SOUTH FLORIDA WATER MANAGEMENT DISTRICT

C-111 Spreader Canal Project

Christopher J. Madden

RECOVER SCIENCE MEETING

March 1-2, 2016

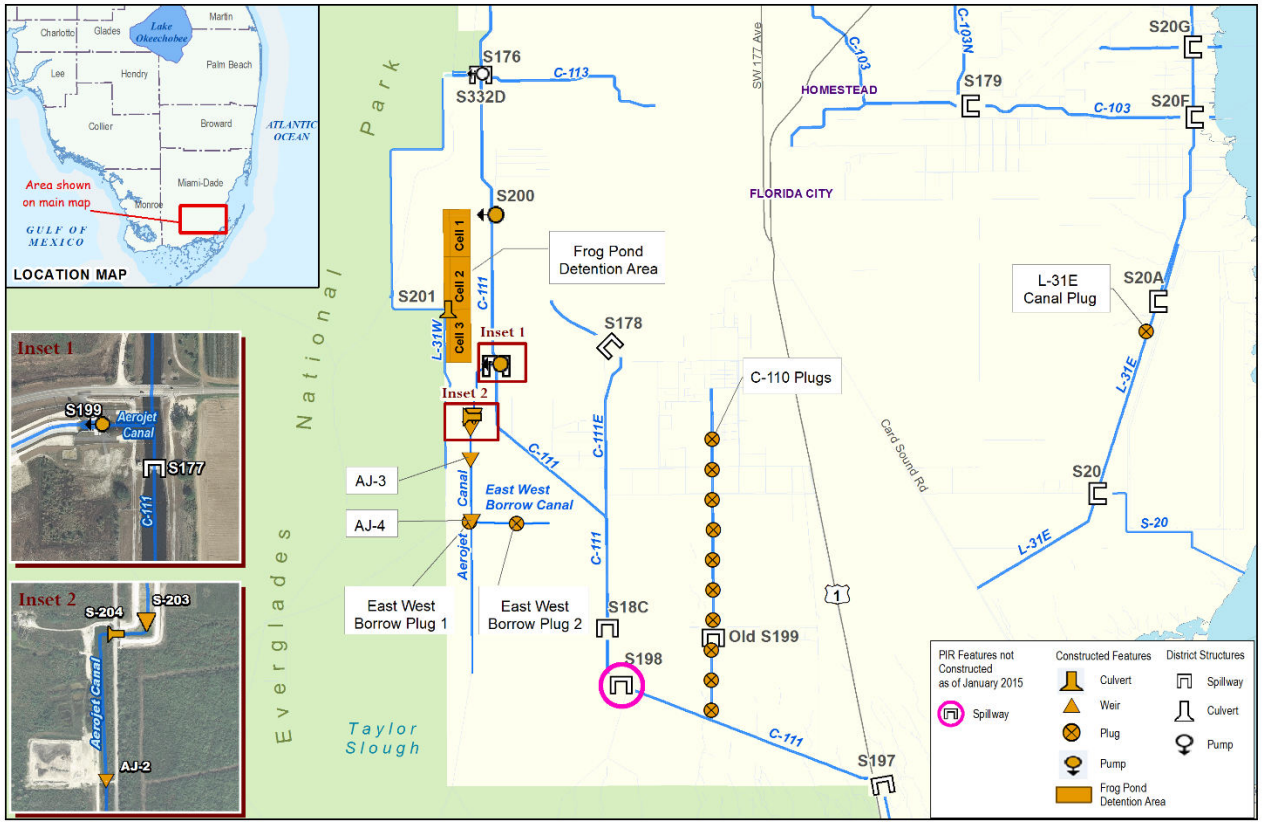
C-111 SCW Project Objectives

- Project activated in 2012
- Improve hydroperiods and hydropatterns in the southern Everglades
- Restore the quantity, timing, and distribution of water delivered to Florida Bay via Taylor Slough
- Improve coastal zone salinities in Florida Bay

Aerojet Canal

S-199 and FPDA Lined Channel

C-111 SCW Project Features



BASE CREDITS:
State plane projection, Florida east zone, NAD 83-HARN, US feet.

South Florida Water Management District
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561-686-8800 - FL WATS 1-800-432-2045
P.O. Box 24680 - West Palm Beach, FL 33416-4680

C-111 Spreader Canal Western Project Features (Miami-Dade)

0 1 2 3 4 5 6 Miles
0 1 2 3 4 5 Kilometers

IMPORTANT DISCLAIMER:
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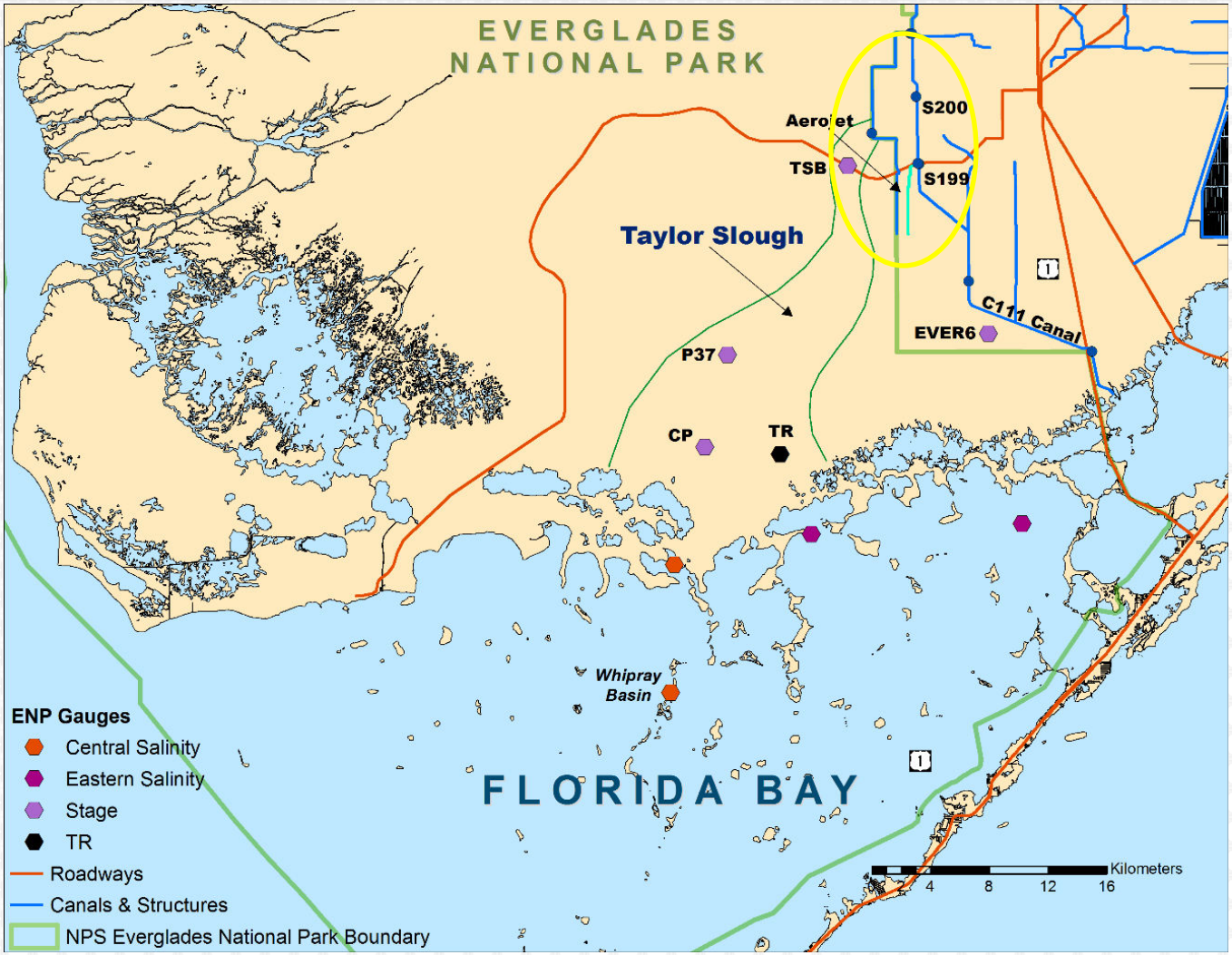
July 2015

