

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

July 15, 2026

DRAFT MINUTES

Steering Committee Members Present

- Wade Lehmann, US Environmental Protection Agency (EPA), Region 4 (Co-Chair)
- Lawrence Glenn, Florida Department of Environmental Protection (DEP) (Co-Chair)
- Edward Kertis, National Oceanic and Atmospheric Administration (NOAA), Florida Keys National Marine Sanctuary (FKNMS)
- Mark Shafer, U.S. Army Corps of Engineers (USACE)
- Jeremy Dixon, U.S. Fish & Wildlife Service (FWS), Florida Keys National Wildlife Refuges Complex (FKNWR)
- Yazmin Valdez, Florida Commerce
- Austin Sparber, South Florida Water Management District (SFWMD)
- Gil McRae, Florida Fish and Wildlife Conservation Commission (FWC)
- Peter Rosasco, Key Largo Wastewater Treatment District (KLWTD)
- Emmy Koenig McDowell, Florida Keys Aqueduct Authority (FKAA)
- Andrea Leal, Florida Keys Mosquito Control District (FKMCD)
- Tom Harding, City of Key Colony Beach
- Alison Higgins, City of Key West
- McKenzie Fraley, City of Marathon
- Sandy Walters, Eco Legacy Solutions, LLC
- 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)
- George Garrett, Citizen at Large

Summary of Resolutions

- Motion 1 (passed): Chris Bergh made a motion to support the recommended additional language for beach water quality advisories and move this forward to the Department of Health (DOH) for inclusion as appropriate; Shelly Krueger seconded. The motion passed with no objections.
- Motion 2 (passed): Wade Lehmann made a motion to continue the Communications Subcommittee on an ad-hoc basis as needed, with a formal check-in scheduled in two years to re-evaluate; Eddie Kertis seconded the motion. The motion passed with no objections.

I. Welcome and Opening Remarks

Dr. Wade Lehmann, Ocean and Estuarine Section Chief, EPA Region 4, called the meeting to order at 9:01 am and welcomed everyone. Dr. Lawrence Glenn, Division of Ecosystem Assessment and Restoration (DEAR) Director, DEP, and Dr. Lehmann are the meeting co-chairs. Opening remarks on behalf of EPA and DEP were deferred until later in the meeting.

Steering Committee members in attendance were recognized and new members from NOAA, FWS, DOH, the City of Marathon, Key Colony Beach, and Citizen at Large, if present, were given an opportunity to introduce themselves. Attendees were provided instructions for participating in the meeting and for signing up for public comment. The presentations and materials associated with the meeting are available at the steering committee page on the Water Quality Protection Program website https://gis.myfwc.com/FKNMS_WQPP/steering.htm.

Agenda and Minutes

Dr. Lehmann reviewed the agenda and March 2026 meeting minutes and requested edits or a vote to approve from the Steering Committee. Sandy Walters made the motion to approve the agenda and minutes; Patience Cohn seconded. The agenda and minutes were approved with no changes. It was clarified that the notes from the March 2026 Research Symposium do not require approval as this was not an official meeting of the Steering Committee.

II. Biscayne Bay Commission Update

Bethany Tober, Florida Sea Grant in support of DEP, provided an update on the status and activities of the Biscayne Bay Commission.

The Governor signed a bill in 2021 to establish the Biscayne Bay Commission. The goal of this effort was to strengthen coordination to protect Biscayne Bay. The Biscayne Bay Commission serves as the official coordinating clearinghouse for public policy and projects related to Biscayne Bay. It unites governmental agencies, businesses, and residents, and acts as a principal advocate and watchdog to ensure projects are funded and implemented in a timely manner.

The Commission is chaired by Noah Valenstein (Brightwater Strategies), and includes representatives from DEP, the Florida Inland Navigation District (FIND), the Miami Dade County Commission, League of Cities, FWC and SFWMD.

The Commission's work is guided by a strategic plan that is regularly monitored and revised. The plan includes 3 strategic goals, each of which has supporting objectives and strategies.

- (1) Enhancing water quality monitoring. This includes consolidating data and identifying data gaps, and encouraging collaboration.
- (2) Improving communication and public outreach. Examples include the Miami Dade “Connect to Protect” campaign, highlighting funding opportunities, and encouraging county-wide cleanups like Baynanza and the International Coastal Cleanup.
- (3) Addressing sources of nutrients and ecosystem restoration needs. This includes supporting partnerships and other programs, such as the Miami Dade Reasonable Assurance Plan, which is an agreement to coordinate and fund projects to improve water quality in Biscayne Bay. There are over 150 projects in the tracker that contribute to this goal.

These goals are funded by Biscayne Bay Water Quality Improvement Grants, and other state and local funding sources. The state has specifically supported these initiatives by awarding \$20 million annually over the last five years for water quality improvement infrastructure, such as septic-to-sewer conversions and stormwater improvements.

Commission meetings are held at least quarterly, providing a forum for updates on water quality improvement projects, grant recipients, and partner agency activities. Recent areas of focus have included: the Environmentally Endangered Lands (EEL) program, the Derelict Vessel Program with a request to support legislation, and updates from monitoring groups, among others. A WQPP presentation

was shared at the last meeting and there is a hope for more collaboration between the Commission and WQPP in the future.

