

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

March 12, 2025

DRAFT MINUTES

Steering Committee Members Present

Wade Lehmann, US Environmental Protection Agency (EPA), Region 4 (Chair)
David Whiting, Florida Department of Environmental Protection (FDEP) (Co-Chair)
Matthew Stout, Florida Keys National Marine Sanctuary (FKNMS)
Mark Shafer, U.S. Army Corps of Engineers (USACE)
Christian Eggleston, Florida Keys National Wildlife Refuges Complex (FKNWR)
Yazmin Valdez, Florida Commerce
Julio Tejada, South Florida Water Management District (SFWMD)
Gil McRae, Florida Fish and Wildlife Conservation Commission (FWC)
Sue Heim, Key Largo Wastewater Treatment District (KLWTD)
Emmy Koenig McDowell, Florida Keys Aqueduct Authority (FKAA)
Andrea Leal, Florida Keys Mosquito Control District (FKMCD)
Kelly Cox, FKNMS Sanctuary Advisory Council (SAC)
Sandy Walters, Eco Legacy Solutions (ELS)
Chris Bergh, Florida Keys Program, The Nature Conservancy (TNC)
Shelly Krueger, Florida Sea Grant/IFAS Extension Monroe County
Patience Cohn, Marine Industries Association of South Florida (MIASF)

Summary of Resolutions

- Motion 1 (passed): Chris Bergh made the motion to approve the agenda. Shelly Krueger seconded. The agenda was approved with a slight modification to adjust the time allocated to discuss the Restoration Blueprint (Agenda Item #VI).
- Motion 2 (passed): Sandy Walters made a motion to approve the minutes from November 13, 2024. Chris Bergh seconded the motion. The minutes were approved with no objections.

I. Introduction and Opening Remarks

David Whiting, Division of Ecosystem Assessment and Restoration (DEAR) Deputy Director, FDEP, called the meeting to order at 9:00 am and welcomed everyone. Wade Lehmann, Ocean and Estuarine Section Chief, EPA Region 4, and Mr. Whiting are the meeting co-chairs.

Steering committee members in attendance were recognized, including new representatives serving on behalf of FDEP, USACE, Florida Commerce, and FKAA.

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

Mr. Whiting gave the opening remarks on behalf of FDEP. Mr. Whiting is a Deputy Directory with FDEP DEAR, and has worked for the department for 30 years. FDEP is the process of hiring a new Division Director, and at that time will determine if David will stay in the Co-Chair role or pass it back to the DEAR Director.

Becky Allenbach and Dr. Lehmann gave the opening remarks on behalf of EPA. Becky Allenbach is the EPA Senior Advisor for south Florida and Everglades issues, and is representing Division Director Katie Butler, who was unable to join the meeting. Kevin McOmber was appointed by the President to serve as Regional Administrator for EPA's Southeast Region (Region 4) and Leland Frost is EPA's new Chief of Staff. Both started a few weeks ago and are anxious to visit the Everglades and the Keys. The team will arrange briefings for them on the South Florida Program as soon as possible. Today will include an update on the congressional report. That is still moving forward with a goal to get it finished this year, although we are unsure if the approval process will change. We will reach out for more information where needed, and encourage members to contribute images for the report.

Dr. Lehmann added that the recipients selected for the 2024 South Florida Program grants have been notified. There is a new step in the approval process for those grants, which EPA is working on this month; the list of recipients will be shared as soon as that is complete. Funding is expected to be available this summer. This notice is in progress for the 2025 funding cycle and today we will seek input from the Steering Committee about what priorities to include this year. We look forward to that conversation.

Agenda and Minutes

Mr. Whiting reviewed the agenda and minutes and requested edits or a vote to approve from the Steering Committee. Matt Stout requested that the time allocated for the Restoration Blueprint topic may need to be reduced. Chris Bergh, TNC, made the motion to approve the agenda; Shelly Krueger, Florida Sea Grant, seconded. The agenda was approved. Sandy Walters, Eco Legacy Solutions made the motion to approve the minutes; Chris Bergh seconded. The minutes passed with no objections.

II. WQPP Communications Subcommittee

Shelly Krueger, Florida Sea Grant, provided an update on the activities of the WQPP Communications Subcommittee, reminding attendees that this subcommittee was established last summer. Shelly presented the list of subcommittee members, and noted that Scott Atwell, FKNMS, has been identified to serve as the Chair, while Shelly Krueger will serve as the Co-Chair. Scott was unavailable for this meeting, so Shelly is presenting on behalf of the Communications Subcommittee.

The subcommittee meets before each Steering Committee meeting and a week or two following each meeting. They have also discussed an in-person workshop to create some guidance documents, but that is still to be determined.

The first priority is to finish the congressional report. The WQPP website is also in need of updates. Scott has started to work on this; at a minimum meeting notices and minutes are posted. The Restoration Blueprint has also been identified as a priority; but the group was waiting for the State of Florida review before hopefully helping to create some content related to the water quality aspects of the Restoration Blueprint. Most of the water quality items are in the management plan; the only regulatory issue was cruise ship discharges. The team has not met since the Governor's veto of the new regulations in state waters. This may be something for future discussion with the Steering Committee.

At the last meeting, the subcommittee discussed the definition of water quality, noting that this means different things to different people. Lately, within the community it means "Is it safe to swim at the beach with my kids?" There have been several articles in the newspaper about poor water quality at Higgs and Smathers beaches, advisories not to swim after heavy rains, etc. The Communications Subcommittee would like more guidance on how we engage with the public on such water quality since issues at the beach are within the purview of the Florida Department of Health (FDOH), red tide is the purview of FWC, etc. Since the subcommittee is still new, we want guidance on how we can relay information to the public on these timely issues without stepping on others' toes. We also want to get information that is of interest to stakeholders out in a timely manner.

