LOUISIANA FLOODPLAIN MANAGEMENT

FACTSHEET

LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

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SECRETARY

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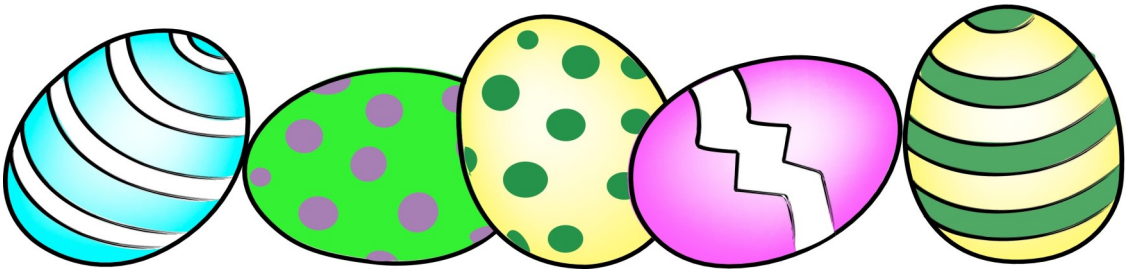
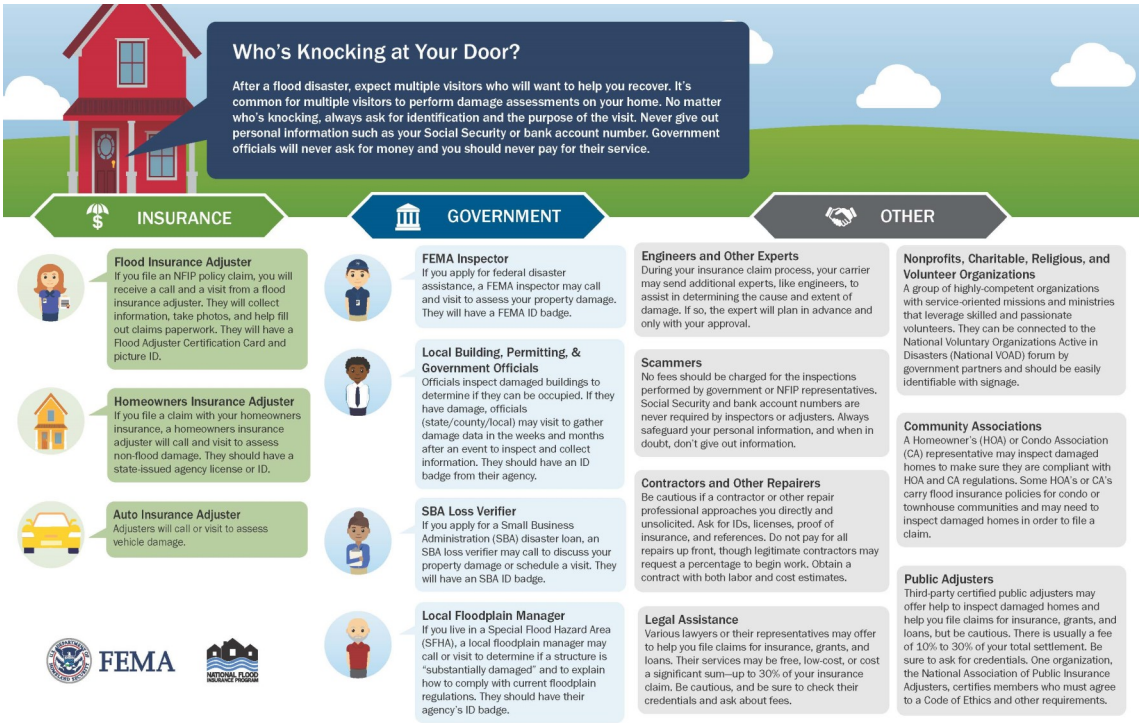
Inside this issue:



Flood Preparation—Links to Add to Your Webpages

What to Do Before a Flood, website in English and Spanish
Flood Loss Avoidance, fact sheet in English and Spanish
Flood Loss Avoidance, infographic in English and Spanish
Flood Loss Avoidance, video in English and Spanish
Securing Documents In Preparation for a Flood, video in English and Spanish
General flood safety social media from Ready.gov, tool kit in English and Spanish