The next meeting is scheduled for September 15th at 10:00 AM at the FIU Biscayne Bay Campus, which will celebrate the five-year anniversary of the Commission's founding, highlighting major accomplishments and looking ahead to the future. More information about the Commission is available online at <https://protectingfloridatogether.gov/BiscayneBayCommission>.

Questions & Answers/Comments/Discussion:

- Wade Lehmann: Are lists of funded projects available online to facilitate tracking across funding agencies?
 - Yes.
- Sandy Walters: What is the current level of focus on stormwater management? This was identified as the second most important issue after wastewater in the Keys, and the WQPP previously passed a resolution emphasizing the need for more attention on stormwater. There are funding limitations that hinder stormwater improvements for existing road footprints (e.g., roads that are just being resurfaced do not qualify for stormwater funding). This was brought up at the first Biscayne Bay Commission meeting; has it received any more attention?
 - Recently, there was a request from Commissioner Steinberg for updates on the "Connect to Protect" septic-to-sewer program, so this is now more at the forefront. Stormwater projects are included in the tracker, and the Reasonable Assurance Plan (RAP) has facilitated better communication and collaboration between Miami Dade County (MDC) and municipalities to address these issues.
 - Sandy Walters (follow-up): This remains important, particularly regarding EPA guidelines. With wastewater, we learned that residual contamination in the ground can significantly delay water quality improvements following conversion to sewer. This issue tends to be overlooked, and I encourage MDC to prioritize it.
 - Comment from the Webinar: FIU will start stormwater work in Miami Dade through a sponsored project.
- Chris Bergh: Regarding the effort to convert septic to sewer and improve wastewater disposal—specifically avoiding the discharge of secondarily treated water through outfalls—is there an update on MDC's progress in reducing effluent to outfalls?
 - Bethany will follow up with MDC to provide an update.
 - Chris Bergh (follow-up): The FKNMS Connectivity Team received a presentation on this a few years ago. There was some progress, but also more to do. Further information would be beneficial.
- Chris Bergh: Regarding the USACE coastal protection study, stakeholders previously pushed back against building walls in favor of green infrastructure. What is the current status of that approach?
 - Bethany will follow up and return an answer from the appropriate channels.

III. Government Cut Inlet Watershed Management Plan

Lara Bracci, DEP, provided an overview of the Government Cut Inlet Watershed Management Plan, which was developed by Horsley Witten. The project's purpose is to guide future investments by NOAA and other agencies to reduce pollution threatening the coastal system. The watershed planning team included local partners from Miami Dade County (MDC), NOAA's Coral Reef Conservation Program, EPA, SFWMD, and DEP.

Horsley Witten's approach to this work built off of two of their prior efforts under contract with NOAA. In 2015 they delineated and characterized the land area contributing to each of the nine inlets along

southeast Florida. Next, they developed a watershed management plan for the Boynton Inlet Contributing Area (ICA), which piloted the approach used to create the Government Cut Inlet Watershed Management plan.

The study area for the Government Cut ICA was shown, along with the subwatersheds in this area. The Little River subwatershed was selected as a priority area for more in-depth assessment. The assessment evaluated land-based sources of pollution (LBSP), including wastewater, stormwater, erosion, and construction using observations from the field, as well as a review of regulations, policies, and other information gathered from the planning team. Wastewater, stormwater, erosion, construction activities, industrial sites, and flooding are all typical LBSP that impact Biscayne Bay. The primary challenges in this subwatershed include wastewater and urban runoff. About 22% of the Little River area is served by septic systems, making this the largest nitrogen contributor to the subwatershed. The subwatershed is also highly impervious and densely populated, making stormwater a significant pollution source. Other issues include debris/trash management, bank erosion, and improper containment of industrial materials. The use of herbicides on vegetation along canal slopes also contributes to erosion and water quality issues.

Based on the Little River subwatershed assessment, initial management recommendations were made to mitigate LBSP in Biscayne Bay. These included:

- Septic-to-Sewer: Prioritize the conversion of septic systems to sewer, including providing technical and financial assistance to property owners.
- Green Stormwater Infrastructure: Implement green stormwater infrastructure, including integration into capital improvements on public properties, roads, and development projects. Develop a master plan, acquire vacant parcels, update internal policies, and seek funding partnerships.
- Stabilize eroding canal banks.
- Explore options for canal water treatment in industrial areas.
- Improve street sweeping and trash boom maintenance.
- Pursue stronger enforcement of stormwater standards for construction sites and industrial facilities.

The Government Cut Watershed Management Plan was finalized in December 2024 and is available online at <https://floridadep.gov/rcp/coral/documents/government-cut-inlet-watershed-management-plan>. The plan includes a priority action list to sequence projects and track responsibilities. These include actions in the Little River subwatershed, foundational actions that are critical to other efforts, early wins to build momentum, and those with the highest potential for pollution reduction.

The health of the Florida Keys National Marine Sanctuary (FKNMS) is linked to upstream conditions. Ocean currents transport sediments and nutrients from Biscayne Bay to the FKNMS, making proactive upstream management crucial for the sanctuary's health.