With this in mind, the WQPP may want to add a special topic priority related to identifying the causes of poor water quality at the beaches this winter, specifically the sources of the enterococci sampled there. This will be discussed further during the EPA South Florida Program agenda item.

Questions & Answers/Comments/Discussion:

- Dave Whiting, FDEP: The FDOH seat on the WQPP is currently vacant. How long has that been the case?
 - Karen Bohnsack, FKNMS, noted that this seat has been vacant since the previous Monroe County Administrator, Bob Edie, retired. We reached out with an invitation to name a new member to the Steering Committee, but have not received a response. We will reach out again.
- Wade Lehmann, EPA: EPA has a beaches program that looks at beach water quality. We could invite them to talk about how the program functions. Most responsibility for this falls to the state, but we can include this in a future discussion if people want to learn more.
- Dave Whiting flagged that FDEP has FDOH contacts in Tallahassee who are affiliated with the beach monitoring program and the environmental health group that they coordinate with on Harmful Algal Blooms (HABs) and other water quality issues. If we are unable to identify a FDOH representative from the Keys, there may be others who are familiar with beach water quality who could participate.
- Wade Lehmann, EPA, reiterated the question from the subcommittee: Do we want to focus on beaches and recreational water quality? Beaches drive economies, so this would be a good thing to do. There may be other avenues as well. One of EPA's National Estuarine Research Reserves hired a dog that is trained to sniff out enterococci. This is a novel tool used to find sources, which can then be targeted for additional action to reduce or eliminate those sources. There is unique work going on in this space.
- Chris Bergh, TNC: This is all great. It would be good to hear more about the testing protocols. The conversation should also extend to what we do with the information once it is available. This is not a new problem and with enterococci you can determine if it's human in origin. With E. coli you get into a conundrum of not knowing whether it is from sewage, pet waste, pelicans, etc. We can conceivably control two of those three things. We should also consider how we communicate to people about what they can do to minimize sources.
- Patience Cohn, MIAF: Miami Waterkeepers has an app that the city of Ft. Lauderdale participates in. They test water regularly, and more often when there's an incident. The public can go online and check the app if they want to go swimming; this tells what the water quality is in that area. This could be an option if we want to get more involved. This is valuable and makes the public more responsible to check on their own (vs. putting the onus on us to shout it to the world).
- Shelly Krueger, Florida Sea Grant: The beaches in Key West have QR codes you can scan that tell the current water quality status. FDOH provides those updates.
- Patience Cohn, MIAF: Sometimes poor water quality readings are a minor blip, and how we opt to announce it may make the situation seem more dramatic than it is. Be careful about how you notice these things.

III. WQPP Congressional Report

Elizabeth Smith, EPA, provided an overview of the progress and next steps for completing the WQPP Congressional Report. EPA is focused on getting this report done and has flagged a couple needs from the Steering Committee.

We currently have a well-established draft of the report; thanks to those who have contributed to it. The task now is to go through the document and polish it up. Beth will reach out to individuals, as appropriate, to help confirm or update various pieces of information in the report (e.g., verifying the information in the is still accurate, providing updated numbers, etc.). We will look to experts and the people who helped produce the original content to verify accuracy following the latest rounds of cleanup and editing. We also need to make the report prettier. Please share photos that may be relevant to this report, such as those showing water quality accomplishments. These can be emailed to Beth at Smith.Elizabeth@epa.gov. Images may also be used on the website as we are working to update that platform as well.

There is also a need for a volunteer to help compose the report's introduction and conclusion sections. In past reports, we also had an introductory message from the Steering Committee that touches on important accomplishments. It would be nice to have someone in tune to these things to assist with this. Similarly, a visionary statement about future work of the WQPP would be impactful in the conclusion.

Overall, the report needs to explain what we have seen in water quality and coral trends, so any graphics or charts related to that or brief statements will be helpful to illustrate those trends. For those who have not seen the report in a while, we originally had all the information we could gather, and much of the finer details have been removed. This is a congressional report, and for that audience the entire document will need to be no more than 20-25 pages. Thus, if anyone on the WQPP can suggest good ways to visually demonstrate those details via a graphic, please share that with us.

Questions & Answers/Comments/Discussion:

- Wade Lehmann, EPA: This is a report from all of us on the Steering Committee. It is significantly overdue and it is very timely to have this available for our congressional leaders. The South Florida Program exists on congressional allocations, which support much of the monitoring and research efforts within the WQPP. Without continued congressional allocations, there will be no money to help execute this program. Please help.
- Sandy Walters, ELS: The Village of Islamorada has been monitoring in a number of canals - including benthic and water quality monitoring - on a regular basis. Peter Frezza can provide photos, potentially. The presentation we received from Dr. Briceño at the November 2024 Steering Committee meeting on the long-term water quality trends was outstanding. It was very clear with 25 years' worth of data. Recommend going to that information for some good contributions to the report. There are probably good photos available from those long-term monitoring programs as well.
- Chris Bergh, TNC: This is a prime example of something the Communications Subcommittee can focus on and coordinate messages about. Hopefully there will be other things they message as well, like the release of grant funding, but this is the big focus that the subcommittee can get involved with now that we know it's nearing completion.
- Wade Lehmann, EPA, reminded everyone about the process for this report. This started with the sanctuary, and was then passed to DEP and now to EPA; it's been challenging but we're getting close. For the next steps, when we are satisfied with the information, we will use EPA's internal public affairs office to clean it up and turn it into a shiny report. At that time, we will share it more broadly. In the meantime, please share anything that may have a big impact, but that does

not require a lot of words (summary info, charts, etc.). We still need to draft the executive summary and conclusions. We'd be happy to share the document with anyone who volunteers to do that.

