Attachment 1b
TAB10_A1b_FKNMS_AP_Comments.pdf

Florida Keys National Marine Sanctuary
Comments Provided by Coral and Habitat and Ecosystem APs

In October and November of 2019 representatives from the Florida Keys National Marine Sanctuary (FKNMS) made presentations to several of the South Atlantic Fishery Management Council (SAFMC) Advisory Panels (AP) on their proposed changes to the FKNMS Restoration Blueprint. In person presentations were made to the Snapper Grouper (October 10), Habitat Protection and Ecosystem-Based Management (October 22), and Spiny Lobster (November 13) APs. A webinar presentation was made to the Deepwater Shrimp/Shrimp, Coral, Mackerel Cobia, and Dolphin Wahoo APs (October 29). Immediately following the webinar presentation, each AP met via separate webinars to discuss their recommendations to the SAFMC.

The comments from the Deepwater Shrimp/Shrimp, Dolphin Wahoo, Mackerel Cobia, and Snapper Grouper APs will be presented during their respective committee meetings in December 2019. The Spiny Lobster AP met November 13, 2019 and the comments will be presented in a separate, late document to the briefing book.

This document presents the report or consensus statement from the Coral and Habitat Protection and Ecosystem-Based Management APs regarding the proposed modifications to the FKNMS Restoration Blueprint.

Summary Report
Coral Advisory Panel

Joint advisory panel webinar on proposed changes to the Florida Keys National Marine Sanctuary

October 29, 2019

The Coral Advisory Panel (AP) met virtually on October 29, 2019, through a webinar. The meeting was broken into two parts. During part I the Coral AP along with the Shrimp and Deepwater Shrimp APs received a presentation on the NOAA Florida Keys National Marine Sanctuary's (FKNMS) Restoration Blueprint delivered by FKNMS staff followed by a question and answer session. Part II was a separate meeting of the Coral AP only to discuss the FKNMS Restoration Blueprint.

1. Coral AP Attendees

The Coral AP was attended by Jocelyn Karazsia (chair, NOAA Fisheries), Stephanie Schopmeyer (Florida Fish and Wildlife Conservation Commission), Dr. Josh Voss (Florida Atlantic University), Dr. Dave Gilliam (Nova Southeastern University), Kimberly Pugliese (NOAA National Ocean Service), and Ken Nedimyer (Reef Renewal, LLC).

2. The Coral AP developed and approved two motions:

MOTION #1: THE CORAL AP RECOMMENDS THE SOUTH ATLANTIC FISHERY MANAGEMENT COUNCIL SUPPORTS ALTERNATIVE 4 OF THE FLORIDA KEYS NATIONAL MARINE SANCTUARY RESTORATION BLUEPRINT AND SUGGESTS, BASED ON KNOWN HIGH DENSITY AND HIGH VALUE CORAL HABITAT AREAS, EXPANSION OF: 1) TORTUGAS ECOLOGICAL RESERVE NORTH TO THE WEST TO A 100 FOOT DEPTH CONTOUR, 2) KEY LARGO MANAGEMENT AREA TO THE SOUTHEAST TO A DEPTH OF 160 FEET, AND 3) CHEECA ROCKS SANCTUARY PRESERVATION AREA TO FULLY ENCOMPASS THE ENTIRE PATCH REEF COMPLEX.
Motion approved by AP

MOTION #2: DEVELOP AN AP REPORT FOR THE SOUTH ATLANTIC FISHERY MANAGEMENT COUNCIL TO DETAIL THE RATIONALE BEHIND SUPPORTING ALTERNATIVE 4 AND SUGGESTING ADDITIONAL EXPANSION OF SOME MARINE ZONES.
Motion approved by AP

3. Report fulfilling Motion #2

The Florida Reef Tract supports a rich and diverse assemblage of organisms (i.e., stony corals, octocorals, macroalgae, sponges and fishes), and spans over 330 nautical miles from the Dry Tortugas to Stuart in Martin County. The South Atlantic Fishery Management Council (SAFMC) manages coral, coral reefs, and live/hardbottom under a Fishery Management Plan. Under the Essential Fish Habitat provisions of the Magnuson-Stevens Act, the SAFMC designates coral and coral reefs as Habitat Areas of Particular Concern (HAPC) for many species managed under Fishery Management Plans for Snapper-Grouper; Spiny Lobster; Coral, Coral Reef, and

Live/Hardbottom. In addition, the SAFMC designates the FKNMS as HAPC for Coral, Coral Reefs, and Live/Hard bottom. The FMP prohibits harvest of stony corals and sea fans, and live rock except as authorized. The harvest of allowable octocorals for the aquarium trade is limited in number and only allowed south of Cape Canaveral. Additionally, several Habitat Areas of Particular Concern have been established to protect coral habitat from bottom tending fishing gear, traps, dredges, and bottom longlines.

