Director's Corner
By Bill Johnson, RN, CEM, Director, PBCDEM

Hurricane Season Means Prepare, Prepare, Prepare

Hurricane Season... I have been in the "hurricane business" for over 25 years, and I am reminded of a question I frequently receive; "Does hurricane season keep you awake at night?" While I was quick to agree very early in my career, I believe the answer has changed with continued proactive experiences of our TEAM. While hurricanes and their after effects are relatively frightening, we have become so well attuned to preparedness, response, and recovery that the prospect of a storm season no longer looms over me with a heavy burden. With the advantages of preventative mitigation, enhanced weather forecast modeling, community preparedness, and public education, we have become a more resilient community.

Our community resilience is the ability to prepare and plan for, absorb, recover from, and more successfully adapt to, actual or potential adverse events. Our Emergency Management TEAM embodies a number of guiding principles that makes Palm Beach County a community well prepared in response and recovery. For example, we remain committed to:

1. Having informed and involved community leaders promote preparedness at all levels;

2. Promote our localized businesses to recognize value of preparedness to their operations and planning for closures, openings, employee safety and welfare;

3. Remain at the forefront of scientific, technical, and engineering research supported by continued investment in, and upgrading of, hazard monitoring. We incorporate the latest National Weather Service improved weather forecasts for risk reduction, and FEMA and State cost-effectiveness mitigation strategies to well prepare the County;

4. Citizens know and understand their own risks and take individual responsibility for preparedness to mitigate their impacts;

5. We promote aggressive exercise programs at all levels. In fact, this year alone, DEM has conducted nearly ten (10) exercises. By exercising our plans with stakeholders and our communities, I believe we are more effective in disaster response and recovery.

Our preparedness always begins and continues with the education to our community. We continually promote to our residents to 'Know Your Zone.' We urge Palm Beach County residents to go to our website www.ReadyPBC.org for preparedness information. Additionally, our residents can learn how to Make a Plan, Build a Kit, Get Involved, and Be Informed on our phone app: 'PBC DART,' a free Disaster Awareness and Resource Tool to help our community prepare and be well-informed before and after a storm. Finally, DEM emphasizes the importance of early notification in the preparation of major events, so residents are strongly encouraged to enroll in our free AlertPBC program. We hope that all members of our mitigation team help spread these preparedness steps.

As we continue to work together as a TEAM, we have to remain a well prepared community. We have learned to adapt, prepare, and overcome in how we deal with our annual hurricane season. We are community strong! Now let’s pray for a quiet hurricane season!
Southeast Palm Beach County Coastal Resilience Partnership
Rebecca Harvey - Sustainability Coordinator
Boynton Beach Utilities

Eleven municipalities have united with the Palm Beach County (PBC) Office of Resilience to develop a collaborative approach to preparing for climate change. The Southeast Palm Beach County Coastal Resilience Partnership (CRP), spanning from Boca Raton to South Palm Beach, announced its collaboration in January 2019 after receiving a FY 18/19 Resilience Planning Grant (RPG) of $72,000 from FDEP’s Florida Resilient Coasts Program. In June, the partnership was awarded a second RPG (for FY 19/20) of $75,000 to continue into Phase 2 of the resilience planning process. Recognizing that climate change and its impacts do not stop at municipal borders, the partnership aims to reduce costs for each municipality while fostering synergy in assessing climate vulnerability, prioritizing adaptation needs, and implementing adaptation strategies.

The CRP emerged in 2017 when sustainability and planning staff in a few South County municipalities began meeting informally to discuss common concerns related to sea level rise and coastal flooding. After PBC opened its Office of Resilience in 2018, the group began to engage additional communities and now includes Boca Raton, Boynton Beach, Briny Breezes, Delray Beach, Lake Worth Beach, Gulfstream, Lantana, Highland Beach, Hypoluxo, Ocean Ridge, and South Palm Beach. This "micro-region" spans barrier island and mainland real estate with a total population of approximately 255,000 and assessed property value of more than $48 billion. The partnership unites some of the County’s largest cities with some of its smallest towns that may lack capacity to conduct municipal-level resilience assessments.

