



The B.F.E.*

*Base Flood Elevation



OKLAHOMA FLOODPLAIN MANAGERS ASSOCIATION

DECEMBER 2016

VISIT
WWW.OWRB.OK.GOV
 FOR UPCOMING
 TRAINING

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THE 30TH ANNIVERSARY OF THE 1986 FLOOD, BY BILL ROBISON, CFM

October 5, 2016 marked the 30th anniversary of the 1986 flood. In early October 1986, parts of Northern Oklahoma and Southern Kansas received enormous amounts of rain as the remnants of Hurricane Paine moved through the area. Areas of the region received the annual rainfall in a period of only 5 days. Over twenty inches of rain fell in the Arkansas River drainage area upstream from the Keystone Dam; at the height of the flow, approximately one million cubic feet per second was pouring into the lake. Many of the other rivers, streams, and lakes in Kansas and Oklahoma were

also filled to capacity, and most of these bodies of water eventually end up in the Arkansas River as well.

The US Army Corps of Engineers – who manages Lake Keystone – had the tough job of balancing when and how much water to release from the lake; attempting to minimize flooding downstream. They gradually increased the release rate from the Dam, but, on October 5th, were forced to release at the rate of just over 300,000 cubic feet per second. After several hours at this pace, they were able to slow down the release – gradually



Bill Robison, PE, CFM
 City of Tulsa

lowering the level in the river – but the damage had already been done.

Thousands were evacuated while hundreds more stuffed sand bags trying to impede the flooding. BNSF Railroad even parked a train of loaded railcars on the bridge over the river to prevent it from being washed away.

The levee breached in one location in Sand Springs, but thanks to the efforts of many volunteers, was mostly contained. Still, more than 1800 homes and business were affected by the flooding. Tulsa County damages alone were estimated at \$63.5 million; throughout Northeast

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30 Years Ago...The 1986 Flood
 What Happened? – The Flooding

Notable Eastern Oklahoma River Crests

River	Location	Crest	Date	Rank
Arkansas	Tulsa	25.21 ft	10/5	1 st
	Haskell	22.82 ft	10/5	2 nd
	Muskogee	39.60 ft	10/6	2 nd
Caney	Bartlesville	27.70 ft	10/4	1 st
	Ramona	31.16 ft	10/5	3 rd
Polecat	Collinsville	39.45 ft	10/6	2 nd
	Jenks	21.80 ft	10/2	2 nd
Neosho	Commerce	26.23 ft	10/6	3 rd

- In eastern Oklahoma, the Arkansas, Caney, Neosho, and Verdigris Rivers reached record or near record levels, as well as other rivers in western and central Oklahoma.
- 7 of 11 lakes in the U.S. Army Corps of Engineers flood control system exceeded their storage capacity.
- 30,000 people were evacuated from 25 towns, including Bartlesville, Jenks, Bixby, and Webbers Falls.
- 2 fatalities occurred.
- Flooding caused \$350 million (\$748 million in 2013) in damage.
 - Tulsa County: \$63.5 million (including \$32.5 million in Sand Springs and \$13.4 million in Bixby)
 - Washington County: \$39.7 million (including \$37.2 in Bartlesville)

Background Image: Sandbagging on Riverside Drive in Tulsa (Courtesy "From Harm's Way: Flood-hazard mitigation in Tulsa, Oklahoma")

WORDS FROM THE CHAIR, BY BILL SMITH, PE, CFM



Bill Smith, OFMA Chair and
DRT Coordinator

To all of my friends, colleagues, communities, and agencies in the State of Oklahoma, I welcome and take pride in the opportunity to again be the Chair of the Oklahoma Floodplain Managers Association for 2016-2017.

Our Annual Conference is complete and has been deemed a success. Our Strategic Planning meetings have also come to a close, and we have a clear vision for the year ahead (the Strategic Plan will be available on the OFMA website before the end of December).

Our Board of Directors is in place and I would like to welcome two new members to the Board: Beth Wilhelm as our Secretary, and Phillip Beauchamp as the Region 4 Representative. Congratulations to

Kasie Stambaugh, our Vice Chair; I intend to support her throughout her planning of both the Spring Technical Workshop and the 2017 Annual Conference. I would also like to welcome back all of our returning officers, regional representatives, committee chairs, and subcommittee chairs.

My focus for this year is to provide support to our local floodplain administrators throughout the state – both current OFMA members, and those who we would like to bring into the association. I plan to help our Membership Committee bring new floodplain administrators into OFMA, and I want to encourage our existing floodplain administrators, who are already OFMA members, to reach out if you are in need of assistance.

Stepping back for a moment to a "birdseye" view – we are in a very troublesome time in our world. Wars are raging, individuals and families are being displaced, we have a grueling election in process for choosing our next President of the United States, racial issues abound in our communities and on our streets, and there are killings of individuals almost every day here in Tulsa. All of this, in addition to the many challenges we are facing in our own industry – recertification of the NFIP, possible

privatization of the floodplain industry, budget issues, etc. etc. etc.; the list goes on and on. We have to come together to work for a common good or we will cease to survive.

There may be times when we don't all agree on the steps forward, but as we are transitioning our leadership within our organization just as we are within the country, we also need to come together within the association to work for a common good. Our common good for OFMA involves the communities we serve – in whatever role that may be – to protect the lives of the citizens, to help minimize the damage to property, and to preserve the natural and beneficial uses of the floodplain. So, whether we agree or disagree on certain issues, I believe we can all agree to work together in harmony on these "common good" issues.

Take a moment and look around at all the blessings that we have, and give thanks. Be an optimist and look at the good side of issues – don't focus on the bad.

I wish you all a very Happy Holiday season ahead – Happy Thanksgiving and Merry Christmas.

