

FLORIDA KEYS NATIONAL MARINE SANCTUARY
Water Quality Protection Program Steering Committee Meeting

February 10, 2021

DRAFT MINUTES

Steering Committee Members Present

Wade Lehmann, US Environmental Protection Agency (EPA), Region 4 (Chair)
Jon Iglehart, Florida Department of Environmental Protection (DEP) (Co-Chair)
Sarah Fangman, Florida Keys National Marine Sanctuary (FKNMS)
Christopher Kavanagh, National Park Service
Christian Eggleston, U.S. Fish and Wildlife Service, Florida Keys National Wildlife Refuges Complex
Justin Stiell, Florida Department of Economic Opportunity
Gil McRae, Florida Fish and Wildlife Conservation Commission
Sue Heim, Key Largo Wastewater Treatment District
Andrea Leal, Florida Keys Mosquito Control District
Commissioner Craig Cates, Monroe County Board of County Commissioners
Mayor Teri Johnston, City of Key West
George Garrett, City of Marathon
Councilman David Webb, Islamorada Village of Islands
Patrick Rice, FKNMS Sanctuary Advisory Council
Chris Bergh, The Nature Conservancy, Florida Keys Program,
Sandy Walters, Sandra Walters Consultant, Inc.
Shelly Krueger, Florida Sea Grant/IFAS Extension Monroe County

Summary of Resolutions

- Motion 1 (passed): Justin Stiell made the motion to approve the agenda; Sarah Fangman seconded. The agenda was approved with no changes.
 - Motion 2 (passed): Jon Iglehart made the motion to approve the September 2020 meeting minutes; Shelly Krueger seconded. The minutes passed with no objections.
 - Motion 3 (passed): Jon Iglehart made a motion to nominate Chris Bergh and Shelly Krueger to serve on the Florida Keys and South Florida Ecosystem Connectivity Team. Andrea Leal seconded the motion. The motion passed with no objections.
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I. Introduction and Opening Remarks

Wade Lehmann, Ocean and Estuarine Section Chief, EPA, Region 4, called the meeting to order and welcomed everyone. Jon Iglehart, South District Director, DEP and Mr. Lehmann are the meeting co-chairs. Mr. Lehmann introduced himself as the new EPA designee to the WQPP Steering Committee, on behalf of John Blevins, Acting Regional Administrator, EPA, Region 4. He thanked the members of the WQPP Management Committee for putting together the agenda and the members of the public who are in attendance. Public comment will be held in the afternoon.

Steering committee members in attendance were recognized, and the following new representatives to the Committee briefly introduced themselves: Chris Eggleston (USFWS), Justin Stiell (DEO), Commissioner Craig Cates (Monroe County), Councilman David Webb (City of Islamorada, on behalf of Mayor Buddy Pinder), and Patrick Rice (Sanctuary Advisory Council).

Karen Bohnsack provided an introduction to the virtual meeting format and instructions for attendee participation. The presentations and materials associated with the meeting will be available at the steering committee page on the Water Quality Protection Program website http://ocean.floridamarine.org/FKNMS_WQPP/.

Mr. Lehmann gave the opening remarks on behalf of EPA. Jeaneanne Gettle (Water Division Director, EPA, Region 4) and EPA are excited to be engaged in the protection of waters in south Florida, and to work with the WQPP on issues affecting water quality in the Keys. Currently EPA is undergoing leadership changes with the new administration, but they hope for clarity in the near future. EPA anticipates that funding for special studies this year should exceed last year's ~\$4 million.

Mr. Iglehart gave the opening remarks on behalf of DEP. Secretary Valenstein is encouraged by and supportive of the effort to reinvigorate the WQPP. Governor DeSantis' budget includes \$625 million for the environment and \$165 million for a new Resilient Florida program to help communities prepare for the impacts of climate change.

Agenda and Minutes

Mr. Lehman reviewed the agenda and September 2020 meeting minutes and requested edits or a vote to approve from the Steering Committee. Justin Stiell made the motion to approve the agenda; Sarah Fangman seconded. The agenda was approved with no changes. Jon Iglehart made the motion to approve the September 2020 meeting minutes; Shelly Krueger seconded. The minutes passed with no objections.

