# Florida SHMPoints

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

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## FDEM Welcomes New Director



Jared Moskowitz was appointed as Director of Florida's Division of Emergency Management by Governor Ron DeSantis in January 2019. As former General Counsel and Vice President of Business Development for AshBritt Environmental, Jared brings more than a decade of experience in disaster recovery and response to the Division of Emergency Management. In that role, Jared supported response and recovery efforts in Florida after Hurricanes Irma, Matthew, Michael and Hermine. He also responded to the 2017 wildfires in California as well as to Superstorm Sandy, which struck the Northeastern United States in 2012.

Jared also served from 2012-2019 as State Representative for District 97, representing Coral Springs, Tamarac, Sunrise and Plantation. During his tenure in the Florida Legislature, Jared served on the House Select Committee on Hurricane Response and Preparedness, which was created in response to Hurricane Irma.

Jared's foray into public service officially began in 2006, when he was elected at the age of 25 to the Parkland City Commission while he was a law student at the

Shepard Broad Law Center at Nova Southeastern University.

Most recently, Jared has been a tireless advocate for school safety following last year's tragic shooting at Marjory Stoneman Douglas High School. As the only Marjory Stoneman Douglas graduate serving in the Florida Legislature, Jared helped draft the bipartisan Marjory Stoneman Douglas High School Safety Act, which was the first comprehensive mental health, school safety and gun control bill of its kind in over 20 years.

Jared and his wife, Leah, serve on the host committee for the 2<sup>nd</sup> Annual We Are Stoneman Douglas fundraising event for Parkland Cares, an organization providing immediate and long-term funding and awareness for mental health counseling for the Marjory Stoneman Douglas shooting survivors, their families and the community-at-large.

Jared and his wife are proud parents to two adorable boys, Sam (5) and Max (2). Jared, who was raised in South Florida, is honored to serve Floridians and their local communities as Director of the Division of Emergency Management.

## **Employee Spotlight**

Please welcome the newest members of the Florida Division of Emergency Management's Mitigation Bureau!



Kayla Born graduated with a Bachelor's degree in Biological Sciences and is currently working for the Mitigation Bureau as an Environmental Specialist.

Naomi Iglesias graduated with a Master's degree in Environmental Health and is currently working for the Mitigation Bureau as an Environmental Specialist.



Gillian Smith graduated with Bachelor's degree in Mechanical Engineering and is working with the Bureau as an Engineering Specialist.

Mindy Yang graduated with a Bachelor's degree in Environmental Science and is currently working for the Mitigation Bureau as an Environmental Specialist.



Alvin Bishop is a Certified Professional Engineer with large experience on Public Assistance and is currently working for the Mitigation Bureau as a Mitigation Engineering Specialist.

> Alexandra Boswell graduated with Master's degree in Forest Resources and Conservation and is currently working with the Bureau as a Planning and Evaluation Specialist in charge of the Watershed Studies Planning Project and other special projects.



Kristin Buckingham graduated with a Bachelor's degree in Science-Sustainability and Built Environment as well as a Master's degree in Urban and Regional Planning and is currently working for the Mitigation Bureau as an Environmental Specialist.

Madison Kitchen graduated with a Bachelor's degree in Environmental Science with a focus in Marine Science and is currently working for the Mitigation Bureau as an Environmental Specialist.



Joshua Hughes built a career in the construction industry with experience working on multiple projects for FDOT and the private sector. His career also includes earning certifications in concrete and field inspections. He is currently working for the Mitigation Bureau as a Mitigation Engineering Specialist.

Aaron Williams graduated with a Master's degree in Civil Engineering and is currently working for the Mitigation Bureau as a Mitigation Engineering Specialist.











## FDEM Begins Watershed Master Planning Initiative

By: Laura Waterman

FDEM is launching a new statewide Watershed Planning Initiative with the goal of ensuring every community has a watershed plan. Watershed plans can vary widely from one another in purpose, quality, and length. This effort will be focused on flood risk reduction through guiding future development, identifying



data gaps, and recommending new mitigation techniques such as policy reform or structural projects. Additionally, these plans may be used to help communities earn points in the Community Rating System (CRS).

