



White Heron in Marsh, image USGS

## November/December 2017 Newsletter

### A Few Words from NHMA Vice President, Tom Hughes

#### Salutations and Happy and Safe Holidays to you all!

This year has been one for the ages and this newsletter has captured just a fraction of the changes and unprecedented efforts by local, state, tribes, territories and the federal agencies, Non-Governmental Organizations, Volunteer Organizations Active in Disasters, private-public partnerships, and the federal government.

We indeed, as a nation, local community and personally, are finding ourselves with new and not so new, but very difficult challenges. The country's federally-backed flood insurance program is in debt and transitioning to something different - private insurance is now a player in that same arena; wildfires are taking more of the limited and valuable resources and those LONG-TERM DEPLOYMENTS to various locations in and outside of the Continental US, to name a few changes. But you are all meeting the challenges for those who we all strive to serve: the SURVIVORS. Many of the articles discuss yours and others' efforts, and efforts yet to come regarding immediate and smart recovery to achieve community resilience needs of the future.

NHMA has been assisting where able, and more requests are coming in for it to do so - keep the calls coming. As an unpaid Association, our volunteers are stepping up and helping out. Please check out NHMA's website which includes both English and Spanish versions of the "Building Your Roadmap to a Disaster Resilient Future" and the "Too Much Weather" booklet, both being used in the field as you read this. The NHMA Disaster Risk Reduction Curriculum is just hitting its stride, as pilot programs have been completed in Pennsylvania, Utah, North Carolina, and planned for other locales, and suggested changes are being incorporated through the recommendations of end-users. Please take a few minutes to absorb these informative articles via the links provided. Please also continue to keep your memberships current and do give a donation to assist NHMA with existing and future requests.

This is a stressful time to begin with, but take care of each other! Also, connect with our fellow colleagues, especially those who may be having a tough time getting through the holidays due to a recent or remembered loss of a friend or relative. Enjoy the season, be safe, and let's hope that next year will be a quieter one, eh?!!

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## [The City Preparing for Climate Change Without Ever Saying the Words](#)

*Tulsa, Okla., a conservative oil town, serves as an example of how places can overcome politics to prevent damage and save lives.*

by [Alan Greenblatt](#) | November 2017

**Along with millions of other people**, Anna America was saddened by the devastation and loss of life that struck Houston in August. Like many others, she wondered whether the city's massive sprawl contributed to the damage from Hurricane Harvey. Thousands of acres in Houston that the U.S. Army Corps of Engineers had intended to use for a reservoir and other flood control projects had been paved over, taken up by homes that left flood waters with nowhere to go. That kind of thing wouldn't happen where America lives. "We haven't done that for decades," she says. "Since the 1970s, we have not built noncompliant homes in floodplains."

America is a member of the Tulsa, Okla., City Council. In recent decades, Tulsa has become an unlikely model for strong flood control efforts. Back in the 1970s, so-called 100-year floods occurred nearly every year, with creek beds overflowing and damaging property. Following a particularly devastating storm in 1984, which killed 14 people and damaged 5,500 homes, the city decided it was time to take a new approach. Since then, it has put in place a series of detention ponds -- excavated basins designed to hold water following severe storms -- and uses flood maps more demanding than those required by the Federal Emergency Management Agency (FEMA). It's also pursued an ambitious plan to move or tear down homes that have been subject to repeated flood damage. All told, the city has paid to transport or destroy roughly 1,000 houses, an effort that's ongoing.

Tulsa's flood issues aren't over. Although the city has gone a long way toward reducing the overflow of its creeks, it hasn't done much lately to deal with another potential problem: flooding along the Arkansas River, which runs through parts of town. Still, Tulsa has done more to address its exposure to a serious natural threat than just about any other city in the country. Not that long ago, Tulsa had the highest flood insurance rates in the nation. Today, its rates are just about the lowest. Other Oklahoma cities continue to suffer extensive damage when sudden storms known as "toad stranglers" pass through. But Tulsa hasn't flooded on those occasions, even during recent months that have been among the wettest on record. "In 2015, there was flooding in the suburbs, but we didn't have any," says Bill Robison, the city's floodplain manager.

As a conservative oil town sitting 500 miles north of Houston and the Gulf of Mexico, Tulsa is a surprising setting for one of the nation's most extensive climate adaptation efforts. Its example, though, shows that local leadership and investment can do a lot to prevent damage from the predictable threats that are likely to worsen with climate change.