IT GEOSPATIAL SERVICES

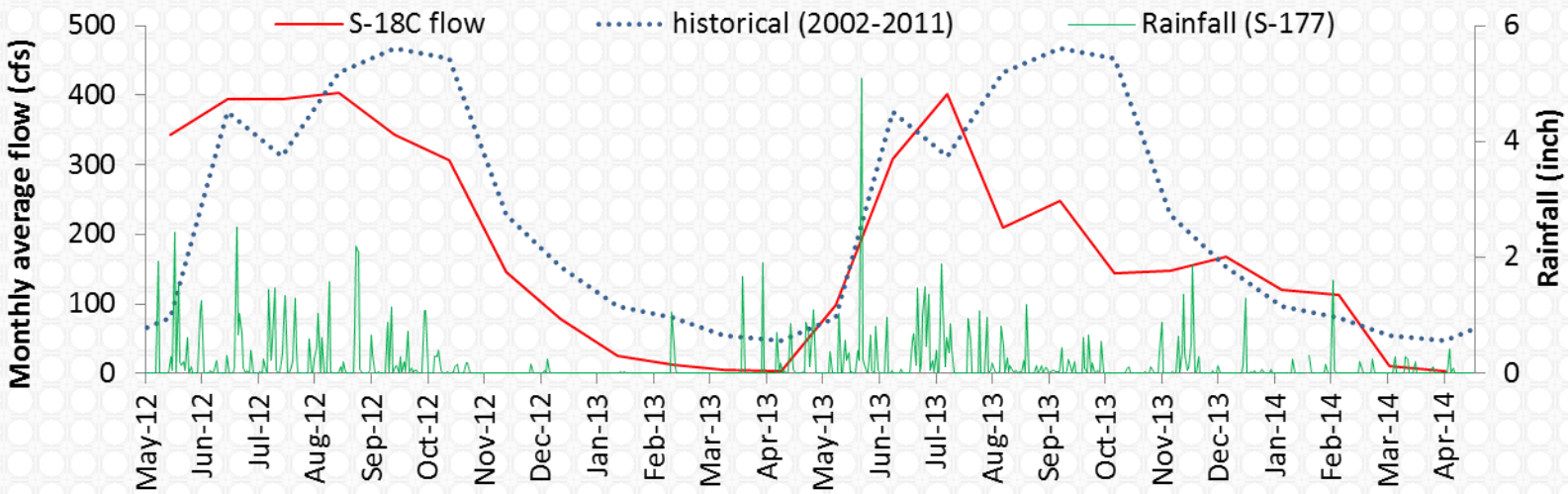
User Name: lursu Remedy Ticket: 9458 Map Produced on Date: 1/5/2016 1:04:26 PM \\ad.sfwmd.gov\DFSRoot\data\ka_gis\GIS_Request\HydroMonPlan_C111\mxd\ProjectFeatures.mxd

