most distant point, we arrive at a peak flow of 16.5 cfs. Simple enough.

However, when we apply the same method and standard assumptions to just the 4 paved acres instead of the whole 6-acre site, we arrive at a peak flow of 21.1 cfs—a 28% increase in peak flow for a 33% decrease in area. Why is that? Voodoo!

The reason has to do with the rate of change of the three variables (the “knobs”) that make up the Rational Method. While the area is being reduced by 33%, the C factor is increasing from 0.72 to 0.98 (a 36% increase), and the rainfall intensity for the shortened time of concentration goes from 3.82 to 5.38 inches per hour (a 41% increase)—which multiplies out to a 28% increase.

The good news is that this effect takes place only for certain kinds of sites that are small with some grassy open-space requirements. The bad news is that many sites are like this. And the worse news is that many experienced voodoo practitioners artfully extend the time of concentration out to the outermost grassy corner of the site with the justification that the very definition of “time of concentration” demands it.

Note from the Editor - This is my favorite example of the way engineers can manipulate flow rates using the Rational Method. Find the whole paper at <http://waterbucket.ca/rm/2013/02/11/voodoo-hydrology-pitfalls-urban-hydrology-methods-what-you-need-know/>

Enjoy!

FLOODPLAIN MANAGERS NOTEBOOK BY REBECCA QUINN, CFM, AND TOM LEATHERBEE, CFM, CITY OF DEL CITY, OK - REPRINTED FROM ASFPM'S "THE INSIDER", JANUARY

With each passing year I spend more and more time in front of a monitor, with most of my "hands on" experience gained by talking to front line floodplain managers. Just like formal education, "book learning" only goes so far. The NFIP regulations and the flood provisions of the International Codes can't cover every situation. And, despite the breadth and quality of FEMA's many guidance publications, they also can't cover every situation.

But sometimes real-life problems (and solutions) can trigger clarification and changes, not only in guidance documents but in building code requirements.

At an ASFPM conference several years ago Tom Leatherbee gave a presentation on dealing with dilapidated buildings. It stuck with me. Tom, the building official for the City of Del City, OK, was a reviewer during FEMA's development of the Substantial Improvement /Substantial Damage Desk Reference (FEMA P-758.

That's why at least some guidance on the subject is now available. The issue is how to handle buildings in flood hazard areas that have been neglected to the point where the work necessary to make them safe, sanitary, and livable might constitute Substantial Improvement or Substantial Damage.

Representing the Oklahoma Floodplain Managers Association, Tom recently worked with the FEMA Building Science Branch on a proposal for the International Property Maintenance Code (IPMC). If the proposal is successful, communities that enforce the IPMC will have yet another tool to reduce exposure of buildings to flooding. Because many buildings subject to the IPMC are low- and moderate-income rental housing, it will also mean fewer economically vulnerable families will be exposed to flooding. The purpose of the IPMC is to ensure public health, safety and welfare by establishing minimum maintenance standards.

As we all know, the NFIP requirements and the flood provisions of the IBC, IRC, and IEBC apply to buildings in flood hazard areas if a local official determines proposed improvements are "substantial improvement" or if buildings have incurred "substantial damage." Making these determinations requires a comparison of costs to building market value. Substantial damage may be triggered by damage of any cause, and most damage results from sudden events, such as fire, tornado, earthquake, or flood.

When applied to structures that have been neglected and become dilapidated and unsafe over time, the basic substantial damage and substantial improvement requirements can be undermined by an existing provision in the substantial improvement definition that allows exclusion of costs to correct identified code violations (for detailed guidance, see the SI/SD Desk Reference). Once a

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DRT CORNER—BY W. B. "BILL" SMITH, PE, CFM, DRT COORDINATOR



The season is changing and the spring storms will soon be coming. The rapid growth of thunderheads that was observed on March 24th

is an indication that storm season is almost here. We need to be prepared for possible responses. Again we thank in advance the volunteers who are available to assist our neighboring communities in 2015. We continue to add volunteers at each Advanced Training Workshop this spring. For those communities that have not pre-signed for DRT assistance, please contact Bill Smith to request a signup letter that your City/Town council or County Com-

missioners, or Tribal Government can pre-approve the DRT helping in the time of a disaster. Remember also that any type of disaster in the Special Flood Hazard Area - flood, tornado, wildfire, earthquake, etc. prompts the requirement for the Floodplain Administrator to perform Substantial Damage Assessments.

