



Summer Issue 2019 Newsletter

A Few Words From Our President

Hello friends and colleagues,

We are pleased to present to you our **Summer issue** of the **NHMA Newsletter**. Please feel free to distribute this widely as it contains much helpful information about upcoming conferences, presentations, and webinars. As June 1 marked the beginning of hurricane season, please remember to prepare early. In addition to our Newsletter, our website also contains helpful information and documents to prepare while in a 'blue sky' time or to recover following a disaster – please visit <http://www.nhma.info> for more materials about this.

June and July have been very busy months with conferences and webinars, and NHMA launched its own webinar platform by partnering with FEMA on the FEMA Mitigation DRRA webinar. This was a way of offering an overview of mitigation changes in the DRRA to our membership, colleagues, and partners, as well as introducing many folks to NHMA and our Disaster Risk Reduction Curriculum. We plan to offer an ongoing series of interesting webinars and educational events about the DRR Modules and other subjects going forward.

For those of you who attended the Natural Hazards Workshop in Broomfield this past month and joined us at the NHMA sponsored events, we thank you for your support! We look forward to sharing updates with you about those events and invite any of you who have good news to share with us about mitigation progress in your own neck of the woods to let us know.

Erin Capps, President

Join NHMA
(or renew membership)

Support NHMA
(become a sponsor)

LINKS to UPCOMING EVENTS:

FEMA Tribal Stakeholder Input Sessions
July 30, 2019 @ 1 p.m.-3 p.m. ET; and
August 1, 2019 @ 2 p.m.-4 p.m. ET

**APA Climate Action Planning Webinar -
A Guide to Creating Low-Carbon,
Resilient Communities**
August 7, 2019 @ 1:15 to 2:45 PM EDT

**Managing Floodplain Development
Through the NFIP (Eo273)**
August 26-29, 2019

SAVE THE DATES!

**AFMA Fall Conference: Recovering
from the Great Flood of 2019**
NHMA will be presenting the DRR Curriculum
as part of the FEMA CTP at this Conference!
September 22-25, 2019, Eureka Springs, AK

**Utah Attorney/Public Officials
Workshop on Legal Aspects of Disaster
Risk Reduction**, sponsored by State of Utah
Division of Emergency Management, the Salt
Lake County District Attorney's Office, and the
Natural Hazard Mitigation Association
September 18-19, 2019, Salt Lake City, Utah.

**DRJ FALL CONFERENCE 2019:
Innovations in Managing Risk &
Resiliency**
September 29 - October 2, Phoenix, AZ

VIDEO Links in this Issue:

**NOAA 2019 Atlantic Hurricane Season
Outlook** (3:31) *Published May 23, 2019*

**NOAA: 2019 Hurricanes: NOAA previews
Atlantic storm season** (32:07) *Streamed live on
May 23, 2019*

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UPCOMING EVENTS!

[FEMA Tribal Stakeholder Input Sessions: July 30, 2019 & August 1, 2019](#)

Building Resilient Infrastructure and Communities: Tribal Stakeholder Input Sessions

FEMA's Hazard Mitigation Assistance (HMA) Division invites federally-recognized tribes to attend a stakeholder input session that will provide a brief overview and ask for feedback on key topics in the development of the Disaster Recovery Reform Act of 2018 (DRRA) Section 1234 - also known as the Building Resilient Infrastructure and Communities (BRIC) program.

The purpose of this session is to gather recommendations to consider when developing BRIC on the topic areas relevant to tribes. Following brief presentations, **there will be an opportunity to provide feedback.** At the end of the segment, there will also be time to answer general questions about BRIC. **This webinar is specifically for tribal applicants and sub-applicants to FEMA grant programs. This webinar will be offered twice. The content will be the same in both deliveries.**

Title: DRRA Section 1234 (BRIC): Tribal Stakeholder Input Sessions

Adobe Connect: https://fema.connectsolutions.com/bric_tribal/

Phone: 1-800-320-4330 Code: 338559#

Stakeholder Input Session 1

Date: Tuesday, July 30, 2019

Time: 1 p.m. - 3 p.m. ET

Stakeholder Input Session 2

Date: Thursday, August 1, 2019

Time: 2 p.m. - 4 p.m. ET

Be sure to [test your Adobe Connect connection](#) prior to the meeting.

[APA Climate Action Planning Webinar - A Guide to Creating Low-Carbon, Resilient Communities](#)

August 7, 2019 @ 1:15 - 2:45 PM, EDT

Climate Action Planning is designed to help planners, municipal staff and officials, citizens and others working at local levels to develop and implement plans to mitigate a community's greenhouse gas emissions and increase the resilience of communities against climate change impacts. This fully revised and expanded edition goes well beyond climate action plans to examine the mix of policy and planning instruments available to every community. Boswell, Greve, and Seale also look at process and communication: How does a community bring diverse voices to the table? What do recent examples and research tell us about successful communication strategies?

Climate Action Planning is the most comprehensive book on the state of the art, science, and practice of local climate action planning. It should be a first stop for any local government interested in addressing climate change. Published by Island Press.

[REGISTER](#)

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VIDEO Links Continued:

[FEMA: Survivor Story: Danielle Rees](#) (90 Sec)
Published on Jun 14, 2019

[FEMA: Survivor Story: Tony and Rita Morello](#) (90 Sec)
Published on Jun 14, 2019

[FEMA: The South Dakota Mapping Minute: Build Back Better!](#) (2:11)
Published on Jun 21, 2019

[FEMA: We have a Map. Now What? -- A Customer Experience Toolkit video](#) (2:49)
Published on May 29, 2019

[FEMA: Flood Risk Basics and Communities -- a Customer Experience Toolkit Video](#) (3:41)
Published on May 29, 2019

[FEMA: Flood Insurance and Communities -- a Customer Experience Toolkit video](#) (3:12)
Published on May 29, 2019

[FEMA: Providing Input as the Map is Developed -- a Customer Experience Toolkit video](#) (3:15)
Published on May 29, 2019

(Tutorial) [FEMA: Hazus | The General Building Stock \(GBS\)](#) (6:59)
Published on Jun 21, 2019

[FEMA: PrepTalks: Claudine Jaenichen "Visual + Effective Communication for Emergency Information"](#) (26:05)
Published on Jun 18, 2019

PUBLICATIONS OF INTEREST!

