FLORIDA RESTORE ACT CENTERS OF EXCELLENCE PROGRAM

2018 Annual RESTORE Council Report

A. Executive Summary

The Florida RESTORE Act Centers of Excellence Program (FLRACEP) closed out the initial ten Centers of Excellence research grant awards funded through the first Request for Proposals in May of 2018. While these awards were slated to close November 30, 2017, Hurricane Irma in 2017 caused significant delays and disturbances to data collection, analysis and manuscript preparation, and all awards were issued no-cost extensions. FLRACEP's long-term fisheries monitoring project, funded the program's second Request for Proposals, underwent an external science review in June of 2018. In July, the Program Management Team (PMT) opted to extend elements of the program for a further three years, and the program is updating an Application for Funds with the Treasury Department's Office of Gulf Coast Restoration in order to provide funds for these activities. In addition to extending the fisheries monitoring project, the PMT approved the content and timing for FLRACEP's next Request for Proposals (RFP III): marine wildlife research grants, habitat mapping coordination, and science support for Northwest Florida Panhandle Estuary Program planning. RFP III release is estimated for January 2019, with subsequent RFP releases targeted for every two years afterward.

B. Background

On August 20, 2015, the Department of the Treasury issued the Florida Institute of Oceanography its first award for the project titled "Florida RESTORE Act Centers of Excellence Program (FLRACEP)" to solicit and issue sub-awards for Florida Centers of Excellence research grants for the eligible disciplines:

1. Coastal fisheries and wildlife ecosystem research and monitoring in the Gulf Coast Region; and
2. Comprehensive observation, monitoring, and mapping of the Gulf of Mexico.

Priority objectives within these eligible disciplines, as taken from public scoping and Program Management Team review included:

1. Improve data and information products:
    a. To enhance biological observations (including real- or near-real time) required for monitoring fisheries, wildlife, and related productivity
    b. To assess and map habitat (especially Essential Fish Habitat as defined by state and federal management) location and condition
    c. To increase and improve fishery independent data for stock assessments (benchmark and updates).
2. Develop innovative approaches and technologies:
    a. To assess fish populations, fishing activities, ecosystem impacts of fishing activities, and pressure on resources
    b. To improve recreational fisheries data collection (including landings and bycatch)
    c. To promote the pace, scope and efficiency of stock assessments
    d. To increase trust in fisheries data, related syntheses and products (e.g., models).

FLRACEP selected ten research grant projects at eight Florida Centers of Excellence under RFP-1 via the peer-reviewed, competitive process detailed in the program Rules and Policies. These 2-

year sub-agreements were executed in September and October of 2015.

On January 11, 2017 the Department of the Treasury issued an extension of the existing FLRACEP award in order to fund a long-term fisheries monitoring Center of Excellence project under the second Request for Proposals process (RFP-2). The peer-reviewed, competitive review and selection procedures followed approved program Rules and Policies. Per the terms of RFP-2, the initial 2-year project may be extended for up to 15 additional years after science and management review of progress. The first of these reviews was conducted in June and July of 2018.

FLRACEP submitted a new application to the Department of the Treasury for funds to extend the long-term fisheries monitoring work at the University of Florida Center of Excellence, and to support the development, release, review, and selection of RFP III Centers of Excellence in 2019.

C. Programmatic Elements

1. Award Recipient

The Florida Institute of Oceanography (FIO) is an Academic Infrastructure Support Organization (AISO) of the State of Florida approved by the State University System's Council of Academic Vice Presidents, ratified by the presidents and chairs of the boards of trustees of the member organizations and approved by the Florida Board of Governors (BOG). Under a Memorandum of Understanding ratified by the member organizations and approved by the BOG, the University of South Florida (USF) assumes the role of host university, and fiscal accounting functions are administered by USF and overseen by the USF Board of Trustees. FIO is the Gulf Coast State Entity for administering Florida's RESTORE Act Centers of Excellence Program.

The FLRACEP includes the following organizational elements:
PROGRAM OFFICE: FIO serves as the FLRACEP program office. The FIO Director is ultimately responsible for program funds and performance; the Program Director reports to the FIO Director and is responsible for programmatic tasks that the Gulf coast state entities must perform including: coordination of competitive selection process for FL Center of Excellence grants; developing award terms and conditions and monitoring performance based on required deliverables and metrics; and coordination with other Gulf restoration programs as mandated by the guidelines and RESTORE Act. The Program Director also represents the Florida Centers of Excellence on regional coordination efforts (e.g., NOAA RESTORE Science Program advisory working group, etc.).