IV. EPA South Florida Program: FY25 Priority Topics Discussion

Wade Lehmann, EPA, briefly introduced the South Florida Program. These funds are provided by Congress. Under the Florida Keys National Marine Sanctuaries Act we are obligated to work on water quality issues in the Keys, which was when the South Florida Program originated. This has since expanded to include waters outside the Keys that may have an impact on the Keys. Each year we come back to the Steering Committee and ask for your input on priorities we can add to this funding opportunity to address Keys-relevant items. Think outside the box. Are there new things we need to consider, or is there more specificity that can be added to these topics to improve upon them? This group's recommendations are built into the Notice of Funding Opportunity (NOFO).

Karen Bohnsack, FKNMS, presented the starter list of topics that were discussed by the Management Committee, and invited additional discussion and input from the Steering Committee. This is an important opportunity to align future research with WQPP priorities and information needs.

The Management Committee's recommendation includes the same topics that were recommended for the 2024 NOFO. Those are as follows:

1. **Storm Resilience, Daylight Flooding, and Stormwater Mitigation** - Combines resilience and stormwater priorities and is intended to assess the efficacy of stormwater treatment systems associated with upcoming large-scale infrastructure upgrades.
2. **Canal Water Quality Improvements** - Continues to be a major focus of county and municipal partners and requires additional funding for planning, monitoring innovative technologies, etc.
3. **Water Reuse** - Deals with investigating opportunities for additional treatment and potable reuse of wastewater.
4. **Nutrient Loading Budget** - Improve understanding of the relative contribution of various sources of nutrients to nearshore waters in the Florida Keys.
5. **Legacy Nutrients from Septic Systems** - Investigate whether drain fields associated with previously decommissioned septic systems continue to leach into nearshore waters.
6. **Continuous Water Quality Monitoring Network** - Support maintenance, expansion, and coordination within the network of continuous water quality monitoring stations.
7. **Shallow Injection Well Investigation** - Support additional research needs associated with shallow injection wells.
8. **Light Attenuation** - Look at the relationship between turbidity and light attenuation to inform efforts to understand levels of turbidity that are detrimental to coral health.

Each of these topics were included in the 2024 NOFO, although only one project was funded. These topics are being recommended again/reemphasized in the hopes we'll see additional projects funded.

Relevant to the lack of funded projects, the Management Committee would like to better understand whether this was because (a) there were no applications relevant to those topics, or (b) applications were submitted but not selected. Regardless, it is important for the WQPP to communicate about these priorities within our networks to connect potential researchers with this funding opportunity. In particular,

this Steering Committee, the Communications Subcommittee, and the TAC may all be able to help encourage applications for these topics. Within our networks we could also provide advice to help strengthen applications so they have a better chance of being funded. For example, by providing additional context and detail that is locally relevant. Similarly, the TAC could be engaged to help inform more specific needs relative to these priority topics.

Questions & Answers/Comments/Discussion:

- Shelly Krueger, Florida Sea Grant, suggested a special topic related to beach water quality be added to this list. The following was added:
 - Beach Water Quality: Investigate the source of high concentrations of fecal indicator bacteria (enterococci) that result in “poor” beach water quality reports. Based on the identified origin of those bacteria, recommend additional corrective actions to improve beach water quality.
- Wade Lehmann, EPA: Input on prioritization of these topics would be helpful.
- Chris Bergh, TNC, made the following suggested edits:
 - #1 - Updating the title from "Daylight Flooding" to "Sunny Day Flooding."
 - #2 - Adding a sentence to specifically call out investigating shallow injection wells in canals. This needs to be further studied to make sure we aren't unknowingly causing more problems if degraded canal waters return to nearshore waters.
 - #3 - Updating the title from "Water Reuse" to "Potable Wastewater Reuse." This is important, even if we take wastewater to potable standards only to reinject it. This is the way we need to go to remove other pollutants (pharmaceuticals, etc.). Whatever the technology is that gets us to water that is clean enough to drink is a good move, even if we don't drink it.
- Gil McRae, FWC: Thanks to the Management Committee for putting this list together. All are valid priorities. Most of these are very big issues, and some require longer term approaches. Wonder if there is a mismatch between the scale and scope of this list and what the program has to allocate for funding and the timeframe for funding. Unsure if we calibrate that way; this is a good list with high priority issues, but don't know if they are aligned with reality of the program's funding cycles.
- Wade Lehmann, EPA, acknowledged that the scale of some of these is beyond the funding that is available. This is also soft money based on congressional allocations. However, some of the biggest impact projects started as pilot projects under this grant program. For example, the canal program is more expensive than the funds available in the South Florida Program, but those initial projects that were funded illustrated the issue and potential corrections. This is an incubator to draw attention to the issues and get larger efforts off the ground, even if it cannot be much more than that. There are some limitations under the grants program about where this money flows. Everything is a demonstration or test project. We cannot touch on regulatory items (e.g., pay for something required by a permit). These funds are not intended for that. They can be used to demonstrate best management practices and process improvements, to conduct the research behind a concept, etc. With this in mind, we don't necessarily need to limit this list. This funding results in good work.
- Shelly Krueger, Florida Sea Grant, requested that stormwater be included in the shallow well injection topic (#7) as well; this is also being injected into shallow wells.
- Sue Heim, KLWTD: KLWTD is working on a mandate related to potable reuse water that is required by 2035. The district's engineers are working on a plan to meet this mandate. Flagging that there is a mandate related to that topic on this list.
 - In response to a question about whether this is a self-imposed mandate, Ms. Heim clarified that this is coming from the state. This is relatively new, and more information will be shared next Tuesday at a KLWTD meeting. As more information becomes

available, that will be circulated to the Steering Committee. FKAA should be under the same mandate.

