

THE BULLETIN

The Official Newsletter of the FDEM Mitigation Bureau



Mitigation Lessons from the 1928 Okeechobee Hurricane

By: Kelli Alford, FDEM Mitigation Bureau Coordinator



The 1928 Okeechobee Hurricane struck near Palm Beach as a Category 4 storm, with winds over 145 mph. As it crossed Florida, intense rainfall caused Lake Okeechobee to overflow, breaching unstable dikes and flooding nearby communities. More than 2,500 people died—many of them Black farmworkers living in low-lying areas with no protection or warning.

This tragedy was a catalyst for change in disaster policy and flood control. In its aftermath, the U.S. Army Corps of Engineers constructed the Herbert Hoover Dike—one of Florida's first large-scale, federally funded flood protection systems. The storm also influenced key national legislation: the Flood Control Act of 1944, the Disaster Relief Act of 1974, and the Stafford Act of 1988, which remains the cornerstone of federal disaster assistance.



Wreckage of homes and cars after hurricane (photo likely 1928), *Florida Memory*

While the loss was immense, the disaster laid the foundation for today's progress in protecting lives and property. At the Florida Division of Emergency Management (FDEM), we continue to build on those lessons. Our mitigation programs—like the Hazard Mitigation Grant Program (HMGP) and Flood Mitigation Assistance (FMA)—help communities reduce risk before the next storm hits.

We've come a long way. Today's mitigation efforts emphasize both physical defenses and social vulnerability, aiming to protect everyone, especially those most at risk. The ongoing rehabilitation of the Herbert Hoover Dike and local mitigation planning efforts reflect that commitment.

Nearly a century later, the legacy of the 1928 Okeechobee Hurricane lives on—not just in memory, but in the resilient systems and strategies we've built to ensure such a tragedy never happens again.

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Haines City Unveils New Emergency Operations Center to Support Rapid Growth

By: Haines City Fire Department

Haines City, one of Florida's fastest-growing communities, is strengthening its emergency preparedness with the construction of a new Emergency Operations Center (EOC) and fire station. Strategically located just off US Highway 27, the facility is designed to support the city's rapid expansion and growing demand for emergency services.

Fueled by significant residential and commercial development, Haines City has experienced a steady rise in emergency call volume. To meet this demand, the new EOC will house the city's third fire station, extending fire and rescue coverage to the northern areas of the community and response capabilities across the region. This expansion not only boosts immediate emergency response but also aligns with mitigation principles by reducing risks associated with delayed services during critical incidents.

The two-story EOC spans over 25,000 square feet and is designed to remain fully operational during hurricanes and other severe weather events. Built with resiliency in mind, the facility will serve as a centralized hub for coordinating emergency response efforts across multiple city departments, including fire, police, and public works, accelerating decision-making and streamlining resource deployment.

A key feature of the new center is its emphasis on interagency collaboration and strategic planning. The Haines City Police Department will maintain a dedicated office within the facility, enabling seamless coordination during emergencies and large-scale incidents.

Equipped with backup power systems, secure communication infrastructure, and redundant data networks, the EOC ensures continuity of government and emergency services during disasters. These technological investments not only enhance immediate response capabilities but also contribute to long-term risk reduction and recovery planning.

Fire Chief Codi Donahoe, who has helped lead the department through this period of accelerated growth, emphasized the importance of forward-thinking infrastructure. "This facility reflects our proactive approach to public safety. We're building not just for today's needs, but for the Haines City of tomorrow," Donahoe said.



Construction progress continues on the new Haines City Emergency Operations Center.

Slated for completion in fall 2025, the new EOC and fire station represent a significant step forward in ensuring that one of Florida's most dynamic cities remains prepared, resilient, and ready to respond.

