

II. WQPP Prioritization: Resolution, Process, and Recommendation

Karen Bohnsack
Associate Director, Water Quality and Ecosystem Restoration
Florida Keys National Marine Sanctuary

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with the Sanctuary Advisory Council

Photo: Shawn Verne

The November 2019 Steering Committee Motion Directed:

- A subgroup of the Management Committee and Technical Advisory Committee to develop a preliminary prioritized list of WQPP strategies, and bring a proposed shortened list of WQPP priorities back to the Steering Committee for their consideration.
- The Steering Committee will then develop a facilitated strategic planning process for the updated priorities.

Working Group Process

Identify
Working Group
Members

Review WQPP
Purpose,
Activities and
Strengths

Identify Top
FKNMS Water
Quality Issues

Refine Existing
List of WQPP
Strategies

Identify a
Shortened List
of WQPP
Priorities

Working Group Process

Identify
Working Group
Members

17 Working Group Members:

- EPA, FKNMS, NPS
- DEP, FWC
- Monroe County
- Cities of Marathon and Key West
- UM, FIU, Florida Sea Grant
- The Nature Conservancy



Working Group Process

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graph LR; A[Identify Working Group Members] --> B[Review WQPP Purpose, Activities and Strengths]
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Identify Working Group Members

Review WQPP Purpose, Activities and Strengths

Strengths

- Diverse membership integrates and leverages resources and authorities across a suite of WQ issues.
- Forum for public input on WQ issues.
- Mandated by law.
- Dedicated funding from EPA.
- History of action and implementation.

Means of Influence

- Scientific information about the issues.
- Funding for research and other projects.
- Communication and outreach to the community.
- Science and consensus can influence policy and the adoption of BMPs. Motions can be made and shared with local agencies, the Governor, etc.
- Some representatives on the WQPP have authority to implement recommendations.

Working Group Process

Identify
Working Group
Members

Review WQPP
Purpose,
Activities and
Strengths

Identify Top
FKNMS Water
Quality Issues

1. South Florida Regional External Influences
2. Tied for 2nd:
 - Farfield External Influences
 - Local Wastewater
 - Local Stormwater
 - Tidal Flooding and Climate
6. Sargassum/Organic Debris
7. Tied for 7th:
 - Canals
 - Emerging Pollutants of Concern
9. Marinas/Liveaboards

Working Group Process



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Prioritization Criteria

Water Quality Benefit: Projected effectiveness in reducing water quality problems in FKNMS.

Potential WQPP Impact: Likelihood that the WQPP can have a meaningful impact or serve as a key influencer on the issue or activity.

Level of Completion: Degree to which the issue or activity has been or is currently being addressed.

Very High

High

Medium

Low

Prioritization Framework

Water Quality Benefits = Low

		<-----Potential WQPP Impact----->			
		Very High	High	Medium	Low
Level of Completion	Very High	Priority #4	Priority #4	Priority #4	Priority #4
	High	Priority #3	Priority #4	Priority #4	Priority #4
	Medium	Priority #3	Priority #3	Priority #4	Priority #4
	Low	Priority #2	Priority #3	Priority #3	Priority #4

Water Quality Benefits = High

		<-----Potential WQPP Impact----->			
		Very High	High	Medium	Low
Level of Completion	Very High	Priority #3	Priority #3	Priority #4	Priority #4
	High	Priority #2	Priority #3	Priority #3	Priority #4
	Medium	Priority #1	Priority #2	Priority #3	Priority #3
	Low	Priority #1	Priority #1	Priority #2	Priority #3

Water Quality Benefits = Medium

		<-----Potential WQPP Impact----->			
		Very High	High	Medium	Low
Level of Completion	Very High	Priority #3	Priority #4	Priority #4	Priority #4
	High	Priority #3	Priority #3	Priority #4	Priority #4
	Medium	Priority #2	Priority #3	Priority #3	Priority #4
	Low	Priority #1	Priority #2	Priority #3	Priority #3

