

10/30/24

— Laura Tiu, Mary Gutierrez, and Carrie Stevenson —

Outfitting the Florida Panhandle in Community Water Level Sensors




"Boots on the Ground"

UF | IFAS Extension
UNIVERSITY of FLORIDA



Sea Grant
FLORIDA



-  SECOORA Stations
-  Partner Stations
-  NOAA Stations

January 2023 – The Southeast Coastal Ocean Observing Regional Association (SECOORA) reaches out to Florida Sea Grant (FSG).
“Boots on the ground.”





February 2023 – Reach out to panhandle network to ascertain potential partners.

- Other FSG and Sustainability Agents (Carrie Stevenson)
- Three relatively new Estuary Programs
- County Environmental Staff
- Northwest Florida State College
- Choctawhatchee Basin Alliance
- Walton County Resiliency Team

April 2023 – Wrote proposal, got funding, and was partnered with a PI from Florida Atlantic University and Linh Dang, project manager.

Goals

- Substantially expand the real-time water level coverage in the panhandle (10 sensors).
- Partner with 2 coastal communities to provide data to underserved areas.

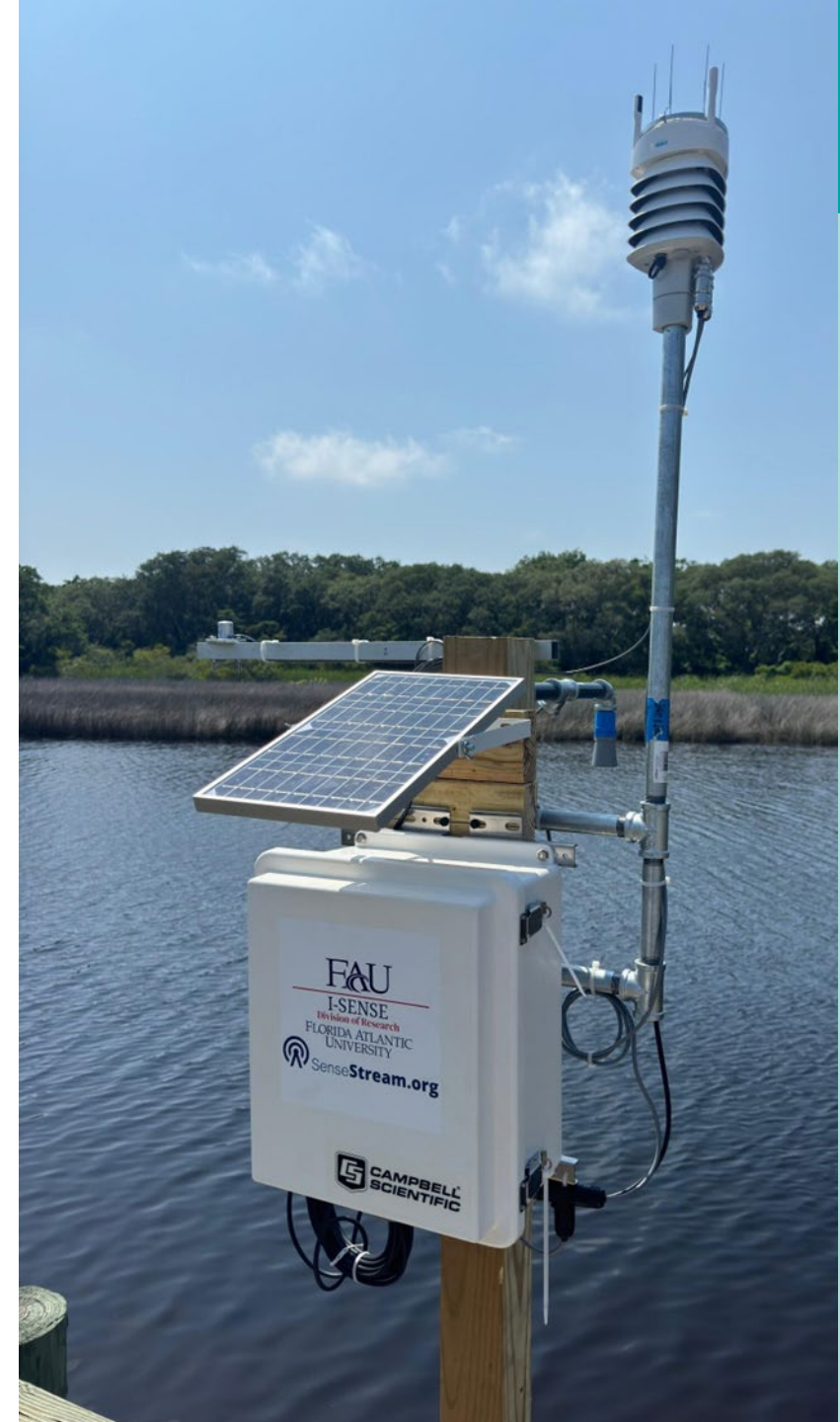
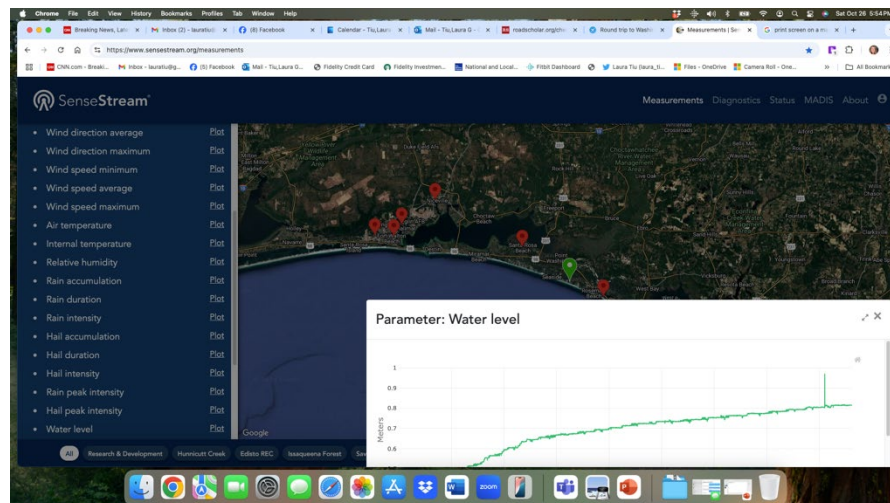
May/June 2023 – Install two pilot sensors