Questions & Answers/Comments/Discussion:

- Attendee: What is a SSO?
 - Sanitary Sewer Overflow. There are a few projects in the table that are high priority for SSOs. This is currently in the works, though the status of specific projects is pending. This is being discussed within the implementation team that DEP facilitates with Miami Dade County (MDC) to keep the plan moving forward.
- Sandy Walters: Long-term monitoring did not appear to be on the list of projects. The FKNMS has 30 years of continuous monitoring, which is a major factor in how programs have been implemented and adaptively managed. What water quality monitoring and habitat monitoring is being used to provide data to support this plan?

- This snapshot only displays a small portion of the priority table. There is ongoing water quality monitoring in the area from Martin County to Miami Dade with 10 years of data. DEP is working to fill sampling gaps with MDC and are collaborating closely with NOAA on data collection and data sharing. There is significant collaboration underway to fill these gaps, and we are analyzing trends to identify episodic events or other relevant findings to support the plan
- Sandy Walters: Septic-to-sewer plans rarely mention the remediation of residual nutrient contamination remaining in the ground. There are relatively inexpensive technologies available that, if utilized in conjunction with the system conversion, could accelerate water quality improvements in nearshore and canal areas. Otherwise, leachate from the ground can delay positive results for years or decades. Is there any discussion on this topic to accelerate water quality improvements?
 - There have been discussions about further investigating groundwater and the source of leaching. Lara noted this concern and will discuss it with the project team.
 - Sandy Walters (follow-up): It's important to ensure our efforts are as effective as possible. There is a lot of public scrutiny regarding results; it does not resonate well when it takes over 10 years to see improvements after millions of dollars have been spent on upgrades.
 - Bethany Tober requested to follow up offline on these comments related to septic to sewer and the lessons learned in the Keys. Specifically it would be helpful to have Sandy present during Miami Dade County's brainstorming sessions with the municipalities. Having someone to speak to groundwater issues will be important for the municipalities as they begin planning their own projects.

IV. Curry Hammock and Village of Islamorada Tidal Restoration Projects

Dr. Nicholas Parr, DEP, and Peter Frezza, Village of Islamorada, provided updates on their respective tidal restoration projects, including current progress and future efforts.

Curry Hammock Project

The Curry Hammock Tidal Restoration Project was originally identified as part of the Comprehensive Everglades Restoration Plan (CERP). The project was permanently suspended from CERP and two of the four proposed tidal connections have been subsequently adopted by the Florida Department of Environmental Protection (DEP) for implementation. The two locations are on either side of Curry Hammock State Park in the Middle Keys and were identified as the sites that would best benefit from restoration.

Construction plans for the tidal restoration at Curry Hammock are nearing completion, with design specifications at 90%. Most permits are already in place, and it is expected that the project will be shovel ready in the fall. The eastern culvert design consists of a double box culvert, with each unit measuring 10 feet wide by 8 feet high and a total length of 180 feet. The western culvert design specifies a triple box culvert of the same dimensions (10 feet wide by 8 feet high) with a total length of 200 feet. The structures will range from approximately 4 feet below the mean water line to 4 feet above the water line to enable enough clearance for storm surge to flow through. These structures are designed to facilitate significant water exchange between Florida Bay and the Atlantic Ocean.

A robust environmental monitoring program is in place to establish baseline conditions and evaluate project impacts. This program includes continuous water quality monitoring via datasonde stations at the Curry Hammock State Park dock and Tom's Harbor (control site). Quarterly water quality sampling is conducted at the blocked connection sites and Tom's Harbor, covering both inshore locations and the edge

of the 500-meter halo zone. Additionally, benthic monitoring is performed at connection and control sites, focusing on seagrass (oceanside) and hardbottom (bayside) habitats.

Representative photos of the current seagrass habitats at the connection and control sites were presented. Turbidity is higher at the project site, and species composition differs. While the control sites have thick turtle grass coverage, there is a sparse mix of shoal and manatee grass at Curry Hammock, which is reflective of a degraded system.

Preliminary data from the continuous water quality monitoring stations were also displayed, with comparisons made between the blue (Tom's Harbor/control site) and red (Little Crawl Channel/blocked connection sites) from June 2025 - August 2025. While there is not a huge difference in temperature most of the time, temperatures were occasionally higher in Little Crawl Channel. Drastic differences were observed in pH over the same time period. Lower pH was measured at Little Crawl Channel, which at times reached conditions that were dangerously low for a marine system with readings as low as 7.0. Dissolved oxygen (DO) dropped below 10% saturation for over 12 hours in Little Crawl Channel. DO saturation of 42% is the threshold for impairment; 10% is not survivable for fish and repeated fish kills were observed in this area. This is indicative of anoxic conditions with anaerobic decomposition in the area. In contrast, Tom's Harbor dipped below the 42% threshold only a few times for a partial tidal cycle during this same period. Turbidity also varied between sites and went off the scale in Little Crawl Channel for a long period of time in July 2025.

