

FLORIDA KEYS NATIONAL MARINE SANCTUARY ADVISORY COUNCIL

VIRTUAL WORKING SESSION

Tuesday April 21, 2020

DRAFT NOTES

***SANCTUARY ADVISORY COUNCIL MISSION STATEMENT
(adopted unanimously, December 6, 2005)***

Council Members

Tourism – Lower Keys: Clint Barras (Chair)
Boating Industry: Bruce Popham (absent)
Citizen at Large – Lower Keys: Mimi Stafford
Citizen at Large – Middle Keys: George Garrett (absent)
Citizen at Large – Upper Keys: David Makepeace
Conservation and Environment: Ken Nedimyer
Conservation and Environment: Chris Bergh
Diving – Lower Keys: Joe Weatherby
Diving – Upper Keys: Elena Rodriguez
Education and Outreach: Jessica Dockery
Elected County Official: Michelle Coldiron
Fishing – Charter Fishing Flats Guide: Will Benson
Fishing – Charter Sports Fishing: Steven Leopold
Fishing – Commercial – Marine/Tropical: Ben Daughtry
Fishing – Commercial – Shell/Scale: Justin Bruland
Fishing – Recreational: Ken Reda
Research and Monitoring: David Vaughan
South Florida Ecosystem Restoration: Jerry Lorenz
Submerged Cultural Resources: Corey Malcom
Tourism – Upper Keys: Andy Newman (absent)

Council alternates (present)

Boating Industry: Karen Thurman
Citizen at Large – Lower Keys: Stephen Patten
Citizen at Large – Upper Keys: Suzy Roebing
Conservation and Environment: Caroline McLaughlin
Diving – Upper Keys: Daniel Dawson
Education and Outreach: Christopher Bensen
Fishing – Charter Fishing Flats Guide: Dale Bishop
Fishing – Charter Sports Fishing: Richard Gomez
Research and Monitoring: Shelley Krueger
Submerged Cultural Resources: Diane Silvia
Tourism – Upper Keys: Lisa Mongelia

Agency Representatives (present)

Florida Department of Environmental Protection: Joanna Walczak, Nicolas Parr
FWC Fish and Wildlife Research Institute: CJ Sweetman
NOAA Office of Law Enforcement: Loren Remsberg
NOAA National Marine Fisheries Service: Heather Blough
U.S. Fish and Wildlife Service: Kristie Killiam
U.S. Navy: Ed Barham

Municipalities

City of Key West: Allison Higgins
City of Layton: Cynthia Lewis

I. CALL TO ORDER, CHAIRPERSONS COMMENTS

Superintendent Fangman called the meeting to order and thanked everyone for participating in the meeting and for their patience in working through the technical difficulties. Chairperson Barras acknowledged that the council has many issues to review during this meeting. He thanked the SAC members who contributed to drafting the proposals that will be presented today.

Public comment would be accepted during the meeting via email, and would be shared with council members in advance of the next meeting. While this meeting format is not an ideal, the sanctuary felt it was important to make progress. Today's session will involve discussions on complex issues; no decisions will be made during this meeting.

II. MEETING GOALS, FORMAT ASSOCIATED MATERIALS

Ms. Dieveney reviewed the main goals for the meeting, including the previously identified priorities from the February meeting. Draft proposals related to the items submitted by council members will be discussed, and members will have the opportunity to comment on those today and during the follow-up survey. Most of these motions were authored by the SAC core group.

Current core group membership includes: Former Chair and Vice Chair (Conservation and Environment), Current Chair and Vice Chair (Boating Industry, Tourism - Lower Keys), Monroe County Elected Official, Citizen at Large - Upper Keys, Diving - Lower Keys, and Fishing: Charter Flats Guide, Commercial Marine Life/Tropical, and Commercial Shell/Scale.

To view Ms. Dieveney's presentation and other materials related to this meeting, visit <https://floridakeys.noaa.gov/sac/meetings.html>.

III. MARINE ZONE SPATIAL

Key Largo Management Area Restoration Blueprint

Status Quo: Existing Management Area regulations; Preferred Alternative Existing Management Regulations plus No Anchoring.

Draft proposal/motion for Advisory Council consideration

The SAC supports Status Quo.

Discussion

Very little discussion took place on this item because most people and fisheries councils were in agreement in favor of status quo.

Marquesas Turtle Zone

Marquesas Turtle Zone protects internationally important sea turtle (green) seagrass foraging habitat.

Restoration Blueprint

Status Quo - No Zone; Alternatives 2 & 3 - Wildlife Management Area; Alternative 4 - Conservation Area.

Draft proposal/motion for Advisory Council consideration

The SAC supports additional protections for sea turtle foraging habitat. Any specific spatial protections need clear scientific data.

Discussion

- A member asked the sanctuary to consider a more refined area, and acknowledged the need to consider safe transit in this area. Another member suggested a seasonal application of marine zone and/or regulations.
- A discussion surrounding the historical abundance of sea turtles in the area, including the recovery of sea turtles in recent years brought up comments for further study of this area and possible impact to turtles and that protections of sea turtles are working, showcasing the need for continued protections.

Deep Reef Expansion

Restoration Blueprint

In the preferred alternative, the following zones would be extended to deeper areas: Carysfort, Alligator Reef, and Western Sambo.

Draft proposal/motion for Advisory Council consideration

The SAC supports the extension of existing SPAs to encompass deep reefs, no anchoring in the entire zone including the new expansion areas, and no trap fishing in the entire zone including the new expansion area, however, vessels should be allowed to operate at normal speed except among the mooring buoys of the highly dived shallow reefs where idle or slow speed is prudent, and hook and line fishing should be allowed in the expansion area.

