

REstoration, COordination, VERification (RECOVER)

Monitoring & Assessment for the Comprehensive Everglades Restoration Plan

South Florida Ecosystem Restoration Task Force, April 25, 2024

Gina Paduano Ralph, Ph.D.

Phyllis Klarmann

RECOVER Program Managers







PRESENTATION OUTLINE

- RECOVER Refresher
- Monitoring &Assessment Plan(MAP)- Good News!
- MAP Evaluation



WHO IS RECOVER?

CERP Programmatic and system-wide perspective

Collaborative and consensus-based

 Ensures CERP implementation is guided by the best available science

Three Major Components

- Assessment measuring system-wide performance of projects through research and monitoring
- Evaluation forecasting project performance through predictive modeling and performance measures
- Planning integrating RECOVER with planning and operation of the system







RECOVER MONITORING & ASSESSMENT PLAN: OBJECTIVES

Establish pre-CERP reference state

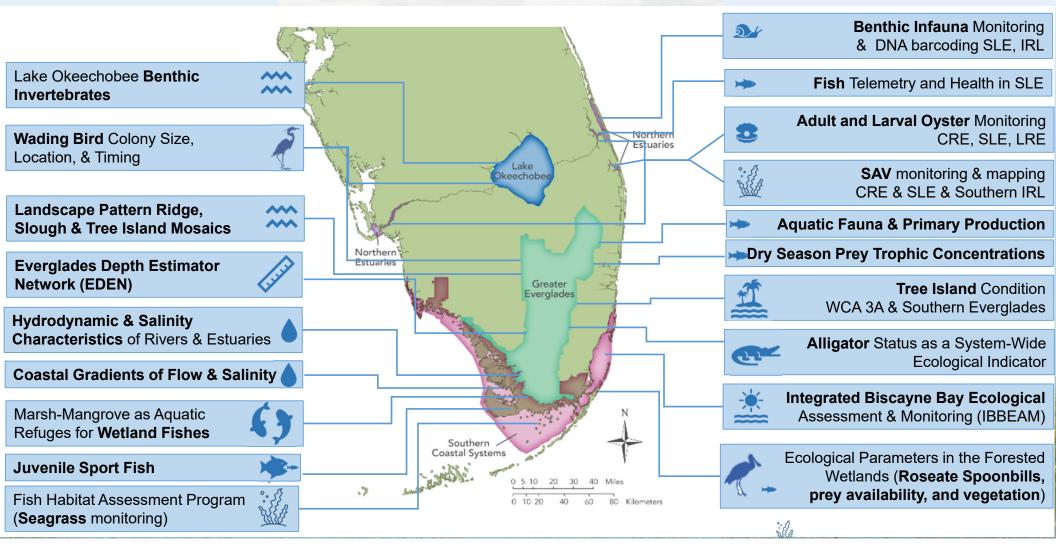
Provide the assessment of the system-wide responses

 Detect unexpected responses of the ecosystem to changes in stressors, resulting from CERP activities

 Support scientific investigations designed to increase ecosystem understanding, establish cause and effect relationships, and interpret unanticipated results



MONITORING FOR CERP IS SYSTEM-WIDE



RECOVER MAP: GOOD NEWS!

\$3.2M one-time (FY24) FDEP support for RECOVER Monitoring & Assessment Plan-

Mapping, tool development, critical science needs, and shortfalls of existing MAP

THANK

NORTHERN ESTUARIES: ~\$1.1M

- Benthic Mapping, sediment chemistry
- SAV Aerial Mapping
- Infauna sampling
- Large-bodied fish movement

LAKE OKEECHOBEE: \$330K

- Littoral vegetation mapping
- SAV and Wading Bird Models for Performance Measure development

GREATER EVERGLADES: \$1.2M

- Topographic/Vegetation mapping in WCAs
- Tree Island soil elevation change

SOUTHERN COASTAL SYSTEMS: \$540K

 Mangrove Experimental Manipulation Exercise (MEME) for coastal resiliency

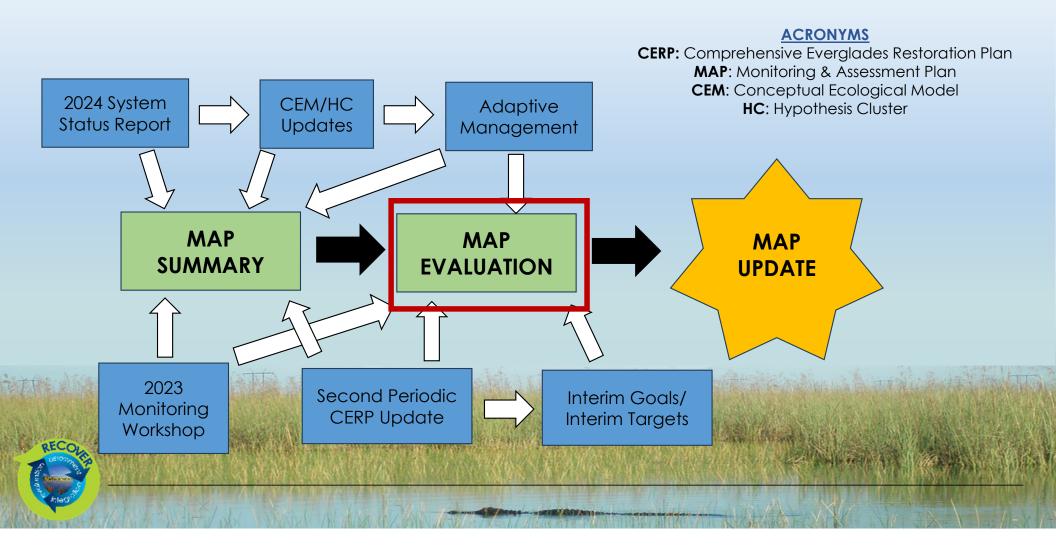








RECOVER MONITORING & ASSESSMENT UPDATE



RECOVER MAP EVALUATION

- Two Part System-Wide Evaluation:
 - Statistical review of the rigor of the current monitoring design for key indicators (wading birds, prey forage, and vegetative communities)- USGS
 - 2. New information: Science since 2009; Second Periodic CERP Update, CERP Programmatic Uncertainties-RECOVER



RECOVER MONITORING SUPPORTS:

CERP
Programmatic
Support

- Predictive Evaluation Tools (RECOVER Performance Measures, Habitat Suitability Index Models, USGS Joint Ecological Modeling)
 - Interim Goals and Interim Targets (IG/IT)
- Evaluation and Assessment Reports (IG/IT, Periodic CERP Update, System Status Report, Report to Congress)

Project-Specific Support

- Inform Project Justification during Planning Phase
 - -Regulatory Support
- Leverage & Supplement Project-Level Monitoring
 - Adaptive Management Guidance
- RECOVER Recommendations to Improve Project Performance Measures,
 - Evaluate Alternatives, Monitoring & Adaptive Management Plans
- RECOVER support during Design & Implementation (Project Operations, Monitoring and Adaptive Management)

South FL Ecosystem Restoration Support (CERP & non CERP)

- SFWMD annual South Florida Environmental Report
South Florida Ecosystem Task Force (System-wide Stoplight Indicator Report &
Biennial Report)

- South Florida Wading Bird Report
- Inform Water Control Plan Development
- Inform Weekly Water Management Decisions

LOOKING AHEAD: COORDINATION SUPPORT

