



Florida Department of Environmental Protection

**WATER QUALITY
PROTECTION PROGRAM
TECHNICAL ADVISORY
COMMITTEE (TAC)**

September 7, 2016





WQPP GOALS AND OBJECTIVES (WQPP Report to Congress 2013)

- **Recommend priority corrective actions and compliance schedules to address sources of pollution.**
- **Ensure compliance with applicable laws and adopt appropriate water quality standards for the FKNMS.**
- **Create a comprehensive monitoring program.**
- **Identify sources of funding for implementation of the program.**
- **provide a mechanism for state and local government consultation and public participation**



Importance of the WQPP Monitoring Program

- **Detects status and trends – 1995-2005 Baseline**
- **Documents causes of WQ degradation / resource decline as well as improvements from better wastewater and stormwater management and canal restoration.**
- **Provides essential information for effective adaptive management and to assess compliance**
- **Provides early warning system for far-field sources**
 - **South Florida Restoration (Everglades)**
 - **Algal blooms – SW Florida Shelf / Florida Bay**
 - **Gulf Oil spills and nutrient transport from Miss. River.**
 - **Upwelling**



Technical Advisory Committee (TAC)

Steering Committee

WQPP Guidance and Policy



The TAC

Assists with prioritizing
WQPP research and
monitoring programs



The Management Committee

Coordinates the
activities of the
Steering Committee
and the TAC



TAC Composition and Purpose

(WQPP: Report to Congress 2013)

- Comprised of scientists and technical experts from federal, state and local agencies, academic institutions, non-profit organizations and knowledgeable citizens.
- Advises the Steering Committee on research and monitoring priorities and in the design of long-term monitoring programs.
- Peer reviews research and special studies proposals submitted for WQPP funding.



WQPP TAC Meeting (July 14, 2016)

On 3/2/2016 the Steering Committee Passed a Motion to Reconvene the TAC and Schedule a meeting:

- **To review existing monitoring programs in the FKNMS.**
- **Identify potential monitoring gaps or issues.**
- **Identify opportunities for partnerships to avoid duplication of efforts and for sharing information.**
- **The results of the workshop will be presented at the next Steering Committee Meeting.**



TAC Members

- **Dr. Henry Briceño** – Florida International University
- **Gus Rios** – FDEP (South District)
- **Marin Moe** – Marine Biologist (Retired)/FKNMS SAC
- **Rob Ruzicka** – FWC Fish and Wildlife Research Institute
- **Dr. Jim Fourqurean** – Florida International University
- **Sandy Walters** – SWC (President)
- **Steve Blackburn** – U.S. Environmental Protection Agency
- **Christopher Kavanagh** – National Park Service (Everglades Natl. Park)
- **John Hunt** – Florida Fish and Wildlife Conservation Commission
- **Tom Walker** – Florida Keys Aqueduct Authority
- **Karen Bohnsack** – FDEP(Coastal Office)
- **Shelly Kruger** – UF/IFAS/Florida Sea Grant
- **Mark Hoyer** -Florida LAKEWATCH
- **Julie Espy** – FDEP (Div. of Environmental Assessment and Restoration)
- **Rod Braun or designee** – SFWMD
- **Susan Sprunt or designee**, Islamorada Village of Islands



TAC Members

Members who did not attend the July 14th TAC Meeting:

- **Dr. Jerry Ault**, U. of Miami
 - **Dr. Rene Price**, Florida International U.
 - **George Garrett**, City of Marathon
 - **Mark Chiappone**, Miami Dade college
 - **Michael Roberts**, Monroe County
 - **Alison Higgins or designee**, City of Key West
- (Rick Cleaver and Elizabeth Ignoffo attended for KW)



WQPP Monitoring Program Updates

- 1. Water Quality Monitoring Network** – Dr. Henry Briceno, FIU SERC
- 2. Seagrass Monitoring Project** – Dr. Jim Fourqurean, FIU SERC
- 3. Canal Restoration Water Quality and Benthic Monitoring programs** – Dr. Briceno and Dr. Fourqurean, FIU SERC
- 4. Coral Reef Evaluation and Monitoring Project (CREMP)** – Rob Ruzicka, FWC
- 5. WQPP Special Studies** – Investigate cause-effect relationships among pollutants and stressors and water quality and the marine environment