Coral reefs are under a myriad of threats including warm water thermal events, ocean acidification, pollution, and invasives species. The Florida Reef Tract is adjacent to one of the most densely populated and highly urbanized coastal communities in the U.S., with over one-third of Florida's population (over 6 million people) living on the coast of southeast Florida and 38 million visitors/year (FDEP 2018). The Florida Reef Tract is heavily used for fishing, diving, scientific research, education, and other recreational purposes and is linked to the economies from Martin to Monroe County – annually providing over 71,000 jobs and $6 billion in sales and income (Hazen and Sawyer 2001, 2004). In the Florida Keys, 58% of all jobs are tied to the reef, with marine activities generating $3.4 billion in sales and income annually. The Florida Reef Tract also provides critical shoreline stabilization functions, lessening the strength of waves and protecting human life and property, and annually protects over 5,600 people, $560 million worth of building infrastructure, and $320 million worth of economic activity in Florida from storm-related flooding by reefs (Storlazzi et al. 2019).

The FKNMS Restoration Blueprint details several significant impacts to Sanctuary resources since 2014. These include bleaching events, seagrass die-off, sponge die-off, harmful algal blooms and a category 4 hurricane (Irma). In addition, to these events, the Florida Reef Tract is currently experiencing one of the most widespread, lethal coral disease outbreaks on record, with nearly half of Florida's stony coral species affected. The severity of this outbreak was first noted in Fall 2014 offshore of Miami. As of 2019, the disease has spread to include reefs from the northern extent of the Florida Reef Tract in Martin County to ~30 west of Key West in the south/southwest (**Figure 1**).

This highly lethal disease, known as Stony Coral Tissue Loss Disease (SCTLD)[1], and associated outbreak is unprecedented in terms of its large geographic range, duration, number of species affected (22 species)[2], and high rates of transmission and mortality. It also has considerably high prevalence, e.g., within certain species, disease is seen in 66 to 100 of every 100 colonies surveyed whereas background levels of disease in Florida are typically 2 to 3 of every 100 colonies (FDEP 2018). As of November 2019, over half of the 330-mile Florida Reef Tract has been negatively affected – approximately 90,000 acres (i.e., 68,000 football fields). Hundreds of millions of corals have died from this outbreak so far, including nearly all known colonies of pillar coral (*Dendrogyra cylindrus*), listed as threatened under the Endangered Species Act, in southeast Florida, Biscayne National Park, and the Upper Keys (FDEP 2018). The SCTLD outbreak has continued to spread for nearly 5-years in Florida without interruption. The disease

[1] https://nmsfloridakeys.blob.core.windows.net/floridakeys-prod/media/docs/20181002-stony-coral-tissue-loss-disease-case-definition.pdf cited herein Case definition.

[2] https://floridadep.gov/sites/default/files/Coral-Disease-Outbreak-FAQ_v5.2.pdf

