N M F M A

High Waters

A Publication of the New Mexico Floodplain Managers Association

A Quarterly Newsletter **March 2016**

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Spring Workshop

Spring in Santa Fe

The Spring 2016 NMFMA Workshop and Conference will be held April 12-15 at the Santa Fe Buffalo Thunder Casino. Be sure to ask for the NMFMA rate when making your reservation. Agenda and details are on the NMFMA website.

E-273 Course Photos from JD Padilla

Silent Auction items needed for the upcoming Spring Workshop in Santa Fe!

Contact Pat Pinkerton at (575) 622-9059 or pattpinkerton@cableone.net for more information.

Floodplain Simulator Demo at Earth Science Day at the Round House

Flood Risk Recognition

Bosque 6th graders Brendan and Sean were selected as the overall 1st and 2nd prize winners for the New Mexico Floodplain Managers Association (NMFMA) 2016 Flood Awareness Calendar Contest. To prepare for the contest, Ms. Hooper's students first did research about flooding in New Mexico: its causes; its effects (including some statistics about the human toll from flooding—mostly people driving into flooded roads or ditches and how easy it is to lose control of a car in just six inches of water); and information about some major floods that have occurred in New Mexico. Then they created "rain" in a glass jar with warm water and ice. All of this background research prepared students for creating their entry for the calendar contest. The theme of the calendar (and NMFMA's public service announcements) was "Turn Around, Don't Drown!" Students created pictures that illustrated and promoted this theme. All of the 6th grade students submitted entries for the contest, as one way to connect the scientific data from our BEMP fieldwork with real-life examples of how humans (and plants and animals in the bosque) interact with these components (like rain) of our environment. Other 6th grade students whose pieces were selected to fill the calendar were Dayle, Andres, and Josie.

Navajo Housing Authority and AECOM were recognized for their combined efforts across the Navajo Nation at the 2015 ESRI User Conference in San Diego. Work included digitization of paper records, database creation, and floodplain delineation.

CoCoRaHS Match Madness

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"CoCoRaHS March Madness" is an annual recruiting competition that kicked off on March 1st! Last year, New Mexico ranked 3rd in the nation for recruiting the greatest number of volunteers per capita. March can be a great time to promote CoCoRaHS and recruit some new observers across the state. Our goal is to recruit another 25-30 new volunteers during the month. We hope that each of you will give it a try, helping us to get the word out around the state. With more observers in each county, we all win in the long run. Here is the March Madness web page which will keep you up to date as the contest begins: http://cocorahs.org/Content.aspx?page=Marchmadness16 Updates will be posted at the end of each week.

SHMO Update

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Pre-disaster Mitigation and Flood Mitigation Assistance Grant Availability

As most of you already know, the DR-4197/4199 Hazard Mitigation Grant Program is currently open for application through March 31st. In addition, the two annual natural hazard mitigation grants (Pre-disaster Mitigation Grant Program and Flood Mitigation Assistance Grant Program) will be open for application beginning March 15, 2016.

We encourage all potential applicants to submit a Notice of Interest immediately in order to be considered for funding under any of these grant opportunities. The Notice of Interest is available at http://www.nmdhsem.org/Grants.aspx. After a general eligibility determination is made from the Notice of Interest submittal, the State will email you the New Mexico Mitigation Grant Application (the same application is used for all three grant opportunities). New Mexico applicants do not fill-out the application on–line.

Deadlines for each of the grant programs are summarized below.

FEMA Grant Program	Notice of Interest Deadline	State Application Deadline	Amount of Funding Available
Hazard Mitigation Grant Program	immediate	3-31-16	$14,195,000
Pre-disaster Mitigation Grant Program	3-15-16	5-15-16	$575,000 + national competition
Flood Mitigation Assistance Program	3-15-16	5-15-16	national competition

The Pre-disaster Mitigation Grant Program can be used for all natural hazards and can include all-hazard mitigation plans. There is $90,000,000 available nationwide for federal fiscal year 2016. New Mexico can be expected to receive a minimum of $575,000 for eligible applications. Selection is anticipated in August and the Period of Performance runs from March 15, 2106 to August 30, 2019. To date this grant has been used to fund mitigation plan efforts. However, we encourage communities to submit any project that could be competitive at a national scale. Please keep in mind that projects must meet all eligibility requirements including 1) having a FEMA approved Mitigation Plan, 2) benefit cost analysis with a result over 'one' (costs at least equal the benefits) and 3) FEMA environmental compliance. Requests for planning grants do not need to meet these three requirements. The full announcement can be found at http://www.grants.gov/web/grants/view-opportunity.html?oppId=281453