Preliminary data were also shared from the quarterly water quality sampling for total nitrogen and total phosphorus. Red bars represent quarters where measurements exceeded the threshold for what is considered impaired for the oceanside of the Middle Keys. While water quality is usually measured at the edge of the halo zone (500m) to designate a waterbody as impaired, this effort also measures closer to shore. Green bars are below the detection limit, and yellow bars are measurements that are below the impairment threshold and considered unimpaired. For total nitrogen, Little Crawl Channel was consistently impaired to 500 m offshore over 2 years due to the blocked tidal connection. While the control sites also experienced impaired conditions, they also had an equal number of unimpaired measurements. Since those sites were not consistently impaired throughout the year, they are not designated as an impaired waterbody. For total phosphorus, the same observations apply, although it was less extreme offshore.

Environmental monitoring is currently on pause due to the Sargassum inundation on the beach and extending out to the nearshore waters. Photos were shared of Sargassum and discolored water extending more than 500m from shore. There are also active fish kills associated with this. DEP did obtain samples, although results are not yet available. Currently, the mats of Sargassum coming in have nowhere to go due to the blocked tidal flow. Where tidal flow is strong in Toms Harbor, conditions are still good with no impairment. This speaks to the potential for this tidal restoration project to improve conditions in the future.

Village of Islamorada Project

The Village of Islamorada provided an update on the Lower Matecumbe Culvert Project, which aims to improve water quality by connecting six dead-end canals through five sets of culvert pipes. This project is designed to introduce tidal exchange into systems characterized by poor water quality.

A map of the culvert locations and a number of photos showing construction over the past several months were displayed. This is a \$9M project funded by DEP stewardship funds and the USACE Water Quality Improvement program Grants. One of the culverts will create an oceanside to bayside connection and will introduce the most tidal exchange through the network of canals. The other culverts are located at Palm Drive, White Marlin Boulevard, Gulfview/Lakeview Drives, and Sandy Cove Avenue. These installations

require extensive work, including excavation, water containment and pumping while the pipes are installed, and care to avoid utility lines in the area (wastewater, water, and electrical). Manhole covers were installed in each culvert to facilitate debris removal after hurricanes and manatee grates are included as required by permits. These also include headwalls made of rip rap, and mangrove recruitment has already been observed. Overall these are low profile and low impact installations. The ocean to bay pipe under U.S. 1 includes a 290-foot expanse, which is directional drilled using a 4-foot cylindrical pipe (vs. a box), the biggest available for this project. Modeling results show that this will still contribute to significant water flow, despite the reduced size. While the other culverts have already installed and are functioning well, the ocean-to-bay connection encountered technical delays during drilling. The project is expected to reach completion in the coming weeks.

The Village of Islamorada has a comprehensive monitoring program in place to support canal restoration, including bi-monthly dissolved oxygen (DO) monitoring across 63 canals. Furthermore, semi-annual water quality and benthic monitoring are conducted in five targeted canals. Water quality sampling occurs at 3 locations, including at the edges of the halo zone to monitor nutrients. Benthic sampling includes SAV and fish monitoring across 7 transects, with 5 in the canal, one at the canal mouth, and one 10 meters outside the canal mouth. These programs have been in place since 2015 and provide good baseline data to evaluate the long-term efficacy of the restoration efforts. Unfortunately no data from the culvert installation is available yet since this work is ongoing. However, the anecdotal evidence is incredible, with immediate changes visible in water clarity and the abundance of fish and other wildlife. Monitoring results will be presented next time.

Questions & Answers/Comments/Discussion:

- Wade Lehmann emphasized the anecdotal evidence about the efficacy of these restoration projects. During a recent site visit with EPA leadership, a nurse shark and snook were observed in a restored canal.
- Henry Briceno [via the Question Box]: Did the Village of Islamorada model simulated circulation before deciding sites and characteristics of those culverts?
 - [Answer received following the meeting]: Yes, we hired WSP to model the flow. They deployed sondes between all of the locations prior to the project to calculate that.

V. NOAA Ocean Guardian School District Project

Marlies Tumolo, FKNMS, and Donna Tedesco, Monroe County School District, introduced the NOAA Ocean Guardian School Program and watershed stewardship efforts with Monroe County School District (MCSD).

The National Marine Sanctuary System includes 18 sanctuaries and two national monuments that encompass over 629,000 square miles of waters across our oceans and Great Lakes. The sanctuary system has an education vision of empowered citizens who appreciate and actively care for our nation's ocean marine resources. The NOAA Ocean Guardian School program seeks to support this mission. The program engages K-12 students in the protection and conservation of local watersheds, the ocean, and special places such as those within the National Marine Sanctuary system.

Students participate in hands-on stewardship projects aligned with five primary pathways: waste reduction (the 6Rs), marine debris reduction, schoolyard habitat/garden creation, energy-saving projects, and watershed restoration. Projects have several required components, including engagement with the larger school community, a hands-on activity, artwork, data collection, and a final project wrap-up to report on the outcomes of the effort. Currently, 18 states and 3 U.S. territories have active Ocean Guardian School programs. In 2024-2025, there were 98 participating schools across the country. National assessments have shown that participating students experience significant increases in their

commitment to the environment, sense of community, desire to volunteer, and experience working in team-based environments.