II. WQPP Administrative Business

Gus Rios reviewed the existing Bylaws and membership list, and discussed recommendations from the Management Committee regarding potential updates. The Bylaws include background on the creation of the WQPP through the Florida Keys National Marine Sanctuary and Protection Act (FKNMSPA), and define the role of the Steering Committee as setting guidance and policy for FKNMS. Overall, the Bylaws provide direction on membership, meeting schedules and agendas, consensus and voting, attendance and quorum, subcommittees, conflict of interest, and procedures to amend the Bylaws. The Bylaws were last reviewed in 1996, so the Management Committee has recommended a series of updates for the Committee's consideration. Generally, these include the following:

- **Meetings**: Include a minimum number of yearly meetings, as well as an option for virtual meetings.
- **Attendance and Quorum**: Clarify that quorum will be 2/3 of eligible, filled seats (vacant or non-voting seats are not included in determining quorum). If agencies do not designate a representative to the Steering Committee, that seat will remain vacant until a representative is assigned.
- **Subcommittees**: Clarify that subcommittees can include non-Steering Committee members, a Committee member should serve as chair, and representatives should be selected by a 2/3 affirmative vote. Additionally, a new section of the Bylaws should be added relevant to the operation of the Technical Advisory Committee.
- **Membership**: Update Bylaws to reflect the new agency members that did not exist during the last review of the document in 1996, and invite each municipality to have a seat on the Committee. Articulate the process for identifying and selecting non-agency representatives, should the existing seats resign or new non-agency seats be added. Consider additional representation from the boating/marine and commercial fishing industries. Clarify that procedural changes in representation for agency seats, as may occur with turnover and elections, do not require a Steering Committee vote. Initial outreach has occurred to the marine and commercial fishing industries to gauge interest in participating in the WQPP. The representative from the

Commercial Fishing Association declined due to existing obligations, but indicated an intent to attend meetings when able.

Any updates discussed and agreed upon today would be in concept only. The Management Committee will draft the verbatim language for review and approval during the next meeting, in accordance with the established procedures to amend the Bylaws. Also of note per the Bylaws, the required work product of the Steering Committee is the Biennial Report, which is currently very overdue with the last update in 2013. The Management Committee has been working on a draft update.

Comments/Discussion:

On the topic of meetings and quorum, the following points were made:

- Overall, the perception is that virtual meetings have allowed an increase in attendance compared to the more recent in-person meetings. While in-person meetings have value, virtual meetings offer additional opportunities for attendance.
- The Steering Committee has previously passed a resolution to hold three meetings per year, and to the extent possible this should be adhered to in order to keep in touch on important water quality issues. This is especially important given the seasonality of water quality.
- The Bylaws should be updated to include a minimum target of two meetings per year, with the goal of having at least three.
- Virtual attendance by a Steering Committee member should count toward quorum, although the Management Committee should research this to confirm consistency with federal guidance. Under state sunshine law, virtual meetings are no longer allowed, however as a federally designated committee, the WQPP can operate under federal guidelines.

On the topic of consensus and voting, the following points were made:

- Jon Iglehart reiterated the intent to reach consensus among the WQPP Steering Committee members, but when that is not possible, resolution can occur by a simple majority vote. Although stipulated in the Bylaws that individual votes should be recorded, this has not been done in the past. Rather the record has reflected when consensus or a majority vote is achieved.

