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Hello NHMA Members & Newsletter Subscribers,

Below is January 2017 edition of our NHMA Newsletter.

Please let us know if you have any articles or events that you would like to include in our next issue (February 2017).

[View this email in your browser](#)

January 2017 NHMA Newsletter



A Few Words From Our President

Greetings All,

As we begin 2017, I am pleased to report on tremendous progress the NHMA has made over the past year. We recently held our Annual Board Elections and welcome seven new members to our Board of Directors: Shannon Burke, Ponnile Olonilua, Alessandra Jerolleman, Pete Baston, Taran Roddy, Geni Jo Brawner, and John Weiner. Biographies for these fine folks can be found on our website at <http://nhma.info/about/board-of-directors/>. In addition, we successfully hired a contractor, [Wightman & Associates](#), through our RFP initiative and are very pleased to report excellent progress toward the fulfillment of our Disaster Risk Reduction (DRR) Curriculum goals as contracted by FEMA. Our members continue to publish articles, write papers, lecture and promote webinars to effectively engage as wide an audience as possible about the importance of hazard mitigation and community resilience, and you will find an announcement in this issue about an upcoming webinar that we are co-sponsoring with AGI on February 8, 2017. We hope many of you may be able to attend.

On that note, I am pleased to share that an article I recently co-authored with Laurie Mazur was picked up by the Oklahoma Floodplain Managers Newsletter. Their newsletter has some great coverage about one of our Resilient Neighbor Network Communities in Tulsa, Oklahoma, Bill Robison, and other Tulsa folks. You can see this relevant and engaging Newsletter [here](#) and read the co-authored article entitled *Why Current Disaster Planning Doesn't Cut It, and What We Can Do Instead* by Edward Thomas, Esq. and Laurie Mazur on

January
2017

Issue No. 01



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We welcome your ideas and suggestions on how to accomplish NHMA's many important goals and objectives! If you would like to be involved in any number of vital projects, please contact myself or our Administrative Manager Kim Thiele at nathazma@gmail.com.

Looking forward to much success in 2017,

Ed Thomas, President

UPCOMING EVENT!



AGI american geosciences institute
connecting earth, science, and people

CRITICAL ISSUES WEBINAR
Co-Sponsors: AAG | AIPG | AMS | ASFPM | FEMA | IAH-USNC | NOAA | NHMA | USGS

Assessing, Mitigating, and Communicating Flood Risk

February 8, 2017
1:00pm EST

Register today:
<http://bit.ly/flood-webinar>

Image Credit: FEMA

NHMA is co-sponsoring a webinar by AGI entitled: "Assessing, Mitigating, and Communicating Flood Risk" on February 8th, 2017 @ 1:00 pm EST (10:00 am PST).

The webinar features three speakers: Marie Pepler (USGS), Maria Cox Lamm (South Carolina Department of Natural Resources), and Iain Hyde (Colorado Resiliency and Recovery Office), **and focuses on flood hazard mitigation efforts coordinated at national and local levels.** The webinar is completely free and available to all, both live and as a recording on their website. Its aim is to assist state and local decision makers, as well as educators, researchers, and any interested members of the audience. **CFM CEC credit is available.**

To register, please visit: <http://bit.ly/flood-webinar>

ARTICLES:

RNN COMMUNITY NEWS

About the RNN Communities

Join our RNN Community

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FOOTER



About NHMA:

The 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. 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 nhma.info.

Interested in Joining?

Join NHMA

Conference To Focus on West Virginia Flood Recovery Efforts

<http://www.chron.com/news/education/article/Conference-to-focus-on-West-Virginia-flood-10853281.php>

Published 12:00 pm, Thursday, January 12, 2017

HUNTINGTON, W.Va. (AP) — A conference at [Marshall University](#) will focus on long-term recovery efforts following last summer's devastating flooding in West Virginia.

The conference will be held Friday at Marshall's [Brad D. Smith Foundation Hall](#) in Huntington.

Marshall says there will be four panels of speakers from government, business, higher education and nonprofit groups. Co-hosting the conference is the group [West Virginia Voluntary Organizations Active](#) in Disaster.

Gov.-elect Jim Justice will be the keynote speaker. Also expected to attend are [Tom Wooten](#), who wrote a book on the rebuilding of New Orleans neighborhoods following Hurricane Katrina; and [Steve Eddy](#), the former city manager of Moore, Oklahoma, where a 2013 tornado killed 24 people.

The June floods in West Virginia killed 24 people and destroyed or damaged thousands of homes, businesses, roads and bridges.