[Inside Climate News](#)

Original stories from their award-winning team
07/26/2019 edition

[A Resilient Colorado News from the CRO](#)

July 2019 Issue 2

Colorado Resiliency Office
Department of Local Affairs
www.coresiliency.com/

ARTICLES & ITEMS OF INTEREST:

[Green infrastructure nature's best defence against disasters](#) Report from *UN Environment Programme* Published 5/17/2019

FEMA Building Science Releases New Guidance: [Assessing Seismic Performance of Buildings with Configuration Irregularities](#)

FEMA Stakeholder Tips and Taglines [Heat and Drought Preparedness and Preparedness for Pets](#)

FEMA Hazard Mitigation Assistance (HMA) External Stakeholder Working Group (ESWG) [2019 Q2 Meeting](#)

UPCOMING EVENTS

Continued:

National Council for Science and the Environment NCSE Annual Conference 2020

January 6-9, 2020 | Washington, D.C.

The **NCSE Annual Conference** engages more than 800 leaders from the sciences, education, government, policy, business, and civil society to foster a dialogue across these sectors on environmental policy and decision-making with the use of science. The conference program includes presentations by the leading experts and sessions that spotlights new research, innovation, and the power of collaboration through partnering. Attendees will join meaningful conversations, network with peers, and make vital connections.

NCSE 2020 will take place at the Omni Shoreham in Washington, D.C.

Science in Environmental Decision-Making

NCSE will mark its 30th year as an organization in 2020 by mirroring the theme of our inaugural conference, Science in Environmental Decision-Making. In today's world, where environmental challenges have grown more complex, the risks greater, and the stakes higher, the role of science in environmental decision-making remains as essential as ever.

NCSE 2020 will explore the various ways that science serves and contributes to the decision-making process, highlighting cases in which science has helped improve environmental decisions, as well as examples in which a lack of science has compromised the efficacy of decisions and policies. The Annual Conference will bring together scientists, decision-makers, industry leaders, and subject-matter experts, to effectively bridge the cultures of science and policy-making toward a more resilient and sustainable future and societal well-being. Read more about the conference vision.

Save the Date

August 19, 2019 - Registration and Housing Opens

October 11, 2019 - Early Bird Registration Deadline

December 12, 2019 - Advance Registration Deadline

December 27, 2019 - Online Registration Closes

Be a Part of NCSE 2020

There are many ways to be a part of the NCSE Annual Conference

Present a Session, Poster, or Flash Talk - The Call for Session Submissions and Poster Presentations opens on May 20. Share your work with a broad audience of scientists, educators, students, policy-makers, and decision-makers.

Become a Conference Sponsor - Sponsorship provides an excellent opportunity for organizations and companies to show their support for Science in Environmental Decision-Making and to get their brand in front of the more than 800 attendees.

Become an Exhibitor - Exhibits are placed in high traffic areas to encourage networking and the sharing of ideas between exhibitors and attendees. Exhibitors are able to showcase programs, disseminate reports, and meet face-to-face with potential collaborators.

For more information, visit: <https://www.ncseglobal.org/conference>

New Recipients of Disaster Grants Guide

FEMA published a **New Recipients of Disaster Grants Guide**, in an ongoing effort "to reduce the complexity of FEMA" by centralizing the critical requirements of the disaster grant process into one resource. This guide outlines the key requirements such as; statutory, policy, and procedural requirements of Recipients of FEMA grants. Find the guide on the FEMA website: https://lnkd.in/eiY2x_u

CRS Workshops:

Managing Floodplain Development Through the NFIP (E0273)

August 26-29, 2019

Registration Deadline 30 days before event.

E0273 is also field deployed periodically. Contact your State NFIP Coordinator for more information [see the ASFPM's website]

This course provides an organized training opportunity for local officials responsible for administering their local floodplain management ordinance. The course will focus on the National Flood Insurance Program and concepts of floodplain management, maps and studies, ordinance administration, and the relationship between floodplain management and flood insurance.

Location: Emmitsburg, MD

HOST: FEMA

This is a 4-day resident course.

AFMA Fall Conference: Recovering from the Great Flood of 2019

NHMA will be presenting the DRR Curriculum as part of the FEMA CTP at this Conference!

September 22-25, 2019,
Eureka Springs, AK

SAVE THE DATE!

Utah Attorney/Public Officials **Workshop on Legal Aspects of** **Disaster Risk Reduction**

Sponsored by State of Utah Division of Emergency Management, the Salt Lake County District Attorney's Office, and the **Natural Hazard Mitigation Association**

September 18-19, 2019,
Salt Lake City, Utah

More info to come!

NEWS – Recap:

Message from Brett Holt, FEMA

-----Original Message-----

FROM: Holt, Brett <Brett.Holt@fema.dhs.gov>

DATE: Wed 5/22/2019 3:04 PM

Good afternoon –

We're excited about today's podcast highlighting the work of the Fire Adapted Communities Learning Network. This is an engaging, inclusive network making advances in peer-to-peer learning that support the private sector, local government, tribes, states, schools, and the general public. We know that we can't do this alone so let's reach out to a friend or an acquaintance to find support and share lessons. Take a listen and share with all who would be interested!

Brett Holt

Stakeholder Relations at **FEMA Region 10**

Office of External Affairs

FEMA REGION 10 ADVISORY

FEMA releases Podcast #38:

“Advancing Wildfire Resilience through the Fire Adapted Communities Learning Network”

May 22, 2019

BOTHELL, Wash. – Today, FEMA released the podcast “Advancing Wildfire Resilience through the Fire Adapted Communities Learning Network.” Since 2013, the [Fire Adapted Communities Learning Network](#) (FAC Net) has connected and supported people and communities who are striving to live more safely with wildfire. FAC Net serves as a catalyst for spreading best practices and innovations in fire adaptation concepts nationwide.

FEMA Region 10 visited Ashland, Oregon, in April, interviewing members of FAC Net during its annual workshop. Michelle Medley-Daniel with the Fire Adapted Communities Learning Network, Allie Lerch and Chris Chambers with Ashland Fire & Rescue, and Hilary Lundgren with the Washington Fire Adapted Communities Learning Network shared perspectives and experiences on successes, tools and growth of the network from eight to 24 communities.

