

## 2022 WQPP Report to Congress Draft Framework:

### Questions for Steering Committee Discussion

As you review the following draft framework of the 2022 Water Quality Protection Program Report to Congress, please consider the following questions:

- What are your thoughts on the proposed structure of the report (Part 1 vs. Part 2)? Part 1 will include a description of the WQPP and its purpose, administration, accomplishments, and future priorities, and will emphasize interagency cooperation and coordination. Part 2 provides highlights of findings from the research and monitoring programs and will highlight the value of these programs for resource management.
- For Part 1:
  - Are the accomplishments we plan to highlight in the report the correct ones? Is anything missing?
  - Does this accurately capture 'programmatic modifications' that have taken place since 2013?
  - Do you agree with the future needs and priorities to be highlighted? Is anything missing?
  - Should we include other sources of funding that have supported WQPP-relevant project implementation (in addition to EPA South Florida Program)? How do we make the connection between funding and the WQPP's impact?
- For Part 2: since we can't report on all research findings since the last report to Congress in 2013, are there other big events or key research findings that should be highlighted in a case study? These should be relevant to resource condition, reveal long term trends and/or illustrate the importance and need for the WQPP.
- Overall, do you think this framework will help us generate more regular reports to Congress in the future?



Photo: Shawn Verne

# Florida Keys National Marine Sanctuary Water Quality Protection Program

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**REPORT TO CONGRESS  
2022**



**FLORIDA KEYS  
NATIONAL MARINE  
SANCTUARY**



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# Water Quality Protection Program Steering Committee

Daniel Blackman - U. S. Environmental Protection Agency  
Shawn Hamilton - Florida Department of Environmental Protection  
Sarah Fangman - Florida Keys National Marine Sanctuary  
Pedro Ramos - National Park Service, Everglades and Dry Tortugas  
Col. James Booth - U. S. Army Corps of Engineers  
Christian Eggleston - Florida Keys National Wildlife Refuges  
Barbara Powell - Florida Department of Economic Opportunity  
Armando Vilaboy - South Florida Water Management District  
Bob Eddie - Florida Department of Health  
Gil McRae - Florida Fish and Wildlife Conservation Commission  
Sue Heim - Key Largo Wastewater Treatment District  
Kerry Shelby - Florida Keys Aqueduct Authority  
Andrea Leal - Florida Keys Mosquito Control District  
Commissioner Craig Cates - Monroe County Board of County Commissioners  
Vice Mayor Ron Sutton - City of Key Colony Beach  
Mayor Teri Johnston - City of Key West  
George Garrett - City of Marathon  
Councilman Buddy Pinder - Islamorada Village of Islands Council  
Chris Bergh - The Nature Conservancy  
Charles Causey - Florida Keys Environmental Fund  
Patrick H. Rice - FKNMS Sanctuary Advisory Council  
Shelly Krueger - Florida Sea Grant  
Patience Cohn – Marine Industries Association of South Florida  
Sandra Walters – Sandra Walters Consulting

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# Letter from the Steering Committee

To be added.

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# Executive Summary

*To be added – 2 pages maximum.*

## Part 1: Program Background and Accomplishments

### Florida Keys National Marine Sanctuary & the Water Quality Protection Program

*Content to include:*

- *Brief introduction to FKNMS, including ecological and economic importance.*
- *Origin and purpose of the WQPP.*
- *Structure and responsibilities of the WQPP, including the biennial report.*

