



## Hurricane Irma 9.8.17 Analysis

Risk Services Division

8 September 2017

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## Hurricane Irma September 8, 2017 (3pm EST)

- **Irma weakened slightly but remains a life-threatening storm.**
- **1.4 million people have been ordered to leave their homes.**
- **Over 2,000 flights have been cancelled.**
- **At least 20 people have died because of the storm.**
- **As much as a foot of rain could fall across the state, with isolated spots receiving 20 inches.**

### Summary

Irma was downgraded to a Category 4 storm but remains extremely dangerous with winds of 150 miles per hour. Damaging winds and rain could hit the Florida Keys by late Saturday, with the hurricane reaching heavily populated areas of South Florida on Sunday morning.

It is anticipated that the majority of Florida will have hurricane impacts, and parts of Florida could be out of electricity for days, if not longer, and that more than 100,000 people may need shelter.

### Watches and Warnings:

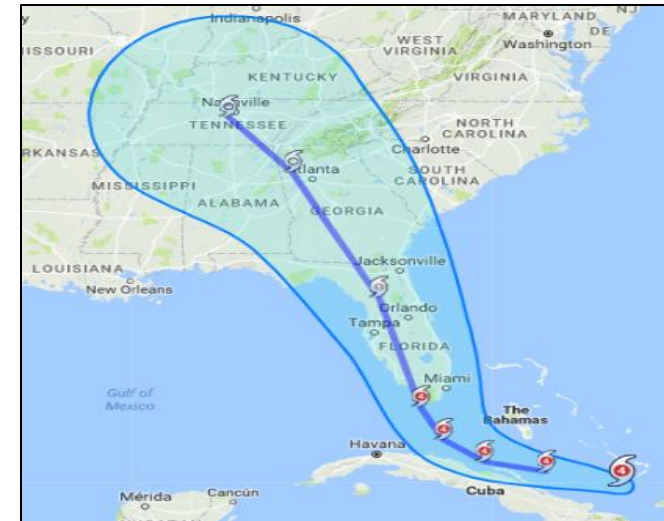
**Storm Surge Warning:** Sebastian Inlet southward around the Florida peninsula to Venice; Florida Keys.

**Storm Surge Watch:** North of Sebastian Inlet to Ponce Inlet.

**Hurricane Warnings:** Jupiter Inlet southward around the Florida peninsula to Bonita Beach; Florida Keys; Lake Okeechobee; Florida Bay; Southeastern Bahamas; Cuban provinces of Camaguey, Ciego de Avila, Sancti Spiritus, and Villa Clara; Central Bahamas; Northwestern Bahamas.

**Hurricane Watch:** North of Jupiter Inlet to the Flagler/Volusia County Line; North of Bonita Beach to Anclote River; Cuban provinces of Guantanamo, Holguin, Las Tunas and Matanzas.

**Tropical Storm Warning:** Cuban provinces of Guantanamo, Holguin, and Las Tunas.



*Current position and track of Irma*

## Critical Updates –

### Florida

- Lodging
  - Expedia - Through Visit Florida's partnership with Expedia, [Expedia.com/Florida](http://Expedia.com/Florida) has been activated to provide accommodations availability information for visitors, residents and first responders.
  - Airbnb - has activated their Disaster Response Program for Hurricane Irma. This program will facilitate free temporary housing in Northern Florida and Southern Georgia to Evacuees to aid Floridians evacuating their homes and relief workers arriving to assist in response to Hurricane Irma.
  - Airbnb hosts in the following Florida and Georgia communities are eligible to take part in the program and list their homes for free to evacuees and emergency relief workers:
    - Florida: Leon County, Calhoun County, Franklin County, Jackson County, Liberty County, Gadsden County, Gulf County, Wakulla County, Madison County, Jefferson County, Taylor County
    - Georgia: Decatur County, Grady County, Thomas County
  - These \$0 listings are available for the next three weeks, until September 28.
  - Hosts interested in listing their properties for free are being directed to follow [airbnb.com/disaster](http://airbnb.com/disaster), where they can opt in by clicking "I can offer my space for free"
- School Closures
  - All K-12 Public Schools, State Colleges, State Universities and State Offices are closed Friday, September 9 - Monday, September 11.
- Traffic
  - Tolls have been suspended across the entire state
  - FDOT, FHP Implements Limited Emergency Shoulder Use (ESU) Plan for Hurricane Irma on I-75 at Wildwood to the Georgia State Line.