Download this episode of the FEMA podcast at www.fema.gov/podcast. The FEMA podcast is available on [Apple iTunes](#) and [Google Play](#) to stream or download.

About the FEMA Podcast

The FEMA podcast is an audio program series available to anyone interested in learning more about the Agency, hearing about innovation in the field of emergency management, and listening to stories about communities and individuals recovering after disasters.

Approximately 20 to 30 minutes in length, new podcast episodes are updated weekly and each episode includes a link to its transcript.

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FEMA's mission is helping people before, during, and after disasters.

About NHMA

Natural Hazard Mitigation Association is a member supported 501(c) (3) educational and charitable organization composed of mitigation professionals. We continuously work to promote risk reduction and reduce the consequences of natural events, especially among the most vulnerable populations in our communities. Our voice in the realm of hazard mitigation is unique, reaching out to include the contributions of educators, engineers, planners, architects, legal professionals, community members, and elected officials at all levels into our hazard mitigation and community resilience efforts. We are engaged in educating and supporting communities and individuals in their roles of hazard mitigation. For more information about **NHMA** and its **Resilient Neighbors Network (RNN)**, visit: <http://resilientneighbors.com/>.

Interested in Joining? NHMA is essentially an all-volunteer organization. We rely on our membership's contributions to support the organization's efforts and to donate some combination of:

*Time
Talent
Treasure*



For those of you who cannot donate much time and talent, please consider donating Treasure: money, appreciated stocks. Donations can be made online at <http://nhma.info/>. **NHMA is a 501(c)(3) charitable organization and all contributions are tax deductible.** Thank you and please give generously.

The rise of wildfire-resilient communities

As fire seasons become longer and deadlier, communities turn to urban planning to combat dangers.

High Country News [Liz Weber](#) June 17, 2019

Sparked by a lightning strike in August 2017, the Milli Fire burned for more than a month, sweeping over 24,000 acres near Sisters, Oregon. A nearby Forest Service road, along the margins of the burn area, was a stark example of the benefits of wildfire management practices. One side of the road was charred and ashen. But on the other side, the forest, which had been thinned through prescribed burning, was largely unscathed.

Yet, for Sisters, a [rapidly growing town](#) located near the Three Sisters Wilderness area, the blaze — within nine miles of city limits — served as a wake-up call. While land-use planning and wildfire management previously worked in silos, communities like Sisters are integrating the two and creating a comprehensive plan to combat the dangers wildfires present.

“You can throw firefighters at the problem as a defensive measure all day long, but the way to solve this problem is through land-use and building codes,” said Doug Green, fire safety manager with the Sister-Camp Sherman Fire District.

For full articles, see: https://www.hcn.org/articles/wildfire-the-rise-of-wildfire-resilient-communities?utm_source=wc1&utm_medium=email

Are design professionals liable for failing to anticipate the effects of climate change?

The Architect's Newspaper

By [Larry Dany](#) and [Nick Boyd](#) • May 9, 2019

We do not need more vivid reminders that extreme weather events have the potential to cause appalling loss of life and tremendous property damage. The deadly [fires](#) that [burned through California](#) in November 2018 followed hard on the heels of a series of hurricanes and floods that wreaked terrible human and economic damage from New York to Houston and Puerto Rico. We are becoming increasingly confident that these extreme events are caused by climate change or, at any rate, that climate change makes them significantly more likely.

Recently, the [Fourth National Climate Assessment](#) warned that [climate change](#) will cost the United States economy hundreds of billions of dollars annually by the end of the century. Increasingly, stakeholders in the construction process are recognizing that buildings need to be designed to withstand the climate conditions of tomorrow as well as today. Naturally, this leads to the question of whether there will be a legal liability when design professionals fail to anticipate the conditions brought about by climate change.

For full article, see: <https://archpaper.com/2019/05/architect-liability-climate-change/>

FEMA's [Mitigation Assessment Team \(MAT\)](#) releases [two Recovery Advisories](#) providing guidance to help improve the resilience of buildings to natural disasters

This Release can be viewed on NHMA's website at: <http://nhma.info/femas-mat-releases-two-recovery-advisories-6-27-19/>

Please donate to NHMA today!

Donate



Natural Hazard Mitigation Association needs your help! As a 501(c) (3) educational and charitable organization, NHMA continuously works to promote risk reduction and reduce the consequences of natural events, especially among the most vulnerable populations in our communities. Your continued support makes our work possible.

Announcing AmazonSmile

A great way to shop and support NHMA!



When you shop on AmazonSmile, they will donate 0.5% of eligible purchases on their website to the charity of your choice. Please consider designating NHMA as your charitable organization! For more information, visit:

https://smile.amazon.com/gp/chpf/about/ref=smi_aas_redirect?ie=UTF8&ref=smi_se_ft_abt_saas



NHMA is always in need of volunteers!

If you are a member of NHMA, please consider volunteering! You can find a list of volunteer opportunities on our [Volunteer page](#). If you are not yet a member of NHMA but would like to volunteer, **we invite you [join NHMA](#)** and then visit our volunteer page.

A Few Words from Alessandra Jerolleman, NHMA Board Member

There has been a lot of interesting work lately looking at the ways in which disasters, and disaster recovery funding, can drive some measure of gentrification. I wrote about this a bit in my recent book (<https://www.palgrave.com/us/book/9783030047948>). As Ed Thomas points out, it is a complicated issue, as communities do need to have tax revenues. However, I do think that we need to be mindful of which communities and persons are able to afford hazard mitigation, and what we (as a government and society) do about those who cannot. It has almost always been the case that additional municipal services are brought to bear as a neighborhood gentrifies, services that might have prevented the decline of the neighborhood in the first place. There is an article on colorblind adaptation that I would like to refer to at: <http://dx.doi.org/10.1016/j.geoforum.2017.10.005>, as well as a recent publication by the NAACP; they can both be viewed in pdf form here: <http://nhma.info/elsevier-journal-geoforum-racial-coastal-formation-environmental-justice-naacp-publication-in-the-eye-of-the-storm-action-kit/>.

