

Building Capacity for Coastal Stakeholder Engagement in Southeast Florida Coral Reef Management

A Proposal for the 2014-16 NOAA Coastal Management Fellowship Program

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Submitted by:



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**FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION'S
FLORIDA COASTAL OFFICE**

1. Introduction

The host agency for the 2014 - 2016 Coastal Management Fellowship is the Florida Department of Environmental Protection (FDEP) Coral Reef Conservation Program (CRCP) in Miami, Florida.

Background

Spanning over 330 nautical miles from the Dry Tortugas to Stuart, the Florida Reef Tract is the only barrier reef in the continental United States. These beautiful coral reefs, lying just off the beaches of the most urbanized coastal region in the state, are an extraordinary biological, geological, and economic resource. Supporting a rich and diverse assemblage of more than 6000 species, Florida's reefs are a marvelous source of recreation, education, scientific research, and public inspiration. Roughly one third of Florida's 18 million residents live within this region, which attracts over 38 million visitors a year. A study of natural and artificial reefs in southeast Florida and the Florida Keys showed that fishing, diving, and boating-related expenditures generate \$6.3 billion in sales and income, and sustain more than 71,000 jobs annually.



Agency and Program Background

The FDEP is the lead agency in the State of Florida's government for environmental management and stewardship. Comprised of three divisions - Regulatory Programs, Lands and Recreation, Water Policy & Ecosystem Restoration - the FDEP serves to protect the state's air, water, and land resources. Florida's environmental priorities include restoring America's Everglades, improving air quality, restoring and protecting water quality, conserving environmentally sensitive lands, and providing recreation opportunities for citizens and visitors, today and in the future. Within the Division of Water Policy & Ecosystem Restoration, the Department's Florida Coastal Office directs

the management of Florida's 41 Aquatic Preserves, three National Estuarine Research Reserves, the Florida Keys National Marine Sanctuary, the Florida Coastal Management Program, the Outer Continental Shelf Coordination Program, the Deepwater Horizon Oil Spill Response & Restoration Program, and the CRCP.

Established in 2004, the FDEP CRCP coordinates coral reef research, monitoring, and mapping, conducts education and outreach, develops management strategies, and encourages partnerships and stakeholder participation to advance protection of Florida's reefs. The State of Florida manages its coral reef resources cooperatively with federal, state, and local agencies including NOAA, the National Park Service, the Florida Fish and Wildlife Conservation Commission (FWC), and the counties of Monroe, Miami-Dade, Broward, Palm Beach, and Martin. Regulatory coordination with additional agencies including the U.S. Environmental Protection Agency, the U.S. Coast Guard (USCG), the U.S. Army Corp of Engineers and others supports the environmental conservation goals of the State. In 2006, the FDEP CRCP was also directed to coordinate and lead response to vessel groundings and anchor damage incidents in southeast Florida.

Through its role in supporting Florida's membership on the U.S. Coral Reef Task Force (USCRTF) and the U.S. All Islands Committee, the FDEP CRCP leads the implementation of Florida's Local Action Strategy (LAS) - the Southeast Florida Coral Reef Initiative (SEFCRI). With guidance from the USCRTF, the FDEP and the FWC coordinated the formation of a team of marine resource professionals (local, state, and federal), scientists, non-governmental organization representatives, and other coral reef stakeholders. This team, named the SEFCRI Team, gathered to develop local action strategies targeting coral ecosystems from Miami-Dade County through Broward, Palm Beach, and Martin counties. This region was chosen because its reefs are close to an intensely developed coastal region, with a large and diverse human population. Prior to the development of the SEFCRI, no coordinated education and outreach or management plan had been proposed for the coral reef ecosystem located north of the Florida Keys and Biscayne National Park.

