

NFIP EXTENDED  
UNTIL  
JULY 31, 2012



The B.F.E.\*

\*Base Flood Elevation

## OKLAHOMA FLOODPLAIN MANAGERS ASSOCIATION NEWSLETTER

Volume 22 - SPRING 2012

JUNE 2012

KINGFISHER OBTAINS A  
HAZARD MITIGATION  
GRANT TO PURCHASE  
48 FLOODED PROPERTIES

### KINGFISHER OBTAINS HAZARD MITIGATION GRANT TO PURCHASE 48 FLOODED PROPERTIES—BY RITA HENZE, CFM, PROJECT COORDINATOR

WORDS FROM THE CHAIR

RISK MAP: THE NUTS  
AND BOLTS

BRIDGING THE GAP  
BETWEEN OKLAHOMA  
FLOODING EVENTS AND  
FLOOD INSURANCE  
COVERAGE

FLOOD INSURANCE  
PROGRAM EXTENDED

STATE NFIP  
COORDINATOR REPORT

PONCA CITY: WHEN IT  
RAINS, IT DOES IT ALL  
AT ONCE!

LEGISLATIVE UPDATE

DRT CORNER

SHOW US YOUR RAIN  
GAGES!

OKLAHOMA'S  
WATERSHED  
REHABILITATION

VICE-CHAIR REPORT

SPRING CONFERENCE  
PHOTO GALLERY

DISCOVERY: DATA NEEDS

UPCOMING EVENTS

The Kingfisher City Council collaborated with the Kingfisher Flood Mitigation Committee (headed by Brian Walter, far right) and the Oklahoma Conservation Commission to leverage state bond funds of **\$1.9 million**. These funds were used to match a FEMA Hazard Mitigation Grant of **\$5.8 million** to purchase 48 frequently flooded buildings on 47 parcels in Kingfisher for a total project cost of over **\$7.7 million**. The grant was officially approved on April 26, 2012.

Kingfisher Creek flows into the Cimarron River about five miles northeast of the City of Kingfisher. The floodplain south of the creek is heavily developed and is home to a portion of the downtown commercial area along with many residential properties.

The City of Kingfisher is no stranger to troublesome flooding, but the August 2007 Flood was no routine event. During this storm, flood waters inundated a large portion of the downtown area causing severe damages and disruption. High water mark elevations (obtained on Highway 81 where the overflow occurred) were recorded as nearly six feet deep. Over 100 properties were flooded, many in excess of four or five feet.

*Formed shortly after the August 2007 Flood, the Kingfisher Flood Mitigation Committee is accredited for obtaining \$4 million in state funding to tackle Kingfisher's severe flooding problems.*

During the August 2007 Flood, the Kingfisher



KINGFISHER CITY OFFICIALS—MAY 14, 2012

Creek flow was split approximately 90%-10%—with 69,100 cfs carried in the main channel and 5,400 cfs making its way through the downtown areas. This storm was determined to be between a 1% (100-year) and a 2% (50-year) storm.

One of the City's biggest concerns was Pioneer Telephone Company. The main building contains an insured amount of \$20 million in switchgear that would be lost in a flood.



PIONEER TELEPHONE COMPANY—AUGUST 2007

(See Kingfisher, continued on page 3)

## WORDS FROM THE CHAIR—BY ANA STAGG, PE, CFM

To my surprise, on June 1, 2012, the National Flood Insurance Program (NFIP) received another short-term extension (60 days this time) through July 31, 2012. After years of witnessing deadlock caused by partisan dysfunction, agreement on NFIP extension was the furthest thing from my mind.

Much is owed for the compromise to our own Senator Coburn who managed to introduce one permanent change for the program in the short-term extension: owners of second homes, third homes and vacation homes will have subsidized coverage phased out. Thank you, Senator! I wholeheartedly agree with your statement, "If you can afford to own property that's in those areas, then you can afford the insurance."

Even after witnessing this extraordinary example of resolute action, I remain skeptical that a reform bill will be passed by July 2012. After all, the legislation being considered today was once entitled, "The Flood Insurance Reform and Modernization Act of 2011." Care to wager on what will be the name of our new reform bill?

Two weeks ago, I heard from a respected colleague that "there simply isn't enough data to substantiate NFIP reform." His argument was, "It is better to have good enough protection than no protection at all." It is hard to argue with that until you put pencil to paper on the cost of protection. So what exactly is the cost of the NFIP?

A quick web search on the topic reveals that the NFIP is currently \$17 billion in debt, and its portfolio includes coverage for 5.6 million homes and businesses for approximately \$1.3 trillion. Many will argue—with reason—that for much of its existence, the NFIP has been self-supporting, saved federal disaster assistance money and provided a reliable system of payments for losses. This is not quite accurate, as a 2004 report noted that on average the cost to taxpayers for the program has been closer to \$200 million per year rather than zero. Nevertheless, the remaining arguments remained true until 2005, when the fate of the NFIP changed drastically. In one year, hurricanes Katrina, Rita and Wilma resulted in over \$22 billion in claims, resulting in a \$17 billion debt for the program. As of March 31, 2011, the NFIP had paid out about \$38 billion in claims.

Yet, even in the face of insurmountable debt, NFIP reform lingers in limbo. Lack of data, even to an engineer like me, cannot be an adequate excuse for lack of action. The debate should consider the conservative and liberal positions, but it should ultimately land on the smart position. I do not need additional data to forecast that this existing, "good enough" plan will not secure the long-term survival of the NFIP.

To this debate, I believe we must include the cost of delaying or avoiding real reform. I will add a brief discussion here on the monetary value of resilience (or loss avoidance). If you attended 2012



ASFPM Conference, you may have learned the new buzz words "earth economics." The discussion I attended focused on the economic value of an environmental change in perpetuity. Examples given included construction of the Hoover Dam, the Chicago River (reversing) and the Washington Aqueduct.

