

FLORIDA KEYS NATIONAL MARINE SANCTUARY ADVISORY COUNCIL

MEETING NOTES

Tuesday, June 20, 2023

***Marathon City Council Chambers
Marathon, FL 33050***

Attendees:

Council Members:

Citizen at Large – Upper Keys: Kate DeLoach (absent)
Citizen at Large – Middle Keys: George Garrett
Citizen at Large – Lower Keys: Mimi Stafford (absent)
Boating Industry: Ken Reda
Diving – Upper Keys: Seanna Knight
Diving – Lower Keys: Joe Weatherby (absent)
Fishing – Charter Fishing Flats Guide: Will Benson
Fishing – Charter Sports Fishing: vacant
Fishing – Commercial – Marine/Tropical: Ken Nedimyer
Fishing – Commercial – Shell/Scale: Daniel Padron
Fishing – Recreational: Karen Angle (absent)
Tourism – Upper Keys: Lisa Mongelia
Tourism – Lower Keys: Andy Newman
Conservation and Environment (seat 1): Ben Daughtry (absent)
Conservation and Environment (seat 2): Jerry Lorenz (absent)
Research and Monitoring: Erinn Muller
South Florida Ecosystem Restoration: Kelly Cox
Education and Outreach: Shelly Krueger
Submerged Cultural Resources: Diane Silvia
Elected County Official: Jim Scholl (absent)

Council Alternates (present):

Citizen at Large – Upper Keys: Jessica Dockery
Citizen at Large – Middle Keys: Bobby Dube
Citizen at Large – Lower Keys: Stephen Patten
Conservation and Environment (seat 1): Jesse Joy
Conservation and Environment (seat 2): Caitlin Lustic
Fishing – Charter Fishing Flats Guide: Bob Beighley
Fishing – Recreational: Gary Jennings
Tourism – Upper Keys: Ginny Oshaben
Tourism – Lower Keys: Eddie Kertis
Research and Monitoring: Karen Neely
South Florida Ecosystem Restoration: Marisa Carrozzo

Agency Representatives (present):

Florida DEP: Nick Parr
Florida FWC Law Enforcement: Capt. David Dipre
NOAA Fisheries: Lauren Waters
NOAA OLE: Officers Justin Powell and Russell Keifer
US Coast Guard: Hayden Hunt
US Fish and Wildlife Service: Chris Eggleston, Greg Boling,
US Navy: Wendy Wheatley-Techmer

Municipalities (present):

City of Layton: Councilwoman Cynthia Lewis
City of Key Colony Beach: Vice Mayor Beth Ramsay-Vickrey

I. CALL TO ORDER, ROLL CALL, CHAIRPERSON'S COMMENTS

The meeting was opened with the Pledge of Allegiance and called to order with roll call at 9:07 am. Council chair George Garrett welcomed the council and members of the public.

The chair introduced the agenda for this meeting as well as the notes from the April meeting for council approval, both were motioned, seconded, and subsequently approved. Ken Nedimyer made the motion to approve the April notes with no edits, with a second from Ken Reda. Gary Jennings made the motion to adopt the agenda for this meeting with a second from Ken Nedimyer.

George thanked the members for their attendance and acknowledged those who are stepping down from the Advisory Council. He also noted that the council will hold a public comment opportunity at 2:50 pm today.

Each of the new members were invited to introduce themselves to the group. Joining the council this month are:

- Jesse Joy - Conservation and Environment Seat 1 (alternate) - captain and eco tour guide. Jesse has been in the keys for 9 years, between Key Largo and Key West. Much of his career has centered on education and outreach about the Florida Keys.
- Seanna Knight - Upper Keys Diving - dive instructor and conservation coordinator at Florida Keys Dive Center and Islamorada Dive Center.
- Kate DeLoach - Upper Keys Citizen at Large - Kate grew up in the Keys and now lives in Tavernier where she is a partner at the Southern Group.
- Jessica Dockery - Upper Keys Citizen at Large (alternate) - Reef Revitalization Project Liaison at United Way of Collier and the Keys, previously served on the council several years ago in the Conservation seat while working as an environmental educator.
- Karen Neely - Research and Monitoring (alternate) - A research scientist with Nova Southeastern University, Karen originally came to the Keys as an instructor at Seacamp,

and has lived and worked out of Big Pine Key now for 22 years. Karen did her PhD work in the Keys and currently works primarily on coral disease.

In addition to five new members, the following were invited to remain on the council for a second term in their current seat:

- Erinn Muller - Research and Monitoring
- Karen Angle - Recreational Fishing
- Gary Jennings - Recreational Fishing (alternate)
- Ken Reda - Boating industry

Finally, the council thanked four outgoing members for their time and dedication over the years. Each of the following members has been an active and valuable participant, and the council thanks them for their service:

- Elena Rodriguez - Upper Keys Diving
- Patrick Rice - Research and Monitoring (alternate)
- Suzy Roebing - Upper Keys Citizen at Large
- Dave Makepeace - Upper Keys Citizen at Large (alternate)

II. COUNCIL CHARTER RENEWAL DISCUSSION

Advisory Council coordinator, Liz Trueblood, shared that the draft charter had no issues noted upon preliminary review, this is the final product that resulted from our editing session in April. If there are no changes needed, we can go ahead and vote to accept this as our charter for the next five years. Once the council has approved, Liz will route the charter to John Armor for his signature.

Ken Reda made a motion to approve the revised Advisory Council Charter for the next five years. Gary Jennings seconded the motion. A vote was called, and the charter was unanimously approved with 17 voting members present.

