

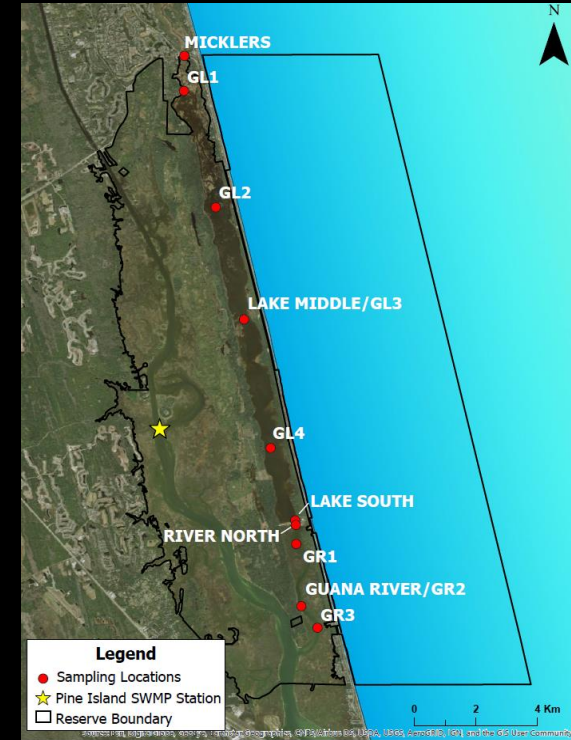
The Spatial and Temporal Water Quality Trends of an Impounded Estuary