Warm Regards,

Alessandra Jerolleman, PhD, MPA, CFM
Assistant Professor of Emergency Management - Jacksonville State University
Lowlander Center - www.lowlandercenter.org
Louisiana Water Works

[Emergency Preparedness: Real Stories Video Series](#)

The [Emergency Preparedness: Real Stories Video Series](#) sponsored under the DRN Cross-Cultural Council, in conjunction with [Tulsa Community College Center for Creativity](#), is an excellent example of the power of stories to convey an important and compelling message to our immigrant residents. In these recordings, a community representative prepares and presents either a personal or communal experience with disaster in the home language of the target audience. When these videos are screened at a community event, a subject matter expert, with an interpreter, responds to questions and shares information on emergency preparedness. These videos have been produced in American Sign Language (ASL), Arabic, Burmese (Zomi), English, Russian, Spanish and Urdu. Council Co-Chair and local TV meteorologist Michael Grogan presented about this series at the Leadership Tulsa Good News Summit in February in a five-minute, 20 slide format. His presentation is available at the website <http://goodnewstulsa.org/2019-good-new-summit-videos/> or directly at <https://youtu.be/V-GdSC09S40>. The Emergency Preparedness Real Stories videos can be found at <https://www.disasterresiliencenetwork.org/crosscultural-council-info>. The Disaster Resilience Network is a nonprofit founding member of the Natural Hazard Mitigation Association and works in Tulsa, a Resilient Neighbors Network community.

Tim Lovell, Executive Director
[Disaster Resilience Network](#)

RESILIENT NEIGHBORS NETWORK (RNN)



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.

CURRENT RNN EVENTS/ACTIVITIES

The RNN Communities currently have the opportunity to work together on some important events and activities such as:

- Assisting with review, completion and presentation of the NHMA Disaster Risk Reduction Curriculum around the country as Subject Matter Experts and ultimately be credentialled as *DRR Curriculum Ambassadors*;
- Develop strategies and ways to enhance meaningful support and participation of peer-to-peer sharing and training around the country to help communities understand, prepare and respond to specific aspects of disaster mitigation;
- Setting up a national, direct, face-to-face meeting between the RNN Community members and related operating partner organizations with the leadership at FEMA;
- Helping to write articles and compile best practices and success stories to illustrate the vital processes practiced by RNN Community members through the DRR Curriculum.

News from the RNN Communities

Update on Happenings in [Hillsborough County, Florida](#)

By RNN Community Representative Gene Henry
June 28, 2019

Hillsborough County, FL is in its second year of a three-year study called Community Vulnerabilities. This is on sea level rise and addresses state statutes on something called the *Peril of Flood Act* which is designed to look at assets.

Gene's community sat down with him and worked out a scope of action with their University that also addresses vulnerable populations. As a result of this, not only will they understand the infrastructure needs up through 2045-2050, and have taken a quick glimpse at 2100, but they will also understand the populations within their communities' various areas of sensitivities to changes in climate, as well as the changes that climate imposes on their communities - such as migration, changes in commerce, community displacement, etc.

Hillsborough County is very fortunate compared to many of its peers in coastal communities in that they have a little bit more elevation, and therefore a little bit more time to prepare for coastal changes. Tropical Storm Andrea several years ago affected 3,000 parcels of land. With a one-foot sea level rise that number can jump up to 10,000 parcels of land, and with a 1 ½ foot or two-foot sea level rise, that number may go up logarithmically.

Hillsborough County has created a new Department called Resilience. For those who don't know, Gene Henry is in a deferred retirement program. New departments will look to Mitigation and Resiliency. The Program includes CRS, the Flood Insurance Program & participation with the NFIP and Higher Standards, the overall All Hazards Program, and some of the planning responses and reviews that they do with comp plan amendments and zoning, as well as activities of the Office of Emergency Management. It will be interesting to see the results in the next year or so as they transition some of these activities into other departments and/or agencies, hopefully with a core team as well.

Finally, Hillsborough County is doing a lot of other things too: There is a change in political leadership, which has changed the paradigm a little bit.

Hillsborough County is also addressing vertical evacuation challenges, taking into consideration the successful implementation of the first ever Tsunami Evacuation structure in North America built in Grays Harbor, Washington for the Ocosta elementary school. Hillsborough County has a hospital in a Level A Evacuation, or Category 1 Storm Surge area, which has been inspired to take some similar actions so they can evacuate the most critical residents who can't move, up to higher floors which have been fortified and evacuate everyone else. Some ACLFs are allowed in these high-risk areas; however, in their plan they must show where they're going to take their residents in an emergency, and how they're going to take them according to evacuation times.

Gene Henry is the, Hazard Mitigation Program Manager for Hillsborough County, Florida, Hazard Mitigation Department.



RESILIENT NEIGHBORS NETWORK (RNN)

SHOUT OUT!

In this issue we feature one of our RNN Charter Communities:

[Charlotte/Mecklenburg County](#)

Represented by **Tim Trautman**,
Flood Mitigation Program Manager
for Mecklenburg County, NC

Building a Flood-Resilient Future

In the mid 1990s, Charlotte was hit hard by widespread flood damage twice in three years. Residents wanted solutions and these floods provided a crucial opportunity to change Charlotte-Mecklenburg's future. Guided by strategic principles and solid planning, Charlotte-Mecklenburg implemented innovative solutions. The result: protections of lives and property and restoration of the natural functions of floodplains, two key elements of resiliency.

Creating a vision and building partnerships

"Gaining support from local elected officials and community partners like Realtors and developers was essential to change course and create a more sustainable future," says Tim Trautman, Charlotte-Mecklenburg's Storm Water Services' flood mitigation program manager. Charlotte began updating its floodplain maps, becoming FEMA's first Cooperating Technical Partner east of the Mississippi River and later the first local partner to process Letters of Map Change. As part of remapping, Charlotte-Mecklenburg created Future floodplains, based on full buildout conditions, to account for anticipated watershed changes. "Continuing to use FEMA's existing conditions flood insurance maps to regulate new construction would only continue the cycle of flooding and rebuilding for generations to come,"

Continued on next page.

