Biscayne Bay Watershed Management Advisory Board

Board Packet

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MIAMI-DADE COUNTY

AGENDA

BISCAYNE BAY WATERSHED MANAGEMENT
ADVISORY BOARD (BBWMAB) MEETING
June 5, 2026 – 9:00 am – 12:00 pm
LOCATION – Stephen P. Clark Government Center, Commission Chambers, 2nd Floor
111 NW First Street, Miami, FL 33128

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1. **Roll Call**
   BBWMAB Chair, Commissioner Micky Steinberg

2. **Reasonable Opportunity to be Heard**
   BBWMAB Chair, Commissioner Micky Steinberg

3. **Approval of Agenda** – *Actionable Item*

4. **Approval of Minutes for March 6, 2026** – *Actionable Item*

5. **Reasonable Assurance Plan (RAP) Milestones - (**Requested by Commissioner Steinberg)
   Pamela Sweeney, Chief, Water Resources Coordination Division, DERM
   - Key Milestones
   - RAP Day de-brief with Marcy Frick, Tetra Tech

   Pradeep Nagarajan and Grace Pleasant, GHD
   - Model Update, new phase

6. **Recap of the Biscayne Bay Marine Health Summit -** (Requested by Dave Doebler)
   Dave Doebler, Volunteer Clean-up.org and Biscayne Bay Marine Health Coalition

7. Discussion Items

Commissioner Micky Steinberg, Chair

Living Shoreline Guide (Requested by Mayor Rachel Streitfeld)

Mobile Pump out Vessel Service (Requested by Dave Doebler)

8. Future Agenda Items

9. Adjournment

Biscayne Bay Watershed Management Advisory Board

Stephen P. Clark Government Center
Commission Chambers, 2nd Floor
111 NW First Street
Miami, FL 33128

MINUTES March 6, 2026, 9:00 a.m.

MEETING CALLED BY	Roll call was taken and quorum established. Members Absent: Mayor Vince Lago, Sarah Hopson, Sam Accursio, Kevin Cuniff
MEMBER ATTENDEES	Chair – Commissioner Micky Steinberg Commissioner Natalie Milian Orbis Commissioner Alex J. Fernandez Mayor Tim Meerbott Mayor Rachel Streitfeld T. Spencer Crowley, II, Esq. Roberto Torres Julissa Kepner Jannek Cederberg Dave Doebler Gerald McGinley, Jr. James Murley Jed Redwine John Stieglitz Jerry Menendez
	Staff support for Biscayne Bay Watershed Management Advisory Board in attendance: Pamela Sweeney, Laura Eldredge, Katie Oswald, Marie Bell, Nancy Jackson (DERM); Larissa Aploks (RER).

REASONABLE OPPORTUNITY TO BE HEARD Commissioner Micky Steinberg - Chair

PUBLIC COMMENT	No speaker cards.

APPROVAL OF AGENDA Commissioner Micky Steinberg - Chair

BOARD ACTION	A motion was made to adopt the Agenda by Mayor Meerbott and seconded by Spencer Crowley; motion passed unanimously.

APPROVAL OF MEETING MINUTES Commissioner Micky Steinberg - Chair

BOARD ACTION	A motion was made to approve the Minutes from the December 5, 2025, meeting was made by Mayor Meerbott and seconded by Julissa Kepner; motion passed unanimously.

DERM Table of Organization

Loren Parra, Director, Department of Environmental Resources Management & Chief Resilience Officer