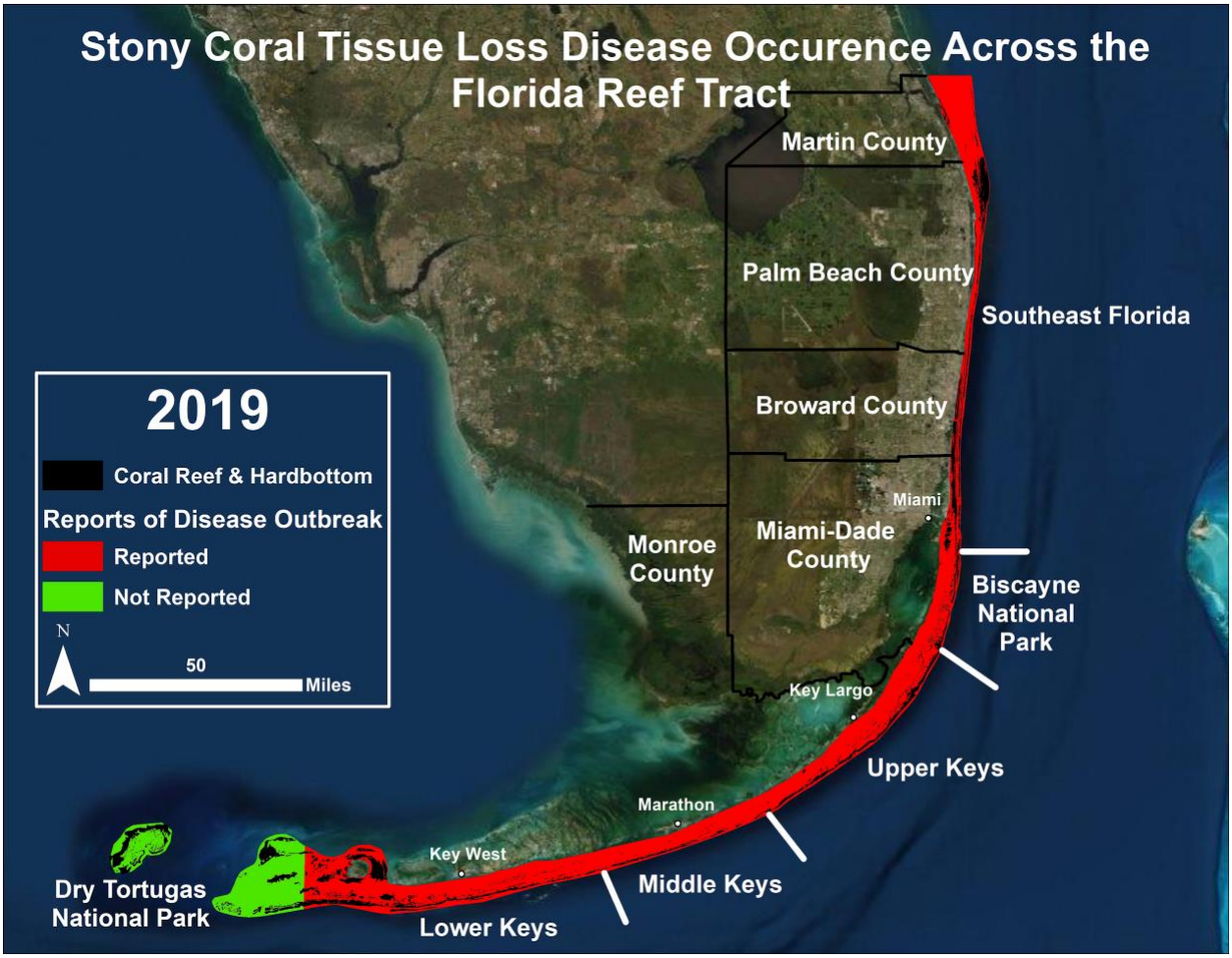

Figure 1. Stony Coral Tissue Loss Disease progression along the Florida Reef Tract as of 2019. Credit: FDEP

has also been documented on other Caribbean reefs in Mexico, Jamaica, St. Maarten, Dominican Republic, Turks and Caicos, Belize, and St. Thomas in the U.S. Virgin Islands.[3]

The Coral AP recommends the SAFMC fully support **Alternative 4** of the FKNMS Restoration Blueprint as it puts in place the most protections for coral habitat. While spatial protection cannot prevent impacts from large scale events such as disease or bleaching, it removes some chronic pressures from human activities such as fishing, anchoring, snorkeling and diving, potentially increasing ecosystem resilience to broader impacts. **Alternative 4** would expand the area to be avoided in the Tortugas Region by 1,000 square miles, thereby conferring the highest protection to one of the few remaining areas unaffected by SCTLD. This alternative would also increase the number of marine zones from 57 to 98 zones resulting in enhanced protection for an additional 400 square miles of Sanctuary resources. These additional protections would encompass the large, contiguous, diverse and interconnected coral habitat which includes designated critical habitat for corals listed as threatened under the Endangered Species Act that are the focus of current and future coral restoration activities. Finally, **Alternative 4** proposes to encompass the current and proposed regulated areas of the Pulley Ridge HAPC into the Sanctuary boundaries.

[3] http://www.agrra.org/where-is-this-occurring/

Pulley Ridge is a truly unique ecosystem, supporting extensive mesophotic coral/sponge habitats, some of which were unknown until recently. The regulated (and proposed) HAPC areas protect the reefs from most fishing impacts, but including them in the FKNMS boundaries will confer additional protection from non-fishery related impacts. The Coral AP believes **Alternative 4** is needed to increase the probability that the Florida Reef Tract can recover and begin to thrive once again in the future, meeting the goals stated in the Restoration Blueprint.