Discussion

- A member asked about the language in the motion to allow hook and line fishing as that is not compatible with the regulations. Another member clarified that those deep areas are important fishing areas for migratory, pelagic species. Discussion continued about the possibility of spawning aggregations in these deeper areas, with a note that additional information would be needed from fisheries managers to identify if/where those aggregations are.

- A member noted that each area should be considered individually. Superintendent Fangman assured the council that each zone will be considered separately, and these were categorized for overall discussion during the truncated meeting.
- A member cautioned that too many zones and too many changes in small areas will be difficult to educate people about and hard to enforce.
- A member noted that deeper corals, which may not be as affected by stony coral tissue loss disease, would be protected by these proposed expansions. The importance of protecting this habitat should be of the utmost importance, including anchor and trap damage.

Tortugas South Ecological Reserve

Restoration Blueprint

Alternative 1 – Status Quo; Alternative 3- expands the western boundary of Tortugas South and connects Tortugas South and North.

Draft proposal/motion for Advisory Council consideration

The SAC supports the westward expansion of the Tortugas Ecological Reserve and recommends that the southern boundary be moved north to allow fishing in the deeper waters, remote from Riley’s Hump and the documented spawning aggregations. It is essential that the Sanctuary demonstrate that it is capable of removing, as well as creating, regulatory restrictions on fishing.

Discussion

- A member clarified that this language reflects the work of the Ecosystem Protection Working Group and at least 75% of the members were in consensus about this recommendation. There are documented spawning populations west of the boundary, but not in the southern end of the zone.
- A member asked about the natural resources in the area. Ms. Dieveney explained that the Tortugas Environmental Impact Statement is a good resource to learn about the habitats in this area.
- A member asked about FWC’s input. Superintendent Fangman clarified that FWC will provide its input to the sanctuary and the council is free to move forward with its own recommendation
- A member asked about the distinction in user groups between lobster fishermen and hook and line fishing in this area. Another member described that there is significant lobster fishing in the area, as well as a small group of fishermen that would be impacted by the closure.

Large Contiguous Areas (Carysfort, Long Key-Tennessee Reef, Tortugas Corridor)

Restoration Blueprint

Several alternatives have been proposed for these three areas to fill the identified need for large contiguous areas in each region of the Florida Keys. These areas will be considered individually and need not be addressed the same way.

Draft proposal/motion for Advisory Council consideration

No draft proposed was submitted in advance for this topic.

Discussion

- A member expressed support for alternative four, and noted that these large areas are critical for the sanctuary and there should be one in the upper region.
- A member voiced caution that large idle speed areas are not practical especially for transit through Hawk's channel. Another member reminded the council that idle speed may actually pose more of a threat to shallow coral heads.
- A member asked if protections proposed at Long Key are actually accomplishing the goal of habitat protection. Another member mentioned that Long Key is a unique location due to the proximity to the Channel 5 Bridge and its connection to Florida Bay, which facilitates migrations. It is important to protect the whole habitat, shoreline to reef edge.
- A member suggested corridors which could allow certain activities such as trapping, fishing, etc.
- A discussion around adaptive management of these large areas included ideas to implement protections, then assess after a certain time frame to determine their effectiveness. If the boundaries or regulations need to be changed they can be at that time. Most members agreed that protecting these contiguous areas is important, but some modifications may be to be made.
- A member brought up the data showing that the Tortugas Corridor is an important spawning area, and that economic studies demonstrated little economic impact to displaced fishermen.
- A member brought up the notion that if one user group is excluded, then other groups should be as well for equity. If fishermen cannot use an area, divers shouldn't either.

Lower Keys Wildlife Management Areas

Restoration Blueprint

Wildlife Management Areas that include no entry were proposed for various areas in the Lower Keys.

Draft proposal/motion for Advisory Council consideration

No draft proposed was submitted in advance for this topic.

Discussion

- A member acknowledged that these zones are variable which causes confusion. These areas and the regulations should be simplified and clearly marked. Another member mentioned the shoreline slow speed proposal which would eliminate some of these smaller zones around the islands and reduce wildlife conflicts.
- Another member brought up the proposed banks on the bayside in the Middle Keys and the confusion on the use of channels in that area. The shoreline slow speed proposal would clear up this confusion. Channel markers could also help keep this area from being continually scarred. Many members expressed support for additional channel marking.
- A member asked about the rationale for some of these closures, specifically in the Marquesas area. Another member asked about the large number of proposed closures in this area, and requested clarification. Discussion about nesting and roosting bird habitats ensued, including a note that the shoreline slow speed proposal would certainly address many of the problems, but more regulations may be needed.

- A member noted that overflight disturbance is also an issue in this area, and adaptive management should be used to alter regulations if a bird colony moved due to this disturbance.

IV. MANAGEMENT PLAN AND OTHER SANCTUARY ADVISORY COUNCIL PRIORITIES

Superintendent Fangman explained that the next set of topics are addressed in the sanctuary's updated management plan. These actions are non-regulatory in nature and the sanctuary is committed to working hard on these issues.