Communities like Tulsa, far from any coast, still face increased risks from a variety of disasters, including fires and tornadoes. Coping with these problems may take decades of investment and political fighting. It can be a tough sell for local governments that want to create a safer and more secure future. It seems to be human nature to believe that disaster will not strike one's own home. Even when the worst does happen, people have a hard time accepting that it could easily happen again. "A natural disaster is not enough, in and of itself, to push cities to make real policy change," says Rachel Krause, a political scientist at the University of Kansas who studies responses to climate change. "Frankly, it takes deaths." [For full article, go here.](#)

## RESOURCES LINKS:

[Announcing Update to Drought Response and Recovery Guide Planning Tool](#) US EPA Region III, Drinking Water Branch (3WP21)

[Children's Disaster Preparedness Guide – Spanish](#)

[Children's Disaster Preparedness Guide – English](#)

[NHMA DRR Curriculum](#)

[Building Your Roadmap to a Disaster Resilient Future](#)

## ADDITIONAL ARTICLES:

[In Tulsa, a National Blueprint for Managing Floods as Cities Grow and Climate Changes](#) *State Impact Oklahoma* By Joe Wertz

[How Tulsa Became A Model For Preventing Floods](#) By Joe Wertz NPR, Heard on *Morning Edition*

[Q&A with James Lee Witt, leader of North Bay fire-recovery group Project: Rebuild](#) By James Dunn; *Business Journal* Technology Editor

[White House Disaster Aid Request Leaves Out Fire-Scorched California](#) By Maya Lau *Tribune News Service* Nov. 20, 2017

[2 Months After Hurricanes, Puerto Rico Struggles to Regain Electricity](#) *Tribune News Service* by Milton Carrero Galarza and Kurtis Lee, Nov. 20, 2017

[Why Solar 'Microgrids' Are Not A Cure-All for Puerto Rico's Power Woes](#) *The Conversation*, Boston University by Peter Fox-Penner, Nov. 8, 2017

[Trump Ignores Climate Change. That's Very Bad for Disaster Planners.](#) *The New York Times* by Brad Plumer, Nov. 9, 2017

[Now's The Time To Talk About Flood Insurance, And Moral Hazard](#) *LA Times Op-Ed* by Matt Welch

[National Flood Insurance Program Needs Reform to Better Prepare for the Future](#) *The PEW Charitable Trusts* June 16, 2016

[Can cities get smarter about extreme weather?](#) *The Conversation* Nov. 13, 2017

[The Flood Of Takings Cases After Hurricane Harvey](#) *Takings Litigation Blog* Oct. 23, 2017

[Post-Harvey Houston Faces A Dilemma: How To Rebuild With Integrity](#) *The Guardian* by Mike Elk Nov. 24, 2017

[The New York Times](#)

## [Lessons From Hurricane Harvey: Houston's Struggle Is America's Tale](#)

*The Texas city's response to a powerful storm says much about polarized visions of the country and diverging attitudes toward cities, race, liberty and science.*

By MICHAEL KIMMELMAN, Photographs by JOSH HANER / NOV. 11, 2017

HOUSTON — **The mayhem that Hurricane Harvey unleashed on Houston didn't only come from the sky.** On the ground, it came sweeping in from the Katy Prairie some 30 miles west of downtown.

Water drains naturally in this stretch of Texas, or at least it used to. At more than 600 square miles, Houston has grown to be as big as Chicago, Cleveland, Detroit and Philadelphia combined, a giant spread of asphalt smothering many of the floodplains that once shuttled water from the prairies to the sea. When finished, the newest road to ring the city and propel its expansion, called the Grand Parkway, will encircle an area equivalent to all of Rhode Island.

For years, the local authorities turned a blind eye to runaway development. Thousands of homes have been built next to, and even inside, the boundaries of the two big reservoirs devised by the Army Corps of Engineers in the 1940s after devastating floods. Back then, Houston was 20 miles downstream, its population 400,000. Today, these reservoirs are smack in the middle of an urban agglomeration of six million.

Many of the residents living in and around the reservoirs didn't even know they slept in harm's way — until the water came pouring in from the prairie during Harvey.

The story of Harvey, Houston and the city's difficult path forward is a quintessentially American tale. Time and again, America has bent the land to its will, imposing the doctrine of Manifest Destiny on nature's most daunting obstacles. We have bridged the continent with railways and roads, erected cities in the desert, and changed the course of rivers.

Built on a mosquito-infested Texas swamp, Houston similarly willed itself into a great city. It is the country's energy capital, home to oil and carbon-producing giants, to the space industry, medical research and engineers of every stripe. Its sprawl of highways and single-family homes is a postwar version of the American dream.

Unfortunately, nature always gets the last word. Houston's growth contributed to the misery Harvey unleashed. The very forces that pushed the city forward are threatening its way of life.

Sprawl is only part of the story. Houston is also built on an upbeat, pro-business strategy of low taxes and little government. Many Texans regard this as the key to prosperity, an antidote to Washington. It encapsulates a potent vision of an unfettered America.

Harvey called that concept into question. It may have been an unusually bad hurricane, dumping trillions of gallons of water in a few days, even more to the east of the city than to the west, in the prairie, and setting all kinds of records. But it was also the third big storm to slam Houston in three years, dispelling any notion that Houston shouldn't expect more of the same.

Climate change holds a mirror up to every place its impact is felt. Global warming may not specifically have caused Harvey, any more than a single major league home run can be attributed to steroids.

That said, scientists have little doubt that climate change is making storms worse and more frequent. The floods that ravaged Houston on Memorial Day in 2015 and in April of 2016 — now called the Tax Day flood — left behind billions of dollars in damage. Coming right after those events, Harvey has led even some pro-development enthusiasts to rethink the city and its surroundings.

