

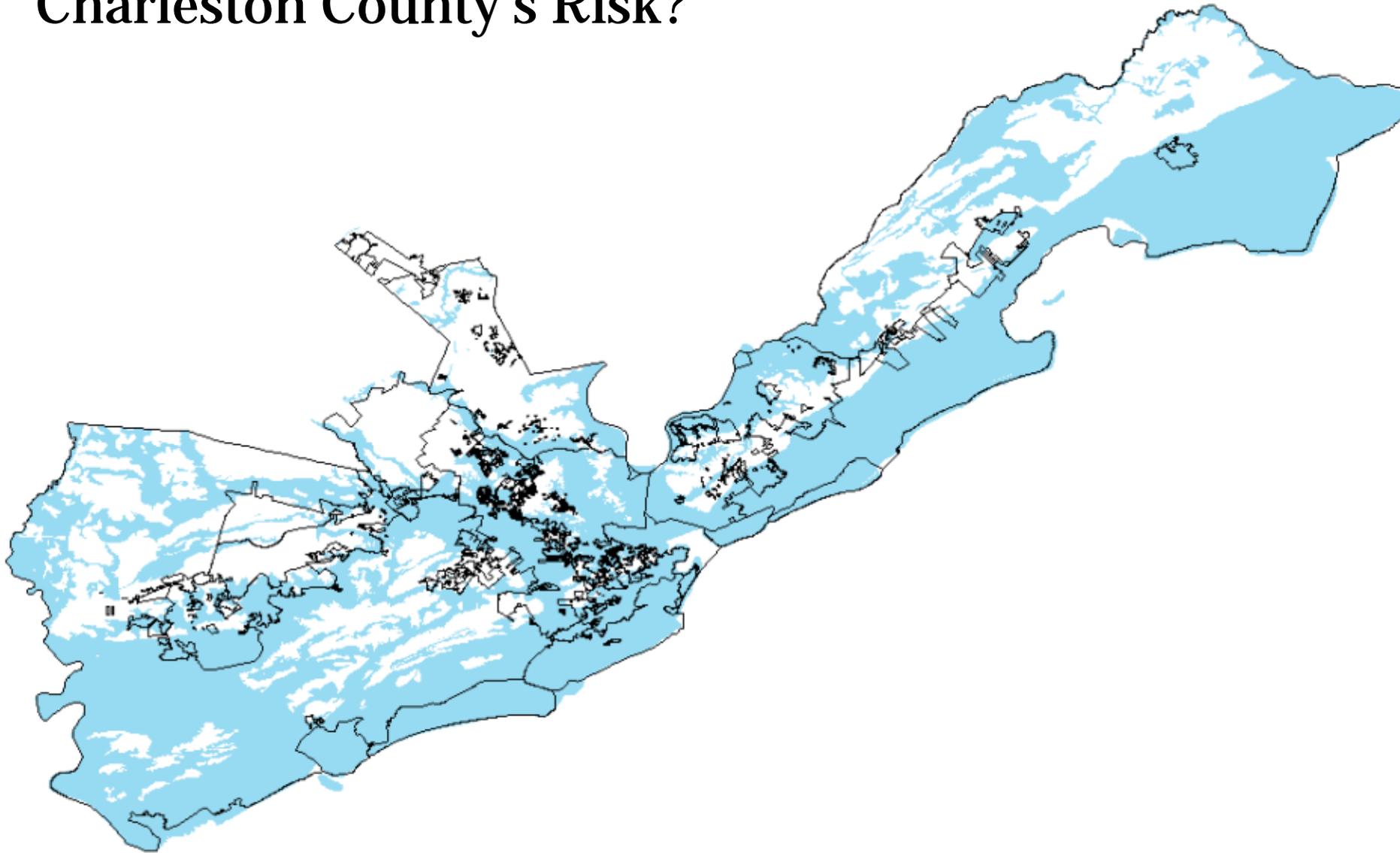


# **Staying Above Water**

## **Information on Hurricanes and Flooding for Seabrook and Kiawah Island**

- **Presentation By: Martin Erbele**  
Assistant Floodplain Coordinator  
Charleston County Building Services
- **June 13<sup>th</sup>, 2013**

# Charleston County's Risk?





# Hurricane Season

- It officially began on June 1
- National Oceanic and Atmospheric Administration (NOAA) is calling for an above average year
- Charleston County, Seabrook Island, and Kiawah Island in particular face a lot of risk
- Hurricanes bring strong and violent wind, but their associated rains, storm surges, wind induced wave action, and other flooding hazards cause the vast majority of damage and loss of life.
- The next hurricane isn't a question of if...