Roll call vote: The following seats voted to approve the Charter:

Citizen at Large – Upper Keys: Jessica Dockery
Citizen at Large – Middle Keys: George Garrett
Citizen at Large – Lower Keys: Stephen Patten
Boating Industry: Ken Reda
Diving – Upper Keys: Seanna Knight
Fishing – Charter Fishing Flats Guide: Will Benson
Fishing – Commercial – Marine/Tropical: Ken Nedimyer
Fishing – Commercial – Shell/Scale: Daniel Padron
Fishing – Recreational: Gary Jennings
Tourism – Upper Keys: Lisa Mongelia
Tourism – Lower Keys: Andy Newman

Conservation and Environment (seat 1): Jesse Joy
Conservation and Environment (seat 2): Caitlin Lustic
Research and Monitoring: Erinn Muller
South Florida Ecosystem Restoration: Kelly Cox
Education and Outreach: Shelly Krueger
Submerged Cultural Resources: Diane Silvia

III. DRAFT RESOLUTION IN SUPPORT OF LOCAL WEATHER STATIONS

George noted the importance of the publicly available weather stations that previously existed in the Keys, and summarized the purpose of the resolution. The resolution speaks to an interest in maintaining the long term monitoring stations and increasing the number of weather stations. What existed in the past could be re-envisioned in the future.

Andy Newman made a motion to accept the draft resolution as written, Ken Nedimyer seconded the motion. The motion passed with no objections. George will write a cover letter and formally submit the resolution to the superintendent.

V. BUOY WORKING GROUP UPDATES AND PUBLIC INPUT OPPORTUNITY

Working group co-chairs Lisa Mongelia and Will Benson gave an update on the recent progress and discussions within the [advisory council's buoy working group](#). Will provided a reminder that last year the SAC recommended the creation of a working group to consider buoys, markers, and signage as the Restoration Blueprint comes to fruition. Nina Garfield, on temporary assignment with FKNMS, has supported the group's organization and synthesis alongside the chairs. Will thanked the members who participated on the working group over a series of meetings, and presented an overview of the outcomes of the working group thus far.

The objectives of the working group were to prioritize implementation strategies, locations, and types of buoys recommended within the sanctuary, as well as to develop management and financing strategies to support those recommendations. Several group and one-on-one meetings were held with stakeholders to get feedback. That information was collaged and organized, then revisited by region, with the Upper Keys and Lower Keys split into two groups who met in person.

The buoy working group identified a number of issues, including: impacts from divers and snorkelers on the reef and restoration sites; boater impacts on the reef and seagrass beds; buoys that could be reallocated to other areas for improved efficiency and cost effectiveness; particular areas that are difficult to manage with buoys; prop scars in the backcountry; importance of

education, law enforcement, updating maps, and fundraising. Education for the community could be from many different venues including dive shops and boat rentals.

Recommended strategies include: Rotate a subset of buoys in and among specific areas to manage impacts of use on coral habitat, alleviate use pressure on restoration areas, shift location of some buoys to reduce site pressure and open up new access opportunities, use submerged buoys to support restoration and research, strategically locate buoys and subsurface infrastructure to support dive shops with certification needs, and expand use of spar buoys to provide clear zone information.

These results are being organized into a spreadsheet by strategy and location. For example: selected Molasses Reef buoys could be redistributed from the current mooring field to patch reef areas. This one change may address three of the identified issues. The level of impact may be used to prioritize the order in which these strategies are implemented and where.

The group also identified other recommendations, including: deep water buoys at wreck sites; boater education and ensuring mariners know the proper way to use the buoys; partnerships in the community such as through a buoy sponsorship program; updating charts and GPS technology with new boundaries; considering a process for the SAC to discuss buoys on a regular basis following the conclusion of this initial working group process; and trying different pilot approaches in selected locations in order to evaluate their use on a larger scale.

Will noted that there is a disconnect between budget and what needs to be done. The group was very interested in developing community partnerships to identify mechanisms to help bridge this gap. It is important to be clear in the end goal of these various efforts (e.g., reducing resource impacts, making it easier for users to enjoy resources, alleviating law enforcement challenges, etc.). Will also acknowledged that this effort can showcase how the sanctuary and the advisory council are listening to what users want and what the public has to say, in addition to improving management efficacy and resource condition.

The next step is to get feedback from the community, including today during a public comment period and a council discussion period. The working group plans to draft a report and deliver it to the council for review before the August meeting. The recommendations are based on expertise and considerations from a variety of users. The hope is that this expertise will be carefully considered and implemented.

Council Discussion / Q&A:

Q: Ginny Oshaben: Are you reaching out to all the dive shops? If people aren't tying up to the buoys correctly, can there be a graphic on the buoy that suggests they use a line?

A: Yes, as many as we can. The communications strategy moving forward is that the dive community members on the working group will reach out to their constituency in the Keys in the coming weeks. Using a graphic is a great suggestion.

Q: Erinn Muller: What communications tools will be available for members of the SAC to reach out to their constituents?

A: This will be further discussed following today's meeting and talking points or other communications material will be emailed to members.

Q: Eddie Kertis: Approximately 90% of the buoys in Australia are privately owned and funded, and much of the area does not allow anchoring. The government manages the standards, permit and approval processes. The buoys are available to everyone but if the owner shows up they must be vacated. Has there been any consideration for private buoys and a similar system?

A: Yes, this was discussed in a few variations. There are some legal questions in terms of how much this would be allowable within FKNMS.