PRESENTATION	**Director Parra** presented a progress report on the Administrative Order which is close to finalization. The goal is to support and strengthen environmental protection. The Order has looked at processes and procedures with collaboration from RER and DTPW. Pleased to report that the Stormwater regulatory program, NPDES (National Pollutant Discharge Elimination System) and FOG are returning to DERM. FOG was created as a result of the EPA consent decree. There have been meetings with the environmental advocates, developers and county attorneys to ensure that the AO has the enforcement and compliance components. **Board Comments:** **Crowley** *thanked the Director and stated that the goal should be protection that is predictable. The Director explained FOG was created because of the EPA consent decree for proper disposal. The goal is compliance and not fees. Currently, there is no distinction between a burger place and a smoothie shop. The Chair has requested a study from the Mayor.* **Doebler** *requested a copy of the draft AO and expressed concerns about the protection of the wetlands and endangered species. The Director explained that like other county departments, when an application is taken through RER, DERM review is triggered through concurrency of Chapter 24. The AO took longer because of SB180, the department moved cautiously not to trigger additional reviews.* **Doebler** *reiterated his concern over the purview of DERM in reference to wetlands, dredging & filling and Manatee protection. The Director assured him that the bulk of Chapter 24 remains in DERM. Chair requested a review in six months. Doebler requested a draft of the AO to be shared with the board and mentioned that accelerated approvals should not be at the expense of the environment.* **Mayor Meerbott** *requested a FOG workshop in Cutler Bay to help expedite restaurants applying for permits. He suggested predictability is key. The director stated the greatest beneficiary of the consent decree has been the municipal sewer systems.* **Cederberg** *stated the streamlining is important. A seawall is easier to build then a green solution which can take up to two years for approval making it a non-starter.* **Redwine** *stated the educational process is key with clear goals and targets.* **Murley** *thanked the Director for communicating with the board and invited Director Parra to address the Miami River Commission at a future meeting. He explained how Wagner Creek is the most polluted which goes into the Seabolt Canal, the Miami River and then empties into Biscayne Bay.* **Doebler** *asked about the Kelly Tractor item. The Director expressed that this was an application from three years ago and that the process would be different now with concurrency.*

Enhancing Coastal Resilience in Biscayne Bay through Native Oyster Restoration

Dr. John Stieglitz, Rosenstiel School of Marine and Atmospheric Science, University of Miami

PRESENTATION	**John Stieglitz** – Presented the challenges and opportunities of creating an ecosystem services essential habitat. Because of the degradation of Biscayne Bay, it poses a unique opportunity and oysters have a role and the power to clean the water. The oysters were once abundant in the 1800s. The opportunity is a model test ground which is most at risk and can be leading edge. Education and outreach are important. This is about creating a blue economy with nature-based restoration solutions. **Board Comments: Crowley** *stated that this was being explored in other parts of the State. Lake Worth has environmental restoration and the planting of oyster reefs. He asked if this could be done in Coconut Grove at the marinas? They could have oyster gardening projects and engage the stakeholders.* **Stieglitz** *responded that the organisms adapt to various environments.* **Redwine** *interjected that FIU would be very interested in working with UM, and FIND, to discuss where the opportunities and challenges lie.* **Mayor Streitfeld** *inquired on the Best Practices Guides – living sea walls could be applied to the coastal communities and engage the coastal mayors and Miami-Dade County to create incentives.* **Stieglitz** *responded there are many challenges in the strategies and at times it necessary to fail to revisit and rethink the strategy.* **Streitfeld** *mentioned that DERM was working on a Living Shoreline Guide which she has yet to receive.* **Cederberg** *reiterated that any solution cannot add two years to a project.* **Stieglitz** *stated permitting is the key.* **Fernandez** *stated reducing fees, providing incentives and new infrastructure strategies should be disseminated to the League of Cities so that these tools may be used more broadly. He continued by complimenting Mayor Streitfeld for her leadership in advancing these policies.* **Doebler asked** *how we can move this from science and research to mass scale like the Billion Oyster project in New York. He continued the county needs to get water quality right and the community can help with restoration.* **Redwine** *mentioned how a little elevation can bring a positive feedback loop with the oyster reefs. He continued that every tool should be used for protecting watershed.* **The Chair** *thanked Dr. Stieglitz for the presentation and the discussion.*

USACE Coastal Storm Risk Management "Back Bay" Study

Christian Kamrath, Resilience Program Manager, Environmental Risk & Resilience, DERM