The CRS is a program for communities who wish to go above and beyond the minimum standards of the National Flood Insurance Program (NFIP). Communities are ranked from 10 (lowest) to 1 (highest) based on various floodplain management and mitigation activities. Watershed master plans that meet specific criteria are able to qualify as an activity that can earn a community a large number of points, which can help them move up in the CRS. As communities move up in the CRS, the citizens in that community are eligible to receive lower premiums on their flood insurance policies. This savings can amount to thousands and even millions of dollars saved annually statewide. Under the CRS, watershed master planning is intended to:

Provide the community with a tool it can use to make decisions that will reduce the increased flooding from development on a watershed-wide basis and address existing flood problems...A watershed master plan, like other community plans, allows communities within the watershed to consider future development as they work on current problems and ensure that future development does not aggravate existing problems.

FDEM has been approved by FEMA for a grant to help fund this initiative. In early March 2019, FDEM held a meeting with the water management districts and nine public universities to elicit feedback on how to best tackle this massive effort. The result of that meeting is a project steering committee and various workgroups, which will kick off in the coming weeks. The future of this project will depend on participation from water management districts and community officials such as mitigation planners and floodplain managers. FDEM anticipates coordinating with county Local Mitigation Strategy (LMS) Working Groups on this effort in the coming months.

If you would like more information about this project, please contact Alexandra Boswell at Alexandra.Boswell@em.myflorida.com.

### Excerpt from the Mitigation Assessment Team Report: Hurricane Irma in Florida

A MAT conducts forensic engineering analyses of buildings and related infrastructure to determine causes of damage and success, and recommends actions that Federal, State, and local governments; the design and construction industry; and building code and standards organizations can take to mitigate damage from future natural disasters. FEMA deployed the MAT, which is comprised of federal, state, local and private-sector partners, to Florida to assess the performance of municipal buildings, coastal residential properties, and public facilities. The MAT focused primarily on one and two-family dwellings, but also assessed some multifamily dwellings and manufactured housing (MH) units.

Hurricane Irma caused moderate flooding and erosion in South Florida but was not considered a major storm surge event (i.e., exceedance of the 1-percentannual-chance flood elevations was only observed where the combination of storm surge and rainfall caused severe flooding). Buildings in low-lying areas were damaged



Figure 4-6: House with roof structure loss and collapse of the second floor exterior wall and adjacent deck (EWS=113 mph; EDWS=180 mph) (Ramrod Key)

from inundation. Although inundation alone was a significant source of damage, some of the more dramatic structural failures observed were a result of the added force of wave action and scour. The extent of flood damage to buildings varied with the depth of floodwater, the amount of energy in the water (waves, velocity), and the nature of building design and construction (building age, elevation, if the building was a manufactured home, etc.). Some of the structures destroyed by the storm were MH units located in the floodplain. Very few of these houses were elevated to the base flood elevation.

Estimated wind speeds from Hurricane Irma in Florida were less forceful than design wind speeds required in the last six editions of the Florida Building Code (FBC). Buildings designed and constructed to comply with the FBC met expectations by performing well structurally. Though not widespread, wind-induced structural damage to main wind-force resisting systems was observed in older (pre-FBC) residential construction and included roof failure and loss of exterior walls.



Figure 3-6: House constructed at grade where the masonry walls parallel to the shoreline were destroyed (Big Pine Key)

Wind damage to roof structures appeared to have been generally initiated through loss of roof covering or breaching of the attic envelope. Framed walls of residential structures collapsed where significant portions of the roof and ceiling diaphragm were destroyed by wind. Many buildings sustained wind-induced failures of building envelope components, connections, and systems that allowed wind-driven rain to penetrate into the interior, resulting in costly damage. While structural damage observations from Hurricane Irma winds were almost exclusively limited to pre-FBC residential buildings, envelope damage was commonly observed on both older and newer construction. The most frequently observed damage affected roof coverings, soffits, exterior wall coverings, glazed openings, and garage doors. Most observed damage to MH units was initiated by wind acting on improperly attached appurtenances. When carports and covered porches broke away from MH units, they left openings at failed connections in the remaining roof or wall that

allowed rain to enter the MH unit envelopes.