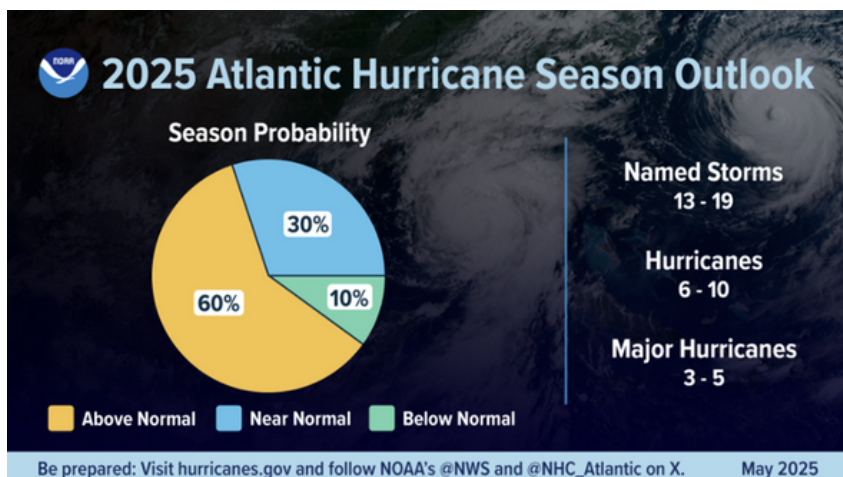
The future Haines City Emergency Operations Center, a modern facility designed to coordinate the city's emergency management efforts.



Hurricane Season on the Horizon

By: Sabrina Uribe, FDEM Mitigation Planner

The National Weather Service (NWS) has announced their predictions for the 2025 Hurricane season. The graphic below shows the highlights for what we can expect this coming season.



A summary infographic showing hurricane season probability and numbers of named storms predicted, according to NOAA's 2024 Atlantic Hurricane Season Outlook

What Contributes to this "Above Normal" Outlook?

One of the reasons expect and above normal season is because of the El Niño Southern Oscillation (ENSO), otherwise known as El Niño and La Niña. Without getting too complicated, ENSO is a large-scale weather pattern that oscillates every 2-7 years and results in the warming (El Niño) and cooling (La Niña) of the Pacific Ocean off the coast of South America. A transition to La Niña typically cools the Pacific and, in turn, warms the North Atlantic. Warmer Sea Surface Temperatures (SSTs) in the Atlantic, combined with reduced vertical wind shear, create favorable conditions for hurricane development.

In 2020, the strongest La Niña in nearly a decade developed during the summer months. That season broke the record for the most named storms since 2005 and marked only the second time in history that forecasters had to use Greek letters to name storms.

FUN FACT!

2020 was the most active season on record, with a total of 30 named storms, surpassing the previous record of 28 set in 2005.

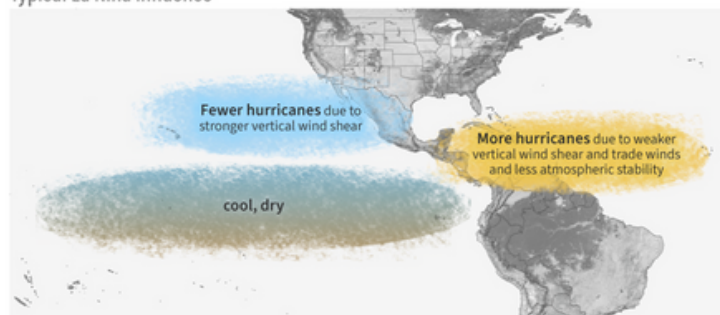
Currently, we are in the ENSO-neutral phase, and this pattern is expected to continue into fall. NOAA's outlook shows about a 54% chance that ENSO-neutral conditions will continue into hurricane season, and a 33% chance that La Niña conditions will develop during the peak months—August, September, and October.

It's important to remember that the storm count reflects overall activity in the Atlantic basin and is not a forecast for how many storms will make landfall. NOAA does not issue landfall predictions this early in the season, as hurricane tracks are largely influenced by smaller-scale weather patterns that only develop once a storm has already formed.

As we head into hurricane season, it's more important than ever to take preparedness seriously. While we can't control how many storms will form or where they might make landfall, we can take steps to reduce their impact. Now is the time to review your emergency plan, check your supplies, and consider home mitigation measures—like reinforcing your roof or elevating your home if you live in a flood-prone area. Taking action before a storm is on the horizon can make all the difference.

To read NOAA's full 2025 hurricane outlook, click [here](#)!