Water Quality, Law Enforcement, Education, and Outreach

Restoration Blueprint

- Water Quality – pg. 67, Management Plan Goal 2, Objective 1, Activities 1-6.
- Law Enforcement – pg. 70, Management Plan Goal 3, Objective 3, Activity 1; pg. 75,
- Management Plan Goal 5, Objective 4, Activity 1
- Education – pg. 71-73, Management Plan Goal 4, Objectives 1-3, and all associated Activities (8+)

Draft proposal/motion for Advisory Council consideration

The SAC has said it before many times: We heard the public commenters loud and clear, and we agree that FKNMS and its constituent agency implementers and partners need to work even harder on water quality improvements within and beyond sanctuary boundaries, law enforcement capacity and staff retention, and outreach/education efforts. However, the SAC does not believe these are the only issues that need to be addressed in the sanctuary for the FKNMS to achieve its purpose. Other challenges and opportunities are addressed in other discussions and potential motions.

Discussion

- A member asked if the sanctuary could sue the state for not enforcing its rules. For example, when people fail to connect to the sewer system and are not given fines. Superintendent Fangman mentioned that collaboration is the goal rather than legal action.
- A member asked whether the state law (Chapter 327) requiring that personal watercraft (PWC) be regulated the same as other vessels would affect any proposals. There is concern that the proposal would push PWCs into the channel with the larger vessels. Ms. Dieveney reminded the council that the exception for PWCs in the refuge (near Key West) was discussed during the March meeting and will also be available for comment in the follow-up survey.
- A member asked about the frequency of water quality testing. A suggestion for citizen science testing was brought up. Superintendent Fangman clarified that the Water Quality Protection Program has been involved in that particular issue, and the idea of having a joint meeting with the WQPP and SAC has been proposed.

Channel Marking including marked running lanes and back country routes

Restoration Blueprint

Channel Marking - pg. 70, Management Plan Goal 3, Objective 3, Activity 4

Draft proposal for Advisory Council consideration

No draft proposal was submitted in advance for this topic

Discussion

- A member asked if the sanctuary has ever removed homemade channel markers. Superintendent Fangman indicated that the sanctuary does not remove markers. Another member suggested that perhaps markers may have been removed by the Fish and Wildlife Service (FWS) because the area is a wilderness area. Additional information is needed including a definitive answer from FWS regarding markers and wilderness and who has jurisdiction on the seafloor. Also need clarification from US Coast Guard as to whether they will work on such markers.

Artificial Reefs/Habitat

Restoration Blueprint

Artificial Habitats - p. 70, Management Plan Goal 3, Activity 8.

Draft proposal for Advisory Council consideration

I would like the subject of artificial reefs to be discussed by the core group or entire advisory council. I would like to have certain types of artificial reefs and habitat restoration be identified as priorities.

Discussion

- A member reminded the council that a few artificial reef projects are in discussion in Islamorada and Marathon. These artificial reefs are beneficial for many reasons including attracting fish, taking pressure off natural reefs, and as an educational tool. However, the language in the Restoration Blueprint is somewhat pessimistic, and the next draft should include more modern language. Another member voiced support that habitat restoration and artificial reefs are important strategies to improve ecosystem function.
- A member expressed concerns in regards to artificial reefs attracting invasive species, and the issue of people placing structures such as casitas to illegal attract fish. This issue needs heavy regulation and further discussion.

Carrying Capacity/User Fees

Restoration Blueprint

Carrying Capacity/User Fees:

- Limited use access restrictions for specific sanctuary preservation areas - Section 3.4.5.
- Carrying Capacity – p. 69, Management Plan Goal 3, Objective 1, Activities 1 and 2
- User Fees – pp. 175-176 Considered and eliminated

Draft Proposal for Advisory Council consideration

No draft proposal was submitted in advance for this topic.

Ms. Dieveney noted that the need for additional research is needed on use patterns in the sanctuary and how those data could be used to inform management activities. She noted the sanctuary received public comments and creative ideas how capacity could be managed and how limited use areas could be implemented. The sanctuary is compiling the management options.

Superintendent Fangman noted that comments on this topic were submitted in the survey sent out by Beth. She envisions that these topics need further discussion that could involve the core group and providing input to the sanctuary as to how to address each topic most effectively.

Discussion

- A member acknowledged that in order to limit capacity, the sanctuary will need to identify the correct carrying capacity. Another member noted that the act of limiting capacity may need to be carried out by a different entity, such as the county.
- A member asked if the sanctuary is able to implement a licensing program. Superintendent Fangman stated that she is not aware of a mechanism in the sanctuary's authority that will allow it to implement licensing.
- A member brought up the concept of user fees, and the difficulty of enforcing these fees. Another member suggested a model of grandfathering current local businesses which may serve to limit some of the activities. This may not need to be implemented immediately until some of the other challenges such as water quality are addressed.

Adaptive Management

Ms. Dieveney explained that the sanctuary identified the emergency regulations as being applied through the sanctuary's emergency regulations. Such regulations have been applied at three times over the years.

Restoration Blueprint

Adaptive management - 3.2.4 – Emergency regulations

Draft proposal for Advisory Council consideration

I propose a fully articulated description of what adaptive management is and how, step-by-step, a constituent or stakeholder group can engage with FKNMS process to challenge, increase or decrease or otherwise alter any of the rules we are making. Our citizens should understand that they can effect change. I propose the Core Group and/or SAC discuss adaptive management vis-a-vis how it is worded in this document and how it is used in our Sanctuary in more detail and, if agreeable, provide feedback on appropriate language which addresses application.

Discussion

- A member acknowledged that while emergency regulations are important, adaptive management is more than that and may involve reducing regulations when appropriate. In the Dry Tortugas Research Natural Area, restrictions were implemented for a limited time and studied to determine the effects of the regulations. This kind of adaptive management, which involves evaluating the action over time, is most desirable.
- A member clarified that while the sanctuary has proposed many changes, there has not been a plan to monitor these changes for improvement. Once the site can demonstrate that these changes are positive, public perception may change as well.