"Harvey caused me to look differently at the world we live in," said Judge Ed Emmett, the chief executive of Harris County, which encompasses Houston and much of the Katy Prairie. A self-described traditional Republican and big backer of the Grand Parkway, Judge Emmett had planned on spending his twilight years in public service saving the Houston Astrodome from demolition. Harvey altered that. Now he thinks his mission is to protect the entire region.

"Three 500-year floods in three years means either we're free and clear for the next 1,500 years," as he put it, "or something has seriously changed."

[For full article, go here.](#)

## [#Sandy5: Will the Nation Act on Climate Change Reality?](#)

[Shana Udvardy](#), Climate Preparedness Specialist | October 27, 2017, 9:22 am EST

The 29<sup>th</sup> of October marks the 5-year anniversary of when Hurricane Sandy first made landfall on the mid-Atlantic coast of the U.S. It comes at a time when Americans are reeling from the unprecedented hurricane season that devastated communities in Florida, Texas, Puerto Rico and the US Virgin Islands. Lives were lost, homes destroyed, schools and hospitals among other essential services were interrupted, and energy, transportation and water systems and other infrastructure were fractured. Associated [health challenges](#) can be life threatening and have lingering mental health impacts. The ability of homeowners to handle the economic damages is in question given the level of destruction to homes and low take-up rate of flood insurance. Many homeowners impacted by these hurricanes are [falling behind](#) on their mortgages.

The 2017 hurricane season recovery challenges will sound familiar to those communities who are remembering the devastation Hurricane Sandy wrought. At that time, multiple weather systems collided and hit one of the most populated places in the mid-Atlantic region. While the Obama Administration declared Federal disasters in 12 states and the District of Columbia, New Jersey and New York felt the brunt of destruction. Communities lost 159 lives, had 650,000 homes damaged or destroyed and thousands of businesses were forced to close.

### **The climate change fingerprint on Hurricane Sandy**

Before Hurricane Sandy made landfall near Brigantine, NJ, it formed over the Caribbean where it developed into a Category 1 hurricane on October 23, 2012 followed by landfall the subsequent days near Kingston, Jamaica and then the southeastern part of Cuba and Haiti as a Category 2 hurricane. Experts spoke to the climate connection, [here](#), [here](#), and [here](#), and since then we have gained even more ground on the climate change fingerprint on Hurricane Sandy.

Scientists [estimate](#) that without climate change driven sea level rise, the footprint of Sandy would have been at least 10% less than observed in New York City, equivalent to \$2 billion dollars of damages and an additional 11.4% people affected and 11.6% more housing units flooded. [For full article go here.](#)

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## [New York is still feeling the effects of Hurricane Sandy, five years later](#)

Source(s): [Columbia University](#) / Publication date 23 Oct 2017

By Sarah Fecht

**Breezy Point isn't next to the beach—it more or less is the beach.** It's a community built on sand. Occupying the Rockaway Peninsula that juts out of Queens, NY and into the Atlantic Ocean, residents are never more than a few minutes' walk to the brackish bays that surround the thin strip of land. The flat landscape and many of the alleys and parking lots swim in loose drifts of sand. It's not hard to see why this area was so badly damaged by Hurricane Sandy five years ago.

When John Mutter was last in the Rockaways, he saw houses that were crushed to bits, and some that had burned down to their foundations. That was a few weeks after Sandy struck in October 2012, carrying a 12-foot storm surge and killing 43 people in New York City. The storm knocked over buildings, drowned basements, and caused tens of billions of dollars in damages. In Breezy Point, flooded streets prevented firefighters from putting out fires, which eventually consumed more than 100 homes. [Go here for full article.](#)

[The Washington Post](#)

## **World leaders rehearse for a pandemic that will come 'sooner than we expect'**

By [Lena H. Sun](#) /October 24, 2017

**The government ministers were facing a new infectious disease outbreak.** The mysterious virus was sickening and killing people with alarming speed. Some patients had to be placed on ventilators to help them breathe. The new virus seemed resistant to antiviral medicine.

Within a week, officials had closed a major hospital and schools and quarantined thousands of people. Fear and panic spread quickly as people in neighboring countries became infected and died.

That scenario was part of a pandemic simulation held during the World Bank's annual meeting

in Washington this month. It's not the kind of event that people would typically associate with the World Bank. But it's the fourth such exercise the bank has helped organize in the past year, reflecting what experts say is the growing awareness outside the traditional global health sector of the increasing threat and economic disruption posed by a global pandemic.

The chaotic and "horrendously inefficient" early response to the 2014 Ebola epidemic in West Africa that killed more than 11,000 people was the catalyst for the simulations, said Tim Evans, senior director for health,

nutrition and population at the World Bank.

"We realized that people were just making it up as they were going along, including us," Evans said, referring to the [Ebola response](#). The bank wanted to "move from a history of panic and neglect to one where we're going to start to prepare much more systematically to be ready for the 100 percent probability we will be dealing with this again," he said. "Probably sooner than we expect."