Jessica Lee, Graduate Fellow

Nikki Dix, GTM NERR Research Coordinator



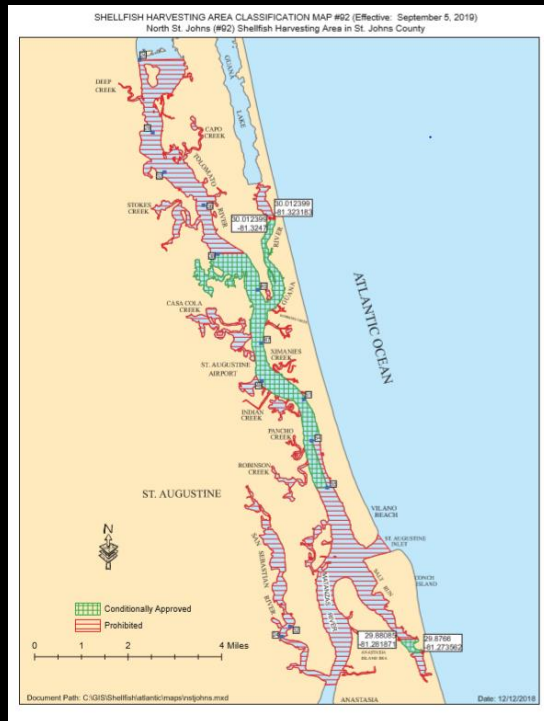
Guana River Estuary



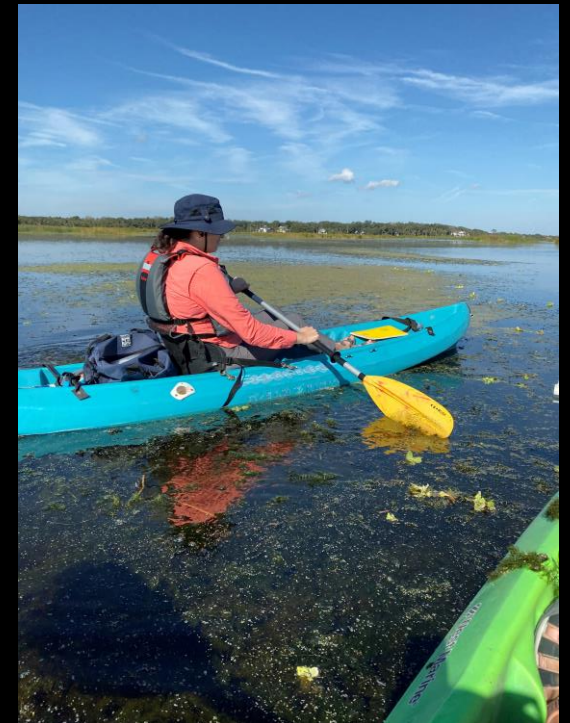
Guana Dam