On the topic of membership, the following points were made:

- Generally, having representatives from the fishing and marine industries would be a valuable addition to the Steering Committee, as these interests are well organized and have a vested interest in water quality. Although the initial point of contact was unable to attend, we should see about giving another representative the opportunity.
- A suggestion was made to additionally consider reaching out to the dive industry. This allows additional connections with complementary resource management priorities in the Keys, including Mission: Iconic Reefs. The Florida Keys Association of Dive Operators (KADO) or the Dive Equipment Manufacturer's Association (DEMA) were recommended as possible contacts to represent the dive industry. Monroe County also has a "Dive Umbrella" organization that has a representative from each of the five districts, and the College of the Florida Keys has a Dive Industry Advisory Committee that could help identify potential representatives from the dive community.
- There is a need for more protracted discussion by the Steering Committee on this topic of adding additional representatives, to ensure it is deliberate and well-managed. The Sanctuary Advisory Council also has a broad spectrum of interests, so this discussion could further consider how these bodies can work together.
- No motion to approve new seats was made during this meeting. Instead, Steering Committee members were asked to send ideas and contact information to Gus Rios and Steve Blackburn. After soliciting interest and identifying potential candidates, potential new seats will be brought back to the Committee for a formal vote.

III. WQPP Priorities and Future Direction

Gil McRae, FWC, provided a reminder about the efforts to update the WQPP priorities and the potentially important role the WQPP Steering Committee can have in advancing water quality in the Keys. In particular, beginning in November 2019, the Steering Committee has been considering the greater level of support at the state level for the Everglades and water quality, and the fact that the WQPP is in a unique position to speak objectively and across all the relevant management agencies for water quality in the Keys. Having a more organized framework to discuss the issues, identify what the WQPP can directly achieve, and collaborate to raise the profile of larger issues to the public and policy makers is important. Nearly every management agency in the Keys is pivoting from a 'protection' to a 'restoration' focus, and the success of those efforts requires us to work together to address water quality.

Mr. McRae led an exercise that encouraged each individual member to identify opportunities for the Steering Committee as a whole and as individual members to help advance water quality priorities.

Comments/Discussion:

In the discussion, the following themes and ideas emerged regarding opportunities for the Steering Committee and/or individual members to advance water quality priorities. Many of the shared ideas were relevant to WQPP administration, education and outreach opportunities, improvements to water quality monitoring and data availability, and other issue-specific needs.

Opportunities for the Steering Committee:

- As noted in the FKNMSPA, the role of the Steering Committee is to recommend priority corrective actions and compliance schedules addressing point and nonpoint sources of pollution to restore and maintain the chemical, physical, and biological integrity of the Sanctuary.
- *Staffing and Funding:* A number of comments emerged about the difficulties associated with the current part-time staffing of the WQPP. The Steering Committee should work together to make sure appropriate staffing and funding are available to implement the WQPP, including timely completion of the Biennial Reports. A National Estuary Program-like model of a full-time staff member to run the program would be beneficial.
- *Education and Outreach:* Sponsor a public-facing version of the water quality priorities document to allow the public and policy makers to better understand the scope and scale of water quality concerns in the Keys and the work, successes and challenges of the WQPP. This FKNMSPA also requires a Biennial Report to Congress, which is key to better communicate issues, progress and needs to stakeholders and local/state governments. There is also a need to be accountable for tracking progress on priorities and presenting the outcomes of this work. Identify ways the community can contribute.
- *Research:* Identify key research topics, including mitigation technologies for water quality and the seasonality of water quality. Cruise ship impacts should be considered as a potential special study topic as this is a unique opportunity to collect data without cruise ships in the Keys. The Technical Advisory Committee can be convened to provide recommendations about what a cruise ship study should contain.
- *Water Quality Monitoring and Data Availability.* A lot of work has gone into understanding water quality in the Keys, but it is difficult to find basic information about the WQPP or the status of water quality. Consider how to increase awareness of this information and data. Information online is not relatable to average members of the community. There should be in depth analyses of existing water quality data collected over 25 years. Those programs should also be revisited and locations, parameters, etc. reconsidered to focus on today's questions.

- The Steering Committee in context with Everglades restoration and the EPA South Florida Initiative needs to begin looking at water quality in a regional or broader context. Water Quality issues in the Florida Keys have a much broader context and source of influences than within the FKNMS.
- Provide technical assistance to the municipalities as they work on the canal restoration projects.
- Identify subcommittees to get work done/tackle issues (e.g., biannual report, convert scientific reports into information appropriate for E&O efforts).

