

**Minutes – Florida Keys and South Florida Ecosystem Connectivity Working Team
November 21, 2023**

Team Attendees: Karen Bohnsack, Cara Capp, Adam Gelber, Shelly Krueger, Steve Friedman, Nick Parr, Raechel Littman, Emma Haydocy, Chris Bergh, Suzy Roebling, Gina Ralph, Will Benson.

Other Attendees: Mia McCormick, Vanessa T., Marissa C., Izzy Stoute, Nikki Edelenbos, Teresa Strazisar, Gretchen Luchauer, David Weinstein, Mike Gravitz Marine, Becky Allenbach, Marcelo Balladares, Guest speaker: Dr. Wesley Brooks.

Absent: Jerry Lorenz, Joe Weatherby, Erin Muller, Kelly Cox, Steve Davis, Matt Semcheski, Amelia Moura, Mike Goldberg, Paul Julian, Tylan Dean, Luke McEachron, Steve Blackburn, Chris Madden.

November 21, 2023 Action Items: (also found within the minutes in applicable agenda items)

- Action Item: Karen will find a way to share RECOVER products with the group since the files are very large.
- Action item: Marisa will share draft resolution re: Restoration Blueprint document with Team via email along with meeting minutes.

Agenda:

o Welcome, Introductions, Administrative Items

Cara Capp called the meeting to order at 10:00 am. Welcome remarks by Cara Capp and mission of the Florida Keys and South Florida Ecosystem Connectivity Working Team (“Team”). Karen Bohnsack captured roll call. Karen outlined Google Meet platform and the control buttons and features. Public comment will be after presentations and will have 3 minutes.

o Coral Reef Health and Restoration Efforts

Dr. Wes Brooks, Chief Resilience Office for the State of Florida and Chair of the Florida’s Coral Reef Coordination Team of the South Florida Ecosystem Restoration Task Force will provide an update on statewide coral protection and restoration efforts, the newly established Coral Reef Coordination Team, and state funding requests for coral research. He will also answer relevant questions from the team.

Propagating resilience in Florida, presentation from Dr. Wes Brooks. Coral reef restoration and conservation and the path forward for Florida’s Coral Reef, a national treasure. Why do we care about resilience? Flood mitigation and resilience activities are a means to improve quality of life for Floridians through expanded economic opportunity and enhanced environmental vitality. Resilience is finding the right ways to integrate nature back into human built environments. Governance is about coordination, and the Florida State Office of Resilience works closely with FWC, FDEM, FDOT, FDEP, Florida Commerce, and the 5 water management districts. Supporting local communities and their unique needs and supporting implementation of FDEPs Resilient Florida and funding investments for resilience and flood mitigation. Advance

ongoing state ecosystem restoration efforts and lower barriers to encourage greater adoption of nature-based features/natural infrastructure, plus capitalize on strategic collaborations – public-private partnerships, federal government, and DoD grants, University of Miami, state agencies for issues with siting and permitting.

Connectivity matters for resilience! A policy of eliminating flood risk is neither practical nor economically feasible. Significant opportunities remain to improve floodplain function and stormwater management across the state (+ water quality benefits too, which is especially important in nutrient limited coral reef system that is near a highly urbanized coastline). Florida's coordinated approach to supporting local communities in reducing flood vulnerability and enhancing resilience is critical to generating and preserving the economic activity and wealth necessary to weather and adapt to future risks. Preserving natural and working landscapes is a critical insurance policy for future growth and potential climate impacts. Florida is looking to do this at the local level for design and coordination and generating and improving economic activity.

Florida's Coral Reef (FCR) stretches 350 miles from St. Lucie Inlet to the Dry Tortugas (DRTO). FCR is the only coral reef system in continental US and has over 40 species of reef building corals. Now is a profound moment in time for restoration across a number of areas: 1) developments in the science and practice of coral husbandry, propagation, restoration, and ecosystem valuation; 2) progress towards Everglades Restoration; 3) state/federal management disputes and coordination; 4) emergence and spread of stony coral tissue loss disease (SCTLD); 5) FKNMS Mission Iconic Reefs (MIR); and 6) Restoring Resilient Reefs Act (reauthorization of the Coral Reef Conservation Act in 2022 to include emergency funding, coordination, and restoration; Marco Rubio pushed for an emphasis on restoration, which was not mentioned in the original act). FCR restoration must go hand in hand with Everglades restoration. Restoring hydrology upstream is critical piece for real FCR restoration downstream. Despite some disputes over jurisdiction and disagreement on solutions, the Biscayne National Park management plan recognized substantial issues that need to be fixed. Recognition vital to restore these systems.