PRESENTATION	**Christian Kamrath** – Stated it is important to note that where we live, the urban habitat is between two waters, the Everglades and Biscayne Bay. The Back Bay study is one of several long-standing studies and programs with the U.S. Army Corps of Engineers' efforts to address coastal storm surge. This is done by exploring different ways to manage risk and vulnerable communities. 1. Adapt individual buildings (non-Structural), 2. Nature based solutions, and 3. Structural measures. Phase 1 is the Chief's Feasibility Study, which was completed in 2024, and we are now seeking appropriations through WRDA. Phase 2 - Feasibility Study is looking at how to expand the areas within the 10-year storm window. **Board Comments:** *The Chair thanked Christian.* **Murley** *highlighted the importance of Pamela Sweeney's introduction of the Watershed Approach to understand the importance of this study. Instead of a geographic approach it is the body of water which is intertwined and doesn't follow jurisdictional boundaries. This is a comprehensive quality approach by looking at all the tools available and being collaborative. It aligns both the regional and the targeted approach to address the issues for a resilient Biscayne Bay.* **Streitfeld** *inquired on how*

	municipalities could access the $180 M nature-based pilot project funding. Christian responded this was based on federal appropriations which are pending. Streitfeld asked if the Army Corps met with FDOT? Christian responded that the agencies meet quarterly. **Fernandez** *stated his municipality had submitted a letter of support for the Back Bay study for the federal funding to the congresswoman. They are very interested in nature-based solutions such as dune reinforcement, hybrid coral reefs and living shorelines. Christian mentioned that in Phase 3, the study would include storm surge gates and dune reinforcement. Christian also mentioned that there are state funds via Elevate Florida available for residents that would like to elevate or reinforce their homes.* **Fernandez** *mentioned we have seen very little of Elevate Florida money make its way to Miami-Dade.* **The Chair** *commented that the funding is currently closed until the next cycle.* **The Chair** *would like to advertise to the community in the future. She continued as we look at the private adaptation pilot project it would be complimentary for it to include the infrastructure like the projects in Bay Harbor or Miami Beach. She thanked Christian for his presentation and looks forward to updates in the future.*

Comprehensive Everglades Restoration (CERP) and the Biscayne Bay Watershed	Dr. Meenakshi Chabba, Ecosystem and Resilience Scientist, The Everglades Foundation
PRESENTATION	**Meenakshi Chabba -** Presented on how the Everglades has a critical connection to Miami-Dade by providing its water supply, economic strength and long-term resilience. The work of Everglades Restoration is done through science, advocacy and education. South Florida known as the land of water but recently the SFWMD imposed water restrictions because water levels in Lake Okeechobee were so low. Below average rainfall has led to declining water levels in the aquifer and rising salinity. It's one system, one watershed and the Everglades is the source of our water supply. The Comprehensive Restoration Plan aims to restore the Everglades. The objectives are: 1. Increase water storage, 2. Clean the water, 3. Send the fresh water south. The Everglades is the foundation of a thriving economy. It was most recently reported as a one trillion-dollar asset. With every dollar invested in the Everglades we receive four dollars back. **Board Comments:** *The Chair thanked the presenter.* **Doebler** *stated this is an opportunity for us to protect the land for the Everglades and hold the line.* **Torres** *stated as we restore the hydrology, we should look to restore the habitat, historically it wasn't all mangroves.* **Redwine** *suggested we work on an effective messaging campaign to get funding from the Corps. Their forte is vetting projects.* **The Chair** *added it's great when we can partner with organizations that have the same core mission.*

FUTURE AGENDA ITEMS	Commissioner Micky Steinberg - Chair
DISCUSSION	Chair informed the board that the mobile pump out item is on the April BCC. Asked for the status of the marine debris program and other pending items. Nancy Jackson stated the Watershed plan was in the procurement process to hire the consultant. She will send the information on the WASD outfall program update. Chair stated if Board Members had any other items to email Nancy. Fernandez requested a presentation on the hot button topics happening in Tallahassee and how that would affect the projects on infrastructure and drainage. The Chair requested an update from Jesse McCarty at the next meeting. Mayor Streitfeld requested the draft of the living shoreline guide from DERM. Doebler announced the Biscayne Bay Marine Summitt on May 20th. He volunteered to present a recap of the summit for the next meeting. Requested to move forward on the Dr. Browder Wetland Protection bill.

ADJOURN	Commissioner Micky Steinberg - Chair
DISCUSSION	The Chair thanked the BBWMAB and staff for their work. The meeting was adjourned.