The Coral AP also recommends three discrete areas be proposed by the SAFMC to the FKNMS to be included as part of **Alternative 4**. These three areas each have high value and high coral cover and in our opinion warrant additional protections to ensure that this coral cover is maintained. The proposed areas are listed below in addition to the rationale for Cheeca Rocks Sanctuary Preservation Area is described below:

1. Tortugas Ecological Reserve North to the west to a 100 foot depth contour
2. Key Largo Management Area to the southeast to a depth of 160 feet, and
3. Cheeca Rocks Sanctuary Preservation Area to fully encompass the entire patch reef complex.

Figure 2. Cheeca Rocks Sanctuary Preservation Area and portions of the Cheeca Rocks patch reef complex, not protected under the existing Sanctuary Preservation Area.

While a portion of the Cheeca Rocks patch reef complex is protected under the Sanctuary Preservation Area (SPA) designation, a large segment of the Cheeca Rocks patch reef complex is

not (**Figure 2**). More than two-thirds of the carbonate production and coral cover at this unprotected site is the *Orbicella* species complex, primarily *O. faveolata* and also containing *O. anularis* which are listed as threatened under the Endangered Species Act (Manzello et al. 2018). Corals at this site exhibit growth and calcification rates in excess of offshore sites, recover quickly from bleaching (Manzello et al. 2015a, b), and may be acclimatized to high temperatures as they tend to be more heat tolerant than offshore corals (Manzello et al. 2019). Coral at this unprotected patch reef showed high resilience to back-to-back bleaching in 2014 and 2015. All corals bleached less and had lower incidences of partial mortality following bleaching in 2015, despite 2015 being hotter than 2014. There was only a 3.7% decline in coral cover even though 2014 and 2015 were the two warmest years on record for the Florida Keys. Of the over 4,000 coral colonies tracked through time, 94.7% survived (Gintert et al. 2018).

The Coral AP appreciates the opportunity to provide these recommendations.

Works Cited

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SAFMC Habitat Protection and Ecosystem Based Management Advisory Panel consensus statement for the FKNMS Restoration Blueprint

On October 22, 2019, Beth Dieveney and Steve Werndli of the Florida Keys National Marine Sanctuary (FKNMS) briefed the Advisory Panel on the new proposed FKNMS Restoration Blueprint, particularly the marine zoning and regulatory portions. The Panel is responding to that presentation with the following consensus statement.

The impacts of climate change to coastal ecosystems and communities are increasingly being seen throughout the world and in the South Atlantic. The Florida Keys and the globally unique ecosystem they support are by no means immune to this crisis. Stressors from extreme weather change and anthropogenic influences beyond sanctuary control, in combination with anthropogenic impacts from activities within the sanctuary, are threatening the survival of the largest coral reef tract in the United States.

Due to the recent outbreak of Stony Coral Tissue Loss Disease, increased frequency of coral bleaching events, physical degradation of habitat from increasing human interactions (anchoring, traps, marine debris, prop scarring of seagrass, boat groundings, diver impacts, etc.), macroalgal blooms, damage from hurricanes, which are expected to increase in intensity with climate change, and continued issues with water quality attendant to growing populations, the FKNMS needs to adopt the most protection it can afford. In recent years, these combined stressors have resulted in significant loss of coral reef habitat across the entire Florida Keys Reef Tract. It is for this reason that the South Atlantic Fishery Management Council's (SAFMC) Habitat Protection and Ecosystem Based Management Advisory Panel (AP) supports the effort by the FKNMS and partners to increase the level of protection to the FKNMS and the globally significant resources present there which are foundational to the Florida Keys economy and the South Atlantic ecosystem. Published research on the effectiveness of no take marine protected areas support the case for stronger management than what currently exists in the Sanctuary, as well as greater involvement on activities outside the sanctuary boundaries negatively influencing sanctuary resources (e.g. land and water management that impacts water quality). While the AP supports Alternative 4 and recommends the SAFMC endorse it as well, we believe the proposed plan could go much further in protecting the living marine resources in the Sanctuary. The AP also recommends the Council support the implementation of adaptive management protocols to provide the FKNMS staff necessary authority to respond to critical issues in a timely manner.

