



## **Inter-Agency Profile: Rio Grande Rift Response Planning and Mitigation**

### **What is the Rio Grande Rift?**

It's a geologic break in the Earth's crust about 29 million years old stretching from the Colorado Rocky Mountains to Chihuahua, Mexico. The rift is about five miles deep filled with volcanic sediment, sand and occasionally channels the Rio Grande River. The rift and the river bisect New Mexico, including the City of Albuquerque. Albuquerque is home to more than half a million people. Founded in 1706, Albuquerque balances important historical and cultural heritage with a thriving modern city that is host to strategically important infrastructure.

### **What's the problem?**

Rich with historical volcanism and seismicity, geologists claim the rift is gradually widening. Adjacent to the rift about 75 miles south of Albuquerque is the Socorro Magma Body. Here the Earth's surface is expanding due to pressure from ultra-hot lava just below the Earth's surface. Could it be a volcano-in-the-making, hmmm? You can imagine how exciting this is to Response future planners!

### **And Mitigation fits where?**

Mitigation is not proposing to staple the rift closed. Jennifer Superales, FEMA R6 Response Operations Planner, started working with the New Mexico Department of Homeland Security and Emergency Management (NMDHSEM) in 2012 to develop a response operations plan. Jennifer needed data for a baseline risk profile and first reached for the State Hazard Mitigation Plan, Hazard Identification and Risk Assessment (HIRA).

### **What good does that do?**

The State Hazard Mitigation Plan profiles the risk, but State planners wanted deeper science to build a realistic scenario. Mark English, Geospatial Risk Specialist for Mitigation, conducted HAZUS impact analyses leading to further coordination with U.S. Geological Survey (USGS) National Earthquake Information Center (NEIC), two universities, the U.S. Department of Agriculture and other stakeholders to produce defensible, scientifically backed hazard studies. After three years in the making, the Rio Grande Rift Response Operations Plan will be completed in January 2016,.

### **Going Forward?**

This clearly demonstrates the potential interrelationships among our Divisions. Hazard Mitigation Plans identify hazards and risk. Modeling tools, such as HAZUS, are beneficial for impact analyses, as well as Risk Analysis flood studies. While our programs and products should be used more frequently to inform our sister divisions in Response and Recovery, of equal importance is how these opportunities lead to risk reduction. Jennifer and Mark have successfully forged new paths for internal data-sharing that all of us should keep an open mind to explore and invite future opportunities to collaborate with other FEMA Divisions.

States who are interested in this type of comprehensive planning can look to FEMA R6 for technical assistance. Assistance may be with HAZUS and how it can help communities analyze their risk; to technical assistance with creating or updating HM Plans to reflect risk.

To learn more, please contact Jennifer Superales, 940-383-7206, [Jennifer.Superales@fema.dhs.gov](mailto:Jennifer.Superales@fema.dhs.gov), or Mark English, 940-898-5496, [Mark.English@fema.dhs.gov](mailto:Mark.English@fema.dhs.gov).

## **FEMA Flood Risk Management Standard (FFRMS) Update**

FEMA has just hit one of its major milestones contributing toward the implementation of the FEMA Flood Risk Management Standard (FFRMS) - EO 13690/FFRMS. On November 17, 2015 the agency released the FEMA Leadership Intent; launching the Agency's proposed approach to establishing the FFRMS floodplain. The Leadership Intent is now undergoing a **30-day public comment period**. Submit comments until **December 17, 2015** by sending an email to [FEMA-EO11988-13690@fema.dhs.gov](mailto:FEMA-EO11988-13690@fema.dhs.gov).

Per the Leadership Intent, FEMA is proposing to use the **Freeboard Value Approach** of the FFRMS to establish the FFRMS elevation and floodplain for non-critical and critical actions. The FFRMS-freeboard value approach elevation and floodplain are determined by the elevation reached when adding an **additional two feet** to the base flood elevation. The "base flood" has a one percent chance of being equaled or exceeded in any given year.

FEMA is also proposing to allow optional use of the Climate-Informed Science Approach of the FFRMS for critical actions, but **only** if the elevation determined under the climate-informed science approach is higher than the elevation under the freeboard value approach. The FFRMS-climate informed science approach elevation and floodplain are determined by the best-available, actionable hydrologic and hydraulic data and methods that integrate current and future changes in flooding based on climate science. FEMA is proposing that FEMA and an applicant may evaluate the climate-informed science approach, and if FEMA and the applicant agree, FEMA may use the climate-informed science approach.

To keep up with the FFRMS as it evolves, visit <https://www.fema.gov/federal-flood-risk-management-standard-ffrms>.

### **Helpful links:**

Overview of the Leadership Intent for a Federal Flood Risk Management Standard Policy: <http://www.fema.gov/media-library/assets/documents/111260>

Executive Order 11988: <http://www.fema.gov/executive-order-11988-floodplain-management>

Applicability of Executive Order 136090 Fact Sheet: <https://www.fema.gov/media-library/assets/documents/106303>

President's Climate Action Plan: <https://www.whitehouse.gov/sites/default/files/image/president27sclimateactionplan.pdf>

Contact Sarah Carrino, R6 Environmental Floodplain Specialist, at 940-297-0133 or email:

[Sarah.Carrino@fema.dhs.gov](mailto:Sarah.Carrino@fema.dhs.gov) if you have questions.