The same could be said about the economic effect of a policy decision—such as the shift in the EPA's Climate Policy, NASA's Spaceflight Program or NFIP reform—on our future. What will be the monetary impact of these changes in 50, 100 or 200 years from now?

This is the question to ponder when considering legislation that may result in perpetual change. Whether legislation is reviewed at Federal, State or local level, a change in policy today has the ability to effect change forever.

Today, much of our resilience talk and efforts focuses on fixing the mistakes of the past. "Community resilience" has become synonymous with property acquisitions and stringent floodplain management regulations. Generally speaking, not much thought, flexibility or

*(See Chair, continued on page 3)*

*(Chair, continued from page 2)*

incentives have been given by local Oklahoma communities for green infrastructure as a potential means to derive economic benefits.

However, like Senator Coburn, the City of Norman has demonstrated exemplary resoluteness recently. On June 28, 2011, the City adopted Ordinance No. O-1011-52 which requires 100-foot-wide vegetative buffer zones (designated as Water Quality Protection Zones) along stream banks. These buffer zones are intended to protect surface water quality in Norman. I believe it's safe to say that Norman will reap economic benefit from policy designed to protect water quality.

However, soon after Norman's ordinance was enacted, House Bill 2836 was introduced in the 2012 legislative session. The new bill sought to abolish development restrictions (for stormwater purposes) in all areas outside of designated Special Flood Hazard Areas.

What were some of the negative

ramifications? The bill had the potential to (1) cancel CRS discounts on flood insurance premiums, and (2) impair communities' ability to comply with existing stormwater pollution prevention regulations. With the help of many, HB 2836 was not enacted in to law, and its perpetual impacts will not be seen—at least for now.

The challenges will continue as long as conservatives and liberals are so divided and as long as moderates are seen as traitors. Evidence of this divide are seen everywhere—from Wisconsin's Gubernatorial recall to Healthcare Reform appeals.

At the end of the day, after all battles are fought (and refought), one must wonder: What are the actual costs (and perpetual ramifications) of this continual partisan approach? What will be the impacts of the lack of true and beneficial NFIP reform on our future? But how can you

and I change partisanship? I think that Tom Leatherbee—our current Legislative Chair—has set a great example for all of us to follow. In the wake of HB 2836, he wasted no time and met immediately with the bill sponsor to discuss the potential impacts of this new language on our communities. He trailed the legislation as it morphed between compromises. He never relented and continued to collaborate with those promoting the bill. Simply said, Tom concentrated on commonalities and agreement and steered from divergence and ultimatums. The end result: an indisputable “win” for floodplain management. Thank you for leading by example, Tom. We are grateful for your leadership and vision.

*(Kingfisher, continued from page 1)*

It was forecasted that the 1% flood would surpass the building's finished floor elevation by nearly 5 inches, thereby flooding the building. This would cause \$20 million in switchgear to be destroyed, yielding a Benefit-Cost ratio of over 15:1.

In the August 2007 storm, Pioneer Telephone's employees sandbagged the main building but the old historic Pioneer Telephone building on Main Street flooded (it has since been floodproofed). Pioneer Telephone is not only the largest employer in the city, but it also serves the western half of the state with telephone, cellular and internet service. A floodproofing grant for the two flooded or potentially flooded buildings has also been approved by FEMA.

*Congratulations Kingfisher! Well done.*

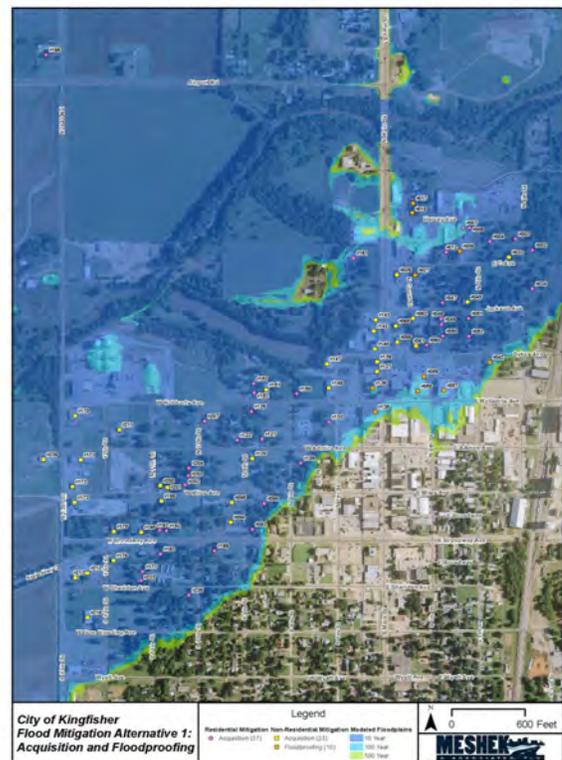


FIGURE 1: KINGFISHER FLOOD MITIGATION AREA

## RISK MAP: THE NUTS AND BOLTS—BY JANET K. MESHEK, PE, CFM

The following is the “Reader’s Digest” version of several articles published by FEMA on the subject.

**Risk Mapping, Assessment and Planning (Risk MAP)** is FEMA’s new program that provides communities with flood information and tools they can use to enhance their **Hazard Mitigation Plans** and better protect their citizens. The goal is to work closely with communities to:

- Better understand local flood risk, mitigation efforts and other topics; and
- Spark watershed-wide discussions about increasing resilience to flooding.

The **Risk MAP** process consists of several strategies and products to deliver quality data that increases public awareness and leads to action that reduces risk to life and property. **Risk MAP** will focus on products and services beyond the traditional Digital Flood Insurance Rate Map (DFIRM). FEMA will work with officials to help use flood risk data and tools to effectively communicate risk to citizens and enable communities to enhance their corresponding mitigation plans.

Those products and services include the following:

### PROJECT PRIORITIZATION:

Guides FEMA’s investments in engineering, mapping, assessment and planning support in order to achieve **Risk MAP** objectives. This product applies a quantitative approach to determine which communities FEMA will study.