– Bill

INFORMATION ON THE HAZARD MITIGATION ASSISTANCE PROGRAMS

Hazard Mitigation Grant Program (HMGP) <https://www.fema.gov/hazard-mitigation-grant-program>

Flood Mitigation Assistance Grant Program (FMA) <https://www.fema.gov/flood-mitigation-assistance-grant-program>

Pre-Disaster Mitigation Grant Program (PDM) <https://www.fema.gov/pre-disaster-mitigation-grant-program>



FEMA ISSUES LATEST UPDATE TO FLOOD RISK ANALYSIS AND MAPPING STANDARDS

FEMA's Federal Insurance and Mitigation Administration (FIMA) updated the Guidance and Standards that it uses in its flood mapping and risk analysis efforts. There are six revised standards, three new standards, and one rescinded standard in this maintenance cycle in addition to a number of updated guidance and technical reference documents.

Several of these updates to Risk MAP guidance and technical references begin implementing recommendations from the Technical Mapping Advisory Council's (TMAC) 2015 recommendations. TMAC related updates include requirements for reporting the accuracy of elevation data used, guidance on selecting

engineering models, and procedures for reviewing new statistical models for use. FIMA also enhanced the standards and guidance development process and updated the policy to address the TMAC recommendation to consider the cost of implementation for new requirements and address the costs consistently.

The updated standards address requirements for emergency operation plans for levee accreditation, clarify requirements for incorporating Letters Of Map Revisions into map updates, update requirements for processing Physical Map Revisions (PMRs) update Notice to Users (NTU) requirements, update requirements for flood risk product automation,

update distribution requirements for Flood Insurance Study (FIS) Reports, and formalize several standards for removal of the special flood hazard area designation by letter consistent with current practice.

FIMA conducted a public review of the draft standards earlier this year. FIMA regularly updates these guidance and technical reference documents to ensure ongoing improvements in its flood mapping and risk analysis efforts. The actual standards and related guidance are available at www.fema.gov/guidelines-and-standards-flood-risk-analysis-and-mapping.

30TH ANNIVERSARY OF THE 1986 FLOOD, CONTINUED

(Continued from page 1)

Oklahoma and Southeast Kansas, damages totaled \$283 million, according to Corps reports.

Since then, the City of Tulsa in conjunction with FEMA and the Corps of Engineers, has spent over \$500 million on flood control projects and acquisitions. While most believe the flooding problem has been solved, there are still several thousand homes and businesses located in the FEMA and City Regulatory floodplains. And although in recent years Tulsa has fared better than some of the surrounding communities in the

small flood events that have occurred, the risk is still present. Inevitably, Tulsa will see flooding again. It is a matter of when – not if – we get huge rainfall events such as those this year in Louisiana and West Virginia, that Tulsa will flood again.

To raise awareness of this risk, Tulsa held a commemoration event for the 30th anniversary of the 1986 flood. A high watermark sign, donated by the National Weather Service, was placed along Riverside Drive, showing passersby what the water level was in that area. The sign was unveiled at a press event on-site on October 3rd with the

Mayor, National Weather Service, Corps of Engineers, and others on hand.

Additionally, a brochure has been developed through the Corps of Engineers' Silver Jackets program. This document presents facts about the flood, explains the risks, and describes preventative ways people can protect themselves. This brochure will be mailed to residents in the areas protected by the levees and inundated during the 1986 flood.

CAPITOL RUMBLINGS, BY TOM LEATHERBEE, CFM, INSURANCE AND REGULATORY AFFAIRS CHAIR, LEGISLATIVE CHAIR



Tom Leatherbee, CFM,
Insurance and Regulatory Affairs
Chair, Legislative Director

In the midst of a crazy election season, much of our focus has been on potential changes to flood insurance policy at the federal level.

The next complete reauthorization of the National Flood Insurance Program is due in 2017, and there has even been some discussion that Congress could take up the issue during a “lame duck” session this year. A number of constituencies have begun pushing a variety of reform measures, with most centered around the response to

the Sandy claims payment controversies, the affordability concerns associated with HFIAA (the Homeowner Flood Insurance Affordability Act of 2014), and the overall financial condition of the NFIP.

In the meantime, Congress has begun entertaining a proposal to introduce more private participation in the flood insurance market. HR 2901 and S 1679 are similar bills that proponents hold will increase flood insurance coverage while reducing premium costs. While the details are not exactly the same, the general idea is that private insurers will create products that would provide coverage similar to the NFIP flood policy – and if these policy forms are approved by the state insurance commissioners, the private coverage would be recognized by lenders as having satisfied the mandatory purchase of flood insurance requirement.

Opponents of privatization initiatives believe this situation would create a number of adverse impacts, including:

- Reduced flood risk reduction activities and resources, including undermining of regulatory, mapping, and incentive programs;
- Increased marketplace confusion due to lack of uniformity in policy coverage, terms, language, and claims handling;
- Decreased lender and servicer compliance with mandatory purchase requirements, leading to potential for financial institution destabilization due to catastrophic risk exposure;
- Damaged financial stability for the National Flood Insurance Program because of adverse risk selection.

HR 2901 has already been approved by the House of Representatives and is awaiting action by the Senate. How these bills progress remains to be seen and may largely depend on Congress’ reaction to the results of the November elections.

For further information on privatization or any legislative issue, please feel free to contact Tom Leatherbee, OFMA Legislative Director, at legislative@okflood.org.