The SEFCRI is targeting four priority focus areas that address threats to southeast Florida's coral reef ecosystems. The four focus areas are: (1) Land-Based Sources of Pollution (LBSP), (2) Maritime Industry and Coastal Construction Impacts (MICCI), (3) Fishing, Diving, and Other Uses (FDOU), and (4) Awareness and Appreciation (AA). The SEFCRI Team members are working with the FDEP CRCP to develop and implement over 140 different LAS projects that range from baseline data collection and research to outreach and education. SEFCRI's Mission is to develop and support the implementation of an effective strategy to preserve and protect southeast Florida's coral reefs and associated reef resources, emphasizing balance between resource use and protection, in cooperation with all interested parties. For more information, visit the SEFCRI website: www.southeastfloridareefs.net

Target Threat Issues

Coral reefs within the southeast Florida region lie adjacent to four of the most densely populated counties in Florida. Of the many threats to the reef resources in this region, the Fellow will be responsible for assisting CRCP target responses to the following threat issues:

Awareness and Appreciation - It is important to engage and educate both local public stakeholders and state policy makers on the social, economic, and ecological importance of southeast Florida's reef resources. Spreading information on CRCP & SEFCRI will create newfound awareness and appreciation for the coral reefs of southeast Florida which will, in turn, support improved management of these coral reef resources as behaviors and practices are influenced throughout the region, and across the entire Florida Reef Tract.

Marine Disturbances (Marine Debris/ Biological Disturbances/ Reef Injuries) - Southeast Florida's coral reefs are vulnerable and at risk from incidents such as pollution, commercial and recreational misuse, and biological disturbances. Debris washed into the marine environment by canals, discarded on beaches, or lost by fishers, divers, and boaters can pollute the ocean and cause damage to sponges and corals, entangle fish and other reef organisms, and result in the injury or death of these animals. Navigation errors by commercial and recreational boaters may result in vessels running aground or anchoring on coral. Finally, marine biological disturbances such as poor water quality, fish diseases and fish kills, invasive species, algal blooms, coral bleaching and coral disease may be indicators of larger, ecosystem-wide events that may devastate our reefs without proper intervention and a timely management response. If left unaddressed, these marine incidents have the potential to severely impact southeast Florida's coral reefs resulting in the widespread loss of reef resources and associated services, such as their ability to attract tourists, support fisheries, and protect the shoreline from erosion and storms. Educating stakeholders about the Southeast Florida Action Network (SEAFAN) - designed to improve the protection and management of southeast Florida's coral reefs by enhancing marine debris clean-up efforts, increasing response to vessel groundings and anchor damage, and providing early detection of potentially harmful biological disturbances - is a priority.

Maritime Industry and Coastal Construction Impacts (MICCI) - Due to the intense coastal development that the southeast Florida region faces, the MICCI LAS projects focus on working with the coastal construction industry (e.g., contractors, environmental consultants, etc.) and local, state, and federal permitting agencies to increase protection of the coral reef resources through the development of Best Management Practices, cumulative impacts tools, standardized permit conditions and monitoring protocols, etc., as well as by encouraging the strengthening of relevant statutory authorities. Many of these projects are complete, but lack implementation plans to ensure they have accomplished their original intent.

2. Project Goals and Objectives

The Fellow will provide support for ongoing FDEP CRCP and SEFCRI initiatives and projects, and will work closely with CRCP management and staff to implement program goals. Specific goals for the Fellow will be to:

- Lead the creation of implementation plans for deliverables (e.g., regulatory coral awareness training, Best Management Practices, etc.) from at least 3 of the 27 originally identified MICCI LAS projects. Effectively implement the 3 plans – resulting in increased regulatory capacity for permitting and enforcement of impacts to coral reefs.
- Lead the foundation creation and management of a document that will become the new comprehensive southeast Florida coral reef management strategy.
- Lead creation and initiation of an education and outreach campaign that results in a quantifiable increase in stakeholder knowledge regarding the potential for reef impacts associated with use, or a reduction of impacts from un-permitted reef injuries or marine debris impacting southeast Florida reefs.
- Create and maintain two-way communication with targeted local stakeholder groups to ensure they are informed of CRCP and SEFCRI efforts, while also being able to regularly communicate their needs, thoughts, and ideas to CRCP.