### Georgia

- All areas east of I-95, all of Chatham County and some areas west of I-95 are under a mandatory evacuation effective Saturday, Sept. 9, 2017 at 8 a.m.
- Refer to [this map to](#) see if you live in the mandatory evacuation zones. Those zones are highlighted in yellow.
- A list of shelter locations can be found [here](#).

### South Carolina

- State of emergency has been declared.
- Residents in the Carolinas should monitor Irma's progress closely and make preparations for Irma's expected impacts later Sunday into Monday.
- Residents in South Carolina who have questions about Hurricane Irma can now call the state's toll-free hotline 1-866-246-0133.

## Infrastructure Probability Impact Assessment

The following impacts are likely to critical infrastructure sectors. Rain, flooding, and wind generated by Hurricane Irma is expected to produce medium to high local impacts to critical infrastructure across southern and central Florida.

**Impact:** Low ● Medium ● High ●

Energy [●] The 51- to 100 percent electric power outage zone contains 62 electric generating stations and 157 substations that operate at 230 kilovolts (kV) and above. Two of the 62 electric generating facilities are nuclear generators with a summer generating capacity of approximately 3,500 megawatts (MW).

Commercial Facilities [●] 5 indoor arenas and 14 convention centers are likely to be in the 76-100 percent electric power outage zone. Backup generators will likely mitigate the consequences from short-term (1-3 day) power outages, but longer outages could be a concern if facilities are unable to refuel generators due to flooding, debris covered roads or other issues. 17 sports venues and amusement parks are likely to be in the 76-100 percent electric power outage zone. Outdoor facilities, such as amusement parks, might be more susceptible to flooding and wind damage because they are often located in relatively flat areas.

Ports [●] The Port of Miami, Port Everglades, Port of Palm Beach, and Port Canaveral will experience significant physical damage due to storm surge. Port facilities will also be impacted by wind damage, loss of power and communications, and roadway blockages. Cargo receipts and shipments along the east coast of Florida will be significantly disrupted for weeks, including the movement of containers at all ports, the receipt of gasoline at Port Everglades, and exports from the Port of Palm Beach.