The Flood Mitigation Assistance Grant Program is used for flood mitigation projects that reduce or illuminate the risk of flood damage to residential or non-residential properties insured under the National Flood Insurance Program (NFIP). There is $199,000,000 available nationwide for federal fiscal year 2016. Selection is anticipated in August and the Period of Performance runs from March 15, 2106 to August 30, 2019. We encourage communities to submit any project that could be competitive at a national scale. This grant program does not have a minimum award amount per State. Projects funded under FMA must benefit a structure(s) covered under a National Flood Insurance Program policy. Please keep in mind that projects must meet all eligibility requirements including 1) having a FEMA approved Mitigation Plan, 2) benefit cost analysis with a result over 'one' (costs at least equal the benefits) and 3) environmental compliance. The full announcement can be found at http://www.grants.gov/web/grants/view-opportunity.html?oppId=281474

If you have questions or want to discuss these opportunities further, please contact the State Mitigation Program at dhsem.mitigation@state.nm.us or 505-476-9682.

New Mexico Certified Floodplain Managers

Grant Pinkerton, CFM
Chair, Certification Committee

The CFM exam was proctored at the FEMA 273 class held in Las Cruces, NM, December 18, 2015 at the Doña Ana County Government Center. Congratulations to the following new CFMs who passed the exam in Las Cruces:

Soamiya Ahmed, CFM	City of Santa Fe
Matthew Clark, CFM	City of Alamogordo
Louis Fineberg, CFM	Town of Taos
Tambri Hunteman, CFM	Doña Ana County Flood Commission
Jacob Kidd, CFM	City of Las Cruces
Anthony Levine, CFM	City of Las Cruces
Heather McDaniel, CFM	Souder Miller & Associates
Donna Sanchez, CFM	Sierra County

The CEC requirements for maintaining your CFM has changed. You are still required to earn at least 16 CECs during each 2 year period, but you no longer are required to earn CECs every year. The CFM Program is explained in the Charter, which can be found on the NMFMA web site on the Certification page and also in the Resource Library.

The next CFM exam will be proctored at the NMFMA Spring 2016 workshop at the Buffalo Thunder Hotel and Casino just north of Santa Fe. If you are interested in taking the exam, please remember that no matter what paperwork or on-line registration you submit for any specific workshop, class, or other function, YOU MUST SUBMIT A CFM EXAM APPLICATION PACKET to the Certification Board before you can be scheduled to take the exam. The packet is downloadable from the Certification page of the NMFMA website. The Application Packet should be mailed to the Roswell address noted in the packet. Any questions should be directed to Grant Pinkerton, Certification Board Chair, at nmcfm@cableone.net. Registration for the Spring workshop and the CFM exam is available on the NMFMA web site. Keep your eye on our web site for information about future events.

In and Around New Mexico with the State NFIP Coordinator

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Risk MAP - New Mexico Multi-Hazard Risk Portfolio

What is it?

New Mexico Department of Homeland Security (NMDHSEM) has been working with Federal Emergency Management Agency (FEMA) Region VI and Earth Data Analysis Center (EDAC) under a Cooperating Technical Partners (CTP) agreement. The members are the Silver Jackets stakeholders.

As Association members you might recognize them as the New Mexico Floodplain Managers Association (NMFMA); NMDHSEM; U.S. Army Corps of Engineers Albuquerque District (USACE); FEMA Region VI; EDAC; United States Geological Service (USGS); United States Forest Service (USFS); National Weather Service; (NWS); Bureau of Reclamation (BOR) and various associations and coalitions.

Natural disasters have a significant impact on New Mexico. Flooding, wildfires, landslides, high winds and thunderstorms impact infrastructure across the State. The New Mexico Multi-Hazard Risk Portfolio (MHRP) consists of interactive maps and geospatial data.

The goal is to present a geospatial hazard risk inventory for New Mexico. The MHRP will focus on a different hazard each year in order to provide a comprehensive view of natural hazard risk for the State. This year the CTP focus was on flood risk. Riverine flooding, flash flooding, rain and snow events (or even dam failures) were categorized.