UPCOMING OFMA ADVANCED "RISK REDUCTION" TRAINING COURSES

2/14/2017: EDMOND, OKLAHOMA
EMPLOYEES CREDIT UNION

- No Adverse Impact
- Green Building in the Floodplain
- Risk Map Cooperating Technical Partnerships
- Establishing BFEs in Unnumbered A Zones
- Section 404 Permitting in the Floodplain

3/9/2017: CLINTON, FRISCO CENTER

- Map Revision Process LOMA LOMC
- Floodplain Administration for Rural Communities
- Section 404 Permitting in the Floodplain
- Ordinance Basics/NFIP Standards
- Hydrology and Hydraulics 101

3/16/2017: BROKEN ARROW,
CENTRAL PARK COMMUNITY CENTER

- Floodplain Code Variances
- No Adverse Impact
- Section 404 Permitting in the Floodplain
- Joining the Community Rating System
- Base Flood Elevations in Unnumbered A Zones

NOTES FROM THE NFIP STATE COORDINATOR, BY YOHANES SUGENG, PE, CFM, OKLAHOMA WATER RESOURCES BOARD (OWRB)



Yohanes Sugeng, PE, CFM
NFIP State Coordinator

Greetings. As the new state of Oklahoma NFIP coordinator, I am excited to be a part of the floodplain management team at the OWRB and OFMA. OWRB's mission is to protect and enhance the quality of life for Oklahomans, and it is the mission for the floodplain management program to mitigate catastrophic flooding

hazards and protect lives and properties. I believe this mission is not just OWRB's, but it is the mission for all people who are involved in floodplain management. We can't be successful without collaboration and partnerships with our local floodplain administrators, engineers, OFMA, and many others. With that in mind, I would like to take this opportunity to encourage all of you to be more involved in the floodplain management program and OFMA.

Next year, our major NFIP focus will be on completing and closing Community Assistance Visits (CAV). This means that we will be calling for assistance from communities with unresolved CAVs in order to work together towards solving issues. We are also working with

several communities throughout the state for the Cooperating Technical Partners (CTP) program. We are constantly seeking qualified partners to collaborate in maintaining flood hazard maps; please feel free to contact our office about how to get involved in the CTP program.

If you are a floodplain administrator or want to learn more about floodplain management, now is an exciting time. OFMA and OWRB are continuing our success by offering new topics for our workshops. Please visit our website at http://www.owrb.ok.gov/hazard/fp/fp_workshops.php to view and register for these workshops. **We hope that everyone has a happy holiday and we look forward to another successful year of partnership with OFMA!**

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

The fall rains are beginning to subside and, fortunately, there have been very few flooding events in Oklahoma, although our fellow floodplain communities in Louisiana are just now beginning to come out of their disastrous flooding of the summer. Hundreds of thousands of structures have been damaged and Louisiana now has their Disaster Response Teams on the ground evaluating these structures. As I wrote last month, FEMA Region VI is currently, as a result, actively promoting other Floodplain Associations in the region to develop similar Disaster Response Teams.

The weather forecast is now for

weaker La Nina to take over, and we are projected to have a slightly cooler with about normal rain pattern throughout the fall. I again remind you that these next few months are the time to perform maintenance on your stormwater systems before the Spring 2017 rains commence.

We have several new members of OFMA that are members of our "DST" — Drone Support Team. We will begin regular meetings and training with them over the next few months. They are distributed throughout the state, so if you have an event about to impact your community, please be sure to let us know immediately so we may assist

with documentation of the event, both on the ground and in the air.

We continue to encourage communities to pre-sign for response support; if your community has not done so, this is a great time to sign-up.

Now that the Spring Technical Workshop and Annual Conference are behind me, I will again focus on opportunities at each of these events in 2017 to provide DRT training — more to follow.

Our OFMA DRT/DST Teams are ready and equipped to support your community when threatened by flooding or other natural disaster in a Special Flood Hazard Area.

TADD SIGNS... LOCATED, MAPPED, AND ON ALERT! BY BETH WILHELM, EI, CFM, OWRB, SUB-COMMITTEE CHAIR



Beth Wilhelm, EI, CFM, OWRB,
TADD Sign Sub-Committee Chair

We have all heard the phrase: "Turn Around Don't Drown!" Since 2010, OFMA and OWRB have purchased and provided — at no cost to the community — large, bright yellow metal signs with this message to be placed at locations across Oklahoma where the danger of high water on roadways is eminent.

In July, 110 of the Oklahoma 2016 Turn Around Don't Drown (TADD) signs were received. Immediately, all OFMA Regional Representatives, TADD Sign Committee, and committed OFMA Board members worked together to locate the most severe Low Water Crossings. Once placed, applications, installation instructions, and a generalized press release to announce each location were sent to over 400 community leaders and FPAs participating in the NFIP (National Flood Insurance Program).

At the 2016 Annual OFMA Fall Conference (September 19th-21st), the TADD signs were showcased at a booth for all conference

attendees to view. At that time, community leaders could also apply for the signs and arrange to take them back to their community at the end of the conference. The booth allowed many to learn how the TADD signs assist the community with reducing the RISK to citizens driving into high water at a low water crossing during a storm event.

By the end of the OFMA conference, all 110 TADD signs had found a community location to call home. We want to thank all the

communities who are participating in the TADD Sign Program, placing signs in hazardous areas where high water may occur. The following communities have received the 2016 signs: Town of Kiefer, Washington County, City of Muskogee, City of Elk City, Pittsburg County, City of Stillwater, Lincoln County, Canadian County, City of Stroud, City of Sapulpa, McClain County, Delaware County, Wagoner County, City of Glenpool, and City of Madill.

OKLAHOMA FLOODPLAIN MANAGERS ASSOCIATION

Turn Around Don't Drown Signs Available

Request your sign at
OFMA's T.A.D.D.
sign booth!



T.A.D.D. Sign Booth
Hours of Operation
Monday 8am - 5pm
Tuesday 8am - 5pm
Wednesday 8am - 11am

OFMA Annual Conference
Tulsa, Oklahoma
September 19-21, 2016
www.okflood.org



"Over half of all flood-related drownings occur
when a vehicle is driven into floodwater."
— Center for Disease Control and Prevention

Protect your citizens and emergency manage-
ment personnel from this unnecessary risk!

Request your Turn Around Don't Drown sign
today!

OFMA OKLAHOMA
FLOODPLAIN MANAGERS ASSOCIATION

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TADD SIGNS... LOCATED, MAPPED AND ON ALERT! CONTINUED

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We are currently in the process of mapping the submitted coordinates from the 2016 sign locations, as well as completing the documentation recorded from the 2010 TADD sign locations.