W.Va. Flood Victims Encouraged To Demolish And Rebuild

By Brad McElhinny, [West Virginia MetroNews](#)
December 25, 2016 at 8:02PM

CHARLESTON, W.Va. — The flood of 2016 has given new meaning to the struggle to stay in West Virginia. For years, West Virginians whose homes were destroyed by flooding faced a fairly standard scenario: demolish the structure, accept federal dollars and move on with life somewhere else.

State officials hope flood victims will consider a new option: demolish the structure, rebuild it and stay.

“To reinvent West Virginia, it’s necessary for people to consider staying versus leaving,” said Brian Penix, state hazard mitigation officer in the state Division of Homeland Security and Emergency Management.

“But even if you are going to leave, consider allowing someone else to stay. Let us reconstruct a new home there. If you want to leave, sell it after you’ve done the project.”

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

12.01.2016

Donate



NHMA is essentially an all-volunteer organization. All any of us can do to support the organization's efforts are 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/>. Remember that NHMA is a 501(c)(3) charitable organization and all contributions are tax deductible. Thank you and please give generously.



NHMA is always looking for volunteers to help with many important ongoing projects. From planning committees to publications contributions to fundraising, there are many, many tasks that need doing, which can only be done by you - our member volunteers.

If you are a member of NHMA and would like to help, we encourage you to visit our [Volunteers Page](#) and jump on board! If you are not yet a member of NHMA but would like to help, we invite you to [join](#)

Preventing the Trend of Flood Induced Damages

Contributed by Laurel McGinley and Juan Nieves

In the past year, major flood events in the U.S. have resulted in \$12 to \$15 billion in damages to housing and infrastructure, including damage to approximately 175,000 homes. This trend is expected to continue as climate change continues to impact normal weather, making it more extreme. What can be done to prevent or reduce these damages? We are working with ASTM International and the Federal Emergency Management Agency (FEMA) to develop tools to help address the impacts on coastal and riverine areas.

Partnering to Publish Standards

ASTM International is a global organization that leads the development of voluntary consensus standards to "improve product quality, enhance health and safety, strengthen market access and trade, and build consumer confidence." More than 30,000 of the world's top technical experts from 140 countries work to create test methods, specifications, classifications, guides, and practices for industries including metals, construction, petroleum, and consumer products.

For the past five years, we have been working with FEMA and ASTM International, initially as a subcontractor to URS and now as part of the STARR II joint venture with Atkins and Stantec, to develop two flood damage-resistant materials standards—a test method and a standard practice. The test method provides wetting and drying specifications for conditioning materials before testing. It has been accepted by both the ASTM subcommittee and main-committee and is currently ready for society review. Once it passes society review, it will be published as an ASTM Standard.

Updating Outdated Guidance Material

The standard practice provides specifications and valuation criteria used to determine if the material is acceptable or unacceptable for use under [Base Flood Elevation \(BFE\) conditions](#). The standard practice is currently in ASTM subcommittee development. As an engineer in Dewberry's resilience solutions group, I (Juan) facilitate the semi-annual subcommittee meetings and develop and revise the standards based on input received during these meetings. Once published, each standard will be referenced by the building codes. Together, they will provide a quantitative approach to evaluate the resistance of construction materials to damages from floods for portions of the building below the BFE. Currently, existing guidance is outdated and limited to [FEMA Technical Bulletin 2](#), which is based primarily on U.S. Army Corps of Engineers research conducted in the 1980s.

When the standards are adopted, manufacturers of building materials will subject the materials and assemblies to the specified testing requirements. Local building officials will use the ratings from the tests to determine what is allowed in construction below the BFE. Based on recent substantial damage estimates that we completed in Texas and Louisiana, we estimate that the use of flood damage-resistant building materials below the BFE could reduce damages to buildings from standing flood waters by as much as 30 to 40 percent. This reduction in damages will prove valuable as climate change continues and floods become all the more prevalent.

[NHMA](#) and visit our
Volunteers Page.



RNN COMMUNITY NEWS

A bit of Old But Important News: In October 2016, NHMA RNN member Mary Kell of Tulsa, Oklahoma had the opportunity to be part of the AIA (American Institute of Architects) delegation at the **Habitat III United Nations on Housing and Sustainable Urban Development** in Quito, Ecuador. The conference convenes once every 20 years which allows for the long range implementation of plans discussed in-between conferences. There were roughly 50,000 attendees from all over the world. The [New Urban Agenda](#) was adopted by United Nations leadership at this Conference and addresses the challenges that the world faces due to increasing urban population.

For copies of the related materials, see [New Urban Agenda, New Urban Agenda Explainer and blog post by Mary Kell](#).