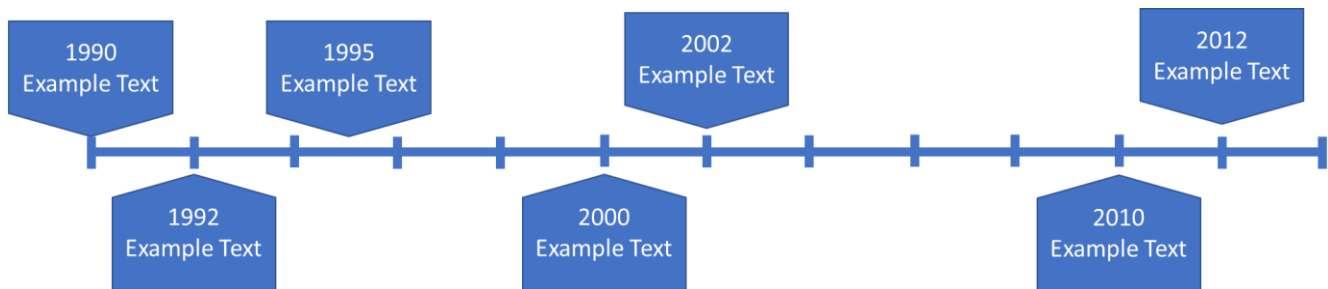


### Water Quality Protection Program Accomplishments

The WQPP has worked to facilitate improvements in water quality and support the biologically diverse communities of the Florida Keys by implementing activities within the program's four components: corrective actions; monitoring; research/special studies and public education/outreach.

Past accomplishments will be presented in timeline form. This will be a visualization of the accomplishments presented in the 1996 and 2013 reports to Congress:

- Florida Keys designated as a National Marine Sanctuary – 1990
- Water Quality Protection Program Established – 1992
- Long-Term Water Quality, Seagrass and Coral Reef Monitoring Programs Established – 1995
- Monroe County Sanitary Wastewater Master Plan – 2000
- All state waters within the Florida Keys National Marine Sanctuary are designated a No Discharge Zone - 2002
- Little Venice advanced wastewater treatment pilot project became operational - 2004
- The No Discharge Zone is extended to include all federal waters within the sanctuary - 2010
- Numeric Nutrient Criteria established for south Florida’s coastal waters – 2012
- Tropical Connections: South Florida’s Marine Environment Published – 2012
- Waterways Environmental Education Television Series – 1994-2014



New accomplishments since 2013 will be binned within the program’s four components and briefly summarized.

### Corrective Actions

A major focus of the WQPP has been on corrective actions designed to improve sanctuary nearshore waters by reducing nutrient inputs from land-based sources. Through the WQPP, water quality improvements have been coordinated at local, state, and federal levels.

Content will include a brief summary of accomplishments within the following program areas:

- Wastewater Improvements
- Stormwater Improvements
- Canal Management Master Plan
- Updated Florida Keys Reasonable Assurance Plan
- Numeric Nutrient Criteria for the Florida Keys
- Keys-Wide Mobile Vessel Pumpout Services
- Marina Pumpout Outfitting Program (MPOOP)

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### Long-Term Monitoring Programs

The WQPP oversees three comprehensive, long-term monitoring programs designed to track status and trends in water quality, benthic communities (seagrass) and coral reef communities. These programs have provided critical information about the condition of sanctuary resources through time, informed decision-makers regarding the status and trends of natural resources, and helped guide corrective actions. More detailed research and monitoring results are provided in Part 2 of this report.

*Content will include a brief summary of accomplishments within the following programs:*

- *Water Quality Monitoring Network*
- *Seagrass Monitoring Program*
- *Coral Reef Evaluation and Monitoring Program*

### Research and Special Studies

Special studies supported by WQPP funding are short in duration and designed to answer one or more targeted questions to inform resource managers. Such projects have been vital in furthering the understanding of the issues and the many facts that influence resource conditions in the Florida Keys ecosystem. Results from the Special Studies are made available to interested scientists, managers and the public at Steering Committee meetings, through publications and through the WQPP website. To date XX special studies have been completed or funded. A selection of these are highlighted below.