Furthermore, OFMA is extremely excited about its first-time partnership with NOAA to provide Emergency Alerts based on the mapping coordinates collected from over 400 locations of TADD signs. In an effort to protect against the danger of driving into high waters at TADD sign locations, the coordinates from the two years of data collected will be utilized by NOAA within their Emergency Alert System to provide warnings for the citizens of Oklahoma during Severe Weather Events. These alerts will be broadcasted through electronic

devices and weather stations.

Sadly, every year in Oklahoma, many lives are lost due to driving into deep water over roadways. OFMA believes seeing the warning TADD signs and receiving the alerts on electronic devices will assist in saving the lives of our citizens and emergency responders.

All communities with existing, currently installed 2011-2015 TADD signs interested in being included in the mapping for the Alert System may send the latitude and longitude coordinates to Beth Wilhelm at OWRB.

The OFMA TADD Sign Committee will be taking community location coordinates, street names, and contact information for the 2017 TADD sign order. Individuals may also register for the TADD signs at the OWRB Booth at the Annual

Storm Water Conference hosted in Oklahoma City and the Annual Governor's Water Conference hosted in Norman. Information and applications for submittal will be available at these conferences or by requesting an application through the email below.

We appreciate your participation in this important campaign to save lives. If you would like to pre-register for the 2017 TADD signs, please contact Beth Wilhelm at Beth.Wilhelm@owrb.ok.gov or call 405-530-8839 to receive the application documents.

REMEMBER...
"TURN AROUND DON'T DROWN"
SAVES LIVES!
AND YOU CAN PLAY A BIG PART IN
THIS IMPORTANT MESSAGE.

UPDATE ON FEDERAL FLOOD RISK MANAGEMENT STANDARD (FFRMS)

FEMA's goal is to fully implement EO 11988, as amended by EO 13690 by November 2017. Leadership intends to establish Agency-wide procedures to implement FFRMS which will include the following approaches:

- **Non-Critical Action**

FEMA will use the Freeboard approach (Base Flood Elevation (BFE) + 2 feet) of the FFRMS

- **Critical Actions**

- At a minimum FEMA will select the Freeboard approach (BFE + 3 feet) of the FFRMS.

- If climate informed science approach indicates a flood elevation higher than the minimum Freeboard elevation, FEMA will accept the higher elevation as the FFRMS elevation.

FEMA intends to revise the agency's implementing regulations for Floodplain Management and Protection of Wetlands, 44 C.F.R. Part 9, and to develop a new accompanying policy which will establish how FEMA will implement the EO 13690 amendments and the FFRMS. FEMA will publish both the proposed rule and draft policy in the Federal Register to provide an opportunity for public notice and

comment on the recommended framework for implementing the FFRMS.

FEMA will not implement EO 11988 as amended by EO 13690 and the FFRMS until a final rule revising FEMA's Floodplain Management and Protection of Wetlands regulations and a final policy are published. Once FEMA implements the revised regulations and policy, they will apply to new actions that are in or impact the floodplain.

To keep up with changes visit:

<https://www.fema.gov/federal-flood-risk-management-standard-ffrms>



1st Place Winner – Grace Edwards, Maysville Elementary, Maysville, OK



2nd Place Winner – Brayden George, Maryette Elementary, Stilwell, OK



3rd Place Winner – Madison Breeden, Robin Hill School, Norman, OK



Honorable Mention – Alyssa Brawdy, James Griffith Intermediate, Choctaw, OK

TURN AROUND DON'T DROWN POSTER CONTEST WINNERS

OFMA 2016 FALL CONFERENCE AWARDS CEREMONY, BY JANET MESHEK, PE, CFM

The 2016 Annual Fall Conference, hosted at the Marriott Southern Hills in Tulsa, proved to be another great success. Thanks to all speakers, attendees, vendors, and volunteers who made this event possible. Many congratulations to the winners of the following awards:

FEMA RECOGNITION OF MITIGATION EFFORTS:

The City of Miami, OK has been recognized by FEMA for its acquisition of over 100 repetitive loss and other flood-prone properties.

Great work Miami!



2015-2016 Regional Representatives

OUTGOING REGIONAL REPRESENTATIVES:

- Region 1 – Leslie Lewis, PE, CFM, ODOT
- Region 2 – Gavin Brady, PE, CFM, Utley & Associates
- Region 3 – Jennifer Santino, CFM, City of McAlester
- Region 4 – Dale Lasley, CFM, Caddo County
- Region 5 – Mike Beatty, PE, CFM, City of Stillwater

OFMA SCHOLARSHIP:

This scholarship is awarded to a graduating Oklahoma High School



Ed Fite, CFM

Senior who is planning to pursue a career in a floodplain management related field and is intended for educational financial support.

As there were no nominations, we didn't have any scholarships to award this year. Instead, a donation has been made in the amount of one scholarship to the ASFPM Foundation, which provides scholarships to students around the country who are enrolled in a floodplain management related field at any college or university.

W. KENNETH MORRIS HONORARY LIFETIME MEMBER AWARD:

Given to Association member(s) that have made valuable and significant contributions over a number of years to the Association for the improvement of floodplain management in the State of Oklahoma.

This year's award was given to Ed Fite, CFM, Oklahoma Scenic Rivers Commission.

From 1983 through 2016, Mr. Fite has been the Executive Director for the Oklahoma Scenic Rivers

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OFMA 2016 FALL CONFERENCE – FEDERAL, STATE, AND LOCAL RESPONSIBILITIES UNDER THE NFIP, IS YOUR COMMUNITY COMPLIANT? – AWARDS CEREMONY, CONTINUED

(Continued from page 8)

Commission. He serves on the Interagency Wild and Scenic River Coordinating Council and is a former Vice President of the National Association of State and Local River Conservation Programs. Ed Fite has been an outstanding proponent of Floodplain management throughout the Region and State. He is a leading advocate of Build Safe, Build Strong, for communities to become more disaster resilient. Mr. Fite is a certified floodplain manager and represents the commitment of OFMA to floodplain management.