Quarterly Status Report

Ocean Outfall Legislation Program – March 2026

Overview

Miami-Dade Water and Sewer's Ocean Outfall Legislation Program includes 12 projects and an investment of approximately $1.5 Billion for the Central District (CDWWTP) and North District (NDWWTP) Wastewater Treatment Plants. The South District Wastewater Treatment Plant (SDWWTP) Expansion Projects will increase the average daily flow capacity to 131 MGD and the peak hourly flow capacity to 305 MGD. The expansion will allow for continued growth of the service area, and the improvements will increase the facilities' resilience.

Accomplishments to Date

- Nutrient diversion requirement as of February 2026:
  - 153% of the target phosphorous diversion (4,406,605 lbs.)
  - 98% of the target nitrogen diversion (58,546,543 lbs.)
- Effluent reuse requirement (117 MGD):
  - 11% of the reuse capacity (13 MGD) achieved.
  - 15 MGD of reuse to Florida Power & Light's Turkey Point cooling towers.
  - Continued design and procurement of the Effluent Energy Recovery System that will provide an additional 156 MGD of reuse.
- Eliminate use of the ocean outfalls:
- CDWWTP currently diverting 34 %
- NDWWTP currently diverting 77%

CDWWTP

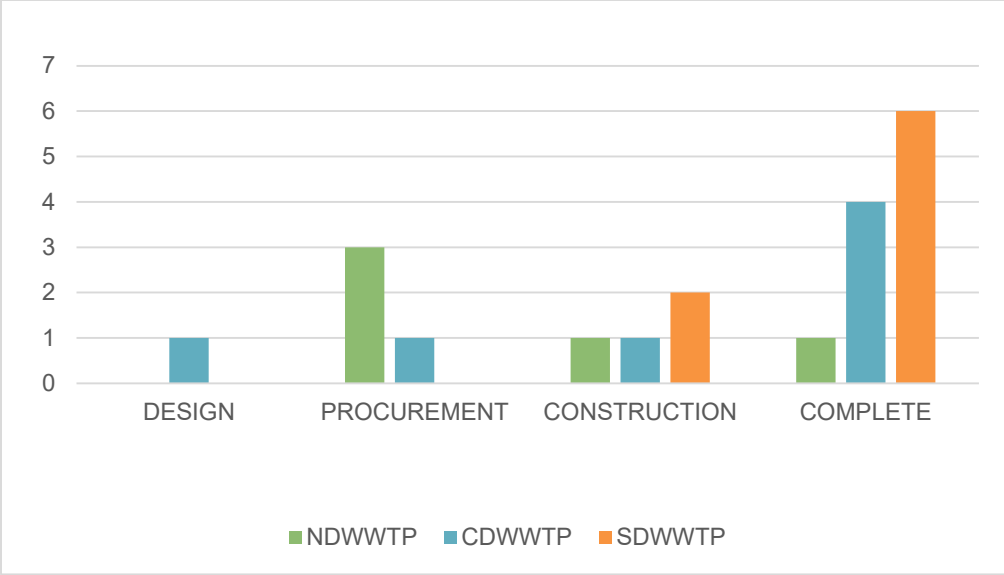
- The final Aquifer Exemption agreement was executed on September 10, 2025.
- Two (2) Industrial Deep Injection Wells and related Well Pump Station constructed and in operation since March 2020.
- Substantially completed, seven (7) Municipal Injection Wells and four (4) monitoring wells in November 2023.
- Two (2) additional municipal injection wells reached substantial completion in February 2025.
- Construction of New Electrical Distribution Building 2 is 65% completed and scheduled to be substantially completed by October 2027.
- Pump Station for the Municipal Injection Wells design is complete and WASD is in the process of securing all the required permits. The project was advertised on April 23, 2026.
- Design of Outfall/Transfer Pump Station has been split into two projects. The 84-inch force main and the effluent pump station improvements, the design portion is 55% complete.
- Effluent Energy Recovery System (EERS) design is at 60% complete.