Andy Newman: The TDC cannot pay for buoys, but they can and have paid for anchor installation.

Q: Bobby Dube: Noted the former Key Largo Marine Sanctuary and research done by John Halas. Now we are in an era with QR codes; this could be another mechanism for helping people understand how to properly tie up to a mooring buoy. This could have other brief information about the resources too.

A: The QR code idea has come up a lot. Sometimes at the reef you are out of cell phone range, so more thought will have to go into figuring out how to deal with this. Several discussions have emphasized the importance of users engaging with the Sanctuary Explorer Application before they go out to the reef; also having the QR codes at other areas close to land such as at the marinas and on rental boats.

Jessica Dockery: Consider reaching out to local youth. They are good at media and could be engaged to help create the outreach tools. These are the members of our community who will be going into the various industries.

Ken Nedimyer: Recommend another buoy color scheme, such as red for restricted access at coral nursery locations and active restoration areas. A color may be more obvious than marking the buoys with text.

Q: Sarah Fangman: Thanked the working group for their efforts. It is exciting to be at the point where we are discussing implementation of the Restoration Blueprint. She emphasized that the council today had a very high level introduction to the working groups recommendations and

that there is a lot more detail that will be available. There is a lot of effort and careful thinking that will go into implementing these recommendations, including figuring out a step-wise way to work through these processes. For example, if people still don't know how to use buoys, we need to be smart about how we tackle these recommendations. Others have complex nuances that need to be worked through, such as the barriers to more public-private partnerships for buoys. How do we carefully do this to make it both practical and safe.

A: Will also acknowledged the sanctuary buoy staff and how much effort it takes to maintain the existing system.

Q: Daniel Padron: Education was one of the most common discussion points for the working group - for example what you can and cannot do at different locations, how to tie up, etc. Another suggestion was an online portal to reserve a mooring ball. If this was implemented, it could be paired with more information about how to use the moorings, what the colors mean, etc.

A: Will added that this may take several years to evaluate and implement. This is why there is an interest in continuing to engage the council as this effort evolves.

Q: George Garrett: There was also discussion about channel markers among this group. This is another issue that goes hand-in-hand with the mooring ball conversation, and is equally important to implementing the Restoration Blueprint. Education is an important piece; there are many people that come to the Keys so it requires a constant process to educate them.

A: Yes, channel markers were discussed, especially in the backcountry. A major driver for buoys is to alleviate habitat impacts. They focused primarily on alleviating reef impacts with mooring buoys to this point; channel markers will likely be part of the information presented in August. This has currently been considered as a pilot approach to deploy buoys to mark the backcountry.

Sarah Fangman noted that one idea that came up was a recognition that FKNMS capacity to manage is limited and use is increasing. Some suggested changes are significant to how we have historically managed and used the buoy system. These buoys have been almost exclusively managed by FKNMS, they are free and first-come-first serve. These basic tenets of the system are now up for discussion. She asked council members to share their perceptions of the tolerance among the community for changing some of these fundamental principles.

- Andy Newman: His concern is how to enforce changes such as a reserved buoy? We already have enforcement challenges. If someone is unaware of a reserved buoy, then the person how reserved it showed up, how would that be handled?
- Capt. Dipre: Acknowledged that enforcement for that is not possible. Officers will likely be unavailable to 'write a parking ticket' of sorts.
- Ken Nedimyer: Suggested that a portion of the buoys would be reserved for certain portions of the community. For example, a specific color-coded buoy would be reserved for dive shops. Or all restricted buoys could be the same color. A fee could also be

collected for their use and used to help maintain the system. At least at first, we will need to retain a portion of buoys without charge. Parking used to be free too.

- Jessica Dockery: Dive shops make calls on the fly; they pick a buoy on the way out based on real time conditions. They also constantly switch buoys amongst themselves. This may affect the ability to book buoys ahead of time. There are other questions about how many buoys can be booked, how far ahead can they book, etc.?
- Daniel Padron: City of Key West has a mooring field off of Fleming Key with 150 moorings. If more than 5 are open at any given time, that's a lot. Those rent for \$415 per month. There are over 800 moorings in FKNMS that are free. Renting these for a small amount would generate a lot of revenue that could fund enforcement, repairs, etc. The reservation system would also offer a mechanism to push information to the public. A way to generate revenue is key to sustaining the system and law enforcement.
- Erinn Muller: Loves the idea of a reservation system. Virgin Islands National Park takes fees for mooring use (but only overnight). They have "Bay Hosts" who are composed of citizens who live in the bay, educate people on how to tie up, collect fees, etc. There is precedent for doing this in the Federal Government. A similar system with a "Reef Host" could be used in high traffic areas. This would assist with education and law enforcement capacity.
- George Garrett: Expressed support for Erinn's ideas. Law enforcement in key areas is important; with that and "hosts" that would help with the overall education and outreach program.
- Justin Powell (NOAA LE Officer): We already have an app available that people are not using. We need to get this out to people so they can access the good information that exists on it. This could be modified to include information about how to tie up a buoy, what buoy is available vs. not (if pushing a reservation system), etc. Consider billboards on US-1 and in Miami-Dade County.
- Sarah Fangman: The original idea behind the app was to help people see what buoys were available (not for a fee or to reserve, but just to see crowding); that was adapted due to challenges with the technology. Agree about the importance of getting the word out about the app; in time it could be modified to further manage use of the buoys.
- Jesse Joy: The Key West mooring field is a different circumstance. There are a few operators who rotate and could reserve buoys. Doubt many captains would be able to reserve buoys the night before through some system. It's usually a last minute decision on where to go.
- Beth Ramsey: Urged caution against restricting access for locals. Need to focus on partnerships and not creating adversity. Large vessel buoys for dive shops are a good idea. Beyond funding for enforcement, there is a challenge in finding people to hire for those jobs. Concern about a reservation system causing arguments over the buoys. A different color for 'no access' buoys is a great idea.