Other Monitoring Programs

- 6. Florida Keys Reasonable Assurance Program – Julie Espy, Program Administrator, FDEP (DEAR)**
- 7. South Florida Water Management District (SFWMD) - Rod Braun, SFWMD**
- 8. Everglades and Dry Tortugas National Parks (NPS) – Chris Kavanagh**
- 9. LAKEWATCH Volunteer Monitoring – Mark Hoyer, UF**
- 10. Biscayne Water Watch – Dr. Lisa Krimsky, UF /IFAS**
- 11. Florida Keys Water Watch – Shelley Kruger, UF/IFAS**
- 12. FDOH Beach Monitoring – Steven Whitfield**
- 13. Regulatory Monitoring – required under State permits and submerged lands leases – Gus Rios, FDEP**
- 14. City of Key West Water Quality Monitoring – Elizabeth Ignoffo and Rick Cleaver**



WQPP Website



http://ocean.floridamarine.org/FKNMS_WQPP/pages/wqpp.html

http://ocean.floridamarine.org/FKNMS_WQPP/pages/wqpp_TAC_minutes.html

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TAC Panel Discussion

- **Identify potential monitoring gaps** that should be addressed to accomplish the goals and management objectives of the TAC
- **Are there ways to make the program more cost effective** by increasing collaboration and reducing duplication of efforts?
- **Future Role of the TAC** : The purpose of this meeting was only to compile information for the Steering Committee. Meetings involving decision making, including ranking proposals, or making recommendations etc. , may be subject to the Sunshine Law – Section 286.011, F.S.



Panel Discussion- Data Gaps

- Billy C. suggested TAC should consider available Oceanographic data to better understand currents and water circulation patterns.
- Currently some of the existing monitoring programs are not providing WQ data to STORET, which is the WQ database used by EPA and FDEP to assess water bodies. Data entered into STORET must meet FDEP QA requirements.
- Not enough data or sampling stations, for both WQ and benthic communities, within the “Halo Zone” or waters within 500 m from shore, especially in canals. Also, Henry B pointed out spatial monitoring gaps in the SW Florida Shelf and the Dry Tortugas.