V. ADVISORY COUNCIL RESTORATION BLUEPRINT SURVEY RESPONSE

Ms. Dieveney provided an overview of the responses to the follow-up survey sent after the February meeting. As of April 21, the response rate was about 50% of council members and alternates. Due to this low response rate, the survey will be re-opened after this meeting. Once this survey is completed, the results will be made publically available.

The sanctuary expects to receive comments on the proposals in the Restoration Blueprint from FDEP and FWC by April 30th. These agency partner comments will be sent out to the council and posted to regulations.gov.

VI. ADVISORY COUNCIL AND AGENCY NEXT STEPS

In closing, Chairperson Barras acknowledged that many of these topics warrant further discussion during upcoming meetings. He encouraged everyone to take the time now to provide input into the survey that will be sent out by Ms. Dieveney.

Chairperson Barras noted that the sanctuary is the lifeblood of our fertile economy. Thousands of comments have been received since this process first began eight years ago. It's everyone's responsibility to provide input to the sanctuary superintendent and staff. The sanctuary is taking this input and working on the next draft. Once the next draft is available, there will be additional opportunities for public comment.

VII. CLOSING REMARKS

Superintendent Fangman thanked everyone for their patience regarding the technical challenges, for their input in this process and for completing the survey. After the survey results are collected, the sanctuary will have what it needs to formulate a single alternative that will go back out for public comment. She sincerely thanks everyone for their effort and input into this process over the years.

VIII. PUBLIC COMMENT

Note: written public comment was accepted via email during the course of the virtual session.

Janice Lindsay-Hartz

I am writing to submit a public comment for the 4/21/20 NOAA meeting, concerning protection of Pelican Key and the Sunset Cove area in Key Largo, bayside. Previously, I have shared my observations about the bird rookery at the mangrove Island, Pelican Key (listed as an area within the National Marine Sanctuary to be protected), as well as my observations about needed protections for the whole area of Sunset Cove, mile marker 98, Bayside, Key Largo. I commented publicly at an April meeting in 2019 and also wrote detailed comments for the Restoration Blueprint plan.

Today, I am writing to provide an update on my observations, during this time of coronavirus. I am a biologist, Sc.B., summa cum laude, from Brown University. I also have an M.A. and PhD in clinical psychology and science. I have kayaked around Pelican Key on a regular basis for the past 34 years and have observed and documented many things about the area, often taking pictures for photo documentation.

Since the shutdown caused by coronavirus, I have observed that there have been no seaplane landings, whereas previously there were up to three commercial flights per day landing and taking off right next to Pelican Key. There have been no commercial fireworks displays, whereas previously there were repeated commercial fireworks displays for wedding destination businesses as well as for hotels in the area. Boating traffic on the water has diminished during the shutdown. However, there are still many jetskis and small boats repeatedly zipping around and around Pelican Key, causing the birds to fly. There are still two small red and yellow gyrocopters which fly low over and around Pelican Key and yesterday there was one new small plane which

flew very low over pelican Key. There are fewer aircraft overall, however, and fewer tours flying right over Pelican Key.

Since the shutdown, I have recently observed at Pelican Key a lone Tri-colored Heron which seems to be flying in most evenings and roosting there. (Until the past few years, a Tri-Colored Heron pair lived there every year and raised their young there, but then disappeared once the fireworks started.). Until the past few years, a large White-Crowned Pigeon colony lived at Pelican Key and flew in every evening as well as flying back-and-forth during the day. The colony disappeared once the fireworks and the seaplanes started a few years ago. Recently, I have seen more and more White-Crowned Pigeons returning to Pelican Key, and I hear them making their calls. I do not see the large colony flying in at sunset, but there are an increased number of pigeons. I have not yet seen the Little Blue Herons return, nor the Snowy Egrets, who were regular residents until the past few years. There are, however, more Great Egrets showing up on the island now. They had started nesting earlier this year and congregating in their normal territory, but then they were disrupted by seaplanes and by motor boaters, jet skis and fireworks, and disappeared. Now they are returning, and there are more of them than ever before. The Ibis colony has reappeared after disappearing earlier this year. Most days, I see a Great Blue Heron who flies into the island and roosts at night, and an Osprey, whereas these species had become rare, infrequent visitors during the past few years.

In terms of the area of Sunset Cove around Pelican Key, an area with very dense seagrass and a home to many manatees, there are positive developments but still are ongoing concerns. Since the coronavirus shutdown, the positive developments include the presence of many more nearshore dolphins who are feeding in the seagrass area. Many manatees are observed feeding in the seagrass and logging and resting in the canals. The manatees are currently not being disturbed and harassed.

Before the coronavirus shutdown, there had recently been a large increase in commercial tours in Sunset Cove to show people manatees. Four different commercial tiki boats hovered over the manatees several times a day as they were feeding and harassed them, perhaps unintentionally. At least two commercial tiki boats regularly brought people into a canal where the manatees often log and rest with their babies and were disturbing this population, simply by hovering over them for periods of time, sometimes two tiki boats at a time crowding into one canal. (These canals are also residential, and most of the residents did not appreciate the recurrent presence of these commercial boats.) These tours have stopped since the shutdown, and there is much less harassment of the manatees. As documented by the recent FWC aerial survey, this area of Key Largo (the area around Pelican Key and the nearby residential canals in Pirates Cove) is one of the areas most dense with manatees in all of the Florida Keys.