NDWWTP

- Substantial completion of five (5) Municipal Injection Wells and three (3) monitoring wells achieved in August 2024.
- Construction of the Site Preparation Project was substantially completed in November 2025.
- The New Electrical Distribution Building 2 Project was advertised on March 22, 2025, and received bids on May 20, 2025. Following a bid protest, the project was awarded, currently the bonds and insurance are under review.
- High-Level Disinfection Facilities Bid package was advertised on May 22, 2025, and received bids on August 5, 2025. Insurance is currently being negotiated for a Builder's Risk purchase. Notice to proceed is anticipated at the end of the second quarter of 2026.

	• Pumps Station for the Municipal Injections Wells including the Effluent Energy Recovery Initiative (reuse) was advertised in July 2025. Bid Award signed on January 22, 2026. The Construction Contract was signed on March 13, 2026. An administrative Notice to Proceed will be issued for May 18, 2026. SDWWTP Expansion Project • Three (3) Municipal Injection Wells completed in July 2021 • Replacement of return activated sludge piping completed in February 2022 • New headworks and new oxygenation trains achieved completion in September 2025. • Step feed piping and oxygenation trains are in construction (77% complete) • Two (2) electrical substations (5/6 and 15/16) achieved substantial completion in February 2025. • Secondary clarifier and filters achieved completion in August 2025. • Electrical Distribution Building 3 is in construction (87% complete) • Chlorine contact tank achieved substantial completion in July 2025. • EERS Phase 1 (Yard Piping) is in construction and Phase 2 Design is at 60% complete.
Challenges and Risks	• Continued extensive coordination with Florida Power & Light (FPL) to implement the necessary improvements for servicing the proposed facilities. • The project's complexity and magnitude have resulted in extended permit review durations by building officials and DERM. Reviewers are generally unfamiliar with projects of this type, requiring detailed and ongoing coordination to obtain approvals. • The City of North Miami has requested an approved FEMA Conditional Letter of Map Revision (CLOMR) prior to issuing the permits for the three North District projects currently in procurement. • Implementation of the OOL Compliance Plan requires concurrent construction activities at each plant. This is challenging due to limited space, wet-weather conditions, and the need to maintain proper plant operations throughout construction. This is delaying start of construction. • Projects continue to experience extended construction durations, increased equipment costs, and prolonged delivery times due to unprecedented demand for materials and heightened construction activity across all sectors. Electrical equipment lead times are especially impacted by increased demand driven by new data center development.
Remedy Actions Needed	• Coordination meetings continue to be held with FP&L. • Based on feedback from contractors, WASD has implemented 60-day bid durations. • Continue regular coordination with all stakeholders to achieve adequate staging areas, project sequencing, safety protocols, and continuous operation of plant facilities through all stages of project development. • Meetings are being held with the City of North Miami and the County Floodplain Manager, in addition, to continuing to follow up with FEMA regarding the CLOMR review. • Continue close coordination with all the regulatory agencies to expedite their review and approval process. Continue to work with the Design Consultants to provide updated material and equipment pricing at least a month prior to advertising and a second update prior to bid opening, which is based on addenda issued during bidding process. • Began pre-purchasing of long lead equipment (Engine Generators, Transformers, Disk Filters, Pad-Mounted Switchgear). All purchase orders have been issued except for Engine Generators.
Milestones planned for the next reporting period:	• Continue coordination with FPL and permitting agencies for the CDWWTP and NDWWTP projects. • Submittal of issue for permit documents for the CDWWTP 84-inch pipeline and Transfer Pump Station. • Issuance of the Notice to Proceed for all NDWWTP projects. • Approval of the submittal for the disk filters pre-purchase package. • Approval of the Letter of Agreement for the engine generators pre-purchase package and issuance of PO for the NDWWTP Electrical Distribution Building.

Project Status by Wastewater Treatment Plant: 20 Projects



Memorandum

MIAMI-DADE COUNTY

Date: March 24, 2026

To: Honorable Chairman Anthony Rodriguez
and Members, Board of County Commissioners

Agenda Item No. 2(B)(7)
April 21, 2026

From: Daniella Levine Cava
Mayor

Subject: Feasibility Study Regarding the County's Establishment of a Mobile Pumpout Vessel Service - Directive No. 241767