SPECIAL RECOGNITION AWARD:

Given to individuals in the floodplain management business that have demonstrated excellence in an endeavor that is worthy of recognition.

This year’s recipients were Glenda Longan, City of Miami, and Bill Tucker, CFM, City of Kingfisher.

Glenda Longan has received a Special Recognition Award for her extensive and continuing efforts to



Bill Tucker, Kingfisher

pursue and acquire Mitigation funding for the City of Miami. The City has benefitted from Glenda’s services for over 11 years; she has mitigated over 100 flood prone structures, including NFIP Repetitive loss properties in the Tar Creek and Neosho River floodplain. Through Glenda’s willingness to engage local, state, and federal partners, the City of Miami has been able to mitigate severe flooding events, thus becoming more economically sound and natural hazard resilient.

Bill Tucker has also received a Special Recognition Award for his efforts in mitigating 34 flood prone structures, including 9 NFIP Repetitive loss properties in the Kingfisher Creek floodplain Phase 1 program, and an additional 60+ properties in the Phase 2 program currently underway. Using a unified approach to engage local, state, and federal partners, the City of Kingfisher has been able to acquire over \$12 million in mitigation funding, matching that with over \$4 million in state and local funding that has allowed the City to become more economically sound and natural hazard resilient.

OFMA and the State of Oklahoma are thankful for your services.

OUTSTANDING RECOGNITION AWARD:

This award is presented occasionally to individuals who have helped to improve Floodplain Management at the local or state level. This individual may or may not be an OFMA member.

This award has also been presented to two recipients this year: Kevin Enloe, Emergency Manager, Pittsburg County/McAlester; and Beth Wilhelm, CFM, OWRB – High Water Mark Project.

As Emergency Manager for Pittsburg County, Kevin Enloe witnessed the devastating consequences of motorists driving into floodwaters during the May 2015 floods. In an effort to protect the lives and property not only of these motorists but of first responders, Kevin worked with local legislators to strengthen the existing barricade law. As a result, in June 2016, HB 2249 was signed into law, increasing fines for driving around a barricade, enhancing penalties if children are also present in the



Glenda Logan, Miami



Kevin Enloe, Pittsburg Co

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OFMA 2016 FALL CONFERENCE – FEDERAL, STATE, AND LOCAL RESPONSIBILITIES UNDER THE NFIP, IS YOUR COMMUNITY COMPLIANT? – AWARDS CEREMONY, CONTINUED

(Continued from page 9)



Beth Wilhelm, OWRB

vehicle, and providing for recovery of emergency response costs – including lost or damaged equipment. This new law will provide a reason for news media to publicize Turn Around Don't Drown – hopefully changing behavior across the state.

Beth Wilhelm began employment with the OWRB in 2015 – just as much of the State had experienced significant flooding. Knowing one of the State's highest priorities was to obtain high water marks, Beth coordinated with FEMA and the Corps of Engineers to fund several surveying crews for obtaining elevation data to aid with future mapping and mitigation strategies. Beth has presented the "High Water Mark" report to several audiences, including FEMA Region VI the 2016 ASFPM conference.

Great work and many thanks to both of you for your outstanding service!

CHAIRMAN'S AWARD:

Created in 2007 by the Chair of the Association, to recognize dedicated OFMA members who continue to make valuable and significant contributions to the Association,

year after year, for the improvement of floodplain management in the State of Oklahoma.

This year's recipient is Ana Stagg, PE, CFM, from Meshek & Associates, PLC.

Ana became a CFM in 2003 while serving as the Public Works Director for the City of Owasso. A career change in 2007 led her to her current employer where she has been one of OFMA's most versatile and dedicated members. Ana continues to volunteer her services and has previously served as the Legislative Chair, Outreach Chair, Conference Coordinator, BFE editor, Calendar Contest



Ana Stagg, PE, CFM

Coordinator, and Secretary. Ana also served as the OFMA Chair from 2011 to 2012.

OFMA would not be the Association it is today without Ana's leadership, business knowledge, and the sincere honesty she's not afraid to share in order to make OFMA a better organization.

CHARLES DON ELLISON MEMORIAL AWARD:

To recognize an association member who has demonstrated significant long-term leadership

and support which clearly influenced and advanced the Oklahoma Floodplain Managers Association.

This award was named after Charles Don Ellison, a Federal Emergency Management Agency Region VI employee and native Oklahoman, who dedicated his life to flood loss reduction for Oklahoma and the nation. On July 23, 1995, Don left us at the early age of 59. Don had the foresight to envision this Association and its benefits, and his career accomplishments exemplify the spirit of this award.

This year's recipient is Tom Leatherbee, CFM, City of Del City.

Tom Leatherbee is the Director of Community Services for the City of Del City. He began his career with the City on August 2, 2006 as the City Planner, serving as Building Official and Floodplain Administrator: overseeing planning, zoning, permitting, inspections, and licensing. As the Director of Community Services, he absorbed code enforcement, mapping/geospatial analysis, and economic development into the fold and has since created a multi-functional,



Tom Leatherbee, CFM

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OFMA 2016 FALL CONFERENCE — FEDERAL, STATE, AND LOCAL RESPONSIBILITIES UNDER THE NFIP, IS YOUR COMMUNITY COMPLIANT? — AWARDS CEREMONY, CONTINUED

business-friendly planning and building department. Tom is responsible for creating and implementing the City's Housing Inspection Program and Environmental Court, and has modernized the city's floodplain management, drainage, and stormwater quality programs. He is also responsible for significant urban redevelopment projects, including condemnation and reuse of three blighted apartment complexes, and development of previously flood-prone land into a significant retail center using a novel approach to Tax Increment Financing.