NOAA Ocean Guardian School Program came to Florida in 2018. Since then, nine schools have participated in the program individually and there has been one district project. Florida had 5 schools participating in the last school year, most of which were in Monroe County. These school projects are completed over 5 years within one of the pathways.

The MCSD is the second school district in the nation and the first on the East Coast to be designated an Ocean Guardian School District. This was done in partnership with the United Way of Collier and The Keys. This three-year program focuses on:

- Year 1: Establishing an OGSD team and implementing projects at a minimum of one school per grade level (elementary, middle, and high school).
- Year 2: Expanding program implementation to 35–55% of schools and integrating the program into district operations.
- Year 3: Establishing district-wide pedagogy, creating ocean/environmental literacy outcomes, and pursuing board-approved environmental policies.

To address local stormwater runoff and pollution, the district selected the "Schoolyard Garden/Habitat" pathway to install student-designed rainwater filtration gardens and bioswales. These projects serve a dual purpose: they capture and filter stormwater runoff to reduce localized flooding and pollutants reaching coastal waters, while providing a hands-on learning environment for students.

Over the first two years of the project, MCSD engaged over 3,500 students and installed more than 400 native plants in rainwater filtration gardens across six schools. Year 1 pilot schools included Poinciana Elementary, Key West High School, and Sugarloaf K-8 School. Year 2 schools included Sigsbee Charter School, Plantation Key School, and Stanley Switlik Elementary School. The students did the research, design, and installation of each garden, with help from the local community. They also learned how these gardens absorb nutrients, stabilize the soil, and mitigate runoff to protect coastal ecosystems. Year 3 efforts focused on a "Lessons in the Garden" curriculum and developing an updated MCSD Planting Guide, which provides recommendations for native species based on specific Florida Keys zip codes. For more information about the program, visit: https://sanctuaries.noaa.gov/education/ocean_guardian/.

Referencing the tidal connection presentations from earlier in the meeting, Donna noted an interest in engaging the AP environmental students in that effort to see the real world effect and will follow up with Nick Parr and Peter Frezza.

Questions & Answers/Comments/Discussion:

N/A

Break

VI. WQPP Canal Restoration Subcommittee

Beth Smith, EPA, and Peter Frezza, Village of Islamorada, provided an overview of the membership, objectives, tasks, and deliverables for the reestablished Canal Restoration Subcommittee. The scope of work was shared as a supporting document and projected on the screen. Steering Committee members were invited to reach out to Beth and Peter with any comments. A more indepth update will be provided at the next Steering Committee meeting once this group has convened.

Questions & Answers/Comments/Discussion:

- Austin Sparber: Expressed interest in participating as a member of the subcommittee.
 - Beth Smith: Welcome additional participation and will add Austin to the subcommittee.
- Wade Lehmann: A representative from the U.S. Army Corps of Engineers (USACE) would be welcome to participate as well, if there is an interest.
- Wade Lehmann: There is a lot going on with canal restoration and more to do.
- Chris Bergh: There has been some discussion recently among residents interested in attempting to unplug dead-end canals. Is this subcommittee an appropriate forum to discuss this? Any action on this topic would require compliance with regulatory requirements.
 - Peter Frezza: Yes, this topic could be addressed. The Village of Islamorada deals with this issue regularly. There are significant challenges regarding regulatory permitting and concerns about potential negative impacts on Outstanding Florida Waters.

VII. WQPP Communications Subcommittee

Julie Cheon, Communications Director, NOAA FKNMS shared an update on efforts and progress of the Communications Subcommittee and invited discussion on a number of topics.

Recent activities of the Communications Subcommittee include drafting language for beach water quality advisories and website development.

- Beach Water Quality Advisories: The subcommittee drafted updated language for beach advisories that includes public action steps and links to resources. This was raised at the March Steering Committee meeting as a potential addition to enhance those advisories. Dr. Roby was present at both of these meetings and was involved in the discussion about this recommended language. A request was made for the Steering Committee to support moving this language forward for official DOH review.
- WQPP Website Development: The website has been revamped into a centralized, easier-to-navigate resource. The subcommittee discussed potentially adding a "Hot Topics" section to feature timely information (for example: resources about Sargassum). The Steering Committee was asked about their interest in such a section and their willingness to recommend pressing topics for inclusion and to support content development.

The new Report to Congress is still pending final review and release. The rollout plan has been developed, though the committee is awaiting the official release of the report to implement it. This was a primary objective identified when the Communications Subcommittee was established, and they are waiting on the report release to complete this task. Once the report is issued, Steering Committee members are asked to facilitate distribution up their leadership chains to key decision makers.

Finally, the Steering Committee was invited to discuss next steps for the Communications Subcommittee. This group was formed in 2024 and scheduled to sunset in July 2026. The original scope of work included supporting communications about the Report to Congress and to improve outreach and messaging about the WQPP and water quality issues. Two potential options were presented for discussion. Option 1: Sunset the subcommittee once the Report to Congress rollout is complete; Option 2: Retain the subcommittee as an ad hoc group to be convened when needed. The subcommittee recommended continuing the group until the RTC rollout is complete, then transitioning to an ad-hoc basis for future needs.