Self-Identified Opportunities for Individual Members:

- Local Governments: Consider progressive model ordinance language for fertilizers, sunscreen, storm drains, treatment standards, etc. Municipalities and the County can also pass resolutions to support water quality goals as an additional way to increase messaging and community awareness. Champion demonstration projects for Best Management Practices for green infrastructure and conversion of impervious surfaces. Islamorada is working on stormwater runoff and residential canal restoration and financing these projects will be critical to their success. Different types of available funding, including public/private options, should be considered.
- University of Florida IFAS Extension, Monroe County and Florida Sea Grant can help with science-based outreach and education
- EPA has been working with DEP to come up with WQ criteria related to coral health. Hope to use Keys' monitoring data to inform these criteria.
- Fund research and operations at the Key West Wastewater Treatment Plant to test effect on endocrine disrupters, medicines, etc.
- Regarding baseline water quality for a cruise ship study, the College of the Florida Keys marine science program is conducting water quality data collection in the Key West shipping channel.
- FIU has been conducting monitoring quarterly throughout the Sanctuary (112 stations) during the pandemic and has relevant data without the influence of cruise ships.

Additional discussion ensued surrounding public education and outreach, during which the Steering Committee relayed the following ideas.

- *Key Messages/Steering Committee Role:*
 - There is a perception that the Keys are 'far off' and water quality issues here are local in nature and can be resolved locally. A public facing document should include local issues, successes and challenges (with things like canal restoration). It should also clearly explain effects to local resources from local, regional and far field issues (climate, ocean acidification, ocean warming, etc.).
 - It is important to communicate to decision-makers what is possible with water quality, and share the Keys' role as the "canary in the coal mine" – allowing resources to be lost in the Keys is a sign of greater trouble for the state.
 - Regional focus is important. The Florida Keys have been a focus of environmental support around the state historically, and lately other areas of the state have begun to deal with the same issues that have long been identified as problems in the Keys (septic to sewer conversions, etc.). The WQPP needs to be leaders in sharing data and communicating locally and regionally about issues and efforts to improve water quality in the Keys.
 - Once we have an agreed upon messaging, each Steering Committee member can magnify those messages within their individual organizations. As an example, FKNMS can incorporate these messages into the Sanctuary's education and outreach programs, media talking points, etc. The same information coming from different sources will reinforce those messages.
- *Types of Media to Consider:*

- Several members of the Steering Committee reminded attendees about previous education and outreach efforts, including the book “Tropical Connections” and the Waterways television show. Consideration should be given as to how to refresh these tools (e.g., ensure “Tropical Connections” is available throughout the community in hotels, restaurants, etc.; consider translating these resources into social media and other newer platforms). The “Water Quality White Paper” was also released by Bill Kruczynski in 1999 – this could potentially be updated.
- Consider use of social media outlets/other digital tools to increase outreach.
- Consider a sub-committee to share info on Facebook/Twitter/Instagram, etc. An additional subcommittee could focus on converting science to outreach-type messages.
- It is important to consider audience in determining messages and formats. The audience should be broader than the Florida Keys.
- Regular press releases on key findings from WQPP-funded projects.
- Rather than a document, we need a communications campaign, a campaign that never ends and is embedded in FKNMS and other agency and NGO programs.

Break

IV. South Florida Ecosystem Restoration Working Group

Karen Bohnsack, FKNMS reviewed the origin of the concept for a South Florida Ecosystem Restoration Working Group and progress since the September 2020 WQPP meeting. The Sanctuary Advisory Council drafted and in December 2020 approved a resolution to create this working group, now called the Florida Keys and South Florida Ecosystem Connectivity Team. In addition to identifying SAC and WQPP Steering Committee representatives on the group, efforts are underway to finalize the list of constituent groups and organizations to serve as members on the team. Additional agency advisors will also be brought in, as needed. The first meeting of the working group is being planned for March, which will be open to the public and noticed on the soon-to-be established working group website located at: <https://floridakeys.noaa.gov/review/workgroups.html>. Input is being sought from the Steering Committee regarding: volunteers to serve on the working group, feedback on preferences for reporting progress, and any other input the group deems necessary. Ms. Bohnsack also noted that an initial reference list of regional councils and task forces has also been put together for the Steering Committee, as requested at the September 2020 meeting.