- FWC: Being new to the Keys, she downloaded the Monroe County Sheriff's app. They have streamlined push notifications. Wonders if this could be a means to push out information to people or direct them to the Sanctuary Explorer App.
- Shelly Krueger: Dive shops use the buoys very heavily. There should be an annual fee for them to use the buoys. Voiced concern about dive shops owning a buoy and then concentrating use at that location.
- Capt. David Dipre: Boaters already have to take a course to get a boater ID card if born after 1988. Cooperation between FKNMS and FWC could add an additional portion of the course for people who will boat in Monroe County. Just need to get the State of Florida to agree. Everyone already knows the state law about the boater ID card; we could consider an extra piece for FKNMS boating. Some of the things we've discussed are 'wants' vs. 'needs.' There *have* to be buoys in some locations because you cannot anchor. There are things that must be in place for law enforcement to do their job. If we don't have buoys in those places, we restrict use and ability for enforcement.
- Stephen Patten: Sponsoring a buoy is probably the quickest way to get funding from these buoys. For example: For \$5k per year you can get your sticker on a certain buoy. Thinks people would be interested in sponsoring; this could generate revenue to allow further staff to be hired, etc.
- Nick Parr: Caution against limiting or charging for access for buoys. There are new GPS trolling motors that people may use instead of buoys. This could prevent us from identifying the best locations for them to be, and from managing use density.
- Ken Reda: The conversations thus far have focused on divers vs. overall user groups. If looking for private funding, we need to be equitable in how this is implemented. It should not be predominantly designed for diver operations.
- George Garrett: Historically there have been conversations about user fees for use of the reef. This may be that we're getting to that point. City of Marathon is now charging for parking and use of boat ramps, so perhaps there's more tolerance for that now. When it was first sunk, Spiegel Grove dives had a \$10 extra charge added to dive charter costs. An annual charge may be more tolerable today than it was 20 years ago.
- Will Benson: The group will come back to the SAC in August with a full digest version of the group's recommendations. The conversation today highlights the challenges associated with this topic.

VI. MINI-SEASON 2023: UPDATES FROM TDC, FKNMS OUTREACH TEAM, AND LAW ENFORCEMENT PARTNERS

Andy Newman, TDC, provided an update on the Lobster Season Public Awareness Campaign. A lobster mini-season communications task force was developed several years ago to discuss opportunities to reduce resource violations and improve environmental awareness and safety. This will be the 3rd season of the TDC coordinating with law enforcement and FKNMS on mini-

season. The campaign goal is to communicate information regarding resource protection regulations and other measures to allow recreational harvesters to have an enjoyable, safe, and non-impactful experience during mini season and regular lobster season. Andy gave an overview of the different tactics the TDC is using to spread this message including online, on the radio, in print, and through focused outreach.

KeysLobsterSeason.com is the URL purchased by the TDC to host all of the information about regulations, safe boating, lobster catching, etc in one place. Another core tool is a printed brochure designed by Tinsely advertising. This year, 25,000 have been printed and will be distributed across the Keys. The brochure includes information about lobster regulations across the federal, state, and local jurisdictions; dive flags; measuring a lobster; boating safety equipment, etc. This brochure was reviewed by various officials across the agencies. Distribution locations include, the Keys Chamber of Commerce, FKNMS for distribution to dive shops, municipalities for outreach at city boat ramps, FWC, Monroe County Sheriff's Office, USCG, retail establishments such as Publix and Winn Dixie, and the lobster information booth that will be in the Upper Keys. There is also a digital version of the brochure on KeysLobsterSeason.com; FWC will email this to all saltwater license holders in the state of Florida. The TDC also has a tourism advisory email blast planned to reach 1,000+ resorts and other businesses in the Keys. The goal is for hotels and vacation rental properties to share this information with guests before they arrive in the Keys. An informational [video](#) is also available on the website, and has also been distributed to other networks and TV stations and social media. Traditional public relations via press releases will be included, as well as advertising via radio, social media, and a digital buy with Florida Sportsman magazine. English and Spanish 30-second radio spots will air in Miami and Ft. Lauderdale. A geo-fencing campaign will also target travelers in the Keys service area with a "Let it Go. Let it Grow" PSA. The digital billboard at the top of the 18-mile stretch will have this messaging between July 22nd and August 9th, and portable MCSO dynamic messaging signs will also display the website's URL. This is part of the TDC's Florida Keys and Key West Connect & Protect sustainability campaign.

Next, Eric Raslich provided further information about the sanctuary outreach staff's efforts in lobster mini-season outreach. The TDC effort to the general community has allowed FKNMS to focus more on targeted groups of interest. This year, the outreach team reviewed lessons learned from previous years and consulted staff, partners and past brochure recipients to help develop a focused outreach strategy. Target audiences primarily include water-based businesses. Strategic messaging has been developed to help direct people to the FloridaKeysLobster.com website and the sanctuary's app for more information. In total FKNMS will distribute brochures to 180 marinas, dive shops, tackle shops, boat rental businesses, etc. between Key West, Florida City and Ocean Reef.