### ELEVATION DATA ACQUISITION:

Improves engineering data and

supports risk assessment data development.

- Elevation data is essential to the accuracy and reliability of flood hazard data;
- Updated digital elevation data enables better risk assessments; and
- Detailed, digital elevation data supports innovative risk communication products.

### WATERSHED STUDY APPROACH:

Improves engineering credibility and opens the door to understanding



risks in a more holistic, comprehensive way.

- Encourages work across community boundaries and a more comprehensive understanding of flooding;
- Allows for a better understanding of flood hazards as a result of more comprehensive assessments of stream and tributary relationships; and
- Provides a framework to evaluate flood risk, engineering need, elevation data acquisition availability and gaps, and availability of community contribution by watershed.

### ENGINEERING AND MAPPING:

Identifies flood hazards, provides local floodplain management data,

supports the National Flood Insurance Program (NFIP), and provides data for risk assessments and mitigation plans for flood hazards.

- Includes the scientific collection, processing and analysis of flood hazard data to provide communities with accurate flood maps and risk assessment products;
- Engineering and mapping data provide the foundation for more effective risk communications through assessments and also enable effective mitigation at the local level; and
- Includes significant investments in the flood mapping of areas impacted by levees and coastal flood hazard.

### RISK ASSESSMENT:

Allows communities to make informed mitigation decisions by providing products and technologies that communicate and visualize risks.

- Equips communities with the information and tools they need to develop effective mitigation plans; and
- Provides communities with risk assessment information through a database and a Watershed Flood Risk Report.

### MITIGATION PLANNING SUPPORT:

Provides technical assistance, incentivizes risk reduction activities at the local-level and develops the programmatic infrastructure to monitor community efforts.

- Enables communities to assess risks and identify actions to reduce vulnerability to those risks;

(See Risk MAP, continued on page 10)



# FEMA

## BRIDGING THE GAP BETWEEN OKLAHOMA FLOODING EVENTS AND FLOOD INSURANCE COVERAGE

DENTON, Texas - Despite being the nation's number one natural disaster, statistics continue to show that *most people ignore the risks associated with flooding and do not buy flood insurance.*

Out of 1.7 million Oklahoma households and businesses, less than 34,000 have purchased flood insurance policies through the National Flood Insurance Program (NFIP). That's only 2 percent. Meanwhile, reports show that *in the last 12 years, Oklahoma has received 14 major disaster declarations that involved flooding.*

Officials with the Federal Emergency Management Agency (FEMA) in Denton, Texas, the regional office that oversees Arkansas, Louisiana, New Mexico, Oklahoma and Texas, point to *several reasons for a lack of participation in NFIP.*

"Many people assume that their homeowners' insurance covers floods, but it usually doesn't," said FEMA Region 6 Regional Administrator Tony Russell. "Others think that *if they don't live in a flood zone then they don't have to buy flood insurance or simply can't because it's not offered;* both assumptions are inaccurate."

Other Myths:

### MYTH: ONLY HOMEOWNERS CAN PURCHASE FLOOD INSURANCE.

The truth is anyone in NFIP-participating communities can purchase flood insurance, including business owners, and business and residential renters.

### MYTH: PEOPLE CAN'T BUY FLOOD INSURANCE IF THEY ARE LOCATED IN A HIGH FLOOD RISK AREA.

Anyone can buy flood insurance no matter where they live, as long as the community participates in the NFIP.

### MYTH: PEOPLE CAN'T BUY FLOOD INSURANCE IF THEIR PROPERTY HAS BEEN FLOODED BEFORE.

People are eligible to purchase a flood insurance policy after a flood, as long as the community is participating in the NFIP.

### MYTH: PEOPLE CAN'T BUY FLOOD INSURANCE IMMEDIATELY BEFORE OR DURING A FLOOD.

You can purchase flood insurance any time. There is usually a 30-day waiting period before the policy is effective.

In an effort to bridge the gap that exists between the high rate of flooding events and the low percentage of flood insurance policies, *FEMA is urging Oklahomans to buy flood insurance now before the next flood hits.* For more information on flooding and flood insurance, visit [www.floodsmart.gov](http://www.floodsmart.gov).

## FLOOD INSURANCE PROGRAM EXTENDED UNTIL JULY 30, 2012 —BY INSURANCE JOURNAL (MAY 31, 2012)

As expected, the U.S. House of Representatives agreed with a Senate a measure extending the federal flood insurance program for 60 days until July 30, 2012.

President Obama signed the legislation into law before the current authorization for the National Flood Insurance Program expired at the end of today, May 31.

"Today's House vote helps ensure that there will be no lapse of the National Flood Insurance Program, and enacts the first of many much needed reforms to the program," said Jimi Grande, National Association of Mutual Insurance Companies.

The 60-day extension legislation contains one policy provision ending NFIP's premium subsidies for second homes and vacation homes. This provision was included in order to ensure the measure gained unanimous consent in the Senate and is also a part of the long-term extension and reform bills in the House and Senate, according to Charles E. Symington Jr., Independent Insurance Agents and Brokers of America.

The short-term deal was struck after Senate leaders agreed they would take up longer-term authorization and reforms of the NFIP later this month.

(See Insurance, continued on page 13)

The first four months of 2012 have been extremely busy for the OWRB. We await only three more county maps (Garfield 6/19/12, Pontotoc 7/17/12 and LeFlore 8/16/12) to become effective. Most of you have met our 2011 hire, Matt Rollins, and our most recent addition, Clark Williams. Both have spent tireless days working with the more than 100 communities that have adopted new ordinances and flood maps just this year. FEMA had originally challenged each region and state to meet a 93 percent adoption rate with the conclusion of Map Mod. As it currently appears, Oklahoma will surpass that goal with nearly 98 percent of the communities adopting by the effective date.