Comments/Discussion:

- Gil McRae indicated his enthusiasm for Jerry Lorenz being identified as the chair of this new team, and volunteered to be involved as an agency resource as needed. Mr. McRae is well versed in Everglades’ restoration and is a member of the South Florida Ecosystem Restoration Working Group.
- It was noted that many of the Steering Committee members are agency representatives, and thus could be invited to participate as advisors at any point, as appropriate. While EPA and other federal agencies are still reorganizing due to the administration change, it was noted that they can also eventually provide support for this effort.
- Chris Bergh reaffirmed his interest in volunteering as a WQPP representative to serve on the Connectivity Team. This is a long and ongoing process, so it will be critical to have consistency in the WQPP volunteers on the working group, vs. rotating membership.
- On the question of how and how often updates from the working group should be brought to the Steering Committee, Wade Lehmann observed that it would depend on the group’s progress. If

there are immediate needs where the Steering Committee may be able to provide support, it should be brought up immediately, whether it be during a meeting, by email or informal phone calls. At a minimum the regularly scheduled Steering Committee meetings can be used as an opportunity for more in-depth updates.

- Dr. Henry Briceño (WQPP Technical Advisory Committee) expressed interest in participating in some capacity with this group, as he has collected water quality data within the sanctuary over the past 25 years. There is an interest in revisiting the established programs and considering more efficient ways to comprehensively monitor water quality, and his team has developed some new ideas for consideration by EPA and the Steering Committee. It is also important to increase outreach efforts and engagement of the local community on water quality status and issues.
- Shelly Krueger also indicated an interest in volunteering as a WQPP representative to serve on the Connectivity Team.

Motion (passed)

Jon Iglehart made a motion to nominate Chris Bergh and Shelly Krueger to serve on the Florida Keys and South Florida Ecosystem Connectivity Team. Andrea Leal seconded the motion. Co-Chair Lehmann called the question. The motion passed with no objections.

V. Canal Restoration Work Plan

Rhonda Haag (Monroe County), Justin Stiehl (DEO) and Greg Corning (Monroe County Consultant) provided an overview of the new canal restoration implementation plans for Monroe County, the City of Islamorada, and the City of Marathon. A canal restoration program has been ongoing in Monroe County for approximately 10 years, which has progressed from a research phase to a demonstration project phase, to more recently conducting monitoring for the Florida Keys Reasonable Assurance Document and to evaluate connections between canals and nearshore waters. Last year, the county's restoration program was formalized following rule-making initiated by the Area of Critical State Concern program staff. The new rules went into effect in November 2020, and require that the county and local governments to follow an established work program and submit progress reports to the Administration Commission each year. This provides a framework and accountability for implementing canal projects, and a lack of progress will result in a reduction of annual Rate-of-Growth-Ordinance (ROGO) allocations. State and federal funding will continue to be necessary to implement this program.

Work plans have a 10-year timeline for prioritizing and executing restoration projects. Currently, Monroe County, Islamorada and Marathon are working to update Canal Management Master Plans, and to update the ranking criteria for selecting canals for restoration. Ranking criteria include considerations of water quality and restoration technologies (e.g., evidence of nutrient accumulation, potential nearshore impacts, success of the various techniques, implementation costs, etc.). Public participation, the availability of funding, and other implementation factors are also assessed in selecting canals. The process to restore each canal will include identifying funding, design, permitting, procurement, construction and monitoring.

The WQPP Steering Committee will have a role to play in canal restoration by helping identify opportunities for funding (e.g., as a priority for EPA special studies grants), reviewing the results of restoration work during semi-annual meetings, and providing technical support for grant deliverables.

Comments/Discussion

- Regarding funding, Chris Bergh noted that the EPA special studies funding is limited and inquired as to what the lowest cost might be for a canal restoration project. Ms. Haag responded that, similar to the past, this funding could be used for more research, to fund projects such as the

current effort to develop a sargassum master plan, etc. She expressed hope that as these specific needs are identified, that they'd be able to apply for EPA special studies funding. Mr. Bergh reaffirmed that source of funding would be appropriate for special studies to improve canal restoration techniques, not to conduct the physical construction aspect of restoration.