NFIP/ CRS Corner

Creating the Perfect Construction Certificates Submission

For many CRS Coordinators, submitting a Permit List and correct Elevation Certificates for review can be an overwhelming and daunting task, but it doesn't have to be. ISO has created a new master checklist to help communities have a better understanding of how to create, organize, and submit Elevation Certificates. A community may have an Elevation Certificate or Floodproofing Certificate, but the building may also require other certificates like V Zone certificates or engineered opening certificates. We refer to all these certificates now as floodplain-related construction certificates (or construction certificates, for short).

An Informal Construction Certificate Checklist for you to Use

- ◊ Permit List identifying "Finished Construction" certificates for building in the Special Flood Hazard Area only
- ◊ Construction certificates ("Finished Construction" Elevation Certificates or Floodproofing Certificates with any required V Zone Certificates, or engineered opening certificates)
- ◊ Correction Memos (if needed) are completed, signed, dated, and attached to the construction certificate in question
- ◊ Construction certificates are saved as individual files, labeled by address name, or in a zipped folder with individual PDFs for each address.
- ◊ Permit List and construction certificate folder submitted to ISO prior to requested due date.

Construction Certificate Submission Tips

1. The key to a successful submission starts with the Permit List. CRS requires the Permit List to contain all permits for new buildings and substantial improvement/substantial damage in the SFHA during the reporting period assigned to you. That means anything in the B, C, or X zones can be disregarded for CRS purposes. If a homeowner put on a new addition to the house and it does not meet the substantial improvement requirements, then it does not need to be on your Permit List. What about that small shed for the lawnmower? The new cabana by the pool? Neither should be included because those are accessory structures. If it is a primary structure, then it should be on your list. A detached garage with an apartment over it or commercial business in it would qualify for your Permit List since this is considered a primary building (a building someone lives in and would not be covered as an accessory building). At a minimum, the Permit List must show the address of each building, the type of building (residential, commercial, etc.), the FIRM zone, whether it is a new building, or substantial improvement/substantial damage, the date of the permit, and whether the permit is final. To be sure you have everything needed, please use the Permit List template ISO populates with your addresses and other required fields. This step helps you identify which construction certificates you need to submit.
2. Collect the Elevation Certificates and Floodproofing Certificates, and make sure all other required certificates are attached to them. Elevation Certificates must not be password protected. The Elevation Certificate that is required for CRS purposes is the "Finished Construction" Elevation Certificate. Any other Elevation Certificates will be considered an error. *(continued on next page)*

Creating the Perfect Construction Certificate Submission

3. Refer to the Elevation Certificate checklist that guides you through reviewing those construction certificates for any errors. You may also want to watch the training video on how to correct Elevation Certificates. This video shows the various ways local officials have to correct Elevation Certificates.
4. Once all construction certificates are reviewed, label that entire digital construction certificate file by the address name (example: 123 Maple Street). The Permit List should also be in a separate PDF with "Permit List" in the file name. Combine all construction certificate files and Permit List into a zipped folder and submit to your CRS Resource Specialist.

You can find additional resources regarding construction certificates here. *(Taken from NFIP/CRS Update April/May2021)*

CRS Webinars

March 15	Introduction to the CRS
March 16	CRS and Higher Regulatory Standards
April 19	Preparing an Annual Recertification
April 20	CRS & Floodplain Species Assessment

CRS offers 1-hour webinars to help communities understand and meet their CRS requirements. Many will be recorded, so they can be accessed later. Registration is free but required, as space is limited. Some courses provide continuing education credits for certified floodplain managers (CFMs). See all of the CRS webinar trainings available on the CRS Resources website. All webinars begin at **12 pm Central time**.

For more on the CRS webinars, go to the Training tab of the CRS Resources website. If you have questions about or suggestions for the CRS Webinar Series, contact Becca.Croft@atkinsglobal.com.

Click here and type "CRS" in the search field to view webinars that are now open for registration.