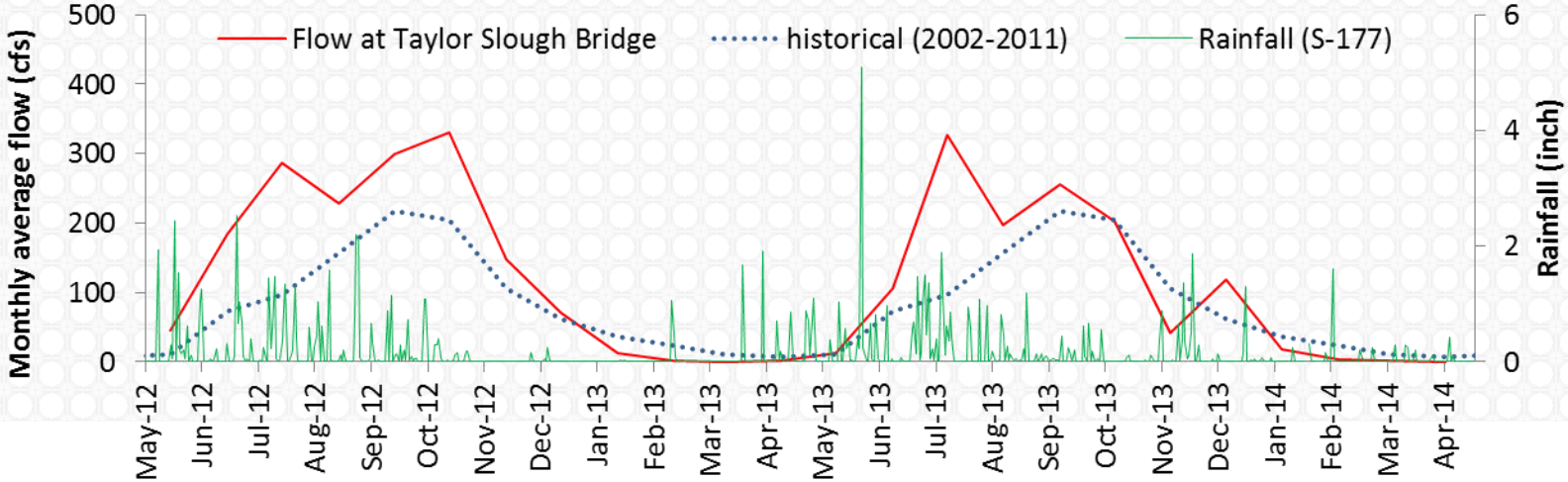
Project in Relation to Florida Bay



Hydrometeorological Monitoring

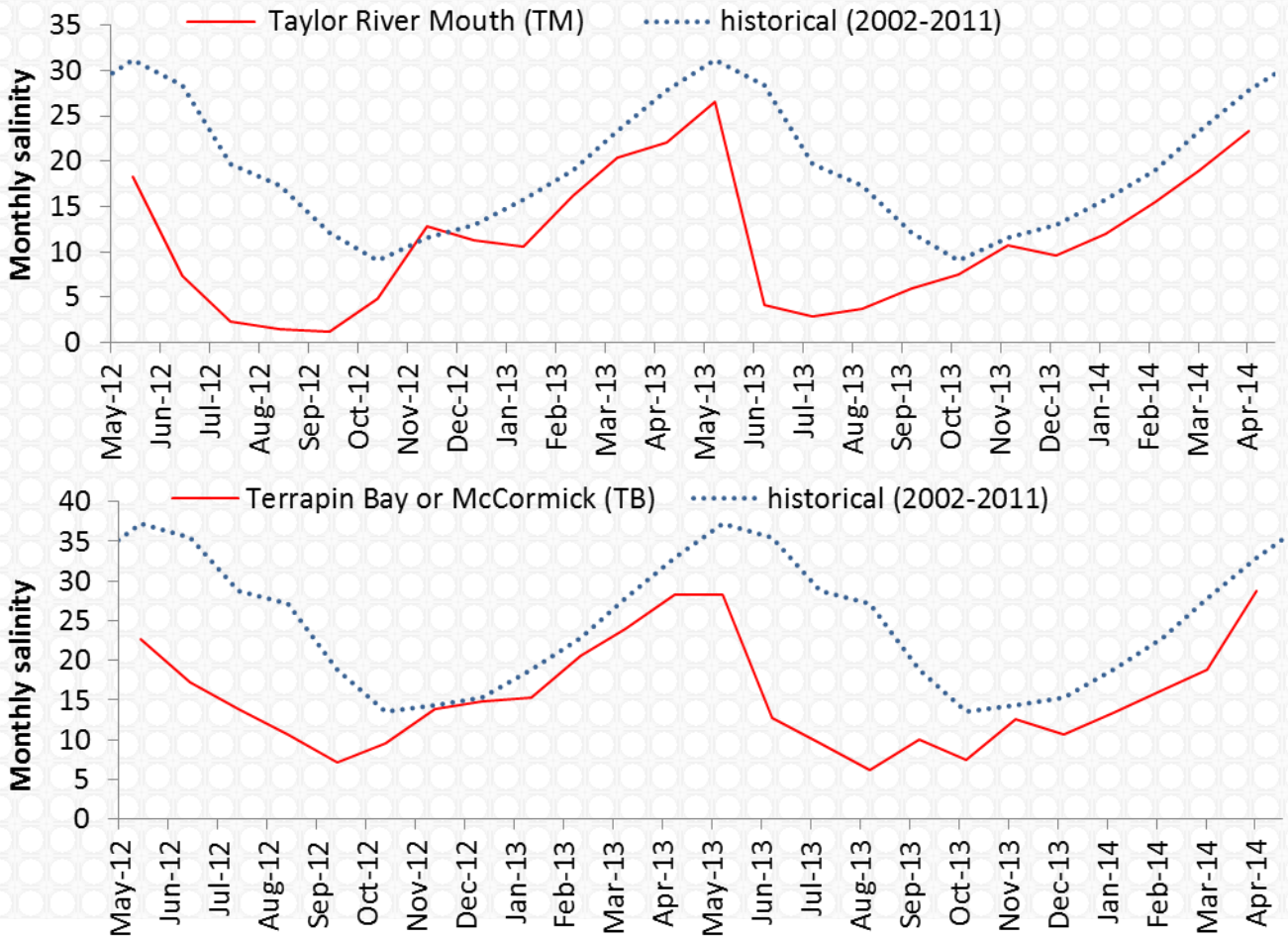
Monitoring Results-Flow





Ecological Monitoring

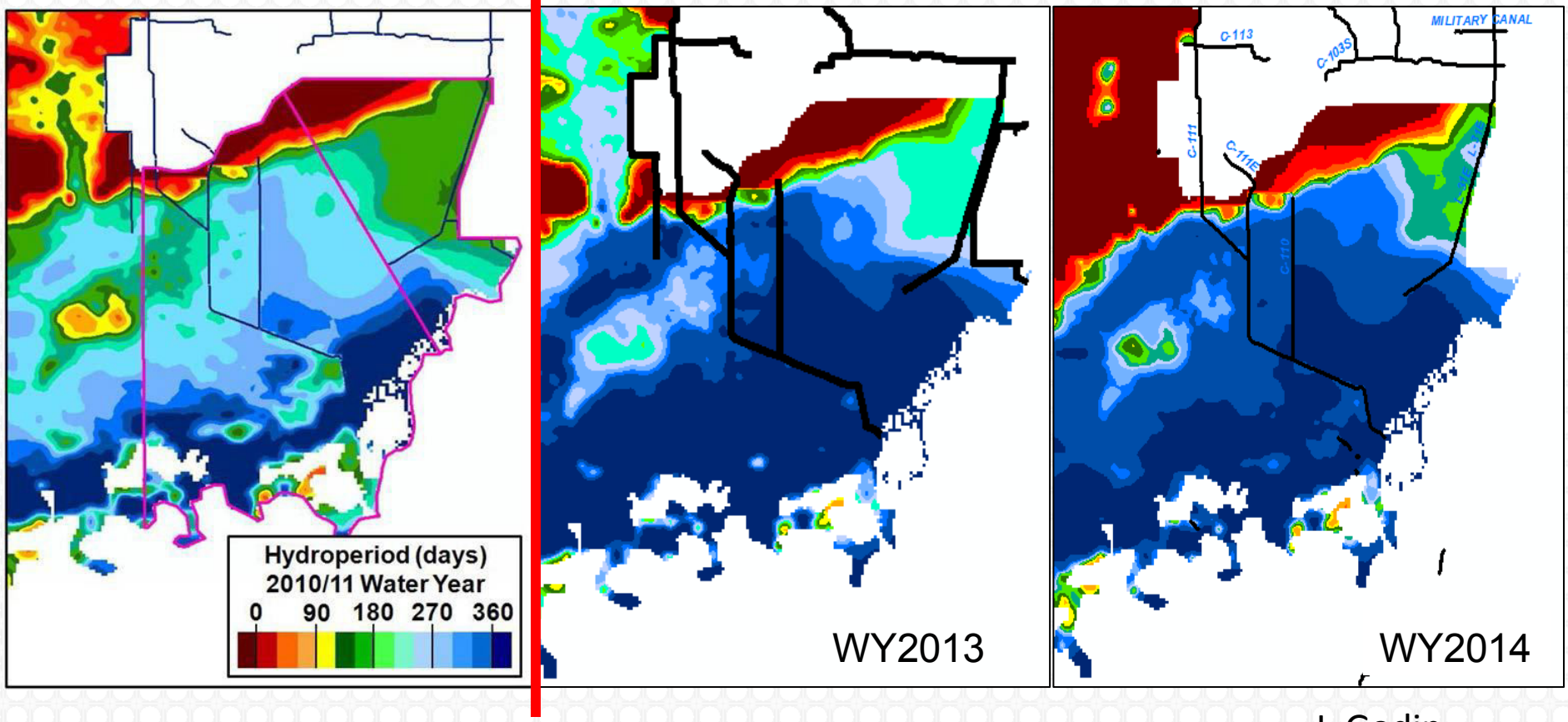
Salinity Monitoring Results



WDAT Hydroperiod