## Just In The News

“Between 1900 and 2000, 14 hurricanes made landfall along the South Carolina coast, including three major hurricanes.”

Storm surge x GA SC NC St x TWC Potential Fir x TWC 10 Most Vuln x Intranetix Vir x Frequently A x NOAA

www.weather.com/news/weather-hurricanes/10-most-overdue-hurricane-cities-20130531?pageno

Intranet Charleston County Hazard Mitigation ... Pictometry SCDNR - Flood Mit... FEMA Maps Starting at \$99

# HURRICANE CENTRAL

Hurricane Central

## 10 Most Vulnerable and Overdue Hurricane Cities

Becky Kellogg | Published: Jun 3, 2013, 10:07 AM EDT | weather.com

8. Charleston, S.C. ◀ Prev Next ▶

Ben Sawyer Bridge, S.C. ◀ 1/7 ▶



Hurricane Hugo tore the Ben Sawyer Bridge apart, which connected Sullivan's Island to Charleston, S.C. A police officer who crossed over the bridge minutes before its collapse said he could hear the metal grinding and breaking

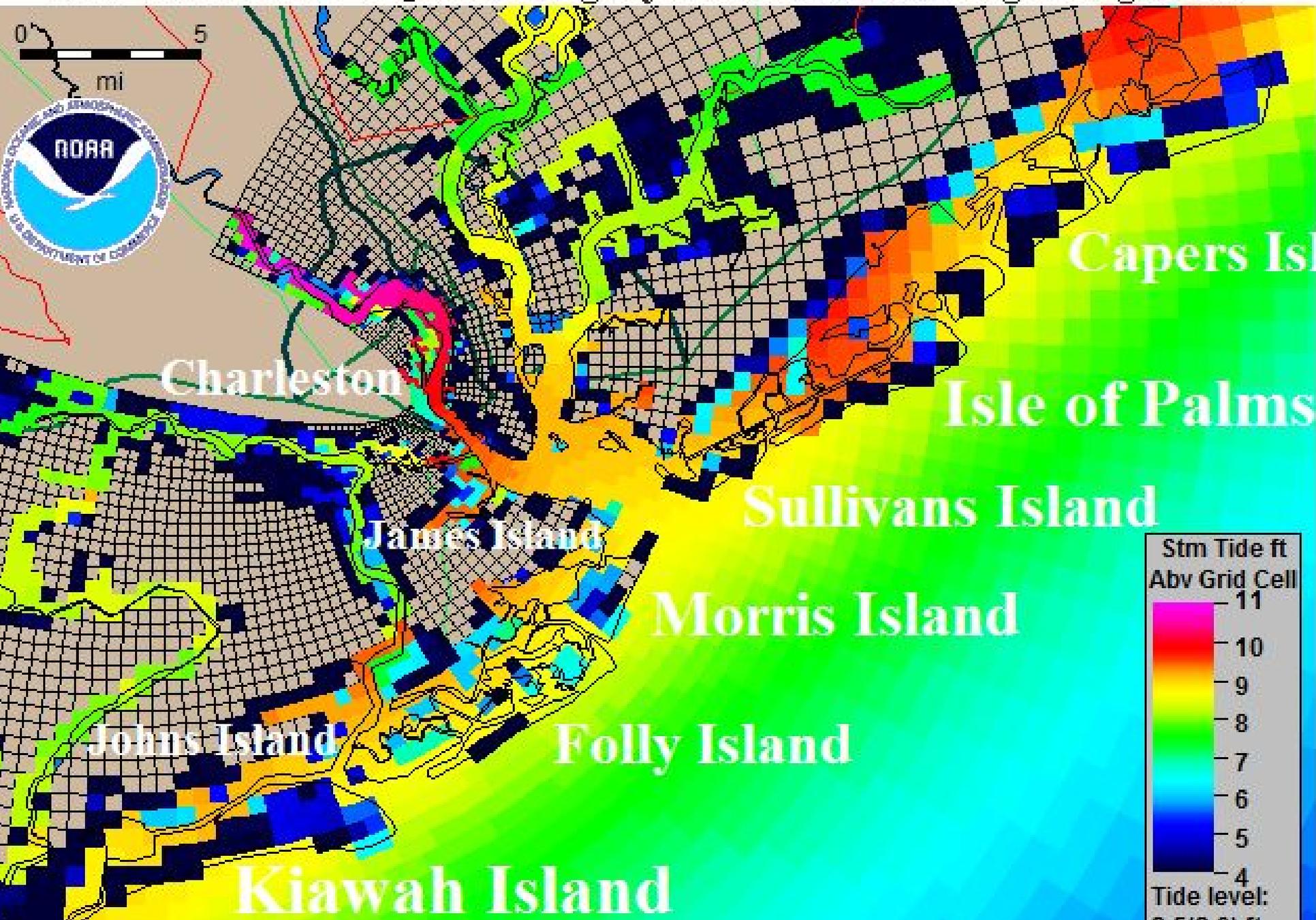
BE ANY



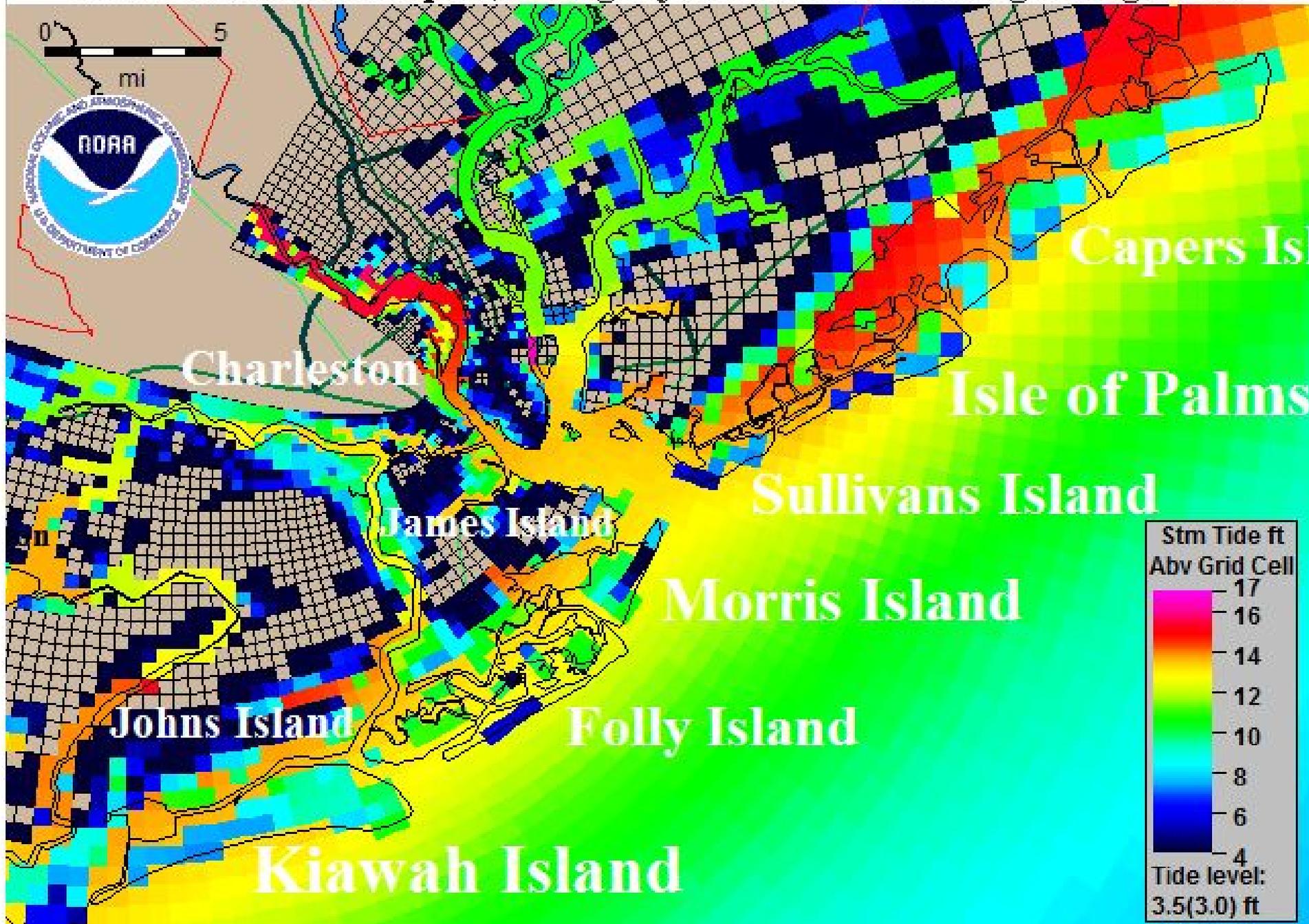
## **Storm Surge Modeling**

- **SLOSH Model**
  - Sea, Lake, and Overland Surge from Hurricanes
- **NOAA/National Hurricane Model**
- **Again, every storm is unique, but this model has proven to be very accurate.**
- **Takes into account elevation.**
- **Hurricane striking Charleston Peninsula**