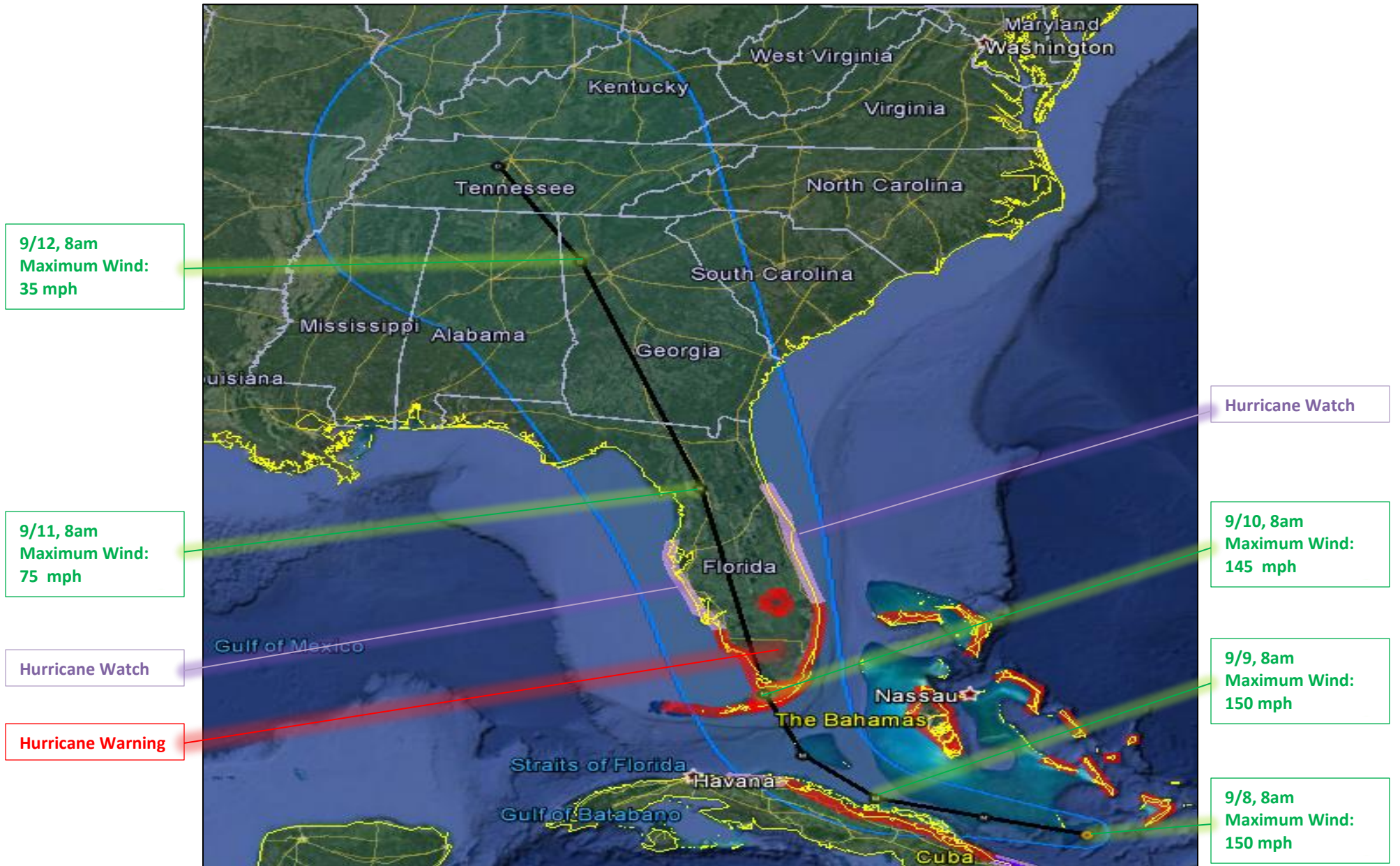
Healthcare [●] Healthcare facilities will be impacted by severe storm surge and electric power outages, which decreases healthcare facilities ability to administer routine and emergency medical services. Some of the potentially impacted hospitals in Monroe and Miami-Dade counties have started to evacuate patients and reduce clinical functions. Flooding and debris could delay patients' ability to receive emergency care, prevent some staff from traveling to facilities, and blocking the delivery of emergency supplies (e.g. fuel for generators, medical supplies, blood).

Transportation [●] Hurricane Irma will have a high local impact to the Transportation Systems Sector. Most transportation nodes in the affected areas will cease during the storm. Recovery efforts can take days or weeks, depending on the level of damage and restoration priorities. Rail damage may take one to two weeks to repair, causing economic loss and stranded passengers. Interstates, state highways, and local roads will experience flooding and debris that will hinder evacuations and emergency response. The Port of Miami, Port Everglades, the Port of Palm Beach, and Port Canaveral are likely to experience physical damage due to storm surge. Port facilities will also be impacted by wind damage, loss of power and communications, and roadway blockages.

Communications [●] Hurricane Irma will have moderate to high regional impacts and low national impacts on the Communications Sector because of power loss, flooding, and wind damage. Impacts to communications assets are mostly attributable to lack of electric power, wind damage, and degraded transportation networks, which can interrupt and postpone recovery efforts. High wind speeds will cause power outages and damage communication towers. Storm damage on public safety answering points (PSAPs) will have moderate impacts over the near term. Rerouting of PSAPs will mitigate most outages.