Since we've last spoken, the OWRB and its CTP contractor Meshek and Associates have conducted two more Risk MAP Discovery meetings. Discovery meetings are the avenue through which a community documents their needs as they relate to any type of risk. Please remember that this is a watershed approach, unlike the county-wide

## HOT TOPICS AT THE OWRB BY GAVIN BRADY, CFM, STATE NFIP COORDINATOR

focus FEMA initiated with Map Mod. As most of you know, the OWRB performed the first two Discovery meetings—Lower North Canadian River and Grand Lake of the Cherokees—with the FEMA CTP contractor RAMPP and have since delivered our recommendations to the region. We will soon know what projects will be considered with available funding also being a deciding factor. We are currently meeting with Meshek and Associates to review the more than 100 comments delivered during the recent Discovery meetings of the Pole Cat-Snake and the Middle N. Canadian watersheds. The OWRB will again prioritize the projects and send our ranking to the region.

The OWRB has conducted several Community Assistance Visits (CAVs); however, most are scheduled for May through July. CAVs are the mechanism that FEMA and the OWRB use to monitor a community's floodplain management program. We will tour the floodplain and

document any development in the SFHA. Once the tour has been completed, the OWRB will discuss the findings with community officials who in turn provide justification for that development. CAVs scheduled for FY2012 include Oklahoma City, Miami, Guthrie, Kingfisher, Chickasha, El Reno, Owasso, Newcastle, Cache, Poteau, Durant, Altus, Warr Acres, Logan County and Oklahoma County.

State law in Oklahoma requires all floodplain administrators (FPAs) to either be accredited through the OWRB or be a CFM in good standing through OFMA. The OWRB has been sending out reminders to those communities who have yet to receive the necessary six continuing education credits needed to become accredited. Remember, those attending a workshop between July 1, 2011-June 30, 2012 will be accredited for the following fiscal year. Feel free to contact me directly should you have any questions.

## PONCA CITY: WHEN IT RAINS, IT DOES IT ALL AT ONCE!

"We had between a 100-year & 500-year flood last night [April 29th]. Our Lake Ponca that was down 2' below the spillway before the rain is now 2.5' above the spillway. Tributary W is more than bank full. We have a great example of supercritical flow coming down our spillway into a hydraulic jump. It is mighty impressive!

[... ]We expected it to be much worse. Bill Smith contacted us first thing this AM and asked if we needed help from the DRT. I don't think we had enough building flood to need help, but it sure is a relief to know if we get into a mess we can get their help."

*Mike Chapman, CFM, Assistant City Engineer*



STORMS OVER PONCA CITY, APRIL 29, 2012

## UPDATE—BY TOM LEATHERBEE, CFM, CBO, AINS, LEGISLATIVE CHAIR

On May 25, 2012, the Oklahoma Legislature officially adjourned for the year. Once again, and with the help of a number of individuals, friendly legislators and other interest groups, *we protected sound floodplain management and preserved local control* against efforts from special interests much larger and more powerful than our organization.

I believe that it is safe to say that there is not another state floodplain management organization in the nation that has taken on this

sort of legislative role. **The entire Board and all OFMA members deserve credit for these successes.**

Floodplain management is often a second, third or tenth job duty for the bulk of our members. Floodplain management is generally a thankless job for all involved. **For our members to be so dedicated and supportive of OFMA’s legislative efforts is laudable.** *Thank you for all of your hard work.*

---

## OFMA DRT CORNER—BY W. B. “BILL” SMITH, PE, CFM, DRT COORDINATOR

Once again it is spring and an early spring at that. As you are aware by the number of tornados that have already hit Oklahoma this year, it appears that we may have a “wild and wooly” May and perhaps June storm season. The DRT is ready and on alert. We have been sending out draft letters to communities to allow them to pre-signup for DRT assistance. If you are a community that has not received the e-mail from us, please e-mail me and I will send your community the draft letter. Once you sign up you are good forever unless you rescind the letter.

On April 18th I attended the Louisiana Floodplain Managers Association annual conference and presented the OFMA DRT program. There were two individuals who specifically were interested in being the DRT coordinator, and we are sending them the OFMA program. Thus far OFMA has presented the “Oklahoma Floodplain Managers

Association’s Disaster Response Team” program, the only one in the United States, to Kentucky, Indiana, Florida, Arkansas and Louisiana. Only 45 more states to go!!

At the Spring Technical Workshop we were privileged to have Mr. George Jacobs, EM, CFM from Okmulgee County to teach the ICS 100 course to four of our DRT volunteers. We will have additional training at the OFMA annual conference in September.

In the Post Disaster Response course that I teach, we talk not only about post-disaster response, but also pre-disaster mitigation opportunities. Cleaning out the ditches and culverts in a community can be a simple, yet very effective method of reducing the effects of rapidly rising waters. If the conveyance structures are clean, the water can effectively flow without resistance. If the culverts are clogged with sediment and accumulated branches and debris,

you get a backup of water and flooding effects, overtopping of roadways and potential scouring of the pavement and embankments. Look for the small things to help make a difference—it’s called “mitigation.”

Again, I wish to thank the 76 volunteers who stand ready to serve in the event of a disaster in the state. These individuals are the backbone of our DRT program and are ready to help our neighbors in the event of a spring 2012 disaster. If you are interested in becoming a volunteer, e-mail me at [wbsmith@hisinc.us](mailto:wbsmith@hisinc.us).



## SHOW US YOUR RAIN GAGES! –BY COCORAHS

### WHAT IS COCORAHS??

CoCoRaHS is an acronym for the Community Collaborative Rain, Hail and Snow Network. CoCoRaHS is a unique, non-profit, community-based network of volunteers of all ages and backgrounds working together to measure and map precipitation (rain, hail and snow). By using low-cost measurement tools, stressing training and education, and utilizing an interactive Web-site, the CoCoRaHS network's aim is to provide the highest quality data for natural resource, education and research applications. CoCoRaHS is now in all fifty states.

