

Florida Department of Agriculture and Consumer Services, Florida Office of Energy

Energy Emergency Preparedness: A Critical Federal-State-Private Sector Partnership

May 15, 2017



Functions & Responsibilities

- Legislatively designated state energy policy development office within Florida
- Evaluate energy related studies, analyses, and stakeholder input
- Promote and advocate for the development and use of renewable energy resources and energy efficiency technologies
- Use available state and federal funds to develop and manage energy efficiency, renewable energy, and energy education programs
- Produce an Annual Energy Report
- Serve as the State clearinghouse for all energy information



Emergency Support Function (ESF) 12, Fuels

- ESF 12, Fuels involves close coordination with private sector providers of transportation fuels such as propane, diesel fuel, and gasoline
 - The Florida Division of Emergency Management has primary responsibility to monitor and coordinate with the private sector to ensure that adequate supplies are available and deliverable for normal community functioning
 - The Florida Department of Agriculture and Consumer Services, Office of Energy provides staffing support



ESF 12, Energy

- ESF 12, Energy coordinates with the electric and natural gas utilities operating in the State to ensure that the integrity of the power supply systems are maintained during emergency situations and that any damages that may be incurred are repaired and services restored in an efficient and expedient manner afterward
- The Florida Public Service Commission is the lead agency for ESF 12, Energy
 - Provide updates on restoration
 - Help facilitate the restoration of power to high priority buildings and equipment (pumps, communication equipment, medical facilities, etc.)
 - Help alleviate bureaucratic impediments
- Facilitate waivers, law enforcement escorts, etc.



Utility Preparation

- The Florida Public Service Commission holds a yearly hurricane preparedness workshop
 - Addresses hardening and preparations
 - Inspections of distribution lines and structures
 - Flood mitigation of substations
 - Smart grid infrastructure
 - Utility pole inspections are done on a utility specific interval
 - As appropriate, critical poles are replaced with concrete or steel
 - Discuss communication issues
 - Utilities conduct community presentations



Utility Preparation

- Utilities have cooperative agreements with in-state and out-of-state utilities to help expedite restoration
- Utilities provide staff to support ESF 12, electricity
 - Also participate in the yearly hurricane exercise
 - Many utilities also host their own drills
 - All investor-owned utilities host their own drills



Florida Building Code

Florida was devastated by several natural disasters in the early 1990s, including Hurricane Andrew. Up to this point, counties and municipalities could adopt one of four separate state-recognized model codes

Following the natural disasters, a study of the existing building code system revealed

- Code adoption and enforcement was inconsistent across Florida
- Local codes once thought to be the strongest, proved inadequate when tested by major hurricane events
- These weaknesses resulted in loss of lives, economic devastation and a statewide property insurance crisis



Building Resiliency

In response, Florida reformed the building code system to provide the optimal standards for protection, placing emphasis on uniformity and accountability.

- The Florida Building Commission (FBC) was established in 1998.
- Since 2001, The *Florida Building Code* has been updated every three years using latest International Building Codes and state-specific modifications as foundations.
- The *Florida Building Code*, developed and maintained by the FBC, supersedes all local building codes.
- Unlike many states, Florida requires state licensure for building code enforcement.
- Florida has its own statewide product approval program and a strong education and training program for building code enforcers.



Florida's High Standards for Codes

Statewide, specific code provisions include:

- Improved wind uplift resistance for roof covering and fasteners
- Testing and labeling requirements for windows, garage doors, impact-resistance sidings
- Water resistant exterior walls to protect the building envelope wet climate
- Retrofitting guidance for gable-ended roofs where most wind damage occurs

In high-intensity wind areas, specific code provisions ensure that buildings can withstand the impact of wind-born debris. The High-Velocity Hurricane Code includes provisions for:

- All exterior glass windows and doors must be shatter-resistant
- Impact-resistant garage doors, windows and glass doors
- Residential design enhancements for wind speeds above 100 mph



SunSmart Schools E-Shelter Program

- Provided 10kW PV systems with battery back-up to schools that also serve as emergency shelters
 - Systems off-set electricity use for the school
 - Included curriculum for schools
 - Provided professional development to teachers and facility managers
- 106 systems installed
- Over 1 MW of capacity installed
- Systems produce approximately 13 MWh annually
- Seeing the success of the program, Florida's investor-owned utilities provided an additional \$908,000 to the original program