3. Milestones and Outcomes

- **November 1, 2014** – Completion of first draft MICCI LAS project implementation plans. (Task 1)
- **February 1, 2015** – Completion of final MICCI LAS project implementation plans. (Task 1) Initiate plans.
- **July 1, 2015** – Creation and initiation of an ongoing communications campaign that reduces marine debris and stakeholder use-related impacts to SE FL coral reefs. (Task 3)
- **March 1, 2016** - Completion of the final SEFCRI Our Florida Reefs (OFR) Community Working Group recommendations and Technical Advisory Committee recommendation review documents. (Task 2)
- **July 30, 2016** – Completion of the final foundation of the comprehensive southeast Florida coral reef management strategy (Task 2) and complete implementation of selected MICCI LAS deliverable implementation plans. (Task 1)

4. Project Description

The Fellow will work closely with CRCP management and staff to implement CRCP programs and SEFCRI LAS projects, including encouraging and facilitating participation by, and input from, stakeholders and other government agencies. The Fellow will work collaboratively and foster effective communication and information exchange with FDEP staff and numerous partners in both the public and private sector to further the state's efforts in protecting coral reef resources through the collaborative

efforts of the Florida Reef Tract management community. The Fellow will represent FDEP, CRCP, and the SEFCRI Team, as appropriate.

Task 1: Creation & Initiation of at least 3 MICCI LAS Deliverable Implementation Plans (35% of time)

With guidance from the CRCP Assistant Manager, the Fellow will be responsible for creating implementation plans for each of the deliverables from at least 3 of the 27 original MICCI LAS projects (e.g., coral-related regulatory enforcement trainings, Best Management Practices, etc.), including documentation of progress already made, specific goals to be reached, potential roadblocks, and steps to take in order to reach those goals. Once completed, the Fellow will lead the implementation of the 3 plans. The Fellow will organize, facilitate, and participate in MICCI project-related meetings, ensuring meetings are properly noticed, and that summaries are recorded. Additionally, the Fellow will review applicable technical information, scientific reports, literature, and outreach materials; including content and grammar editing of final MICCI project deliverables. For links to previously completed MICCI LAS project deliverables, see: <http://www.dep.state.fl.us/coastal/programs/coral/reports/>

Outcomes and Deliverables:

- Completion and initiation of at least 3 MICCI LAS project deliverable implementation plans.
- Effective implementation of MICCI deliverables will build local capacity leading to more efficient and effective avoidance and enforcement of permitted and unpermitted coral reef impacts in southeast Florida.

Task 2: Support SEFCRI's *Our Florida Reefs* (OFR) Community Planning Process - Leading the Development of a Foundation for a New Comprehensive Reef Management Strategy (35% of time)

The OFR Community Planning Process is a stakeholder engagement project that is jointly funded by the NOAA CRCP and the FDEP CRCP. The OFR Community Planning Process is an integral part of the SEFCRI; it will present Community Working Groups with socioeconomic data, current SE FL coral reef resource (e.g., benthic, fish, water quality, etc.) condition information, and other relevant use and management data via a user-friendly geospatial decision support tool. The goal of OFR is to develop new management options and recommend implementation strategies for the southeast Florida coral reef ecosystem.

The Fellow will lead the documentation, coordination, and finalization of the OFR Community Working Group recommendations document and SEFCRI Technical Advisory Committee recommendation review document. The Fellow will then compile both reports into one final document - forming the foundation of a new southeast Florida coral reef management strategy.

The Fellow will give presentations at public stakeholder meetings regarding the OFR Process; update OFR documents based on Community Working Group meetings, stakeholder feedback and new scientific publications; maintain the OFR website (www.OurFloridaReefs.org); and keep the Florida Coral Program Facebook page active by creating new OFR-related content in order to keep coastal stakeholders informed on the ongoing process.