If you would like to have a webinar on the FEMA Elevation Certificate, or a particular CRS activity, contact your ISO/CRS Specialist.

We need your help!

The Louisiana Department of Transportation and Development (DOTD) has partnered with the Federal Emergency Management Agency (FEMA) to perform Discovery throughout six HUC-8 watersheds (Lower Red-Lake Iatt, Tensas, Upper Caclcasieu, Whiskey Chitto, Bayou Macon, and Toledo Bend). Discovery is a step in the Risk MAP process in which communities are able to share flood risk concerns, identify areas at risk for flooding, and discuss solutions to reduce risk. You can help by ensuring the data about your community is current and accurate.

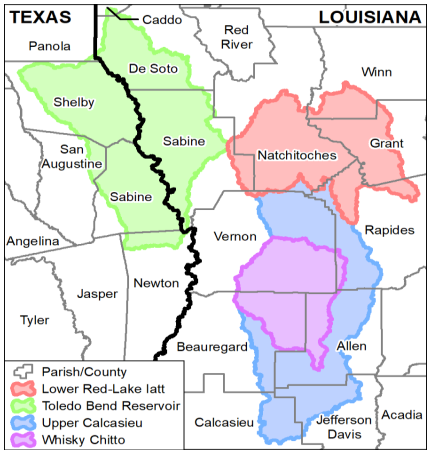
The overall goal of Discovery is for FEMA to partner with local communities and identify stakeholders to review and validate gathered flood risk data as well as discuss the vision for the watershed's future. Partners in the Discovery process include:

- Community officials
- Federal, State, regional, local, and non-profit organizations
- Other identified stakeholders

At this time, The State of Louisiana is asking communities to help by clicking this link to:

- Provide your contact information
- Verify high level flood risk-related information
- Complete a questionnaire concerning flood risk data and issues in your community
- Help identify problem areas and areas of mitigation success in your community using a web map

Toledo Bend Reservoir, Lower Red-Lake Iatt, Upper Calcasieu & Whisky Chitto

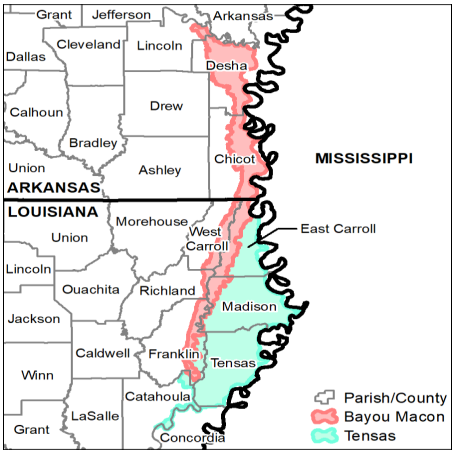


Tuesday March 8, 2022
Natchitoches Parish Library
450 2nd St,
Natchitoches, LA 71457
12:00 – 4:00 pm

Wednesday March 9, 2022
Cypress Bend Golf Resort, Spa & Conference Center
2000 Cypress Bend Parkway, Many, LA 71449
12:00 – 4:00 pm

Thursday March 10, 2022
Beauregard Parish Library
205 S Washington St, DeRidder, LA 70634
12:00 – 4:00 pm

Tensas & Bayou Macon



Tuesday March 15, 2022
West Carroll Parish Library
101 Marietta St, Oak Grove, LA 71263
12:00 – 4:00 pm

Wednesday March 16, 2022
Tallulah City Hall
204 N Cedar St, Tallulah, LA 71282
12:00 – 4:00 pm

Reduce Flooding From Backed up Sewers? There's an app for that

In areas where floods were once rare, now some neighborhoods are flooding repeatedly. Stormwater sewers are being overwhelmed by more intense storms. Most of the solutions call for big pipes and expensive construction. A group of researchers is instead helping cities use their current systems better.