Questions & Answers/Comments/Discussion:

- Re: Beach Water Quality Advisories
 - Eddie Kertis: Inquired why direct beach water quality data is not populated on the WQPP website.

- Karen Bohnsack: Clarified that the website provides links to external data sources.
 - Chris Bergh noted that this language was an addition he originally proposed to add some additional context to the standard language that “results were bad, you may not want to swim.” The proposed advisory language is a significant improvement, as it provides clear, actionable steps for the public and directs them to the WQPP, rather than simply identifying a negative condition
 - Chris Bergh moved to approve the language as presented; Shelly Krueger seconded the motion. The motion passed without objection.
- Re: WQPP Website ("Hot Topics" Section)
 - The committee discussed the feasibility of adding a "Hot Topics" section to the website.
 - Wade Lehmann: EPA, as a federal agency, has vetting protocols that may limit the ability to post external contributions; however, this does not negate potential local action.
 - Shelly Krueger: Expressed support for the idea and requested to link to her recent Sargassum blog.
 - Julie Cheon: Will investigate hosting and approval requirements to determine if this feature is feasible.
- Re: Report to Congress (RTC) Rollout Strategy
 - Julie Cheon reminded attendees about the request for support from Steering Committee members to distribute the report to leadership and elected officials, noting that federal agencies face significant challenges with communication approval timelines.
 - Wade Lehmann: Clarified that EPA internal processes automatically deliver the report to Congress, but all secondary messaging and distribution at the local level are not included in that federal process.
 - Chris Bergh: Suggested that the sanctuary would be well-served if non-federal entities led the charge to communicate the report's importance, as federal agencies have limited capacity. TNC is not in a position to do this, but perhaps the NMSF could support communications coordination. Without someone to lead the charge, it won't get done or won't get done well. Perhaps sanctuary staff can present this to local governments to share what the report says and why it's important. There are many different audiences for this.
 - Julie Cheon: FKNMS also has challenges with approvals. The hope is that other Steering Committee members can help push this forward.
 - Eddie Kertis: Federal public engagement approvals can take 8–10 weeks, encouraging non-federal entities to assist where possible.
 - Wade Lehmann: The EPA timeline may be quicker, but the result may not be exactly what we want. Encourage others outside the federal family to take this on where they can. The report is not forward looking.
 - Henry Briceno: Is it possible to request feedback from individual members of Congress who receive the report?
 - Wade Lehmann: We can request feedback.
 - It was agreed to table further discussion until the final report is issued.
- Re: Subcommittee Future
 - Wade Lehmann: Support continuing the subcommittee, noting it can help streamline future congressional report processes to better meet the two-year reporting schedule.
 - Chris Bergh: The subcommittee is willing to continue on an ad-hoc basis. In addition to seeing through the rollout for the current report, the committee can advise on the process/information pipeline to simplify future reports. A 10-page product with a 2-page executive summary is more likely to be read. Meetings would be called as needed versus regularly scheduled.

- Shelly Krueger: Confirmed willingness to continue the subcommittee's work. Once the current report is rolled out, future reports should be easier to keep on schedule; having the committee already in place should help.
- Wade Lehmann moved to continue the subcommittee on an ad-hoc basis as needed, with a formal check-in scheduled in two years to re-evaluate. Eddie Kertis seconded the motion. The motion passed without objection.
- It was noted that Chris Bergh, Sandy Walters, and Shelly Krueger are Steering Committee members that currently also sit on the subcommittee. Others are welcome to participate and/or join meetings if there is a communication need.

Motion (passed) - Suggest Additional Beach Advisory Language

Chris Bergh made a motion to support the recommended additional language for beach water quality advisories and move this forward to DOH for inclusion as appropriate. Shelly Krueger seconded the motion. Co-Chair Lehmann called the question. The motion passed with no objections.

Motion (passed) - Continue Communications Subcommittee on an Ad Hoc Basis

Wade Lehmann made a motion to continue the subcommittee on an ad-hoc basis as needed, with a formal check-in scheduled in two years to re-evaluate. Eddie Kertis seconded the motion. Co-Chair Lehmann called the question. The motion passed with no objections.

VIII. WQPP Report to Congress

Wade Lehmann, EPA and Karen Bohnsack, NOAA FKNMS provided an update of the status of the current WQPP Congressional Report and led discussion on metrics and topics for future reporting.

Current Status: The report has moved through EPA political leadership and is currently under review by the Office of Management and Budget (OMB). OMB has requested minor revisions, specifically regarding forward-looking content. The report has been sent back to agency partners, and once those reviews are complete, the report will go back to OMB and to the EPA Administrator for signature. EPA intends to format the final copy for better visual impact, but if that creates barriers the language may just be delivered to Congress as is. EPA hopes to have a final copy in a couple of weeks. Steering Committee members were invited to submit suggestions and images or visuals to improve the report's presentation.

Metrics for Future Reporting: During the March meeting the Steering Committee suggested that a set of metrics be developed to show success and simplify future reporting. The Management Committee has identified a suite of possible metrics, which were shared in a handout for this meeting and intended to be the primary focus of the discussion today. The Management Committee is also working to develop a new, "plug-and-play" template for future reports to streamline the two-year reporting cycle, although that is not yet available.