Tom is recognized as a Certified Floodplain Manager, a Master Code Professional, a Certified Code Enforcement Administrator and an Associate in General Insurance. He is a regular presenter at national planning, construction, and stormwater conferences.

Tom received his certification from OFMA on September 1, 2006 — hitting the road running, and never looking back. Tom has held past Chairman, Vice-Chairman, and Insurance Committee Chairman positions. He currently serves as OFMA's Legislative Director, Deputy Coordinator of OFMA's Disaster Response Team, and as a member of OFMA's Training Cadre. Tom has received a number of awards from OFMA, including the Silver Scoop Award, Outstanding Recognition Award, the Ronald D. Flanagan Gold Project Award for the Crutcho Creek Floodplain Remediation Project, and was named OFMA's 2010 Floodplain Manager of the Year.

Congratulations Tom! A well-deserved honor!

BEN FRIZZELL MEDIA AWARD:

This award was created in 2000, to honor Ben Frizzell, who passed away May 15, 2000. In 1995, Ben became the Public Information Officer for the Oklahoma Department of Civil Emergency Management, where he performed a marvelous job. Ben was recognized by FEMA in 1994 with their prestigious "Meritorious Service Award" — citing his service during numerous disasters, including the 1992 Hurricane Andrew and the 1993 Midwest Floods. One of Ben's many sayings was "Life is too short, it's like a commercial: hit em' hard, make your point, then give something to laugh about and remember." This award is presented each year for outstanding floodplain management-related stories or publications produced in Oklahoma.

This award has been presented to KOSU-State Impact: Reporting by KOSU and State Impact on the multitude of water issues in the State; <https://stateimpact.npr.org/oklahoma/tag/water/>

KOSU-State Impact is a collaboration of KGOU, KOSU, KWGS and KCCU. Joe Wertz and Logan Layden travel the state to report on the intersection of government, industry, natural resources, and the Oklahoma workforce. Through a series of articles, webcasts, and news reports, many of the water issues in the State of Oklahoma, including flooding and economic recovery,



Tim Creighton



Heath Dobrovolny, CFM



Lacie Jones, CFM



Michael Couch, CFM

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OFMA 2016 FALL CONFERENCE – FEDERAL, STATE, AND LOCAL RESPONSIBILITIES UNDER THE NFIP, IS YOUR COMMUNITY COMPLIANT? – AWARDS CEREMONY, CONTINUED

(Continued from page 11)

have been adequately profiled.

SILVER SCOOP AWARD:

Presented to key individuals that contribute significantly to the Association; award recipients help make the Association “click”. The Silver Scoop symbolizes the importance of communal “channel maintenance” programs, as opposed to a one-time clean up. Award recipients scoop a lot and scoop often; scoop contents are always rich and organic.

The Silver Scoop Awards are given to those individuals that work hard in the floodplain management field and are always ready to help wherever they can. This year’s award recipients are:

- Tim Creighton, Okmulgee County; Tim has worked very hard with the small communities, as well as to solve the open CAV issues. He diligently sent updates and worked closely with individuals in non-participating communities during DR-4222, ultimately resulting in their joining the NFIP (Winchester).
- Heath Dobrovolny, CFM, Kingfisher County; Heath has worked extremely hard to close the CAV from the previous FPA. Contacting property owners and working with them personally to solve their problems, sending update reports, and requesting appropriate questionable information, Heath always puts to use Floodplain best practices. He became a Certified Floodplain Manager recently during the 2016 CFM Class.
- Lacie Jones, CFM, Meshek & Associates; Lacie has previously helped and continues to help

annually with the OFMA conference by staffing the registration desk alongside Carolyn. She has also volunteered her time to assist the Hazard Mitigation Committee during their Strategic Planning Session in 2015.

- Michael Couch, CFM, Meshek & Associates; Michael has assisted with the Speaker’s Desk at the OFMA conferences since 2011. The mastermind behind the system used today (thank goodness), he is always available to assist OFMA with IT-related issues. Michael has also assisted OFMA with its website for several years.

PUBLIC OFFICIAL OF THE YEAR AWARD:

To recognize an official that has implemented public policy initiatives which demonstrate excellence in addressing present and future floodplain management needs for his/her community.

This year’s recipient is Bill Robinson, CFM, City of Tulsa Stormwater Project Coordinator, Lead Stormwater Engineer/CTP Coordinator.

Bill’s long-term vision, ideas, and continued efforts in FEMA’s Cooperative Technical Partnership and Community Rating System for the City of Tulsa has allowed the City to become an outstanding CRS community and develop long-term disaster and economic resiliency. It is through his continued service to the City of Tulsa that the City will continue to be a flagship community for the Nation.

J. GAVIN BRADY FLOODPLAIN MANAGER OF THE YEAR AWARD:

To recognize an individual who has demonstrated dedication through the administration of his/her community’s floodplain management program in pursuing the goals of flood loss reduction and in the prevention of loss of life

Each year, OFMA recognizes a member of the Association who has demonstrated excellence in the field of floodplain management.



Bill Robinson, CFM

This individual personifies dedication and commitment to flood risk reduction and regulatory compliance through the day-to-day implementation of responsible community floodplain management. This award is named for J. Gavin Brady, longtime State NFIP Coordinator, for his life-long commitment to helping local floodplain managers across Oklahoma build effective programs and navigate through the difficult tasks of implementing floodplain management regulations, effecting flood risk mitigation, and providing disaster response.

This year’s award recipient is Monica Cardin, CFM, Floodplain Administrator, CRS Coordinator, City of Del City.

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OFMA 2016 FALL CONFERENCE – FEDERAL, STATE, AND LOCAL RESPONSIBILITIES UNDER THE NFIP, IS YOUR COMMUNITY COMPLIANT? – AWARDS CEREMONY, CONTINUED

(Continued from page 12)

Since taking over responsibility for the City of Del City's floodplain management program, Monica has continued to make it a model for other communities. She assists residents and business owners on a daily basis, balancing the enforcement of higher standards with redevelopment goals.