- David Hackworth, FKAA: Regarding the new authorization under the Florida Keys Water Quality Improvement Program, the local governments have agreed to divide that \$100M equally across the participants. Each entity will require an Interlocal Agreement (ILA) with USACE. These funds will come in ~\$6M increments each year, and may be used for these types of projects.
 - Sue Heim noted that with the ILA, there is a caveat that recipients need to have Project Partnership Agreements (PPAs) in place to receive funds. Only three of the entities currently have PPAs.
- David Hackworth, FKAA: FDEP is also doing a shallow well study to investigate impacts to ocean waters. This is a lot of money and it is intended to be a blanket model for smaller wastewater treatment plants. FDEP is working with consultants to help determine if this is the functional equivalent of a direct discharge, relevant to the Maui decision by the Supreme Court.
- Greg Corning, WSP (on behalf of Monroe County): Relevant to the comment from Chris Bergh about monitoring for impacts associated with the use of shallow injection wells in canals, Monroe County does have a grant from EPA to study this.

V. Water Quality Improvement Program Updates

Richard Butler, Small Project Program Manager, USACE, updated the Steering Committee on the latest progress within the Florida Keys Water Quality Improvement Program (FKWQIP).

USACE hosted a kickoff meeting with the local partners in November 2024. That meeting started with a review of the purpose and goals of FKWQIP, which are to improve water quality in FKNMS in Monroe County primarily by addressing wastewater and stormwater challenges through a variety of projects. In WRDA 2022, the initial \$100M authorization for this program was expanded to \$200M. Within this program, the Army Corps' responsibility is to process reimbursement payments based on invoices from the local governments (the non-federal sponsors [NFS]). To be reimbursed, these projects need to be articulated in Project Partnership Agreements (PPAs). The NFS is responsible for permits, financial planning, etc., which includes 100% of operations, repairs, and maintenance. This is a 65% federal cost share, with 35% of costs covered by the NFS. The federal 65% is the \$200M authorized from USACE. The 35% NFS cost share amounts to \$107.7M, so overall this is a \$307.7M program.

There are various restrictions associated with this program. There is no reimbursement for construction done before an agreement is executed, although design costs prior to the agreement can be reimbursed. Actions required under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) are not eligible for federal assistance. National Environmental Policy Act (NEPA) documentation has been prepared for the current agreements and SOWs but additional NEPA documentation could be required based on the boundaries of proposed additional work. Monroe County is reviewing their SOW to determine what is covered under NEPA; this was a good discussion. There were some action items or "do outs" from this meeting. Mr. Butler is coordinating those with local governments directly.

Current Program Status: Updated PPA Amendments for Islamorada and KLWTD are going through the final stages of approval. The final comments were routed to the division yesterday. USACE understands that this is important and is moving as fast as possible to get these amendments in place. The Marathon PPA Amendment will move to approval in quick succession following the KLWTD and Islamorada approvals. To date, \$86M has been reimbursed back to municipalities. There is some uncertainty associated with future funding due to challenges encountered early this year. Funding under earmarks was

not released this year and no funds are expected for Section 109 projects. Separate conversations about this may be necessary.

For the next \$100M authorization, coordination meetings with the NFS have been initiated. The next step is for the municipalities to submit the Section 109 request letter and to populate the template that was sent out. Each project needs to have a separate template filled out and included with the letter as an enclosure. Follow-up coordination meetings will be organized after these submissions to develop a ranking of the projects from a programmatic perspective. This will be done after each local government develops and ranks their own projects. Once USACE has them all on the table, they look at programmatic rankings. Following the final submission, USACE will evaluate the projects and determine what meets the requirements, then develop the Approval Report and PPAs. Then they will update the Master Plan and Project Management Plan (PMP). This is a high-level overview; there is more detail and this process will organically evolve as we go.

Initiating the Section 109 process: Mr. Butler acknowledged that the local governments are anxious to get this process started. The template has been sent out. The NFS needs to submit a Section 109 Request letter on letterhead and enclose as many of these templates as needed, with one for each project. The template includes the scope of work, justification, specifications, cost, etc. All of those fields must be filled out. The letter should include the named point of contact, and an overview of the request including the number of projects, priority ranking, and any other relevant information.

Action Items/Do Outs: USACE has suggested a tentative date of April 11, 2025 for the municipalities to submit their request letter and template package. Recognizing that there is a lot of uncertainty, this timeline provides another month for the municipalities to get this done. The municipalities should let USACE know if more time is needed. The goal is to get these as soon as possible to meet the current budget cycle. There will also need to be follow-up coordination meetings. The timing of those will be discussed with the partners. A meeting will also be necessary to discuss the funding distribution among the local governments.

Questions & Answers/Comments/Discussion:

- Kevin Wilson, Monroe County: We have had two initial meetings - one last month to start prioritization and one to discuss distribution among the stakeholders. It may be challenging to meet the suggested date of April 11th. Some progress has been made, but there is a way to go.
- Dave Hackworth, FKAA: Is the 109 letter a step after the PPA has been established, or is that a step to get to the PPA?
 - This is to start the process for the next \$100M and to get to the PPA.
 - Mr. Butler noted that there are still items within the current program that are underway and being closed out. Then there is the additional funding that will become available from the new authorization in WRDA 2022. Submitting the template, 109 letter, etc. is to initiate the next process and new projects.
- Kevin Wilson, Monroe County: Some of the other local governments are new to the process so are sorting this out. We look forward to working with everyone.
 - Mr. Butler added that USACE is happy to work with them too; the due date for the request letter can be adjusted as needed. There are a lot of potential projects here - there are a lot of needs and it's complex to prioritize among these various water quality and environmental issues. USACE wants to do this right; will do what's needed to facilitate.
- Sue Heim, KLWTD: Instead of referring to Key Largo as a municipality, please record this as KLWTD (we are not a municipality but performing as one in this function). Key Largo is part of Monroe County so this distinction is important to avoid confusion. Please also add FKAA to the list as a separate NFS. Will follow up offline to discuss timing for the next coordination meeting.