News from the RNN Communities - continued

Update on Happenings in Grays Harbor County, Washington

By Charles Wallace, Seattle, Washington - June 28, 2019

Grays Harbor County, Washington, several years ago, became the first community in North America to successfully build a public school with vertical evacuation for protection in the event of a tsunami. The Ocosta elementary school was the first vertical evacuation, tsunami engineered, safe haven building built in North America. It was dedicated in June 2016. Chuck Wallace has spent at least three years talking to different jurisdictions, speaking to legislators and other folks, urging them to move forward with similar projects. What has happened now is that three additional communities in Grays Harbor County have applied for FEMA Grants and all three of them received their grant money: The City of Ocean Shores, the City of Westport, and the Aberdeen School District are all moving forward with vertical evacuation structures, which would make four such structures in one County in the State of Washington. In addition, the community just below Grays Harbor, the Shoalwater Bay Tribe, is also building a tower. This is huge news in the realm of tsunami safety!

These communities are all situated in some of the worst areas of the country for tsunamis. The land is essentially flat, and when the water comes in, it will roll right over the top of anything standing. This is a great achievement for public safety, great news for everyone, and may well push forward the agenda for more vertical evacuation structures up and down the Pacific Northwest coast.

On Monday, June 24, 2019, the Oregon legislature repealed its Tsunami Zone Building Law, which prohibited building schools, hospitals, police, and fire stations in the state tsunami inundation zone. A lot of folks perceive this as a bad move - and on its face, it is bad, in way. However, this event opens the door to building vertical evacuation structures within tsunami zones. If a community can build a hospital as a vertical evacuation structure and build it so it will survive tsunami issues and still be there following the event, everyone in the community benefits. Other structures can be built as vertical evacuation structures too. That's one thing that came out of this action by the Oregon legislature. Also, a lot of it was that people couldn't get insurance for their property without building a new school because they're towards the end of their economic life now, and property values are involved. But whatever their reasons, they have opened the door to potentially building some of these vertical evacuation structures now in Oregon.

A tsunami is an event - usually when an earthquake occurs, a community will lose power. Hopefully, the generators in the hospitals can work the elevators so they can move patients around. A lot of hospitals in Grays Harbor now are using the first floor of the building for administrative offices and the second floors and above for patients, which helps immensely when trying to move people up. The ability to move a little higher is the goal because *higher is safer*. The hospitals and communities are working on ways that they can still maintain oxygen feeds, water feeds, electrical feed, etc. during or after an earthquake/tsunami event. These are all issues when you are talking about a 7.0 to a 9.0. earthquake. There are big problems with these earthquakes but there are ways around them, and things are changing. Washington State is working hard on earthquake warning and new code regulations.

Project Safe Haven and Bob Frietag's materials at the University of Washington are very helpful resources to review. Everything they are doing in Washington State is based on that project. Community involvement is what helps it move forward: When you have buy-in from the community, you can do anything.

Charles Wallace is the Washington Shake Alert Earthquake Early Warning Coordinator for Cascadia Region Earthquake Workgroup. He formerly served as the RNN Community Representative for Grays Harbor County, WA, and continues his involvement in the RNN.



RESILIENT NEIGHBORS NETWORK (RNN)

SHOUT OUT!

Continued from prev. page:

Charlotte/ Mecklenburg County

says Trautman. Charlotte-Mecklenburg's Future floodplains are incorporated into adopted land use plans and all new construction meets this higher standard. In addition, Charlotte has adopted policies that detain and treat larger amounts of storm water runoff, preserve water quality buffers along streams and lakes, and promote greenways along floodplains.

Because flash flooding is very common in Charlotte-Mecklenburg, another resilience strategy provides advanced flood notification to emergency responders. Charlotte-Mecklenburg created a one-of-a-kind Flood Information & Notification System (FINS). This cooperative partnership with the US

Geological Survey uses a dense rain and stream gauge network. Dozens of times in its 10 years of existence, FINS has helped put responders and citizens in a better position to prevent damage and get out of harm's way.

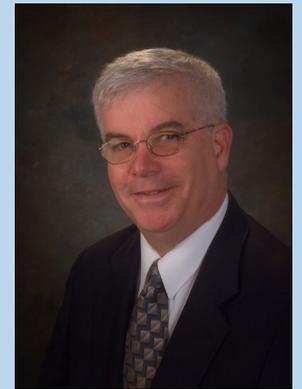
Building resilience before and after disasters

"Creating and maintaining a flood mitigation plan, then taking action to reduce risk is critical" says Trautman. Most of Charlotte-Mecklenburg's flood-prone homes and businesses were built before floodplain mapping. With a combination of federal, state, and local funds, more than 250 high-risk buildings have been purchased and torn down, moving more than 575 families out of the regulated floodplain. Charlotte-Mecklenburg has implemented three local "Quick Buy" programs that accelerate plans to buy damaged structures immediately after a flood. The voluntary sales don't involve federal funding or the time-consuming FEMA grant process, reducing the acquisition costs and providing mitigation in a matter of months.

For more information, visit:
<http://stormwater.charmeck.org>

A Problem or an Opportunity? Observations from the Mitigation Committee meeting of the National Emergency Management Association.

By Jim Mullen (March 30, 2019) - Reprinted with permission



Opinions expressed are those solely of the author, and not the Natural Hazard Mitigation Association.

Excerpted From the “Emergency Management Once Removed” Blog written for Pierce College’s Center of Excellence for Homeland Security and Emergency Management, found at: <http://www.coehsem.com/emergency-management-once-removed-by-jim-mullen/>

The Disaster Reform and Recovery Act (DRRA) addresses longstanding issues in the disaster management system.

Pre-Disaster Mitigation (PDM) is touted as a high priority for attention – so far, so good.

The suggestion of providing increases in PDM funds is enticing. However, the significant increases being bandied about beg emergency managers’ main question: could they effectively manage dramatically increased funding with current staffing levels? And, why continue to promote competition among jurisdictions, effectively choosing where lifesaving and economically sustaining projects will occur, and where they will not? And the federal government still controls the ultimate decision about what constitutes a “worthy” mitigation project.

We’ve been down this road before, in the post 9/11 years when homeland security funding was flowing with significant restrictions on state and local expenditure choices. That was a consequential, though perhaps well – intentioned flaw that diluted the effectiveness of those programs.

If pre disaster mitigation really is important: we can’t have winners and losers among states and local governments. If there are national mitigation priority projects, then certainly a competitive process makes sense. But at the state and local level, mitigation requirements and priorities should be identified and agreed to without top-down federal direction. Such a system would allow states to budget and plan for the guaranteed availability of federal dollars, dedicating their annual PDM allocation to fund their priority projects. A qualifying match requirement for PDM would be reasonable in these circumstances.