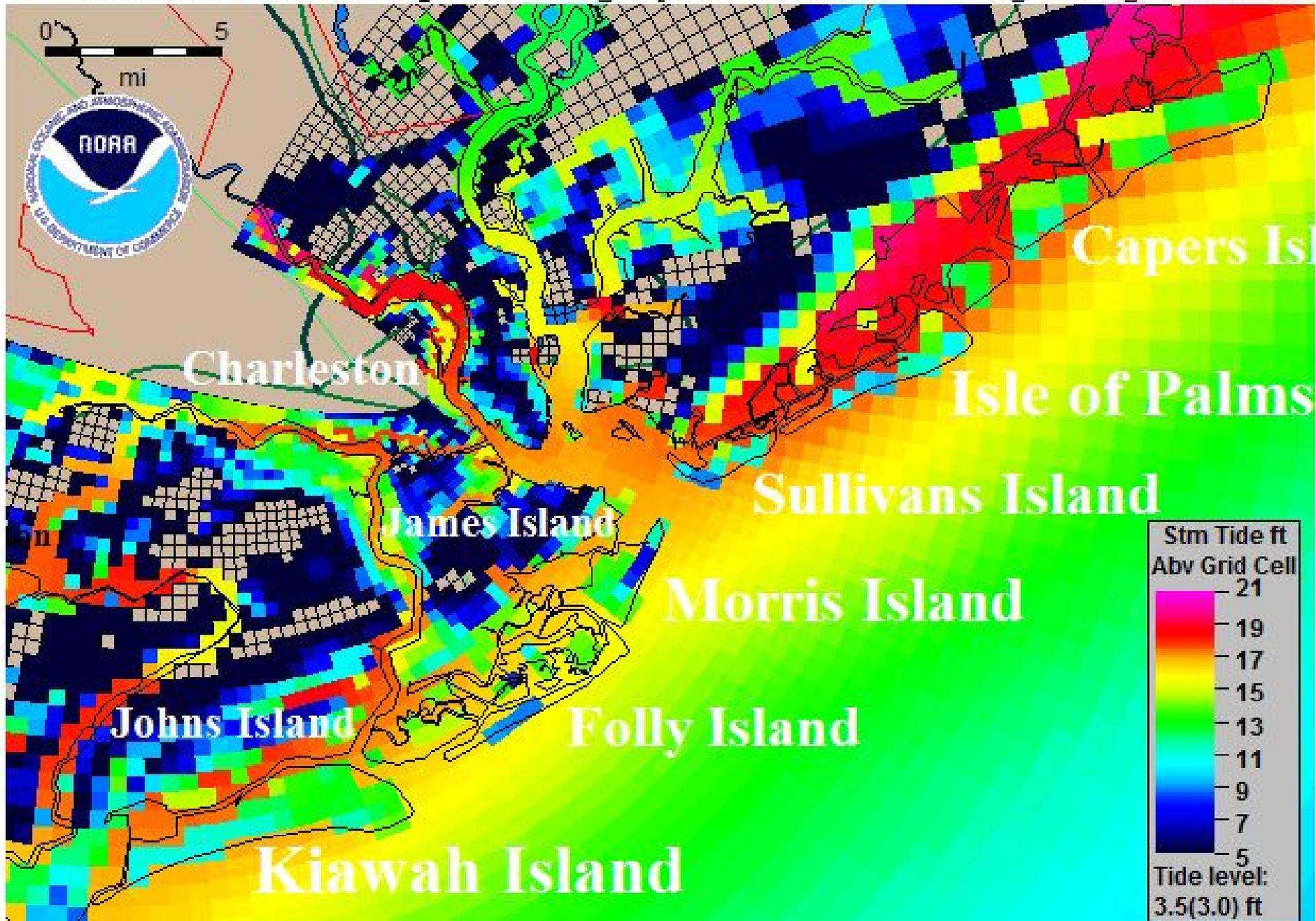
# Maximum water depth, Category 1 Hurricane hitting at high tide



