

# **EPA Special Studies: FY21 Priority Topics**

**Goal:** Provide five WQPP 2021 priorities to EPA for South Florida funding consideration

## Discussion/Q&A from the Steering Committee

- Do you agree with these topic areas generally?
- What do you specifically like / don't like?
- Are we missing something important?

# WQPP RFA Priorities (2015 – 2020)

- **Improve Water Quality in Canals - priority last five years – 7 awards**
- **Wastewater - Shallow Well Injection – FY20 – 1 award**
- **Non-Municipal Wastewater – expand marina pump-outs- FY20 – no applicants**
- **Stormwater Pollution Reduction – priority last 5 years – no applicants**
- **Public Education & Outreach – priority last 5 years – 2 awards**
- **Sponge / Habitat Restoration – priority last 3 years, FY15 – 3 awards**
- **Endocrine Disruptors Research – priority FY19, 18 – 3 awards**
- **Additional South Florida Priorities: corals, HABs, FB, BB, IRL, CE**

# Stormwater Pollutant Investigation

- Develop a study to analyze and quantify stormwater runoff that entering nearshore waters and/or residential canals
- Investigate the cost and effectiveness of stormwater management regulations, treatment, and disposal methodologies in reducing nutrient, marine debris, and other stormwater pollutant loading
- Evaluate existing best management practices and technologies that were implemented in the Florida Keys to assess their effectiveness (or lack of) in reducing pollutant loading.
- Conduct a demonstration project to validate the effectiveness of an identified best management stormwater practice or new technology

# Large Vessel Impacts on Water Quality in Key West Harbor and the Adjacent Marine Ecosystem:

- Evaluate existing water quality and sediment monitoring programs and data to determine if they adequately quantify the impacts of large vessels entering, exiting, and mooring in Key West Harbor via the Main Ship Channel. Area impacted may extend beyond the harbor and channel.
- Turbidity throughout the water column and sedimentation must be the focus of this special study, but other factors that may have impacts on living marine resources should also be evaluated (e.g., dissolved oxygen throughout the water column, hydrogen sulfide, ammonia, nitrite, pH, and hydrocarbons).
- Both in-situ and remote sensing programs and data should be included in the evaluation.

# Water quality connectivity from Southern Florida to the Keys

- Using the currently accepted models, investigate the connectivity between waters and associated pollutants discharged from Florida's southeast and southwest coasts into Florida Bay and the Florida Keys National Marine Sanctuary
- Project should include a minimum of two years continuous, in-situ monitoring to determine if patterns of turbidity, chlorophyll a, nutrients, temperature, and salinity can be quantitatively linked to upstream inputs.

# Impacts of Contaminants of Emerging Concerns on Aquatic Ecosystems in the Florida Keys

- Identify the impacts of Contaminants of Emerging Concerns (CEC) that have been identified in the Florida Keys and South Florida on marine ecosystems such as corals, mangroves, seagrasses, hard bottom communities.
- Determine which habitats, species, and ecological communities are most vulnerable to the CEC exposure.
- Identify, develop and implement a pilot study targeted towards monitoring and developing programs that will achieve the protection of these marine communities.

## Non-municipal Wastewater Sources

- Support expansion of pump-out infrastructure for marinas in Monroe County.
- Develop strategies to evaluate the impacts from non-municipal sources (e.g., marine/RV sanitation devices) on centralized wastewater treatment systems
- Develop recommendations for modifying central wastewater systems to accept these sources



## Public Education and Outreach

- Design and implement an education and outreach project that inspires individual and collaborative action to protect and restore water quality in Florida Keys
- Provide the information and tools necessary to promote small but meaningful contributions, or larger partnerships to actively improve water quality.
- Projects should include an evaluation component to assess the ease of implementation, the outcome or impacts produced by the education and outreach program and evaluate project success.