The metrics are currently organized into three sections based on the required reporting elements defined in the Florida Keys National Marine Sanctuary Protection Act.

- Accomplishments: Metrics to connect funding and corrective actions/infrastructure enhancements to tangible environmental outcomes. These are largely numeric and refer to ongoing work related to wastewater upgrades, canal remediation, vessel pumpouts, special studies, monitoring and community engagement. There are also two potential funding metrics and a couple outcome metrics that speak to water quality improvements where data is available.
- Programmatic Modifications: Highlight metrics that show how the program is evolving to enhance performance or meet new needs. These are largely narrative in nature and may include emerging needs, new technology, process improvements, regulatory changes, etc.

- Recommendations for Future Program Implementation: Reporting may include gaps and upcoming priorities, as well as ongoing efforts that will need to continue. These are also largely narrative.

The goal in establishing a set of metrics is to balance reporting ease with the ability to demonstrate program impact. Not all metrics are created equal. The handout included a rough categorization to reflect the ease of collecting the data and the value of the metric for demonstrating program impact or return on investment. All metrics will require partner support to provide the necessary information.

The concept of "Leveraged Funds" was discussed as a potential new metric to articulate the ratio of EPA South Florida Program funds to other federal and non-federal sources. This approach aims to demonstrate that EPA funding serves as a financial engine for much larger regional investments.

The Steering Committee was asked to provide feedback on these metrics, including any that should be prioritized, anything that is missing, and requesting consideration of what information each member's agency/organization can contribute to these metrics.

Questions & Answers/Comments/Discussion:

- Chris Bergh: Advised keeping metrics limited to a few, easily collected data points (e.g., number of EDUs connected to Advanced Wastewater Treatment, miles of canal addressed). For future priorities, suggested reporting the "delta" between stated goals and actual achievements to clearly articulate what's next while keeping the report digestible. Importantly, don't create extra work.
- Gil McRae: Agreed with Chris; the proposed framework is helpful and includes metrics that are easily understood by policymakers. FWC is willing to contribute to monitoring metrics, provided there is a clear definition of what constitutes a "monitoring event" to improve the flow of information and make reporting more efficient.
- Chris Bergh: Monitoring data should be presented on a continuum to demonstrate relevance and trends over time. Recognize that any data being reported will be from a previous period; knowing this in advance will allow it to be built in.
- Lawrence Glenn: The "Leveraged Funds" concept is a good one as it shows that there are more entities involved and helping to move the needle. The committee will need to be strategic regarding monitoring data, as legislators are often concerned about over monitoring. The report should show the significance of what we're getting from monitoring/focus on communicating the Return on Investment (ROI).
- Wade Lehmann: Concurred, noting that "leveraged funds" tell a compelling story to the current administration regarding federal vs. non-federal investment. This can also be tied to the implementation metrics (e.g., miles of canals addressed).
- Chris Bergh: Expanding on the idea of leveraged dollars, consider factoring in economic numbers, such as those periodically updated by National Marine Sanctuary Foundation studies. This helps place expenditures from Congress in the context of the value of the sanctuary and the marine environment's contribution to the local economy.
- Sandy Walters: Agreed that linking monitoring to economic outcomes would be invaluable. The monitoring that has taken place over the last 30 years is important and has been the basis of many different publications over the years. Assigning a dollar value to this will be helpful and would be easier to keep track of consistently. Sandy has been putting a paper together on the history of water quality efforts in the Keys over 30 years, and it has been a challenge to collect the information since it hasn't been consistently maintained. Consistent reporting is a good direction to go, including the socioeconomic approach to environmental management, which may also lead to additional publications.
- Wade Lehmann: Concluded the discussion by encouraging members to identify information needs now to simplify data collection. There will be additional opportunities for discussion in the

future. There is some interest from the Florida Delegation to expand the EPA South Florida Geographic Program; clear metrics and reporting will help support this.

IX. Public Comment

Arlo Haskell, Treasurer, Committee for Safer Cleaner Ships

Twenty years ago, the [Murray Report](#) compiled evidence that large cruise ships degrade water quality. These impacts are visible to the naked eye, which explains why the public maintains such interest. The College of the Florida Keys (CFK) conducted a year's worth of testing in 2024 to quantify ship-generated impacts at the source, using a monitoring platform near the port. This effort documented 32 violations of state and federal turbidity standards; the most severe was 6.5 times the limit. Data collection ended in February 2025 when the City of Key West ordered CFK to remove the equipment. We are still awaiting the final report from that monitoring. There are political issues at play, but this data should not be a casualty of politics. I request that the WQPP support CFK in the completion of the final report and provide a forum at a future meeting to share this report and its data. I also request that we explore future remote sensing efforts using satellite data to understand how ship-generated turbidity impacts the Keys. The USF Optical Lab has published studies showing dredge-related impacts to coral reefs. This methodology seems applicable to the issue of ships in Key West. Remote sensing can help us understand ecosystem-level impacts. I ask the Steering Committee to look at this monitoring approach and support such remote sensing projects in the future. Thanks for what you do to take care of local waters.

