SECOORA
Southeast Coastal Ocean Observing Regional Association

Observing, understanding, and increasing awareness of our coastal ocean in Florida, Georgia, South Carolina, and North Carolina.

SECOORA helps improve safety, economy, and public health by providing critical ocean and coastal data and information to the people who live and work along the Southeast U.S. coast.

Water level data is vital for monitoring coastal flooding and keeping citizens informed of hazardous conditions. SECOORA is installing over 220 water level stations in the southeast over the next 5 years.

The Resilience Specialist of the Kiawah Island Community Association in South Carolina stated "The Kiawah Island Community is regularly faced with nuisance flooding challenges related to sea level rise. A water level monitoring sensor in our community will allow our Stormwater Engineers and Emergency Management staff to plan for and manage nuisance flooding."

Image: Daniel Pullen Photography

Ports, a major sector of the blue economy, rely on SECOORA data.

According to Mark Messersmith, Environmental Manager at South Carolina Ports Authority (SCPA), "SCPA and our partners use the data from the SECOORA Buoy CAP 2 to provide important meteorological and oceanographic information for safe and efficient marine transportation as well as for data inputs on studies impacting the economic vitality of our Port and region."

Image: SCPA

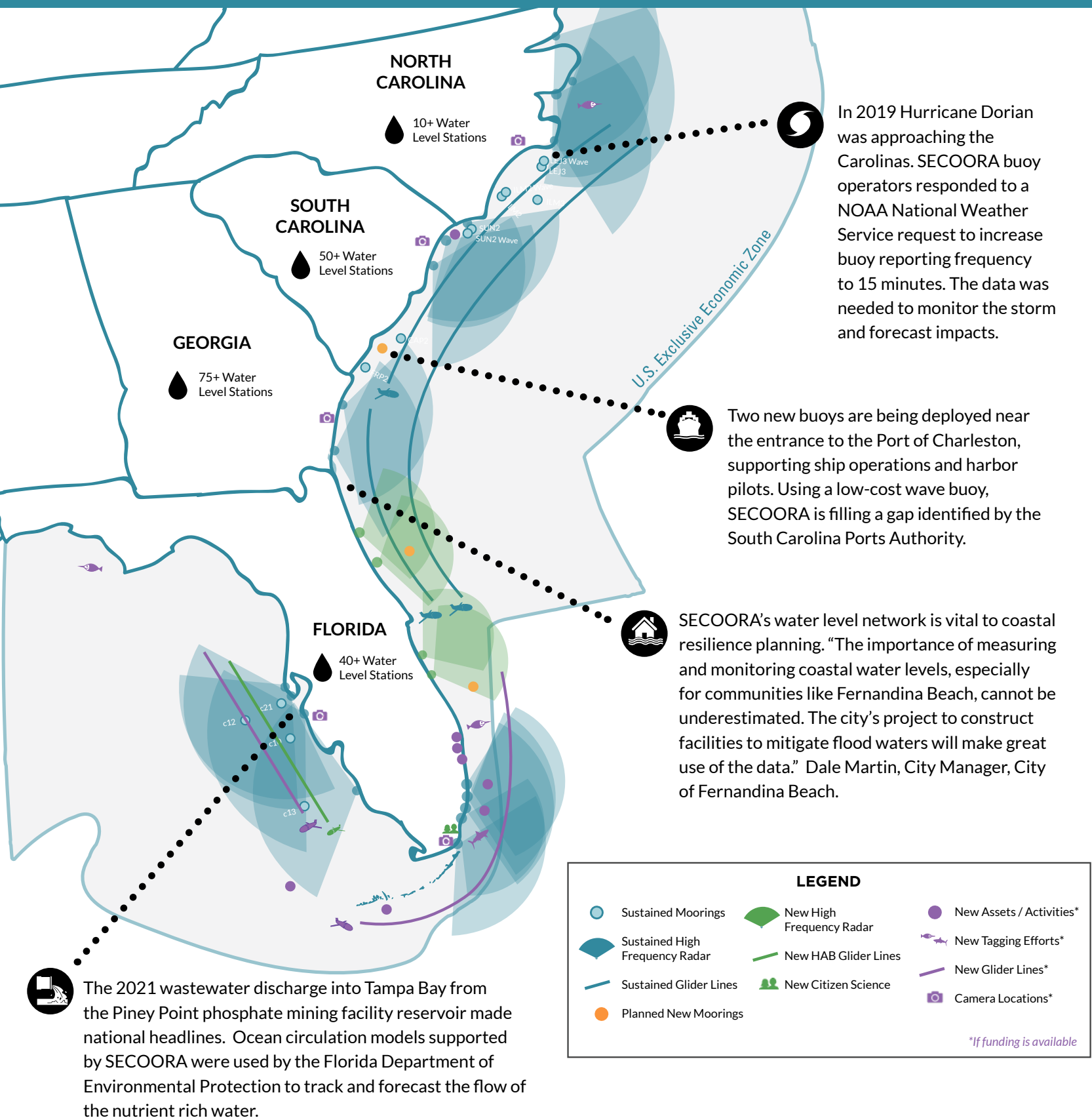High Frequency radars (HF radars) are land-based systems that measure the speed and direction of ocean surface currents in near real-time.

Commercial fisherman and self-proclaimed 'computer geek' Captain Dave Tilley sees HF radar data as a way to catch more fish. There is a need for more HF radar datasets, Captain Tilley states, "I would love to get my hands on every single one of them in existence."

Image: Vince Winkel, WHQR

SECOORA Meets Community Needs

NORTH CAROLINA

10+ Water Level Stations

SOUTH CAROLINA

50+ Water Level Stations

GEORGIA

75+ Water Level Stations

FLORIDA

40+ Water Level Stations

U.S. Exclusive Economic Zone

In 2019 Hurricane Dorian was approaching the Carolinas. SECOORA buoy operators responded to a NOAA National Weather Service request to increase buoy reporting frequency to 15 minutes. The data was needed to monitor the storm and forecast impacts.

Two new buoys are being deployed near the entrance to the Port of Charleston, supporting ship operations and harbor pilots. Using a low-cost wave buoy, SECOORA is filling a gap identified by the South Carolina Ports Authority.

SECOORA's water level network is vital to coastal resilience planning. "The importance of measuring and monitoring coastal water levels, especially for communities like Fernandina Beach, cannot be underestimated. The city's project to construct facilities to mitigate flood waters will make great use of the data." Dale Martin, City Manager, City of Fernandina Beach.

The 2021 wastewater discharge into Tampa Bay from the Piney Point phosphate mining facility reservoir made national headlines. Ocean circulation models supported by SECOORA were used by the Florida Department of Environmental Protection to track and forecast the flow of the nutrient rich water.

LEGEND

- Sustained Moorings
- Sustained High Frequency Radar
- Sustained Glider Lines
- Planned New Moorings
- New High Frequency Radar
- New HAB Glider Lines
- New Citizen Science
- New Assets / Activities*
- New Tagging Efforts*
- New Glider Lines*
- Camera Locations*

If funding is available

INTEGRATED OCEAN OBSERVING SYSTEM

SECOORA is one of the eleven Regional Associations that partner with the NOAA led Integrated Ocean Observing System, U.S. IOOS®. U.S. IOOS is essentially the weather service for the coastal oceans and Great Lakes, providing the ability to "see" what is happening both above and below the surface and making that information readily available.