There are some negative events unfortunately, even during this shutdown during the time of coronavirus.

First, we continue to have a problem with at risk vessels in this area of Sunset Cove. One cabin cruiser with no means of propulsion was left anchored near Pelican Key back in early March before the shutdown. In high winds, it was blown several hundred yards across dense seagrass, dragging anchor across several hundred yards of seagrass. It eventually was blown into the shoreline, crashing into two different properties. A few days later, it was towed to a new location near the Key Largo Everglades National Park ranger station. It remains there with an anchor line

wrapped around an artificial reef structure created maybe 20 years ago by researchers at the ranger station. It is anchored in an area of dense sea grass with coral, in an area where there are many Horseshoe Crabs and much sea-life. It is likely to be blown around again in the next high wind event, damaging even more seagrass and potentially again endangering shoreline property. As I have reported previously, there is a history of derelict and at risk vessels being left anchored in the seagrass in this area of Sunset Cove. There is a history of these vessels being blown around in high wind, as no vessel seems to be able to be securely anchored in seagrass. There is a history of these vessels being blown all the way to the shoreline and damaging shoreline property repeatedly. Last year there were incidents with at least three such vessels, one of them being blown ashore four different times. Much of the area of the entire Sunset Cove 5.5 mile long shoreline is dense with seagrass and has some of the lushest seagrass beds in all of the Florida Keys nearshore in the Florida Keys National Marine Sanctuary.

Second, in recent years, we have had a growing problem with motorized vessels digging up the seagrass beds, especially in the area of Sunset Cove all around Pelican Key and in between Pelican Key and the shoreline. There is an unmarked channel between the shoreline and the intra-coastal which locals know to use. However, there are more and more motorized vessels appearing which do not seem to know the area at all and which have caused much of the seagrass damage. For some reason, during the coronavirus shutdown, there seem to be an increased number of motorized vessels appearing here which do not know the area. One of the Pirates Cove canals contains the homeowners' boat ramp, which requires a key for access by members only. Usually, it is only used by locals. For some reason, there are more and more new boats appearing, launching out of this canal where I live, during the coronavirus shutdown. They are not using the unmarked channel, and instead are taking off at high speed over the flats in the seagrass beds, digging up the bottom in the process. This is a new and unfortunate development, occurring mostly on the weekends.

Previously, in my comments for the Restoration Blueprint, I recommended making much of the south and western area of Sunset Cove a no wake zone. I emphasize here this recommendation again. The current increased presence of boats which do not know the area and which are damaging the seagrass beds during the coronavirus shutdown only adds to the urgency of my recommendation. Possibly, people from other areas are finding their way into the Keys, finding their way around the current checkpoint, and spending their time boating here during the shutdown. This practice is especially prevalent on the weekends.

We have already lost much of the coral in our reefs, and many areas of our seagrass environment in Florida Bay. Please protect the dense seagrass beds along the shoreline in Sunset Cove in Key Largo, along with their resident manatee population and the other sea-life which depends on the seagrass environment.

In summary, the coronavirus shutdown seems to have resulted in more birds returning to the bird rookery at Pelican Key. The shutdown seems to have contributed to more sea-life appearing in Sunset Cove in the seagrass environment. However, the problems created by motorized boats around Pelican Key and in the whole area of Sunset Cove continue to be a problem, as do derelict and at risk vessels. Aircraft flying over Pelican Key and causing the birds to fly also continue to be a problem even during the shutdown.

Please protect Pelican Key by creating a no motorized zone around it and a no fly zone. Please protect the surrounding seagrass environment by making the area a no wake zone and by prohibiting anchoring for more than a few hours for recreational purposes only.

Jan M. Edelstein

Cudjoe Gardens Property Owners Association urges the Sanctuary to lead the effort to protect Sanctuary Waters from “advanced treatment” wastewater, which, even after treatment, carries significant amounts of nutrients as well as compounds of emerging concerns (pharmaceuticals and personal care products). The 2000 Monroe County Sanitary Wastewater Master Plan regarding deep-well disposal of nutrient-carrying, treated wastewater needs to be fully implemented for all large quantity generators of treated wastewater. In addition, the plan should be expanded to assess, and address, the impact of compounds of emerging concerns (pharmaceuticals and personal care products) in treated wastewater.

For more detail, please see e-mail below, sent April 17, 2020 to Superintendent Fangman. This e-mail addresses the following:

1. DEP permitting of shallow wells for wastewater disposal is no guarantee that the local waters are protected, as was proven at Cudjoe Regional. The deep well was built only after a number of us filed administrative challenges to the shallow-well permits.
2. Water quality testing should be implemented around all shallow well disposal sites for not only general water quality information, but also to distinguish the shallow well contribution of nutrients from the contribution of poorly functioning canals.

Attached information:

I write to supplement the Cudjoe Gardens Property Owners Association written and oral comments heretofore submitted. These comments are submitted for consideration at the April 21st public meeting regarding the FKNMS Blue Print.

SHALLOW WELL PERMITS NO GUARANTEE...