The conclusions and recommendations are intended to help reduce future damage and impacts from flood and wind events such as Hurricane Irma and will be used to prioritize future mitigation projects. The full report can be found at:

https://www.fema.gov/media-library/assets/documents/176315.

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**Conclusion FL-1:** Building codes and floodplain management requirements were inconsistently enforced.

Recommendation FL-1a: FDEM should consider developing or modifying training on the flood provisions in the Florida Building Code and local floodplain management ordinances.

**Recommendation FL-1b:** BOAF, FHBA, and other stakeholders should consider developing additional training and placing additional emphasis on building envelope components.

Conclusion FL-3: The State and communities did not receive (or did not receive in a timely manner) data on buildings that appeared to have incurred Substantial Damage.

Recommendation FL-3: FEMA should develop an effective and timely means to deliver the Adjuster Preliminary Damage Assessment data.

Conclusion FL-6: Florida's Installation requirements for MH units do not reference the current edition of FEMA 85.

**Recommendation FL-6:** The Florida DHSMV should reference the most recent edition of FEMA P-85.

Conclusion FL-9: The MAT observed evidence of inadequate resistance to wind loads for roof coverings of residential buildings.

Recommendation FL-9a: Industry groups should investigate the causes for the widespread asphalt shingle roof covering loss that was observed by the MAT.

Recommendation FL-9b: Contractors and inspectors must ensure roof covering repairs and replacements are in conformance with FBC requirements.

Conclusion FL-11: The MAT observed evidence of inadequate resistance to wind pressures for certain wall coverings of residential buildings.

**Recommendation FL-11a:** Vinyl siding manufacturers, insurance organizations, and other stakeholders should continue investigations of the appropriate PEF for vinyl siding.

Recommendation FL-11b: The FBC should require wall cladding inspections.

Conclusion FL-2: Building officials expressed concerns about having adequate resources.

**Recommendation FL-2:** FDEM should continue to encourage pre-event evaluation of post-disaster needs and inform appropriate parties about assessing resources through the Statewide Mutual Aid Agreement (SMAA).

Conclusion FL-4: The MAT observed damaged buildings that illustrate the problems associated with siting buildings on erodible structures.

**Recommendation FL-4a:** Permitting agencies should evaluate permitting criteria and performance requirements for new or replacement bulkheads.

**Recommendation FL-4b:** FEMA should review and update their event-based erosion methodology.

**Conclusion FL-8:** Dry floodproofed buildings where building managers had instilled a culture of preparedness sustained less damage than other dry floodproofed buildings.

Recommendation FL-8a: Facility managers should develop an EOP for severe weather.

Recommendation FL-8b: Facility managers should routinely re-evaluate dry floodproofing designs and plans as required by codes and standards.

**Recommendation FL-8c:** Facility managers should take reasonable measures to instill a culture of preparedness.

**Conclusion FL-10**: The MAT observed evidence of inadequate resistance to wind pressures and improper installation of soffits on residential buildings.

**Recommendation FL-10a:** Designers, Contractors, and inspectors should place more emphasis on proper soffit installation to limit wind-drive rain.

Recommendation FL-10b: The FBC should require soffit inspections.

**Conclusion FL-13:** Failures of appurtenance attachments to MH units increase the units' vulnerability to wind and rain damage.

**Recommendation** FL-13: As a best practice, MH appurtenances should be built as stand-alone units without structural connection to the MH unit.

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#### **Need More Information?**

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#### 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 Jared Moskowitz 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 Hurricane Loss Mitigation Program.

If you would like to know more about mitigation in Florida please visit: <u>www.floridadisaster.org/</u> mitigation.



## **Hurricane Michael HMGP Update**

Applicant briefings will be coming soon!

## **STAY TUNED!**