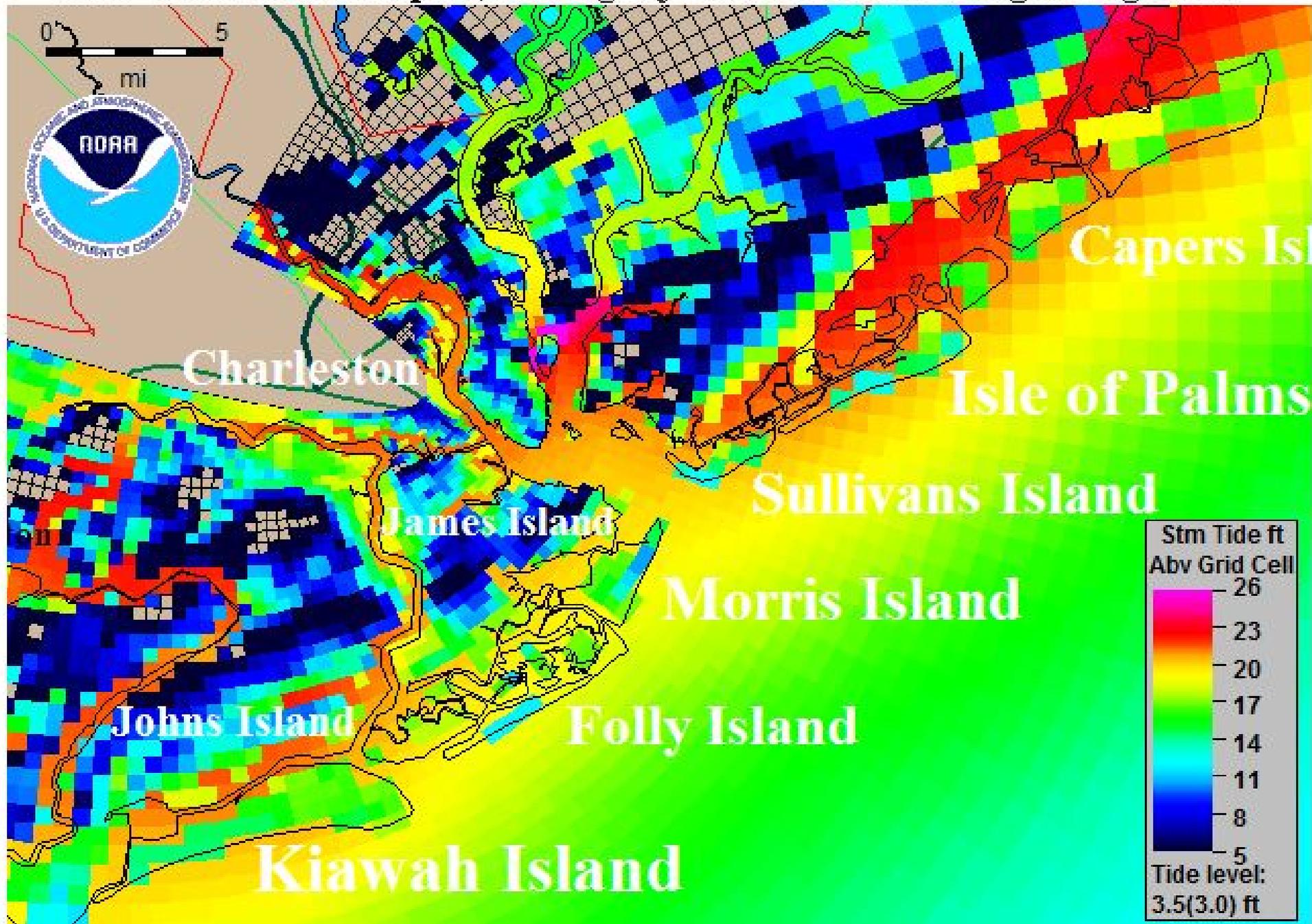
# Maximum water depth, Category 2 Hurricane hitting at high tide