We will have a unique training program during the OFMA Spring Technical Workshop on April 2nd at the Hard Rock Conference Center. One of our newest members is David Lacy of D&S Survey who uses drones for his surveying work. We will have two scenarios that will be developed to show the opportunities that this equipment will serve to us in Pre-Disaster and Post-Disaster conditions. Please sign up for this training when registering for the Spring Tech-

nical Workshop or please notify Bill Smith, P.E. CFM, DRT Coordinator by e-mail if you intend to participate in the DRT training.

I will be traveling to present the OFMA DRT at the New Mexico Floodplain Managers Conference on April 15th. It is great to be recognized and appreciated for the work that we do here in Oklahoma!!

It is still not too late to clean out the ditches and culverts before the spring rains. You don't want to be caught with clogged culverts that could cause road flooding, or backwater effects on upstream structures.

While the change in the weather is nice after the long cold winter, be ready because--- "It will Rain Again, and it will Flood Again"!!!

FLOODPLAIN MANAGERS NOTEBOOK, CONTINUED

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structure has been cited under the IPMC, it's conceivable that most if not all costs to correct cited conditions could be excluded.

Another aspect of the definition for substantial damage is problematic when applied to neglected, dilapidated buildings, and that is the determination of market value. When a building is damaged by a sudden event, it is relatively straightforward to determine the market value "before the damage occurred." It is not straightforward when damage has occurred over time - what date should be used to determine the market value "before the damage occurred"?

The proposal to modify the IPMC has two objectives, achieved in part by proposing definitions differ from those in the NFIP regulations and the I-Codes:

The proposed definition for Substantial Damage makes clear that the market value of the structure is the date of the code official's order pursuant to the IPMC. Without this clarification, an owner may claim the market value should be the value of the building before maintenance starting being neglected, which could be many years in the past (and typically not easy to determine). The market value as of the date of an order is likely be a higher market value (thus raising the 50% threshold) than the market value as of the date an application for a permit to perform repairs is received (which may be a year or more after the citation is issued), as recommended in FEMA guidance in Section 4.5 of the SI/SD Desk Reference.

The proposed definition for Substantial Improvement removes the provision that allows exclusion of certain costs, thus requiring the costs of all work to be included in the calculation.

The IPMC has a section that lists conditions that can prompt a code

official to order an owner to demolish a building or board it up until it is repaired. The proposal to modify the IPMC adds structures determined to have incurred substantial damage to the list of conditions that warrant such an order. If future repair is pursued by the owner, the substantial damage determination means the repairs would have to bring the building into compliance. One result of this change is that many more owners are likely to consider demolition, in which case replacement structures would have to comply not only with flood requirements but all building code requirements, resulting in many benefits such as resistance to wind and seismic loads, improved fire safety, and better energy efficiency.

The proposal adds a new provision to the IPMC section that specifies general requirements. It would make it clear all cost to correct cited conditions of both the interior and exterior of a structure (terms used in the IPMC) are included when substantial improvement is determined, and emphasizes that all costs of all repairs and improvements necessary to correct existing cited violations must be included.

Tom, a long-time ASFPM member, brought his experience to the table to illustrate the merits of the proposal. This is one of his stories.

Del City, OK has more than its share of flood hazard areas, mostly filled with aging residential neighborhoods. I've used the IPMC a number of times to require property owners to repair or remove dilapidated buildings in flood hazard areas. Several years ago I had to order demolition of a dilapidated apartment complex that had been damaged by flooding and left unrepaired for several years (see photographs). Pursuant to the building code and the community's floodplain management regulations I determined that the structures were substantially damaged. At the same time, I issued a

demolition order pursuant to IPMC because the structures were unsafe, insanitary, and unreasonable to repair.

The owner initially proposed to repair the buildings and applied for a remodel permit. I denied the permit because I determined the work covered by the application was substantial improvement and the owner didn't propose bringing the buildings into compliance with our flood requirements. The owner appealed my decision, challenging the substantial damage and substantial improvement determinations because virtually all of the proposed repairs would be to correct cited violations of the IPMC. The owner claimed those costs should be excluded from the determination.