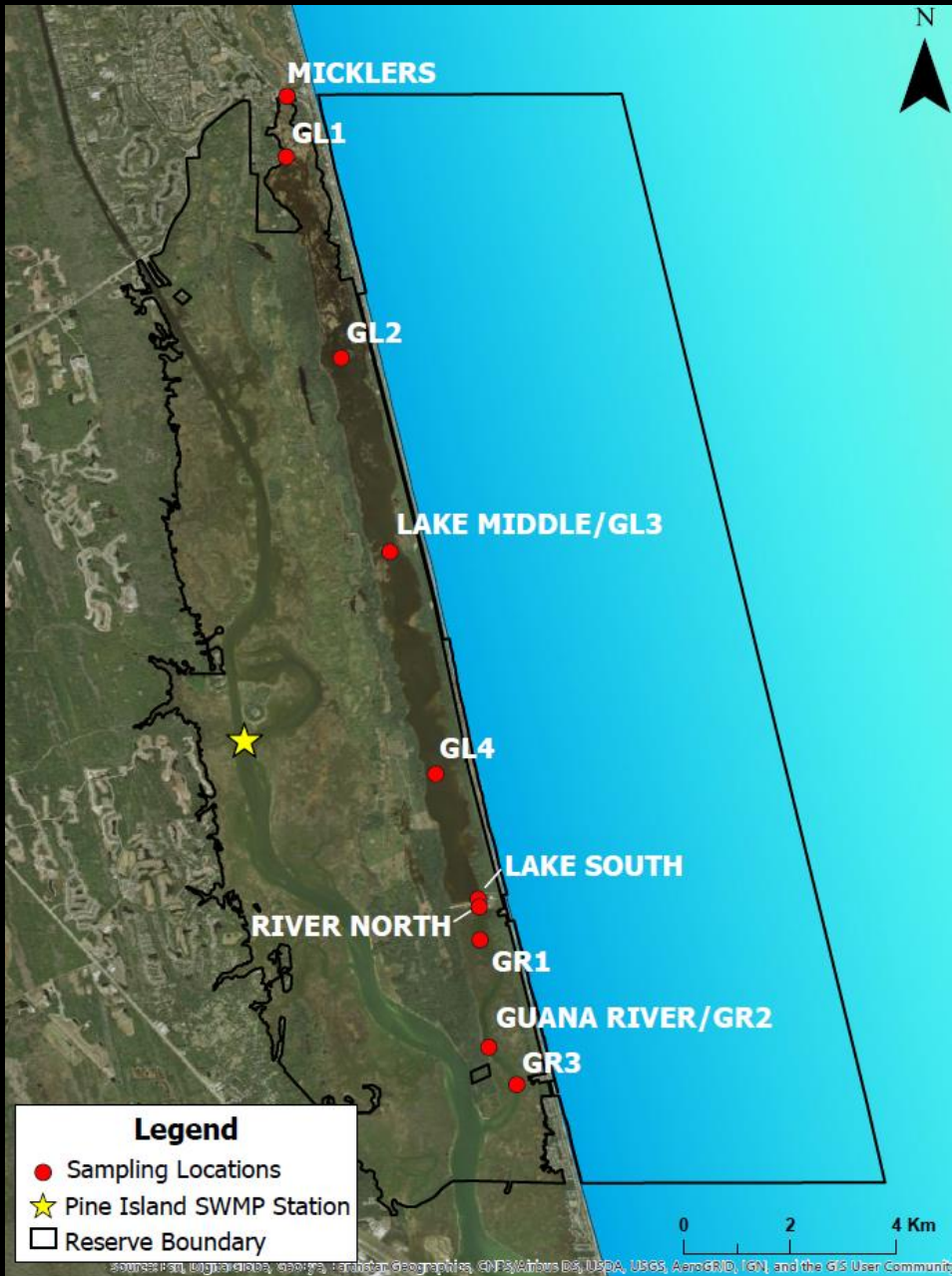


Community Importance



- Recreational Oyster Harvesting
- Fishing
- Boating
- Duck Hunting
- Other Public Use
- Environmental Conservation