PROGRAM MANAGEMENT TEAM (PMT): The PMT includes the FIO Director and other senior-level advisors appointed by the FIO Director, based on their knowledge of FL regional science, technology and management needs. Members are not eligible to submit or participate on FLRACEP grants or contracts. Duties include: review and approve all FLRACEP Requests for Proposals, review and rank Letters of Intent, determine proposals that will be awarded funding, participate in annual all-hands meetings, and other ad hoc

tasks on request of the FIO Director.

SCIENCE REVIEW PANEL (SRP): The SRP is an ad hoc team of science and technology experts not involved in any FLRACEP proposals, from in and outside Florida, responsible for technical review of CE grant proposals. Panelists are appointed by the FIO Director. Members change based on RFP priorities.

CENTERS OF EXCELLENCE: Per the approved program Rules and Policies, FLRACEP establishes Centers of Excellence via competitively awarded grants or contracts to produce outputs and outcomes that address the eligible disciplines. Specific responsibilities of the Principal Investigator and grantee institution are further defined in Requests for Proposals and in subsequent award terms and conditions. Notably, CE projects are expected to produce at least one peer-reviewed journal article.

2. Award Subrecipient(s)

A. Current Award Recipients: The current project was awarded under RFP-2 in July of 2016 to address the comprehensive observation, monitoring, and mapping eligible discipline. Finalization of the sub-award was completed after the Department of Treasury issued an extension with funds in January of 2017.

FLRACEP RFP II CE--University of South Florida

PI Last Name: Peebles; PI Institution: Univ. of South Florida; Title: Spawning Habitat and Early-Life Linkages to Fisheries (SHELF). Executive Summary: This project will develop and test innovative approaches that can independently estimate population sizes for Florida's offshore reef fish – aimed primarily at snappers and groupers. The proposed method for population assessment is direct; the number of spawning fish will be estimated from the number of drifting eggs they produce. New forensic methods involving DNA ("DNA barcoding") are now available to identify eggs with great precision. The direct method for estimating numbers of adult fish, known as the "Daily Egg Production Method," or DEPM, will be developed over a two-year pilot study that will demonstrate the method's applicability to Florida's reef-fish while making technical improvements to the details of the approach. The DEPM method has already been successfully put to use in different locations around the globe, including Europe, Australia, and other parts of North America. In addition to DEPM, the proposed work will include sophisticated, technology-based studies that will improve our understanding of how fish use different habitats during different life stages, allowing fisheries scientists to test ideas about habitat relationships with fish populations in a more information-rich atmosphere. Its primary goals are (1) to develop a monitoring system that can explain and possibly lead to the prediction of variation in year-class strength, and (2) to develop practical methods for fisheries-independent stock assessments with emphasis on activities that contribute to marine fisheries management.

B. Prior Award Recipients: The PMT previously selected ten (10) research projects from eight (8) Florida Centers of Excellence to address the Coastal Fish and Wildlife Research and Monitoring eligible activity under RFP-1 via 2-year research grant awards. In brief, the eight awarded Centers of Excellence and ten projects are:

1) FLRACEP CE 1--Project # 1--University of Florida
PI Last Name: Allen; PI Institution: Univ. of Florida; Title: Examining Fisheries Impact of Invasive Lionfish with an Ecopath with Ecosim Model.

2) FLRACEP CE 2--Project #2--University of Miami
PI Last Name: Ault; PI Institution: Univ. of Miami; Title: Biological and Economic Indicators for Assessing Recreational Fisheries.

FLRACEP CE 2--Project # 3--University of Miami
PI Last Name: Babcock; PI Institution: Univ. of Miami; Title: Improving the use of products derived from monitoring data in ecosystem models of the Gulf of Mexico.

3) FLRACEP CE 3--Project # 4--Florida International University
PI Last Name: Boswell; PI Institution: Florida International Univ.; Title: Fishery-Independent Surveys of Reef Fish Community, Size, and Age Structure off Northwest Florida.

4) FLRACEP CE 4--Project # 5--University of West Florida
FPI Last Name: Caffrey; PI Institution: Univ. of West Florida; Title: Evaluating Fish Production and Ecosystem Impacts of Artificial Reefs.

5) FLRACEP CE 5--Project # 6--Florida State University
PI Last Name: Grubbs; PI Institution: Florida State Univ.; Title: Monitoring oil spill effects and recovery in large deep-sea fishes.

6) FLRACEP CE 6--Project #7--University of South Florida
PI Last Name: Lembke; PI Institution: Univ. of South Florida; Title: Demonstration of Fisheries Assessment Applications for Underwater Gliders.

FLRACEP CE 6--Project # 8--University of South Florida
PI Last Name: Peebles; PI Institution: Univ. of South Florida; Title: Egg and larval barcoding for Gulf DEPM stock assessments.