- Jon Iglehart asked for clarification about the potential reduction in ROGO allocations and what impact that would have on development. Ms. Haag clarified that that ROGO reduction is 20% and would be assessed county-wide vs. specific to certain canal lots. Justin Stiell confirmed that a lack of progress in canal restoration would cause the pace of development to slow, but not stop. George Garrett reiterated that the ROGO penalty is assessed by jurisdiction (e.g., the City of Marathon vs. Monroe County if the City of Marathon did not meet work plan requirements). Several members provided additional background on the number of ROGO units issued in the past and deviations from that.

VI. Status of Monroe County Mobile Vessel Pump-Out Program

Celia Hitchins, Monroe County, provided an update on the status of the Monroe County Mobile Vessel Pump-Out Program. The previous Keys-wide service was suspended in July 2020 due to failed negotiations, and a request for proposals (RFP) was subsequently issued to identify a new vendor. The program is refocusing on service for anchored vs. shore-side vessels, which is more in line with available funding. Many shore-side vessels have found workarounds such as paying for private mobile service, using land-based pump out trucks, investing in more functional marina equipment, etc. There were approximately 250 weekly customers in 2019, of which 49% were in Key West, and 21% in the Upper Keys. Monroe County is currently working with the City of Key West to provide services from Wisteria Island to Boca Chica, where 70% of all anchored liveaboards in the Keys are located. Approximately 500 pumpouts, totaling 6,000 gallons of sewage, are currently provided in Key West each month. In the Upper Keys from Lower Matecumbe to Jewfish Creek, On the Hook Marine Services has been contracted to provide service for 64 registered vessels (21% of anchored liveaboards). This has totaled approximately 165 pumpouts and 2,500 gallons per month. In the Middle Keys, most vessels are dockside or served by the city's pumpout boat, so there is no real demand by anchored vessels for weekly service from the county. There is a gap in service in the Lower Keys where there were 18 weekly customers previously serviced by the Keys-wide vendor. This large geographic area is difficult to service and unfortunately also has the largest gap in shore-side pump stations (Bahia Honda and Stock Island are the closest options). Plans are in the works to extend the contracts with the City of Key West and On the Hook until June, and the county staff are looking into longer term solutions between in-house or contracted services. The county has requested \$500k from Florida Legislature for FY 2022 to supplement this program.

Monroe County is also working to develop a new (tentatively-named) "Marina Pumpout Outfitting Program (MPOOP)" to ensure marinas have adequate pumpout equipment in compliance with the comprehensive plan and no-discharge rule. This effort should provide a wider availability of pumpout facilities.

Comments/Discussion

- Sarah Fangman expressed appreciation for the effort Monroe County has made to find alternative solutions for this important program, and asked what the Steering Committee can do to support them. Preventing 8,500 gallons of waste from going overboard each month is important. Ms. Hitchins referenced the importance of the legislative request for allowing the county to continue to provide these services in the long term.
- Craig Cates echoed his support for this program continuing to be a priority for Monroe County, and thanked the city of Key West for stepping up to help with pumpouts. It is important for the reefs and nearshore water quality to ensure proper pumpout facilities are located throughout the

Keys. It is also necessary to identify boats that are not properly pumping out to assist with law enforcement, as well as ensure marinas are accountable for providing adequate shore-side facilities for their liveaboards.

- George Garrett provided an overview of Marathon's current capacities and coverage of their pumpout vessels. It is important to continue to engage with marinas and facilities to ensure compliance with current regulations, with enforcement actions taken when necessary.
- Wade Lehmann noted the volume of sewage pumped out can be translated into the amount of avoided nitrogen loading, which could be a useful metric for communicating the importance of this program. Mr. Garrett agreed and explained that the City of Marathon could calculate similar numbers.