Background, Briefing and Deliberations Summary: On October 22, staff of the FKNMS (Beth Dieveney, Policy Advisor, and Stephen Werndli, Enforcement and Emergency Response Coordinator) briefed the SAFMC Habitat Protection and Ecosystem Based Management Advisory Panel (AP) on the DEIS: A Restoration Blueprint: https://safmc.net/download/Briefing%20Book%20Habitat%20Ecosystem%20AP%20October%202019/A05_DEIS_FKNMSRestorationBlueprintAug19.pdf

The staff AP briefing focused primarily on the proposed changes to marine zoning and regulations. [https://safmc.net/download/Briefing%20Book%20Habitat%20Ecosystem%20AP%20October%202019/A07_FKNMS_DEIS_304a5presentationOct19.pdf]

The FKNMS was established by Congress in 1990, with a management plan, zoning scheme and regulations implemented in 1997. The Dry Tortugas Ecological Reserve was added in 2001, and the Management Plan was updated in 2007. The "blue economy" provided to the Florida Keys, and Monroe County, cannot be overstated. The Florida Keys ecosystem provides tourism (5.5 million visitors in 2018); boating (4.5 million boaters per year); diving and snorkeling (1.62 million per year); and commercial (79 percent of the Sanctuary catch is processed in Monroe County) and recreational fishing (2.4 million anglers per year). The establishment of the FKNMS provided a tool to manage the Keys resources on an ecosystem scale for sustainability. Monroe County's economic return from the FKNMS visitors is $4.7 billion annually, equaling 60 percent.

The present and future health of the FKNMS is under significant threats and is at risk. The condition and threats to the resources in the Sanctuary were documented in the 2011 Condition Report [https://floridakeys.noaa.gov/scipublications/condition.html]; significant adverse events which occurred after 2011 include: warm water mass bleaching events, drought and elevated salinity, Florida Bay seagrass die-off, sponge die-off, harmful algal blooms, Hurricane Irma, coral disease outbreak, and Sargassum strandings.

Development of the plan has been community-led, with a Sanctuary Advisory Council which has 50 members and an additional 35 community members. The plan development process has included 70 public meetings, provision of 1,500 comments, and submittal of 200 recommendations to the Sanctuary Superintendent. The Council goals are: Improve biological diversity; restore and enhance natural systems; and facilitate public and private resource use compatible with resource protection. Three Council Working Groups, and multiple state and federal agencies, and the Gulf of Mexico and South Atlantic Fishery Management Councils have the opportunity for review and consultation on the DEIS.

Staff gave the AP an overview of the National Marine Sanctuaries Act (NMSA) purposes and policies and procedures for designation and implementation. The two Councils (GMFMC and SAFMC) have the opportunity to draft regulations or determine if regulations are not necessary. Any Council action must fulfill NMSA purposes and policies and goals and objectives of designation and must use the National Standards of the Magnuson-Stevens Act as guidance. If

the Councils decline, or their determination is rejected or, they fail to act in a timely manner, the Secretary of Commerce shall prepare fishing regulations. The Councils must cooperate with other fishery management authorities.

The DEIS includes four alternatives for consideration. These are a No Action alternative (1), and three additional alternatives, 2-4. Each alternative addresses: management plan activities; boundary expansion; sanctuary-wide regulations; and marine zones and zone specific regulations. Staff provided a detailed review (see the presentation at the link provided above) of each alternative and the differences between them. The agency-preferred alternative is Alternative 3.

AP members asked multiple questions regarding the following topics: impacts arising from the Sargassum strandings; benefits documented from the larger protected areas (larger and more abundant fish and Spiny Lobsters); how the proposed plan addresses some of the SAFMC's objectives; how the four National Wildlife Refuges incorporated within the FKNMS relate to the Sanctuary; the percentages of the Sanctuary that would be closed under the various alternatives; the SAFMC's designation of the entire FKNMS as an Area of Particular Concern; the FKNMS emergency regulatory authority and the potential for using it for adaptive management; which of the alternatives was most protective of the resources in the Sanctuary; and how the final decision will be made regarding the alternative selected for implementation. Council staff (Roger Pugliese) noted that the SAFMC has requested an extension to the comment period. Comments are otherwise due January 31, 2020.

The AP appointed an ad-hoc subcommittee (Drs. Rene Baumstark and Wilson Laney, and Mr. David Webb) to draft a consensus statement for provision to the SAFMC at its December meeting. The subcommittee was instructed to focus on the big picture in drafting the statement, with the understanding that after further review of the DEIS, any specific technical or substantive comments regarding the document could be provided in an addendum to the consensus statement. The ad-hoc subcommittee provided a draft consensus statement to the full AP on October 23, and circulated it for review by the full advisory panel. It was revised and finalized on October 24th.