Flood risk was selected as the highest priority because flooding related disasters within New Mexico since 2000 have caused more than $338,252,488 in damages. Check-out FEMA Data Visualization and Disaster Declarations for States and Counties website.

The economic toll from floods leaves our communities at risk. Floods have caused serious injuries. The goal of the NMFMA is a reduction of automobile related fatalities, injuries, and rescues caused by flooding.

The NMFMA members should be congratulated for keeping their communities reasonably safe from flooding. Keep in mind the best source of information about flood risk in your community is your local floodplain administrator.

North Carolina Realtime Flood Inundation System

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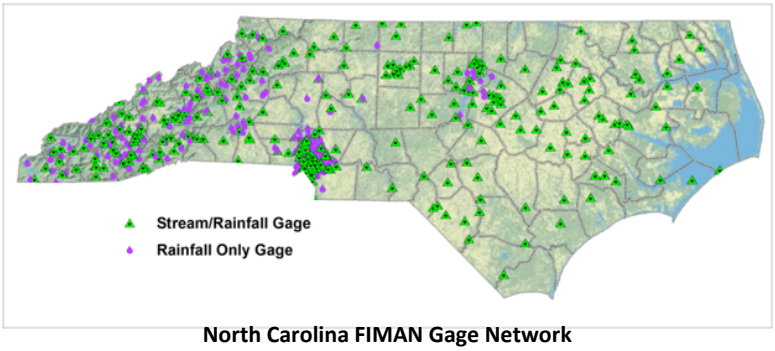
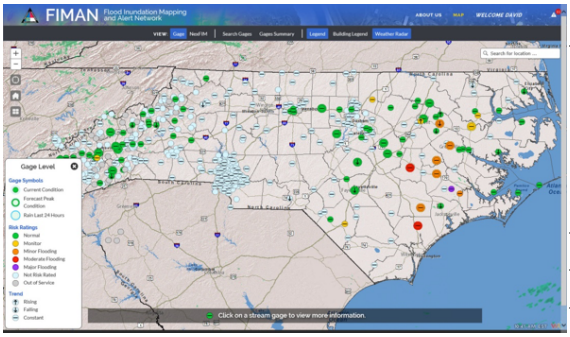
Background: In response to devastating flooding caused by Hurricane Floyd in 1999, North Carolina established the North Carolina Floodplain Mapping Program (NCFMP) to better identify, communicate, and manage risks from flood hazards within the State. One initiative in meeting the goal of the program was establishing the Flood Inundation Mapping and Alert Network (FIMAN) to provide real-time flood information throughout the State. Since its inception 10 years ago, FIMAN has evolved from a network of gages that collect rain and stream flow information to a sophisticated system of nearly 550 gages and integrated technologies that collect, analyze, map, and communicate flood hazard extent and estimated damage in real-time through a powerful web interface. FIMAN was an invaluable tool to monitor current and anticipated flood conditions and target deployment of emergency response resources and personnel during the recent flooding associated with Hurricane Joaquin in October 2015. This article will give an overview of the FIMAN system, providing details and illustrated examples of many of the innovative capabilities and functions of the system.



North Carolina FIMAN Gage Network

How It Works: One of the most powerful aspects of FIMAN is its ability to not only measure and display gage information, but to analyze, map, and communicate flood risks in real-time. Gage readings are typically recorded and transmitted every 15 – 30 minutes. The goal of the FIMAN system is to reduce the loss of life and flood-related property damage by providing emergency managers and the public with more timely, detailed, and accurate information.

One inherent challenge with gage based warning systems is that they only give information at the specific gage location. NCFMP has recently overcome this challenge using an innovative approach (described below). The result is automated generation of seamless flood inundation boundaries and subsequent impact analysis between gages and along multiple streams in one process. Collectively, this set of tools used to analyze and map real-time gage readings are referred to as NexFIM. NexFIM is built on tools that leverage multi-frequency flood hazard information and vulnerable asset information from the NC FLOOD and NC RISK databases that NC Emergency Management maintains as part of its overall program. During a flood event, NexFIM algorithms calculate real-time storm event probability (i.e. return period) at each stream gage in the system. Once a flood inundation boundary is developed, NexFIM tools overlay the flood inundation boundary with existing structure



FIMAN Homepage with Default Statewide Gage View

information stored in the databases (building type, value, first floor elevation, etc.) to identify impacted buildings and assign storm event probabilities. Estimated damages to each building are then calculated by the tool. Along with individual building depths and damages, the tools calculate rolled-up damage summary statistics for a number of logical categories (e.g. occupancy type, community, stream, etc.). All of this valuable information is provided on the FIMAN web application.