The City of Boynton Beach served as grantee and fiscal agent for the FY 18/19 RPG and engaged Camilo Engineers, Inc. to complete three project tasks: a GIS data inventory and gap analysis, public outreach materials, and development of a methodology for a climate change vulnerability assessment (CCVA). Concurrently, the CRP received pro-bono assistance from four students at Harvard University Law School’s (HLS) Emmett Environmental Law and Policy Clinic in the spring 2019 semester. Under the direction of Clinical Instructor Alisdair Joroff, the students delivered exceptional products including a review of governance models and procurement options, a summary of procurement requirements across the communities, a methodology for determining a cost-sharing structure, criteria for evaluating RFQRFP responses, and a review of existing CCVAs. Finally, the HLS team developed a draft Interlocal Agreement and CCVA Work Plan Agreement, which will be used to formalize the partnership once the documents are refined and approved by local attorneys.

In Phase 2, the CRP will solicit proposals for multi-jurisdictional CCVA. The CCVA aims to provide a detailed understanding of how different climate hazards (e.g., extreme precipitation events, storm surge, high winds, sea level rise, drought, extreme heat, wildfire) are expected to impact the area’s assets (e.g., vulnerable populations, property, water infrastructure, transportation infrastructure, critical facilities, economy, natural resources). The FY 19/20 RPG work plan also includes public engagement activities including outreach materials, message development, and community open houses.

Results of the vulnerability assessment will provide numerous benefits to CRP communities including enabling compliance with federal and state mandates (e.g., America’s Water Infrastructure Act, Florida’s Peril of Flood Act), projecting bond ratings, building public support for investments, and supporting future applications for competitive funding. Furthermore, the CRP’s collaborative approach facilitates consistency in assessing and communicating climate vulnerability across the region. This unique interlocal partnership establishes the flexibility and structure to implement regional resilience projects well into the future.

For more information about the Coastal Resilience Partnership, please contact Rebecca Harvey (HarveyR@bb1.us) or Katelyn Cucinotta (KCucinotta@pbegov.org).
NOAA Upgrades the Global Forecast System

By Gabrielle Decker, Updated: April 7, 2019, June 12, 2019

On June 12, 2019, the National Oceanic and Atmospheric Administration (NOAA) upgraded their flagship model, the Global Forecast System (GFS). The GFS is a U.S. weather model that covers the entire globe, making it a robust tool for providing guidance to forecasters. The GFS upgrade includes a new core, called the finite-volume cubed-sphere – or FV3. The core can be thought of as the model’s ‘engine’. Giving this ‘engine’ an upgrade is a big deal for scientists; it will be the first major upgrade to the model’s dynamical core in nearly 40 years!

The new FV3 core will improve the model’s performance and the accuracy of the model’s forecast guidance. NOAA is confident in this improvement, since testing for the new model has been in progress for a year already. Testing for the upgrade included more than 100 scientists, modelers, programmers and technicians from around the country. Scientists determined that the upgraded FV3-based GFS performed better overall when tested against historical data.

Costly U.S. Hurricanes

Between early June and late November, coastal locations from Texas to Maine are vulnerable to the wrath of hurricanes that can cause vast destruction. On average, 12 tropical storms, 6 of which become hurricanes, form over the Atlantic Ocean, Caribbean Sea, or the Gulf of Mexico during the hurricane season, according to the National Weather Service.

In a typical 2-year period, the U.S. coastline is struck by an average of 3 hurricanes, 1 of which is classified as a major hurricane with winds of 111 mph or greater. The storms can have winds ranging from 74 to over 157 mph that bring destruction from storm surge and torrential rains that have the ability to cause massive flooding.