Shout Out!

One of our fellow RNN communities, **Charlotte-Mecklenburg**, was just featured in the January-February 2017 issue of "Stormwater" Magazine in an article entitled, *Growing Pains* by Margaret Buranen. **To see the Magazine, click here:** <http://foresternetwork.com/magazines/stormwater/>

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

Excerpt:

Louisiana's Pricey Shelter at Home Flood-Recovery Effort Aided Thousands of Homeowners, but Program Ends With Mixed Reviews

About \$110 million has been spent on Shelter at Home construction alone. The total costs, including operational and government expenses, will be more.

By Elizabeth Crisp, The Advocate, Baton Rouge, La. | January 4, 2017

(TNS) - When the state launched the Shelter at Home program just weeks after catastrophic flooding swept south Louisiana, the temporary home repair effort was hailed by leaders as a unique way to get thousands of people displaced by the floods back into their homes. Four months later, Shelter at Home has largely wrapped, and more than 10,450 homes have taken part in what became a contentious program. It is the largest housing recovery effort in response to the flood so far. The state will begin long-range rebuilding programs in the coming months with federal aid secured from Congress. About \$110 million has been spent on Shelter at Home construction alone. The total costs, including operational and government expenses, will be more. A final calculation hasn't been reached.

Gov. John Bel Edwards, in a recent meeting with reporters, described Shelter at Home as "very successful." "We have made tremendous efforts to move as fast as we could and do as much good as we could do," Edwards said. But even Edwards, who pushed the Federal Emergency Management Agency to get behind the program, concedes that it faced a rocky start and still has its critics. Shortly after repairs began, Shelter at Home came under a stinging backlash — largely driven by homeowners disappointed in the bare-bones nature of its repairs and others who wondered how cost effective it was.

Because of restrictions on how FEMA spends its money, the program could only cover repairs deemed "temporary." No permanent repairs could be made to homes, so power outlets were replaced on patches of drywall and sinks were built into basic wooden frames. "Our biggest challenge was communicating with people so that they had reasonable expectations on their part," Edwards said. Under Shelter at Home, if a house could be put back in a "livable" state with up to \$15,000 in repairs, the state would approve it for the program and a crew — in many cases several crews — would be sent out to do the work. The goal was to give homeowners a way to live in their houses while more permanent repairs were made on their own dime.

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

[January 10, 2017](#)

WASHINGTON - The U.S. Environmental

We are very proud of the terrific work they do in North Carolina.

RESOURCES:

SEISMIC CODES:

Notification From: FEMA (Federal Emergency Management Agency)

The National Earthquake Hazards Reduction Program (NEHRP) of FEMA Building Science Branch is pleased to present two new publications, [FEMA P-1051 CD: 2015 NEHRP Provisions: Design Examples](#) and [FEMA P-1052 CD: 2015 NEHRP Provisions: Training and Instructional Materials](#). These publications are developed as educational and training resources to support users of the *2015 Edition of the NEHRP Recommended Seismic Provisions for New Buildings and Other Structures* (FEMA P-1050) and *ASEC/SEI 7-17 Minimum Design Loads and Associated Criteria for Buildings and Other Structures*.

[FEMA P-1051: 2015 NEHRP Provisions: Design Examples](#) provides selected technical design examples that apply the new methods, concepts, and procedures adopted in the *2015 NEHRP Provisions*. [FEMA P-1052: 2015 NEHRP Provisions: Training and Instructional Materials](#) provides presentations covering the new changes in the *2015 NEHRP Provisions* and key points for the corresponding design examples in FEMA P-1051. These two publications are intended for a technical audience including engineers and architects, members of the codes and standards organizations, building code professionals, research institutes, universities, material industries, and others who will benefit from a good understanding of the new changes in the *2015 NEHRP Provisions* and their corresponding code changes in the upcoming *ASCE/SEI 7-17*.

Both publications are available to the public for download and on CD.

- To access digitally, visit the [NEHRP Recommended Seismic Provisions for New](#)

Protection Agency (EPA) announced the availability of approximately \$1 billion in credit assistance for water infrastructure projects under the new Water Infrastructure Finance and Innovation Act (WIFIA) program.

EPA's WIFIA program will provide long-term, low-cost credit assistance in the form of direct loans and loan guarantees to creditworthy water projects. WIFIA provides another option for financing large infrastructure projects – generally at least \$20 million – in addition to the State Revolving Funds and bond market. WIFIA is available to state, local, and tribal governments; private entities; partnerships; and State Revolving Fund programs. EPA estimates that funds appropriated to the WIFIA program can be leveraged at a ratio greater than 50 to one, which means the \$17 million program budget could allow EPA to make approximately \$1 billion in loans and stimulate about \$2 billion in total infrastructure investment.