## **Office of Management and Budget Guidance on EHP**

Two new guidance documents were released by the Federal government on September 22, 2015 both aimed at improving the environmental review and permitting process. The first document, released by the White House Office of Management and Budget and Council on Environmental Quality, instructs agencies to begin tracking project review timeline metrics for certain major infrastructure projects on a publicly accessible dashboard. The second document, known as the "Red Book" ([https://www.environment.fhwa.dot.gov/strmlng/RedBook\\_2015.asp](https://www.environment.fhwa.dot.gov/strmlng/RedBook_2015.asp)), is the product of a joint USACE, DOT, USCG, USFWS, EPA, and NOAA effort and provides practical guidance to agencies, applicants, project sponsors, and consultants on improving the efficiency and effectiveness of permits and reviews. These documents were developed in consultation with the interagency Permitting Improvement Steering Committee.

**Office of Management and Budget Guidance on EHP, Continued from Page 3**

The first document, the dashboard guidance, instructs agencies to post project schedules to a “Dashboard” available for viewing at [www.permits.performance.gov](http://www.permits.performance.gov). The guidance only requires the posting of projects that require an EIS, or have a total cost in excess of \$200 million.

The “Red Book” provides federal agencies, project sponsors, and consultants a “how-to” guide on ways improve the key permits and reviews required for these projects. The handbook was last updated in 1988.

**Fire Management Assistance Grants and the Hazard Mitigation Grant Program – A Pilot**

FEMA places a high priority on supporting expeditious wildfire recovery through the use of the Hazard Mitigation Grant Program (HMGP). In order to advance risk reduction after Fire Management Assistance Grant (FMAG) declarations, FEMA has announced a pilot program to provide HMGP assistance. HMGP funding is now available following a FMAG declaration made between March 4, 2015 and December 11, 2015 for areas impacted by wildfire. The Fiscal Year (FY) 2015 DHS Appropriations Act contains a provision to allow HMGP funding as a result of Stafford Act Section 420 fire management assistance declarations. This pilot program will assist states, federally-recognized tribes and local communities mitigate areas impacted by wildfires.

This pilot will enable timely mitigation for vulnerable burn areas at higher risk for hazards such as: wildfire, flood, and erosion.

To view a Fact Sheet and Frequently Asked Questions visit: [http://bhs.idaho.gov/WebFiles/FMAG\\_HMGP\\_FAQ\\_FactSheet.pdf](http://bhs.idaho.gov/WebFiles/FMAG_HMGP_FAQ_FactSheet.pdf)

Contact Ms. Connie Dill, HMA Specialist, who is working with the State of Texas on this pilot, if you have questions. She may be reached at 940-898-5196 or [Connie.Dill@fema.dhs.gov](mailto:Connie.Dill@fema.dhs.gov)

**Climate Resilient Mitigation Activities for Hazard Mitigation Assistance**

Climate Resilient Mitigation Activities are eligible under the Hazard Mitigation Assistance programs to support communities in reducing the risks associated with climate change. These activities are Aquifer Storage and Recovery, Floodplain and Stream Restoration, Flood Diversion and Storage, and Green Infrastructure Methods. These activities can mitigate any natural hazard; however, the activities are focused on mitigating the impacts of flood and drought conditions.

The Climate Resilient Mitigation Activities are available for Hazard Mitigation Grant Program funding resulting from a major disaster declared on or after the date of this memorandum, and for HMA funding for which the application period opens on or after September 30, 2015.

To learn more visit: <http://www.fema.gov/media-library/assets/documents/110202>

**Change from the Super Circular to 2 Code of Federal Regulations (CFR) 200**

In late 2013, the Office of Management and Budget (OMB) released new guidance on Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards, this was named the “Super Circular.”

**Change from the Super Circular, continued from Page 4**

The Super Circular combined eight previous federal regulations into comprehensive guidance codified in Chapter 2 in the Code of Federal Regulations (CFR) Part 200 (Subparts A – F).

Part 200 provides the uniform administrative requirements, cost principles, and audit requirements for federal awards. These changes improve the administration of federal grant operations from the new uniform application process to the 'close-out' process. These changes modernize cost accounting, and improve the audit process, where the threshold for a Single Audit has been increased to \$750,000 in annual federal expenditures.

To review 2CFR200, Subparts A-F [http://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title02/2cfr200\\_main\\_02.tpl](http://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title02/2cfr200_main_02.tpl)

If you have questions please contact Mr. Marty Chester, HMA Specialist, at 940-898-5216 or [Marty.Chester@fema.dhs.gov](mailto:Marty.Chester@fema.dhs.gov)

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**We want to get to know all of our partners and for you to know each other so we designed three questions to ask to give us insight into their points of view, background, and how they would advance mitigation.**

We are proud to present our first:

**Partner Profile****Mrs. Annie Vest**

**State Hazard Mitigation Officer, State of Oklahoma**

**How did you get involved with Mitigation?**

I graduated from undergrad in May 2010 with a degree in Psychology/Comprehensive Crisis Response.