Captain Dipre of FWC reminded the council about the Monroe County ordinance about 300 feet. Monroe County Sheriff's Office is the best place to go if someone is diving in a canal and they shouldn't be. When talking to friends, if someone is leasing or renting a house, they are allowed to be diving in that canal. Double-tripping is a problem; reminder that it's not a violation if different people are on the boat each time. The violation occurs if it's the same people on the vessel and lobsters are being taken on each trip. Call FWC to report a violation at 888-404-3922. There are only 53 officers to cover Key Largo to Key West, so it's important for the community to take responsibility and help report violations, but also to be patient with response times. Undercover officers are also coming down from Collier County to increase the enforcement presence; in total ~10 officers per week.

NOAA OLE enforcement officers Russell Kiefer and Justin Powell presented about their mini-season focus this year. They will work in the SPAs, but are also beginning to focus more attention on the backcountry thanks to their new flats boat. NOAA's Law Enforcement Hotline is available 24/7 at 800-853-1964. It is important to report the location, time, and date of the activity; a description of the activity; and the name of the vessel, owner/operator, captain, crew or additional witnesses. There will be 5-6 NOAA OLE boat crews this year between Key Largo and Key West.

Council Discussion / Q&A:

Q: Andy Newman: Regarding the FKNMS Sanctuary Explorer App, can a link be added to KeysLobsterSeason.com?

A: This will be directed to the FKNMS Communications Coordinator.

Q: George Garret: Are FHP officers supporting these efforts?

A: FWC is cross training FHP to make resource violation cases on land, but not on the water.

Q: Stephen Patten: How far from your house can you swim down a canal? Can people swim several canals over within the neighborhood?

A: Capt. Dipre: No, they can only swim in their own canal.

Q: Andy Newman: For ease of memory, is it possible to have an easier phone number (e.g., 1-800-Lobster) that could be answered as a central clearing house?

A: This is a reasonable request, but they would need to investigate how to do that. The NOAA Law Enforcement Hotline is a direct line to the NOAA officers.

Q: Will Benson: I'd like to confirm that when harvesting a lobster and measuring, this must be done in the water? Or can a net be handed up to the boat to be measured there? I know sometimes kids have a hard time measuring while in the water.

A: This has to occur in the water; once the lobster is in the vessel it is considered possession. Also the measuring device has to be in possession of the harvester in the water. The only time you can measure a lobster in the boat is during bully netting and commercial lobstering operations. In the case of young kids, the best bet would be to have them do their best, and then have an adult double check their work.

Q: Andy Newman: He has seen pictures on Facebook with 75 lobster tails on the deck with a lot of people, including small children. Do children count as harvesters?

A: State regulations give a bag limit to each individual that is harvesting. If a child is in the water and helping you, we accept that and they have their own bag limit. They have to be in the water participating in the activity. For example, a baby napping on the deck cannot be counted toward a recreational bag limit because they are not a harvester.

VII. MISSION: ICONIC REEFS UPDATES

Sarah Fangman reminded the council that Mission: Iconic Reefs is NOAA led but represents a large partnership with many in the community. At some point, other colleagues who are part of the mission may be invited to also speak about their part of the effort.

Megan Fraser, Restoration Implementation Manager, and Dr. Kathryn Lesneski, Monitoring Coordinator, provided updates on several aspects of Mission: Iconic Reefs. Co-leads for this project include Sarah Fangman and Jen Moore from NOAA; there are also Implementation, Monitoring and Data, Stewardship, Field Team, and Communications components. The program is implemented via a variety of partners.

M:IR includes 7 reef sites spread across the Keys. The timeline is roughly 20 years, split into two phases. Phase 1A includes the faster growing branching species' which are less susceptible to disease and have been the subject of propagation research for many years. Phase 1B will include species diversification. Phase 2 adds additional outplanting of the same species. This effort is contingent on partners. Non-NOAA funds have supported the efforts, including from partners such as United Way of Collier County and the Keys. The National Fish and Wildlife Foundation has also provided funding for coral restoration at Eastern Dry Rocks.

Currently, M:IR has reached ~23.78% progress to Phase 1A Restoration Targets. This is just under 30,000 corals outplanted. This includes information from all partners doing the outplanting, which is collated and reported out to all partners as progress.

The Bipartisan Infrastructure Law (BIL) has provided additional funding for Mote and CRF, which help with further progress toward Phase 1A goals.

M:IR sites are delineated into segments, which provides clear information to partners about where they are working. Within these segments, there is a variety of work going on. Various color-coded polygons are used to track and coordinate various efforts at any given site.

Eastern Dry Rocks: Site preparation methods are being tested at the pilot level. Palythoa is a nuisance species that competes for habitat that would otherwise be suitable for coral outplants. Mote identifies areas where site preparation should occur, contractors are hired under permit to remove Palythoa, and then restoration partners are notified about what has been cleared and is ready for outplanting. Site maintenance is also being piloted with help from the College of the Florida Keys. College students remove coral-eating snails from various locations with careful controls. This is building a framework for a larger program via Iconic Reef Guardians.

Recent research at EDR has included work from NOAA's National Centers for Coastal Ocean Science with an underwater unmanned vehicle (UUV) that collects imagery. This is advantageous because it allows more imagery to be collected at the reef compared to what a diver could accomplish alone. Wave attenuation is also being studied at EDR. Pressure sensors have been installed in transects to record the energy of waves that pass through that area. These sensors were deployed before Hurricane Ian came through in September, and resulted in interesting findings. During the peak of the Hurricane, the wave energy flux at the forereef was very high. Energy was reduced along the reef crest and the back reef, even at the peak of the hurricane, as a result of the reefs physical structure. This shows the importance of a healthy reef for coastal protection.