PARAMETERS

- Nutrients (Nitrogen, Phosphorous)
- Bacteria (Fecal Coliform, Enterococcus)
- Temperature
- Salinity
- Conductivity
- pH
- Dissolved Oxygen
- Total Algae

Goals and Objectives

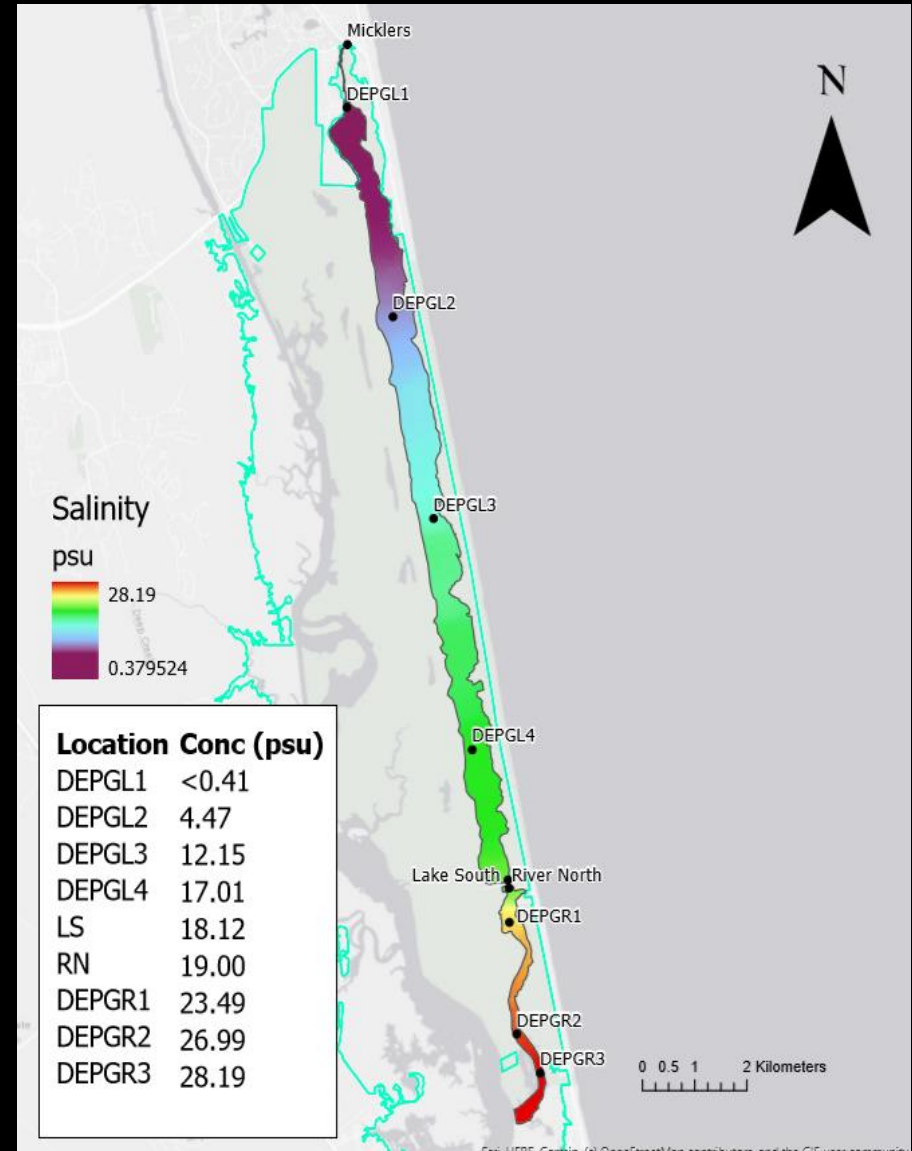
1. Better understand the water quality trends within the system
 - Monthly spatial surveys for one year
2. Investigate estuary's response to anthropogenic and environmental factors
 - Comparing relationships
 - Mapping and analysis
3. Information sharing
 - Community and other agencies