I understand that, simply because DEP has permitted shallow well discharges of AWT wastewater, some have suggested that those discharges by Marathon, and other large quantity generators, should not be examined by the Sanctuary. History has proven that having a permit is no guarantee that the treated wastewater is removed from the near shore waters. Please remember that even with Advanced Wastewater Treatment, the effluent still contains tons of nutrients each year along with harmful compounds from pharmaceuticals and personal care products. I wonder if you know that shallow well disposal was permitted at Cudjoe Regional for many years? It was only the challenge to the 2014 renewal permits by Cudjoe Gardens Property Owners Association and others, including Don DeMaria, that FKAA was persuaded to do the science necessary to prove what we all knew: That treated wastewater will quickly migrate to the shallow, near shore surface waters. During our challenge, FKAA engaged Dr. Henry Briceno to conduct a dye-tracer study. Within a week of the 2015 Briceno/Shinn dye tracer study, FKAA agreed to build a deep well. Thereafter, in the summer of 2015, DEP required FKAA to conduct basic geotechnical testing, including examination of a core sample and a simple comparison of water level rise in the shallow wells with the tide stations. These simple tests corroborated the Briceno/Shinn findings. Based on this science, the litigation challenging the shallow well permits at Cudjoe Regional was settled, with the agreement that the shallow wells would be used solely as backup once the deep well was operational. The shallow wells would be used for primary disposal only to allow the treatment plant to start up while the deep well was being built and

during that time of low flows as people began to connect the sewer system, the FKAA would conduct water quality monitoring at 12 stations around the shallow wells.

FINISH SEWERING THE KEYS: SANCTUARY SHOULD DESIGN AND IMPLEMENT NEAR SHORE, SHALLOW WELL, WATER QUALITY TESTING PROGRAM

Although Advanced Wastewater Treatment Plants have been built for much of the wastewater of the Keys, the deep well disposal systems contemplated by the 2000 Monroe County Sanitary Wastewater Master Plan have not. Specifically, Marathon has failed to connect its several small plants over its 5 mile length for disposal into a deep well as contemplated by the Monroe County Sanitary Wastewater Master Plan (2000).

In addition, the 2000 Plan did not contemplate the large residential/hotel growth on Stock Island (the plan estimated only 500,000 g/d, rather than the 1 million gallons it will be approaching), nor did the plan contemplate the growth of residences between Key Haven and Big Coppitt, nor the concentration of all of that wastewater, including now Boca Chica, at the Big Coppitt facility. Although the 2000 Plan acknowledged that it would be better to use Deep Well disposal for 500,000 g/d treatment plants, it dismissed the idea on the basis of cost.

CANAL RESTORATION/MEASURING WATER QUALITY AROUND WASTEWATER TREATMENT PLANTS:

Given the significant quantities of nutrients which are allowed to remain in wastewater even after it received Advanced Wastewater Treatment, it is important to distinguish the shallow well injection of treated wastewater as a source of nutrients from the canals as sources. Initially, the Sanctuary should fund the addition of water quality monitoring stations in the Halo Zone around the shallow well injection points. (Sanctuary geologists should determine the locations.)

Over time, pursuant to F.S. 403-086(h) and Rule 62-528.630(7), F.A.C., DEP could require operators of shallow wells to fund this monitoring as a condition of any renewal permit.

Captain Jon Reynolds, President - South Atlantic Fishing Environmentalists

Thank you for this opportunity to comment on upcoming proposals, actions and alternatives considered by the FKNMS. South Atlantic Fishing Environmentalists applauds the FKNMS for considering increased conservation measures, specifically addressing fishing pressures within spawning grounds on extremely important social and economic species in our region. Proposals made by FKNMS acknowledge the importance and need for protection of habitat and spawning grounds throughout our region. I am a lifelong fisherman from South Florida and undoubtedly recognize the need for protection and more importantly an increase of marine habitat in the Florida Keys. South Atlantic Fishing Environmentalists strongly supports and encourages FKNMS to apply science based data to support any further closed areas that may have long standing positive affects on our fishery, while being mindful of the overall social/economic impact of proposed closed zones. If science shows specific zones being strong spawning aggregations for a multitude of species, then please consider "surface fishing only" in these expanded closed zones to increase habitat and reproductive activity, while accounting for the extreme social and economic importance of a world renowned fishing destination. There is no doubt that increased habitat, mainly due to loss of habitat, is also necessary in the Florida Keys. Additional habitat through an Artificial Reef Program is much needed and would be a small investment reaping large benefits to the resource and all user groups that utilize it. South Atlantic Fishing Environmentalists strongly supports new artificial structures in the deep water beyond the edge of the reef, to greatly increase habitat for spawning aggregations of both predators and prey. These artificial reef structures will serve as excellent habits for undisrupted spawning of all

bottom species and forage fish as well as give additional opportunity to the fishing community to encounter large pelagic species gathering to feed on the abundance of forage fish. We hope that the FKNMS is willing to work with South Atlantic Fishing Environmentalists and the Florida Keys fishing community on this ever so important project to ensure healthy fisheries and spawning habitats for years to come.

Kailee J. Brown

Marine Zoning pertaining to Marquesas Turtle Zone-- Sea turtles are still considered endangered species (loggerhead and hawksbill) regardless of a perceived abundance and deserve the responsibility of the federal government, NOAA, of protection even if it is only a designated idle zone. I believe it would be beneficial to run a study there if there has not been one conducted already.

Jenna Stevens, State Director - Environment Florida

My name is Jenna Stevens, and I am the State Director of Environment Florida. I am also a Florida native. What made growing up in Florida so special for me is our incredible natural heritage. Places like the Everglades, the Keys, and our springs are part of my fondest childhood memories and why millions of people come from around the world each year to visit the state. The Florida Keys National Marine Sanctuary is an important part of that heritage. It is home to part of the only living coral barrier reef in the Continental United States, 1.4 million acres of seagrass beds, 1,800 miles of mangrove-fringed shoreline, and more than 6,000 species of marine life, including manatees, sea turtles and dolphins. It's no wonder that the Keys are a beloved part of Florida's natural heritage.