### WHERE DID THE COCORAHS NETWORK ORIGINATE??

The network originated with the Colorado Climate Center at Colorado State University in 1998 thanks in part to the Fort Collins flood a year prior. In the years since, CoCoRaHS now includes thousands of volunteers nationwide.

### WHO CAN PARTICIPATE??

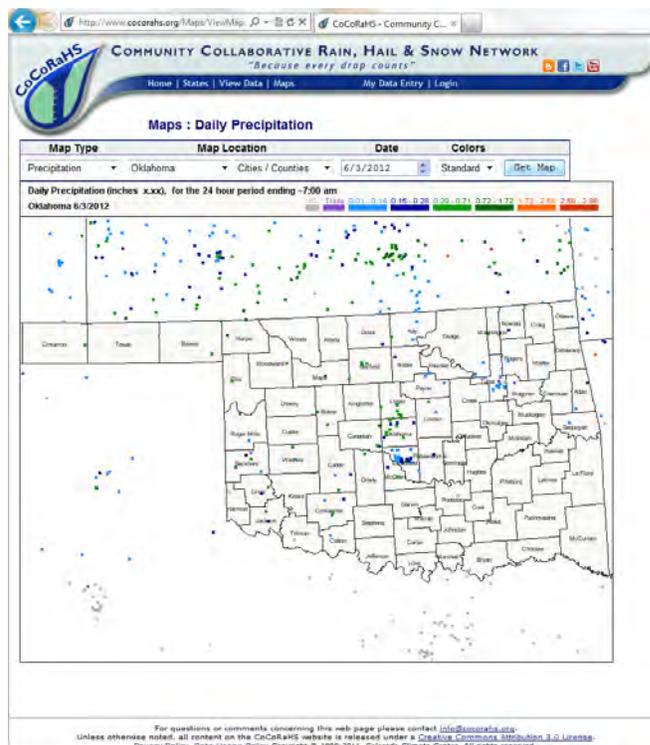
This is a community project. Everyone can help: young, old and in-between. The only requirements are enthusiasm for watching and reporting weather conditions and a desire to learn more about how weather can effect and impact our lives.

### WHAT WILL VOLUNTEER OBSERVERS BE DOING??

Each time a rain, hail or snow storm crosses your area, volunteers take measurements of precipitation from as many locations as possible (see equipment). These precipitation reports are then recorded on the CoCoRaHS Web site, [www.cocorahs.org](http://www.cocorahs.org). The data are then displayed and organized for many of the network's end users to analyze and apply to daily situations ranging from water resource analysis and severe storm warnings to neighbors comparing how much rain fell in their backyards.

### WHO USES COCORAHS??

CoCoRaHS is used by a wide variety of organizations and individuals. The National Weather Service, other meteorologists, hydrologists, emergency managers, city utilities (water supply, water conservation, storm water), insurance adjusters, USDA, engineers,



mosquito control, ranchers and farmers, outdoor & recreation interests, teachers, students and neighbors in the community are just some examples of those who visit the CoCoRaHS Web site and use the data.

### WHAT DOES THE COCORAHS NETWORK HOPE TO ACCOMPLISH??

CoCoRaHS has several goals (as stated in our mission statement): 1) providing accurate high-quality precipitation data for our many end users on a timely basis; 2) increasing the density of precipitation data available throughout the country by encouraging volunteer weather observing; 3) encouraging citizens to have fun participating in meteorological science and heightening their awareness about weather; 4) providing enrichment activities in water and weather resources for teachers, educators and the community at large, to name a few.

### WHO IS SPONSORING THIS NETWORK??

The National Oceanic and Atmospheric Administration (NOAA) and the National Science Foundation (NSF) are major sponsors of CoCoRaHS. Other organizations have

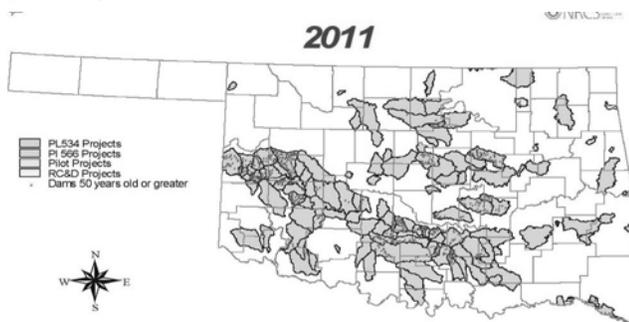
(See CoCoRaHS, continued on page 10)

## OKLAHOMA'S WATERSHED REHABILITATION—BY STATE OF OKLAHOMA

Oklahoma has been a leader in flood control for over 60 years constructing 2,107 flood control dams in 61 counties that provide \$82 million in annual benefits to the state. The first flood control dam built under the USDA Watershed Program was in Washita County in 1948. Oklahoma was also the first state to rehabilitate a USDA-assisted flood control dam (Sergeant Major Creek Dam Number 2 in Roger Mills County in 2000). Oklahoma's 87 conservation districts are primary sponsors of most of the watershed projects and are responsible for operation and maintenance of the dams. The Watershed Program is administered by the USDA Natural Resources Conservation Service (NRCS) who provide technical and financial assistance to project sponsors.

Many of the earlier constructed flood control dams in the state were built with a designed 50-year life span. Oklahoma has over 463 flood control dams that have already exceeded their 50-year designed life span. By 2015 the number will reach 1,090. More than one half of the dams will have reached or exceeded their design life.

Today, many dams are in a far different setting than when they were originally constructed. Population has grown, land uses have changed, sediment pools have filled, concrete and metal components have deteriorated and residential and commercial development has occurred both upstream and downstream from dams. Some dams do not meet current dam safety regulations that have been enacted and revised with more stringent requirements than when the dams were built.



**586 Dams at or Beyond Design Life**

An average of more than 100 dams per year will come to the end of their design life for each of the next 10 years



Sergeant Major Creek Dam Number 2 was the first rehabilitation project of an aging flood control dam in the nation. The pilot rehabilitation project, located three miles south of Cheyenne, Oklahoma, was completed in July 1998. The dam was originally constructed in 1949.