[For full article, click here.](#)

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*...it's the fourth such exercise the bank has helped organize in the past year, reflecting what experts say is the growing awareness outside the traditional global health sector of the increasing threat and economic disruption posed by a global pandemic.*

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## **Announcing Update to Drought Response Planning Tool**

US EPA Region III, Drinking Water Branch (3WP21)

### **Drought Response and Recovery Guide for Water Utilities – New Drought Response Plan Template**

**Added:** The Drought Guide, originally published in March of 2016, is an interactive tool designed to assist small- to medium-sized water utilities with responding to drought. The guide, which includes best practices and customizable worksheets, focuses on short-term emergency drought mitigation actions that also build long-term resilience to drought. Based on feedback gathered from stakeholders, a Drought Response Plan Template has been added to the guide. This template includes instructions to guide users through the process of creating a plan, as well as a customizable, fillable document. Still accompanying the guide is an interactive drought case studies map, a multimedia GeoPlatform website documenting, in both video and written form, the unique stories of seven utilities across the country which have responded successfully to extreme drought conditions. Two new case studies are currently being added to the GeoPlatform, and should be viewable by the end of the year. **Download the updated Drought Response and Recovery Guide by going to:** <http://www.epa.gov/waterutilityresponse/drought-response-and-recovery-for-water-utilities>

# Upcoming Events:

## Silver Jackets Webinar: “Risk to Resiliency”

Friday, December 15 at 1PM Eastern

**Rachel Hogan Carr**  
**Director of the Nurture Nature Center**

This one-hour Silver Jackets webinar is designed to share the Nurture Nature Center’s guidebook entitled: Risk to Resiliency that was designed to facilitate dialogue and help communities prioritize actions and concerns around hazards.

### WEB MEETING AND AUDIO ACCESS INFORMATION:

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#### AUDIO

- \* Meeting Number: 1-877-336-1839
- \* Access Code: 5884527
- \* Security Code: 4567

#### WEB MEETING

- \* Web Link: <https://www.webmeeting.att.com>
- \* Meeting Number: 877-336-1839
- \* Code: 5884527

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The guidebook was designed for community involvement; however, it could be a useful training tool for federal and state agencies that work to engage communities and counties on flood risk management programs and applications. For example, the Silver Jackets teams and representative agencies work closely with communities to:

- Define the flood risk zones and adopt floodplain management ordinances
- Develop and implement local hazard mitigation plans and flood risk management plans
- Develop emergency actions plans for flooding
- Promote the National Flood Insurance Program’s Community Rating System
- Raise community awareness of levee and dam safety

Given these examples, this guidebook can offer practical strategies for helping state and federal representatives work more effectively with communities to engage the important players and build support for mitigation, planning and response efforts.

Reach out to your team members and partners to encourage them to take advantage of this opportunity to participate.

## **FEMA OPENING**

FEMA is currently seeking a qualified candidate to assume the role of **Federal Disaster Recovery Coordinator in Puerto Rico**. Knowing the RNPN represents a talented pool of expertise, industry knowledge, and commitment to the field, we wanted to ensure the opportunity was communicated with our partner networks.

This role will lead and coordinate the timely delivery of Federal Disaster Recovery assistance to support the commonwealth, local governments, and affected communities in the aftermath of Hurricane Maria in Puerto Rico. The position is a limited term Senior Executive Service (SES) position for a three-year period and will be based in San Juan.

**To learn more about the requirements, qualifications, and how to apply, please visit the following link:**

<https://www.usajobs.gov/GetJob/ViewDetails/485161800>

If you have any questions, please feel free to reach out. We encourage you to share with your networks!

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# EERI Statement on Earthquakes, Hurricanes and Immigration

## Earthquake Engineering Research Institute

By David A. Friedman, President, EERI

September 13, 2017

**The EERI Board of Directors met on September 8th, amid the beginning recovery of Hurricane Harvey**, the current and imminent impacts of Hurricanes Irma and Jose, and the unfolding damage accounts from the September 7th M8.1 earthquake off the southern coast of Mexico. Mother Nature appears to be rather active and intense.

On the Mexico earthquake, the Learning From Earthquakes Executive Committee is already collecting data, contacting our colleagues in Mexico and Guatemala, and determining the appropriate level of response. Stay tuned.

The Board did celebrate a recent milestone accomplishment in the introduction of legislation this last week to reauthorize the National Earthquake Hazards Reduction Program. With bipartisan co-sponsorship, led by Senators Feinstein and Murkowski, the introduction of this appropriations bill would not have occurred without the extraordinary efforts by EERI's Public Policy and Advocacy Committee. But there is an uncertain road to navigate before NEHRP is reauthorized and funded.

We are living in turbulent times beyond the recent rash of natural disasters we are experiencing. National support for science is being challenged. Immigration restrictions and the withdrawal of the Deferred Action for Childhood Arrivals pose potential harmful impact to EERI's national and international membership.

The Board recalled an extraordinary moment at this last spring's annual business meeting. As we do annually, we bestowed lifetime achievement awards to **Prof. Anil Chopra** (M. EERI, 1973), **Ashraf Habibullah** (M. EERI, 1999), and **Dr. Farzad Naeim** (M. EERI, 1983). In accepting his award, Farzad noted that all three of these

honorees were first-generation immigrants to the United States, and all had made significant contributions to the cultural, scientific and economic fabric of this country. And he noted that none of them, under proposed policy changes, would today be likely allowed to immigrate. Farzad's remarks were greeted with a spontaneous and resounding standing ovation. Never have we been so stirred and proud of our membership.