“The launch of the Water Infrastructure Finance and Innovation Act program marks a huge step forward for modernizing our nation’s aging water infrastructure,” said EPA Administrator Gina McCarthy. “WIFIA gives us a new opportunity to provide billions of dollars in low-interest loans to communities to build large infrastructure projects, significantly accelerating investments that benefit our nation’s public health and water security for generations to come.”

Some of the projects that WIFIA enables EPA to provide assistance for include:

- drinking water treatment and distribution projects
- wastewater conveyance and treatment projects
- enhanced energy efficiency projects at drinking water and wastewater facilities
- desalination, aquifer recharge, alternative water supply, and water recycling projects
- drought prevention, reduction, or mitigation projects

EPA will evaluate projects using criteria such as the extent to which the project is nationally or regionally significant, helps maintain or protect public health or the environment, protects against extreme weather, and serves regions with significant water resource challenges. EPA will make selections on a competitive basis.

EPA estimates that the U.S. needs about \$660 billion in investments for drinking water, wastewater, and stormwater infrastructure over the next 20 years.

For more information, visit www.epa.gov/wifia

Pitfalls Ahead For Flood Insurance Reform In 2017, By Brian Collins [National Mortgage News](#)

[Buildings and Other Structures, 2015 Edition FEMA Library page.](#)

- To order CDs, contact the FEMA Distribution Center via email, FEMA-Publications-Warehouse@dhs.gov, or phone, 1-800-480-2520.

NFIP Program Changes:

A number of legislative requirements from the Biggert-Waters Flood Insurance Reform Act of 2012 and the Homeowner Flood Insurance Affordability Act of 2014 require ongoing implementation by FEMA and the National Flood Insurance Program, and a number of other considerations have become apparent as a result. Among these legislative requirements and resulting considerations are:

- Continuing Elimination of Rating Subsidies
- Application of Annual Policy Surcharges
- Draft Affordability Framework
- Flood Insurance Advocate’s Office-Reports and Activities
- Increasing Marketplace Involvement of Non-Admitted Insurers Providing Flood Insurance
- Acceptance of Non-NFIP Flood Insurance by Federally Regulated and State Regulated Lenders
- Pending legislation regarding repeatedly flooded communities, and NFIP Program debt forgiveness
- NFIP Reauthorization-September 2017

To review the entire package of April 1, 2017 changes, visit: <http://www.nfipiservice.com/Strokeholder/pdf/bulletin/w-16071.html> .

NEW RELEASE OF BCA TOOLKIT VERSION 5.3

On January 19, 2017, FEMA Headquarters Mitigation office announced to its State Partners that the benefit cost toolkit version 5.3 has been approved for use. Over the next several

“It is insanity to keep rebuilding the same house in the same place, under-charging, and rebuilding it again and again,” said Jimi Grande, senior vice president of federal and political affairs for the National Association of Mutual Insurance Companies.

WASHINGTON — Lawmakers are preparing to deal with flood insurance reform next year, another in a seemingly never-ending attempt to resolve recurring problems, and they will once again have to confront a series of challenges. Those include communities and individual properties that repeatedly flood, how climate change could boost demand for the program and creating a private market for flood insurance so the government isn’t always on the hook. Congress is scheduled to take up tax reform early next year and to turn to flood insurance reform probably in the spring before the National Flood Insurance Program expires on Sept. 30.

One key issue is what to do about the roughly 30,000 properties that have been flooded over five times on average, representing 0.6% of properties that receive coverage under the program and 10.6% of all claims paid during its history.

Lawmakers could opt to try and buy those properties and prevent them from continually draining the program.

“It would cost about \$2 billion to buy out those properties that are still insured, unmitigated, and at-risk” of flooding again, said *Rob Moore, a senior policy analyst of the Natural Resources Defense Council*, at a National Housing Conference event earlier this month. That’s not “an unreasonable amount considering these same properties have already collected about \$2 billion in flood claims.” But the program currently doesn’t have that kind of money, as it is currently \$23 billion in debt to the U.S. Treasury. Congress used to pay off the debts every year, but that stopped in 1995 after Hurricane Katrina, said Roy Wright, deputy associate administrator for insurance and mitigation at the Federal Emergency Management Agency.

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

Resiliency Built on Foundation Of Data, Report Says
By Matt Leonard [Government Computer News](#)

The economic cost of extreme-weather events in the U.S. is high, with about \$1 billion in insured losses each year from hurricanes alone every year, according to a new report from

days, Headquarters staff will be updating FEMA.gov to provide links to download the new version of the toolkit.