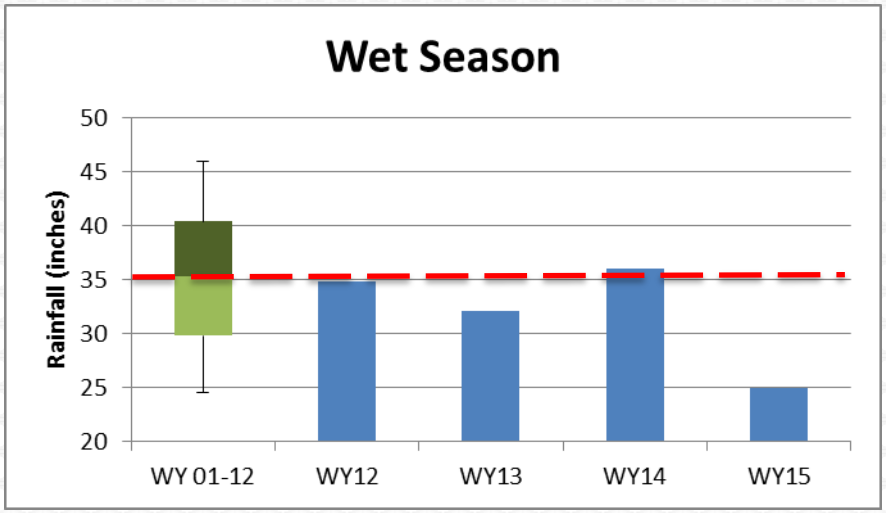
Pre-C111

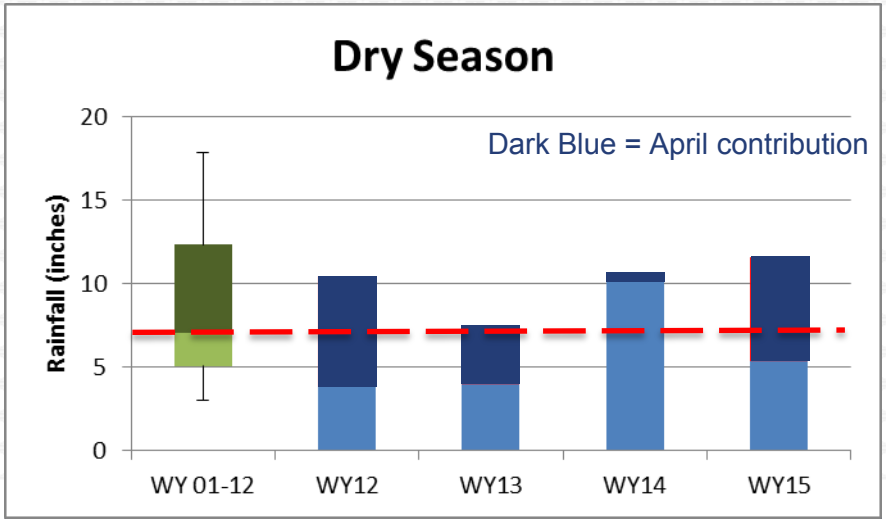
Post-C111



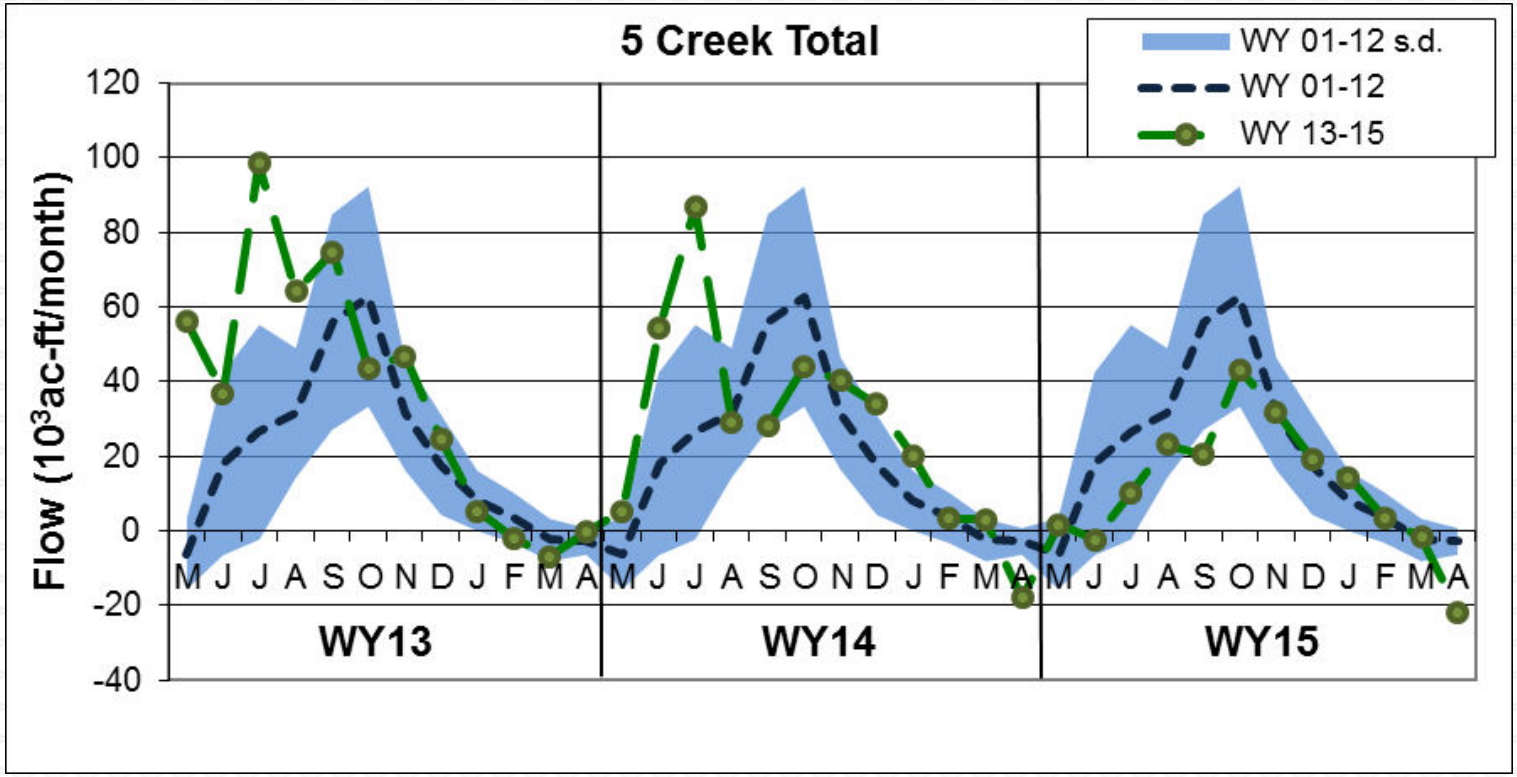
J. Godin

Rainfall in the C111 Project Footprint



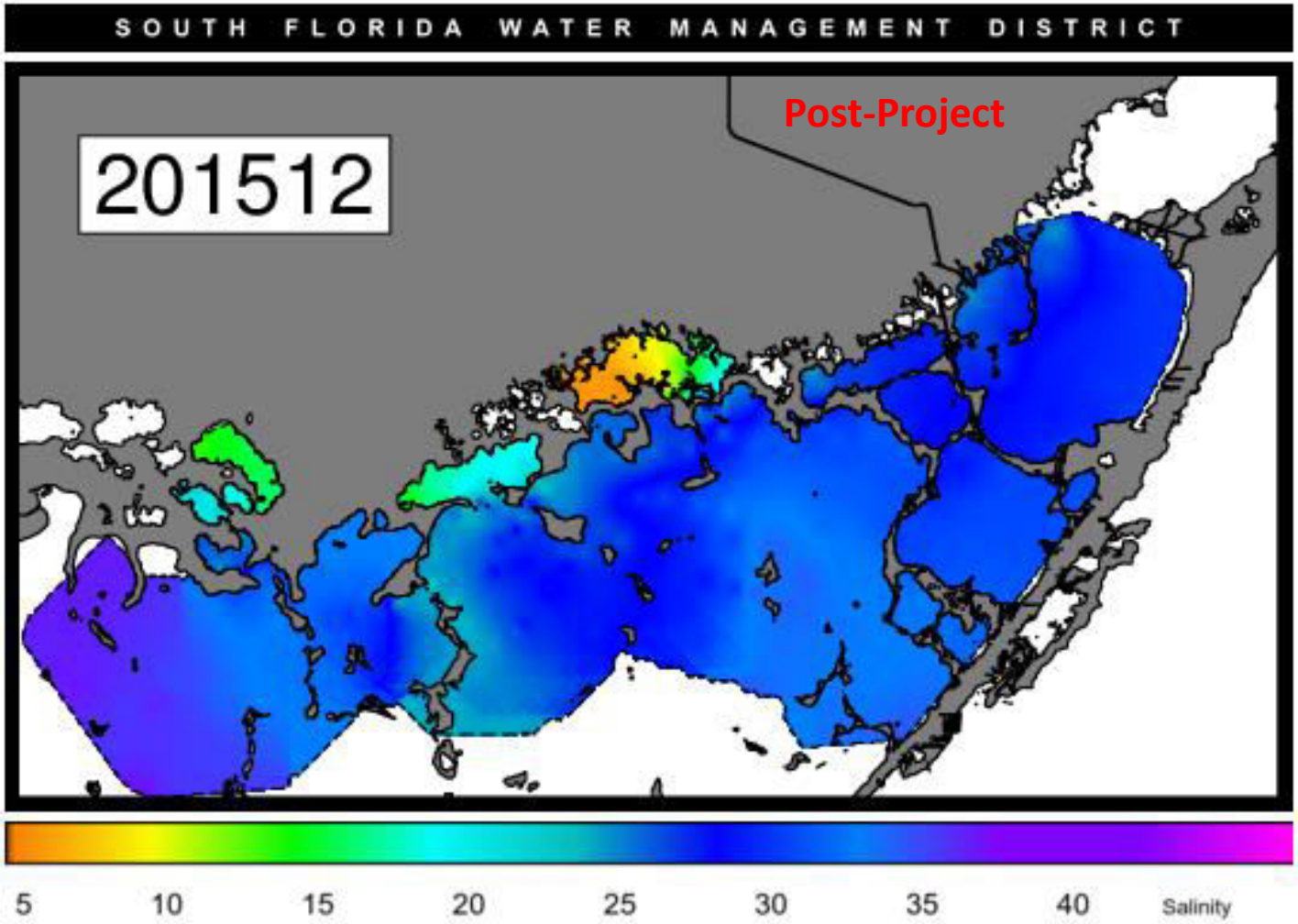


Creek Discharge to Florida Bays

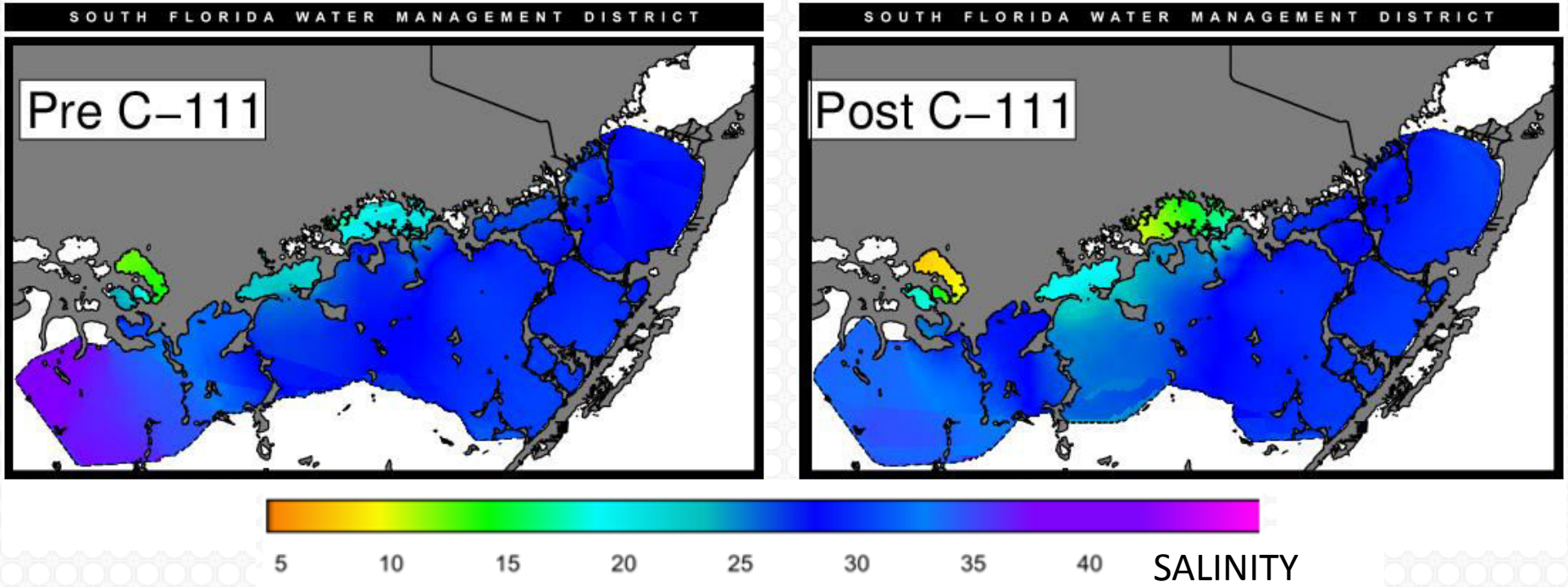


USGS (Zucker)