Executive Summary

On December 3, 2024, the Board of County Commissioners (Board) approved Resolution No. R-1095-24, sponsored by former Commissioner Kevin Cabrera and co-sponsored by Commissioner Micky Steinberg, directing the County Mayor or County Mayor's designee to conduct a feasibility study regarding the County's establishment of a mobile pumpout vessel service. Resolution No. R-1095 requires that the study consider, at a minimum, the following factors: the fiscal impact of such a service, both to establish it and to continue operating it; the possibility of obtaining funding for, or management of, the service from the Florida Department of Environmental Protection (FDEP) pursuant to a Clean Vessel Act (CVA) grant or other grant or agreement; in the event of any partnership with FDEP, the respective roles the County and FDEP should play in such a partnership; the integration of such a service with pumpout facilities currently existing at County-owned or -operated marinas or at other public or private marinas; the eligibility criteria for users to receive pumpout services; whether the service should be provided free of charge and, if not, what the cost to users should be; whether the County should adopt proof-of-pumpout regulations under section 327.60, Florida Statutes; and whether the County should pursue designation of all or part of Biscayne Bay or any other County waters as a no-discharge zone, including whether the County should (1) urge the State of Florida to apply to the United States Environmental Protection Agency (EPA) for approval of a no-discharge zone determination for the Biscayne Bay Aquatic Preserve, and (2) further urge the EPA to grant such an application once it is received. The Department of Regulatory and Economic Resources (RER), Department of Environmental Resources Management (DERM), and Department of Parks, Recreation, and Open Spaces (PROS) have provided input regarding the establishment of a mobile pumpout vessel service for the County in this report.

Should the County offer a mobile pumpout vessel service, this may help encourage vessel pumpouts near high-traffic recreational boating areas, supplement access where pumpout service may be limited or not available at certain facilities, and open eligibility criteria to a wider range of boaters. Further in-depth analysis of regulatory requirements and fiscal impact is needed to determine the feasibility of implementing such a program at existing County-owned or operated marinas. Two options are proposed for operation of the mobile pumpout vessel service, which includes the County contracting out the service in partnership with FDEP oversight, or the County directly implementing the service. However, both options present budgetary limitations due to current lack of funding, with the CVA grant typically only covering up to 75% of the project costs, with the remaining 25% to be covered by the County. Additionally, in order to ensure adherence to the rules and regulations, avoid confusion by boaters, and implement successful enforcement, careful consideration should be made when

determining eligibility criteria, adopting proof of pumpout regulations, and designating Biscayne Bay or other County waters as a no-discharge zone.

Background

State Regulations

Boating is a popular recreational and commercial activity in Miami-Dade County for both transient and local boaters. Boaters may anchor out for extended periods of time and some boaters live on their vessels; thus, many boats have toilets and marine sanitation devices on board. Section 327.53 of the Florida Statutes prohibits the discharge of raw sewage from any vessel or floating structure in Florida waters and outlines the marine sanitation requirements for vessels located on waters of the state. These requirements are as follows:

327.53 Marine sanitation.—

(1) Every vessel 26 feet or more in length which has an enclosed cabin with berthing facilities shall, while on the waters of the state, be equipped with a toilet. On a vessel other than a houseboat, the toilet may be portable or permanently installed. Every permanently installed toilet shall be properly attached to the appropriate United States Coast Guard certified or labeled marine sanitation device.

(2) Every houseboat shall be equipped with at least one permanently installed toilet which shall be properly connected to a United States Coast Guard certified or labeled Type III marine sanitation device. If the toilet is simultaneously connected to both a Type III marine sanitation device and to another approved marine sanitation device, the valve or other mechanism selecting between the two marine sanitation devices shall be set to direct all sewage to the Type III marine sanitation device and, while the vessel is on the waters of the state, shall be locked or otherwise secured by the boat operator, so as to prevent resetting.

(3) Every floating structure that has an enclosed living space with berthing facilities, or working space with public access, must be equipped with a permanently installed toilet properly connected to a Type III marine sanitation device or permanently attached via plumbing to shoreside sewage disposal. No structure shall be plumbed so as to permit the discharge of sewage into the waters of the state.

(4)(a) Raw sewage shall not be discharged from any vessel, including houseboats, or any floating structure in Florida waters. The operator of any vessel which is plumbed so that a toilet may be flushed directly into the water or so that a holding tank may be emptied into the water shall, while the vessel is on the waters of the state, set the valve or other mechanism directing the sewage so as to prevent direct discharge and lock or otherwise secure the valve so as to prevent resetting.