SCTLD really highlighted issues with permitting and the disease needed to be treated as an emergency. Marine heatwave of 2023 and extended degree heating weeks required immediate permitting to move restoration corals in permitted coral nurseries to deeper water and land-based facilities. MIR is thinking about FCR issues at scale.

Florida's Coral Reef Coordination Team (FCRCT) was established on September 1, 2022 to serve as the principal advisory body to the Working Group and Science Coordination Group for issues impacting FCR and associated resources. Water Resources Development Act of 1996 authorizes the S. Fl Ecosystem Restoration Task Force and S. Fl Ecosystem Restoration working group to establish advisory bodies as necessary to assist the Task Force. FCRCT has 10 voting members, 10 non-voting members. On November 9, 2023 the FCRCT voted unanimously to pass the Unified SFER Monitoring Framework for FCR – this was an important step to lay out a roadmap

for how this team will proceed with their work. Many thanks to Karen Bohnsack for all of her work toward this effort, her efforts were vital!

Unified SFER Monitoring Framework for FCR is an iterative approach and will be relevant to this S FL Connectivity Team. Three key questions: (1) Can we detect changes in nearshore WQ across time and space because of Everglades restoration's anticipated hydrological improvements, and appropriately distinguish those signals from other 'pulse' or 'press' disturbance dynamics? (2) If so, how do those changes affect FCR and associated resources within the S. Fl ecosystem? (3) And, ultimately, do subsequent ecosystem responses manifest in measurable benefits for neighboring human communities?

Within 10 years, a lot more of Everglades restoration projects should be done adding increased flows to the SE Everglades system. Rehydrating coastal wetlands in Miami-Dade county being surveyed, which could add more flow to Biscayne Bay and potentially out to the reef tract. This framework will help ensure monitoring is in place to capture changes as they start occurring.

Current WQ monitoring systems are pretty fragmented. Need to justify and expand to ensure the data we are collecting across management jurisdictions is additive and useful across space and time.

FCRCT Unified SFER Monitoring Framework for FCR includes 4 priority focus areas, and a total of 10 actions.

Priority Focus (1): Inventory existing monitoring programs.

- Action 1: Inventory existing WQ monitoring programs along FCR and nearshore coastal waters of S. Florida.
- Action 2: Inventory existing biological or ecological monitoring programs related to FCR and associated resources within the S. Fl ecosystem. Important to tie WQ measures with biological measures to characterize links between WQ and ecological and biological health.

Priority Focus (2): Define an effective monitoring program to detect changes on FCR that are attributable to EVR.

- Action 3: Develop list of relevant parameters.
- Action 4: Identify Everglades restoration projects, operational schedules, etc. that may influence water quality on the reef.
- Action 5: Propose conceptual ecological model (CEM) and hypothesis clusters (HC) for FCR.
- Action 6: Propose ecological indicators for FCR.

Priority Focus (3): Identify monitoring gaps.

- Action 7: Define pragmatic changes to existing monitoring programs or implement data solutions that would improve data interoperability and enhance utility, while preserving original program aims.
- Action 8: Assess extent to which changes to existing WQM programs would be effective

Priority Focus (4): Develop, track and support implementation of consensus recommendations

- Action 9: Issuance of FCRC consensus recommendations to unify and enhance monitoring efforts across the region.
- Action 10: Facilitate implementation of recommendations.

Executive Order 23-06 by Governor DeSantis “achieving even more now for Florida’s Environment” to guide administration’s last 4 years environmental goals and implementation. Within Section 3: Protecting our coasts and making Florida communities more resilient. Paragraph D: Governor calls on Resilience Office and FDEP for restoration of natural infrastructure for coastal flood and storm protection. First budget request over \$10M to support the FCR3 initiative “aims to develop the infrastructure, technology, skilled workforce, and logistics necessary by 2050 to support the long-term recovery of no less than 25% of FCR.”