FEMA might well argue: without control, where ‘s the payoff for the federal government? Answer: if something does not break, it need not be fixed with post-disaster funding.

The leadership of FEMA, while competent, is unlikely to possess the political strength or the will to stand up to the erratic impulses of the current Administration. Its “parent” Department of Homeland Security itself is mired in chaos amid intrusive direction from the White House that impairs not only FEMA but has created dysfunction among other agencies within DHS as well. We’re left with a “game of drones” format, with the federal “strategy” pre-programmed and managed from a remote location. Officials placed in front of groups like the National Emergency Management Association are reduced to merely parroting canned presentations. They dare not drift off script.

Congress may provide the only receptive audience for a serious, pivotal discussion about emergency management and particularly mitigation policy. Emergency managers, as the nation’s subject matter experts, must tell the Congress how mitigation, and other emergency management elements should be managed. Clearly, Congress will not receive a comprehensive, accurate message from anyone else.

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Why will FEMA spend as much in past 2 years as the previous 37? Here's how disaster aid works

BY BROCK LONG, OPINION CONTRIBUTOR — 06/03/19 12:45 PM EDT
THE VIEWS EXPRESSED BY CONTRIBUTORS ARE THEIR OWN AND NOT THE VIEW OF THE HILL

When the average citizen hears about the political debate on the Hill surrounding the disaster aid package, it is important to keep in mind that disaster relief funding is very complex. It can come from 20 different federal government agencies to implement approximately 90 different programs. Unfortunately, many citizens and politicians are unaware of how disaster funding works, which often leads to unwarranted criticism of FEMA and unnecessary political fodder regarding disasters.

In 2017 and 2018, more than 200 disasters and wildfires were declared. In the aftermath of these events, FEMA's Disaster Relief Fund is only one major source of funding that was made available to state and local governments. As a result of the magnitude of disasters over the past two years, it is estimated that FEMA will administer the same amount of recovery funding that the agency distributed between 1979 (the year FEMA was created) to 2016. That's the equivalent of 37 years — in just two.

FEMA works tirelessly to properly administer funds in a timely manner; however, disaster recovery must be supported by all levels of government funding and a host of other agencies that are largely out of FEMA's control. Federal partners such as HUD, Small Business Administration and the Federal Highway Administration will also distribute an unprecedented amount of funds due to the sheer magnitude of the events experienced since 2017. Additionally, state and local governments should establish robust pre-event cost recovery plans that help them understand how to utilize all funding mechanisms to recover in a more resilient fashion.

*For full article, see: <https://thehill.com/opinion/energy-environment/446635-why-will-fema-spend-as-much-in-past-2-years-as-the-previous-37> *This site has ads

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Among all states, Massachusetts best prepared for disasters, outbreaks and emergencies

<https://www.usatoday.com/>

John Harrington, 24/7 Wall Street

Published 7:33 a.m. ET June 6, 2019 | Updated 6:00 a.m. ET June 8, 2019

As a nation, the United States is becoming better prepared for possible disasters, disease outbreaks, and other emergencies, according to a recently published preparedness study. The National Health Security Preparedness Index reached 6.7 out of 10 in 2018, a 3.1% increase over the prior year, and an 11.7% improvement since 2013. The level of readiness, however, is uneven across the country.

Authors of the study say the United States is facing increased frequency and intensity of health security threats. These include virulent diseases such as Zika and Ebola; growing resistance to antibiotics by infectious diseases; ongoing epidemic of opioid abuse; and globalization in travel and trade. Extreme weather events are also becoming more common. Several of [the most powerful hurricanes of all time](#) occurred within the last 10 years.

In light of the increasing threats, the study's authors recommend that the nation improve its social and health care networks; augment data and information systems; involve the private sector in health security; expand preparedness training; ensure funding for health security resources; and target regions that are falling behind in preparedness.

24/7 Wall St. reviewed [the findings of the index](#), prepared by the Robert Wood Johnson Foundation to determine which states are the most (and least) prepared for a disaster.

*For full article, see: <https://www.usatoday.com/story/money/2019/06/06/states-most-and-least-prepared-for-a-disaster/39544679/>

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Disaster funding politics — Why Americans hate Congress

BY MICHAEL BROWN, OPINION CONTRIBUTOR —
06/03/19 05:00 PM EDT
THE VIEWS EXPRESSED BY CONTRIBUTORS ARE THEIR OWN AND NOT THE VIEW OF THE HILL

Let's get straight to the point about disaster funding pending in Congress: Both parties are playing cynical politics and both parties should be ashamed. There isn't a whole lot to say about this sorry state of affairs, other than this singular piece of legislation epitomizes why Americans hate politics.

The U.S. Senate passed by a margin of 85-8 legislation funding \$19.1 billion for on-going disaster relief around the nation. Virtually every piece of disaster-related funding legislation always contains provisions disliked by one party or the other. Congressmen and senators do this for a couple of reasons. First, because it is disaster funding, it is likely to get approved and thus provides an easy vehicle to get a pet project approved on the coattails of disaster funding.

This isn't unique to disaster funding. But disaster funding is the favorite vehicle to pull these shenanigans because, after all, who can oppose funding that helps victims of disasters? The truth is, both parties, Republicans and Democrats alike, pull this stunt whenever they think they can get political mileage out of this tried-and-true legislative trick.

*For full article, see: <https://thehill.com/opinion/energy-environment/446708-disaster-funding-politics-why-americans-hate-congress>
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Are design professionals liable for failing to anticipate the effects of climate change?

The Architect's Newspaper By [Larry Dany and Nick Boyd](#) May 9, 2019

Building-design professionals are being called on to adjust their work to anticipate the challenges of changing weather patterns years in the future. But this raises the question of legal liability for possibly failing to do so, and Larry Dany and Nick Boyd examine how the law might apply. [ASCE SmartBrief](#) Thu 5/16/2019 11:21 AM

We do not need more vivid reminders that extreme weather events have the potential to cause appalling loss of life and tremendous property damage. The deadly [fires](#) that [burned through California](#) in November 2018 followed hard on the heels of a series of hurricanes and floods that wreaked terrible human and economic damage from New York to Houston and Puerto Rico. We are becoming increasingly confident that these extreme events are caused by climate change or, at any rate, that climate change makes them significantly more likely.