Viewing Gages: The "Gage" view is intended for the general public to learn about flood conditions and alerts in their area of interest. Users can find gages of interest using their current location (device or browser location), viewing gages within a search radius or by searching by river basin or gage name. Selecting a gage displays the most recent stage, flow and predicted risk. Where available, forecast information from the National Weather Service is displayed. Whereas the "Gage" view focuses on information at a specific gage of interest, the "NexFIM" view provides real-time and scenario flood information for an entire river system using the NexFIM computational algorithms discussed previously. Users can select a river system of interest from a pull-down list that has been processed in the FIMAN system. The user can click on an individual building to see building-specific information such as building type, flood depth, and estimated damages.

Individual Property View

FIMAN in Action - Hurricane Joaquin, October 2015

In the first week of October 2015, the combination of Hurricane Joaquin passing to the east and a stalled low pressure system produced historic rainfall totals and subsequent flooding within portions of the Carolinas. FIMAN was used by the North Carolina State in Emergency Operations Center throughout the storm to monitor flooding conditions, assess potential impacts of flooding based on weather forecasts, and target the deployment of emergency response personnel and resources.

Real-Time Flood Inundation Boundaries (showing impacted buildings) along Haw River During October 2015 Storm

North Carolina Realtime Flood Inundation System

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John Dorman is the Assistant State Emergency Management Director for North Carolina and serves as the Director of the Risk Management Section in the NC Division of Emergency Management. In this capacity, he is responsible for the development, implementation and management of all information technology infrastructure, geospatial data, and applications.

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Bel Marquez, PE, PMP, CFM
ESP Associates, PA
Bel Marquez is a Program Manager with ESP Associates in Albuquerque, New Mexico.
She has over 30 years of experience in water resources engineering and floodplain management. During Bel's time at ESP Associates, one of our most recent accomplishments has been working with the NCFMP Director, John Dorman, on developing the Flood Inundation Mapping and Alert Network (FIMAN).

Training News

EMI

The FEMA Emergency Management Institute has an informational bulletin on classes that they will be having in Emmitsburg, MD as well as online offerings.

https://training.fema.gov/emigrams/

When you find a course and date you are interested in, coordinate with Bill Borthwick, NMDHSEM to process the appropriate paperwork. Details about applying for EMI are available here.

Potential Courses and Dates

- Virtual Tabletop Exercise - Flood Focus | March 22-24
- E141 Instructional Presentation and Evaluation Skills | March 22-24
- E172 Hazus-MH for Flood | June 20-23
- E179 Hazus-MH for Disaster Operation | September 26-29
- E190 ArcGIS for Emergency Managers | July 18-21
- E194 Advanced Floodplain Management Concepts I | April 11-4
- E273 Managing Floodplain Development Through the NFIP | June 27-30 | September 12-15
- E279 Retrofitting Flood prone Residential Buildings | May 2-5
- E282 Advanced Floodplain Management Concepts II | July 11-14
- E284 Advanced Floodplain Management Concepts III | August 29-September 1
- E278 NFIP CRS | April 18-21 | July 18-21 | September 19-22
- E313 Basic Hazus-MH | April 11-14
- E317 Comprehensive Data Management for Hazus-MH | August 29-September 1 | September 26-29

Webinars

Regional Webinar Series for HIFAA April 1, 2016 Changes are ongoing. Sign up here.

ASFPM Updates

Annual Conference

Online registration is now open for the ASFPM Annual National Conference in Grand Rapids, Michigan from June 19-24, 2016. Details are available online.

Bi-Monthly Newsletter for Chapters

A lot of information relevant to the chapter with a focus on national issues and concerns. Highlights include:

- Social Media Tips
- Numerous Grant Descriptions
- Continuing Education Opportunities

Read the entire newsletter for more.

News & Views

Again, a lot of information from ASFPM including the following:

- Updates to FEMA proposed rules requiring states to institute deductibles for Public Assistance
- USGS bulletin for determining flood flow frequency
- EPA Green infrastructure

Read the entire newsletter for more.