Flowcell Airboat Setup

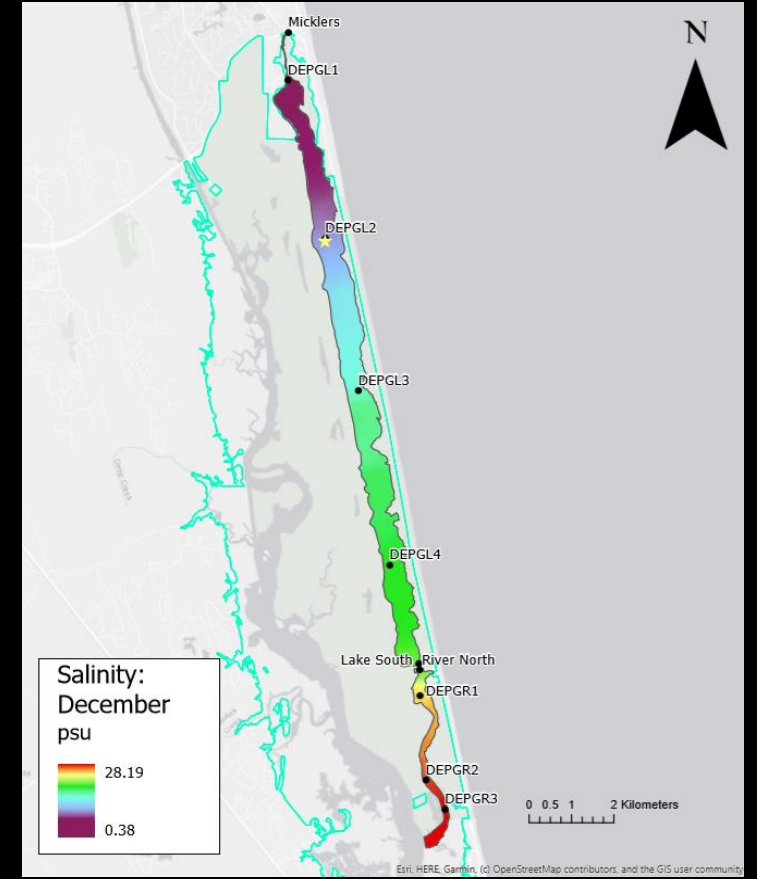
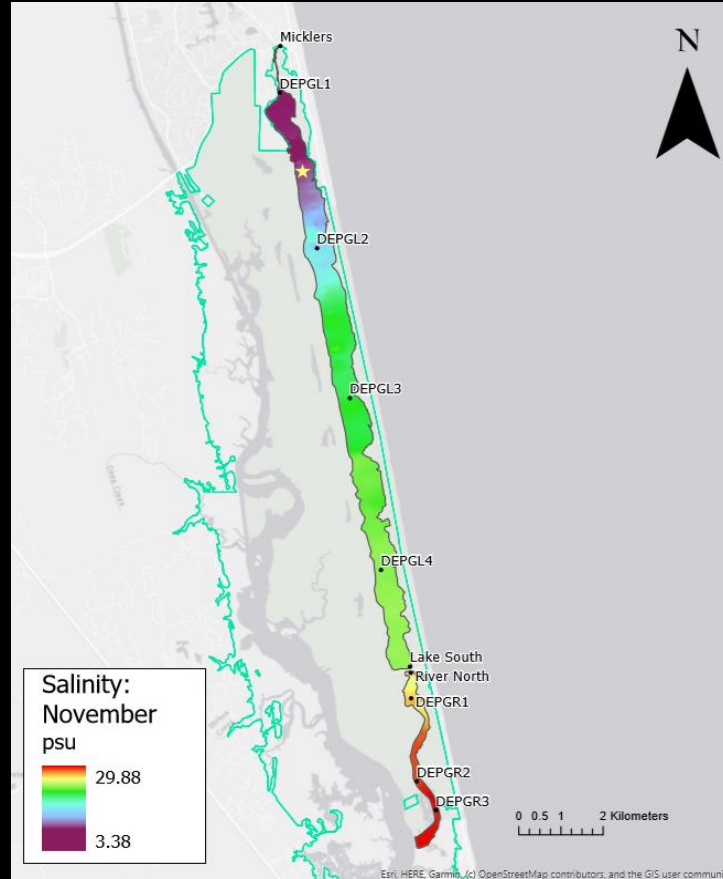
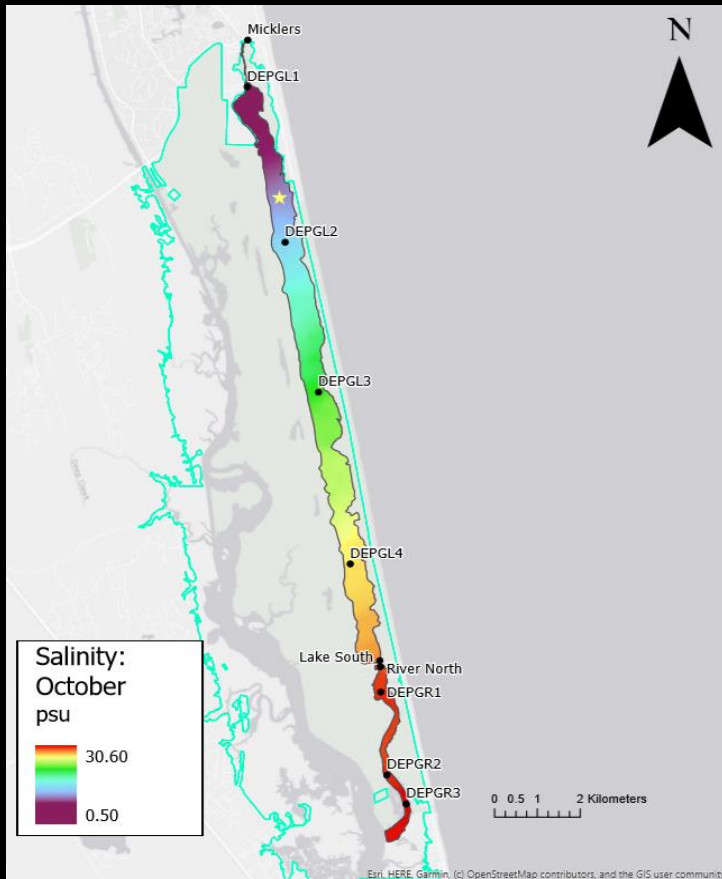