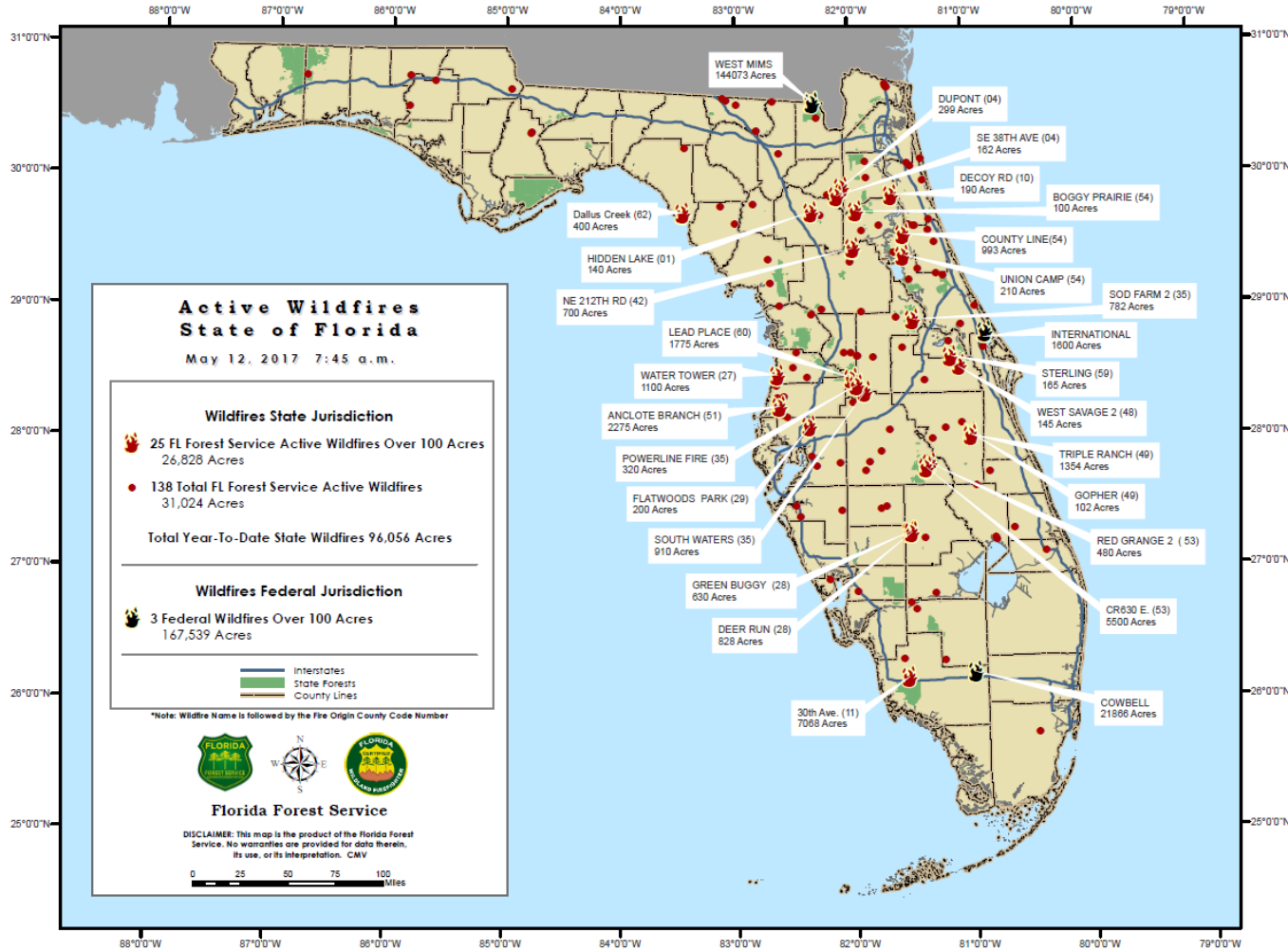


Other Disasters

- The Florida Forest Service is currently fighting 118 active wildfires covering a total of 30,644 acres
- On April 11, the Governor declared a State of Emergency due to wildfire threat
 - EOC is currently at Level 2



Wildfires



Florida Energy Assurance Plan

- The Florida Energy Assurance Plan (FEAP) provides guidance on how to respond to the of a loss of electricity, natural gas, or petroleum
- FEAP was prepared to ensure there are procedures and policies in place to respond to situations involving an energy disruption. Identifies the operational reply to an energy disruption occurring in Florida
 - Identifies energy assurance best practices, both in-state and out-of-state;
 - Identifies renewable energy and smart grid technologies already in place in Florida
 - Evacuates Florida’s vulnerabilities and risk factors impacting energy assurance



What's Ahead

- Hurricane season starts June 1 and ends on November 30
- Colorado State University's Tropical Meteorology Project predicts
 - 11 named storms
 - 2 major storms (category 3 to 5)
 - 24% chance a major hurricane makes landfall
- The National Weather Service has not made predictions for 2017



Contact Information:

Kelley Smith Burk

Kelley.SmithBurk@FreshFromFlorida.com

(850) 617-7470