VII. EPA Special Studies: 2020 Funded Projects and 2021 Priority Topics

Steve Blackburn, EPA, provided a general overview of the types of projects funded last year by the EPA South Florida Program. In FY20, the program received \$4.2 million dollars which has enabled funding for the long term water quality, coral and seagrass monitoring programs, coral restoration, harmful algal bloom monitoring, sponge restoration in Florida Bay, groundwater monitoring at shallow injection wells, canal projects, trash-free waters, and a data synthesis project. In total, six of these projects are located in FKNMS, and two in Florida Bay. In an effort to more strategically align WQPP information needs and priorities with funding decisions, a new goal moving forward will be to annually incorporate WQPP input into priority special studies topics for EPA grant funding. A starter list of potential topic areas was created by the Management Committee for review and input by the Steering Committee. This includes the following topics: stormwater, education and outreach, water quality connectivity with South Florida, contaminants of emerging concern, and non-municipal wastewater. Stormwater has been a priority for the past five years, but has not gotten applications. Proposals in line with the priorities are more competitive, but projects on any topic can always be submitted for consideration.

Comments/Discussion

- Chris Bergh reiterated that stormwater has been a priority for several years but has lacked applicants, which is a concern if it is a priority. Mr. Blackburn noted that this year the language has been reframed in the hopes of generating more responses.
- Mr. Bergh also inquired if the Indian River Lagoon is a new addition to the South Florida Geographic Initiative (SFGI) area, and noted they have a separate source of funding through the National Estuary Program. Mr. Blackburn clarified that location was included in the last request for applicants (RFA) because of algal blooms from Lake Okeechobee, but that they may more clearly define the SFGI boundaries during this next round of funding.
- Mr. Bergh agreed that the current starter list of topic areas for the SFGI RFA is good, and suggested an additional topic be included related to cruise ship generated turbidity in Key West. Cruise ships have been out of port for almost a year which offers an opportunity to collect data.
 - Patrick Rice and Shelly Krueger echoed the call for the inclusion of a cruise ship priority topic area, since it is an area of major public interest. In addition to looking at past data and remote sensing data, new data can be collected as appropriate. Hydrogen sulfide should also be included as a parameter because it is toxic if released from sediment into the environment.
 - Wade Lehmann cautioned that the RFA is usually kept general versus having a very high level of specificity. Members of the committee can share these more specific ideas with the organizations and researchers and who would potentially submit a proposal.

- Will Benson (Sanctuary Advisory Council member) was invited to speak up on this topic and he reiterated the importance of collecting data to determine if anecdotally observed differences in water quality can be confirmed numerically.
- Mr. Lehmann asked the interested Steering Committee members to coordinate in crafting draft language related to the newly proposed cruise ship topic area, and reminded attendees that the RFA and funding would not be available until several months from now.
- David Webb noted that in addition to monitoring, projects should come up with specific actions to mitigate the issues. To better target actions, we should examine the possibility of adding markers to differentiate between various sources of pollutants entering nearshore waters.
- Relevant to the south Florida connectivity topic, Henry Briceño noted that language about ‘currently accepted models’ should be removed. Chris Kavanagh added that the technology exists to allow for continuous water quality monitoring, but that requires maintenance.

VII. Public Comment

Kellie Ralston, Southeast Fisheries Policy Director, American Sportfishing Association

We are the trade association for the sportfishing industry, we are an international association, and also host iCast which is a big trade show in Orlando each summer. I know we’ve had representatives from the sanctuary come there and I certainly want to extend that invitation to this group as well. I wanted to say how much we appreciate your meeting today and support the reinvigoration of this group. Water quality has been a high priority for our organization not only nationally but particularly in the state and wanted to offer ourselves as willing participants to help facilitate participation in these conversations and either get recreational folks available for these groups or boating representation as well. So we just wanted to put ourselves out there as a resource for you. Also Gary Jennings from our organization serves as an alternate on the SAC. Beyond that, I just wanted to encourage this group to identify specific issues and solutions both at the state and federal and local levels that both organizations and the public can advocate for. I think y’all had a really good conversation on how to bring the message of what this group does to the general public and I think having actionable items is a really helpful component of that. For example, we actually helped advocate for increasing the funding for the South Florida program this year and we’re really grateful to Senator Rubio for his support for that as well as increases in state water quality funding and coral funding. They had \$10 million in last year’s legislative budget and the governor has that in his budget again this year. Just wanted to let you know that we’re here, that we’re a resource for you, and also really glad to see the conversation about this group getting involved in regional efforts, the South Florida Ecosystem Restoration Group, but also would hold out Miami-Dade County – particularly the work they’re doing on Biscayne Bay – and that all ties into Everglades restoration and ultimately water quality throughout South Florida as well.