For 2019, forecasters are calling for 9 to 15 named storms, of which 4 to 8 could strengthen into hurricanes. Hurricanes have also claimed thousands of lives and caused tens of billions of dollars of damage.

Here are the top five costly catastrophic storms:

5. Hurricane Irma; 2017: est. $50 billion in damages
4. Superstorm Sandy; 2012: est. $65 billion in damages
3. Hurricane Maria; 2017: est. $85 billion in damages
2. Hurricane Harvey; 2017: est. $125 billion in damages
1. Hurricane Katrina; 2005: est. $125 billion in damages

According to NOAA the new model will “drive global numerical weather prediction into the future with improved forecasts of severe weather, winter storms, and tropical cyclone intensity and track”. The director of NOAA’s National Weather Service also noted that the improvements won’t end here. Dr. Louis W. Uccellini is looking forward to work on improving the physics and data handling within the model in the future.

In January 2018, NOAA augmented its weather and climate supercomputing systems to increase performance by nearly 50 percent and add 60 percent more storage capacity to collect and process weather, water, and climate observations. This increased capacity enabled the parallel testing of the FV3-based GFS throughout the year.

The retiring version of the model will no longer be used in operations but will continue to run in parallel through September 2019 to provide model users with data access and additional time to compare performance.
Community Rating System at Work

Community Rating System (CRS) Partnered with Home Depot for Hurricane / Flood Disaster Awareness Day

On Saturday, June 1, staff from Palm Beach County Division of Emergency Management (DEM), Planning, Zoning, and Building, (PZ&B) and the CRS User Group teamed up once again with Home Depot stores throughout the county for the annual Hurricane/Flood Disaster Awareness and Preparedness Day to great success.

The event was a coordinated effort between the Home Depot, County Government, and Municipal Governments within the county to educate the public about hurricanes, floods, and other disasters. The event coincided with the State of Florida’s sales tax holiday (May 31 - June 6) on disaster preparedness supplies to assist residents in preparing for the traditional hurricane season, which began June 1 and lasts until November 30 each year.

Hundreds of citizens were able to talk with staff from DEM, PZ&B, Municipal Representatives, and flooding experts with the CRS User Group about a variety of topics including preparedness, flood insurance, evacuation zone locations, sheltering, pets, and storm recovery.

“We really appreciate the partnership with Home Depot to make this such a great success! Residents had an informative day with our CRS team members.” - Joe Mercario, LMS Coordinator

Flood Risk Communication Toolkit for Community Officials

FEMA’s Flood Risk Communication Toolkit and videos help FEMA deliver on its promise to provide simpler, more consistent experiences for its customers. These resources are designed to empower community officials when talking with the public about flood risk in the effort to create more resilient homes and communities. The Toolkit and videos showcase the benefits of the mapping program and its role in risk reduction and resilience.

https://www.fema.gov/media-library/assets/documents/719697
Mitigation the News

NFIP REAUTHORIZATION

On June 6, 2019, the President signed legislation passed by Congress that extends the National Flood Insurance Program’s (NFIP’s) authorization to September 30, 2019.

A key House committee has passed legislation to renew the National Flood Insurance Program for five years and institute various reforms. The House Financial Services Committee, by a bipartisan vote of 59 to 0, approved the comprehensive measure (H.R. 3167) that includes a number of reforms from Republican and Democratic lawmakers to increase affordability, improve mapping, enhance mitigation and modernize the NFIP.

The bill reauthorizes the NFIP until Sept. 30, 2024 and allows for a retroactive effective date in the event of a lapse. In addition to the five-year reauthorization of the NFIP, the bill includes a "continuous coverage" provision that allows borrowers leaving the program to purchase private flood insurance to return to the NFIP without penalty. It also authorizes the government to offer umbrella policies for commercial properties, including multifamily and agricultural properties and requires FEMA to make NFIP coverage available to co-op and condo owners.