Two days later, I started working full time at the Nebraska Emergency Management Agency. At the time, the mitigation section consisted of one employee, the State Hazard Mitigation Officer. The director hired me to supplement the SHMOs efforts. The SHMO immediately tasked me with updating the State Hazard Mitigation Plan, reviewing applications, monitoring/closing grants.

Two weeks after starting at NEMA, the worst flooding since 1993 impacted Nebraska. I spent a month on the road briefing local jurisdictions on HMGP at applicant briefings while maintaining my day-to-day responsibilities. It was truly a trial by fire! I have loved mitigation ever since.

**What do you consider the favorite part of your job?**

You are probably expecting me to say "grants," or "planning," but without sounding cheesy, all of it.

I love being able to spend time with local emergency managers, elected officials, floodplain managers, and citizens to help them understand the benefits of Hazard Mitigation. If I had to pick one element that I am more excited about than another, I would say teaching and providing technical assistance.

Any opportunity to teach a class about mitigation, speak at a conference or provide hands-on technical assistance. I believe in the benefits of Hazard Mitigation, and I feel grateful to have the opportunity to educate others on the importance.



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**Partner Profile, Continued from Page 5****If you had unlimited money, unlimited power, and complete support, what is one thing you would do for the citizens of Oklahoma and why?**

**The what:** This is a difficult question! Our State Hazard Mitigation Plan addresses all hazards, but I would do an extensive update to this plan through a GIS analysis to see where the greatest vulnerabilities exist. Based on this assessment, I would work with local jurisdictions to help them understand their risks locally and develop projects to buy down that risk.

With unlimited money, we would be able to buy down that risk through project implementation, pre-disaster. With unlimited power and unlimited support, I would include mitigation throughout the entire recovery process. We must incorporate mitigation into recovery efforts. I would ensure we built back better and smarter after a disaster to buy down our risk in the future.

**The why:** I plan to be here for a while, so would like to create a safer and sustainable Oklahoma for the future.

Mrs. Vest may be contacted at 405-521-2481 or via email at [Annie.Vest@oem.ok.gov](mailto:Annie.Vest@oem.ok.gov).

**FEMA Base Level Engineering and Water Surface Elevation Grids**

FEMA Base Level Engineering Analysis (Formerly known as First Order Approximation) is a model-backed hydrology and hydraulic approximate analysis on a flooding source.

All new Risk Mapping, Assessment, and Planning (MAP) watersheds undergoing discovery must include base level engineering on all flooding sources within the watershed in order to identify areas of potential change and to communicate flood hazard risk in unmapped areas. The exciting thing about Base Level Engineering is it serves as best available data in unmapped areas or areas that have not undergone a recent update and, since it utilizes hydrology and hydraulics, it is a valid Zone A elevation source that can be used for permitting requirements, insurance rating and to support Letter of Map Amendments (LOMAs).

The results of the Base Level Engineering Analysis is in the Flood Risk Database in a product titled "Water Surface Elevation Grids."

Water Surface Elevation Grids are delivered at Discovery Closeout. Along with the data, FEMA provides a suite of tools to aid the floodplain administrator and/or permitting official in using the product. This suite of tools includes a Fact Sheet about the product; Recipe Cards with step-by-step instructions on how to use the data and; an audio-recorded Power Point tutorial. If the permitting official chooses to use the water surface elevation grid as a Zone A elevation source to support a LOMA, he or she must follow the procedure outlined on the recipe card.

To view the Water Surface Elevation Grid Fact Sheet: [http://riskmap6.com/documents/resource/FS\\_WSE\\_FINAL.pdf](http://riskmap6.com/documents/resource/FS_WSE_FINAL.pdf)

To view the Water Surface Elevation Grid Recipe Card: [http://riskmap6.com/documents/resource/RC\\_Zone%20A\\_BFE%20Estimation\\_DoubleSided.pdf](http://riskmap6.com/documents/resource/RC_Zone%20A_BFE%20Estimation_DoubleSided.pdf)

Please direct your questions to Ms. Shona Gibson, 940-383-7326 or [Shona.Gibson@fema.dhs.gov](mailto:Shona.Gibson@fema.dhs.gov)

### **HFIAA - Newly Mapped Procedure**

Property owners of buildings newly mapped into a high-risk area will be able to ease the transition of the new flood insurance requirement by purchasing a lower-cost policy under the Preferred Risk Policy Eligibility Extension (PRP EE). But effective April 1, 2015, FEMA has implemented the Newly Mapped Procedure to meet the requirements of the Homeowner Flood Insurance Affordability Act of 2014 and the PRP EE will be transitioning to this new procedure.