As CRS Coordinator, Monica has worked tirelessly on the City's application and initial verification. Her hard work will benefit all NFIP policyholders in the community, as the City will be entering the Community Rating System as a Class 6.

Monica has led the City's field responses following disasters, has spoken to community groups advocating for higher standards and hazard mitigation, and is responsible for the enforcement of drainage, floodplain management, and stormwater quality ordinances.

In addition to her work with the City, Monica has demonstrated a strong commitment to flood risk reduction across the state. She held the Chair of the Association for 2016, has served as Secretary, has worked on the legislative and publicity committees, and is a member of the Disaster Response Team.

LEATHERBEE-ROBISON EDUCATION OUTREACH AWARD:

To recognize exemplary accomplishments in educating the public and Government officials, and extending the knowledge of Floodplain Management through various methods of outreach to

educators, public safety agencies, Floodplain Administrators, and the general public.

Sponsored by HIS, INC., this new award was presented to the Awards Committee in 2015 by Bill Smith, current Chair for OFMA and DRT Coordinator.

This year's recipients are Leslie Lewis, PE, CFM; Monica Cardin, CFM; and the USACE Tulsa Regulatory Branch.



Leslie Lewis, CFM

Leslie Lewis, PE, CFM, a long-standing OFMA member and the Region 1 Representative, has diligently sent emails to all OFMA members throughout the years, providing information for advanced education and training opportunities. Leslie is an unrelenting source of information who continuously provides support to local floodplain administrators, engineering consultants, and government agencies.

Monica Cardin, CFM, the OFMA Immediate Past Chair, has proven to be a great asset to OFMA and instrumental in overseeing a



Monica Cardin, CFM

number of education initiatives during her time on the Board of Directors. Monica has perpetually reached out to many communities considering becoming CRS certified, and uses her recent successful experience in Del City as a model for the state of Oklahoma.

Since the OFMA Advance Training Sessions began, the USACE Regulatory Branch has continuously provided numerous speakers and has proven to be a substantial support throughout all aspects of training; including the weeklong L-273 class to educate participants in the Section 404 Permitting process (encompassing the Individual Permit, General Permit, Nationwide Permit, and self-permitting).

Congratulations to all of the 2016 OFMA Award Winners! Please be on the lookout in the upcoming year for those people who deserve these awards and be sure to nominate them! The Awards and nominating forms may be found at:

<http://www.okflood.org/awards/award-nominations/>



US Army Corps of Engineers

WHY CURRENT DISASTER PLANNING DOESN'T CUT IT, AND WHAT WE CAN DO INSTEAD BY EDWARD THOMAS, ESQ. AND LAURIE MAZUR

The flood waters have receded in southeastern Louisiana, revealing a landscape etched by loss. The torrential rains that began on Aug 11 cost 13 people their lives, and damaged some 160,000 buildings — many irreparably. In the hardest-hit areas, such as Livingston Parish, three quarters of homes are considered a "total loss".

Worse, many of those who lost their homes did not have flood insurance. Even in the parts of Louisiana at highest risk of flooding, only 42 percent of homeowners are insured. But the floods of August deluged so-called low- and moderate-risk areas, where only 12.5% carry insurance.

Why were the people of Louisiana so woefully unprepared? First, in Louisiana and elsewhere, many people simply don't know they are at risk. Only homes in designated "special flood hazard areas" are required to carry flood insurance — and then only if they have a federally supported mortgage. But the FEMA maps that designate flood risk are flawed in several ways. Notably, they are based on what happened in the past. In the era of climate change, the past is no longer a reliable guide to the future.

Of course, it is difficult to tie the Louisiana floods — or any other single weather event — to climate change. But what we are seeing today is consistent with a highly uncertain, variable climate, indeed a changing climate. It is getting hotter, and a warmer atmosphere carries more moisture — which means heavier rains and flooding.



Photo Courtesy of www.fema.gov

The Louisiana flood was widely called a "500-year storm" — meaning that there is just a one-in-500 chance of it occurring in any given year. Given the paucity of accurate weather records, it is debatable whether we were ever able to calculate such odds. But in a changing climate, it is clearly impossible. Hence, the Louisiana flood was the eighth 500-year flood we've had in the U.S. since May of last year.

We have entered an era in which our former assumptions about risk no longer apply. Flood planning must reflect this new reality. There has been encouraging movement in this direction: spurred by an Executive Order from President Obama, FEMA recently proposed rules requiring that structures in the floodplain be built to higher standards. While they only apply to buildings financed with federal funds, these rules have the potential for much

broader impact. Indeed, there is a strong legal argument to be made that the President's Executive Order represents a new standard of care, which engineers, architects and others in the development community ignore at their peril.

Still, that leaves plenty of folks at greater risk than they know. When disaster strikes, as it did in Louisiana, the uninsured can face catastrophic losses. Flood victims may be eligible for various kinds of assistance (as described in the Natural Hazard Mitigation Association's guide, *A Living Mosaic*). However, this disaster relief process — while well intentioned — is incredibly complex and convoluted.

It is also costly, especially for U.S. taxpayers. While insurance companies, state and local governments, individuals and charities all contribute to disaster relief, the federal government pays

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WHY CURRENT DISASTER PLANNING DOESN'T CUT IT, AND WHAT WE CAN DO INSTEAD, CONTINUED

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a huge — and growing — share of the expense. Indeed, the share of disaster relief paid by the feds has grown from about 25 percent before Hurricane Katrina to nearly 70 percent today. U.S. taxpayers have shelled out approximately \$1 trillion in disaster relief since 1980. That's money we won't have to invest in our nation tomorrow.

So how can we help flood victims, while protecting our shared future?