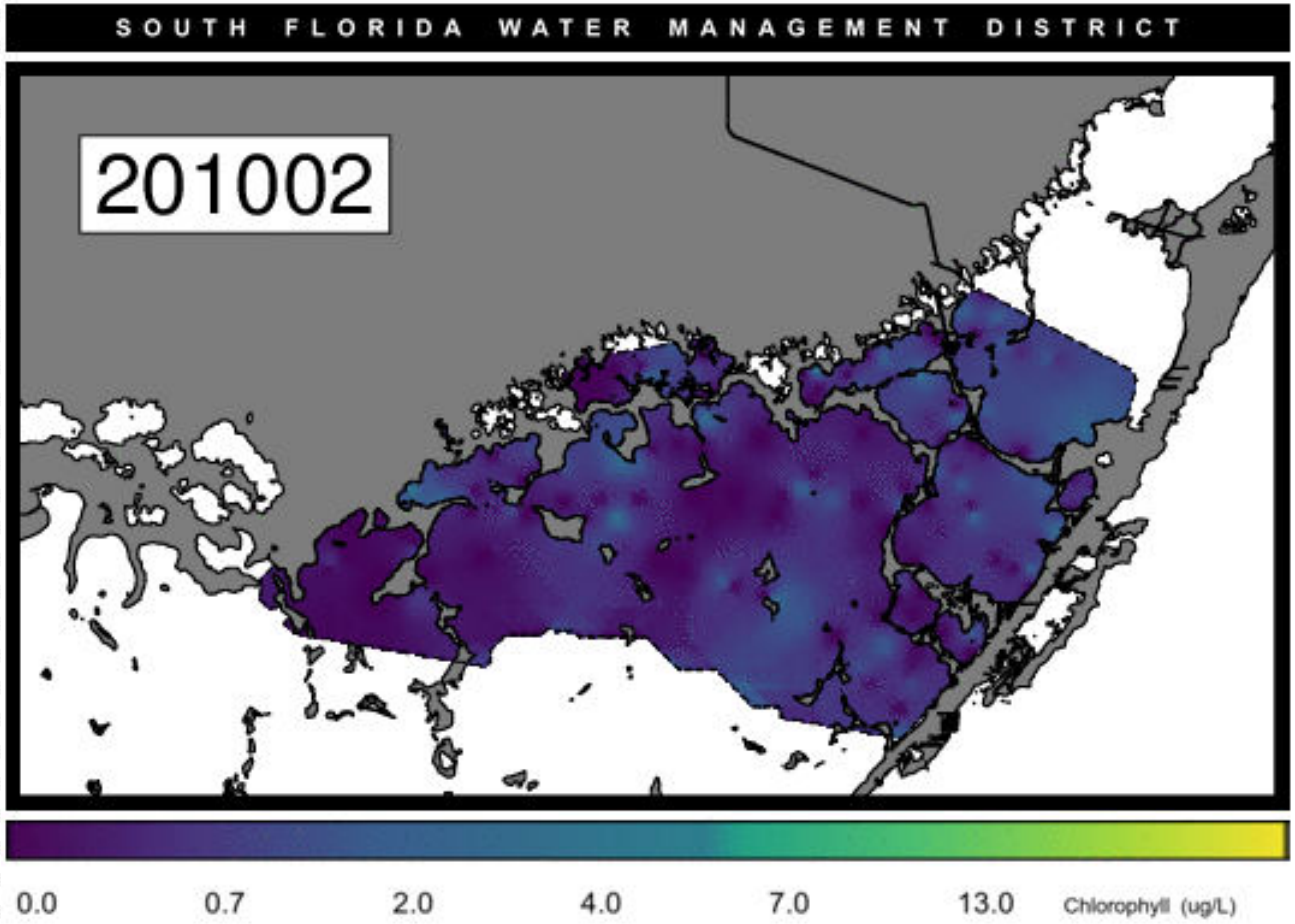
Dataflow Water Quality Mapping-Salinity



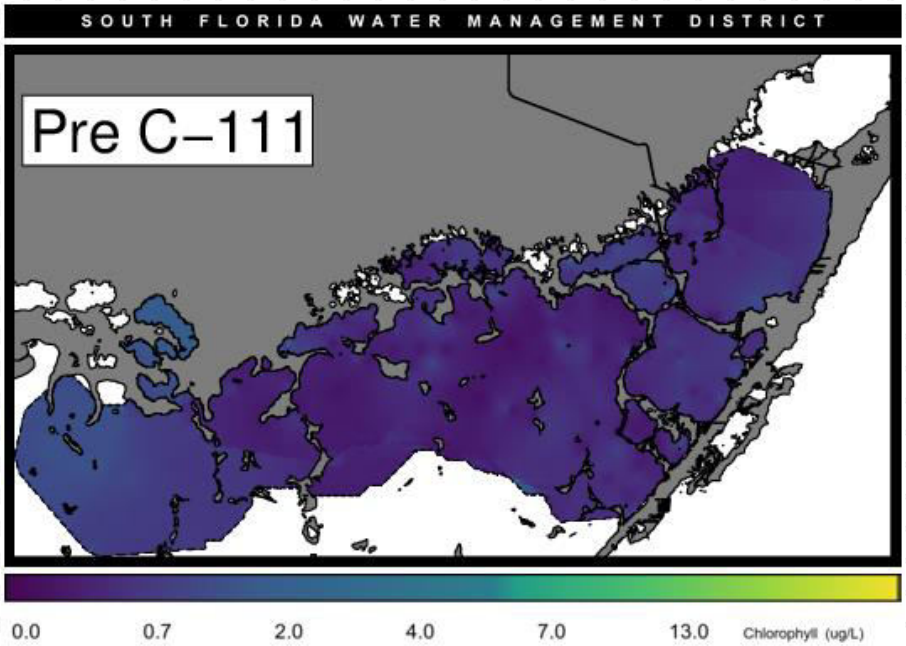
Dataflow Salinity

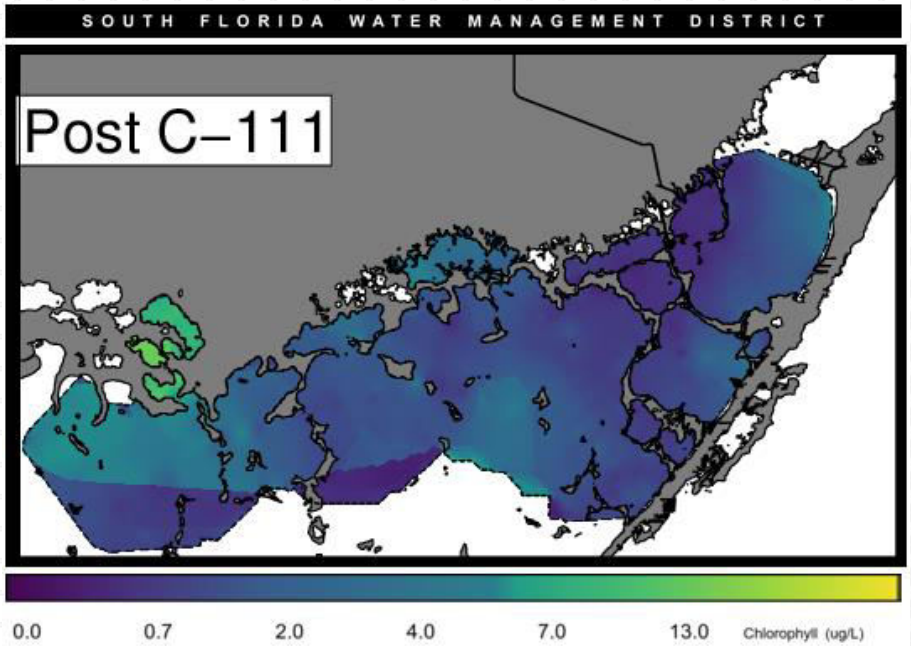


Dataflow Water Quality Mapping-Chlorophyll

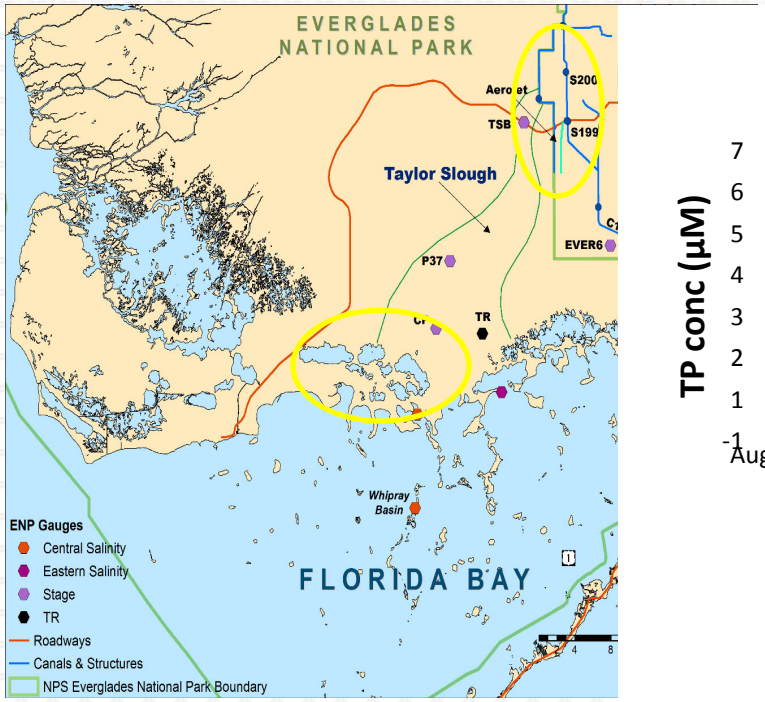


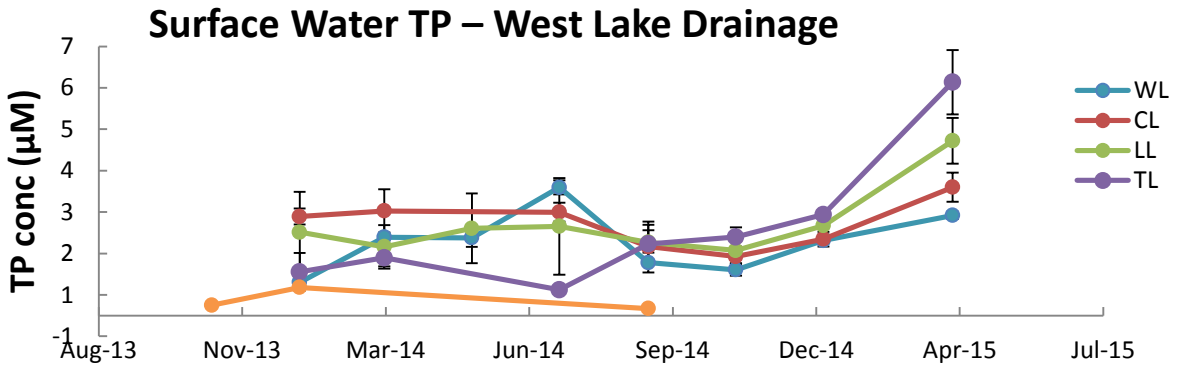
Dataflow Chlorophyll

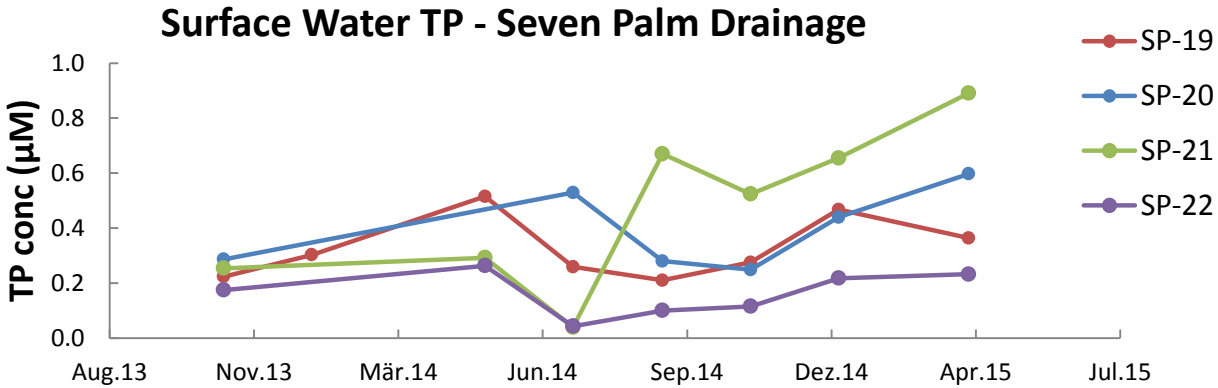




Lakes Region TP

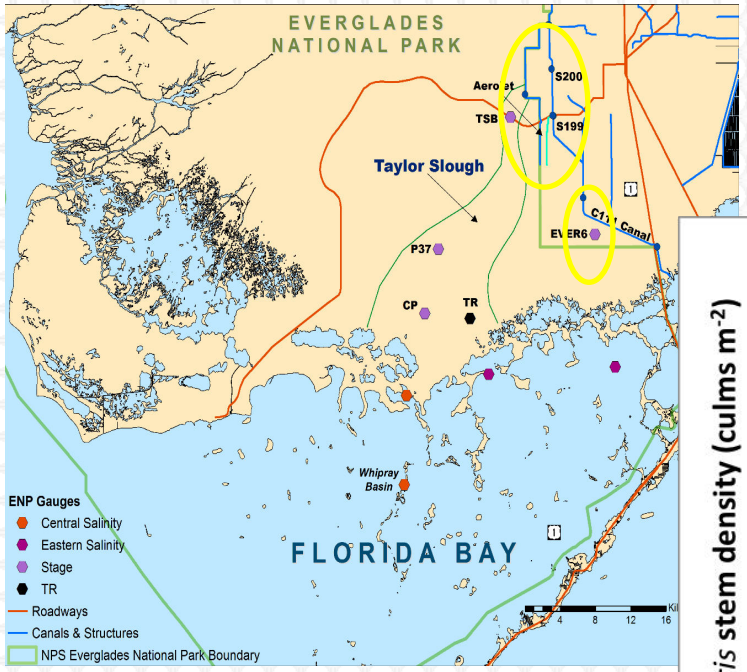


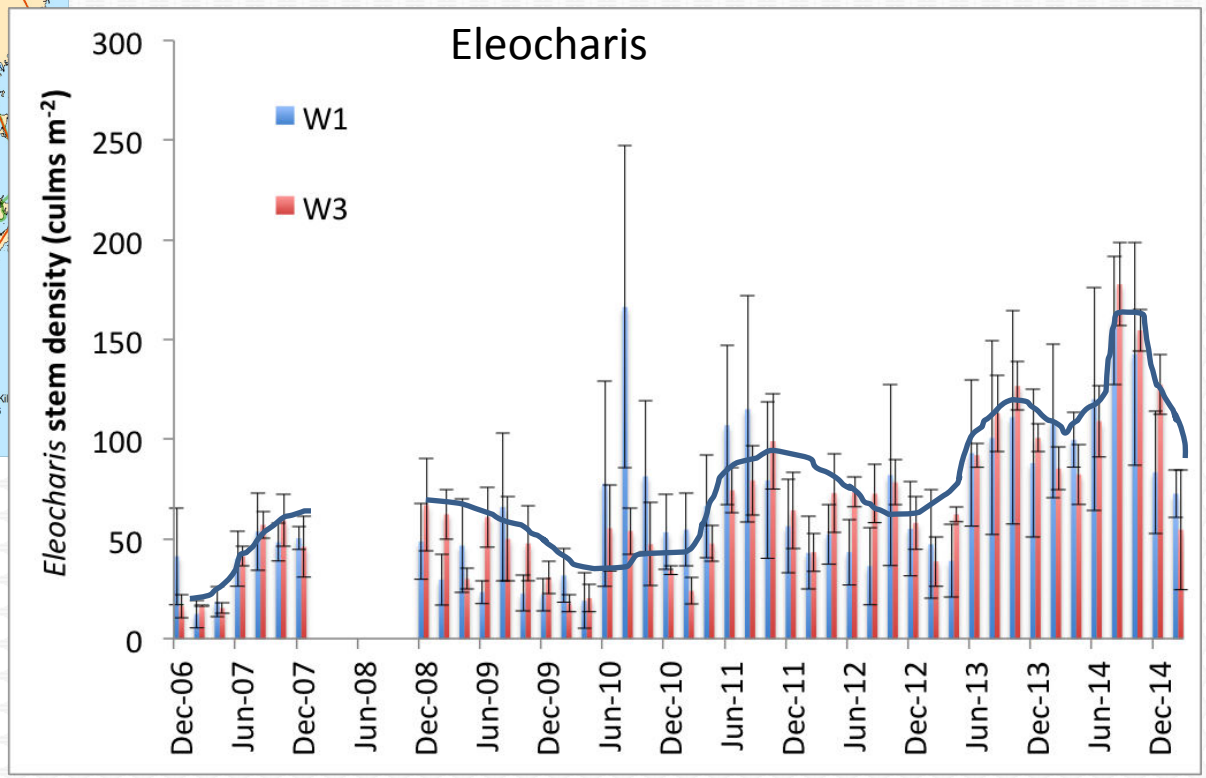