Break

VI. Florida Keys National Marine Sanctuary Restoration Blueprint

Beth Dieveney, NOAA ONMS, and Karen Bohnsack, FKNMS, provided an overview of the Restoration Blueprint Final Rule, including water quality relevant highlights from the management plan and early implementation efforts.

Ms. Dieveney thanked the Steering Committee for the invitation to discuss the Restoration Blueprint, and presented a slide showing the timeline of the entire process to develop the updated Restoration Blueprint, which includes a Final Environmental Impact Statement (FEIS), Final Rule, and an updated management plan. The process took nearly 14 years and included significant public and stakeholder engagement, as well as consultation with state and federal agencies throughout the process. NOAA published the FEIS on Dec. 13 2024; this included an analysis of all of the alternatives considered throughout the process, including the Final Preferred Alternative. After a 30-day waiting period, the record of decision was signed and the Final Rule published on Jan 17, 2025. Following this, there was a 45-day review period for Congress, the Governor and Cabinet, as stipulated in the National Marine Sanctuaries Act (NMSA). Per the NMSA, the Governor has 45 days to review the updated regulations and through that process can identify any that are not acceptable in state waters. Any regulations identified as unacceptable would not go forward in state waters. We received a letter from Florida's Governor on March 3, at the end of the 45-day review period, in which Governor DeSantis certified that the entirety of the new regulations, marine zones, etc. were unacceptable in state waters and that prior rules would remain in place.

NOAA is evaluating how this will impact the Restoration Blueprint, and how we will implement this in state and federal waters. As such, it is premature to provide the briefing presentation we planned for today to discuss the details of the final rule. For a high-level update, the FEIS outlines the final preferred alternative that informed the final rule. This action includes 5 components: the sanctuary boundary, sanctuary-wide regulations, marine zones and additional marine zone-specific regulations, and an updated management plan. All of these items are available online. However, we are still determining how this will be implemented; the WQPP will be updated when we have more information and clarity on next steps.

The management plan includes the non-regulatory actions, so we will discuss this in more detail for the WQPP's awareness today. The management plan has 5 goals, and Goal 2 "Improve Conditions" is where water quality-specific actions are listed. In addition, the management plan identifies priority themes that FKNMS and our management partners will prioritize for action. Water quality is one of the high priority themes for FKNMS. Another priority theme is management effectiveness/adaptive management. With this priority, we recognize the importance of understanding the effectiveness of our actions, and so we will commit to monitoring and evaluating our efforts and shifting or revising those efforts as needed. Relevant to this, one of the first actions we've taken is to begin developing an Adaptive Management Working Group within the Sanctuary Advisory Council (SAC). This aligns with Activity 1.1.5 in the management plan. This was discussed at the December and February SAC meetings, and the first steps to establish this group are underway. Membership in this working group will include SAC members and additional representatives from conservation and science/research and user groups. Working groups allow broader community participation and engagement, so we will solicit applications from individuals within the community to participate and represent these interests. The working group will have agency advisors from FWC/FWRI, FDEP, USFWS, and FKNMS, and we would also like to have a WQPP representative named. An action for today will be for the WQPP to identify a representative to sit on this working group on behalf of the Steering Committee. For reference, within national marine sanctuaries, SACs are established to provide advice and recommendations to the superintendent and to serve as a community liaison. SACs can establish working groups, as needed, to dive into specific issues. Working groups will

provide advice to the SAC who, in turn, will decide what advice and recommendations to advance to the sanctuary superintendent. This is a means to have a more in-depth exploration of issues and to engage broader participation from the community.

Karen Bohnsack, FKNMS, reviewed the water quality-relevant activities included in the new management plan and shared how to locate the full text online. These fall under Goal 2, Objective 2.1: Water quality: Demonstrate greater leadership in engaging with local and regional partners to collectively identify and address issues and implement solutions related to water quality. For each of the seven activities included in the management plan, Ms. Bohnsack provided additional context, discussed relevant activities already underway, and invited the WQPP to provide input on implementation strategies for each of these activities. Briefly, the activities are as follows:

Activity 2.1.1: Strengthen engagement with the WQPP.

Activity 2.1.2: Strengthen engagement with the South Florida Ecosystem Restoration Task Force.

Activity 2.1.3: Identify additional water quality parameters that should be investigated.

Activity 2.1.4: ...Evaluate existing water quality monitoring programs and recommend alterations.

Activity 2.1.5: Evaluate and map recent and long-term water quality data sets.

Activity 2.1.6: Identify practical non-regulatory steps and solutions to improve water quality.

Activity 2.1.7: ...Develop and implement a communication strategy to clearly and consistently communicate the importance of addressing water quality.