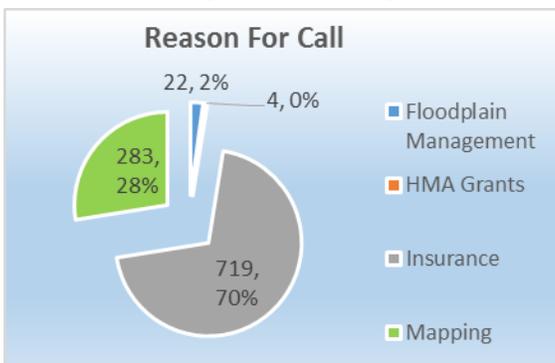
- The Newly Mapped Procedure Fact Sheet - <https://www.fema.gov/media-library/assets/documents/104200>
- Additional information on the National Flood Insurance Program (NFIP) Reform/Homeowner's Insurance Affordability Act (HFIAA) - <http://www.fema.gov/flood-insurance-reform>
- To subscribe to "Write Your Own" (WYO) bulletins, which is an option to stay updated on changes, visit: [http://nfipiservice.com/bulletin\\_2014.html](http://nfipiservice.com/bulletin_2014.html)
- Office of the National Flood Insurance Advocate - <http://www.fema.gov/national-flood-insurance-program-flood-insurance-advocate>
- November 2015 Changes to the National Flood Insurance Program - A Video Tutorial - <http://www.fema.gov/media-library/assets/videos/111998>

Please contact Mark Lujan, R6 Insurance Specialist, 940-383-7327 or via email, [Mark.Lujan@fema.dhs.gov](mailto:Mark.Lujan@fema.dhs.gov), if you have questions.

### **NFIP Support Call Center Pilot Program Update**

The National Flood Insurance Program (NFIP) is committed to improving customer support and service for all NFIP policyholders and stakeholders. Accordingly, the NFIP Transformation Task Force established a NFIP Call Center Pilot Project in June 2015. The NFIP Support Call Center was originally piloted to support Region VI States (Oklahoma and Texas) following Presidentially Declared Disasters (DR-4222 and DR-4223) utilizing staff from the National Processing Service Center (NPSC). The Call Center intake agents consist of both HM Reservists and NPSC staff who have been trained to address a wide variety of mapping, insurance, grant and floodplain management related questions and issues. Technical support is being provided by the NFIP i-Service Team. The NFIP Support Call Center is now handling calls on a national basis.

Recently, the NFIP Support Call Center has undertaken the refinement of incoming calls to better track trends, anticipate inquiry types, and fluctuations in call volume so better service may be provided moving forward. With recent flooding events, more policy holders, lenders, agents and other stakeholders are calling than originally anticipated. With the support of other NFIP/FEMA call centers, stakeholder issues can be directed to and/or handled in an efficient manner; to include answering questions on grants, insurance, mapping and floodplain management.

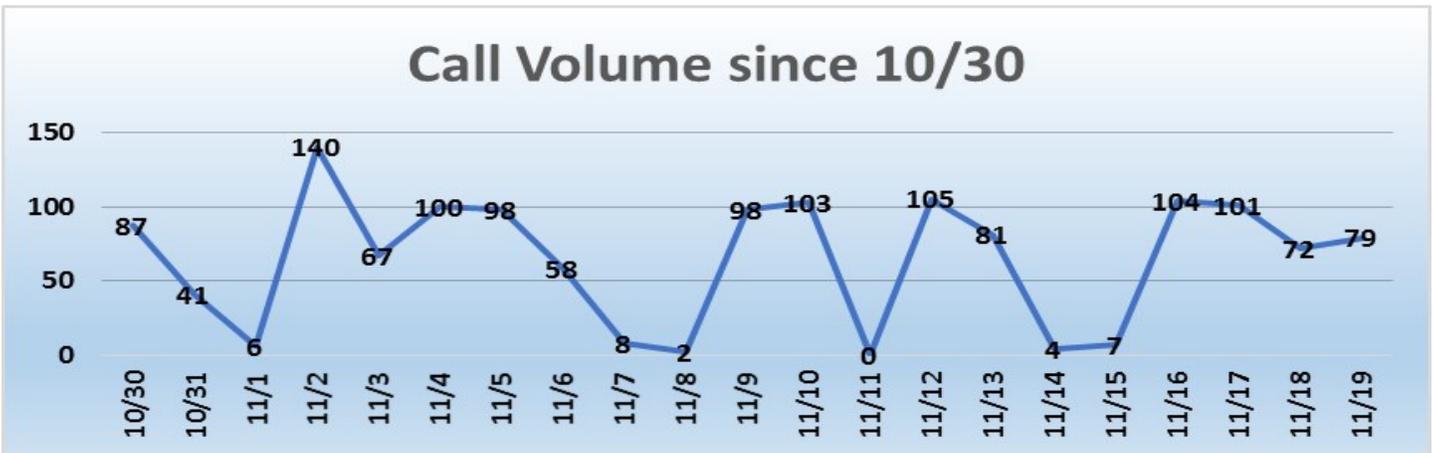


Pie Graph Providing the Number, Percentage, and Reason for the calls. Information provided by the National Processing Service Center.