. . Price et al. 2015

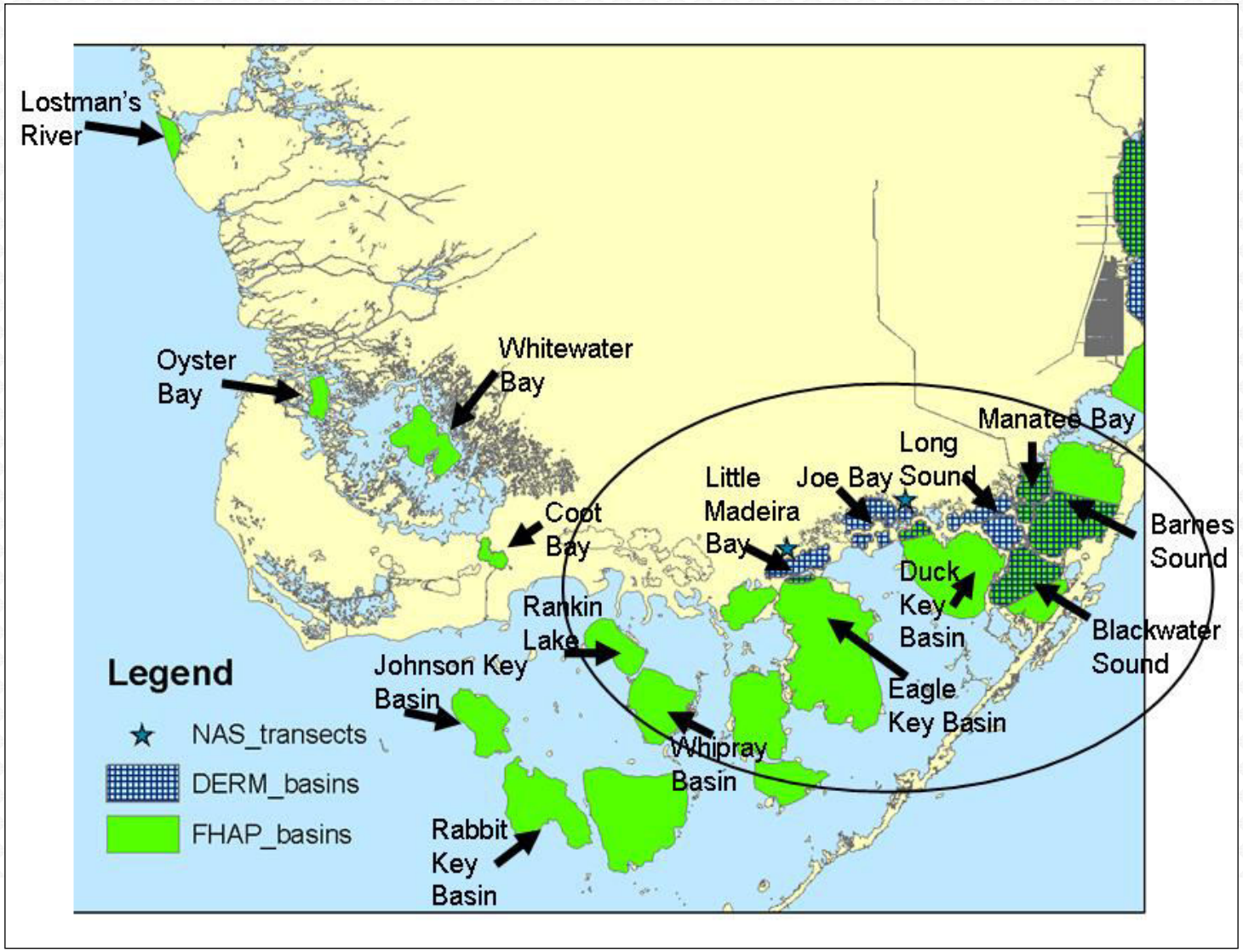
Wetland Vegetation- C111 Basin



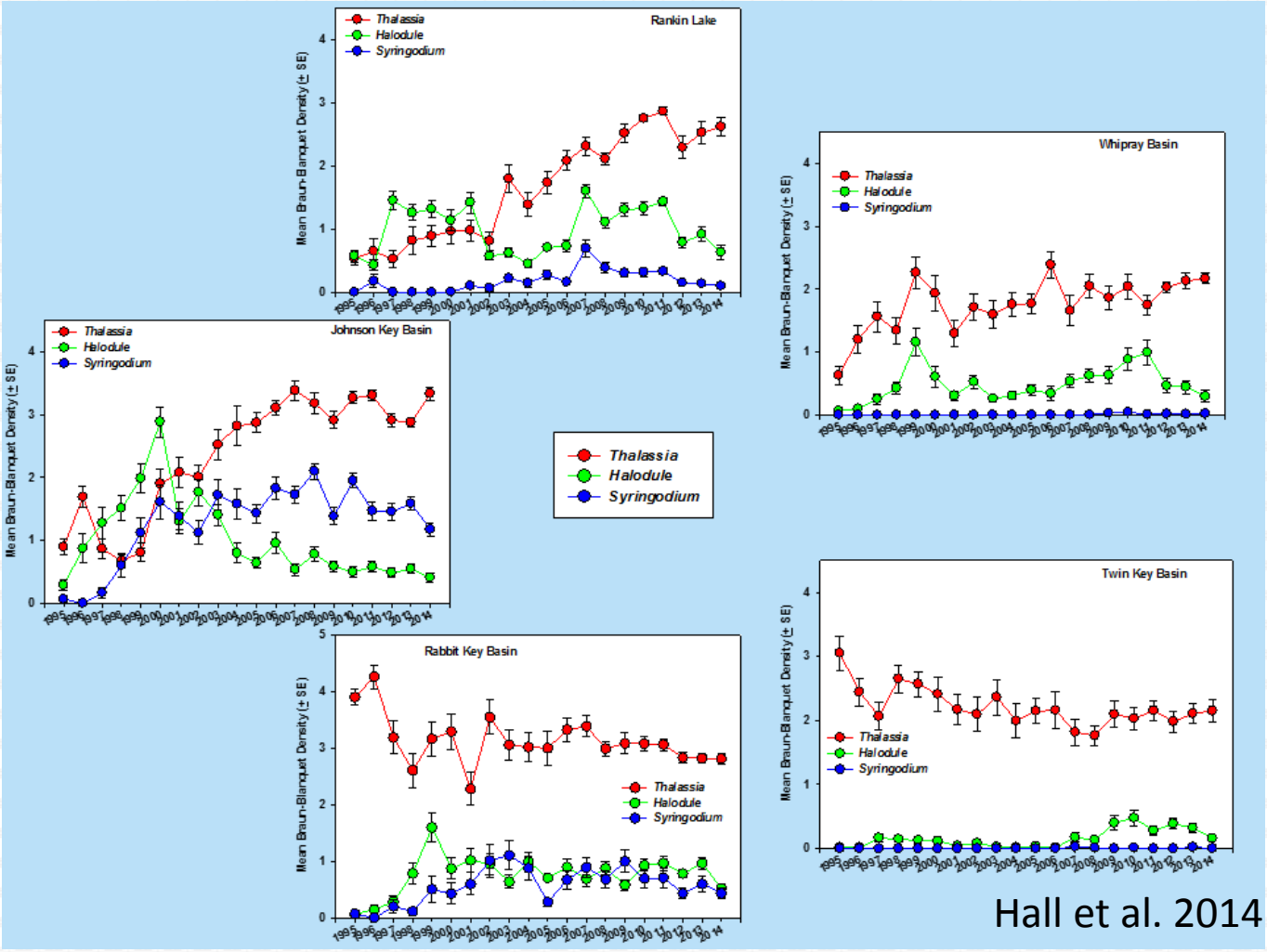


Troxler et al. 2014

Benthic Macrophyte Vegetation

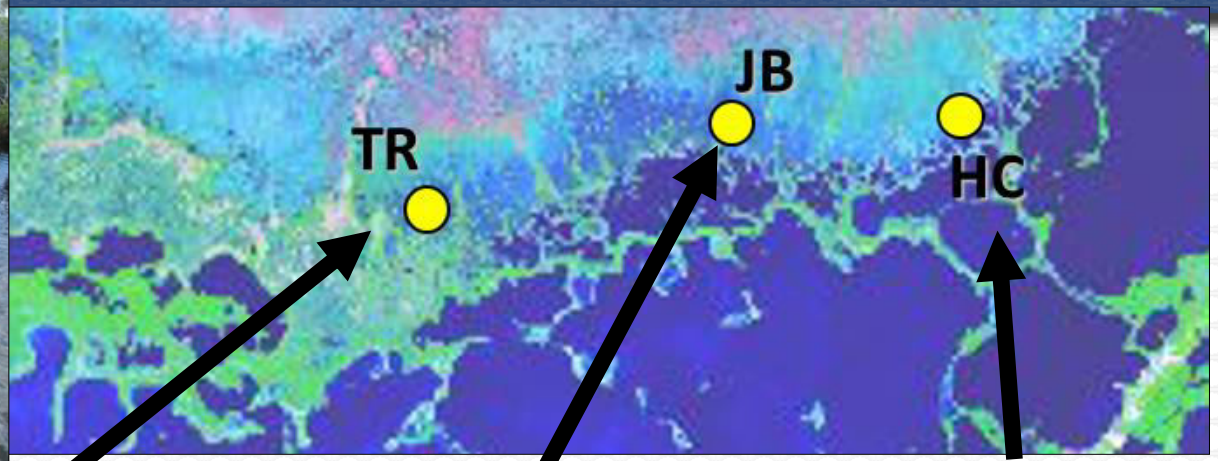


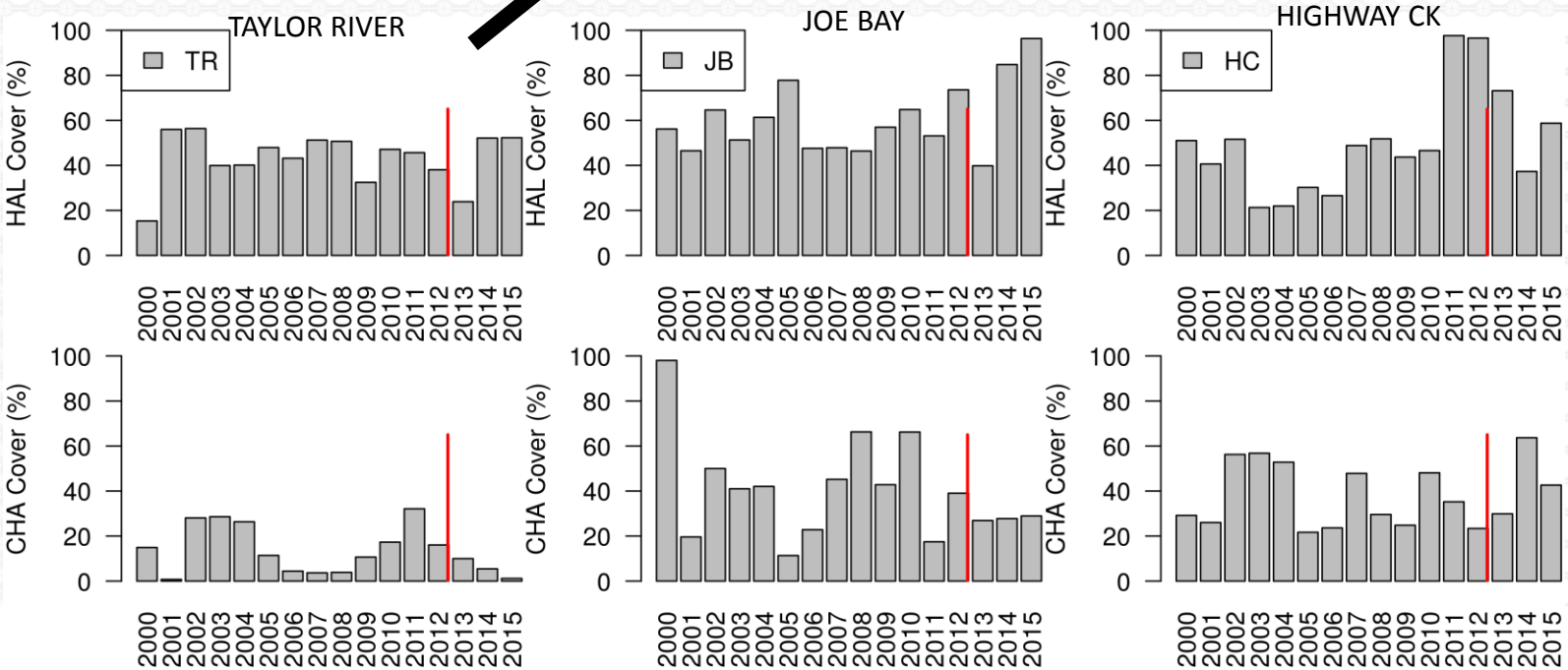
Florida Bay SAV



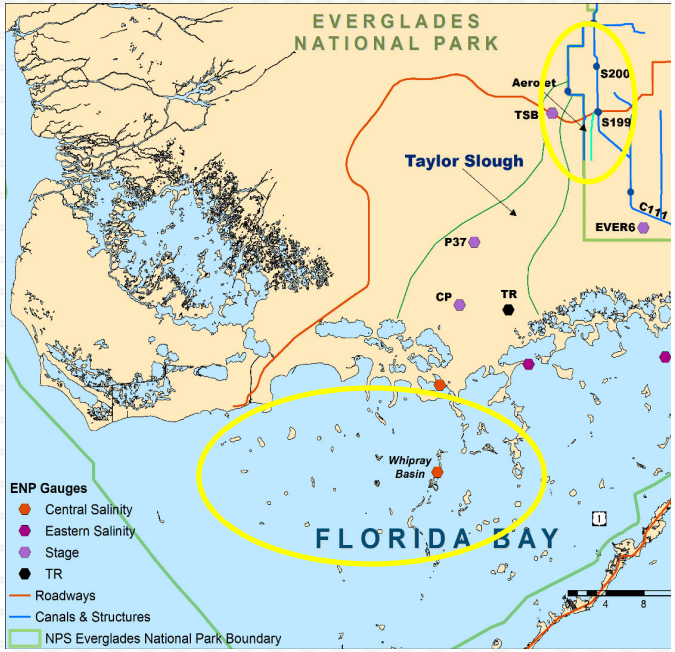
Hall et al. 2014

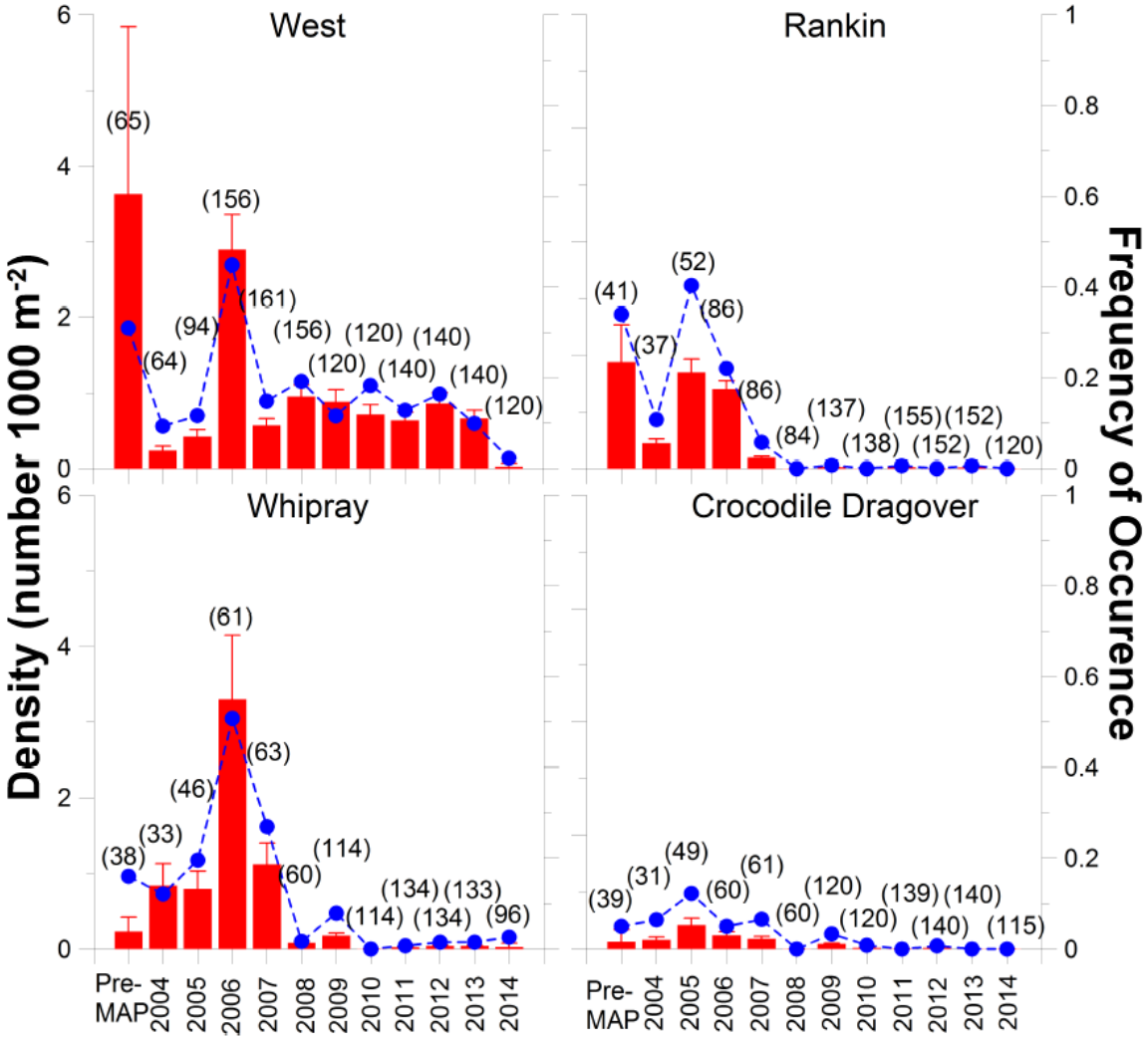
SAV in the Mangrove Ecotone



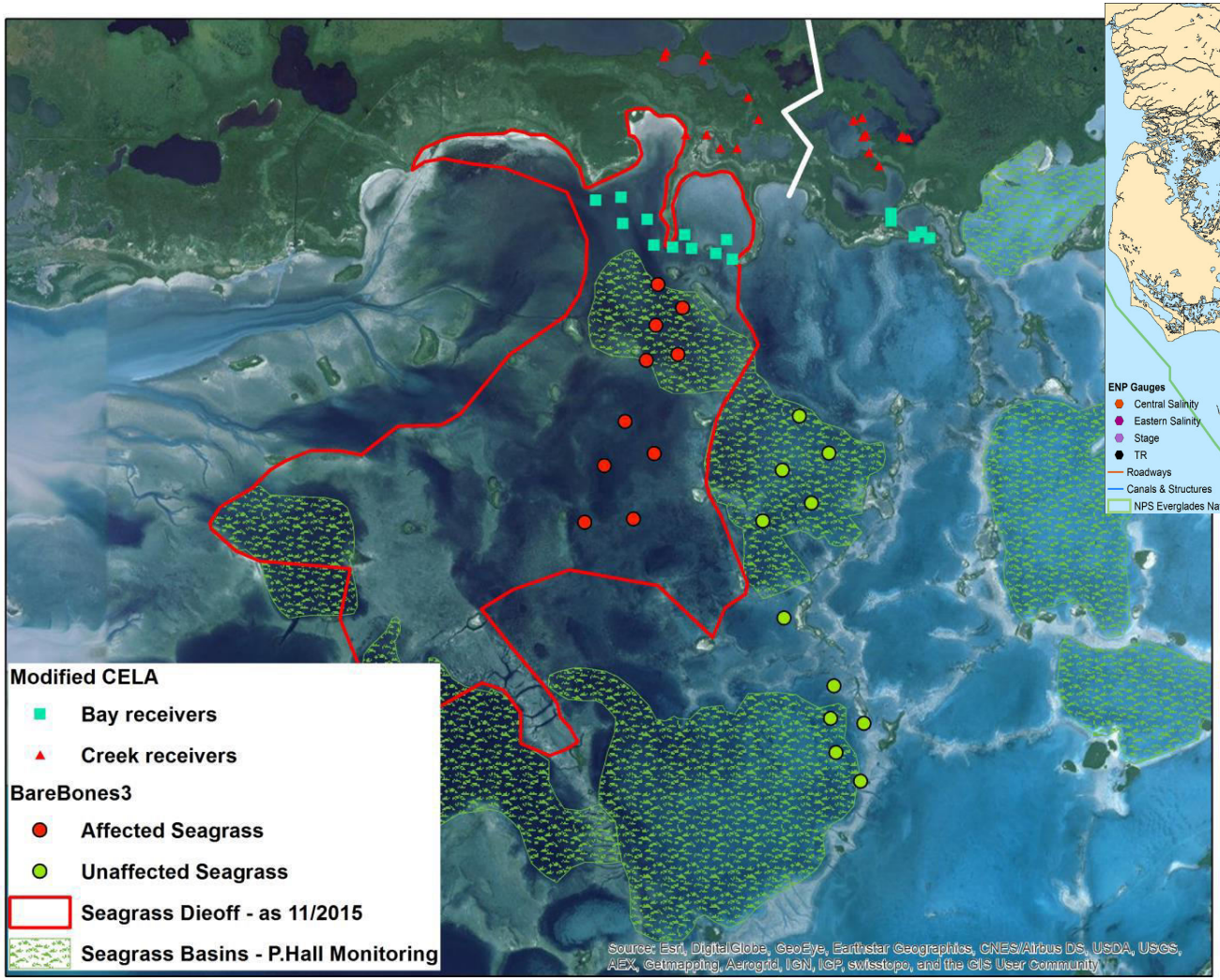