Outcomes and Deliverables:

- Completion of final OFR Community Working Group recommendations and Technical Advisory Committee recommendation review documents.
- Creation of the foundation of the comprehensive southeast Florida coral reef management strategy leading to the effective balance of use and conservation for SE FL coral reefs.
- Informed engagement of regional stakeholders via social media.

Task 3: Creation & Implementation of an Education and Outreach Campaign to Reduce Impacts from Non-Permitted Anthropogenic Reef Resource Injuries (30% of time)

The Fellow will coordinate with the CRCP Project Coordinators to lead the creation and implementation a communication campaign plan for outreach and education regarding the Florida Coral Reef Protection Act (CRPA), SEAFAN, OFR Community Planning Process, OFR Decision Support Tool Use, and Reef Injury Prevention and Response (RIPR) programs.

Once finalized, the Fellow lead implementation of the ongoing campaign by coordinating in-person meetings and presentations that disseminate audience appropriate CRCP and SEFCRI information and products (e.g., brochures, stickers etc.). Performance measures (e.g., a quiz before and after the presentation to assess increase in knowledge) shall be included in the plan to quantify effectiveness of each type of communication strategy proposed in the plan (e.g., in-person meetings, outreach events, etc.). The Fellow will also be responsible for tracking and analyzing citizen reports received by the Reef Injury Prevention and Response and SEAFAN programs to determine reporting patterns both in general and for targeted stakeholder groups. is the fellow will lead the establishment of regular (e.g., annual) meetings with targeted stakeholder groups that will encourage two-way communication, where stakeholders are informed of CRCP and SEFCRI efforts, while also being able to regularly communicate their needs, thoughts, and ideas to CRCP.

Outcomes and Deliverables:

- Creation and implementation of an education and outreach campaign that results in a quantifiable increase in stakeholder knowledge regarding the potential for reef impacts associated with use, or a reduction of impacts from un-permitted reef injuries or marine debris impacting southeast Florida reefs.

- Creation and maintenance of a two-way communication, where targeted stakeholder groups are informed of CRCP and SEFCRI efforts, while also being able to regularly communicate their needs, thoughts, and ideas to CRCP.

5. Fellow Mentoring and Supervisor

The Fellow will be supervised by the CRCP Assistant Manager, Lauren Waters with professional development support from CRCP Manager, Jamie Monty. The Supervisor will communicate regularly and directly with the Fellow in order to review timelines, evaluate progress, and work with the Fellow to resolve any difficulties encountered, as needed. Fellow will be fully integrated into the CRCP team and will be expected to attend staff meetings, participate in program related planning and development activities. The Fellow will have ample opportunities for professional development including meeting representatives from all levels of government, non-profit groups, and academic institutions. This Fellowship will provide varied and challenging opportunities for the Fellow to learn about and participate in applied natural resource management. The Supervisor will meet at least weekly with the Fellow for the entire Fellowship and will provide the Fellow with assistance in identifying key individuals with whom to meet and identifying sources of information. The Supervisor will be responsible for providing the Fellow with any necessary resources including any specialized training that may help the Fellow complete their tasks, or grow professionally. Within the first month of orientation, the Fellow will complete required FDEP online training for new employees (e.g., public records, sexual harassment, etc.) to be repeated as required by FDEP policy. Many additional online training courses for professional development are available through FDEP at the Fellow's discretion. With input from the Supervisor (the CRCP Assistant Manager), the Fellow will develop a project work plan that will be re-evaluated after completion of year one.