The Board further expressed concerns regarding the threats to our earthquake engineering and social science Dreamers. These young members of our Institute represent our future contributors and leadership, and securing their future should be all of our concern.

We do not speak out to politicize but we do have the responsibility to remain true to the EERI mission. That mission is to reduce earthquake risk by advancing the science and practice of earthquake engineering; by improving understanding of the impact of earthquakes on the physical, social, economic, political, and cultural environment; and by advocating comprehensive and realistic measures for reducing the harmful effects of earthquakes. And when policies directly or indirectly affect the pursuit of this mission, we must speak up.

We are a membership that is about inclusion and not of exclusion or restriction. We know no borders. The only fault divisions we identify are those of tectonic origin. We are women and men of all races, nationalities and faiths, and bonded and made stronger by that diversity.

On behalf of the EERI Board of Directors and staff, this message is written with immense respect and appreciation for our diverse membership. We remain dedicated to collaborative actions to reduce earthquake risk.

## THE NEED TO REBUILD SMARTER

### U.S. CONGRESS JOINT ECONOMIC COMMITTEE

U.S. Senator Martin Heinrich, Ranking Member

NOVEMBER 2017

Rebuilding after hurricanes, wildfires, and other natural disasters demands an immediate and comprehensive response from the federal government. This process also offers an opportunity to think long term about how our nation can better prepare to mitigate natural disasters and address risks that will only escalate with climate change.

The destruction we have witnessed this summer and fall makes clear that merely rebuilding without taking actions to ensure that infrastructure, homes, and businesses are made less vulnerable to the next storm or natural disaster will only lead to higher costs down the road. As

We know that disaster planning pays off. Each dollar spent by the Federal Emergency Management Agency (FEMA) on disaster preparedness provides almost \$4 in future benefits.<sup>1</sup> Mitigation can take many forms—higher roads, stronger bridges, and better building codes. Through its mitigation work, FEMA has reduced future losses from earthquakes, wind, and flooding. Mitigation reduces damage, limits loss of life, and results in less economic loss. Many approaches deliver positive results. For example, following Hurricane Sandy, federal disaster funds were used to purchase almost 400 flooded homes in New Jersey’s tidal areas. The homes were demolished and the

### **More frequent and costly disasters**

Natural disasters are becoming more frequent, intense, and costly.<sup>5</sup> The annual inflation-adjusted disaster relief appropriated by Congress increased from a median of \$6.2 billion for 2000 to 2006 to a median \$9.1 billion for 2007 to 2013 – an increase of 46 percent.<sup>6</sup> This trend is likely to accelerate with climate change.

Not including recent hurricanes Harvey, Irma, and Maria and the wildfires in California, severe weather events since 1980 have caused more than \$1.2 trillion in damage, with almost half of that damage resulting from hurricanes.<sup>7</sup> Preliminary estimates indicate that

*“We know that disaster planning pays off. Each dollar spent by the Federal Emergency Management Agency (FEMA) on disaster preparedness provides almost \$4 in future benefits.”*

Congress moves forward with additional hurricane relief, it can require that relief funds go to the construction of resilient infrastructure and also can prioritize mitigation efforts. Limiting the impacts of future natural disasters requires collaboration between different levels of government, active involvement of the private sector, and sustaining the urgency in mitigation work that is present during relief efforts.

land preserved as open space and a buffer against future storms.<sup>2</sup> In Dallas, the U.S. Army Corps of Engineers, the city of Dallas, and the U.S. Fish and Wildlife Service teamed to reduce flood risks by designing a “chain of wetlands” that included relocating trees to promote better water flows.<sup>3</sup> Communities have used FEMA mitigation grants to access backup power sources, enabling critical emergency response services to continue during storms and outages.<sup>4</sup>

the combined costs of Harvey and Irma could exceed those of Katrina, which reached \$160 billion.<sup>8</sup> Initial estimates indicate Maria could cost between \$45 and \$90 billion and Governor Ricardo Rosselló said the island had been “essentially devastated” by the hurricane.<sup>9</sup>

Moreover, the frequency of major hurricanes in the Atlantic is escalating, with one-quarter of all Category 5 landfalls on record in the Atlantic since 1851 occurring this year.<sup>10</sup>

[For full article, go here.](#)



[The New York Times](#)  
[A Broke, and Broken, Flood Insurance Program](#)

By [MARY WILLIAMS WALSH](#) NOV. 4, 2017

**In August, when Hurricane Harvey was bearing down on Texas,** David Clutter was in court, trying one more time to make his insurer pay his flood claim — from Hurricane Sandy, five years before.

Mr. Clutter's insurer is the federal government. As it resists his claims, he has been forced to take out a third mortgage on his house in Long Beach, N.Y., to pay for repairs to make it habitable for his wife and three children. He owes more than the house is worth, and his flood-insurance premiums just went up.