Over \$20M directly tied to the FCR were budgeted this year, in addition to IRL, BB, and WQ resilience. Visionary and aspirational! A lot of scientific, multidisciplinary restoration initiative is required. Must use existing genetic stock to restore FCR, including how genotypes influence phenotypes, ensuring propagule success, et al. Increasing scalability of coral reef restoration with state and federal support for infrastructure, technology, workforce, and logistics, \$9.5M in grants offered in first year for FCR3 Initiative.

FCR3 = Florida’s Coral Reef Restoration and Recovery Initiative will directly support coral reef restoration for years to come. Ongoing budget requests and fulfillment via the FL legislature. Early to mid-1990s is where FCR restoration is compared to Everglades Restoration and willingness to start investing money and scaling up solutions. Critical to long-term economic success of Florida.

Discussion and Q&A:

Link to supporting information: https://www.evergladesrestoration.gov/fl-coral-reef-coordination-team/november-29-2023-coral-reef-restoration-team-meeting-xbjzs-5tggbw4hf4-fwaap?ss_source=sscampaigns&ss_campaign_id=655cc50886958d0511846e27&ss_email_id=655cc6b2eac0c106db41eb54&ss_campaign_name=FCRCT+Virtual+Meeting%2C+11%2F29%2F23%2C+1-4PM&ss_campaign_sent_date=2023-11-21T15%3A16%3A46Z

Question: FCR3 legislation – what are those funding opportunities? Does it include emergency response? What do you think future state-level funding may look like?

- FCR3 will offer grant opportunities for agencies and groups. Will include genetics and restoration explicitly. Some cooperative institutes research still available and can support management agencies. Applied science focus and management questions are highlighted and included. NOAA Coral Reef Conservation Program (CRCP) has emergency authority but wasn’t necessarily connected to funding. Congress implementing a process for emergencies using NFWF as the vehicle for partners on the ground. There is a fund for disaster appropriations, waiting for Congress to appropriate some dollars to that and coral reefs are not explicitly named as available for funding

from this fund. State and local coordination using federal coral reef block grants – this means being able to use federal dollars to the conservation management agencies. Florida working very closely with the NOAA CRCP on that language and support. FCR3 Reef Action Plans are being developed to guide management and restoration goals; FCRCT should be providing content to the Reef Action Plans (RAPs) ideally to have monitoring the same from Kristin Jacobs Coral ECA to DRTO. Ideally, Florida will develop a single RAP to share coordination and resources.

Question: Record funding – where does this funding come from and what was the funding before? What was asked for, what is needed, and what was received funding-wise? How do we receive this funding in perpetuity?

- A. Federal funding: NOAA CRCP level funding ~\$33-34M annually. Higher than CRCA envisioned but not sufficient for authorizations included in Restoring Resilient Reefs Act (RRA); Marco Rubio was able to secure some of the block grants that went to state agencies and territories. State funding: typically for management \$8-12M per year. 2023 Governor Desantis' FCR3 Initiative maintained the \$8-12M and added \$10M for new program (essentially doubled). Hoping to maintain and grow with this Administration. Looking for new and innovative ways to support coral restoration to productive use for the system. Additional appropriation was for Osborne Reef – tire removal off FLL and a restoration plan for Osborne Reef. FCR3 infrastructure and efficiency must increase for coral propagation to double output (goal for year 1). FCR3 must be scaled up and increased capacity in the coral reef space for restoration gains that are necessary for economic benefits, commercial fisheries, seafood, storm protection. Reefs that offer flood protection demonstrated benefit will be targeted first in this initiative.

Resource from chat:

https://static1.squarespace.com/static/5d5179e7e42ca1000117872f/t/654bcff6a692904ae874f419/1699467254958/7b_IDS_Placemat+_110823.pdf

Question: Land conservation and natural infrastructure FCR3 – to what extent is land acquisition, submerged land acquisition, MPA etc. – any strategy or expectations toward this?