Had the City's appeals board allowed the costs to correct cited violations to be excluded, overturning my determinations, the apartments could have been repaired without compliance. The structures, and future residents, would have been left at continued risk for flooding. Luckily, before the appeals board ruled on the issue the property entered foreclosure and was sold to a developer. The apartment buildings were eventually demolished and the land redeveloped with commercial buildings after a significant flood mitigation project was completed.

Although this specific situation was resolved before the appeal was decided, it came so close that Tom and other members of the Oklahoma Floodplain Managers Association decided to pursue a change to the IPMC. OFMA offers a course on dealing with flood damage through building codes and using the IPMC is always a hot topic. Tom's hands-on experience illustrates the value of being committed to mitigating flood risk and sharing with others - in this case with FEMA. That, in turn, may lead to a solution that would be available to all communities that enforce the IPMC.

FY 2014-2015 OWRB/OFMA FP101 & ADVANCED "RISK REDUCTION" TRAINING COURSES

<u>DATE</u>	<u>LOCATION</u>	<u>COURSE TOPIC</u>	<u>TRAINERS</u>	<u>FACILITATOR</u>
4/16/2015	OCCE-NORMAN			BILL SMITH
		FLOODPLAIN MANAGEMENT 101	OWRB	
		FLOODPLAIN MANAGEMENT FOR THE RURAL FLOOD- PLAIN MANAGER	BILL SMITH	
		BASICS FOR THE NEW FPAS AND REVIEW	BILL SMITH	
		COMMUNITY RESPONSE AFTER A DISASTER	BILL SMITH	
		NO ADVERSE IMPACT	RON FLANAGAN	
		OKLAHOMA HAZARD MITIGATION PROGRAMS	ANNIE MACK VEST	
4/23/2015	LANGLEY			JOE REMONDINI
		BASICS FOR NEW FPAS	JOE REMONDINI	
		ESTABLISHING BFE'S IN UN-NUMBERED A ZONES	JOE REMONDINI	
		SILVER JACKETS PARTNERSHIPS	GENE LILLY	
		MASTER DRAINAGE PLANS	BRANDON CLABORN	
		SECTION 404 PERMITTING IN THE FLOODPLAIN	USACE	
4/28/2015	ENID			OWRB
		FPM 202 DUTIES & RESPONSIBILITIES OF FPA'S	OWRB	
4/30/2015	MCALESTER			JOE REMONDINI
		RISK MAP	ANA STAGG	
		ESTABLISHING BFE'S IN UN-NUMBER A ZONES	JOE REMONDINI	
		GREEN BUILDING IN THE FLOODPLAIN	ELLEN STEVENS	
		SECTION 404 PERMITTING IN THE FLOODPLAIN	TIM HARTSFIELD	
		NO ADVERSE IMPACT	RON FLANAGAN	
5/14/2015	OCCE - NORMAN			ANA STAGG
		FLOODPLAIN MANAGEMENT 101	OWRB	
		RISK MAP	ANA STAGG	
		JOINING THE CRS	JEFF BIGBY	
		INTERNATIONAL BUILDING CODES	TOM LEATHER- BEE	
		LOW IMPACT DEVELOPMENT	JEFF BIGBY	
		ESTABLISHING BFE'S IN UN-NUMBERED A ZONES	JOE REMONDINI	
6/23/2015	OCCE - NORMAN			JOE REMONDINI
		FLOODPLAIN MANAGEMENT 101	OWRB	
		SILVER JACKETS PARTNERSHIP FOR FLOOD REDUCTION	GENE LILLY COE	
		ESTABLISHING BFE'S IN UNNUMBERED A ZONES	JOE REMONDINI	
		RISK MAP	ANA STAGG	
		MASTER DRAINAGE PLANS	BRANDON CLABORN	
		SECTION 404 PERMITTING IN THE FLOODPLAIN	USACE	
		OKLAHOMA HAZARD MITIGATION PROGRAMS	ANNIE MACK VEST	
6/30/2015	LAWTON			OWRB
		FPM 202 DUTIES & RESPONSIBILITIES OF FPA'S	OWRB	

PRESIDENT OBAMA'S PROPOSED 2016 BUDGET CONTAINS GOOD NEWS FOR FLOOD MAPPING AND MITIGATION - BY ASFPM CHAIR, WILLIAM S. "BILL" NECHAMEN

-Published in the February 2015 issue of "News & Views"

What a whirlwind month it has been! No, I'm not talking about the four "storms of the century" that have hit the East Coast in the past month. I'm talking about major changes proposed for federal flood policy and budgets. You've probably already heard about the President's Executive Order 13690, which updates the Federal Flood Risk Management Standard. Details about the new proposal are covered in this issue of News & Views, including Executive Director Chad Berginnis's report.