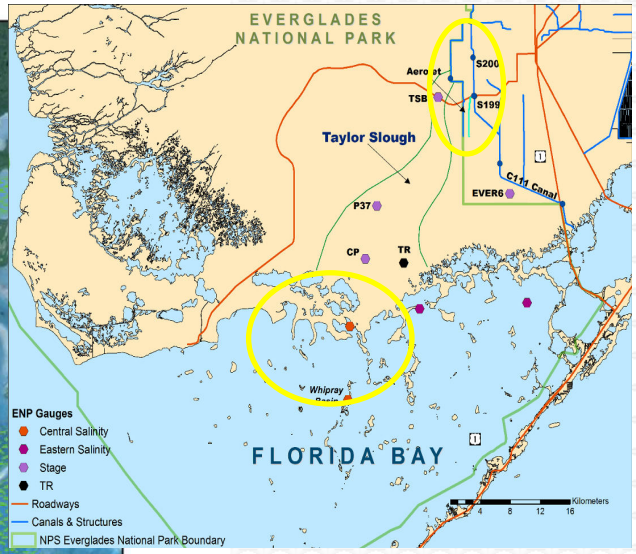
Sport Fish Monitoring in the Open Bay – Juvenile Spotted Seatrout





Forage Fish Habitat Use in the Central Lakes Region





Summary

- Stakeholders, managers, engineers, scientific community were instrumental in the design of the project and monitoring plans
- Scientists and managers continue to be in communication, facilitated by the RECOVER template to feedback information and findings
- Information feedbacks report project performance and system-wide effects +/-, unintended consequences, and provide guidance for necessary operational changes

Summary

- Water quantity and ecological effects show positive trends based on the limited data set
- Based on the limited duration of the data set, it is difficult to draw conclusions about the magnitude of project effects versus natural factors
- A comprehensive science and monitoring program is in place cross-linking project and regional data collection