A majority of calls the Call Center is addressing have been insurance related, making up 70% of all incoming NFIP calls. More specifically, callers are interested in the rating of their policy which includes the new Homeowner's Flood Insurance Affordability Act (HFIAA) surcharge, those questions alone make up 10% of the entire call volume. Mapping questions make up about 28% of calls, with the majority of mapping questions related to Letters of Map Change (approximately 8% of all calls).

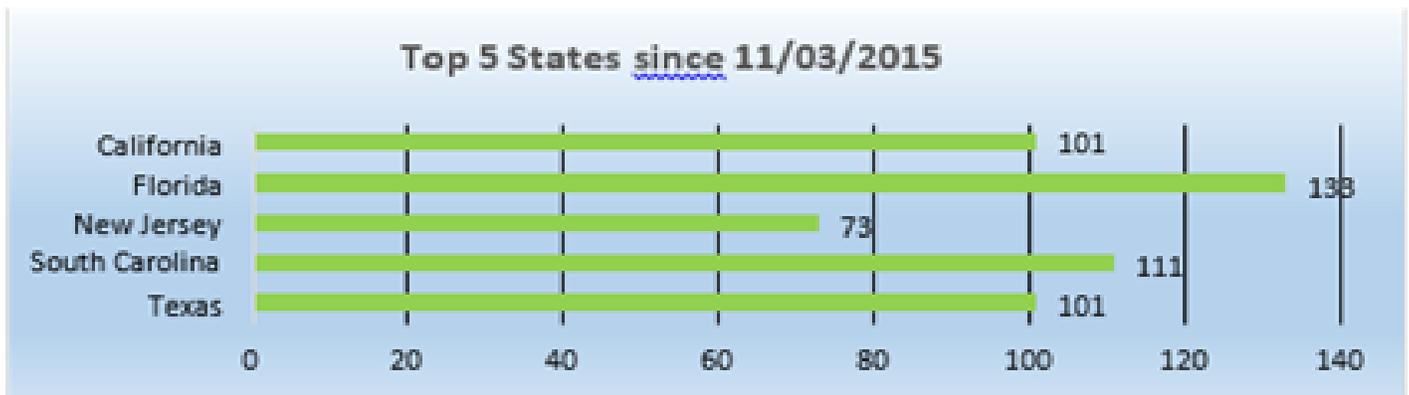
## NFIP Support Call Center Update, Continued from Page 7

The number of calls coming into the NFIP Support Call Center tend to fluctuate from one day to the next. The number of calls specifically related to the NFIP since October 30 are reflected in the graph below.



Graph providing the dates, number of calls, and lines demonstrating the fluctuating number of calls handled by the Call Center

Where are the calls coming from? As shown in the chart below, the majority of calls have recently been regarding property in Florida, South Carolina, Texas and California. Recent localized flooding, high policy count, as well as Presidential Declared Disasters could be the reasons for the high call volume from these states.



Graph depicting the top 5 states of California, Florida, New Jersey, South Carolina and Texas and the number of calls received from these states .

The NFIP Support Call Center is located at the National Processing Service Center (NPSC) in Denton, Texas, and uses the FEMA Registration and Helpline number: 800-621-FEMA (3362). Callers with questions about the National Flood Insurance Program should select 2 for assistance.

Currently, the NFIP Support Call Center is operational Monday through Friday 8am to 6:00 p.m. (CST). The hours are subject to change based on disaster declarations.

Please contact Mark Lujan, R6 Insurance Specialist, at 940-383-7327 or via email at [Mark.Lujan@fema.dhs.gov](mailto:Mark.Lujan@fema.dhs.gov) if you need further information.

### **New Web Page Resources**

- ⇒ Flood database compiled in cooperation with the Oklahoma Department of Transportation (OKDOT) and the United States Geological Survey (USGS). The database is a collection of historic high water events as recorded by ODOT Field Divisions, USGS personnel, and historic news accounts from ODOT records: <http://54.221.221.214/dbflood/>
- ⇒ Guadalupe-Blanco River Authority - <http://www.gbra.org/flood/default.aspx>
- ⇒ San Antonio River Authority - <https://www.sara-tx.org/>
- ⇒ Texas State Collaborative - Offers hyper-local analysis of weather risks and building codes for Texas communities to identify opportunities to enhance disaster resilience - <http://www.texasstatecollaborative.org/>
- ⇒ Coastal Protection and Restoration Authority - Louisiana - The Flood Risk and Resilience Viewer advances the flood risk reduction and community preparedness efforts ongoing in many coastal Louisiana areas vulnerable to hurricanes and ongoing land loss - <http://coastal.la.gov/>

### **Non-Traditional Wildfire Mitigation in Bastrop County, Texas (edited)**

Mike Fisher, Bastrop County Office of Emergency Management Coordinator, says fuel reduction is one action the county is taking to minimize a wildfire threat. As dead, fallen vegetative, and tree material accumulates on the ground, it creates a continuous source of understory fuel. When ignited, the resulting fire burns hotter, spreads faster, lasts longer, and covers more ground. When fuel is reduced fires are less intense.