Henry Briceno, Florida International University

Information and monitoring data for coral, seagrass, and water quality are well-documented and available on different websites; I can send these over. Other information is more difficult to find regarding what has been done on behalf of water quality in the Florida Keys. Regarding Arlo's comment on ships around Key West, this is an issue we should address more holistically; it is a problem for water quality in the Lower Keys.

More information about the long term water quality, seagrass and coral monitoring, visit:

- Water Quality - FIU SERC Water Quality Monitoring Network webpage: <http://serc.fiu.edu/wqmnetwork/>
- Seagrass - FIU Seagrass Ecosystems Research Lab webpage: <https://seagrass.fiu.edu/fknms.htm>
- Coral - FWC CREMP webpage: <https://myfwc.com/research/habitat/coral/cremp/>

X. Round Robin Steering Committee Member Updates

The following Steering Committee members offered updates for awareness or additional discussion.

Lawrence, DEP

DEP's Division of Environmental Assessment and Restoration (DEAR) is moving forward with regular monitoring. Basin Management Action Plans (BMAPs) were approved in 2025, though a few are currently under litigation.

Eddie Kertis, FKNMS

The sanctuary has received numerous inquiries regarding Sargassum removal in canals, and has discussed this with Rhonda Haag (Monroe County). Are other state or local partners planning to engage in removal efforts? The sanctuary isn't the lead for these efforts.

- Chris Bergh: This is a challenge because it's coming from nature and isn't necessarily within anyone's specific purview. Some canalfront owners may decide to work together to hire someone to boom it out.
- Nick Parr: DEP has met with Monroe County leadership about this issue. Keeping this out of canals would require twice a day cleaning; it comes in with the tide. Bubblers don't work. There's

not much people can do, although the county has released guidance on what actions property owners can take. Sargassum is considered protected habitat while free-floating. Disposal is complex due to contamination from chemicals, plastics and salt.

Mark Schafer, USACE

An interim report is in progress for the Biscayne Bay Southeastern Everglades Ecosystem Restoration Project (BBSEER). This report will not go to Congress for authorization but will serve as a placeholder report for a non-federal sponsor to move forward. This is expected to be published in early to mid 2027.

- Chris Bergh: Is the new funding for the Florida Keys Water Quality Improvement Program (FKWQIP) being allocated?
- Mark Shafer will inquire with the USACE FKWQIP Project Team for an update.

Gil McRae, FWC

Long term coral reef monitoring has ramped up in part due to a severe thermal stress event and bleaching. Partners are working to relocate corals to deeper water or land-based nurseries. Any fish kills associated with Sargassum be reported to the FWC Fish Kill Hotline. This reporting is helpful to document the extent of this event.

- More information on how to report a fish kill: <https://myfwc.com/research/saltwater/health/fish-kills-hotline/report-kill/>

Chris Bergh, TNC

Regarding FKWQIP, it would be good to know where those funds are going. As to Arlo Haskell's public comment about large vessel turbidity in Key West Harbor, agree that the WQPP should review the final report and request a presentation at the next meeting. Another current concern is the shallow injection well on Stock Island due to reports of the injectate possibly coming up in the harbor. This deserves additional attention to verify if this is what is happening and what can be done. On another topic, the City of Key West was able to fund an assessment of what it would take to deal with the landfill on Stock Island. In short, there was no immediate indication that landfill leachate is entering the environment, but it's likely only a matter of time. Lessons learned from this assessment could be relevant to other landfills in Cudjoe, Long Key and North Key Largo. Once remediated, that land could also be used for other purposes.

Shelly Krueger, Florida Sea Grant

The Florida Coral Reef Resilience Program (FCRRP) website at www.FCRRP.org has a thermal stress tab that is updated weekly. People are encouraged to report marine environmental observations to SEAFAN.net. If reporting bleaching, please include temperature if available from a dive computer and photos. Reports of "no bleaching" are also important.

Wade Lehmann, EPA

Shared a funding update for the South Florida Program. The program currently has two years of funding which can support double the usual number of projects due to the delay in last year's funding cycle. Wade showed a bar graph showing the increase in South Florida Program funding over time. In FY 2026 applications increased to over 90 (up from ~60 in previous years). Projects selected for funding span a variety of categories and locations across South Florida, but generally include projects tied to nutrients and stormwater, water quality modeling and monitoring, coral reef health, habitat restoration, and nature based infrastructure. Projects funded with FY25 funding were briefly discussed; it takes a lot of steps to get these projects funded, and a full list with FY25 and 26 projects will be available soon. Looking ahead, EPA aims to improve end-of-grant tracking. With support from the Steering Committee, Wade proposed hosting future symposia to invite grant recipients to present findings as their projects conclude. Improved project tracking and follow-up will also help generate metrics for the congressional report.

Meeting Wrap-Up and Adjourn

Wade Lehmann thanked everyone for participating in the meeting and reviewed accomplishments and next steps.

The next meeting will tentatively be in person in the Keys. Chris Bergh encouraged field trips in association with the meeting. For example, this could include site visits to the Islamorada tidal connection sites or other canal projects; the new living shoreline project going in at Long Key Landfill, etc.

The meeting adjourned at 12:24 pm.