Looe Key Reef: An imagery-based data acquisition project has occurred at this site in partnership with USGS, beginning in July 2021. The USGS instrument collected high resolution data, including pictures of the reef, and depth and elevation maps. This is important to help understand how the physical structure of the reef changes with restoration and will also help improve bathymetric maps. The imagery can be zoomed in with enough detail to view an individual coral colony, while also providing reef-scale data. Reef Renewal has a rope nursery deployed at this site (a new technique) and are also acquiring drone imagery. All this different data and imagery will allow detailed measurement of the reef's growth over time.

One of the newest M:IR partners is Florida Sea Base, which will be working at Newfound Harbor and Looe. They are currently building an on-land nursery at their Summerland facility and plan to start outplanting in the fall.

Cheeca Rocks: the M:IR field team has conducted photomosaic surveys at this site. Within an hour a diver takes 4000 photos, which are stitched together to provide a baseline visual image of the reef. This can be re-imaged to measure progress over time. The data is of high enough resolution that you can measure specific corals, identify them to species, calculate volume, etc.

These can be used to create composite videos and showcase how technology can be used to understand changes at reefs overtime.

Horseshoe Reef: A partner with University of Miami has created a net-zero emission program to conduct reef imagery. They have an electric car, boat and drone that they deploy. They also have specific software that helps reduce glare, etc. to allow for very clear aerial imagery. The drone takes video and thousands of photos that can later be stitched together. Overtime, the reef can be reimaged as restoration progresses. CRF also supports photomosaic imagery at this site. These can be imaged immediately after restoration and following a period of growth to demonstrate improvement over time.

Mote Marine Lab now has a facility in Key Largo, which will add additional capacity for restoration at the Mission: Iconic Reefs sites further north.

Iconic Reef Guardians is a stewardship program to support M:IR with additional manpower in addition to improving awareness and education. The goal of this program is to empower scuba divers and snorkelers to be knowledgeable and supportive of coral restoration efforts and to become stewards of the M:IR sites. The first tier of this program has just completed its pilot testing; which included passive nursery tours for recreational divers. Content is being developed for more active restoration engagement.

Despite the successes of this project, there are also challenges. One is the warming waters that are already being observed. The Keys are already in a bleaching watch with warnings in some areas. Temperatures are expected to increase during this El Niño year. Sofar “smart buoys” are being deployed with temperature nodes at a meter below the surface and near the bottom. This buoy transmits data on temperature conditions in real time; one or two buoys will be deployed at each M:IR site. This will help inform whether outplanting should be put on hold due to water temperatures. These will also transmit data on wind speed, wind direction, wave height and other information of interest.

Council Discussion / Q&A:

Q: Beth Ramsey-Vickrey: Can you give an update on Sombrero?

A: Sombrero is currently an active restoration site. There is United Way funding for Reef Renewal there; also CRF and Mote are working there as well.

Q: Stephen Patten: How much has UAE given at this point; how much of the total budget is it?

A: UAE made a commitment of \$10M to help Florida following Hurricane Irma. They have partnerships with the United Way and \$3M of the donation came to Monroe County. Mission: Iconic Reefs was a perfect connection to restore natural reefs while improving resiliency to storm

impacts. This was the catalyst funding for M:IR. Since the mission launched, tens of millions have been contributed. NOAA has provided a lot of funds, but there are a lot of partners who are receiving funds too. There is a lot of work left to do.

Q: Jesse Joy: Regarding the video with the imagery, what software was used for that? How will that type of video be used for public education and outreach?

A: Agisoft Metashape is used to stitch the images together and is georeferenced with depth information. That product is then pushed into Viscore which is a proprietary software from UCSD that further refines the model. That product is then pushed to Tag Lab, where they are looking to incorporate AI to automatically delineate coral colonies. The final product can be uploaded to YouTube or other sharing platforms like [social media](#).

Q: Andy Newman asked for more information about the UAE funding.

A: The donation was to the United Way; they've been working with NOAA since the beginning on how to use that money. We outlined a detailed proposal that included providing that funding to partners to support in-water restoration activities. There was also funding for education and communication, a global exchange, and scholarships.

Q: Are the Sofar smart buoys marked to prevent boaters from tying up?

A: They are not deployed yet, but they are discussing internally. There will likely be stickers that say no mooring allowed, with a way to get more information about what the buoys are.

Sarah Fangman noted that M:IR was launched in December 2019; Phase 1 was a \$100M idea and we had no money at that time. This has been being built ever since and NOAA has finally been working to launch the communications effort associated with this project. There will be an independent website for this that will be a single place where more information about the overall effort can be accessed.

VIII. PUBLIC COMMENT OPPORTUNITY

Andy Newman shared that the TDC is planning their marketing program that will begin October 2023 through October 2024. Next fiscal year will include a significant effort to promote the FKNMS Blue Star Programs.