After extensive research, spearheaded by Fisher, the county reduced understory fuel using non-traditional mechanical means as opposed to prescribed burning. According to Fisher, it's a unique approach that has never been used before as far as he can tell.

The county received a grant from the Federal Emergency Management Agency's Hazard Mitigation Grant Program (HMGP) to fund the hazardous fuels mitigation project.

"We targeted nearly 4,000 acres, which we are developing into a north project and a south project," says Fisher. "For each project, we conducted an in-depth study of the wildland urban interface to identify the line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels."

With the funds, the county has designed a mechanical thinning process using skid steers, which are low-impact machines with a mulching head on the front with teeth. Operators grind up the understory and remove undesirable species growing under the tree canopy. In a wildfire outbreak, the fire stays on the ground and does not go into the trees.

The project has sparked excitement, curiosity, and some reservations among residents. Most of the acreage targeted for mitigation is private property. According to Fisher, the most challenging part of the project has been getting homeowner buy-in, but the county has succeeded in gaining right of entry from each property owner.

"We are learning that thinning out the forest actually creates a better environment for the Houston toad," says Fisher. "In addition to mitigating wildfires in the neighborhoods, the project is also helping to create a healthy forest because it returns the ecosystem back to the way it was intended."

**Non-Traditional Wildfire Mitigation, Continued from Page 9**

“We are happy to tell our story,” says Fisher. “If we don’t get it right, we’ll tell that story, too. Disasters are non-traditional. Sometimes it takes a non-traditional approach to do what needs to be done in terms of mitigation. You can’t be timid.”

For additional information, about Nontraditional Wildfire Mitigation visit:

[http://www.usfa.fema.gov/downloads/pdf/coffee-break/cr/cr\\_2014\\_3.pdf](http://www.usfa.fema.gov/downloads/pdf/coffee-break/cr/cr_2014_3.pdf), <http://www.cityofbastrop.org/>, or <http://www.fema.gov/mitigation-best-practices>

**Flood Warning System: A Mitigation Measure Designed to Save Lives (edited)**

Every year, approximately eight flood-related fatalities occur in the state of Texas, according to a report published by the Texas Department of Transportation Research and Technology Implementation Office. Seventy-six percent of those accidents involve vehicles washed away or motorists trapped in their vehicles. Hays County is in one of several Texas districts that have developed signing strategies to warn motorists of low-water crossings.

“We wanted flood warning systems designed specifically to notify motorists of danger at low-water crossings and to alert authorities if the situation warranted barricades,” said Bell.

Hays County identified and prioritized 42 low-water crossings based on three criteria: the number of events between 1998 and 2005, the number of accidents from 2001 to 2005, and the need based on area growth.

The county applied for and received a \$600,000 grant from the Federal Emergency Management Agency’s Hazard Mitigation Grant Program (HMGP) to install Flood Warning Systems. Another \$200,000 came from local funds.

Between 2007 and 2008, at a cost a little over \$800,000, Bell said Hays County installed 16 low-water crossing warning systems at high-hazard road crossing locations in county road rights-of way. No acquisition of additional property was necessary.

Each all-in-one system contained one high water warning sensor and two flashing “Watch for Water on Road” post-mounted signs. The devices were designed to flash warning when two inches of water overtopped the low point of the road surface and a second indication when the depth reached six inches.

Data could be relayed by radio, cellular or satellite, whichever functioned better at the targeted sites. Each unit was equipped with a solar charging system with a 72-hour battery reserve.

In 2015, central and south Texas were hit by a devastating flood. Referred to as the Memorial Day Flood, it wreaked havoc in Hays County. According to Bell, an estimated 400 homes, most of them in the Wimberley and San Marcos areas, were destroyed by the raging Blanco River. Bridges also sustained damage.

The low-water crossing warning signs were fully functional. To alert motorists of bridge closures, San Marcos ensured its manually operated warning signals were operational. Barricades also were in place. As a result, no deaths were reported near the crossings.

For additional information on Flood Warning Mitigation Systems, visit: [www.usgs.gov/](http://www.usgs.gov/), [www.co.hays.tx.us/](http://www.co.hays.tx.us/), or [www.fema.gov/mitigation-best-practices](http://www.fema.gov/mitigation-best-practices)

### **Adopting Freeboard Regulations to Combat Flood Loss (edited)**

“In September 2007, the county made the decision to become proactive in combatting flood loss. We established a best practice model for new construction permitting within a flood zone,” said Joe Ripple, Brazoria County floodplain administrator. “The 2015 flood proved our decision to be a good one.”

According to Ripple, all new construction must be elevated two feet above the Federal Emergency Management Agency’s (FEMA) National Flood Insurance Program (NFIP), recommended standards for Special Flood Hazard Areas (SFHAs), thus creating a freeboard.

Freeboard is a factor of safety usually expressed in feet above a flood level for purposes of floodplain management. It tends to compensate for many unknown factors that could contribute to flood heights greater than the height estimated for a selected size flood and floodway conditions.

