

City of Key West Water Quality Improvement Plan

DRAFT



Alison Higgins
Sustainability Coordinator
ahiggins@cityofkeywest-fl.gov

KEY WEST FORWARD

The Strategic Plan for the City of Key West
2021-2024



Restoration Blueprint

In an effort to protect and restore critical marine habitats in the Florida Keys, the sanctuary is proposing a Restoration Blueprint that embodies what we have learned through more than 20 years of cutting-edge science, technical experience, and local community involvement.

World class fishing and diving

More than 6,000 species

3,800 square miles

FL KEYS	Coral Reef
	Fish Species
	Acidification
	Florida Keys NMS Restoration Blueprint

NATIONAL MARINE SANCTUARIES
FLORIDA KEYS

The residents spoke:
Water Quality is Important

Key West Water Quality Improvement Plan

DRAFT



Karen Bohnsack



Dr Nick Parr



Shelly Krueger



Michelle Robinson



Dr Patrick Rice



Brittany Burtner



- 5 Entities
- 8 Meetings
- 8 Programs
- 3 Plans

DRAFT

Key West Water Quality Improvement Plan



Completed WQPP Strategies To Date:

- ✓ Central Wastewater Treatment in 1989
- ✓ Upgraded to AWT standards 1999
- ✓ Outfall closed in 2000; Added Class I deep injection
- ✓ Eliminated septic tanks and cesspits
- ✓ UV treatment added in 2007
- ✓ WWTP accepts non municipal sources (marine sanitation devices)
- ✓ Ordinances prohibit dumping of leaves, fish scraps, etc into canals, marinas and nearshore waters
- ✓ Uploading historical WQPP-generated monitoring data to WIN



DRAFT

Key West Water Quality Improvement Plan



Draft Goals:

- 1) Increase Partnerships to address Marine Debris and Derelict Vessels
- 2) Ensure Adequate Staffing and Support to Effectively Manage/Advance the WQIP
- 3) Data Management
- 4) Maintain Adherence to Best Management Practices/Technology for Stormwater Mgmt
- 5) Evaluate Existing Water Quality Improvement Program
- 6) Incorporate Contaminants of Emerging Concern (CEC) into Monitoring Programs
- 7) Strengthen Regulations to Reduce Marine and Boater Pollution
- 8) Advocate for Upstream Water Quality Improvements
- 9) Determine WQ Risks and Mitigation Actions Derived from Climate Change
- 10) Participate in Targeted, Shared Educational Campaigns
- 11) Maintain Adherence to Best Management Practices/Technology for Wastewater Mgmt

DRAFT

Key West Water Quality Improvement Plan



1) Increase Partnerships to address Marine Debris / Derelict Vessels.

- a. Expand mooring fields
- b. Cross deputize City staff to report derelict vessels
- c. Promote SEAFAN.net for public reporting of derelict vessels/etc.
- d. Promote “Vessel Turn In” Opportunities
- e. Host partner workshop to find other potential synergies
- f. Increase monofilament receptacles at fishing areas
- g. Research other effective marine debris programs



DRAFT

Key West Water Quality Improvement Plan



2) Ensure Adequate City Staffing/Support to Effectively Manage/Advance the KW WQ Improvement Plan.

- a. Enact KW WQ Improvement Plan
- b. Participate in WQPP & annual operating planning
- c. Strengthen coordination with other local governments



3) Data Management

- a. Upload all qualifying data from marinas and landfill to public database
- b. Ensure all new data can be utilized in public database



DRAFT

Key West Water Quality Improvement Plan



4) Stormwater Best Management Practices/Technology

- a. Continue to modernize, elevate and harden equipment and infrastructure
- b. Update Stormwater Master Plan every 5 years
- c. Complete Green Infrastructure portion of Climate Adaptation Plan.
- d. Explore stormwater treatment opportunities for road elevation and other adaptation infrastructure
- e. Explore Canal Keepers program
- f. Educate public on annual project and expenditures



DRAFT

Key West Water Quality Improvement Plan



5) Evaluate Existing Water Quality Improvement Program

- a. Host Evaluation Workshop every 5 years to recommend changes to KW WQIP
- b. Ensure that corrective actions have effective monitoring programs
 - i. EPA Grant w CFK monitors H₂S, ammonia & sucralose hotspot
 - ii. Key West Harbor Monitoring



6) Incorporate Contaminants of Emerging Concern into Monitoring

- a. EPA Grant with CFK monitors oxybenzone
- b. Test at KWWWTP to ID main CECs
- c. Test at KW Resort Utilities (& Big Coppitt?) to ID main CECs
- d. Annually review emerging research

DRAFT

Key West Water Quality Improvement Plan



7) Strengthen Regulations to Reduce Marine and Boater Pollution

- a. Enforce Clean Marina, Clean Boatyard Certifications
- b. Ensure adequate marine pumpout services
- c. Collaborate on shared language for pumpout regulations with other local governments

8) Advocate for Upstream Water Quality Improvements

- a. Support FKAA Research Efforts at Turkey Point
- b. Advocate for WQ Projects in the Everglades
- c. Advocate for improvements to mainland wastewater infrastructure
- d. Advocate for improvements to watershed mgmt practices affecting GOM
- e. Stay abreast of FK and SFL Ecosystem Connectivity Team rec's



DRAFT

Key West Water Quality Improvement Plan



9) Determine WQ Risks & Mitigation Actions Derived from Climate Change

- a. Complete Environmental Chapter of Adaptation Plan (habitat loss, long term SLR, acidification, Harmful Algal Blooms)

10) Participate in Targeted, Shared Educational Campaigns

- a. Serve on WQPP Outreach Sub-Committee, Advise on Communications Strategy
- b. Advocate for Priority Messaging (fertilizer, sunscreen, dumping, canals, climate change)

DRAFT

Key West Water Quality Improvement Plan



11) Wastewater Management Best Management Practices/Technology

- a. Continue to modernize, elevate and harden equipment and infrastructure
 - i. Fleming Key Bridge Force main
 - ii. DOD Resiliency Grant, includes biogas energy.
- b. To the extent possible, consider treatment for EPCs
- c. Educate public on annual project and expenditures



DRAFT

Key West Water Quality Improvement Plan



FY24 Budget:

\$ 100,000 Coral Reef Restoration
\$ 40,000 CFK WQ Monitoring Partnership
\$ 2,500 Educational Materials
\$ 1,000 Monofilament Receptacles – FWC
\$ 500 Partner Workshop for Marine Debris

FY25 Budget:

\$50,000 WQIP Coordination

**Above budgets do not include the vast and important work done by Stormwater and Wastewater Utilities*

Key West Water Quality Improvement Plan

DRAFT



City of Key West Water Quality Improvement Plan

DRAFT

Questions?

Alison Higgins
Sustainability Coordinator
ahiggins@cityofkeywest-fl.gov