Questions & Answers/Comments/Discussion:

- David Whiting, DEP, inquired about the expected commitment associated with the Adaptive Management Working Group (AMWG).
 - Matt Stout, ONMS: This is still to be determined. For now, we envision that the AMWG will meet every other month, virtually, between the SAC meetings. Depending on the topics that group will tackle, we will need to determine how frequent and long the meetings need to be to generate recommendations for the SAC.
- Chris Bergh, TNC, noted that he was very involved in the run up to the release of the Restoration Blueprint, and has participated on both the WQPP and SAC from the beginning. He participated in 99% of the public meetings and is familiar with how we got to the final rule. Mr. Bergh inquired about how the activities under the management plan will intersect with the WQPP Steering Committee. Is the idea that the Steering Committee will continue to be the mechanism for tackling the big challenge of water quality? It would be too much for FKNMS staff and partners to stand up something new to focus on water quality.
 - Karen Bohnsack, FKNMS, clarified that all water quality aspects of the new management plan will still be coordinated through the WQPP. This is an overarching set of goals which will require collective effort from all of the WQPP entities to achieve.
 - Chris Bergh indicated his support for this strategy.
- Chris Bergh, TNC noted that the Governor vetoed the Restoration Blueprint in state waters, and inquired if that will affect the non-regulatory actions.
 - Beth Dieveney, ONMS: The NMSA provides the Governor an opportunity to review the regulations. We are still in discussion about how those will be implemented, but the management plan is now updated.
 - Chris Bergh added that nothing in the management plan should be objectionable to the state, so this shouldn't be a problem.
- Chris Bergh, TNC, asked additional questions about what is next considering the Governor's veto. Is the implementation of the regulatory aspects in federal waters on hold? He expressed his understanding that the boundary is now changed, and that Tortugas South Ecological Reserve has been expanded, etc. Essentially, anything else that is strictly in federal water actions is now the law of the land, correct?

- Beth Dieveney, ONMS: Correct: The effectiveness date of the Restoration Blueprint was March 4, 2025; the aspects in federal waters are in effect.
- Chris Bergh, TNC: Practically speaking, there is a new sanctuary wide regulation that prevents cruise ships from releasing gray water/wash water into FKNMS; but now that is only in effect in federal waters, correct? Essentially, cruise ships can drive in and still make these releases on the dock?
 - Beth Dieveney, ONMS: That is accurate.
 - Wade Lehmann, EPA, clarified that the long-standing No Discharge Zone still applies in state waters. This is for wastewater, not wash water.
 - Chris Bergh, TNC: This is an example of an unintended consequence of a comprehensive veto and shows why the state and federal agencies need to get this figured out. I am very disappointed that we are at this point after all the effort put in by all these people. I am equally disappointed that NOAA couldn't meet state's requirements for the cooperative agreements which led to most of the issues. There were other things that FWC flagged, but those may have been addressed by line item vetoes instead of the blanket veto. Hope this can be settled and the state can move ahead instead with the line item veto option that is at their disposal. This is what Governor Chiles did in 1997 when the existing rules were established. This plan needed to be implemented 10 years ago for this ecosystem to have any hope. There are no silver bullets; there is no one action that will turn everything around and make the Keys perfectly healthy. These all things we agreed need to happen and they needed to happen yesterday.
- Patience Cohn, MIAF, inquired about the Area to Be Avoided (ATBA) marine zone. Who enforces this?
 - Beth Dieveney, ONMS: The ATBA has been in place since 1990. This was established by the U.S. Coast Guard and also included in our regulations per the Florida Keys National Marine Sanctuary and Protection Act (FKNMSPA). Enforcement is largely done through NOAA's Office of Law Enforcement (OLE). When there is a case, the statute of limitations for going through those enforcement actions is 5 years. Cases involve a thorough investigation by OLE which includes engaging with the vessel captain/operator to verify the situation; this is also routed through NOAA's Office of General Counsel (OGC) if a penalty needs to be assessed. With the new rule, the FKNMS boundary has been expanded to align with the ATBA, which we anticipate will reduce confusion and the number of ATBA violations.
 - Patience Cohn will follow-up offline with additional questions about the enforcement timeline.
- Dave Whiting, DEP, re-introduced the request for the WQPP to identify a representative to participate in the new SAC AMWG.
 - Patience Cohn, MIAF, indicated that she may be interested in serving as a member of the AMWG, but as an end user from the Marine Industry Association vs. the WQPP representative.
 - Gil McRae, FWC: Asked for clarification regarding the request. We are asking for a volunteer to serve as the representative on the AMWG?
 - Beth Dieveney, ONMS, clarified that this is correct, and further added that. FWC/FWRI will already be represented as an agency advisor on the group.
 - Chris Bergh, TNC, offered that he is uncertain about his ability to participate, but he is interested. His colleague on the SAC is also interested, and it would not be appropriate for both to be selected and hold seats. This is a provisional interest pending approval from TNC, and whether or not his TNC colleague is selected for a SAC seat.
 - Shelly Krueger, Florida Sea Grant: Would also potentially be interested; she can continue to be a conduit between the many committees she sits on.

For next steps, Karen Bohnsack, FKNMS, summarized that both Chris Bergh and Shelly Krueger are provisionally interested. With the Steering Committee's approval, a follow up conversation will be held offline with those members to confirm the best representative to serve on behalf of the WQPP. Once the member is decided, that information will be reported back to the Steering Committee. There were no objections to this suggestion.

VII. Florida Keys National Marine Sanctuary Permits and Authorizations

Matthew Stout, NOAA ONMS, updated the committee on the status and timeline for obtaining permits and authorizations from FKNMS. This is a big issue, and we understand that people are concerned about the time it is taking the sanctuary to process permits and authorizations. We have seen an increase in the volume of applications at the same time that we were hit with major turnovers in long term staff. Processing applications is arduous, time consuming, and requires a lot of information to be gathered and assessed. It is not easy. With support and direction from both the ONMS Director and Regional Director, we are working to identify solutions to get ahead of this. This is a top priority and has ONMS support. For the time being, permitting staff from ONMS headquarters have been assigned to help with permit processing. We are also trying to onboard new staff to support this. We were getting close to filling another permit coordinator position; we had interviews and an offer out in early January, but unfortunately that was caught up in the federal hiring freeze. Until that can move forward, we will continue to work with our current permit coordinator (Dr. Harison Albert), and the two very qualified detailees from headquarters. Within the last week, we've also brought in some part time support from other staff to help. We also have a contract waiting to be finalized to bring on additional staff. We will continue to bring in regional resources to assist with this issue.