Typical La Niña influence



Typical influence of La Niña on Pacific and Atlantic seasonal hurricane activity. Map by NOAA Climate.gov

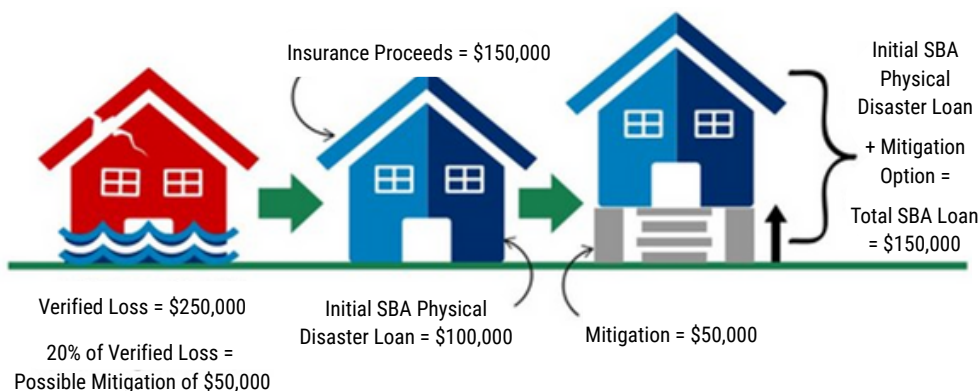
Unlock Affordable Disaster Mitigation Funding with SBA Disaster Loan Program

By: The U.S. Small Business Administration

Floridians, did you know the U.S. Small Business Administration (SBA) offers a powerful tool to protect your property from future disasters? In response to Hurricanes Helene and Milton, the SBA has approved over \$1.5 billion in disaster loans through its Disaster Loan Program. More importantly, this includes more than \$308 million specifically designated for mitigation projects across Florida. The low-interest mitigation loan option enables homeowners, businesses, and nonprofits to implement measures that reduce the risk of future disaster damage, such as elevating structures, reinforcing roofs, or installing flood barriers.

How it works:

If you have an existing SBA disaster loan for physical damages, you're eligible for a Mitigation Loan Option—up to 20% of your verified losses. For example, if your home suffered \$250,000 in damage, you could receive up to \$50,000 for mitigation projects, regardless of your existing loan amount. With SBA's affordable interest rates, these funds make it easier than ever to invest in disaster-proofing your property.



In this example, a \$100,000 physical damage loan at a 2.8% interest rate has a monthly payment of \$419.96. Adding a \$50,000 mitigation loan increases your payment by just \$209.98, bringing the total to \$624.94. That's a small price for peace of mind!

How funds can be utilized:

These funds can be utilized to protect your property against a wide range of future disasters, not limited to the hazard that caused your recent damage. From installing hurricane-proof windows to constructing flood barriers, this all-hazards approach ensures your property is well-prepared for any future challenges.

Examples of possible mitigation projects can include but are not limited to:

	Hurricane Roof Straps		Install Flood Vents		Modify Landscaping
	Install a FORTIFIED Roof		Elevate Property		Install a Safe Room or Storm Shelter
	Strengthen Windows and Doors		Elevate Utilities and Electrical Systems		Install Sump Pumps

How to apply:

Floridians with an existing SBA disaster loan for physical damage can easily apply for a mitigation loan to protect their homes, businesses, or non-profits. Simply log in to the MySBA loan portal to request a loan modification for mitigation funding. Start the process by sending a secure message to your case manager and submitting your proposed mitigation measures for SBA approval. You have up to two years to apply. There's no cost to submit an application, and you're under no obligation to accept an approved loan.

Additional information on the SBA mitigation loan option can be found on the SBA website at [Mitigation assistance | U.S. Small Business Administration](#).

Wall of Wind Mitigation Challenge Inspires Future Leaders In Disaster Mitigation

By: Erik Salna, FIU International Hurricane Research Center

The air was electric with anticipation as South Florida high school students gathered at the NHERI Wall of Wind Experimental Facility at Florida International University (FIU) in Miami. Their projects—carefully engineered, meticulously designed—stood ready to face the fury of a simulated hurricane. It was time for the annual FIU Wall of Wind (WOW) Mitigation Challenge.