The government-run National Flood Insurance Program is, for now, virtually the only source of flood insurance for more than five million households in the United States. This hurricane season, as tens of thousands of Americans seek compensation for storm-inflicted water damage, they face a problem: The flood insurance program is broke and broken.

The program, administered by the Federal Emergency Management Agency, has been in the red since Hurricane Katrina flooded New Orleans in 2005. It still has more than a thousand disputed claims left over from Sandy. And in October, it exhausted its \$30 billion borrowing capacity and had to get a bailout just to keep paying current claims.

Congress must decide by Dec. 8 whether to keep the program going. An unusual coalition of insurers, environmentalists and fiscal conservatives has joined the Trump administration in calling for fundamental changes in the program, including direct competition from private insurers. The fiscal conservatives note that the program was supposed to take the burden off taxpayers but has not, and environmentalists argue that it has become an enabler of construction on flood-prone coastlines, by charging premiums too low to reflect the true cost of building there.

The program has other troubles as well. It cannot force vulnerable households to buy insurance, even though they are required by law to have it. Its flood maps can't keep up with new construction that can change an area's flood risk. It has spent billions of dollars repairing houses that just flood again. Its records, for instance, show that a house in Spring, Tex., has been repaired 19 times, for a total of \$912,732 — even though it is worth only \$42,024.

And after really big floods, the program must rely on armies of subcontractors to determine payments, baffling and infuriating policyholders, like Mr. Clutter, who cannot figure out who is opposing their claims, or why.

Roy E. Wright, who has directed the flood insurance program for FEMA since June 2015, acknowledged in an interview on Friday that major changes were called for and said some were already in the works. The program's rate-setting methods, for example, are 30 years old, he said, and new ones will be phased in over the next two years. But other changes — like cutting off coverage to homes that are repeatedly flooded — would require an act of Congress.

[For full article, go here.](#)



## About the [RNN](#) Resilient Neighbors Network

NHMA is working with communities around the USA to create a peer-to-peer sharing network, so grassroots communities can work together directly to strengthen and expand local hazard-mitigation programs.

If you, or someone you know, would like to participate in the RNN, please visit: <http://resilientneighbors.com/about/membership/> or contact us at: [nathazma@gmail.com](mailto:nathazma@gmail.com)

### [RNN Mission:](#)

To increase resilience in existing and developing communities at the grass roots level by documenting and actively sharing best practices, through education, peer to peer collaboration and mentoring.

### [RNN Vision:](#)

RNN will be a source for a compilation of community-driven hazard resilience best practices that can serve as a resource to people and communities before, during and after a disaster. RNN will also actively bring ground-truth and grassroots enlightenment to policy makers, researchers, regulators, and journalists.

## **Building Smarter After A Disaster**

BY REP. LOU BARLETTA (R-PA.), OPINION CONTRIBUTOR —  
11/30/17 07:30 AM EST 11

*Barletta represents Pennsylvania's 11th District and is the chairman of the House Transportation and Infrastructure Subcommittee on Economic Development, Public Buildings and Emergency Management.*

[The Hill](#)

THE VIEWS EXPRESSED BY CONTRIBUTORS ARE THEIR OWN AND NOT THE VIEW OF THE HILL

**The cycle of disaster once again reared its ugly head this fall after years of relative quiet.** In the span of a month, a wave of hurricanes took its horrible toll in human lives and left coastal communities underwater, destroying homes and businesses, while displacing millions of families.

In a way, America has been lucky. The last major hurricane to make landfall in the United States as a Category 3 or stronger storm was Wilma in October of 2005. In 2016, 480,000 Americans sought disaster aid from the Federal Emergency Management Agency (FEMA), and fewer than 180,000 people registered for disaster assistance in each of the three years prior.

This year was different. On top of the typical storms, floods and fires that we anticipate, this hurricane season made history, with storms battering approximately 8 percent of the U.S. population.

The federal dollars help tell the story. This year alone, more than 4.7 million Americans have registered for disaster aid so far. In response to the destruction of these storms, Congress has been asked for an extra \$44 billion in a disaster relief supplemental for FEMA and the community block grant program.

These are massive numbers that weigh heavily on an already strained federal budget. Yet, as the density of American communities continues to increase, so do those in the firing line of disasters. Population growth and suburban sprawl will continue, increasing the number of Americans exposed to potentially damaging storms. We need a better plan. It's time to stop asking "what now?" right after a catastrophe, and focus on "what's next?" when we are preparing for future disasters.

This is why Congress should rethink our approach to disaster funding and elevate mitigation as a top priority while disaster prone areas rebuild. Instead of rebuilding destroyed infrastructure as we have for decades, let's ensure mitigation infrastructure replaces what failed during the disaster.

By increasing our focus on pre-disaster planning and mitigation, we can build and rebuild better and smarter. This in turn reduces future loss of life and rising costs substantially. For every \$1 spent in mitigation, between \$4 and \$8 is saved in avoided disaster recovery costs.

Effective mitigation encompasses a wide variety of activities, including preparation and planning, elevating or moving structures prone to flooding, and hardening structures to head-off the effects of hurricanes or earthquakes. A greater emphasis on mitigation will save lives, minimize damage to property, and reduce disaster costs, saving taxpayers billions of dollars.