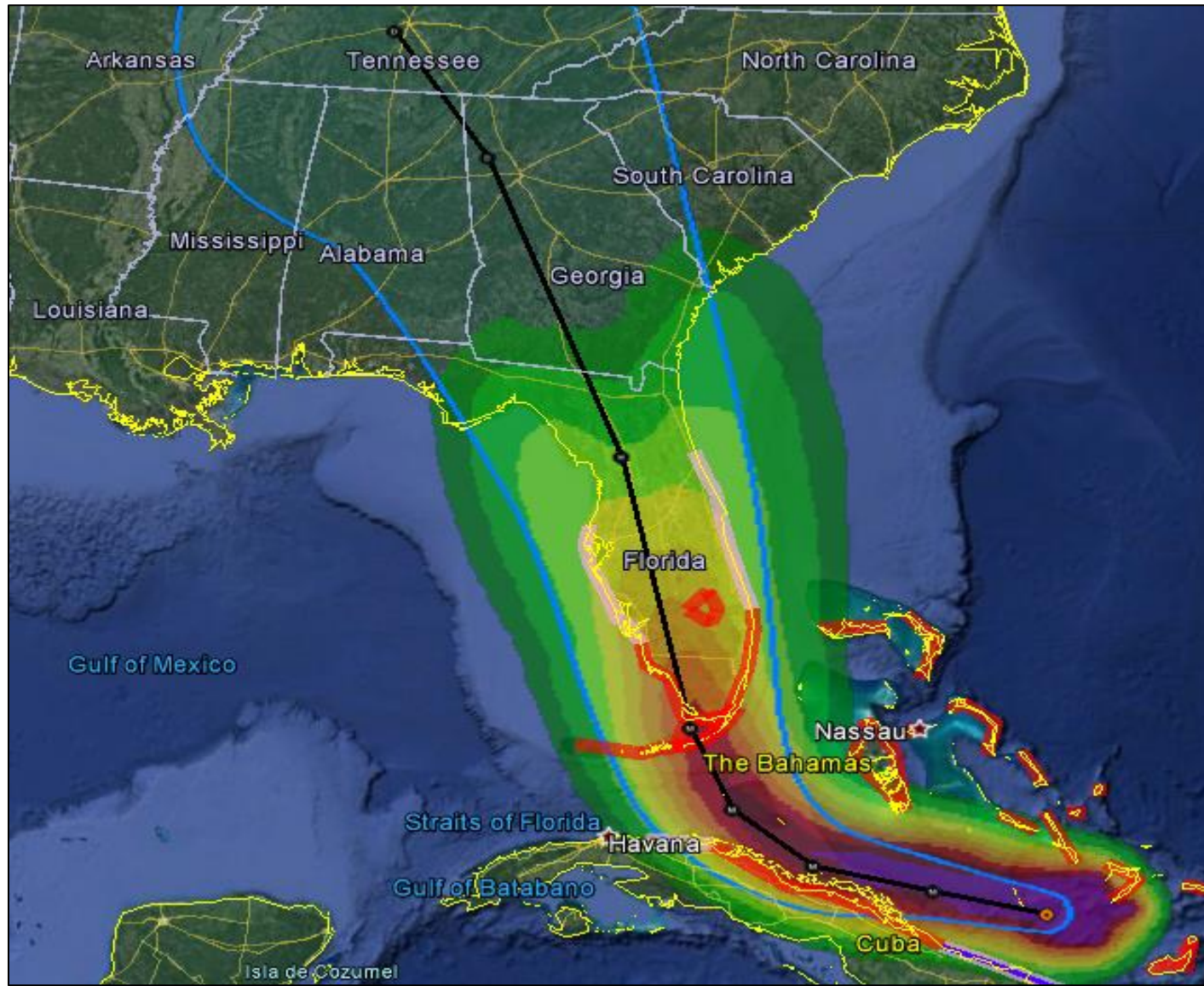
Water [●] There will be medium-to-high local impacts to the Water and Wastewater Sector from Hurricane Irma due to the number of infrastructure assets affected. Hurricane Irma will have medium-to-high local impact to the Water and Wastewater Systems Sector as a result of electric power (EP) loss in South Florida. to essential chemicals will be limited during and after the hurricane. Water and wastewater treatment facilities in Florida typically stock a 10 to14 day supply of essential chemicals.