6. Project Partners

The CRCP works actively with many partners through SEFCRI and its other initiatives including local, state, and federal agencies, universities, and non-governmental organizations, environmental consultants, private business, and citizens. One ongoing example of a vibrant cooperative management partnership in the southeast Florida region is the Coastal Zone Management Program (CZM) funded *Coordinated Coral and Hardbottom Ecosystem Mapping, Monitoring, and Management Project*, which is co-led by FDEP CRCP and FWC's Fish and Wildlife Research Institute's (FWRI). Since 2011, this project has allowed CRCP and FWRI to work together on a variety of mapping efforts and resource management-related projects. The partnership has helped support the ongoing *Our Florida Reefs* Community Planning Process. Many of the resources to be used during this process, to help educate working group members about the current status of coral reef ecosystems, will come directly from the project outputs from FWRI and other partners in the region. FWRI and CRCP also partnered together to successfully apply for the CZM 309 Project of Special Merit Award, for further resources to help improve CRCP's capacity and outreach efforts during the *Our Florida*

Reefs Process. This project is paramount in showing the State of Florida's long-term commitment, investment, and ability to leverage funds across state and NOAA programs (e.g., NOAA CRCP & NOAA CZM).

7. Cost Share Description/In-Kind Support

The Fellow will be provided access to amenities, including office space and equipment, individual computer, telephone, fax, and email throughout the Fellowship period. Use of agency vehicles and vessels) will be permitted for official purposes, in accordance with FDEP policies. In addition, CRCP will provide support for procurement of supplies, software, printing, photocopying, mailing, and incidental costs for project products, in accord with assigned tasks and within the CRCP operational budget. The \$15,000 non-federal Fellowship match will be provided by the FDEP from an existing state trust fund (anticipated from the Ecosystem Management and Restoration Trust Fund, for which the FDEP has administrative control and the CRCP has budget authority).

8. Strategic Focus Area

The tasks outlined above address all three of the Fellowship's strategic focus areas in the following ways:

Healthy Coastal Ecosystems

- Build innovative natural and social science research capacity, products, and applications that reflect user-driven science, and synthesize, visualize, communicate, and transfer research results to strengthen policies and decisions, and effectively manage coastal and ocean resources. **Addressed by Tasks 1 & 2.**
- Increase and enhance opportunities for the public, students, and teachers to experience, understand, and appreciate coastal resources and make informed environmental decisions. **Addressed by Tasks 2 & 3.**
- Support coastal and ocean resource managers through cooperative funding, data, information, tools, training, technical assistance, analysis, and exchange of best practices to strengthen ecosystem policies, build capacity, and implement prioritized management efforts. **Addressed by Tasks 1 & 2.**

Resilient Coastal Communities

- Foster user-driven science and assessment efforts to enhance understanding of natural, social, and economic impacts of coastal hazards and climate change, and the approaches needed to adapt to and communicate about these threats. **Addressed by Task 2.**
- Build capacity to pursue strategies such as hazard preparedness, mitigation, and post-hazard redevelopment planning by providing an integrated suite of data, information, training, technical assistance, cooperative funding, and policy tools to coastal communities. **Addressed by Tasks 1, 2, & 3.**

Vibrant and Sustainable Coastal Economies

- Promote policies and practices that foster trust, transparency, predictability, and efficiency in government decision-making for coastal and ocean uses. **Addressed by Tasks 1, 2, & 3.**
- Assist coastal decision makers in conserving active and passive recreational uses by providing socioeconomic data, information, visualizations, technical assistance, funding, and tools. **Addressed by Task 2.**
- Understand, quantify, visualize, and communicate ecosystem services of key natural areas along the coasts to inform decision-making. **Addressed by Tasks 1, 2, & 3.**

9. Acronym List

AA	Awareness and Appreciation
CRCP	Coral Reef Conservation Program
CRPA	Coral Reef Protection Act
CZM	Coastal Zone Management Program
FDEP	Florida Department of Environmental Protection
FDOU	Fishing, Diving, and Other Uses
FWC	Florida Fish and Wildlife Conservation Commission
FWRI	Fish and Wildlife Research Institute's
LAS	Local Action Strategy
LBSP	Land-Based Sources of Pollution
MICCI	Maritime Industry and Coastal Construction Impacts
OFR	Our Florida Reefs
RIPR	Reef Injury Prevention and Response Program
SEAFAN	Southeast Florida Action Network
SEFCRI	Southeast Florida Coral Reef Initiative
USCG	U.S. Coast Guard
USCRTF	U.S. Coral Reef Task Force