The Voice – Increasing Awareness, Encouraging Mitigation Action

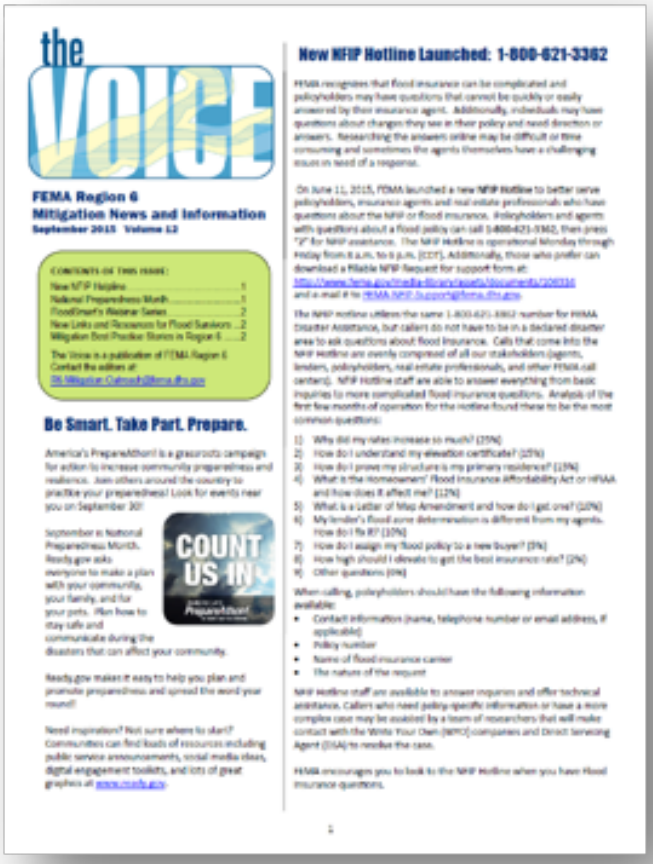
FEMA Region VI

FEMA Region 6 has just released the latest issue of our newsletter, The Voice, and it is available on our website at http://www.riskmap6.com/documents/resource/TheVoice_Dec2015.pdf

You can sign up on RiskMAP6.com to receive future issues of The Voice newsletter upon publication release.

Our latest issue of The Voice features a story about the first Region 6 High Water Mark Initiative community, Leon Valley, TX. This edition also included articles on the Newly Mapped Procedure, preparing for winter weather and a 2016 grant opportunity.

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


the VOICE

FEMA Region 6
Mitigation News and Information
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New NFIP Hotline Launched: 1-800-621-3362

Be Smart. Take Part. Prepare.

COUNT US IN

RiskMAP6.com

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

From the Editor

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Thanks again to all of our contributors to this quarter's newsletter. A special thank you to the contributors from North Carolina who highlighted their flood inundation system. If you have a project you would like to highlight for our members please let me know.

See you in April.

Michael Camponovo

Lidar Update

Lidar data for Curry and Roosevelt County has been flown and is expected to be delivered in Spring 2016. This will result in four HUC-8 watersheds where we can start working on a variety of hazard mitigation projects and risk analyses.

The lidar for the Upper Rio Grande HUC-8 has not been flown yet and will likely wait until late spring when the snow has cleared. We'll update you all as we learn more.

The Rio Chama HUC-8 watershed will be our top priority for the upcoming year followed by the Upper Pecos Headwaters, Jemez, and Rio San Jose watersheds. FEMA is again leading the charge on these large acquisitions.

In case you were following the latest legislative session concerning lidar acquisition funding, a bill was drafted and revised to create a fund for the use of advanced mapping but without any funding. It is a step in the right direction and we hope to utilize this resource to help acquire additional data from around the state.

Purpose of the NMFMA

1. *To promote public awareness of proper floodplain management;*
2. *To promote the professional status of floodplain management and secure all benefits resulting there from;*
3. *To promote a liaison between individual concerns with proper floodplain management and to encourage the exchange of ideas;*
4. *To keep individuals concerned with proper floodplain management well informed through education and professional seminars and to provide a method for dissemination of information, both general and technical;*
5. *To inform concerned individuals of pending floodplain legislation and other related management matters, and;*
6. *To study and support legislation pertinent and necessary to the effective implementation of floodplain management matters.*