But this heritage is increasingly threatened. I was alarmed by the findings of NOAA's 2011 condition report, which showed many of the Sanctuary's habitats to be at risk. In the last 40 years, healthy coral cover in the Florida Keys reefs has declined more than 90 percent, and we know extreme weather events, climate change, and water pollution have all taken their toll. That's why I'm here today to support expanding and deepening habitat protections in the Florida Keys National Marine Sanctuary.

Evidence from around the world and right here in Florida shows that when we limit human interference in key habitats, fish populations do better, and ecosystems are more resilient. Studies in the Dry Tortugas, right in our own backyard, have indicated the importance its current marine reserve plays in nurturing Florida's fish populations. Reducing stress on parts of the Keys' ecosystems through the implementation of more marine zones with higher levels of protection is an essential step towards preserving Florida's natural heritage.

In regards to some of the areas mentioned in the meeting today, we support implementing the following marine zones in particular:

- Large Contiguous Areas: Protecting sufficiently large, strategically located, essentially untouched zones containing diverse habitat types from local impacts represents our best chance for sustaining the full suite of species and ecosystem functions in the face of the changing climate and water quality challenges that will take, at best, many years to resolve.
 - Tortugas Corridor, Alternative 4, Transit Only, page 172. The proposed Tortugas Corridor zone would protect resident corals as well as fish transiting from the nearshore waters and shallow banks of Dry Tortugas National Park, which are essential juvenile fish nurseries, to the deeper adult fish spawning habitat in the

Tortugas South Ecological Reserve. Protecting marine life in the Tortugas helps ensure that the entire Florida Keys marine ecosystem continues to receive abundant supply of coral and fish larvae.

- Western Sambo Sanctuary Preservation Area, Alternative 4 (with modifications), page 149. Extending the existing Western Sambo zone into deeper waters and eliminating anchoring throughout would improve the ability of this zone to protect corals and produce larger fish and lobster, which generate more offspring and eventually move outside the zone boundaries where they may be harvested. This area should be modified from the proposal in Alternative 4 to become a transit only zone, off limits to all use except for transit which should be allowed at normal operating speeds.
- Long Key Tennessee Reef Sanctuary Preservation Area/Conservation Area, Alternative 4, page 117. This proposal is modeled on the Western Sambo Ecological Reserve, which has been successful at increasing fish and lobster size in and around the zone which runs from shore to reef. Including deeper reefs in these larger zones is essential to the protection of remaining
- Carysfort Reef Sanctuary Preservation Area, Alternative 4 (with modifications), page 90. Again, this proposal is modeled on the Western Sambo Ecological Reserve's success (see above). This area should be modified from the proposal in Alternative 4 to become a transit only zone, off limits to all use except for transit which should be allowed at normal operating speeds.
- Tortugas South Ecological Reserve: We support the westward expansion of the Reserve boundary. In order to support reductions to the Reserve boundary we would want to see sound scientific evidence that wildlife and habitat resources would not be harmed by moving the Reserve's southern boundary northward.

Providing key habitats around the sanctuaries with deeper and more comprehensive protections will give our state's marine wildlife and ecosystems greater resiliency and the chance to adapt in an increasingly stressed ocean. That is why I urge you today, on behalf of Environment Florida and everyone who cares about the Keys, to support expanded protections with the Florida Keys National Marine Sanctuary. Thank you.

Blair Witherington, Inwater Research Group, Inc.

Thanks for working through the challenges during today's virtual meeting. Please accept these comments on the discussion surrounding the Marquesas Turtle Zone.

1. There was a fundamental question regarding why protections are needed given the pronounced recovery of green turtles in Florida. Granted, green turtle numbers have increased in Florida waters and are advancing toward population resiliency. But protections for a unique, dense assemblage of green turtles near the Marquesas focuses less on population protections than on ecological protections. Green turtles are important influencers of benthic habitat, but only when their numbers approach historical abundance. The Marquesas Turtle Zone is one of few places where there is evidence of historical-level ecological influence—namely, the occurrence of large green turtle seagrass grazing plots. So, to the question, “do we need to limit disturbance and mortality in this special area to preserve green turtle abundance there?” the ecological answer supported by available science is, yes. Some references for this ecological need are: Bjorndal, K.A. and Jackson, J.B., 2002. 10 Roles of sea turtles in marine ecosystems:

reconstructing the past. The biology of sea turtles, 2, p.259. and Bjorndal, K.A. and Bolten, A.B., 2003. From ghosts to key species: restoring sea turtle populations to fulfill their ecological roles. Marine Turtle Newsletter, 100(100), pp.16-21.

2. Regarding activities that might be compatible with conserving sea turtles within the zone, some activities would not be compatible because they have a direct link to known mortality factors to sea turtles. These incompatible activities include most fishing actions employing lines, ropes, or nets. Other incompatible actions include vessels traversing the area at greater than slow speed. Evidence for harm from these actions is replete in the state's sea turtle stranding mortality records, with major sources of mortality including rope/line entanglement and vessel strikes.
3. Regarding the consideration of a "more refined area," we note that the current rectangular zone boundary does appear artificial. The boundary circumscribes a study area that Inwater Research Group outlined to assess sea turtle abundance, and within that study area, abundance was measured to be very high. IRG has data to show that adjacent areas outside the rectangle also have high abundance, but there are no areas within the rectangle with consistent low abundance.
4. On a seasonal application of regulations, we submit that none is justified based on the sea turtle distribution data we have. The zone is a foraging area, with turtles feeding there in all seasons.
5. Regarding the need for safe transit through the zone during extraordinary circumstances, we see general sanctuary zoning regulation addressing this need. We propose a human-safety criterion that would allow safe, slow transit of zones during hazardous weather.