Freeboard also offers a financial advantage. It results in significantly lower flood insurance rates due to lower flood risk. While not required by NFIP standards, Ripple said communities are encouraged to adopt a freeboard to account for a rise built into the concept of designating a floodway and the encroachment requirements where floodways have not been designated.

“The goal was not just to meet FEMA elevation standards but to create a freeboard above the standard,” said Ripple. “It was clear to leadership that in the short term, this strategy would increase cost of construction, but in the long term, it would reduce the flooding risk for these structures.”

After years of drought throughout the state of Texas, strategies were being developed on how to share the ever shrinking Brazos River. In 2015, starting on Memorial Day, rain inundated southeast Texas causing massive flooding. The Brazos rose to a level of 52 feet, coming out of its banks in Rosharon, Texas, spilling into Oyster Creek and the surrounding bayous.

“This flood event was the first real test of the freeboard requirement. While there were a significant number of homes that flooded in Brazoria County, not a single home flooded that met the county’s elevation standards,” said Ripple. As the flood water receded, a sigh of relief was felt by many because their homes were saved as a result of a proactive approach to flood preparation.

To learn more visit <http://www.fema.gov/mitigation-best-practices>

### **FEMA to Assess Future Over-the-Air Broadcast Alerting Technology (edited)**

The Department of Homeland Security (DHS) Federal Emergency Management Agency (FEMA) National Continuity Programs’ Integrated Public Alert and Warning System (IPAWS) Division has begun to assess the feasibility of a public alert and warning capability that is being developed in the private sector.

New technologies could deliver detailed emergency information to the public with pictures and videos of evacuation routes, storm tracks, and shelter information – increasing community preparedness before, during, and after a disaster. The media alerts will be able to include multilingual and multi-format information to warn non-English speaking populations and people with access and functional needs.

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## Over-the-Air Broadcast Alerting Technology, Continued from Page 11

One such technology being considered is the Advanced Warning and Response Network (AWARN). AWARN works by using advanced capabilities in the next generation of digital television broadcast system called ATSC 3.0 being standardized by the Advanced Television Systems Committee. The emerging television broadcast standard provides for the transmission of large media rich, data messages over-the-air to mobile, portable, and fixed television and video devices without interrupting ongoing television shows.

FEMA's IPAWS is a national system for local alerting. IPAWS enables authorities at all levels of government to alert and warn people in areas endangered by disasters. IPAWS is used by federal, state, and local authorities to send emergency alerts to cellular phones as Wireless Emergency Alerts (WEAs), to radio and television as Emergency Alert System (EAS) broadcasts, to NOAA Weather Radios, and to an All-Hazards Alert and Information Feed for Internet applications, services, and websites.

For more information on IPAWS, go to [www.fema.gov/ipaws](http://www.fema.gov/ipaws) or this story visit [www.fema.gov/mitigation-best-practices](http://www.fema.gov/mitigation-best-practices)

## Training Opportunities

⇒ Homeowner's Flood Insurance Affordability Act (HFIAA) webinars will be held February and March with dates and times to be announced. If you are interested in receiving this announcement, please send an email to [R6-Mitigation-Outreach@fema.dhs.gov](mailto:R6-Mitigation-Outreach@fema.dhs.gov).

⇒ **Arkansas** - To see the full schedule visit:

<http://www.adem.arkansas.gov/ADEM/Divisions/Preparedness/Training/trainingschedule.aspx>

1/22/16	ATC 20-Post-Earthquake Safety Evaluation Of Buildings	Little Rock	AR
2/11/16	ATC 20 / INSPARK	Jonesboro	AR

⇒ **New Mexico** - To see the full schedule visit:

[http://www.nmfma.org/content.aspx?page\\_id=2&club\\_id=920799](http://www.nmfma.org/content.aspx?page_id=2&club_id=920799)

Dec. 14-18, 2015	E0273: Managing Floodplain Development thru the NFIP	Las Cruces	NM
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⇒ **Oklahoma** - To see the full schedule visit:

[http://www.owrb.ok.gov/hazard/fp/fp\\_workshops.php](http://www.owrb.ok.gov/hazard/fp/fp_workshops.php)

12/3/15	Floodplain Management 101 / OFMA Advanced	Norman	OK
Jan4-8, 2016	L-273 Managing Floodplain Development through the National Flood Insurance Program (NFIP)	Norman	OK
2/18/16	Floodplain Management 101 / OFMA Advanced	Norman	OK
3/8/16	Floodplain Management 101 / OFMA Advanced	Clinton	OK
3/10/16	Floodplain Management 101 / OFMA Advanced	Bartlesville	OK
3/29/16	Floodplain Management 202 LOMC / Flood Mapping Disaster Exercise	Muskogee	OK
3/31/16	Floodplain Management 101 / OFMA Advanced	McAlester	OK
4/14/16	Floodplain Management 101 / OFMA Advanced	Norman	OK
4/21/16	OFMA Advanced Only	Langley	OK
4/21/16	Floodplain Management 202 LOMC / Flood Mapping Disaster Exercise	Enid	OK

