## Title:

N-71: Maintain and coordinate a unified monitoring program to detect, identify, and eliminate sources of pollution flowing through inlets to improve water quality and protection to reef.

# **Background:**

- This recommended management action relates to all Southeast Florida Coral Reef Initiative (SEFCRI) counties and cities with ocean inlets in the SEFCRI region.
- This recommended management action is being put forth due to the lack of sustained water quality monitoring efforts required to address land-based sources of pollution (LBSP) impacts to coral reefs via ocean inlets.

#### **Objective:**

• The intended outcome of this action is to create a coordinated water quality monitoring program and strategy to target pollutants at the nine southeast Florida inlets.

# **Intended Benefits and/or Potential Adverse Effects:**

- Benefits of implementing this recommended management action include: (1) having a unified monitoring plan and protocol across the SEFCRI region and improved coordination among all agencies involved in water quality monitoring, (2) resulting baseline data and event-specific data that can be used in the future, (3) project results that can be used in watershed planning and as baseline information to measure LBSP reductions within each Inlet Contributing Area (ICA), (4) expected reductions in LBSP, (5) reduced water pollution and subsequent improvements in the southeast Florida coastal environment, stronger tourism industries.
- An anticipated negative impact associated with this recommended management action includes the cost to organizations to fund and implement such a program (project funding sources have not been identified), and the project will not automatically identify sources of LBSP.
- The duration of the benefits of this recommended management action are ongoing.
- If this recommended management action is not implemented there will be continued LBSP loading, which is expected to exacerbate coral decline and benthic species composition changes in southeast Florida. This would adversely affect economic and environmental services and values provided by the coral reef ecosystem.

## **Agencies/ Organizations:**

- The lead agencies for implementation of this recommended management action include the Florida Department of Environmental Protection, the United States Environmental Protection Agency (EPA), the National Oceanic and Atmospheric Administration's (NOAA) Fisheries Service, NOAA's National Ocean Service, and NOAA's Atlantic Oceanographic and Meteorological Laboratory.
- Other potential agencies or organizations who could be involved include SEFCRI counties and the South Florida Water Management District.
- The key stakeholders for this recommended management action would be municipalities, utilities, and drainage districts.

• The project is consistent with legislation and laws.

## **Permitting/ Enforcement Requirements of RMA:**

- There are no permitting requirements for this recommended management action.
- There are no enforcement requirements for this recommended management action.
- Measurable Outcomes/Success Criteria/Milestones were not identified for this recommended management action.

## **Cost:**

- The estimated direct cost of implementing this recommended management action is greater than \$250,000.
- No potential funding sources have been identified at this time.

### **Time Frame & Extent:**

• The anticipated timeframe for implementation of this recommended management action is 1 - 5 years.

## **Miscellaneous Info:**

- LBSP loading to coral reef ecosystem is related to a number of other recommended management actions, however none were specified in this action.
- Some uncertainties or gaps in this recommended management action include the lack of quantified pollutant loads reaching the reefs via coastal inlets, which is a data gap that would be filled by the recommended management action.
- Supporting and relevant data includes the following:
  - Pickering, N. and Baker, E. Watershed Scale Planning to Reduce the Land-Based Sources of Pollution (LBSP) for the Protection of Coral Reefs in Southeast Florida.
    Prepared for the National Oceanographic and Atmospheric Administration. Horsley Witten Group. 2015. Sandwich, MA. 84 pp.
  - o Trnka, M., K. Logan, P. Krauss and N. Craig. Land-Based Sources of Pollution Local Action Strategy Combined Projects 1 &2. Nova Southeastern University, Oceanographic Center. 2006. Dania Beach, Florida. 207pp.
  - Gregg, K. Literature Review and Synthesis of Land-Based Sources of Pollution Affecting Essential Fish Habitats in Southeast Florida. Prepared for: NOAA Fisheries Southeast Region, Habitat Conservation Division. 2013. West Palm Beach, Florida. 55 pp.
- Similar activities are being developed ad hoc at various locations. This action would standardize the activities and provide a framework for a tiered approach that may be necessary due to fiscal constraints on resource management agencies.

## **Goals/ Objectives to be Achieved:**

Refer to the SEFCRI Coral Reef Management Goals and Objectives Reference Guide

• Goals and Objectives were not identified within this recommended management action.