



**Water Resources Advisory  
Commission Meeting  
November 3, 2016**

**UPDATE ON CALOOSAHAATCHEE  
SCIENCE SYMPOSIUM**

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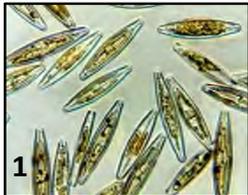
# Caloosahatchee Science Symposium

- District scientists have completed a comprehensive assessment of the science for the Caloosahatchee River Estuary
- 2-Day Public Science Symposium was held on September 14-15, 2016
- Goal: To communicate science information to interested parties in a public forum
- Focus was on the scientific studies, not the public policy issues associated with whether the existing minimum flow and level should be revised



# Science Components

Component	Method
1 Hydrodynamics	Influence of alterations on hydrodynamics
2 Inflow vs. Salinity	Monthly freshwater-salinity relationships
3 Water Quality	Relationships between inflow, salinity, and water quality
4 Zooplankton	Inflow, zooplankton and habitat compression
5 Ichthyoplankton	Relationships between ichthyoplankton and inflow
6 Benthic Fauna	Macrofauna-salinity patterns relative to inflow
7 <i>Vallisneria</i> data	Empirical relationships between tape grass, S, and inflow
8 <i>Vallisneria</i> model	Model exploration of tape grass, S, light, and inflow
9 Oyster Habitat	Salinity patterns for oyster habitat in lower CRE
10 Blue Crabs	Relationships between blue crab landings, rainfall, and inflow
11 Sawfish	Dry season inflow, hydrodynamics, and habitat extent



# Groups Attending Symposium

- **Federal Agencies** – U.S. Fish and Wildlife Service-Ding Darling National Wildlife Refuge, and U.S. Geological Survey
- **State Agencies** – Florida Fish and Wildlife Conservation Commission, Florida Department of Agricultural and Consumer Services, and Florida Department of Environmental Protection
- **University** - Florida Gulf Coast University
- **Environmental/Conservation Organizations** – Charlotte Harbor National Estuary Program, Conservancy of SW Florida, Sanibel-Captiva Conservation Foundation, Everglades Foundation and Collier County Audubon Society
- **Representatives of Elected Officials** – U.S. Senator Bill Nelson’s Office and U.S. Congressman Curt Clawson’s Office
- **Local Governments** – Lee County, City of Sanibel, and City of Cape Coral
- **Local News Groups** – NBC News and Breeze Newspaper
- **Members of the Public**

# Summary of Comments

## United States Fish and Wildlife Service

- Incredibly thoughtful and well put together

## Sanibel-Captiva Conservation Foundation

- Flows at S-79 to produce a salinity of 10 at Ft. Myers were too low
- Different flow ranges not comparable: all need to be based on 30-day average salinity of 10 at Ft. Myers
- Adaptive management should be used to meet salinity targets
- Flows for the MFL update should range between 663-1,200 cfs

## Florida Fish and Wildlife Conservation Commission

- The preferred salinity range for the small-toothed Sawfish for CRE should be 18-30 rather than 12-27

## Lee County

- Consider incorporating Lee County's hydrologic data into models
- Very informative presentations

# Summary of Comments

- **Associate Professor - Florida Gulf Coast University**
  - Overall, Report was well written and the presentation was clear
  - Provides the best available scientific knowledge of the CRE
  - Several suggestions for clarifying and improving study components
- **Conservancy of Southwest Florida**
  - Variations of the hydrodynamic modeling simulations should be explored
  - Include a trend analysis and lag time to evaluate salinity and inflow
  - Resource-based approach does not address the needs or effects of other threatened and endangered species
  - Flows for the MFL should be updated to 600 cfs or greater

# Next Steps

- Incorporate additional analyses into science document
- Finalize Science Document – **November 2016**
- Policy discussions with WRAC and the Governing Board before initiating rulemaking
- Finalize draft MFL technical document – **End of 2016**
- Proceed with independent scientific peer review
- Finalize MFL technical document
- Initiate rulemaking process as appropriate - **July 2017**



**THANK YOU**