7) FLRACEP CE 7--Project # 9--University of Central Florida
PI Last Name: Mansfield; PI Institution: Univ. of Central Florida; Title: Ontogenetic Shifts in Sea Turtle Habitat Use and Foraging Ecology.

8) FLRACEP CE 8--Project # 10--Nova Southeastern University
PI Last Name: Walker; PI Institution: Nova Southeastern University; Title: Hardbottom Mapping and Community Characterization of the West-Central Florida Gulf Coast.

D. Financial Elements

1. Award Recipient

Budget narrative: Funds available to FLRACEP from the Transocean and Anadarko settlements have all been obligated as of September 30, 2016, totaling $4,707,093. The

initial award authorized $2,763,728 for CE research grant sub-awards (see below), $478,257 for administrative costs (staff salaries, travel, data management, science and program management review, etc), and set aside $427,322 for a Gulf-wide monitoring collaborative project to-be-determined. The monitoring collaboration did not materialize, and these funds were reprogrammed and added to the Department of Treasury application for $670,855 to support the RFP II CE for ecosystem monitoring.

FLRACEP has received funds and obligated project funding to the Centers of Excellence:

- Initial financial assistance of $4,036,238 was awarded from the Department of Treasury in August 2015.
- In January 2017, FLRACEP met Treasury's special award condition for $427,322 and the funds were approved to reprogram the funds to support RFPII which included Gulf-wide monitoring.
- Also in January 2017, additional financial assistance in the amount of $670,855 was requested and approved, bringing the new amount of financial assistance for FLRACEP program to $4,707,093.
- FLRACEP awarded $2,767,524 for CE projects in RFP I, to-date, $2,721,902.32 has been expensed in sub agreements through September 30, 2018 (includes final CE reporting's). The estimated pending unspent funds from sub agreements is $45,621.68. As of this report, three sub-agreements are under internal audit and final expenditures are still pending additional documents and finalization. Estimated unspent dollars is subject to change at conclusion of audit.
- FLRACEP RFP II ecosystem monitoring sub-award for $887,200 was executed on March 27, 2017. As of September 30, 2018, expenditures paid to-date $529,251.20 has been requested for reimbursement. Due to monthly financial ledger at USF, the $529,251.20 includes expenditures of RFPII Y2Q4 but is not yet finalized and is subject to change.
- FLRACEP programmatic expenditures are $184,572.89 from October 1, 2017 to September 30, 2018 performance period.

2. Award Subrecipient(s)

Budget narrative: The Department of Treasury FLRACEP award authorizes $3,654,724 for CE research grant sub-awards (details below).

Centers of Excellence Expenses through September 30, 2018:

Florida Institute of Oceanography (Florida RESTORE Act Center of Excellence Program)				
Award	Project Name	CE Name	Awarded	Expensed To-Date
RFP I	Assess management options to mitigate lionfish impacts to reef ecosystems	University of Florida	$294,006	$283,877.47
	Optimizing economic value and sustainability of Florida's recreational fisheries	University of Miami	$294,000	$290,529.04
	Better use of directly-observed data in ecosystem simulation models	University of Miami	$294,000	$279,672.41
	Informing fishery-independent reef fish surveys through advanced survey techniques	Florida International University	$290,742	$290,741.95
	Evaluating the role of artificial reefs as hotspots of biological productivity	University of West Florida	$293,991	$290,147.47
	Study will examine long-term effects of DwH on large deep-sea fishes	Florida State University	$293,960	$288,255.05
	Robotic monitoring of Red Grouper in the Eastern GoM	University of South Florida	$293,555	$293,550.17
	Tracking sea turtle "lost years" in the Gulf of Mexico	University of Central Florida	$290,803	$290,772.88
	Egg and larval DNA barcoding support Gulf reef fish stock assessments	University of South Florida	$129,265	$121,926.17
	Habitat mapping to inform future survey efficiencies, management strategies, and climate change research	Nova Southeastern University	$293,202	$292,429.71
RFP II	Spawning habitat and early-life linkages to fisheries	University of South Florida	$887,200	$529,251.20
	Centers of Excellence Subtotal		$3,654,724	$3,251,153.52

E. Gulf Coast Ecosystem Restoration Council Element

1. Leveraging Multipliers

No FLRACEP projects or elements have leveraged RESTORE Act funding streams to the best of our knowledge, due in part to the differences in priority areas, timing of projects, and areas of focus. FLRACEP staff continue to work with other restoration science funding entities to explore opportunities for collaboration and leveraging of. In addition, our CE grantees have leveraged significant non-RESTORE resources in their work, and this can be made available upon request.