IX. FLORIDA KEYS AND SOUTH FLORIDA ECOSYSTEM CONNECTIVITY TEAM UPDATE

Kelly Cox provided an update from the Florida Keys and South Florida Ecosystem Connectivity Team. We continue to see record high funding for South Florida Ecosystem Restoration from

both the federal and state government. The sanctuary will continue to benefit from this funding as we send higher volumes of water downstream. The funding is already being put to good use, and several working group members have attended ribbon cuttings and groundbreakings for various Everglades Restoration projects. Recently the Taylor Slough Flow Improvement Project was completed, which included installation of 18 culverts along a section of Old Ingraham Highway and will increase the volume and distribution of freshwater into Florida Bay. The Everglades Agricultural Area (EAA) Reservoir and Central Everglades Planning Project are underway, and the Biscayne Bay Coastal Wetlands project is also moving forward.

Last month the Connectivity Team discussed Mote Marine Laboratory's red tide monitoring program in the Florida Keys, and had a presentation and discussion with SFWMD on minimum flows for Florida Bay. It is important to achieve those minimum flows to sustain Florida Bay and the sanctuary. While there are no action items for the group today, Kelly reminded the SAC that all are welcome to attend the Connectivity Team meetings. The team is also happy to accept recommendations for other topics to be covered or discussed.

George Garrett: Reminded the SAC that this group was developed following discussions with the Water Quality Protection Program and the importance of the connection between FKNMS resources and Everglades Restoration.

X. AGENCY REPORTS

Superintendent's Report - Sarah Fangman: There are a number of staff changes happening at the sanctuary. Aaron Macy is a NOAA Corps Officer joining the Science Team. In early July we will welcome Carey Jung, formerly from the USCG, as our Vessel Operations Coordinator. We have also recently hired a few part-time captains to assist our field teams in Key West and Key Largo. We currently have a position open for a Program Support Specialist to support contracts and operations within FKNMS, and we will also be hiring a few field team members for Mission: Iconic Reefs. Lonny Anderson and Joe O'Keefe have moved on from FKNMS; and those positions will be backfilled in the near future.

The TDC funded 140 new anchor replacements and we have 2 contractors who will be installing these anchors. These are new installations, but not necessarily new locations (e.g., some are replacing existing anchors that have failed). The FKNMS team will follow-up with adding the buoys and lines following the contractors' work. Some of these will be sub-surface moorings intended for restoration practitioners to use.

Regarding the draft rule - meetings are ongoing with FWC and DEP to discuss the proposed 'draft final' rule. There are still a few areas where recommendations need to be further discussed so we can have a single, final proposal.

Sarah was recently in Washington D.C. for Capitol Hill Oceans Week, hosted by the National Marine Sanctuary Foundation. The focus of the discussion was on climate change, and Sarah met with staff from Senator Rubio, Scott and Congressman Diaz-Balart offices. Also met the new NMSF president and CEO, and had meetings with several members of the NMSF board.

This is predicted to be a hot year which causes stress for corals. FKNMS has worked with other agencies on a coral bleaching response team to coordinate on coral disease bleaching, monitoring and intervention. Given the state of our reefs, there is more that we hope to do to better mitigate against coral bleaching. More work is needed to explore intervention options.

Andy Newman: Is coral bleaching an issue in other areas of the Caribbean?

- Yes, this is an issue globally.

Florida Department of Environmental Protection - Nick Parr: Lignumvitae Key Aquatic Preserve's "Keep Lignumvitae Lovely Program" is continuing. The team has partnered with Florida Sea Base and twice per week are taking scouts to Lignumvitae Key to clean up the shoreline. So far over 2 tons of marine debris have been removed.

Coupon Bight Aquatic Preserve partnered with Sea Base for the 3rd Annual Munson Rocks (aka Newfound Harbor SPA) cleanup last Friday. They collected less trash than last year and the year prior. No traps were recovered from the Newfound Harbor SPA zone. These partnerships will continue. DEP has also been working within CBAP and Big Pine Channel to collect over 20 abandoned traps and a large amount of line. In total 1420lbs of debris were removed from CBAP, Big Pine Channel, and the Great White Heron NWR.

The CBAP management plan is being updated. The advisory committee will meet on July 24th at 1 pm in the Marathon Government Center with an online option. Public comment will occur following this meeting. The plan will also be presented at the October SAC meeting. DEP is currently soliciting photos from the public for use on the cover of the CBAP management plan.

Bahia Honda State Park has had numerous loggerhead and green nests; hope hawksbills will return this season as well. Leatherbacks were also there historically, but haven't been seen since 2016. Bahia Honda has a new park manager, Cass Meadows, and assistant park manager, Jimmy Chandler.

Jim Fourqurean's team has installed data sondes with telemetry at Sand Key, Sombrero Reef, Molasses, and Fowey Rocks (former C-MAN stations). Every 15 minutes live data on a variety of parameters are available for these locations. This information will soon be publicly available following further calibration.

Florida Fish and Wildlife Conservation Commission: Dept. Law Enforcement - Capt.

David Dipre: Extra officers have been in the Keys over the past six months due to the influx of migrants. While there are fewer migrants now, the FWC law enforcement (LE) staff is now at full capacity (+3 extra officers) for the first time in years as result of these temporary assignments and a recent academy graduation. This accounts for 720 more person-hours per week. Resource warnings and citations have almost doubled as a result. FWC's weekly LE reports are publicly available for all counties in Florida for those who'd like to read more detail. Thanks to the federal LE partners who are working together with FWC on enforcement. We will lose 10-15 officers when the migrant surge is over, but for now they are taking advantage of the capacity. FWC is also responsible for derelict vessels; in the future Capt. Dipre would like to give a presentation to the SAC on the overall derelict vessel response and enforcement process.

Andy Newman acknowledged the value of the increase in law enforcement officers. Regarding education, there needs to be a public information officer for this area. How can this be resolved?

