

# Florida SHMPoints

*Providing insightful mitigation news and information from around the State of Florida.*

VOLUME 6, ISSUE III

SEPTEMBER 2016

## Home Hardening Matters

By: Luz Bossanyi

### Pensacola Tornado:

On February 23, 2016, the City of Pensacola was hit by a tornado. It was classified as an EF-3 category tornado based on the Enhanced Fujita Scale by the National Weather Service, which can have 3-second gust speeds up to 155 MPH. The tornado hit residential neighborhoods in the area, first south of I-10 and then northeast Pensacola. The estimated path of the tornado through northeast Pensacola from first reported touchdown to its exit over Escambia Bay was approximately 8 miles.

Wind retrofit mitigation in Florida has proven to minimize the adverse impacts of damages during hurricane winds. In the past the Florida Division of Emergency Management did not have the opportunity to confirm the efficacy of this type of program. We conduct loss avoidance studies, which really provide us a level of confidence that we are doing the right thing, or at least we are going in the right direction.

What happened in Pensacola gave us a unique opportunity to assess the result of the wind mitigation protection program that Rebuild Northwest Florida (RNWFL) is providing to a lot of homes in the area.

### Rebuild NWFL:

This program is directly involved with retrofitting residential houses in Escambia and Santa Rosa counties in Northwest Florida including thousands of residential homes that were retrofitted in the past several years. Each eligible home was retrofitted based on individual assessment with various mitigation techniques to make each home less vulnerable to wind damage. All installations were done in strict compliance with the Florida Building Code and all materials were certified to meet the wind and impact standards of the current building codes. Mitigation activities included:



**REBUILD**  
**Northwest**  
**Florida**

Roof deck attachment  
Skylights  
Gable end bracing  
Garage doors  
Exterior doors  
Opening protection  
Roof/wall connections

### Effective mitigation of Rebuild NWFL:

The State of Florida Mitigation Technical Unit visited the area to observe and evaluate the damages caused by the tornado, especially for the houses protected by the Rebuild NWFL program. According to the Damage Assessment evaluation conducted by State, FEMA and city officials, the results are the following for the 259 homes evaluated:

- Affected: 56
- Minor: 114
- Major: 45
- Destroyed: 44
- Out 259 homes, there were 19 Rebuild NWFL homes showing the following results:
  - Affected: 6
  - Minor: 10
  - Major: 3\*
  - Destroyed: 0

(\*) All three homes were among those that sustained direct hits in the tornado's path.

The retrofit measures that most significantly enabled retrofitted houses to withstand the tornado's destructive wind loads were load path, installation of clips or straps, reinforced garage doors, etc. It seemed obvious that if other (destroyed) structures had similar mitigation measures introduced they might have been spared of destruction as well.

Based on past experience there was some resistance from home owners to retrofitting garage doors, reinforcing roofs, or installing straps or tie-downs, but there is actual proof that missing any of the recommended mitigation measures could lead to the loss of the house, regardless of which measure

*Continued on page 2*

*Continued from page 1*

played a major role for withstanding destruction for this particular tornado.

The two houses below are located next to each other.

It is worth noting that the Rebuild NWFL program is designed to retrofit residential houses against hurricane damage, not to withstand tornado forces; subject tornado was classified as EF-3, with wind gusts around 155 MPH. That is still comparable to hurricane category IV wind gusts and we believe that is the reason mitigated houses performed beyond



*House retrofitted by Rebuild NWFL*

expectations. In the case of a higher scale tornado (EF-4 or EF-5) chances of damage to mitigated structures would increase.

Therefore... does home hardening matter? Absolutely! Please think about “investment return” as it involves thousands of dollars. And that is why promoting the work that Rebuild NWFL has been doing over the years is worth the effort. Telling Rebuild’s story in this mitigation newsletter is a great opportunity to communicate how lots of money is being saved and lives are being protected enhancing the main purposes of MITIGATION!



*House not retrofitted by Rebuild NWFL*

## Mitigation Partnerships for Education

By: Sheila Fitzgerald

On August 4, 2016, representatives from the Division of Emergency Management’s Hazard Mitigation Division provided training to county employees that will be used in mitigation planning efforts. Claudia Lozano and Martha Uribe, presented general information about the hazard mitigation grant program opportunities with a focus on the Benefit Cost Analysis.