This version of the tool includes numerous updates and changes, such as:

- All economic values utilized in analyses have been updated.
- New hurricane wind and seismic data sets were created to reflect the most recent hazard data.
- Tornado recurrence information has been updated.
- Incorporation of the CRMA project types into the full data flood module and expansion of the ecosystem service benefits.
- Development of a new drought module for aquifer storage and recovery projects.

A copy of the Release Notes detailing these changes can be found on NHMA's website at: [BCA Toolkit Notes/V.5.3](#). **Version 5.1 of the tool will sunset and be removed from FEMA.gov. Version 5.2.1 and Version 5.3 will be the only versions of the tools accepted for demonstrating cost effectiveness.**

Analysis related questions can be emailed to the benefit cost helpline at bchelp@fema.dhs.gov or by calling, toll-free: 1-855-540-6744.

Updated OARS List Now Available!
*V.35 * Jan.1, 2017*

NHMA is pleased to help make the OARS List known and available as a useful resource for hazard mitigation professionals and communities.

The List contains over 500 references, with new ones highlighted each month. It indicates sources of jobs, internships, grants, and other resources.

To access the current OARS List, visit: <http://nhma.info/wp-content/uploads/2016/11/OARS36.pdf>

The OARS LIST is an impartial and non-partisan resource. Organizations are cited from web listings and do not indicate endorsement by NHMA or the Editor.

The OARS LIST may be

White House Office of Science and Technology Policy. The report focuses on how to build resilience into communities that face these weather events. Although innovations in the insurance market and public/private partnerships will help, one resource that could really build resiliency is better data, the report says.

“Decision makers across sectors and at all levels of government rely on accurate and precise economic data to analyze the costs and benefits of policies, programs, and projects,” the report reads. Accessible, discoverable, and usable data “can uncover innovations in risk management that are currently obscured and drive defensible action that reduces disaster risks and costs.”

The problem is that there isn’t enough of this data, so the White House is taking steps to address the shortfall. The U.S. Geological Survey, the Federal Emergency Management Agency, the National Institute for Building Sciences and the Department of Housing and Urban Development all will be working in 2017 to provide more data to better understand resilience. The U.S. Geological Survey, for example, will be working to leverage its streamflow data. FEMA will be improving its flood monitoring software. The National Institute for Building Sciences will be updating a 2005 study that outlines the benefits of hazard mitigation. And HUD is expected to finalize requirements on energy benchmarking reporting for housing insured through the Federal Housing Administration.

“At every level of government and across the public and private sectors, we are striving to better define the current state of risk and quantify and monetize the benefits of improvements that increase resilience in ways that drive markets,” the report concludes. Sea Bright, N.J., meanwhile, recently announced its own resiliency plan. After Superstorm Sandy devastated the city, local authorities realized the need for improved infrastructure. The city plans to update sewer, power and telecom infrastructure. “We learned that no silver bullet can prepare us for any emergency,” said Rep. Frank Pallone, Jr. (D-N.J.), who represents Sea Bright. “But, with the public and private sectors working together, we can strive to make sure the citizens of Sea Bright and all of New Jersey are safer next time disaster strikes.”

freely distributed in support of our shared endeavors to be accurately informed with best practices in creating resilient communities.

The list is not all-inclusive. Many valuable efforts and resources deserve to be added. Comments/corrections/ additions/ suggestions are greatly appreciated. Please contact the Editor with any helpful additions: Editor: Donald Watson at email:

EarthRise001@SBCglobal.net

Tool Calculates Benefits Of Hazard Resistant Structures

Researchers at the MIT Concrete Sustainability Hub (CSHub) are developing methods to calculate the benefits of investing in more hazard-resistant structures. Jeremy Gregory, executive director of the CSHub recently presented one metric, the CSHub’s Break-Even Hazard Mitigation Percentage (BEMP), to officials in Florida and Georgia—states that can see millions of dollars in property damage due to hurricanes.

According to researchers, the BEMP evaluates the cost-effectiveness of mitigation features for a building in a particular location by factoring in the expected damage a conventional building designed to code would endure over its lifetime, and comparing it to a more resilient, enhanced building design. In areas prone to natural disasters, more spending on mitigation is justified—the BEMP helps to identify how much extra spending is recommended.

To see the full article, visit: [Engineering360](#)



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If you have any questions or believe you are receiving this message in error, please contact us at nathazma@gmail.com.

Our Mailing Address is:

NHMA, P.O. Box 170984, Boston, MA 02117

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