- Eastern Lake (Dune Lake), Walton County
- Poquito Bayou Public Boat Ramp, Okaloosa County



The Sensors

- Provided free with the grant (Thanks FAU & SECOORA)
- Solar power
- Water level sensor
- Weather sensor
 - Wind
 - Temperature
 - Humidity
 - Precipitation
 - Barometric pressure
 - Solar radiation
- Installed by team from FAU
- Relayed to National Weather Service
- Originally connected to **SenseStream.org** (metric)



July 2023 – Hire a Community Engagement Specialist with Florida Sea Grant

- Mary Gutierrez
- The program is for the placement of 10-20 additional water level sensors throughout a 7-county area in the panhandle of Florida. The counties include Escambia, Santa Rosa, Okaloosa, Walton, Bay, Gulf, and Franklin.
- Using a watershed approach.
- Sites considered based on geographic location, accessibility, and to identify current and projected flood susceptibility hotspots based upon precipitation-based flooding (and compounding effects of sea level rise).





Okaloosa

1. Sylvania Heights – W.E. Combs - Fort Walton Beach
2. Poquito Bayou Boat Ramp – Shalimar
3. The Landing – Niceville, Boggy Bayou Choctawhatchee Bay
4. Francis Park – Town of Cinco Bayou- FWB

Walton

5. Cessna Landing– Santa Rosa Beach, Hogtown Bayou, Choctawhatchee Bay
6. Eastern Lake – Santa Rosa Beach

Bay

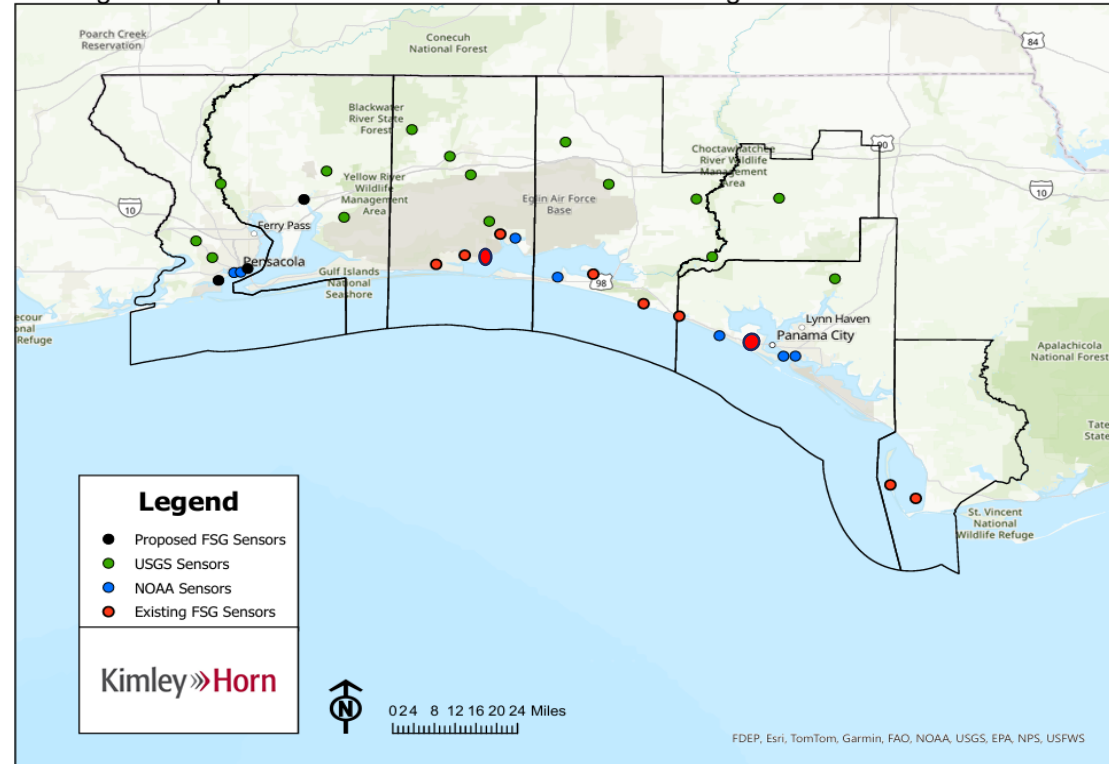
7. Camp Helen State Park – Lake Powell (Dune Lake)
8. Private Resident – Grand Lagoon, Panama City

Gulf

9. Black's Island – St. Joseph Bay
10. T.H. Stone Memorial St. Joseph Peninsula State Park

Okaloosa removed sensor – Lion's Park, Niceville

Existing and Proposed Flood Sensors - Emerald Coast Region





Eastern Lake



Poquito Bayou



Lion's Park



Gap Creek

Cessna Landing



Camp Helen SP



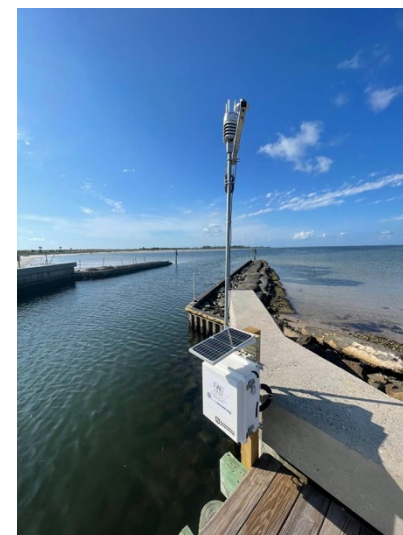
Grand Lagoon



Black's Island



T.H. Stone SP





It's never all roses. Lion's Park sensor hit by boat, twice.