Of particular interest to the county was the collection and utilization of disaster damage information that is collected during and following a disaster. Employees from Emergency Management, Building Inspections, Maintenance, Public Works, GIS and the Grants Department learned about the different types of information that should be recorded to support the development of a BCA. Ms. Lozano and Ms. Uribe provided several practical examples and best practices that have been used by other communities.

During the training, the county’s Information Technology & GIS Department provided a demo of a Damage Assessment Application provided by ESRI, one of their smart community/

smart solutions apps. The application, which can be downloaded on the employee’s smart phone or iPad, will be an invaluable tool to building historical data to support the need for hazard mitigation. The benefits of the application include less paperwork, more comprehensive and accurate information, and faster routing of real time information. Improvements have also been made to the Citizen Damage Reporting system which will allow citizens to provide information by specific location, allowing Emergency Managers to better identify the areas of greatest need.

For more information on these topics, visit the Florida Division of Emergency Management’s Mitigation Bureau webpage at <http://www.floridadisaster.org/Mitigation/index.htm>

If you would like this, or any other information, presented to your county, please don’t hesitate to contact FDEM; their staff is always willing to help!



# Hillsborough County Hazard Mitigation Risk and Vulnerability Development Review

By: Eugene Henry and Amy Beams

Hillsborough County's Hazard Mitigation Program was established in 1998. It was a collaborative effort between the Building Official, the Planning Director, and the Emergency Manager, which continues today. The purpose was, and remains, to work with the community to know their risks and to better understand vulnerabilities.

The Hillsborough County's Hazard Mitigation (HM) Program serves both unincorporated and countywide areas. The Hazard Mitigation (HM) Manager also serves as the Flood Damage Control Administrator (FDCA), liaison with respect to disaster-mitigation and flood-disaster assistance, and has a team that oversees three community committees in which Program staff are provided as resources (committees: the Local Mitigation Strategy Working Group that includes the Community Rating System Outreach subcommittee, the Redevelopment Taskforce, and the Hillsborough County Citizen Corps Council). The Hazard Mitigation Program performs tasks in unifying mitigation processes within the County organization, with cities within the county, and with other agencies within the region. Work also includes coordination with residents and industries that serve the community.

The purpose of this article is to highlight only one planning effort within the Program, which is the ability to review requests for development with respect to community risks and vulnerabilities. A synopsis of the process within Hillsborough County's Hazard Mitigation Program is to provide insight and recommendations with requests to develop. Respective insight and recommendations include

alternatives in minimizing losses of life, human suffering, damages to public and private property, and economic losses. To perform the review, there must be complete knowledge of the types of hazards that affect a specific site, which the review team performs a hazard identification and vulnerability assessment report. This report becomes a vital component in the review of development within high-risk areas.

In order to perform the review, a smaller and more site specific analysis is performed, which is similar to larger analyses contained within the Hillsborough County Local Mitigation Strategy (LMS). Analyses includes types of hazards, the geographical location of impact, physical, social and economic impacts, and vulnerable populations. The information is compiled by the team to reflect an "all-hazards" approach to the development proposed for the risk area(s). With this review, insight to risks and vulnerabilities along with mitigation recommendation may be provided. A sample of the initial review form is below.

Following the analysis of the site, considerations are provided to the Development Review team that includes the following as it applies to the site and with respect to mitigating impacts.

Regulations to address  
Evacuation impact  
Shelter-ratio impact  
Possible mitigation alternatives

We hope to include an example of a review in the next newsletter!