Recently, the [Fourth National Climate Assessment](#) warned that [climate change](#) will cost the United States economy hundreds of billions of dollars annually by the end of the century. Increasingly, stakeholders in the construction process are recognizing that buildings need to be designed to withstand the climate conditions of tomorrow as well as today. Naturally, this leads to the question of whether there will be a legal liability when design professionals fail to anticipate the conditions brought about by climate change.

There are several avenues by which a [design professional](#) might be held liable for failure to adapt to climate change. This article focuses on torts and tort-like duties, which represent a significant risk for design professionals. There are other sources of liability, though. Contracts, statutes, and regulations may all impose particular requirements on architects and engineers. Representations that a project complies with certain standards might also generate litigation. For example, in the wake of the recent California wildfires, the state's largest utility company was sued by shareholders alleging that it was liable to its shareholders for failing to prevent the fires.

Tort suits alleging liability for failure to adapt to climate change are unusual, but there are signs that they may be becoming more commonplace.

Tort law is the body of law that governs our duties to others and the damages that may be due if those duties are violated. It is tort law that generally governs lawsuits over medical malpractice, for example, the injured party claims that they should be compensated because the medical professional's actions fell below an acceptable standard of care and caused their injury. Under tort law, the design professional owes a duty toward those who could foreseeably be impacted by his or her actions—potentially extending beyond those to whom design professional have contractual duties (such as project owners) to include others, such as users or neighbors. Generally, the duty extends only to those who suffer physical injury to person or property—a tenant whose possessions are damaged by floodwater might have a claim against the design professional; the store across the road that loses business due to a building closure very likely does not.

For full article, see: <https://archpaper.com/2019/05/architect-liability-climate-change/>

*Note: This site has ads

[Climate Change Fills Storms With More Rain, Analysis Shows](#)



By [Kendra Pierre-Louis](#)

July 11, 2019

When a tropical storm is approaching, its intensity or wind speed often gets the bulk of the attention. But as Tropical Storm Barry bears down on the Gulf Coast in the coming days, it's the water that the storm will bring with it that has weather watchers worried.

The National Weather Service is calling for roughly 10 to 20 inches of rain to fall from late Thursday night through Saturday. The average rainfall for July in New Orleans, which is in the path of the storm, is just under six inches.

And Tropical Storm Barry, which may become a Category 1 hurricane before making landfall, will drop rain on already saturated land. On Wednesday, the region was hit by severe thunderstorms, which dropped as much as seven inches of rain according to preliminary National Weather Service data.

[Read: Louisiana dodged Tropical Storm Barry's worst blows.]

"Climate change is in general increasing the frequency and intensity of heavy rainfall storms," said Andreas Prein, a project scientist with the National Center for Atmospheric Research.

This week's rainfall came after the region experienced an extremely wet spring, causing the region's rivers to swell, and raising concerns that the upcoming storm may overtop levees in New Orleans. "If you look at the records, mostly it's the water that kills most people," Dr. Prein said.

In an email interview, David Gochis, a hydrometeorological scientist at the National Center for Atmospheric Research, said that flooding of the Mississippi River had left very little room to accommodate additional water, and that the storm surge would inhibit river water from flowing out to sea.

"The ingredients are there for a real catastrophe if the flood control infrastructure simply gets overwhelmed," he said.



Inland Cities Brace for Rain and Floods as Barry Moves North

Rain and flooding, not wind speed, are worrying many Gulf Coast residents.

July 13, 2019

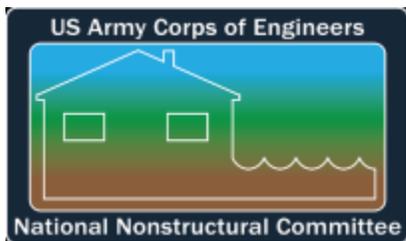
In recent years, researchers have found that hurricanes have lingered longer, as Barry is expected to do, and dumped more rainfall — a sign of climate change, said Christina Patricola, a research scientist at Lawrence Berkeley National Laboratory, and a co-author of a study that found that climate change is making tropical cyclones wetter. (Tropical cyclones include both hurricanes and tropical storms, which are hurricanes' less speedier kin.)

Researchers have been studying the effects of climate change on tropical cyclones because those sorts of storms are driven by warm water. Water in the gulf is 0.5 to 2 degrees Celsius warmer, according to Dr. Prein, who said: "This is really increasing the likelihood of a hurricane to form in this basin. And it will increase the intensity of the hurricane as well."

For original article, see: <https://www.nytimes.com/2019/07/11/climate/hurricane-tropical-storms.html?smid=nytcor>

* **Note: This site has ads**

Update on the USACE National Nonstructural Committee



2018 was a year of change for the USACE National Nonstructural Committee (NNC). Longtime NNC Chair, Randall Behm of Omaha District, retired in March 2018. Shortly thereafter, USACE Headquarters solicited NNC member applications. Six members were selected to serve 3-year terms. The six members are:

Chair: Lea Adams, PE, Chief, Water Resource Systems Division, Hydrologic Engineering Center

Executive Secretary: Danielle Tommaso, CFM, Planner, New York District

Member: Jodie Foster, PhD, Planner, Fort Worth District

Member: Andy MacInnes, Water Resource Certified Planner, New Orleans District

Member: Brian Maestri, RTS, Economist, New Orleans District

Member: Chris Rasmussen, CFM, Hydraulic Engineer, New York District

The Committee members met with the NNC's Advisory Panel for the first time in October 2018 to establish short- and long-term goals. The NNC Advisory Panel consists of representatives from USACE Office of Water Project Review, the Planning Community of Practice, the Flood Risk Management Planning Center of Expertise, and the Coastal Storm Risk Management Center of Expertise. The Advisory Panel provides guidance to the NNC on policy questions and other support as needed.