(b) All waste from Type III marine sanitation devices shall be disposed in an approved sewage pumpout facility.

(c) All waste from portable toilets shall be disposed in an approved waste reception facility.

(5) Every vessel owner, operator, and occupant shall comply with United States Coast Guard regulations pertaining to marine sanitation devices and with United States Environmental Protection Agency regulations pertaining to areas in which the discharge of sewage, treated or untreated, is prohibited.

(6)(a) A violation of this section is a non-criminal infraction, punishable as provided in s. 327.73. Each violation shall be a separate offense. The owner and operator of any vessel shall be jointly and severally liable for the civil penalty imposed pursuant to this section.

Local Regulations

Marine facilities, such as marinas, often provide boaters with pumpout facilities where boaters can safely pump the sewage out of their boats for proper disposal. By implementing local regulatory oversight, Miami-Dade County currently requires a pumpout service (portable or permanent) for vessels under the Marine Facilities Annual Operating Permit (MOP) program, in accordance with an associated Class I permit condition. A marine facility with 20 or more slips is required to have a portable pumpout cart, while a facility with 50 or more slips requires both a portable and a permanent pumpout system. Solely using slip count for pumpout service determination does not account for marinas with a low number of slips that serve large yachts or ships. Utilizing slip numbers as the basis of the requirement also does not account for the general use of the marina (i.e. public vs. private) or the type of boat typically hosted. The MOP program has made allowances for marinas with multiple dockside connections able to serve the entire site (or large majority) from not requiring a separate portable pumpout cart, since this substantially constitutes both portable and permanent pumpout service. However, in those instances there is no back up if the system is down. All Miami-Dade County operated marinas have a permanent sewage pumpout service with a designated slip for use. It has been noted that the majority of MOP permitted facilities that are required to only have a portable pumpout system (i.e. small to medium-sized condominium marinas) do not often utilize their pumpout system, due to having smaller boats without waste tanks and low use (i.e. few boats).

Currently, there are no regulatory requirements for pumpout service, for example: size of tank, capacity/flow rate of system, number of hook-ups, etc., so long as the equipment is marine rated and adequate for actual use at a particular facility. Eligibility to receive pumpout service is generally at the discretion of the individual facility. In the interest of preventing illegal dumping and encouraging proper disposal, all vessels on site should be eligible for pumpout service if needed, whether it be by portable unit, designated slip with permanent connection, dock-side connections throughout docks/slips, or a combination thereof.

Grant Programs

The FDEP administers the CVA Grant Program, which offers financial assistance to marina owners and operators for the construction, renovation, operation, and maintenance of pumpout stations and waste reception facilities. This initiative aims to enhance water quality by providing recreational boaters with accessible means to dispose of sewage. Marina owners and operators in Florida are eligible to apply for CVA grants by completing the CVA Pumpout Grant Application available on the FDEP website. Additional documentation required with the application includes obtaining quotes for any equipment purchases or services exceeding $2,500, registering as a vendor through My Florida Market Place, and gathering necessary permits and forms. Upon approval by FDEP, a grant agreement would be executed. No work can commence before the agreement is in place and any costs incurred prior to the agreement's execution would not be reimbursed. After the agreement is executed, the

project can proceed as outlined in the application. The grantee can be reimbursed by submitting documentation of expenses incurred during the project for reimbursement. The CVA grant typically covers up to 75% of the project costs, with the remaining 25% to be covered by the grantee.

There may be other funding options to offset costs associated with establishing and operating this type of service, such as the Florida Boating Improvement Program (FBIP) and the Boating Infrastructure Grant Program through the Fish and Wildlife Conservation Commission (FWCC), which provides funding through competitive grants for boating access projects and other boating-related activities benefiting motorized vessels in Florida. The Florida Inland Navigation District (FIND) may also offer funds to help offset costs through the Waterways Assistance Program (WAP) Grant authorized under Section 374.976 of the Florida Statutes and governed by Chapter 66B-2 of the Florida Administrative Code, which provides funding to local governmental agencies for eligible projects serving public boat ramps and launching facilities.