Held on March 20, the Challenge brought together ten local high school teams to tackle a real-world problem: how to reduce the impact of wind scour on a building's flat roof. The goal was simple but far from easy—to design a system that would keep pea gravel from being blown off during extreme wind events. With guidance from Wall of Wind engineers, students engineered solutions that improved the aerodynamic performance of their models, preparing them for the ultimate test against the Wall of Wind, capable of mimicking a Category 5 hurricane. The ability to take lessons learned in the classroom and apply them to real-world situations is priceless,” said Mario San Jorge, Lead Teacher at South Miami High School. “Nothing piques the curiosity of students more than being able to see the results for themselves.”



2nd Place winner FL Christian School

This was no ordinary science project. Each team presented three critical components:

- A flat roof mitigation system tested in live conditions
- A live oral presentation defending their design choices
- A written technical paper outlining their process and findings

The competition pushed students to think like engineers and problem-solvers, blending STEM, architectural design, and even entrepreneurship. It wasn't just about building something that worked—it was about understanding why it worked and how it could be better.

“It was a very fun and great learning experience,” said Claudia Casola, a senior at South Miami High School. “It allowed me to get an insight into the civil engineering career, which I will be majoring in college. I wish more schools would participate in such a fun project.” Her classmate, Foster Koco, echoed that sentiment: “Engineering meets purpose when we try to solve a real-world problem. The Wall of Wind Challenge reminds us that progress is measured not just in awards, but in the ability to withstand pressure and refine our skills.”

Celebrating Innovation and Resilience

When the winds finally died down, the winners were announced:

- 1st TERRA Environmental Research Institute
- 2nd Florida Christian School
- 3rd South Miami Senior High School



“The Wall of Wind Challenge is an excellent competition to expose our students to real-world engineering,” said Mr. Escobedo, Head of the Engineering and Robotics Department at TERRA Environmental Research Institute.

But the impact goes far beyond the trophies. Arindam Gan Chowdhury, FIU professor and director of the Wall of Wind, sees the Challenge as a critical piece of building resilient communities. “The WOW Challenge informs students about the importance of mitigation and community resilience to prepare them as future leaders in disaster mitigation. We see these young students become motivated toward STEM careers and possibly enrolling at FIU.”



3rd Place winner South Miami Senior High School

(continued on next page)

Wall of Wind Mitigation Challenge Inspires Future Leaders In Disaster Mitigation (cont'd)

By: Erik Salna, FIU International Hurricane Research Center

Building Stronger Communities, One Challenge at a Time

The event drew judges and participants from across the state, including Jillian Holzman, HLMP Program Manager at the Florida Division of Emergency Management, Dana McGeehan, Region 10 Recovery/Mitigation Coordinator, and Kevin Guthrie, FDEM Director. Guthrie spoke to the heart of the Challenge: "In the face of nature's most damaging winds, innovation becomes our strongest protection. The Wall of Wind Mitigation Challenge is where science, innovation, and preparation come together to build a stronger, smarter, and more resilient Florida. Hurricanes don't wait—and neither should we."

The WOW Mitigation Challenge, hosted by the FIU International Hurricane Research Center (IHRC) and the Extreme Events Institute (EEI) with support from the Florida Division of Emergency Management, is more than a competition—it's a launching pad. Year after year, it inspires students to become engineers, emergency managers, and community leaders—proof that resilience starts with innovation and a commitment to building stronger, safer communities.

From the Big Apple to the Eye of the Storm: My First Hurricane Season in West Palm Beach

By: Deborah Peters, Residential & Commercial REALTOR®, Florida's Best Realty

When I moved from New York City to West Palm Beach on October 2, 2024, I was ready for sunshine and a new chapter in real estate. What I didn't expect was to face my first hurricane just a week later—Hurricane Milton. On a prior visit, a friend from New Orleans advised me to find a high-rise unit above the third floor. I ended up on the 7th floor with intracoastal views, in a building outside the evacuation zone. Since Palm Beach is a barrier island, it's often the first to evacuate, location mattered.