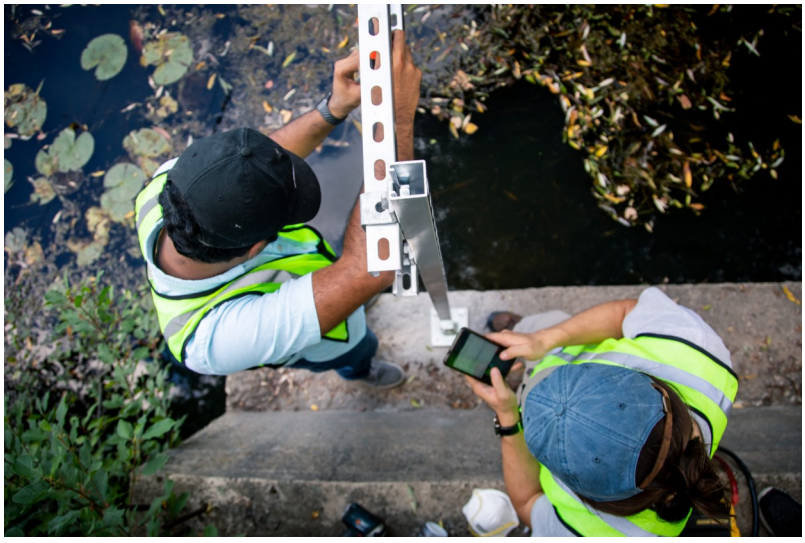
There's an app for that.

The idea behind the research is fairly simple. Even when there's a lot of rain, there are parts of a combined stormwater and sanitary sewer system that aren't full. There is storage capacity. The problem is you have to know where.

The answer is going to be different for every system. "Some places are dealing with very sort of large scale flooding, while others are dealing with water quality impairments. Here in the Great Lakes region, we have a confluence of those," said Branko Kerkez, an Associate Professor leading a group of Ph.D. students from the University of Michigan's College Civil and Environmental Engineering.

You've heard of self-driving cars. They are engineering self-operating sewer systems. Kerkez says a rainstorm doesn't hit a city the same way everywhere at the same time. "So a good example is it's raining a lot on one part of town, it's not raining that much in another part of town, so you might have storage assets that are not full all the time," Kerkez explained.

He and his team have been experimenting with cheap monitors that are hooked to the internet. By looking at a computer screen or even a phone, sewer system operators can see what's going on. "What are the conditions? Do I have extra storage over here? Can I close that valve to allow another part of the system to drain out? Just like a car that self-driving steers itself. Given changing conditions, water systems in the future may be able to control themselves dynamically in response to these inputs," Kerkez said.



The Washtenaw County Water Resources Commission has been working with Kerkez and his team. Harry Sheehan is the Chief Deputy Water Resources Commissioner. On a recent chilly morning he showed me ponds where some of the monitors were used.

"This cost $500, you can plunk them down anywhere, right, and it's got a solar panel and it's got a modem in it, so it can tell you what the levels of water are very quickly. So, you know, it's cheap, it's low maintenance, it gives you lots of information," Sheehan said.

For Washtenaw County, the sensors are helping to identify where there are choke points. They can install the monitors in storage ponds and a creek that connects them. After a couple of years, they've gathered lots of data about how the creek and ponds behave during heavy storms.

"And when we hire an engineering consultant to do a modeling to see what can be done there and what the design should look like. They already have the data. Right. So you've already collected $30,000 worth of data for a few hundred bucks," Sheehan said. That's going to help Washtenaw County figure out how to better manage stormwater and save some money. *(continued on next page)*

Reduce Flooding From Backed up Sewers? There's an app for that

Sheehan noted even the water soaking into the ground in rain gardens can be monitored to see if they're working well. In a system such as Washtenaw County, much of the stormwater runoff goes to rain gardens and ponds like the ones we visited. Most of those ponds were excavated in the 1960s and 70s. Not a lot of thought was given to the aesthetics. A collaborator with Kerkez and his team finds that acceptance of a smart stormwater system by the public depends on whether it seems to fit in the neighborhood.

"How the edge of the smart stormwater pond appears. And that's affected by the steepness of the slope for constructing the pond, as well as how much edge there is beyond that slope that has water in it, where you can plant and what kinds of plantings are there," explained Joan Nassauer, Professor in the School for Environment and Sustainability at the University of Michigan. She conducted surveys of in cities with and without smart stormwater systems.