Once development occurs below a low- or medium-hazard dam, the dam becomes a high-hazard dam with larger spillway requirements.

Congress passed the Watershed Rehabilitation Amendments of 2000 (authored by **Congressman Frank Lucas, Cheyenne, Oklahoma**) amending the Watershed Protection and Flood Prevention Act, to authorize the NRCS to provide technical and financial assistance to project sponsors in rehabilitating the dams. The purpose of rehabilitation is to extend the service life of the dams and bring them into compliance with applicable safety and performance standards or to decommission the dams so that they no longer pose a threat to life and property.

The 2002 Farm Bill amended the Act of 2000 to authorize \$600 million in funding for rehabilitation for years 2003 through 2007. The 2008 Farm Bill reauthorized funding for rehabilitation projects. The federal government provides 65 percent of the funding for rehabilitation projects and project sponsors provide 35 percent. Sponsors make application for funding to the NRCS, and projects are selected on a priority basis with those with high safety and health concerns receiving the highest priority. Funding comes from annual appropriations by Congress.

Oklahoma was the first state to complete a rehabilitation project. Sergeant Major Creek Dam Number 2 in

*(Continued on page 11)*

## VICE-CHAIR REPORT—BY BILL ROBISON, PE, CFM

The Spring Workshop at Quartz Mountain Resort and Conference Center was a big success. There were over 60 people in attendance, and everyone had a good time. Several people commented that they enjoyed the resort and that it was nice to get away from the normal big city venues. A number of diverse topics were presented including sessions on Low Impact Development, the Endangered Species Act, Dam Breach Analysis and many more.

We plan to have a similar array of wide-ranging topics at the **OFMA Fall Conference at the Embassy Suites in Tulsa, September 17th - 19th**. The conference will feature current topics in floodplain

management, hazard mitigation and associated subjects. We hope to see all of you at the fall conference!

I am glad to see we are getting a few new members from the field of water quality assurance. If OFMA is going to continue to grow, we need to expand our membership through related fields like water quality, surveying and insurance. Floodplain management and these other fields overlap in areas, and both sides can benefit from our mutual interests. As water quality regulations continue to tighten, we will need to rely more heavily on our water quality assurance staff to keep us in compliance with these new regulations.



**2012 OFMA  
ANNUAL CONFERENCE  
SEPTEMBER 17-19, 2012  
EMBASSY SUITES HOTEL  
TULSA, OKLAHOMA**

*(Risk MAP, continued from page 4)*

- Enhances collaboration with and among local stakeholders;
- Provides tools to improve communities' understanding of risk and facilitate mitigation planning and local risk reduction efforts; and
- Incentivizes local effective mitigation planning and risk reduction activities.

### RISK COMMUNICATIONS:

Motivates citizens to make informed decisions regarding their risks and encourages communities to take the lead in protecting their constituents.

- Enhances local capabilities to communicate effectively with constituents about risk;
- Allows for an exchange of information about risk between FEMA and other stakeholders;

- Provides customizable communications plans, key messages and materials to communities; and
- Facilitates national and local collaboration through key partnerships.

Original articles may be found at [http://www.fema.gov/plan/prevent/fhm/rm\\_main.shtm](http://www.fema.gov/plan/prevent/fhm/rm_main.shtm).

*(CoCoRaHS, continued from page 8)*

contributed either financially and/or with supplies and equipment. The list of sponsors continues to grow. Many other organizations and individuals have pitched in time and resources to help keep the network up and running.

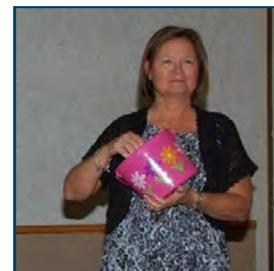
### WHAT BENEFITS ARE THERE IN VOLUNTEERING??

One of the neat things about participating in this network is coming away with the feeling that you have made an important contribution that helps others. By providing your daily observation, you help to fill in a

piece of the weather puzzle that affects many across your area in one way or another. You also will have the chance to make some new friends as you do something important and learn some new things along the way. In some areas, activities are organized for network participants including training sessions, field trips, special speakers, picnics, pot-luck dinners and photography contests, just to name a few.

### HOW CAN I SIGN UP??

Go to <http://www.cocorahs.org/> and sign up as a CoCoRaHS Volunteer Observer.



2012 OFMA SPRING WORKSHOP PHOTO GALLERY—APRIL 5, 2012

*(Continued from page 9)*

Roger Mills County was rehabilitated as part of a pilot project in July 2000. Sergeant Major Creek Dam Number 1 was rehabilitated a few months later. Oklahoma was also the first state in the nation to rehabilitate all the dams in a watershed

project (Double Creek Watershed in Washington County). Six dams were rehabilitated between 2004-2009.

To date, Oklahoma has rehabilitated 21 flood control dams and 27 more are in various stages of planning, design or construction. Rehabilitation assessments were completed for 147 dams in 2011. It is

estimated that it will take \$30 million to rehabilitate the highest priority dams in the next five years.

Excerpted from [http://www.ok.gov/conservation/Agency\\_Divisions/Conservation\\_Programs\\_Division/Flood\\_Control\\_Rehabilitation/](http://www.ok.gov/conservation/Agency_Divisions/Conservation_Programs_Division/Flood_Control_Rehabilitation/)

## DISCOVERY: DATA NEEDS FOR THE STUDY PROCESS—BY JANET K. MESHEK, PE, CFM, B.F.E. EDITOR

The first step in the Risk MAP process is selecting a watershed for Discovery. During this initial phase, data is collected from communities. The data that FEMA has available at the national and regional levels only tells part of the story. For a holistic picture of a community’s flood risk, FEMA relies heavily on information and data provided by the community itself because local officials are able to provide a holistic view of their communities and their known risks.