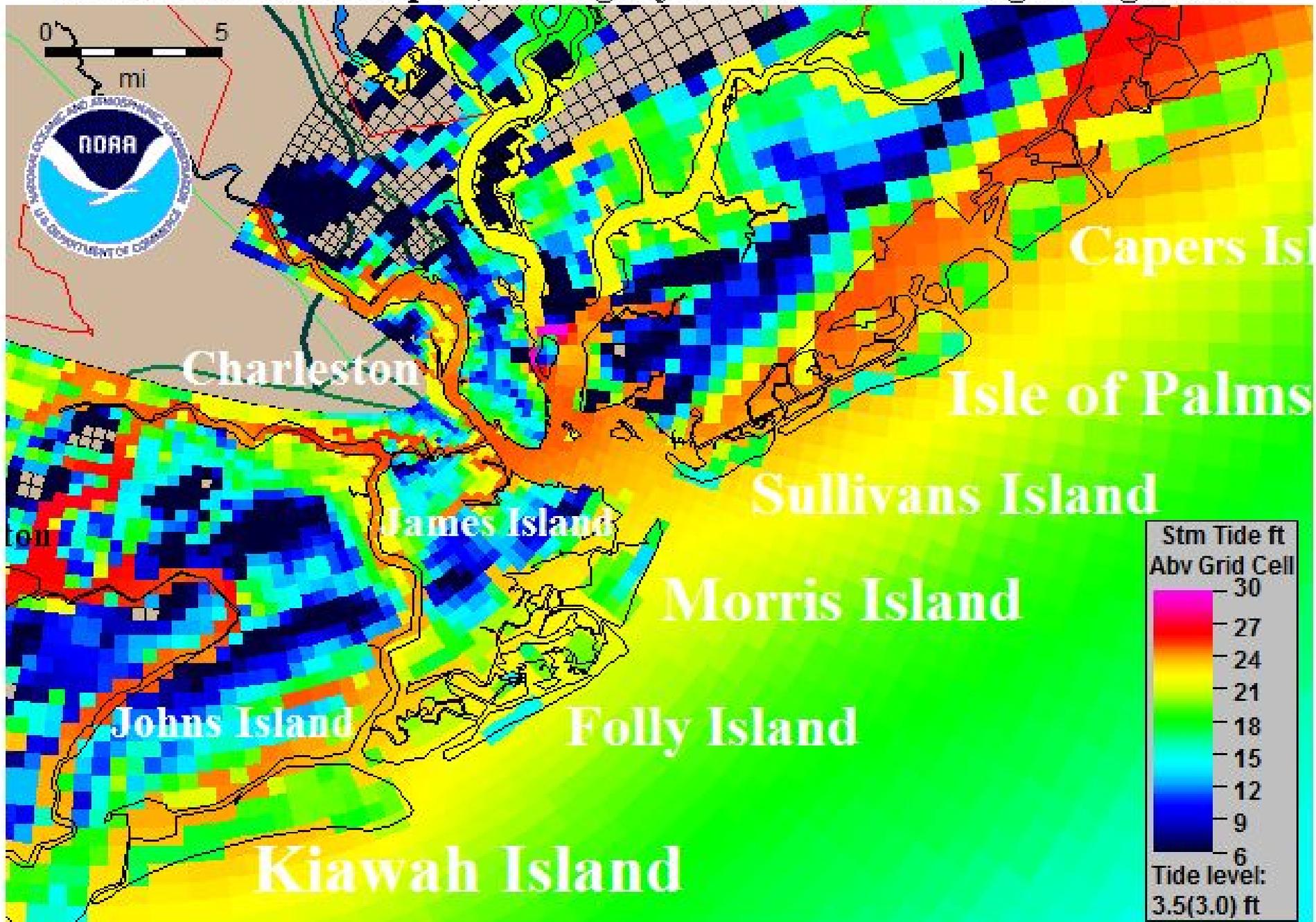
# Maximum water depth, Category 3 Hurricane hitting at high tide



# Maximum water depth, Category 4 Hurricane hitting at high tide



# Maximum water depth, Category 5 Hurricane hitting at high tide





## **Under a different model...**

- Previous models examined maximum water depth.
- Next model, through NOAA and the Army Corps of Engineers, estimates 'widespread' areas of flooding through different storm intensity.



7

**LEGEND**

**AREAS OF POSSIBLE FLOODING**

- CATEGORY 1 HURRICANES
- CATEGORY 2 HURRICANES
- CATEGORY 3 HURRICANES
- CATEGORY 4 HURRICANES
- CATEGORY 5 HURRICANES

# Safety and Preparation Information

- How many have both an updated family plan AND a full preparedness kit ready?
- Stay Vs. Evacuate –I strongly recommend you evacuate and do so EARLY. But be prepared for both.
- Get Information Online:
  - Charleston County Online: [charlestoncounty.org](http://charlestoncounty.org)
  - South Carolina Emergency Management: [scemd.org](http://scemd.org)
- Think about everything – pets, disabled family members, lack of communication, power, water, etc...

# In Closing...

- “An inch of mitigation goes a mile during a storm”
- Thank you for your time.
- Can I answer any questions?!

## Contact Information:

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