It also creates a revolving loan fund for states to encourage them in their mitigation efforts. States can use the funding for a number of eligible activities such as elevation or relocation of homes but cannot use the funds for new construction or to assist high-income homeowners. Other provisions would:

- Expand flood mapping to all areas of the country while requiring FEMA to utilize updated mapping technology and adequately identify future flood risk.
- Provide $500 million for each year over five years for flood mapping.
- Allow for appeals if an aspect of the map is inaccurate, or factors exist that mitigate risk of flooding.
- Grant local variances for flood proofing certain agricultural structures.
- Require an annual independent actuarial study of the NFIP to analyze its financial status of the NFIP.
- Repeal surcharges currently assessed on policyholders, which in FY 2018, would have saved policyholders $380 million.
- Raise the minimum loan amount that triggers the mandatory purchase requirement from $5,000 to $25,000.
- Authorize monthly payments instead of the current annual payment for flood insurance premiums.
- Double to $86,000 the amount of Increased Cost of Compliance (ICC) coverage available to policyholders.
- Require better accounting of flood risks in urban areas along with a new classification for properties protected by levees.

The NFIP, as a result of federal disaster legislation signed by President Trump, is currently slated to expire Sept. 30, 2019.


FEMA Releases Insurance Data

On June 3, the Federal Emergency Management Agency (FEMA) announced that they publicly released 50 million records from the NFIP. The release includes data on every individual flood insurance claim going back to 1978 and every policy sold going back a decade. The dataset is available since mid-June on the OpenFEMA website.

Organizations such as the Association of State Floodplain Managers and the Pew Charitable Trusts, had been calling for improved NFIP data availability for years. There was public interest in the right to know where flood damages occur, the cost of those damages, and what communities are doing to reduce their vulnerability to flooding.

This information would provide a better understanding of flood risk and the exposure faced by the NFIP, which is especially important as information on sea levels rise and extreme rainstorms become more common.

The release of the FEMA data provides a great opportunity to continue the broader discussion about flood risk transparency, disclosure, and data accessibility.
Test Your Knowledge!

The National Association of Insurance Commissioners (NAIC) has published an interactive trivia game called “What the Flood!” to test your knowledge of flood-related insurance. Yay for learning!

Take the Quiz! [https://naic.org/what_the_flood/index.html]

AWESOME APPs

NO SCAM is an app designed to help consumers report allegations of price gouging in real-time and allow information on possible violations be sent to the Attorney General's Office immediately. The app allows consumers to attach pictures, copies of receipts and more when reporting suspected price gouging—directly from smartphones.

MYRADAR is real-time radar images, severe weather alerts, accurate weather forecasts and much more - precise & timely to keep you safe!

PBC DART The Palm Beach County Disaster Awareness and Recovery Tool (PBC DART) provides residents with information and tools used to prepare for a disaster and with the ability to report damage to their home or business in the immediate aftermath of a disaster. Damage reports help disaster managers get an immediate Countywide "picture" within hours of a disaster event to help prioritize response efforts.

Educational Opportunities

- E-1000 Public Assistance Program & Eligibility
- E-154 Introduction to FEMA's PA Program
- AWR-362—Flooding Hazards: Science & Preparedness: August 7, 2019 at Broward County EOC
  - Managing Floodplain Development through the NFIP (E0273) ......................... August 26–29, 2019
  - Residential Coastal Construction (E0888) .... August 12–15, 2019
  - Fundamentals of Building Science (E0312) ......................... September 23–26, 2019

Upcoming LMS Working Group Meetings

The LMS Working Group will meet at 9:30 a.m. on the following dates:

- September 11, 2019, Town of Golf
- December 11, 2019, Village of Wellington

We always need our LMS members to volunteer for future meetings, so if you would like to host, please contact Joe at jmercuri@pbegov.org

The public is highly encouraged to attend.

These links are being provided as a convenience and for informational purposes only; they do not constitute an endorsement or an approval by PBC DEM.