Community/Info Meetings 2024

- **March** - Northwest FL Collaborative Meeting (virtual)
- **March** - Walton County Resilience Stakeholder Workshop
- **April** - Underserved Community Meeting, Sylvania/WE Combs Height Community, FWB.
- **May** – City of Niceville/Lion’s Park Community Meeting.
- **July** – Choctawhatchee Bay Estuary Program Presentation (virtual)
- **October** – SECOORA Panhandle Program update (virtual)
- *More meetings and partnerships to come.*



Water Level Sensor



SYLVANIA - COMBS NEW HEIGHTS

Fort Walton Bch, FL
Gap Creek Waterbody

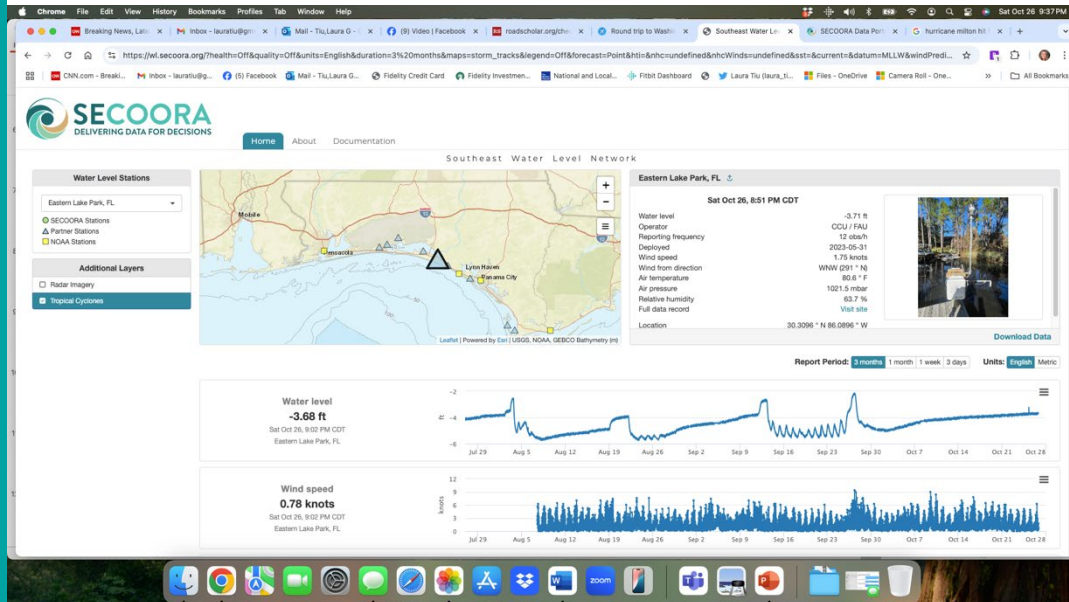
CREATING PERSONALIZED DATA IN AREAS THAT ARE FLOOD SUSCEPTIBILITY HOTSPOTS BASED UPON PRECIPITATION-BASED FLOODING.

<https://portal.secoora.org/#metadata/2211/affiliate>



South Atlantic Regional Sea Grant SECOORA water level sensor outreach and implementation working group

- Meets monthly
- Updates from other states
- Modify the data portal (wl.secoora.org)
 - User friendly
 - Imperial or metric
 - Cameras?
- Design signs for locations



Southeast Water Level Network



What is this?

This is a water level sensor that measures the height of the water and transmits data online for the public.

Why measure water level?

Real-time water level sensors measure and report the height of the water, which can be critical during localized flooding events. This data can help communities like Sylvania Heights and W.E. Combs make informed decisions related to flooding and tidal changes.

Data made possible by:



Scan the QR code to access water level data:



Please contact communications@secoora.org to report an issue.



Good News! Additional funding from NOAA IOOS to continue the work

December 2024 - Additional sites have been selected

Walton County:

- Alaqua - 16 Johns Lane 16 Johns Lane - Freeport, FL 32439, Freeport
- Commanders Landing - 2309 McCaskill Road -Ponce De Leon, FL 32455, Ponce De Leon

Escambia County:

- Escambia River at Fischer Landing Highway 4, Century Florida 32535, Century (Pending site inspection and approval).
- 170 Lazy Acres Street Pensacola 32506, Perdido Bay/River, Private homeowner
- 411 Creary Street Pensacola 32507 Davenport Bayou/Pensacola Bay, Private homeowner

Santa Rosa County:

- Wayside Park Gulf Breeze, Pensacola Bay
- Milton Riverwalk (Fresh) Willing Street, Blackwater Bay/River
- Florida town Park – 3900 Floridatown Rd, Pace, FL 32571. N. Escambia Bay

— LEARN MORE —

<https://wl.secoora.org/>

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Thank you.

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