- A. Some movement towards your question. Upland land conservation – this is the connectivity piece – FCRCT will hopefully draw more of those connections. FDEP Resilient Florida Program has funded many land acquisition purchases. Everglades Restoration system has huge impact downstream to FCR. Restoring FCR for protective benefits is critical – but many of these connections have been severed, especially for flood control between Everglades and FCR. Tipping points are hard to recover from. BBSEER and Southern Everglades sustainability really needs that flood control barrier that a functional FCR provides.

o Public Comment

Izzy Stoute: member of Florida's public interest research group at Florida State University. Thank you for FCRCT work. 2/3 of FCR lies within Biscayne National Park and FKNMS. Believe FKNMS Blueprint should be adopted as soon as possible and requires partnership at the state and federal levels. How is this Team helping with the adoption and implementation of the FKNMS Blueprint? Thank you for rescuing corals in 2023; what is being done to prepare for summer of 2024?

o Team Member Updates

Shelly: August 2023 sponge die-off – Shark Key to Key Haven – Waltz Key Basin and Jewfish Basin impacted. Other folks reported up to Niles Channel above Summerland Key. Will Benson also documenting sponge die-offs in the Backcountry for summer 2023. Protracted algal bloom Niles Channel to at least NW Channel – one—two punch. Will has GPS and saw dying even prior to the algal bloom, persisted brown water from Marathon to Boca Grande, summer 2023.

Gina Ralph: RECOVER products from July 20 workshop now available. Monitoring inventory for CERP footprint. Includes: Key metrics, location, points of contact – identified overlaps and deficits. Gina will send the files to Cara or can send Gina Ralph an email. Is there a way to share on the Team Google Drive? YES! **Action Item: Karen will find a way to share RECOVER products with the group since the files are very large.**

Karen: next FKNMS SAC meeting is DEC 12. A future meeting may include more information about the sponge die-offs mentioned at this meeting (TBD if on the next agenda or not). October SAC meeting Jerry Lorenz gave presentation about BBSEER and draft resolution for SAC consideration for desired project features and potential benefits to the Sanctuary. SAC agreed and passed the resolution to be sent to the Army Corps and the SFWMD. Note: BBSEER round 3 modelling will be available end of December.

Florida Legislative season starts on January 9. Upcoming opportunities Everglades Action Day on February 7, 2024; early session this year. A charter bus will be leaving from Miami to drive to Tallahassee. Reach out to Cara for more info.

FKNMS Restoration Blueprint and the 2023 marine heatwave. New item for teams' consideration: (Marisa) draft resolution focusing on need to adopt the FKNMS Restoration Blueprint. Marisa will read the draft and can share the document via email if anyone wants the document.

Title: A resolution by the FKNMS SAC in support of implementation the FKNMS Restoration Blueprint. **Action item: Marisa will share draft resolution re: Restoration Blueprint document with Team via email**

Cara will send the document in an email to the Team along with the minutes. Deadline of early next week with any comments or additions. Cara called the meeting to adjourn at 11:54 am.

Previous September 19, 2023 Action Items

Action Item 1: Provide a resolution by the end of this week and circulate with the Team for comments and edits. Cara, Kelly, and Jerry can lead writing the resolution. Add to the “whereas” the connectivity between Florida Bay, Biscayne Bay, and the FKNMS, including fish populations that have moved south due to high water temps this year in Florida Bay.

Action Item 2: For the FKNMS SAC October 17 meeting - Karen will put time on the agenda (30 minutes). Need final resolution by Monday, October 2nd for advanced notice for any action item.

Action Item 3: Invite Wes Brooks to speak about Coral Task Team and OERI

Action Item 4 (January or March meetings): - Are we started to see seagrass impacts in Florida Bay from marine heat wave this summer? Dr. Jim Fourqurean noted high temps in July/August had not yet impacted seagrass but those impacts could manifest in October when the solar period declines and longer periods of nighttime hypoxia.

Action Item 5: Karen will contact Superintendent of FKNMS, Sarah Fangman to add Dr. Raechel Littman from Florida Bay Forever and a coral scientist at College of the Florida Keys as a new Team member and will change Paul Julian’s affiliation to Everglades Foundation (pjulian@evergladesfoundation.org).