Table 1 shows what communities can provide to FEMA and the OWRB to assess flood-related risk and to eventually develop a Flood Mitigation Action Plan. This plan will dovetail with the community’s Hazard Mitigation Plan and include specific Mitigation Actions, some of which may be eligible for Hazard Mitigation Assistance funds. A Discovery Meeting will be held in the watershed midway through the Discovery process to coordinate data collection and to share information on other available federal assistance programs (such as the NFIP and Hazard Mitigation Assistance Grant Program) with communities.

**Why Is Discovery Important?** Because flood hazards change over time, this effort provides a great opportunity to take a comprehensive look at the components and activities that contribute to a community’s and a watershed’s flood risk. In addition to providing another perspective, participating in this process will increase the understanding of local flood risk and help identify proactive steps that can be taken to protect local communities from losses to life and property that result from flooding.

The goal of Discovery is to work closely with communities to gather a better understanding of local flood risk, mitigation efforts, and other topics, as well as spark watershed-wide discussions about increasing resilience to flooding. The Discovery process of FEMA’s Risk MAP program helps communities identify areas at risk for flooding.

There are actions for communities, the State and FEMA to take within the Discovery process. These actions range from local officials reviewing and submitting their data to FEMA to discussions between FEMA and communities regarding outreach opportunities within the watershed. All of these actions take place prior to the Discovery meeting and are an important part of the process.

A watershed is selected for Discovery based on evaluations of risk, need, availability of elevation data, regional

TABLE 1: DISCOVERY DATA SUMMARY

DATA AVAILABLE TO FEMA AT THE NATIONAL & REGIONAL LEVEL	DATA FEMA REQUESTS FROM COMMUNITIES
<ul style="list-style-type: none"> <li>• FEMA-approved mitigation plans</li> <li>• Previous flood studies</li> <li>• Numbers of flood insurance policies</li> <li>• Letters of Map Change</li> <li>• Average Annualized Loss (AAL) information</li> <li>• Census data</li> <li>• National levee and dam inventories</li> <li>• Related data from other Federal and State agencies</li> </ul>	<ul style="list-style-type: none"> <li>• Areas of nuisance flooding</li> <li>• Historical local flooding mitigation activities and grant projects, ongoing and planned</li> <li>• Comprehensive plans</li> <li>• Local development and floodplain management plans</li> <li>• Stormwater management activities</li> <li>• Community ordinances</li> <li>• Infrastructure information, especially for levees and new bridges, dams, culverts and road improvements</li> <li>• Building footprints or parcel data</li> <li>• Boundary, hydrography and transportation layers</li> <li>• Elevation data</li> <li>• Flood study needs</li> <li>• Regional watershed plans</li> <li>• Details of the current flood risk communication process</li> </ul>

knowledge or issues and input from the State and Cooperating Technical Partners. After this data is collected, the study is evaluated based on the criteria shown in Table 2 (page 13).

Because flood hazards change over time, this effort provides an opportunity to look at the components and activities that contribute to a community’s and watershed’s flood risk from a holistic perspective. In addition to providing another outlook, participating in the process will increase understanding of flood risk and help communities identify proactive steps that will reduce its risk of loss to life and property.

It is important to remember that although a watershed is selected for Discovery, depending on various factors, it may not move forward into the study phase. In addition, not all studies result in new maps.

*(See Discovery, continued on page 13)*

### UPCOMING EVENTS

DATE	LOCATION	EVENT
8/20-8/23, 2012	EMBASSY SUITES HOTEL NORMAN, OK	OKLAHOMA EMERGENCY MANAGEMENT ASSOCIATION & OKLAHOMA DEPARTMENT OF EMERGENCY MANAGEMENT STATE CONFERENCE
9/17-9/19, 2012	EMBASSY SUITES HOTEL & CONFERENCE CENTER TULSA, OK	OKLAHOMA FLOODPLAIN MANAGERS ASSOCIATION ANNUAL CONFERENCE
9/25-9/27, 2012	COX CONVENTION CENTER, OKLAHOMA CITY, OK	OKLAHOMA MUNICIPAL LEAGUE ANNUAL CONFERENCE & EXPOSITION
11/14-11/15, 2012	EMBASSY SUITES HOTEL NORMAN, OK	ASSOCIATION OF COUNTY COMMISSIONERS OF OK FALL CONFERENCE

*(Insurance, continued from page 5)*

Both the House and Senate have introduced legislation that would reauthorize the NFIP through 2016. The House passed H.R. 1309 with a 406-22 bipartisan vote in 2011. The Senate Banking Committee has approved its own reform bill, S. 1940, the Flood Insurance Reform and Modernization Act, last September, however it has never made it to the Senate floor for consideration despite the urging of 41 senators in February. That floor consideration is now supposed to happen this month.

“We are pleased that the House voted to concur with the Senate’s 60-day NFIP extension,” said Ben McKay, senior vice president of federal government relations for the Property Casualty Insurers Association. “However, this only delays the fundamental debate over the future of the flood insurance program. We remain hopeful that the Senate will schedule floor time for their long-term NFIP reauthorization and reform bill in June.”

The NFIP has been caught in a cycle of short-term extensions and subsequent lapses since 2008. The

NFIP expired four times in 2010 alone.

The Atlantic hurricane season officially begins tomorrow.

“We’ve already seen two named storms in the Atlantic before the 2012 hurricane season has even begun, which should serve as ample reminder of the need for a strong and viable NFIP. We urge the Senate to keep up the momentum by voting on their bill as soon as they convene next week,” said NAMIC’s Grande.