Predicted Path

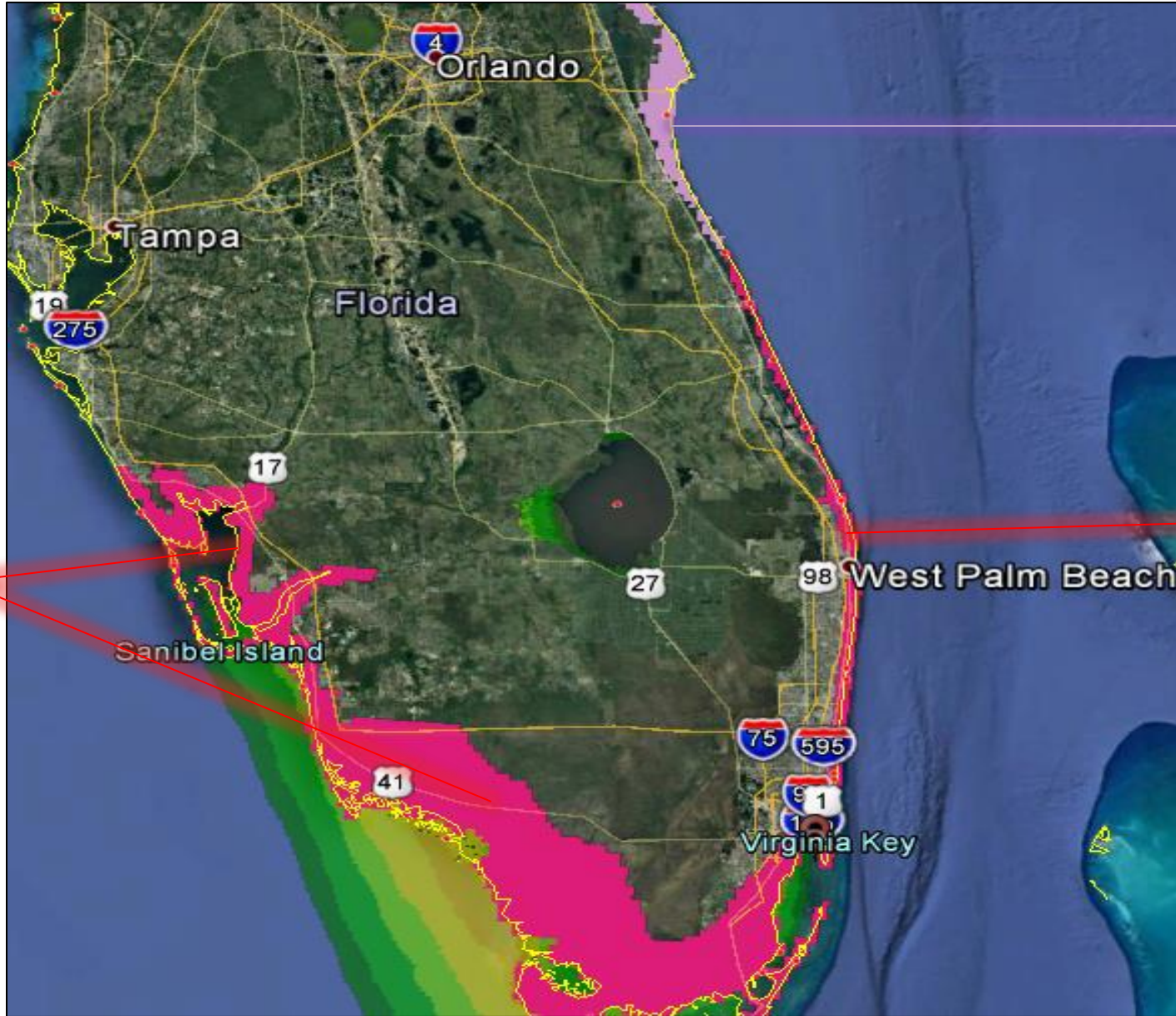


Wind Speed Probabilities

Red – 80-90 mph; Orange – 60-70 mph; Green – 20-30 mph



Storm Surge



Storm Surge Watch

Storm Surge Warning

Storm Surge Warning

**For Additional Information:**

HUB International – Hurricane Irma Resource Page

<https://www.hubinternational.com/crisis-resource-center/2017/09/hurricane-irma/>

American Red Cross

<http://www.redcross.org/>

US Coast Guard Storm Center

<https://www.uscg.mil/news/stormcenter/>

US National Hurricane Center

[www.nhc.noaa.gov](http://www.nhc.noaa.gov)

US Federal Emergency Management Agency

<http://www.ready.gov/hurricanes>

FEMA – Mobile App

<https://www.fema.gov/mobile-app>

Ready Gov

[www.ready.gov](http://www.ready.gov)

Listo Gov (Spanish)

[www.listo.gov](http://www.listo.gov)

Emergency Management Agencies

<https://www.fema.gov/emergency-management-agencies>

Florida Emergency Management

<http://www.floridadisaster.org/index.asp>