The density of America's urban, suburban and even rural areas will continue to challenge the ability of local communities to build sustainable infrastructure for the future. This year serves as a warning and a lesson to communities across the country to prepare for the most likely natural disasters they may face. Mitigation on the front-end will lighten the burden on the back-end.

No dollar amount can be assigned to the victims of a disaster. America will continue to be there whenever disaster strikes to provide robust and effective assistance. But as we rebuild from 2017 and prepare for future disasters, we must reexamine where we can improve our federal programs. Let's look to mitigation as a key to improvement. [For full article, go here.](#)



## **RNN SHOUT OUT!**

### **RNN Members Present DRR Curriculum Modules in North Carolina:**

RNN members Tim Trautman, representing Charlotte-Mecklenburg, North Carolina, and Rebecca Joyce, of the Central Shenandoah Region in Virginia, gave presentations on Modules of NHMA's Disaster Risk Reduction Curriculum at the North Carolina Association of Flood Plain Managers' Fall Floodplain Institute held in Charlotte, North Carolina in October.

Presentations given by Mr. Trautman and Ms. Joyce on the *Floodplain Management Process and Engaging The Whole Community In Disaster Risk Reduction* were well received by the attendees. Attendance at the Floodplain Institute also provided the opportunity to spread the word about the Curriculum that NHMA has been developing the past year, as well as informing communities throughout North Carolina about the Resilient Neighbors Network Program.

[The New York Times](#)

## [Developers Said Their Homes Were Out of a Flood Zone. Then Harvey Came.](#)

By JOHN SCHWARTZ, JAMES GLANZ and ANDREW W. LEHREN  
| DEC. 2, 2017

THE WOODLANDS, Tex. — **Leslie Martinez heard the floodwaters before she saw them.** They rushed across the lawn, seeped around the doors and into the house. It was 2:15 a.m. on Aug. 28, three days after Hurricane Harvey made landfall. Her young daughter was asleep in her arms. Ms. Martinez's first reaction was to spread towels around the floor.

After all, Ms. Martinez recalled, the home builder had assured her that "flooding was not even a possibility" when she and her husband purchased the house in this suburban enclave north of Houston in 2011. They would never have bought here otherwise. Flood insurance, of course, was neither required nor needed.

Now, with the rains outside lashing and the water inside rising, the family and their terrified pet, a one-eyed goldendoodle named Coco, took refuge on the second floor. Later that day, rescue boats came and ferried them to safety.

The flooding forced Ms. Martinez and her husband, John Ahearn, to borrow money from their parents and accept a donation from their daughter's school. It left them feeling furious and betrayed. "I'm scared that it's going to continue happening," Ms. Martinez said, even as she wondered how they had become the victims of something they had been told had a vanishingly small chance of coming to pass in such a short time since the purchase.

What they did not know was that their home, and those of many of their flooded-out neighbors in this new section of The Woodlands, had been built on land that not long ago lay squarely, and sometimes sogily, in a flood plain.

A New York Times examination found that in the years leading up to Hurricane Harvey, with a surging local economy fueling demand for new upscale housing, the developers of The Woodlands had used a wrinkle in the federal flood-mapping system — along with many dump trucks' worth of dirt — to lift dozens of lots out of the area officially deemed prone to flooding. What they had done, in effect, was create gerrymandered maps of risk.

In Ms. Martinez's case, documents show, the land was raised less than 10 inches above the level that, under federal flood-insurance rules, would have required the family to be notified of their risk and purchase insurance. Other lots in their area were raised as little as 1.2 inches above that height.

No one has suggested that the developers broke any laws, and the company that owns The Woodlands says it followed all applicable regulations and standards. But the experiences of the family of Ms. Martinez and their neighbors show that even when the mapping rules are followed to the letter, the results can be disastrous.

[For full article, go here.](#)

### You Can Help Us Make Changes for a more Just and Resilient Future

NHMA has developed a unique, grass roots message and Disaster Risk Reduction educational program that has been shown to actually work to change perception of risk and to inspire action to reduce risk from Natural Disasters.

Please donate to help us spread a hopeful, actionable message for Disaster Risk Reduction to help build a better, more just future.

**Donate**



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## Mitigation Minute: Benefits of PAS

November 29, 2017

### The Benefits of PAS? A Streamlined Grant Process!

Program Administration by States (PAS) encourages states, tribes, and territories to work with FEMA to identify ways to reduce the time between disaster and recovery.

By allowing FEMA to delegate its traditional grant management responsibilities to participants, PAS reduces the time it takes to award funding to states so they can more quickly get started on recovery.

These responsibilities include, but are not limited to:

- Reviewing project applications
- Completing benefit-cost analyses for projects
- Approving scope-of-work modifications
- Moving funds between applicable subawards
- Approving local mitigation plans

All five states that participate in the PAS program are seeing the benefits. They have increased the speed at which money is awarded to projects in the first 24 months.