She says along with how it looks there are other concerns. "Perception concerns are partly about amenity, partly esthetics, but they're also very much about perceived safety," she said. Would an automated system lowering and raising the level of water be dangerous to kids playing in the neighborhood? The water rises and falls naturally anyway, but the perceptions of the residents are still an important consideration.

Washtenaw County sees other ways to use the technology in the future, but Branko Kerkez and his team is working with a larger system nearby where the smart sewer idea is going a lot further right now. The Great Lakes Water Authority operates water and wastewater systems for a big chunk of southeast Michigan: the City of Detroit, Wayne, Macomb, Oakland counties and beyond.

There, researchers are not only putting in the sensors in sewer pipes, but they're getting more precise real time information about where it's raining. They're looking at ways to remotely activate valves and inflatable dams in the pipes to direct water where they have storage capacity. That will help to avoid floods in streets and neighborhoods downstream. And help to avoid dumping untreated or partly treated sewage into the Detroit River.

John Norton is Director of Energy, Research & Innovation at the Great Lakes Water Authority. He said in just a few years, the sewer system could be controlled by artificial intelligence.

"What we need is controls -to build an automatic controls- well, we have that. We need sensors to figure out what's going on. Like you pointed out, there's rainfall sensors, there's actual predictions using radar and NOAA data. So there's a variety of different sensors and how do we integrate all that in? And then there's the algorithms themselves."

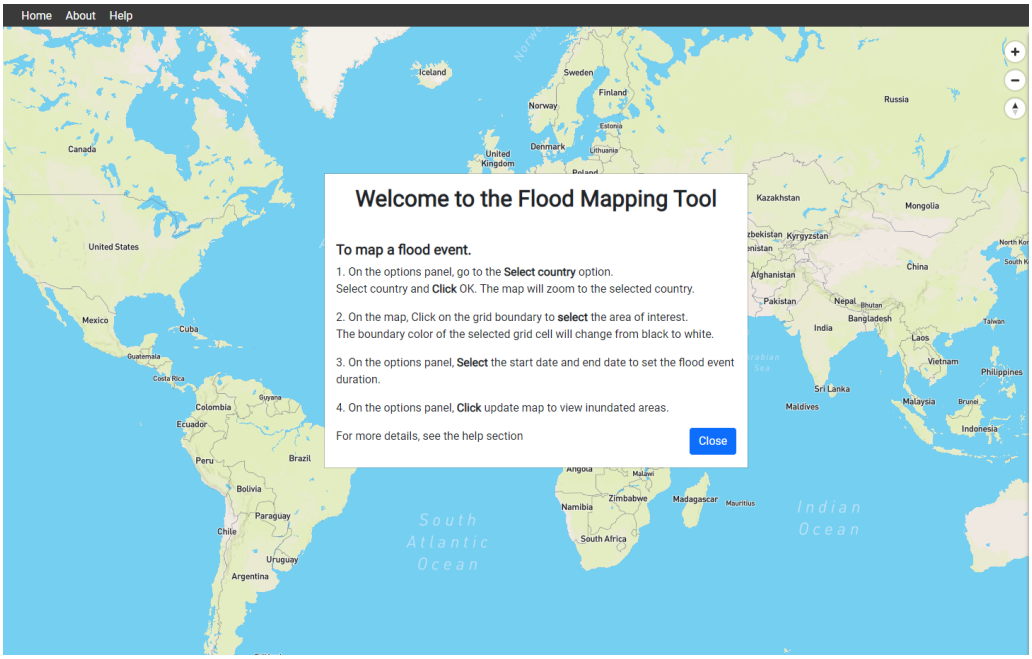
Norton says they could have a system like that in place as soon as two or three years from now. Other cities such as Cincinnati, and South Bend, Indiana already have similar systems that are models for the nation.

"I still can't believe that we can manage sewers and that not only do we manage sewers, but that artificial intelligence is being used to help us manage sewers."

Smart sewers won't solve everything.