Alli Candelmo, Reef Environmental Education Foundation (REEF)

Thank you for an informative meeting. There was a comment by an advisor during the discussion of the Marine Zone Expansions onto the deep reef habitats, that "the coral is more important than the fish and.... that hook and line fisheries will not have an impact on a fish population". I believe this is a dangerous approach to conservation efforts of the FKNMS. These new sanctuary boundaries should be including an ecosystem based approach whenever possible. Healthy fish populations are essential in maintaining a balance ecosystem which is important for successful coral recruitment/survival and overall ecosystem function.

With the coral populations in as bad shape as it is in the FKNMS, healthy fish populations may be the only thing left that will keep divers and fishers coming the Keys for recreational purposes. If you don't properly protect the fish now you will have very little left to protect in the near future; particularly as the habitat loss increases. Thank you.

Davis Poole, Eternal Seas Memorials

I echo many of the comments surrounding artificial reefs/habitats that were mentioned on the call today by Joe Weatherby, Will Benson, and others... in terms of seeing the future of the Florida Keys without artificial reefs and habitats. Artificial reefs have been part of the Keys for as long as anyone can remember. It is a major factor driving the economy and can help fuel efforts for all types of restoration; both artificial and natural.

I would go further to state: since my early days of diving the reefs in 1980, I've seen them die in rapid succession. As it was stated on this call, we need to think "*outside the box*" on ALL possible efforts to save our reefs!

On his last visit to the FKNMS SAC meetings, Dan Basta reflected the same sentiments to the SAC. Two of his direct statements were: "What we are doing; what I helped create, isn't working.", and "Don't let the perfect be the enemy of the good." Those words still hold true today.

Having said this, I ask that the plan allow creative, thoughtful and responsible restoration efforts including artificial habits/reefs. Plans such as I have presented in the past, can generate the much-needed funding and be the catalyst to propel the overall restoration footprint. Funds that could additionally support law enforcement to ensure compliance. The additional programs that could be potentially funded this way are limitless. Please consider. Thank you for your time.

Gerry Ward

As discussed in an afternoon joint teleconference with the NOAA FKNMS Deputy Superintendent and NOAA FKNMS Volunteer Coordinator early last week, the arbitrary requirement of limited public comments being submitted reverted to the previous of within one hour after the meeting. So herewith are my brief comments.

Obviously, the NEPA process has driven the communication process lately, but the latest virus (plague) has greatly restricted both the public communication (input) to the Council and more importantly U.S. & State input of science (particularly government agencies).

Today's "Go-To-Meeting" attempts has substantially impaired this meeting. Other "virtual" meeting experiences have been similar. For continuing meetings another vendor (Zoom?) should be considered.

Notwithstanding the severe "virtual" communication issues, further involvement in this long-delayed plan update needs to await the involvement/input of the federal Science driven agencies (USFWS/USNPS/UEDA/USGS/USCG, etc.) and the higher level State science based governments including first the FKNMS Co-Manager FDEP full involvement in accord with the Agreements mandated provisions which include Trustees of the Internal Improvement Trust Fund oversight. Included in the State "science based" agencies of FWC which evaluation is underway and additionally FDOH and most importantly SFWMD.

Given this truncated meeting, the last slides (41-46) are curiously left wide "open" as to included language within the Revised Draft Environmental Impact Statement is produced. These topics are all important, super important to the Keys public as I know them!

A revised DEIS needs full consideration of the FWC (Florida Fish & Wildlife Conservation Commission) comments that I have been led to believe will occur on or before 30 April 2020. Hopefully, the politics of the FDEP will improve so as to re-establish "boots-on-the-ground in Monroe County" Coequal-management of the Sanctuary.

IX. AGENCY REPORTS

Note: reports were provided via email but were not discussed in the meeting.

Florida Department of Environmental Protection

Office of Resilience and Coastal Protection:

- Lignumvitae Key Aquatic Preserve was tentatively awarded an almost \$340,000 grant for a 5-year marine debris removal and prevention project. The grant will fund debris removal and data collection on the types of debris, accumulation rates, and associated benthic habitat recovery after removal. Lignumvitae Key Aquatic Preserve staff will

conduct targeted outreach and community engagement efforts with reserve users, including tourists, anglers, and marina owners. This will involve social science research with the user groups to better understand their existing beliefs and behaviors and identify the best ways to encourage them to minimize waste entering the Aquatic Preserve. Lignumvitae Key Aquatic Preserve anticipates a reduction in debris removal after the outreach and community engagement phase.

Division of Recreation and Parks:

- John Pennekamp Coral Reef State Park
 - The final phase for the Dagny Johnson Key Largo Hammock Botanical State Park, Port Bougainville restoration project is underway and should be complete by April 24th. This phase will complete the filling of the entrance canal which is the last thing to be done, excluding the final plantings.
- Lignumvitae Key Botanical State Park
 - We started an \$180,000 seagrass restoration project in Lignumvitae last week. Restoration includes topographic and bird stake installation at a site on the bayside, and a revetment project along Lignumvitae Channel on the oceanside.

DRAFT