From: <http://www.insurancejournal.com/news/national/2012/05/31/249501.htm>

*(Discovery, continued from page 12)*

**TABLE 2: DISCOVERY STUDY PROJECT SELECTION CRITERIA**

<ul style="list-style-type: none"> <li>• Physical changes (manmade and natural)</li> <li>• New bridges, culverts, levees</li> <li>• Other development influencing watershed characteristics</li> <li>• Erosion and wildfire</li> <li>• Climate changes</li> <li>• Changing rainfall data</li> <li>• Hurricane patterns and intensities</li> <li>• Engineering methodology changes</li> <li>• Inappropriate technical methods</li> </ul>	<ul style="list-style-type: none"> <li>• Storm surges and major flooding events</li> <li>• New elevation data</li> <li>• Existing high-quality topographic data</li> <li>• LiDAR imagery, if available</li> <li>• 1- or 2-foot contours</li> <li>• Existing study data</li> <li>• Hydrology</li> <li>• Hydraulics</li> <li>• Local funding contributions, considering schedule and cost</li> </ul>
---	--

**WISH TO SUBMIT AN ARTICLE FOR PUBLICATION ON THE B.F.E.?**

**PLEASE CONTACT JANET K. MESHEK, B.F.E. EDITOR, AT [JMESHEK@MESHEKENGR.COM](mailto:JMESHEK@MESHEKENGR.COM)**

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

ADDRESS CORRECTION  
SERVICE

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.

VISIT US AT  
[WWW.OKFLOOD.ORG](http://WWW.OKFLOOD.ORG)

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.



**Chair:**  
Ana Stagg, PE, CFM  
Meshek & Associates, PLC  
1437 South Boulder Avenue,  
Suite 1080  
Tulsa, OK 74119  
Phone: (918) 392-5620  
[astagg@meshekengr.com](mailto:astagg@meshekengr.com)

**Vice Chair:**  
Mr. Bill Robison, CFM  
City of Tulsa  
2317 S. Jackson, Rm S-310  
Tulsa, OK 74107  
Phone: (918) 596-9475  
[brobison@cityoftulsa.org](mailto:brobison@cityoftulsa.org)

**Secretary:**  
Ms. Amy Brandley, CFM  
Canadian County FPA  
200 N. Choctaw Ave.  
El Reno, OK 73036  
Phone: (405) 262-1070  
[brandleva@canadiancounty.org](mailto:brandleva@canadiancounty.org)

**Treasurer:**  
Ms. Carolyn Schultz, CFM  
Corps of Engineers  
1645 S. 101st E. Avenue  
Tulsa, OK 74128  
Phone: (918) 669-4919  
Fax: (918) 669-7546  
[carolyn.schultz@usace.army.mil](mailto:carolyn.schultz@usace.army.mil)

**Region 1 Representative:**  
Ms. Leslie Lewis, PE, CFM  
ODOT  
200 NE 21st Street  
Oklahoma City, OK 73105  
Phone: (405) 521-6500  
Fax: (405) 522-0134  
[llewis@odot.org](mailto:llewis@odot.org)

**Region 2 Representative:**  
Mr. Bill Smith, PE, CFM  
HISINC  
28508 W. 41st Street South  
Mannford, OK 74044  
Phone/Fax: (918) 865-6977  
Cell: (918) 625-2449  
[wbsmith@hisinc.us](mailto:wbsmith@hisinc.us)

**Region 3 Representative:**  
Mr. Jeff Smith, CFM  
PO Box 2274  
Muskogee, OK 74402  
Phone: (918) 682-2551  
Fax: (918) 684-1699  
[jsmith@readymuskogee.com](mailto:jsmith@readymuskogee.com)

**Region 4 Representative:**  
Ms. Chloe Lewis, CFM  
Comanche County  
315 SW 5th, Room 107  
Lawton, Oklahoma 73501  
(580) 585-5305  
[cc-em@sbcglobal.net](mailto:cc-em@sbcglobal.net)

**Region 5 Representative:**  
Mike Galloway, CFM  
Custer County FPA/EEM  
PO Box 300  
Arapaho, OK 73620  
Phone: (580) 323-4105  
[custer\\_em@hotmail.com](mailto:custer_em@hotmail.com)

**Past Chair:**  
Tom Leatherbee, CFM  
City of Del City  
City Planner  
P.O. Box 15177  
Del City, OK 73115  
Phone: (405) 671-2803  
[tleatherbee@cityofdelcity.org](mailto:tleatherbee@cityofdelcity.org)

**Honorary Board Member:**  
Mr. Joe Remondini, PE, CFM  
Corps of Engineers  
1645 S. 101st E. Avenue  
Tulsa, OK 74128  
Phone: (918) 669-7198  
Fax: (918) 669-7546  
[joseph.remondini@usace.army.mil](mailto:joseph.remondini@usace.army.mil)

**Honorary Board Member:**  
Mr. Ken Morris  
WK Morris Consulting, LLC  
5400 E. Tecumseh Rd.  
Norman, OK 73026  
Phone: (405) 530-8861  
Fax: (405) 530-8900

**Honorary Board Member:**  
Mr. Ronald D. Flanagan, CFM  
R.D. Flanagan & Associates  
2745 East Skelly Drive, Suite 100  
Tulsa, OK 74105  
Phone: (918) 749-2696  
Fax: (918) 749-2697  
[rdflanagan@rdflanagan.com](mailto:rdflanagan@rdflanagan.com)

**State NFIP Coordinator:**  
Mr. Gavin Brady  
Oklahoma Water Resources Board  
3800 North Classen Blvd  
Oklahoma City, OK 73118  
Phone: (405) 530-8800  
Fax: (405) 530-8900  
[jgbrady@owrb.ok.gov](mailto:jgbrady@owrb.ok.gov)

**Ex Officio:**  
Mr. J. D. Strong  
Executive Director  
Oklahoma Water Resources Board  
3800 North Classen Blvd  
Oklahoma City, OK 73118  
Phone: (405) 530-8800  
Fax: (405) 530-8900

**BFE Editor:**  
Ms. Janet K. Meshek, PE, CFM  
Meshek & Associates, PLC  
1437 South Boulder Avenue,  
Suite 1080  
Tulsa, OK 74119  
Phone: (918) 392-5620  
[jmeshek@meshekengr.com](mailto:jmeshek@meshekengr.com)