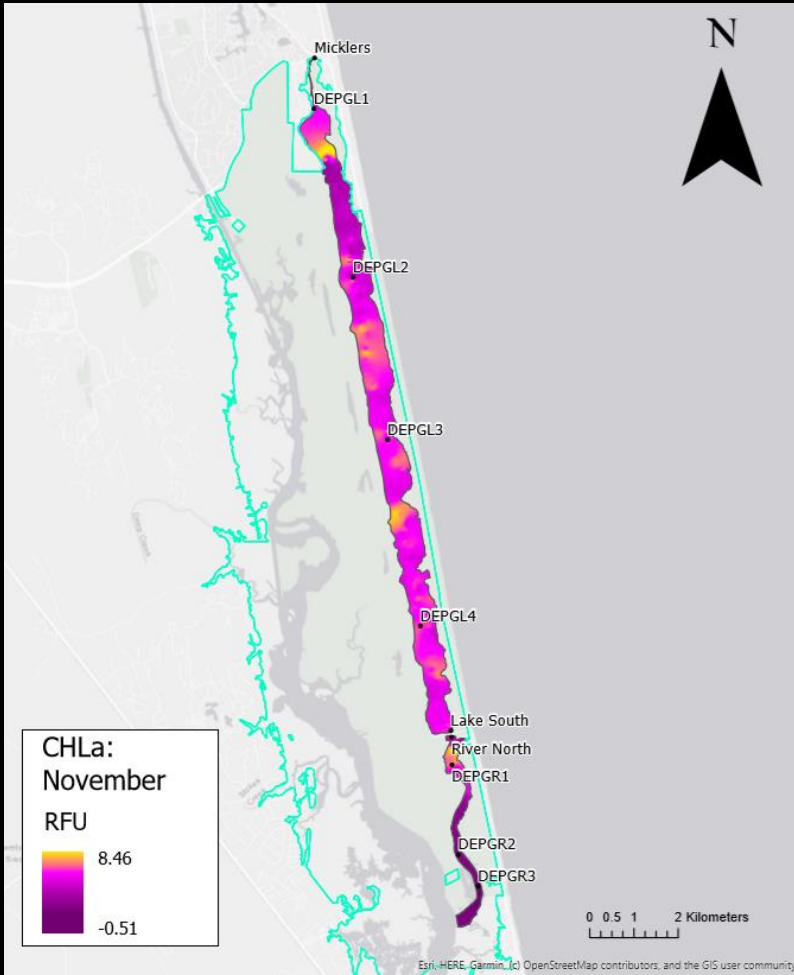
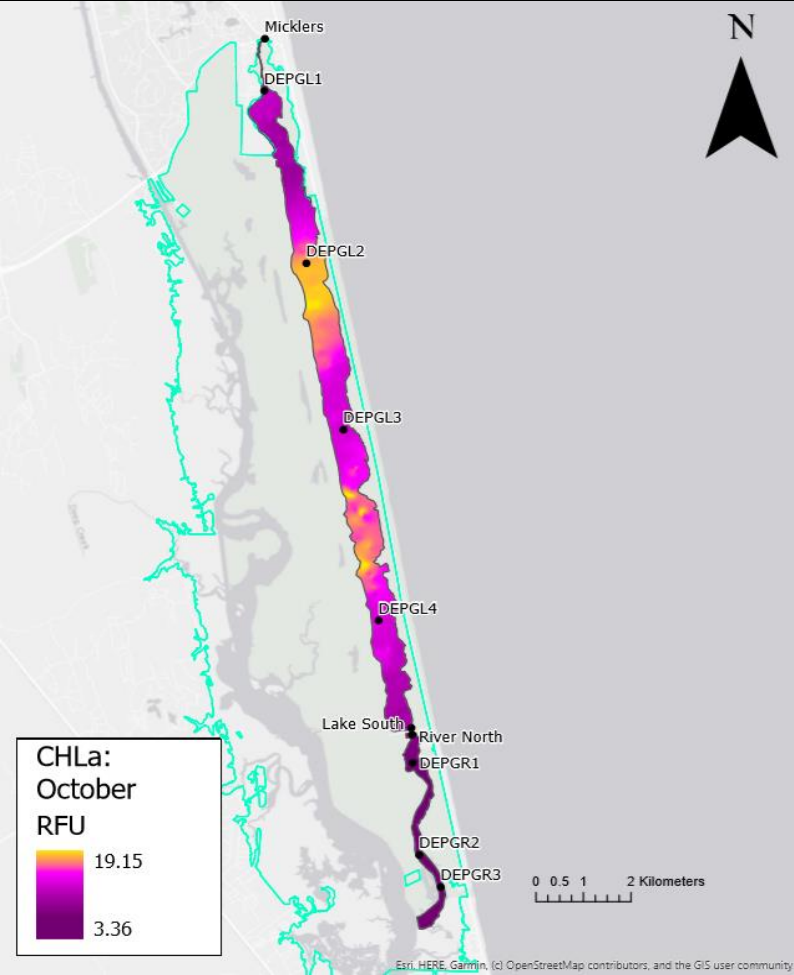
Interpolating the Data



Salinity: October 2019 – December 2019



CHLa: October 2019 – November 2019



Future Projects



- Quantify Flow
- Guana River Story Map
- Data Sharing Platform



ACKNOWLEDGEMENTS & QUESTIONS



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