As Milton approached, my friends urged me to fly back to New York, but I stayed, sleeping on an air mattress until my furniture arrived. Luckily, the storm spared Palm Beach County from major damage, aside from a few tornado reports. Strangely, I slept through the storm, and so did my neighbor. Disaster preparedness wasn't entirely new to me. In Nigeria's real estate sector, I learned the value of a "go bag," and in 2019, I completed a disaster training course in Seattle. As a pharmacist, I naturally bring a detail-oriented approach to real estate—and now, to hurricane season.

After Milton, I dug deeper into hurricane preparedness. The [Official Palm Beach County Hurricane Planning Guide](#) has a solid checklist. Most of it is intuitive, but one line stood out: "Do laundry." I have plenty of clothes, but the point is to be fully stocked and ready to stay put. More importantly, I began learning the difference between preparedness and mitigation. Preparedness is what you do before or during a storm—like stocking up or evacuating. Mitigation means reducing long-term risk, like living in a building built to updated hurricane codes, using impact windows, or elevating homes in flood zones.

While I'm currently paying \$2,600 for a downtown one-bedroom, I've learned that inland properties tend to be more elevated, less exposed, and more affordable. That's something newcomers should consider—especially if they want to balance lifestyle with safety.

If you're relocating to Florida, ask landlords or agents about building features like reinforced roofs, flood protection, or backup power. These features matter—and smart choices now can make all the difference when storms arrive.



Deborah Peters

The Importance of Evaluating your Training

By: Mitchell Carbajal, FDEM Mitigation Training Coordinator

This article builds on “Developing Original Training in the Public Sector: A Quick-Start Guide

Last quarter, we ran through a surface-level guide to developing trainings – aimed at those of us who aren’t focused on instructional design every day. At its core, the idea was simple: real learning is valuable. If you're back for a second article, I'm guessing you agree.

This time, we tackle a component that often gets less attention than it should: evaluation.

Getting started with training development is hard. That’s why our conversation focused on early momentum last time. But evaluation – the act of checking your direction and adjusting your course – is just as critical in achieving that “real learning” we keep talking about. Unfortunately, it’s often forgotten (or worse, ignored).

(ADDIE diehards, I know we skipped over a few steps, but let’s be honest: the “E” is probably the most neglected letter of the bunch.)

Here’s the reality: you spent time crafting your training. You want the training to work and change is hard. It’s easy to assume your training is effective because you built it with care and intention. Still, how can you really know if it worked? You need to evaluate. Not just at the end, but throughout the process.

Evaluation helps answer the big questions:



Are you achieving your objective?
Is the knowledge gap closing?
Are learners retaining and applying what they’ve learned?

You can measure this in a dozen different ways: testing, discussions, activities, post-course evaluations, performance metrics, and so on. There’s no shortage of models out there either, so choose whatever fits – but don’t wait for a “final version” before you start evaluating. And don’t settle for a one-and-done review. Evaluation should be baked in from the start and stick around long after the course launches.

Think of it like this: if your first module/unit/section is off the mark, wouldn’t you rather know before you build ten more on top of it? Start simple. Ask someone in your target audience, “Does this make sense to you?” or “What did you get out of this?” You don’t need a full-blown focus group – just honest feedback early and often. Sometimes this is best by using individuals who don’t know the content to identify where there are problem areas.

And yes, good old pre- and post-tests are still around for a reason. It’s hard to argue with numbers. A jump in knowledge – even short-term – is a good sign. At the very least, evaluation will help prevent those “Has this training been updated since 2006?” moments we’ve all experienced.

So where should newer trainers start? Try this:

Quick Tips for Incorporating Evaluation

1

Use testers/evaluators – Ask folks from your target audience to preview your material. Let them help confirm your objectives make sense.

2

Pre- and post-tests – They don’t need to be fancy—just focused enough to show progress.

3

Learner evaluations – Good for collecting qualitative data, especially on clarity, relevance, and delivery.

Is there more to evaluation? Oh, absolutely. But for now, just keep in mind:

It’s not an afterthought. It’s part of the process. Use it!

Until next time, friend.