To summarize, we understand that there are concerns from the community, and we are doing what we can to get ahead of it and bring resources to address the challenges. If there are monetary implications due to delays in permit processing (e.g., if grant funds are at risk or there may be construction delays), please reach out to Matt Stout (matthew.stout@noaa.gov), David Burke (david.burke@noaa.gov), and Beth Dieveney (beth.dieveney@noaa.gov).

Questions & Answers/Comments/Discussion:

- Greg Corning, WSP on behalf of Monroe County: There are some Monroe County canal restoration projects that are grant funded and sitting with FKNMS right now. As an interim process, there has been some discussion with USACE about delegating authority back to them for authorizations of some of these routine projects.
 - Matt Stout, ONMS, acknowledged the partnership with USACE. Conversations are ongoing. Meanwhile, if there are specific permits to highlight, please send that information to Matt Stout, David Burke, and Beth Dieveney.
- Rhonda Haag, Monroe County: The Rock Harbor breakwater project also urgently needs the FKNMS permit. The federal grant agency is not providing time extensions so we will be in a bind if we do not get the permit to move forward with that project soon. If there is anything we can do to help, let us know.

VIII. Harmful Algal Bloom Prognosis

Tom Matthews, FWC FWRI provided an update on the status of harmful algal blooms in the Florida Keys. This topic was added to the agenda in January, when we were facing a triple threat of algae blooms. We will touch on each of the following today: Blue-green alae (Cyanobacteria) blooms in Florida Bay (a regular phenomenon since the 1990s, but experiencing an increased frequency), red tide (this was here in

January, but has since dissipated), and spinning fish (this is an ongoing investigation, but the best line of research points to this being associated with a species of *Gambierdiscus*).

Cyanobacteria blooms in Florida Bay: This is a widespread and persistent disruptive algae bloom in Florida Bay that extends all the way to Marathon. This is now tracked by satellites based on a uniquely colored algae. Satellites only began collecting this information in 2000, but there is documentation of these blooms back to 1991 when cascading ecosystem effects led to large scale die-offs of sponges in Florida Bay. On average, this occurred every 4-5 years, but now there are high enough levels to cause sponge mortality almost every year. Sponges are the largest heterotrophic component of the benthic biota in Florida Bay. They help with nutrient modification and fish recruitment and are incredibly important. One example of bloom-associated sponge mortality occurred in Mystery Basin in central Florida Bay in 2013. Satellite imagery shows how the bloom expanded. This resulted in losses of one of the best sponge communities we had. Practically all sponge biomass was lost at this site. Images show rotted sponges and the skeletal remains following sponge mortality. This level of mortality ties back to sponge restoration efforts as an attempt to mitigate the cyanobacteria blooms. This is a closed basin with poor circulation and recruitment; so we are trying to jumpstart the recruitment process with restoration. Unfortunately, restoration has been unable to keep up with the frequency at which blooms now occur.

Red tide: Maps showing statewide *Karenia brevis* concentrations in January, February and early March were presented. As of this week, there was no *Karenia brevis* located in the Florida Keys (gray dots show where samples are coming up negative). However, in January and February, medium and high concentrations were measured in the Keys. At both levels, fish kills can occur. This was being observed and reported by offshore fishermen and the stone crab fleet with a broad range of species affected, including snapper, grunt and other fish that sometimes are able to swim and avoid these red tide events. Since January 31, 2025, FWC has received 37 reports of fish kills, which is likely underreporting as people will report once and stop, even if an event is ongoing. Of these, 26 reported small scale mortalities, and six reports noted that hundreds of fish were affected. The remaining reports did not include the magnitude of the event. As the red tide moved toward the Keys, it got broken apart, which resulted in these smaller fish kills. Many crab fishermen saw this on a daily basis through January and February. This was an event in the Gulf, mostly far off but as close as Key West, with reports as far west as the Dry Tortugas. In February, this moved into nearshore waters, with more reports received from fishermen clustered north of the Lower Keys in the Lakes region.

Keys spinning fish event: This event began in November 2023 when we started receiving unusual reports that fish were observed swimming abnormally in tight circles and behaving sporadically. This was not a major fish kill event, but rather resulted in very low-density fish mortalities. The geographic area of this event was largely limited to the Florida Keys. Over 80 species were affected, mostly bony fish, but with a few sharks/rays and crustaceans as well. Sawfish were the iconic species of the event with over 50 mortalities; for some reason that species was highly and detrimentally affected.

This year we have far lower reports, although reports did increase again this winter. Counts are just coming in for sawfish mortality. Last year this event peaked in March (the waters were cooler at the same time last year). We think that warming waters were a proximate reason why these events declined.

Data on average *Gambierdiscus* cell densities come from Dr. Mike Parsons, FGCU, who has sampled monthly in the Keys for many years. Comparing last year to what we're currently seeing, last year we saw cell densities peak in February then return to 700 cells/gram wet weight which is the background level of this organism. Dr. Parsons got reports and sampled where spinning fish were observed/actively occurring. These samples showed that cell counts of 2000-2500 cells/gram wet weight were associated with the spinning fish behavior. This year, the December and January samples of *Gambierdiscus* cell densities were at background levels. Sampling was completed in February as well, but those remain to be

processed. We are cautiously optimistic that this will not occur at the same scale as last year. *Gambierdiscus* densities are considerably less than last year.