One possible part of the solution— as suggested by John Romano in the Tampa Bay Times, and others — is to require flood protection as a standard part of homeowners insurance. Right now, the only people who must buy flood insurance are those at greatest risk. It's as if the only people who bought health insurance were those with terminal cancer. Predictably, that makes flood insurance prohibitively expensive for both homeowners and private insurers. It also helps explain why the National Flood Insurance Program —

the insurer of last resort — was \$23 billion in debt before the Louisiana floods.

Requiring flood insurance of all — with higher rates for those in the most risky areas — would spread the burden more fairly. It would also reflect the changing landscape of risk. Such an effort would need to be developed very carefully to avoid unintended consequences. For example, we need to make sure that affluent homeowners who build houses in coastal areas do not “externalize” the risk to everyone else. At the same time, it is crucial to build in protections for low-income people in flood-prone areas, to prevent what Virginia Eubanks, writing in *The Nation*, calls “climate redlining.”

Any solution to our current disastrous spiral will stir backlash. Some will decry unwarranted government mandates; others will worry about costs for homeowners. Still others will deny that the climate is changing, and claim there is no need to adjust to a new reality.

But resisting change is costly, too. Today, we are lurching from crisis to crisis, with no end in sight. Floods and other disasters devastate the most vulnerable among us, while taxpayers and survivors pay for endless cycles of destruction and rebuilding.

Instead, we can snap out of our collective denial, and accept that the future will not be like the past. Only then can we protect ourselves from the floods (and the tornadoes, droughts, wildfires, heatwaves, and storm surges) to come — and build a resilient future for all.

Ed Thomas is a Floodplain Manager, and Disaster Response and Recovery Specialist, who is also an Attorney. He is the President of the Natural Hazard Mitigation Association.

Laurie Mazur is the editor of the Island Press Urban Resilience Project, which is supported by The Kresge Foundation and The JPB Foundation.

Photo Courtesy of www.fema.gov



Oklahoma Floodplain
Managers Association, Inc.
PO Box 8101
Tulsa, OK 74101-8101

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SERVICE

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VISIT US AT
WWW.OKFLOOD.ORG

Ex Officio:

Ms. Julie Cunningham
Interim Executive Director
Oklahoma Water Resources Board
3800 North Classen Blvd
Oklahoma City, OK 73118
Phone: (405) 530-8800
Fax: (405) 530-8900

Chair:

Mr. Bill Smith, PE, CFM
Hydropower International Svcs.
28508 W. 41st Street South
Mannford, OK 74044
Phone/Fax: (918) 865-6977
Cell: (918) 625-2449
wbsmith@hisinc.us

vice Chair:

Ms. Kasie Stambaugh, CFM
707 N. Robinson Ave.
Oklahoma City 73102
Phone: (405) 702-5164
kasie.stambaugh@deq.ok.gov

Secretary:

Ms. Beth Wilhelm, EI, CFM
Oklahoma Water Resources Board
3800 North Classen Blvd
Oklahoma City, OK 73118
Phone: 405.530.8800
Fax: 405.530.8900

Treasurer:

Ms. Carolyn Schultz, CFM
Corps of Engineers—Retired
3527 South 401st West Avenue
Mannford, OK 74044
Phone: (918) 906-3922
csschultz@cimtel.net

Region 1 Co-Representative:

Mr. Todd McLellan, PE, CFM
City of Norman
201-A West Gray St
Norman, OK 73069
Phone: (405) 217-7704
Fax: (405) 366-5418
Todd.McLellan@NormanOK.gov

Region 1 Co-Representative:

Ms. Anna Waggoner, PE, CFM
City of Yukon
532 West Main St
Yukon, OK 73085
Phone: (405) 350-8930
awaggoner@cityofyukonok.gov

Region 2 Representative:

Mr. J. Gavin Brady, CFM
OWRB (Retired)
1816 S. Carson Ave. #328
Tulsa, OK 740119
Phone: (918) 520-8024
jgbrady61@gmail.com

Region 3 Representative:

Ms. Jennifer Santino, CFM
City of McAlester
P.O. Box 578
McAlester, OK 74502
Phone: (918) 423-9300
Jennifer.santino
@cityofmcalester.com

Region 4 Representative:

Mr. Philip Beauchamp
509 S. Main
Altus OK 73521-3135
Phone: (580) 481-2228

Region 5 Representative:

Mr. Mike Beatty, PE, CFM
City of Stillwater
723 S. Lewis Street
Stillwater, OK 74074
(405) 742-8215
mbeatty@stillwater.org

Past Chair:

Ms. Monica Cardin, CFM, CCEA,
CCEO
City of Del City
3701 SE 15th St.
Del City, OK 73115
Office: 405-670-7315
mcardin@cityofdelcity.org

Honorary Board Member:

Mr. Joe Remondini, PE, CFM
PDCC Chair
PO Box 8101
Tulsa, OK 74101
Phone: (918) 361-8636
jremondini@aol.com

Honorary Board Member:

Mr. Ken Morris
Oklahoma Water Resources Board
Retired
5400 E. Tecumseh Rd.
Norman, OK 73026
Phone: (405) 573-7990

State NFIP Coordinator:

Mr. Yohanes Sugeng, PE, CFM
Oklahoma Water Resources Board
3800 North Classen Blvd
Oklahoma City, OK 73118
Phone: 405.530.8800
Fax: 405.530.8900
Yohanes.sugeng@owrb.ok.gov

BFE Editor:

Ms. Janet K. Meshek, PE, CFM, SR/WA
Meshek & Associates, PLC
1437 South Boulder Avenue, Ste 1550
Tulsa, OK 74119
Phone: (918) 392-5620
Fax: 918-392-5621
Cell: 918-688-1400
jmeshek@meshekengr.com

Honorary Board Member:

Mr. Ronald D. Flanagan, CFM
R.D. Flanagan & Associates
3015 E. Skelly Drive, Suite 270
Tulsa, OK 74105
Phone: (918) 749-2696
Cell: (918) 830-5037