- Capt. Dipre clarified that unlike the Sheriff's office in Monroe County which can quickly put information out on Facebook, etc. FWC, as a state agency, requires public relations information to be cleared through Tallahassee. FWC requires all counties to be treated fairly and consistently when it comes to communications. They are working to encourage an increase in communications from FWC more locally.
- Andy Newman noted that a continued reminder that there is enforcement helps as a deterrent against other violations.

Ginny: When she saw a violation in the past, she had a text number where she could report it with a location. This seems to not work anymore?

- Capt Dipre clarified that FWC used to have a text mechanism to MyFWC, but that no longer exists. Currently there is a [website](#) where folks can submit a report tagged to a map location, an FWC application for your phone, or people can call 1-888-404-3922 (1-888-404-FWCC).

NOAA National Marine Fisheries Service, Southeast Region - Lauren Waters: Lauren shared a variety of updates including several opportunities for public comment.

- Protected Resources Updates:
 - Public comment regarding Rice's Whales in the Gulf of Mexico: there is a request for comments on a petition to establish a mandatory 10-knot speed limit and other vessel-related mitigation measures to protect those endangered whales and is currently open until July 6th.
 - NMFS has considered the public comments submitted on the proposed rule to designate critical habitat for five species of threatened corals and developed a

draft final rule. The final rule was accepted on May 9, 2023, to proceed to final interagency review. The interagency review process is allocated 90 days; therefore, we anticipate submission to the Federal Register in August.

- The proposed rule to designate critical habitat for Nassau grouper was published on October 17th, 2022. We are in the process of reviewing and responding to public comments, and anticipate publication of a final determination by October 17th, 2023.
- Fisheries Updates
 - Aquaculture: Regarding Gulf aquaculture opportunity area, NOAA Fisheries published the public scoping summary of public comments on the programmatic environmental impact statement. It provides an overview of the written and verbal submissions received.
 - Sustainable fisheries:
 - Gulf Vermilion snapper catch levels were increased in the Gulf effective May 25th
 - Gulf Gag grouper catch limits were reduced to reduce overfishing effective May 3rd.
 - NOAA Fisheries announced a final rule regarding Coastal Migratory Pelagic Resources in the Gulf of Mexico and Atlantic Region that changes management of Atlantic migratory group king mackerel and Atlantic migratory group Spanish mackerel. The rule increased annual catch limits and recreational annual catch targets for Atlantic king mackerel; it increased the recreational bag and possession limit for Atlantic king mackerel in federal waters off the east coast of Florida; and allowed the recreational sector to keep cut-off (damaged) Atlantic king mackerel and Atlantic Spanish mackerel caught under the recreational bag limit.
 - Gulf red snapper season for federally permitted for-hire reef fish vessels opened on June 1 and will close on August 25, 2023.
 - Gulf recreational harvest of red grouper in federal waters will close on July 21, 2023.
 - Gulf red snapper final rule to increase catch levels of red snapper is effective July 10th.
 - At their June meeting, the Gulf Council took final action on two amendments: first to modify Gray Snapper Catch Limits. It would revise the red snapper calibration for several Gulf states and revise the gray snapper stock annual catch limit due to the stock undergoing overfishing. Second, modifications to the Gag Grouper Catch Limits, Sector Allocations, Fishing Seasons, and other Rebuilding Plan Measures.
 - There is a South Atlantic snowy grouper proposed rule open for public comment through July 21st. The proposed rule would shorten the

recreational fishing season from May 1 through August 31 to May 1 through June 30 as well as other management measures.

- South Atlantic red snapper fishing season was announced, the recreational sector will open for harvest on July 14 and 15, 2023
- The request for comments on changes to catch levels, allocations, accountability measures, and management measures for gag grouper in the South Atlantic is open through August 11th.

NOAA OLE - Russell Kiefer/Justin Powell: Backcountry patrols are increasing; they have coordinating use of the USFWS facility for staging their shallow water vessel. They have been helping more in the NWR recently. Had a Turtle Exclusion Device (TED) operation in April with FWC. Boarded 12 vessels and saw decent compliance around 70-80%. Violations observed were minimal and most were able to be corrected on scene. No MSD violations were discovered on these vessels. NOAA OLE is looking ahead to the lobster mini-season. They are also working on getting radios connected to FWCs, so they can better coordinate on responses.

NAS KW - Wendy Wheatley-Techmer: Since the last SAC meeting, the Navy has had two shoreline cleanups at Boca Chica and Sigsbee Causeway. They are monitoring rooftops and platforms for shorebird nesting. They have identified at least 12 turtle nests on their beaches, which is encouraging following Tropical Storm Ian impacts to the beach. They responded to a loggerhead turtle stranding at Boca Chica. They also got climate resiliency funding for 3 projects to address sea level rise using nature based solutions. Two flamingos were spotted on base.

USCG - PO Hayden Hunt: Sector has had recent meetings on post-storm response strategies and are updating maps. Gearing up for lobster mini-season and July 4th holiday.

U.S.F.W.S. - Greg Boling: Wetland rehab project on Big Pine Key is underway, which is intended to restore sheet flow in the area. They have been working with a contractor on migrant vessel removals. No more heavy machinery will be allowed on beaches during turtle nesting season. They are working on hiring a new park ranger to get the visitor center up and running; they are also getting a new term biologist and law enforcement officer. They are also backfilling their budget analyst position.

VII. CLOSING REMARKS

Meeting adjourned at 3:00 pm.