The NNC has been working on a number of activities in FY19 that are intended to build nonstructural expertise and increase the visibility of nonstructural approaches both internally and externally to USACE. The first initiative was to establish the Nonstructural Working Group (NWG), consisting of staff with an interest in and/or experience with any aspect of nonstructural. An email list and sharepoint site were created to facilitate sharing of information within the USACE nonstructural community, and the NWG hosts webinars every 1 to 2 months on topics of interest to the field. Webinar subjects covered to date include: nonstructural Planning Bulletins 2016-01 and 2019-02, buyout guidance, relocation assistance, managing structure inventories and nonstructural cost estimation. The webinar slides and audio are available on the NWG sharepoint site: (<https://team.usace.army.mil/sites/IWR/PDT/nonstrucworkgrp/default.aspx>).

Two other FY19 NNC activities aimed at increased sharing of nonstructural knowledge across USACE are: 1) development of a series of Best Practice Guides and 2) identification of a pool of nonstructural practitioners who have the interest and skills to support projects and reviews. A draft Best Practice Guide template has been completed and the goal is to create six new Guides by the end of the FY. In addition, a draft practitioner survey has been completed and will be routed to the NWG and other CoPs for staff to self-identify their interest and skill in nonstructural. This database of practitioners will make it easier for the NNC to connect district staff with nonstructural support needs to those who can help.

The NNC is also working to promote the visibility of nonstructural methods, both within USACE and with our project partners. NNC members will deliver multiple workshops and training presentations over the course of FY19, including workshops at conferences and presentations at training classes and national meetings. These efforts are timely, given the increasing interest in nonstructural approaches from our partners.

Looking forward, USACE nonstructural activities are ramping up. Two large nonstructural-focused projects are moving towards implementation: Fire Island to Montauk Point in New York District and Southwest Coastal Louisiana in New Orleans District. Both studies involve several thousand structures and are a great opportunity for USACE to embrace implementation of nonstructural techniques on a scale never done before by our agency. These are exciting and challenging times, and the NNC embraces our mission of providing support to USACE staff as they navigate these and other projects. Feel free to reach out to any member of the NNC for support if you have a need.

For more information about the NNC, please see:

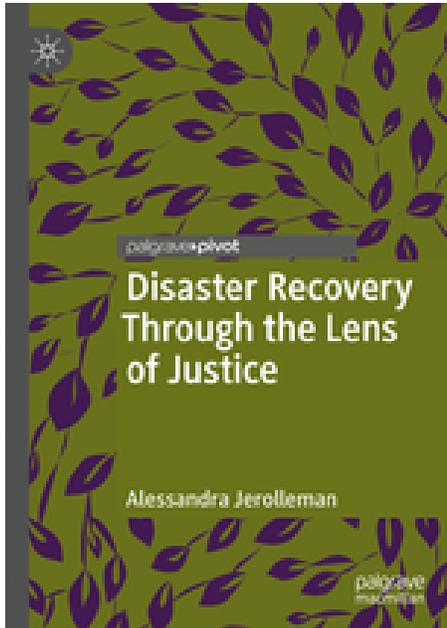
1. **Public-facing NNC webpage:** <https://www.usace.army.mil/Missions/Civil-Works/Project-Planning/nfpc/>
2. **USACE-only NWG sharepoint site:** <https://wwteam.usace.army.mil/sites/IWR/PDT/nonstrucworkgrp/default.aspx>

Excellent Reads

[Disaster Recovery Through the Lens of Justice](#)

By Alessandra Jerolleman

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Provides an in-depth analysis of the nexus between justice and post-disaster recovery at the household and community level

Discusses how current federal policies and frameworks, along with state level implementation, perpetuate and exacerbate inequalities following a disaster

Suggests a proposed path forward for NGOs, government, and others to better integrate justice into recovery.

About This Book

There has been increased attention to the topics of disaster recovery and disaster resilience over the past several years, particularly as catastrophic events such as Hurricane Katrina and Superstorm Sandy have brought to light the increasing vulnerability of so many communities. This manuscript brings together existing research, along with policy analysis, in order to look at disaster recovery through the lens of justice. This includes understanding the mechanisms through which vulnerability is exacerbated, and the extent to which the regulations and agency cultures drive this outcome. While existing analyses have sought to understand the particular characteristics of both resilient and vulnerable communities, there have been few attempts to understand the systemic inequities and injustice that is built into United States disaster policies, programs, and legislation. This manuscript thus begins from the understanding that social and economic structures, including land use policies and historic practices such as redlining, have concentrated hazard risk into vulnerable zones whose inhabitants do not benefit from the very policies that create and increase their risk.

About the Author

Alessandra Jerolleman is an Assistant Professor at Jacksonville University, USA, and an Applied Researcher at the Lowlander Center in Louisiana, USA. Dr. Jerolleman is a subject matter expert in climate adaptation, hazard mitigation, and resilience with a long history of working in the public, private, and nonprofit sectors.

Publisher: [Palgrave Pivot](#)

[California had its largest earthquake in years — then an even bigger one hit](#)

[The Washington Post](#)

By [Kayla Epstein](#) and [Ariana Eunjung Cha](#)

July 6, 2019

Two days of intermittent shaking punctuated by the most significant earthquakes California has seen in years have left residents “scared to death.”

Warnings that Southern California’s July Fourth earthquake could be followed by a more intense seismic event came true Friday night when a 7.1-magnitude earthquake struck at 8:19 p.m. local time about 125 miles northeast of Los Angeles.

For full article, see:

https://www.washingtonpost.com/nation/2019/07/06/california-earthquake/?utm_term=.c63a163ed3d2

NHMA RESOURCES

Please review and share widely the excellent and valuable [Resources](#) on NHMA’s [website](#):

[Hide From the Wind Report](#) - Tornado Safe Rooms in Central Oklahoma

[Building Your Roadmap to a Disaster Resilient Future \(2017\)](#) - Successor document to [The Patchwork Quilt](#) and [The Living Mosaic](#)

[The Disaster Risk Reduction Ambassador Curriculum \(2017\)](#) - Inaugural roll out in Harrisburg, PA

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

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

[NHMA Best Practices –](#)

[The OARS SHORTLIST](#) - Organizations Addressing Resilience & Sustainability

[New Best Practices have been posted to the NHMA website!](#)



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Natural Hazard Mitigation Association (NHMA) is a member supported 501(c)(3) educational & charitable organization composed of mitigation professionals. We continuously work to promote risk reduction and reduce the consequences of natural events, especially among the most vulnerable populations in our communities. Your continued support makes our work possible.

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