As climate change continues, more big concrete pipes and underground storage will be necessary in some places. But these systems will make what wastewater systems have right now work more efficiently and do it quickly and cheaply. (**Michigan Radio | By** Lester Graham Published November 11, 2021 at 1:20 PM EST)

World Flood Mapping Tool Unveiled



A new online tool that makers say quickly generates accurate street-level resolution maps of floods that have occurred worldwide since 1985 was released last month. The World Flood Mapping Tool should help all countries and is especially needed in the Global South, where flood risk maps are rare and often badly out of date, but population growth and urbanization are accelerating.

Created by United Nation University's Institute for Water, Environment and Health in Hamilton, Canada, with support from Google, MapBox, and other partners, the free tool requires only Internet access to obtain a flood map at 30-meter resolution. Users can adjust variables to help identify gaps in flood defenses and responses.

The World Flood Mapping Tool uses the Google Earth Engine combined with decades of Landsat data since 1985 — a vast catalog of geospatial data enabling planet-scale analysis capabilities.

Layers of Landsat information for a selected region and specified timeframe identify temporary and permanent water bodies while integrating site-specific elevation and land use data. This produces a detailed map of flood inundation in recent decades, with available overlays of population, buildings, and land use.

"An estimated 1.5 billion people — greater than the population of Europe — live at risk of exposure to intense flooding," says UNU-INWEH Director Vladimir Smakhtin. "We need to prepare now for more intense and more frequent floods due to climate change and hope this tool will help developing nations in particular to see and mitigate the risks more clearly."

Hamid Mehmood, a GIS and remote sensing specialist at UNU-INWEH who led the tool's development, says that a UNU-INWEH survey showed a majority of flood forecasting centers in flood-prone countries lack the ability to run complex flood forecasting models.

He adds that floods like those this year in Europe that killed more than 200 people and caused billions of dollars in damages are now up to nine times more likely because of climate change.

"As temperatures continue to rise the number of flood events will increase along with their severity," says Mehmood. "No place is immune. And yet remarkably few regions, even in wealthy countries, have useful, up-to-date flood maps because of the cost and difficulty of creating them."

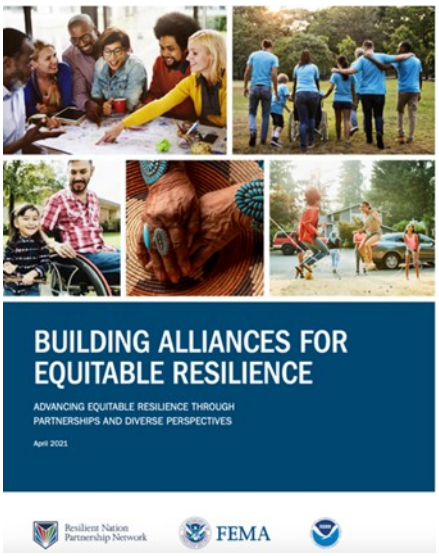
The new tool will also reflect new floods soon after they occur to provide up-to-date maps to help assess overall flood impacts and plan for the future. An upcoming version for more commercial uses, such as by insurance firms, will offer even more precise building-level resolution. In addition, a free flood risk prediction tool for release next year will use artificial intelligence to generate current and future flood risk maps for three climate change scenarios at the city, district, and river basin levels.

Access the tool.

(taken from NewsViews December 2021)

FEMA's Resilient Nation Partnership Network Releases "Building Alliances for Equitable Resilience" Audio Stories

By Bradley Dean, bradley.dean@fema.dhs.gov



The Resilient Nation Partnership Network (RNPN) recently released a series of audio stories about equity and resilience, featuring four diverse voices who contributed to the "Building Alliances for Equitable Resilience" resource that was published earlier this year.

This is the latest step in a massive collaboration made possible by the reach and power of partnerships. "Building Alliances for Equitable Resource" and the corresponding audio stories offer insights, reflections and resources that organizations can use to build and apply equitable practices in their day-to-day work.

The audio stories feature four of the authors of the original guide rating the narratives that were featured as "Partner Voices." The authors/orators include:

- Nikki Cooley, Diné Nation/Institute for Tribal Environmental Professionals.
- Anna Marandi, National League of Cities.
- Valerie Novack, Utah State University, formerly of the Center for American Progress.
- Jake White, National Association for Latino Community Asset Builders.