David Dunn, Resident of Florida

I was involved in the cruise ship committee to address these limits that were implemented by voters in Key West but the points I want to make are related to the cruise ship issue. I know the sanctuary is a large geographical area and Key West channel and harbor is a minor part of that overall area but I think it’s important to make a few cogent points in the context of remarks we’ve heard so far. First, it’ll be late 2021 and possible into 2022 before we see cruise ships returning to the market and certainly in the case of Key West, unless it’s preempted by Tallahassee, we’ll see smaller cruise ships. So we may have time to get some studies started. The important thing is the design of those studies. The DEP performed – prior to a 2005 dredging – a number of cruise ship monitoring activities treating them as a point source for a variety of subjects, not the least of which was silt plumes. In their report of May of 1999, they measured NTUs, background NTUs, hundreds of times more than the natural occurring amount of turbidity. That was not what was being monitored in the channel and harbor once that dredging project was finished.

What was being monitored was surface turbidity. Which is relevant to sunlight penetration but doesn't cover the entire water column and certainly doesn't cover the effects of the benthic communities on either side of the channel and the harbor. And in particular the Sanctuary Protected Areas – Western Sambo, Rock Key, Eastern Dry Rocks, and Sand Key – those are Sanctuary Protected Areas that we have not studied the impact of this many years of huge turbidity point sources transiting nearby and I think that needs to be a focus of the inquiry and research that's going to be proposed. That's generally the point I wanted to make, thank you.

Ed Russo, Member of Board of Directors Reef Reef, President of Florida Keys Environmental Coalition, State Board of Pilot Commissioners

I have started my due diligence in determining what can be done, and I attempted to do my due diligence in regards to existing water quality analysis and as has been pointed out by many people – Joe Weatherby, Mayor Johnston, Dr Rice, Will Benson, Craig Cates, and others – it's clear it's inadequate. I just was not able to find the existing conditions analysis I need to do the appropriate work. I partnered with Dr. Rice, we developed a submersible unit that monitors water quality to follow cruise ships around. We have a prototype, we're moving forward with that, we're looking at using a satellite link that detects VOCs and ammonium. The problem we have right now is that it goes 5 knots and as you know the vessels inside the harbor can get up to 15 knots. We'll be working on that. I do want to say I would encourage better consequential water quality analysis, but this is going to be disruptive work with regard to monitoring liveboards, landfills, other vessels, marinas, marine repair areas, and also military installations. We have to monitor our water quality analysis protocols to look at those types of items that are important. Especially when we talk about H₂S – hydrogen sulfide – is very important to monitoring in these areas. So thank you very much for your time, there are other organizations like mine that are very encouraged by the work you're doing, we're cheerleaders, best of luck and full speed ahead.

Caron Balkany, Florida Keys Chapter of the Izaak Walton League of America, Florida Keys Citizens Coalition, Friends of the Lower Keys (FOLKS), Island of Key Largo Federation of Homeowner Associations, Key Deer Protection Alliance, Inc., Last Stand, Save Summerland Native Areas, South Point Homeowners, LLC

Ms. Balkany submitted written comments on behalf of the aforementioned community organizations.

IX. Meeting Wrap-Up and Adjourn

Wade Lehman, EPA, thanked everyone for participating in the meeting and reviewed accomplishments and next steps. Jon Iglehart suggested that the Technical Advisory Committee be convened to further discuss the cruise ship concerns and allow more participation from the community in developing that as a topic area for EPA funding.