Water Quality Benefits = Very High

		<-----Potential WQPP Impact----->			
		Very High	High	Medium	Low
Level of Completion	Very High	Priority #2	Priority #3	Priority #3	Priority #4
	High	Priority #1	Priority #2	Priority #3	Priority #3
	Medium	Priority #1	Priority #1	Priority #2	Priority #3
	Low	Priority #1	Priority #1	Priority #1	Priority #2

Draft WQPP Priorities Recommendation

- Overview of Water Quality ‘Issue Areas’
- Description of Recommended Priorities
- Rationale for Selection

WQPP Core Responsibilities

- Program Administration
- Data Collection, Analysis & Reporting
- Education & Outreach

TIDAL FLOODING AND CLIMATE
Infrastructure Adaptation for Climate Change (5-2). Ensure wastewater and stormwater infrastructure is equipped to accommodate changing conditions associated with sea level rise and higher-intensity storms. Assess the ability of existing permitting requirements and facility designs to protect water quality, infrastructure and habitat under changing climate scenarios, and consider alternative design criteria for different types of facilities, levels of use, and/or areas. Identify and incorporate features to promote resilience, such as stormwater retention basins.
STORMWATER
Stormwater Master Plan (4-2). Support planning, development and implementation of the Monroe County Stormwater Master Plan. Develop best management practices for stormwater within Monroe County, including a consideration of better solutions to treat stormwater runoff in the Keys’ environment. In addition to treatment options, prevention of stormwater via a reduction in impervious surfaces should also be considered.
Stormwater Project Implementation (4-1). Design and build more effective stormwater projects, to include stricter stormwater management and project permitting.
WASTEWATER
Shallow Injection Wells (3-5). Research/monitor shallow injection wells to determine their impact on nearshore water quality. Test wastewater or other injectate for pollutants other than nutrients, including endocrine disruptors and other emerging pollutants of concern, salinity, viruses/bacteria, etc. Determine if injected effluent appears in the coastal waters and if so, identify where, what pollutants it still contains, and whether it causes local water quality degradation.
Keys’ Wastewater Regulations (3-6). Pending the results of the shallow injection well studies, consider pursuing additional corrective actions such as (a) the development of water quality standards or aquatic life criteria for endocrine disruptors or other contaminants of emerging concern, (b) investigating and/or implementing new wastewater treatment technologies to remove those contaminants, and (c) reducing the wastewater treatment plant capacity threshold for requiring deep well injection within the Keys and areas with similar porous geology (e.g., require deep injection wells cased to a minimum depth of 2,100 feet, even if the design capacity of the wastewater treatment plant is less than 1 million gallons per day).
Wastewater Master Plan (3-1). Implement Monroe County Wastewater Plan to achieve compliance with Section 403.086(10) F.S. Continue connecting package plants and septic tanks to central wastewater systems, including the Cudjoe Regional Wastewater Service Area.
Remote Area Connections (3-2). As part of implementing the Monroe County Wastewater Plan, connect Cross Key and other remaining remote areas to decentralized Advanced Wastewater Treatment or Best Available Technology treatment standards.
Infrastructure Design and Operation (3-3). Ensure the sustainability and functionality of wastewater infrastructure. Monitor collection systems for proper performance and compliance. Iteratively review and adapt regulations and best management practices for wastewater infrastructure designs (vacuum sewers, gravity vs. low-pressure systems) and operations to ensure the systems are working properly and promote optimal functionality within the Keys environment.
Compatibility with Non-Municipal Wastewater (3-4). Ensure centralized wastewater treatment systems are able to accept wastewater from non-municipal sources (e.g., marine sanitation devices), or update the collection systems as needed to accommodate that effluent.
CANAL RESTORATION
Canal Master Plan (7-1). Continue to support and implement the Monroe County Canal Master Plan and Canal Restoration Guidance Document to take steps toward restoring and improving water quality in residential canals, and reduce marine debris accumulation. Provide guidance to ensure maximum water quality benefits are achieved through canal restoration; assess options and funding sources to support operations and maintenance costs.

Questions?

Karen Bohnsack, Karen.Bohnsack@noaa.gov, 305-304-2196
Associate Director, Water Quality and Ecosystem Restoration
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