Narrated by FEMA's Director of External Affairs, Justin Knighten, these original anecdotes describe why resilience is uniquely important to the speakers, their livelihoods and communities. The stories highlight the need to act to create a more resilient future. As Valerie Novack notes, "We cannot continue to only write and talk about building networks, practices and communities that are prepared for and resilient to disaster events. We must actively engage in the changes necessary to make them so, and we hope that resources such as these are the start to that work."

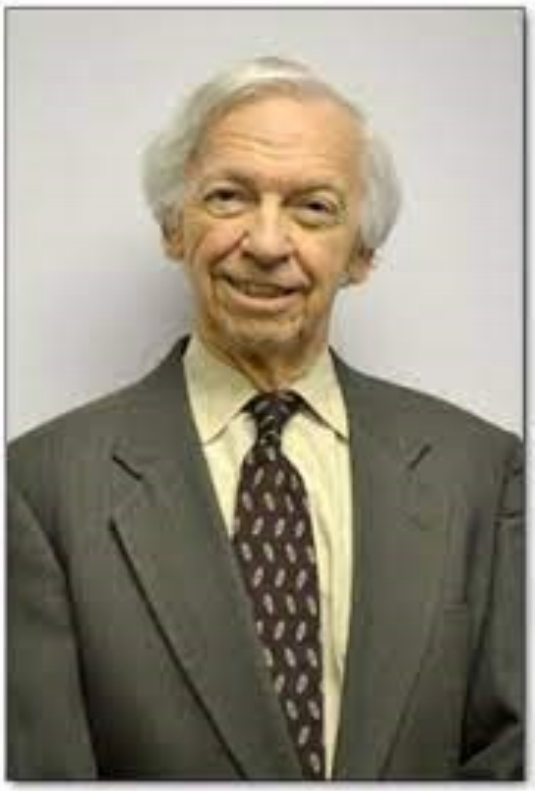
The audio stories with English and Spanish transcripts are available on the RNPN website. For more information, please reach out to Bradley Dean at bradley.dean@fema.dhs.gov.

Update to NFIP Technical Bulletin 9

Released NFIP Technical Bulletins provide guidance for complying with the minimum NFIP floodplain management requirements for building performance. Technical Bulletin 9 provides guidance about the minimum NFIP requirements for designing and constructing breakaway walls beneath elevated buildings in Coastal High Hazard Areas (Zones V, VE, and V1-30). FEMA has updated prescriptive, simplified, and performance-based design methods for breakaway walls; updated design values to align with the current state-of-the-practice in wind design based on the American Society of Civil Engineers' Standard 7 (ASCE 7), minimum design loads and associated criteria for buildings and other structures; and expanded guidance on partial height breakaway walls.

Download NFIP Technical Bulletin 9: Design and Construction Guidance for Breakaway Walls

(taken from NewsViews February 2022)



Theodore "Ted" DeBaene

A memorial service will take place at 10a.m. on Saturday, March 19th 2022, at St. Jean Vianney Catholic Church located at 16166 South Harrell's Ferry Road

Baton Rouge, LA

Meet Miss Marsha. She lives in Jefferson Parish and shares ways to protect your property and family from natural hazards and provides tips to build smarter. She can be found in newsletters, billboards, mailers, and government offices with these tips.

Miss Marsha and her friends Manny the Manatee, Piper the Piping Plover, Stu the Pallid Sturgeon, and Tina the Leatherback Turtle. Each of these characters have been or are currently featured on Jefferson Parish's threatened or endangered species list. Each of the characters will be featured in short infographics to educate children and adults about natural hazards, flood risk, and ways to save our coastal ecosystem.

FEMA Publishes More Risk Rating 2.0 Data

FEMA has released additional data on the agency's new Risk Rating 2.0 flood insurance rate pricing methods, including data that compares rate changes from the new rating methodology to the legacy rating system in place since the 1970s. FEMA created Risk Rating 2.0 so flood insurance rates are actuarially sound, equitable, easier to understand, and better reflect an individual property's flood risk.