**Contact Cathy Poage by email or at 580-256-1014 if you have questions or need help registering.**

**Training Continued from Page 12**

⇒ **Texas** – To see the full schedule visit:

[http://www.tfma.org/events/event\\_list.asp](http://www.tfma.org/events/event_list.asp)

12/9/15	2015 NFIP Refresher/Ethics in Floodplain Management	Fort Worth	TX
12/10/15	NFIP Rules and Regulations In Depth	Tyler	TX
12/15/15	Common Non-Compliance Issues & the Disconnect between NFIP Regulation & Insurance	Abilene	TX

⇒ **Emergency Management Institute (EMI)** – For additional information visit

<https://training.fema.gov/emcourses/schedules.aspx>

1/4/16	1/7/16	E0213 and E0214: HMA Courses	Emmitsburg	MD
1/4/16	1/7/16	E0317: Comprehensive Data Management for Hazus-MH	Emmitsburg	MD
1/11/16	1/14/16	E0313: Basic Hazus-MH	Emmitsburg	MD
1/12/16	1/14/16	L0363: Multi-Hazard Emergency Management for Higher Education	Jonesboro	AR
1/18/16	1/21/16	L0273: Managing Floodplain Development through the NFIP	Baton Rouge	LA
1/26/16	1/28/16	L0363: Multi-Hazard Emergency Management for Higher Education	Houston	TX
2/17/16	2/18/16	E0274: National Dam Safety Program Technical Seminar (NDSPTS)	Emmitsburg	MD
2/22/16	2/23/16	E0390: Integrating Emergency Management Education into Your Institution	Emmitsburg	MD
2/29/16	3/3/16	E0291: Community Dam Safety, Preparedness & Mitigation	Emmitsburg	MD
3/7/16	3/10/16	E0273: Managing Floodplain Development thru the NFIP	Emmitsburg	MD
3/14/16	3/16/16	E0364: Multihazard Emergency Planning for Schools	Emmitsburg	MD
3/21/16	3/24/16	E0296: Application of Hazus-MH for Risk Assessment	Emmitsburg	MD
3/21/16	3/24/16	E0361: Multi-Hazard Emergency Planning for Schools	Emmitsburg	MD
3/21/16	3/22/16	E0390: Integrating Emergency Management Education into Your Institution	Emmitsburg	MD
4/4/16	4/7/16	E0241: Cooperating Technical Partners: Special Topics	Emmitsburg	MD
4/11/16	4/14/16	E0194: Advanced Floodplain Management Concepts	Emmitsburg	MD
4/11/16	4/14/16	E0313: Basic Hazus-MH	Emmitsburg	MD
4/11/16	4/12/16	E0390: Integrating Emergency Management Education into Your Institution	Emmitsburg	MD
4/18/16	4/21/16	E0278: NFIP/Community Rating System	Emmitsburg	MD

“Anyone who stops learning is old, whether at twenty or eighty. Anyone who keeps learning stays young.” — Henry Ford

“You'll never know everything about anything, especially something you love.” — Julia Child

“Tell me and I forget. Teach me and I remember. Involve me and I learn.” — Benjamin Franklin

## Useful Web Pages:

Region 6 Mitigation Division: <http://www.fema.gov/region-vi-mitigation-division>

Region 6 Mitigation Partners: <http://www.fema.gov/region-vi-mitigation-partners>

Region 6 Mitigation Contacts: <http://www.fema.gov/who-can-we-contact-region-vi-about-mitigation-programs>

Region 6 Hazard Mitigation Grant Program (HMGP): <http://www.fema.gov/region-vi-hazard-mitigation-grant-program-hmgp>

Risk MAP for Region 6: <http://riskmap6.com/> or <http://maps.riskmap6.com>

FEMA Map Service Center: <http://msc.fema.gov/portal>

Texas CHART: <http://txchart.com/>

Homeowner's Flood Insurance Affordability Act (HFIAA) Updates: <http://www.fema.gov/flood-insurance-reform>

FloodSmart: [www.floodsmart.gov](http://www.floodsmart.gov)

Preparedness Information: [www.ready.gov](http://www.ready.gov)

ShakeOut - Earthquake Information - [www.shakeout.org](http://www.shakeout.org)

## Disaster Web Pages:

### Arkansas:

- <http://www.fema.gov/disaster/4226>
- <http://www.fema.gov/arkansas-disaster-mitigation>

### Oklahoma:

- <http://www.fema.gov/disaster/4222>
- <https://www.fema.gov/oklahoma-disaster-mitigation>

### Texas:

- <https://www.fema.gov/disaster/4245>
- <http://www.fema.gov/disaster/4223>
- <http://www.fema.gov/texas-disaster-mitigation>

***We welcome your thoughts, stories, and ideas for ways to make "Keeping Current" a useful tool for you! Please forward your feedback to***

***[R6-Mitigation-Outreach@fema.dhs.gov](mailto:R6-Mitigation-Outreach@fema.dhs.gov)***

***Please take a few minutes to complete our questionnaire:***

***<https://www.surveymonkey.com/r/C6KK2L9>***