*Content will include a brief summary of the following:*

- *Canal Restoration Demonstration Projects*
- *Canal and Nearshore Water Quality Monitoring*
- *Sponge Restoration Research Program*
- *Endocrine Disrupting Compounds*
- *Impact of Shallow Wastewater Injection on the Florida Keys National Marine Sanctuary*

### Education and Outreach

The WQPP and its partners are dedicated to communicating the relevant results of research studies and furthering awareness on water quality issues. The result has been a better-informed community dedicated to supporting water quality improvements and the mission of the WQPP. Advancements in awareness and knowledge have been made through a variety of education and outreach programs and products described below.

*Content will include a brief summary of the following accomplishments:*

- *Florida Keys National Marine Sanctuary Boater Education Course*
- *Florida Keys Water Watch*

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- *Sanctuary Advisory Council Coordination*
  - *Florida Keys and South Florida Ecosystem Connectivity Team*
  - *Web-Based Resources*
  - *Goal: Clean Seas Florida Keys Program*

## **Programmatic Modifications**

*Content to include a brief summary of the following:*

- *Change in staff support for the WQPP*
- *Updated Bylaws and Steering Committee membership*
- *Expansion to 3 Steering Committee meetings per year*
- *WQPP prioritization process and outcomes*

## **Future Needs and Priorities**

*Content to include a brief summary of the following:*

- *FKNMS Restoration Blueprint: Marine Zoning and Regulatory Review. Implementation of a new sanctuary management plan, including activities related to sanctuary water quality.*
- *Continue to use science from special studies projects to inform decision-making (e.g., shallow injection well study)*
- *Continue robust status and trends monitoring program; conduct an evaluation to ensure the programs are meeting priority needs*
- *Improve information sharing via the WQPP website, including status and results of funded projects; ensure all monitoring data are compatible with and uploaded into the Watershed Information Network (WIN) database.*
- *Continue progress on WQPP priorities identified in 2020, including aligning WQPP time, energy and resources toward those priorities. Simultaneously, ensure WQPP is nimble enough to respond to emerging water quality issues.*
- *Secure funding and staffing for successful program implementation*

## **Budget Summary**

*The role of the budget summary is to demonstrate how these efforts have been funded overtime, and the impact that funding has had. The budget summary will include:*

- *A table showing annual allocations from the EPA South Florida Program (special studies and monitoring programs)*
- *Narrative description of other sources of funding used for project implementation.*
- *Other?*



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# Part 2: Highlights of WQPP Monitoring and Research

## Water Quality Monitoring in Florida Keys National Marine Sanctuary

*Content will include a brief summary of the following:*

- *Purpose, set up and modifications made to the water quality monitoring program.*
- *Summary of status and trends of water quality in the Florida Keys. Focus on significant findings of this program.*
- *Overview of how water quality data have been used to develop regulatory criteria.*

### Case Study: Canal Water Quality Improvements from Restoration

*Content will include a brief overview of how restoration techniques have been shown to improve water quality and benthic habitat in canals.*

## Seagrass Monitoring in Florida Keys National Marine Sanctuary

*Content will include a brief summary of the following:*

- *Purpose and set up of the benthic monitoring program.*
- *Summary of stats and trends in seagrass over time, and how those trends reflect nutrient conditions. Focus on significant findings of the program.*

### Case Study: Resource Impacts from Hurricane Irma

*Content will include a brief overview of water quality, seagrass and coral reef impacts associated with Hurricane Irma.*

## Coral Reef Monitoring in Florida Keys National Marine Sanctuary

*Content will include a brief summary of the following:*

- *Purpose and set up of the coral reef monitoring program.*
- *Summary of status and trends in coral reefs over time. Focus on significant findings of the program.*

### Case Study: Stony Coral Tissue Loss Disease

*Content will include a brief overview of Stony Coral Tissue Loss Disease impacts and response.*

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Case Study: Mission Iconic Reefs

*Content will include a brief overview of Mission: Iconic Reefs, including objectives and continued importance of pursuing water quality improvements.*

## **Conclusion**

*To be added.*