To view the comparison data, go to the Risk Rating 2.0 state profiles page. For each state and territory, there's a spreadsheet and a PDF narrative that explains the new methodology vs. the old methodology.

"The comparison data debunks a huge myth held by many critics of the new methodology that under the old system, flood insurance rates were not subject to regular annual increases," said David Maurstad, senior executive of the National Flood Insurance Program. "The truth is rates have gone up every year for all policyholders and would continue to do so if no action is taken."

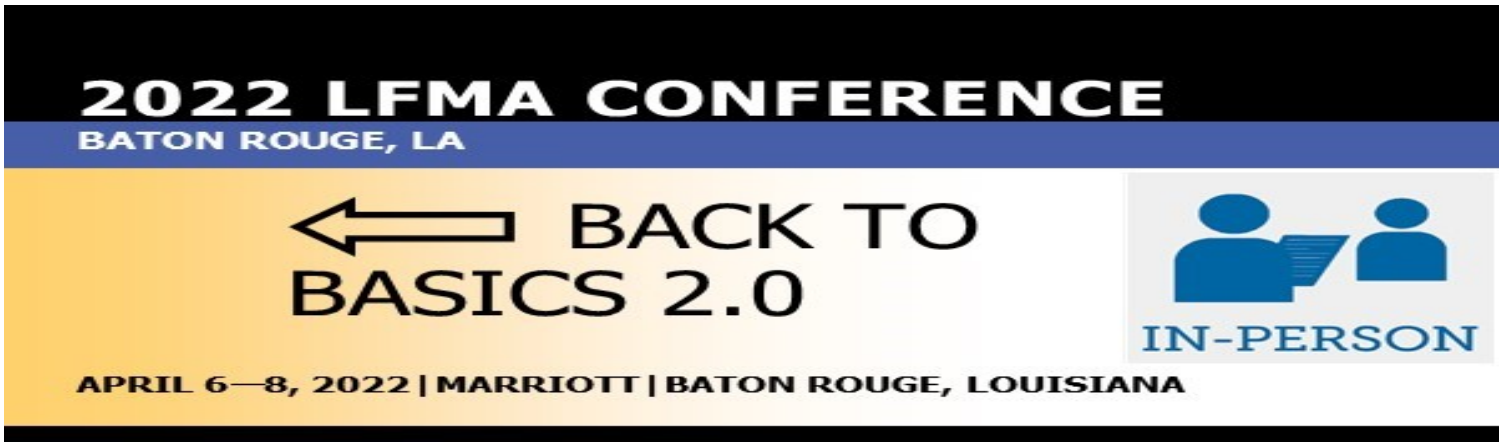
"The side-by-side comparisons show some policyholders now will experience decreases under year one of Risk Rating 2.0 while a majority of remaining policyholders will see premium increases mostly on par with what they already pay."

The new methodology now considers the cost to rebuild, a foundational aspect that ensures rates are equitable for all policyholders. Under the old system, policyholders with lower to moderate value homes with less flood risk subsidized the premiums of policyholders with higher valued homes and higher risk. Adding the cost to rebuild levels the playing field as all premiums now equitably reflect a single property's unique flood risk.

Another key change implemented with the new methodology is the fact that once a premium reaches its full risk rate, increases stop. Under the old system, increases would continue indefinitely year after year for all policyholders.

FEMA has taken a phased approach to the implementation of the NFIP's new pricing plan. Phase 1 began on Oct. 1, 2021 with existing policyholders allowed to take advantage of decreases on their policy renewal date and with the selling of new policies. For phase 2, all remaining policies renewing on April 1 and continuing through March 31, 2023 will be subject to the new rating methodology.

(taken from NewsViews February 2022)



Click picture to register

LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Our goal is flood loss reduction . . .

If you or someone you know would like to receive future copies of this newsletter please contact our office:

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FAX: 225-379-3002
E-MAIL: Jeanette.clark@la.gov
WEBSITE: http://floods.dotd.la.gov

Happy Easter

from

From: Cindy, Pam, Susan, & Jeanette