**Development Description, Proposed Plan**

Items for Consideration				
Item	Yes	No	Zone/ Level	Notes
SFHA				
CHHA				
Stormsurge Area				
Evacuation Level				
Nearest Shelter(s)	#		N/A	

- Map pics to show these areas
- Vulnerability to other hazards
- Include the following for consideration with application for approval



# FEPA's On-Going Efforts to Promote Mitigation

By: Eve Rainey and Kelly Wilson

The Florida Emergency Preparedness Association (FEPA) continues its efforts to promote effective mitigation activities and techniques through the Association's programs and projects. FEPA's two premier training opportunities, the Intermediate Emergency Management Academy and the County Emergency Management Program Director/Key Staff Training include dedicated modules on Mitigation. At the March 2016 FEPA Intermediate Academy, an updated Mitigation Module was presented to Academy cadets by Kelly Wilson, St. Johns County's Emergency Management Coordinator, on behalf of the FEPA Mitigation Committee.

The revised information received very positive feedback from Academy students and was used to enhance the Mitigation portion of the FEPA Florida County Emergency Management Directors and Key Staff Course that was recently presented at the FEPA Mid-Year Work Session by

Cecilia Patella, Director, Hernando County's Emergency Management and FEPA Mitigation Committee Co-Chair.

The FEPA Mitigation Committee met on Thursday, August 4, 2016 in conjunction with the FEPA Mid-Year Work Session. During the meeting, committee members reviewed and revised the goals and objectives for the 2017-2019 FEPA Strategic Plan. FEPA is working on some exciting new mitigation initiatives and would encourage anyone interested in, or with questions about, mitigation to join the committee and help us create a strong mitigation program statewide.

The Committee's next meeting will be held at the FEPA Annual Meeting and Work Session scheduled for January 30 – February 3, 2017 in Orlando, Florida. Please visit the FEPA website at [www.fepa.org](http://www.fepa.org) for additional details and registration information for the 2017 FEPA Annual Meeting and Work Session.

## FEMA's Partners in Mitigation

By: Jamie Leigh Price

Region IV of the Federal Emergency Management Agency held their annual Partners in Mitigation Workshop in August of 2016. This year's workshop was combined with their Grants Management Workshop which allowed for great information sharing and crossover of knowledge and best practices.

A number of FDEM mitigation staff were in attendance this year either to learn, present, or both. Jamie Leigh Price presented on the status of Planning under a Program Administration by States Designation. This presentation focused on how the planning unit has been accomplishing the review and approval of local mitigation plans at the state level with minimal FEMA oversight. Jamie Leigh also presented on the Public Facility Flood Mitigation Initiative that was wrapped up in early 2015. The manual and materials were shared with those in the breakout session as a best practice. Steve Martin presented on the Community Rating System Pilot Program our office has been implementing recently. Steve shared successes and challenges that the audience was able to relate to, and see solutions in, for their own communities. Luz Bossanyi presented to the group on the successes we noted in the Florida Panhandle during the most recent tornadoes. The presentation focused on the Rebuild Northwest Residential Wind Retrofits that were completed recently and how those houses fared in the high winds compared to the neighboring structures. This was a wonderful best practice to showcase how mitigation projects often protect against multiple hazards.

Our staff also learned a number of best process from other states around the region such as customer service and outreach techniques in North Carolina and lessons learned from dam failures in South Carolina. Hot topics from FEMA's side included updates to the National Flood Insurance Program especially relating to rates and the upcoming reauthorization, the grant management modernization process, risk mapping projects, and the newly introduced Climate Resilient Mitigation Activities which are becoming a higher priority for federal grant dollars.

Networking and learning opportunities like these keep our staff up to date on the most recent policies and practices so we may serve the counties, and the state, better.



*Back row, left to right: Steve Martin, Jared Jaworski, Danny Hinson, Susan Harris-Council, Miles Anderson. Front row, left to right: Paula Catledge, Jamie Leigh Price, Luz Bossanyi, Kathleen Marshall*

# State Hazard Mitigation Plan Update Timeline

By: Laura Waterman

We are gearing up here at the Mitigation Bureau to begin the two-year long process of updating the State Hazard Mitigation Plan! The kickoff Meeting is September 13 at FDEM and we will have quarterly meetings moving forward. We will establish the committees at this first meeting and then get down to business!

Our focus in the first few meetings will be to update our list of hazards, as well as our goals and objectives. Additionally, we will need to update the list of mitigation projects that have been funded over the last several years because Hazard Mitigation Plans must demonstrate that progress is being made and that the mitigation projects we are completing are helping to build a stronger and more resilient community. A lot of the updates that need to be made are labor intensive and technical and therefore we will be counting on our friends in the GIS Lab to help us create new maps and analyze new data.