The administration is also putting proposed federal budget dollars where its mouth is. The President's proposed 2016 budget contains good news for flood mapping and mitigation. This welcome change in budget priorities must be credited at least in part to the hard work that ASFPM and its members have done over the years.

Recently budgets were drastically cut for new flood mapping, resulting in maps that remain hopelessly out-of-date, and even new maps that in many places do not contain updated data. In order to provide a detailed analysis of the need to continue investing in updating flood maps, ASFPM in 2013 published "Flood Mapping for the Nation: A Cost Analysis for the Nation's Flood Map Inventory." The report concluded that a minimum of \$400 million per year over 10 years is needed to complete updating the nation's flood maps, with \$116 million to \$275

million per year required after that to maintain the maps. ASFPM provided the report to key federal officials and congressional staff. Yet, until this year, the administration has been unwilling to request increased mapping budgets, in spite of the establishment of a National Flood Mapping Program with an authorization of \$400 million a year from fiscal years 2013 through 2017.

An authorization is not an allocation. However, it does make it easier to argue for a full allocation. This year, the administration heard the recommendations for increased mapping funding, and has requested \$400 million in next year's budget. This is great news, but it isn't the full story. Flood insurance fees raise about \$121 million that goes for mapping operating costs, including review of Letters of Map Change. The \$400 million includes those operating costs, so it is really about a \$279 million request for new mapping. Still, it is a great leap in the right direction, and ASFPM members and staff who advocated for this deserve much of the credit.

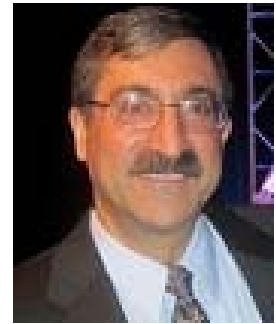
Another piece of very positive news in the President's budget is a request for \$200 million for Pre-Disaster Mitigation. PDM funds have historically been available for cost-effective mitigation projects and hazard mitigation planning grants, without the need for a disaster declaration. This has been essential to states that, unlike my own, do not receive frequent disaster declarations. In recent years, the administration has attempted to eliminate the PDM line item. Pressure from ASFPM members has helped keep the budget line in Congress's final budgets, though at a minimum level of funding. Once a program goes away due to zero

funding, it usually does not come back. By keeping even a minimum level of funding, it remained possible to increase funding for the program.

FEMA's concept was to fold PDM into a National Preparedness Grant Program that would have consolidated 16 FEMA grants into one. While it's often a good thing to streamline government programs, in this case it would be a disaster for natural hazards grants. As then Executive Director Larry Larson testified in 2012: "Ultimately the National Preparedness Grant Program (NPGP) and National Preparedness Goal are aimed at readiness, not mitigation. While mitigation is a component of readiness (as it is a component of response and recovery) readiness is not a substitute for mitigation." Essentially, natural hazard mitigation would have to compete with terrorism preparedness for funding.

The administration now understands that natural hazard planning and mitigation must be recognized and supported on its own. As such, on behalf of the ASFPM Board of Directors, I welcome the budget proposal, as well as the proposal for \$175 million for Flood Mitigation Assistance grants.

I don't believe that these positive developments would have happened without ASFPM continuing, over several years, to provide reasoned and thoughtful analysis on these issues.



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FUNDING ACKNOWLEDGEMENT

Funds to produce *The B.F.E.* come in part from the National Flood Insurance Program and State Support Services Element of the Community Assistance Program, which is administered by the Federal Emergency Management Agency.

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OFMA would like to express special thanks to the B.F.E. Editor Janet K. Meshek for her efforts in the production of this newsletter.



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