Since December 2024, FWC has received 44 reports of spinning fish, including many from Bonefish & Tarpon Trust and the Lower Keys Guides Association. The location of these reports is mostly in the Middle and Lower Keys. FWC has also received 22 reports of sawfish behaving abnormally, and 6 confirmed mortalities. Since December 2023, there have been a total of 62 confirmed sawfish mortalities. Dr. Matthews highlighted the importance of reporting to the Fish Kill Hotline. This can be done on the web form ([MyFWC.com/ReportFishKill](https://myfwc.com/report-fish-kill)) or by phone (800-636-0511). Any report is helpful, and videos are encouraged too. Tom Matthews acknowledged the many partners involved in this research; it has been a lot of work. *Gambierdiscus* is a tricky organism to track down and we are still pursuing lines of inquiry to confirm what this is.

Questions & Answers/Comments/Discussion:

- The following question from an audience member was relayed to the speaker: We have noticed that some fish will spin in tight circles in the Keys if a flashlight is shined on them, but stop if there is no light. Do we know why that happens? Would that be considered as "spinning"?
 - Yes, this is a classic fish spinning behavior. We know the fish have damage to nerve tissue. Each species has slightly different responses. Spinning is common. Damage to nerve cells is not lethal, but we are trying to figure out if the fish recover or still have slight impairments.

IX. Public Comment

Mimi Stafford, Florida Keys Resident

I will echo Chris Berg's sentiment about the sledgehammer approach to the Restoration Blueprint. It is extremely disappointing to have so many hours volunteered by countless people summarily dismissed.

X. Steering Committee Member Updates

Chris Bergh, TNC

I recently saw a notice about a Monroe County program, Ocean Guardian Schools, where stormwater gardens are being installed on school campuses. United Way is also involved. This would be worth learning more about at a future WQPP meeting. At the least, it'd be nice if some information could be shared around. Also, some years ago TNC worked with a researcher at FAU to develop a decision support tool to suggest what living shoreline project, if any, would be appropriate for shorelines on mainland southeast Florida. A subsequent project focused on shorelines in the Keys, which suggest options for properties locally. Subsequent to the meeting, Mr. Bergh provided the following additional information about this decision support tool:

- A publication about the product is available at: <https://doi.org/10.3390/jmse13030543>.
- The data are hosted at <http://maps.coastalresilience.org/>. Instructions to access the data are as follows:
 - Click on "United States" in the left-hand menu, click on the southeast Florida pin on the map, then "Open map."
 - Click on Regional Planning "Go" in the left-hand menu, click on Florida Keys, click on Shoreline Resilience, click on Shoreline Resilience, click on Shoreline Suitability for Resilience Projects, and the data will appear after a moment and you can zoom in to your area of interest.

- All the other data layers are accessed in the same fashion. The “I” (information) icon next to the data layer explains what the layer is all about and sometimes includes a link to the source or methods used to derive the data.

Matt Stout, FKNMS

I will be stepping down from my role as Acting Superintendent of FKNMS at the end of this week. It's been a good experience trying to fill Sarah Fangman's shoes. Dave Burke and Beth Dieveney will step in as the new Acting Superintendent and Deputy Superintendent, respectively. Congratulations to both in their new roles. I will remain available to help how I can.

- Chris Bergh, TNC, thanked Matt Stout for standing in this role and acknowledged it's been a tough moment. Bigger picture, we recognize the challenge federal employees are under right now. These layoffs and confusion have been very challenging. Thank you for hanging in there.

David Whiting, DEP

DEP has set up a new WQPP email address: WQPP@FloridaDEP.gov. Future email blasts about upcoming meetings or other official communications will come from this address, which will be monitored by Nick Parr and Genevieve Schave. This can also be used to reach out regarding WQPP business in general; we can direct your inquiry as appropriate.

Tom Matthews, FWC

It has been decades since we've had a Florida Keys Marine Science Conference, but one is being planned for the fall. It will offer 70 presentations and up to 96 poster presentations, and the meeting will end with a plenary to describe research priorities for the sanctuary. This will be held in Coral Springs on October 27 - 30. For more information, please visit <https://conference.ifas.ufl.edu/floridakeys/index.php>. The call for abstracts is currently open.

David Hackworth, FKAA

Inquired about FKAA representation on the WQPP Steering Committee or other FKNMS groups.

- Karen Bohnsack, FKNMS, clarified the seats on the Steering Committee, which includes a representative from FKAA, and thanked FKAA for participating. There has not traditionally been an FKAA representative on the SAC.
- Wade Lehmann, EPA, added that one of the seats on the WQPP Steering Committee is a “SAC Liaison” who helps with continuity between these groups.

Sandy Walters, Eco-Legacy Solutions

I recently saw a presentation at a beach conference on aerial LiDAR mapping that DEP is doing that started in the Keys. The imagery being captured and the level of detail to 30 m is incredible. This is something that would be of interest to all of us. Suggest we invite the presenter to also give a presentation at the next meeting. The work is expected to be finished in September, so that could work to give an in-person presentation.

Chris Bergh, TNC

I saw a post about pieces of old disused bridges falling into the water. This is an ongoing thing; this one blocked navigation under the Shark Channel Bridge which affected navigation. Navigation is not a WQPP concern, but it seems that slowly but surely these will inevitably fall into the ocean. I believe the status quo is that whoever is responsible needs to deal with this piece by piece. There is asphalt, legacy hydrocarbons, etc. in this debris. Even without the water quality concerns, this is solid waste falling into the ocean. It would be interesting to know more about what's going on with bridges, how they are regulated, and what the responsible parties have to do when they fall into the water. Seems it may be more proactive to deal with them beforehand. I'd like to request additional investigation into this issue by this body.

Meeting Wrap-Up and Adjourn

David Whiting thanked everyone for participating in the meeting and reviewed accomplishments and next steps. The next meeting is being planned for summer 2025; the exact date and logistics will be determined as soon as possible. The Steering Committee will be notified as planning progresses.

The meeting adjourned at 12:20 pm

DRAFT