For example, the 2014 Florida Severe Storms Loss Avoidance Assessment found that "When combined with previous loss avoidance results, the 33 mitigation projects analyzed for this event have avoided losses of approximately \$33,236,520.50 from Presidentially Declared Disasters since Florida began regularly conducting loss avoidance assessments in 2008."

The Mitigation Planning Unit will also be sending surveys to the counties regarding their own LMS updates to see how the State can help to improve the process for the next update cycle. This information will be included in the update of the State plan. We would love for anyone to join us for the SHMPAT meetings either in person or via GoToWebinar. Public comment periods will also be open after a number of the meetings, please visit <http://www.floridadisaster.org/Mitigation/State/Index.htm> for more information after each meeting. The meeting dates are:

- September 13, 2016, 1-4 pm
- December 13, 2016, 1-4 pm
- March 14, 2017, 1-4 pm
- June 13, 2017, 1-4 pm
- September 12, 2017, 1-4 pm
- December 12, 2017, 1-4 pm
- March 13, 2018, 1-4 pm
- June 12, 2018, 1-4 pm

The meetings will always be in the Kelley Training Center on the 3rd floor of the Florida Division of Emergency Management's Sadowski Building, located at 2555 Shumard Oak Blvd, Tallahassee, Florida 32399. The Webinar information will be available closer to each meeting date.

If you have any questions, please don't hesitate to contact Melissa (Schrader) Schloss at (850) 413-9925 or [Melissa.Schloss@em.myflorida.com](mailto:Melissa.Schloss@em.myflorida.com).

## *Congratulations!*

**Flagler, Gilchrist, Okaloosa,  
St. Lucie, Washington and  
Okeechobee Counties completed the  
LMS update process.  
Their new plans expire in 2021.**

### Current Update Cycle

Approved	56
Approved Pending Adoption	6
Expired	2
Complete	39

## Need More Information?

### Melissa (Schrader) Schloss

melissa.schloss@em.myflorida.com

### Laura Waterman

laura.waterman@em.myflorida.com

### Eve Rainey

erainey@fepa.org

### Kelly Wilson

kwilson@sjcfl.us

### Sheila Fitzgerald

sheilaf@santarosa.fl.gov

### Eugene Henry

henrye@hillsboroughcounty.org

### Amy Beams

beamsa@hillsboroughcounty.org

### Luz Bossanyi

luz.bossanyi@em.myflorida.com

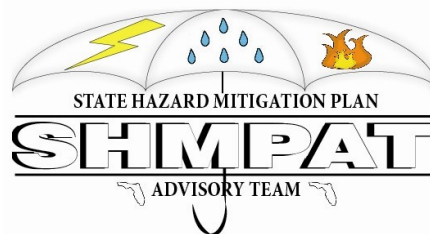


## The Bureau of Mitigation

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 Division Director Bryan W. Koon and State Hazard Mitigation Officer, Miles E. Anderson, the Bureau of Mitigation administers several federal mitigation grant programs including the Hazard Mitigation Grant Program, the Pre-Disaster Mitigation Program, and the Flood Mitigation Assistance Program. The Bureau also administers a state funded mitigation program called the Residential Construction Mitigation Program.

If you would like to know more about mitigation in Florida please visit: [www.floridadisaster.org/mitigation](http://www.floridadisaster.org/mitigation).



## Meet Laura



### **Laura Waterman Mitigation Planner**

Laura joined the Mitigation Bureau in August 2016. She earned her Master's degree in Disaster and Emergency Preparedness from Nova Southeastern University. That degree

was completed online as Laura lived in Michigan until recently. Before transitioning to FDEM, Laura was working with an Emergency Management consulting firm developing content for plans, such as hazard profiles and vulnerable population profiles and reviewing various plans around the nation.

She already feels at home at FDEM and in the Mitigation Bureau and is excited to develop strong working relationships with Emergency Management professionals from all corners of Florida. Outside of work, Laura enjoys playing with her dog, Gryffindor, and exploring her new city, Tallahassee!