DEP BUSINESS PORTAL

<http://dep.state.fl.us/mainpage/default.htm>

<http://www.fldepportal.com/go/>

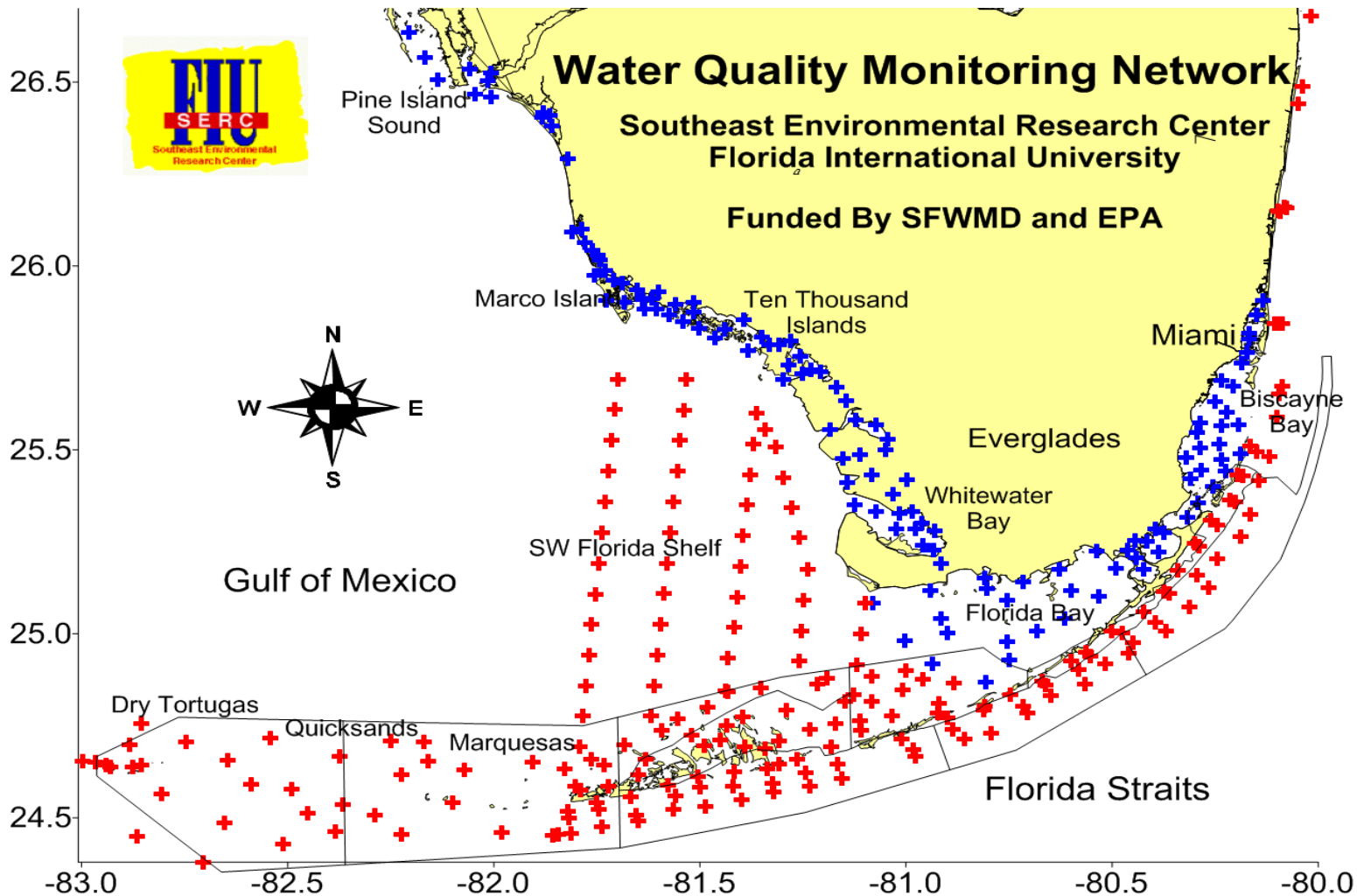
New version of the STORET Public Access (SPA) application is available by clicking the following link:

- <http://prodenv.dep.state.fl.us/DearSpa>



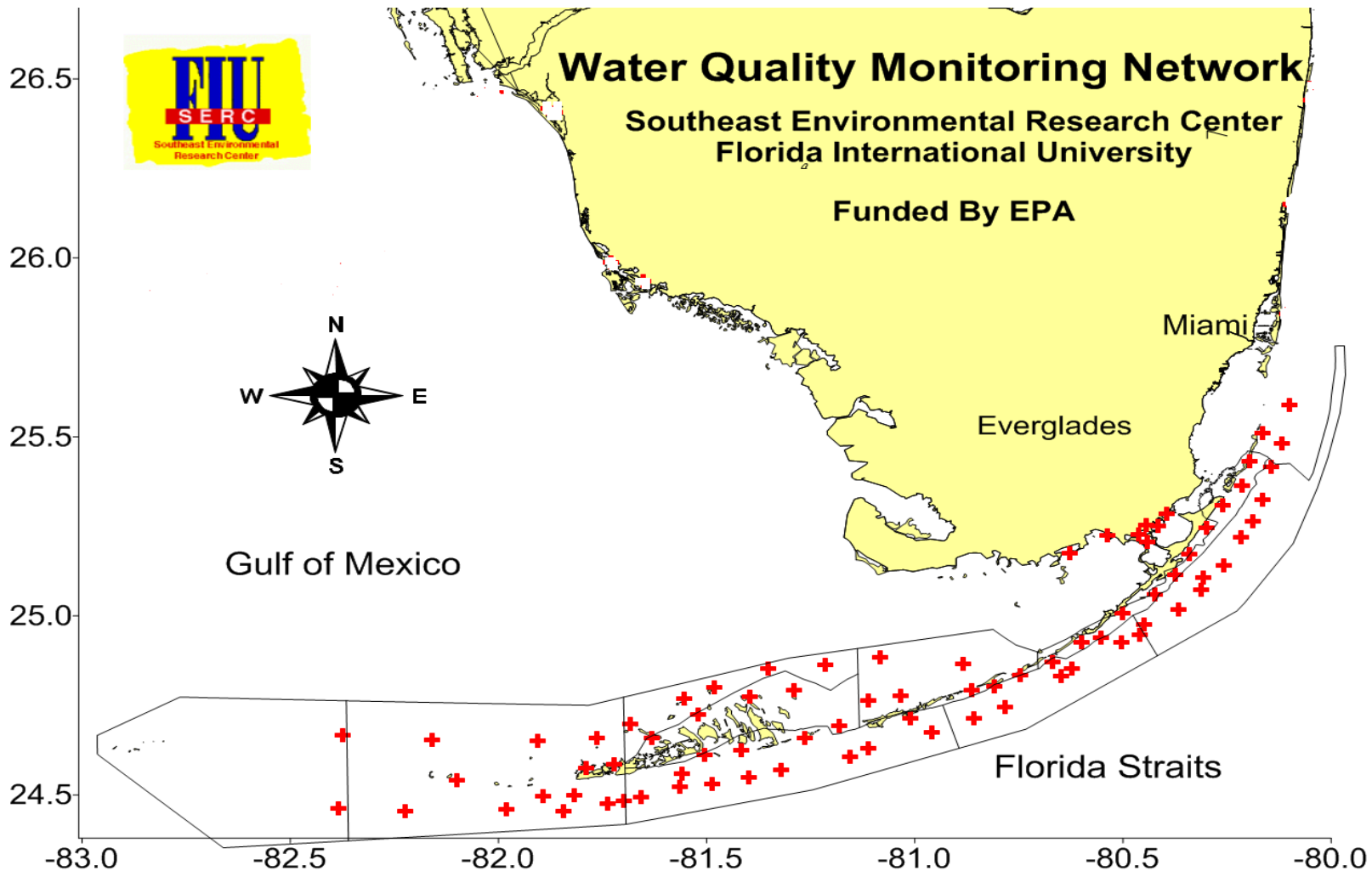


FIU WQ Monitoring Network (Before)





FIU WQ Monitoring Network (Present Time)





Panel Discussion – Data Gaps

- Development of appropriate biocriteria for the Keys oligotrophic environment to assess responses of benthic communities to limited nutrients (i.e P-limited in nearshore waters).
- Jim Fourqurean pointed out that seagrasses can be good indicators of nutrient pollution.
- Dr. Fourqurean considers the use of shallow wells for wastewater disposal as a gap, because of the porous geology of the Keys and the potential groundwater connection to surface waters.



Panel Discussion – Data Gaps

- Investigate the presence and the effects of pharmaceuticals and endocrine disruptors. The WQPP has issued RFP's seeking proposals for a “white paper” on the effects of these pollutants in the FKNMS.
- Potential effects of Mosquito Control Pesticides continues to be a source of concern.
- Eugene Shinn expressed concerns about the effects of oxybenzone (sunscreen ingredient) on coral health.
- Billy Causey: the TAC should also investigate impacts from Climate Change and Ocean Acidification in addition to the water quality monitoring efforts.



Increasing Collaboration and Reducing Duplication and Cost

- Groups conducting similar monitoring activities should collaborate to avoid duplication of efforts.
- Julie Espy mentioned that FDEP partners with Aquatic Preserves and FDACS to collect water samples. Similar partnerships could be established with FIU and other existing monitoring programs.
- Mark Hoyer of LAKEWATCH proposed to use this volunteer program, in conjunction with the Florida Keys Water Watch, to fill data gaps while reducing cost. This would be especially useful within the “Halo Zone”, including nearshore waters and canals.
- An inter-laboratory assessment, such as split sampling or round-robin comparison, and review of sampling and analytical methods, may be required to determine data variability and compliance with applicable QA requirements.



Questions and Comments

Never Give up!

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