New Employee Spotlight

Summer is heating up, and so is our Mitigation team! If you spot any new faces around the office, be sure to say hello and give them a warm welcome!



Charlotte Bellamy
Financial Specialist



Ariana Borges
EHP Specialist



Wagner Carvalho
Engineering Specialist



Colton Chinniers
Engineering Planner



Radyn Hall
Environmental Specialist



Preston Joseph
Floodplain Ordinance
Specialist



Jada Mothersil
Environmental Specialist



Riley Pilcher
Environmental Planner



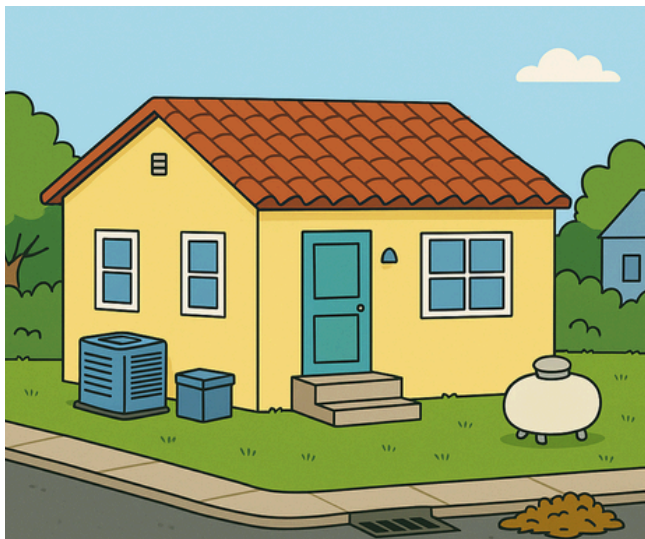
Joshua Lacey
Floodplain Specialist



Boomer
Bark Bark Unit Manager



Spot the 5 Floodplain Hazards



Hints

Activity 1
1. This unit may need a lift to stay cool and dry.
2. This tank is going for a float if a storm rolls in.
3. No vents are seen to let floodwater pass through.
4. Clumps of this by the curb could lead to serious backups.
5. Something's missing that would help someone safely exit elevated areas.
BONUS: It is recommended to have gutters to redirect water away from your home!

Activity 2 Answer: D

You Make the Call

Scenario:

A homeowner in a Special Flood Hazard Area (SFHA) applies for funding to elevate their home through the Hazard Mitigation Grant Program (HMGP). Their elevation certificate is five years old, and since then, FEMA updated the Flood Insurance Rate Maps (FIRMs) for their county. The Base Flood Elevation (BFE) increased by 2 feet. The homeowner wants to proceed using the original elevation certificate and build to the old BFE to save money.

What's Your Call:

- A) Approve the project based on the original elevation certificate, since it was valid at the time of their insurance rating.
- B) Tell the homeowner they can proceed using the old BFE, but they'll need to sign a waiver acknowledging the risk.
- C) Advise the homeowner that they must build to the updated BFE shown on the new FIRM, and a new elevation certificate will be needed to reflect current conditions.
- D) Defer to the local building department—they have final say on elevation requirements.

Find the Mitty

Mitty the Mitigation Gator is playing hide and sneak! We've hidden 10 little Mittys throughout this Bulletin—can you catch them all before they gator-way?"



The Bureau of Mitigation

Mitigation is an integral part of the Florida Division of Emergency Management (FDEM). Mitigation actions reduce or eliminate the loss of life and property by lessening the impact of disasters. Due to Florida's weather, geography, and miles of coastline, the state is highly vulnerable to disasters. Disasters can be very costly to both the citizens and government.

Under the direction of FDEM Executive Director Kevin Guthrie and State Hazard Mitigation Officer, Laura Dhuwe, the Bureau of Mitigation administers several federal mitigation grant programs including the Hazard Mitigation Grant Program, the Building Resilient Infrastructure and Communities Program, and the Flood Mitigation Assistance Program. The Bureau also administers a state funded mitigation program called the Hurricane Loss Mitigation Program.

If you would like to know more about mitigation in Florida, visit www.floridadisaster.org/mitigation.

Need More Information?

Mitigation Planning Team Contact
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