Percentage of total funds awarded during the first 24 months:\*

| State | Current | Previous | Change |
|-------|---------|----------|--------|
| IA    | 100%    | 37%      | up 66% |
| NH    | 97%     | 89%      | up 8%  |
| FL    | 100%    | 37%      | up 6%  |
| WI    | 99%     | 79%      | up 28% |
| MO    | 99%     | 36%      | up 63% |
| US    | 53%     | 37%      | up 16% |

\* Data as of 11/20/2017

Florida has a very strong planning program and thanks to PAS, unnecessary duplication or delays in the local mitigation plan review process have been avoided. The PAS Operational Agreement has put in place a reliable reporting and monitoring program and both the state and FEMA are very pleased with the results.

In the two most recent disasters prior to Hurricane Irma, thanks to PAS, we will have approved 26 projects and obligated almost 20% of the available funding before the application periods have even closed. That's a significant benefit.

— Gabriela Vigo,  
Hazard Mitigation Specialist, FEMA Region IV



FEMA

To learn more about the Hazard Mitigation Grants Program (HMGP) Program Administration by States (PAS), see FEMA's [PAS Frequently Asked Questions](#).

To learn about the Sandy Recovery Improvement Act (SRIA), which allowed FEMA to implement HMGP PAS, view the [SRIA Fact Sheet](#).

For more information, states, territories and tribes should contact their FEMA Regional Office.

Learn more about the [Hazard Mitigation Grant Program](#).

### About "Mitigation Minute"

This series is provided by FEMA's [Hazard Mitigation Assistance Division](#). The "Mitigation Minute" contains a weekly fact about grants and resources provided across the country to reduce or eliminate long-term risk to people and property from natural hazards.

Get the latest fact every Wednesday by signing up for the "alert me" feature. Email [FEMA-HMA-Grants-Policy@fema.dhs.gov](mailto:FEMA-HMA-Grants-Policy@fema.dhs.gov) with comments or suggestions. [Download](#) the FEMA app today for weather alerts, safety tips, and recovery center locations.

## Sources: The Union of Concerned Scientists

Introduction by Dr. John Wiener, NHMA Board Member

December 13, 2017

**Note on Sources items:** NHMA occasionally notes sources of information and publications of likely interest to members. Among our allies are some great sources of information, including some of the environmental and science groups. These include The Nature Conservancy, the Natural Resources Defense Council, Environmental Working Group, Environmental Defense Fund, American Rivers, and others. One of the most diverse in issues is the Union of Concerned Scientists ([www.ucsusa.org](http://www.ucsusa.org)). Their tagline is “science for a healthy planet and safer world.” Time spent here will be rewarded with a great deal of hazard-relevant and climate-relevant science.

Using the “search” box on [www.ucsusa.org](http://www.ucsusa.org) to look for “flood” brings up a great deal of materials, ranging from Hurricane Harvey to the Farm Bill, the Federal Floodplain Risk Management Standard and its withdrawal. Dr. Rachel Cleetus has written a great review of the National Flood Insurance Program bills, as of July 2017: <<http://blog.ucsusa.org/rachel-cleetus/the-national-flood-insurance-program-reauthorization>>. Searching the Union of Concerned Scientists website for “green infrastructure” found 4 full reports, 11 articles, and 24 blogposts, with 22 of the whole set in 2016 and 2017.

Among many excellent reports and blogs, usually with great sets of references, see “When Rising Seas Hit Home – Hard Choices Ahead for Hundreds of US Coastal Communities (2017; [www.ucsusa.org/RisingSeasHitHome](http://www.ucsusa.org/RisingSeasHitHome); 64 pp.) The following are accessible through the [www.ucsusa.org](http://www.ucsusa.org) website: “Infrastructure Spending is Coming. Climate Change Tells Us to Spend Wisely.” “Turning Soils into Sponges”, “Rotating Crops, Turning Profits”, “Arbor Day and Agroforestry: Green Infrastructure for Agriculture” (upstream and downstream floods and water management issues make sustainable agriculture – and conservation of agricultural open spaces – very wise investments); and “What Can Local Food Do” for a brief sampling; searches will be well-rewarded! The references may be very useful for discovery of research, videos, and explanatory materials for many audiences, as well as access to new and old research.

And, NHMA and other coastal folks will want to see the When Rising Seas Hit Home interactive mapping tool and spreadsheets. As the creators explain it, to use the **interactive mapping tool**, [click here](#). The various tabs allow you to explore the amount of land area flooded, and the communities that are affected by the rising seas—including the ones that may have fewer resources to cope with chronic inundation, and ones that could avoid such flooding if the Paris Agreement’s temperature goals were achieved. By scrolling, you will see buttons for each time frame examined in the report for both the intermediate and high sea level rise scenarios. As you zoom in, the maps become more detailed. You can also click on a specific community for more details about it. To view a **spreadsheet** that sorts the chronically inundated communities **by state**, [click here](#). To see the communities **sorted by year**, [click here](#). NHMA members may also be interested in our resilience principles ([Toward Climate Resilience: A Framework and Principles for Science-Based Adaptation](#)). Thanks to UCS Dr. Shana Udvardy and others for the description – this is a brilliant organization which your opining note-writer very strongly recommends!

**Natural Hazard  
Mitigation Association**

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