Case Studies

In order to provide further insight into the operation of such a program, RER and DERM have reviewed other local government models for implementing a mobile pump out vessel service: Monroe County, City of Marathon, and City of Miami. Monroe County's pumpout service has evolved through multiple iterations since its inception in 2004. Preliminarily, Monroe County directly implemented the service and limited the service to the Upper Keys from 2004-2009 (Attachment A). Monroe County faced challenges with the effectiveness and success of their vessel pumpout program, such as fuel costs, repairs and maintenance, dockage, sewage offloading, and weather. Additionally, the vast size of the coverage area posed a logistical issue for the program. These challenges, along with difficulty hiring and retaining staff for the program, led to Monroe County adopting a contractor-provided service in 2010, funded through a partnership between the County, CVA, and legislative allocations. Currently, FDEP oversees the contracted service, which remains funded in partnership with Monroe County, CVA, and legislative allocations (Attachments B and C).

The City of Marathon directly implements their vessel pumpout program, operating two vessels which service 226 moorings and one anchorage. They cite multiple benefits to directly implementing the program versus the contractor model, including providing education to boaters, alerting law enforcement to possible violations, and preventing at-risk vessels from becoming derelict. Similarly, the City of Miami directly operates a mobile pumpout vessel service at Dinner Key Marina and Watson Island Mooring Field, free of charge. The City of Miami's service operates two days per week (Tuesdays and Thursdays) by appointment, whereby vessel owners call the dockmasters to schedule a mobile pumpout. The City of Miami is currently planning on adding a third pumpout vessel to cover the planned Marine Stadium Mooring Field. The cities receive funding via the CVA Grant Program which covers 75% of eligible operational costs and can be applied for annually.

Recommendations

Feasibility of Integration at County Marinas, Funding and Fiscal Impact

RER, DERM, and PROS have discussed the feasibility of integrating a mobile pumpout vessel service with pumpout facilities currently existing at County-owned or operated marinas. Should the County offer a mobile pumpout vessel service, this may help encourage vessel pumpouts near high-traffic recreational boating areas, supplement access where pumpout service may be limited or not available at certain facilities, and open eligibility criteria to a wider range of boaters. As mentioned above, it was determined there are two options for implementation of a County mobile pumpout vessel service, either by contracting out the service to a local vendor or directly implementing the program. However, both options are currently unfunded.

One option is for the County to contract the service in partnership with FDEP oversight. This recommendation is in part based on a review of Monroe County's mobile pumpout vessel service program, where ultimately, Monroe County determined that contracting the service was the most sustainable approach. Further fiscal analysis can be performed similar to Monroe County's model, where there is a maximum annual funding limit included in the contract, estimated by the number of vessels anchored at pre-determined service locations and the contractor is paid a fixed price per pumpout. For example, Monroe County's annual contract maximum is $1M, and price per pumpout ranges from $53.50 to $72.50 depending on the service area location. Along with applying for the CVA Pumpout Grant through FDEP, RER, DERM, and PROS could work with the Strategic Procurement Department (SPD) to solicit proposals for implementation of a mobile pumpout vessel service by a vendor in Miami-Dade County. This option could be beneficial since this type of service is outside the scope of current department operations and limitations attributable to staffing and budgetary constraints. DERM has contacted FDEP's Clean Boating Program to request further guidance on the process and the respective roles the County and FDEP would play in such a partnership if the service was contracted.

Alternatively, the County could directly implement the mobile pumpout vessel program, including the potential to integrate the service into the existing CVA Marinas program. The fiscal impact of this option would also require additional review. As previously mentioned, the County would be required to participate at 25% of cost for the program. Total program costs include purchase of a specialized pumpout vessel(s), staffing, and operating and maintenance costs. Directly implementing the program provides County staff with additional opportunities to engage and educate boaters as a core activity at County owned and operated marinas. This approach also leverages existing boater education activities including DERM's Boater Education Grant from the U.S. Environmental Protection Agency (EPA), as well as the Mayor's recently convened, Boater Safety and Biscayne Bay Education Task Force.

Eligibility Criteria and User Cost

Upon implementation of a mobile pumpout vessel service, it is recommended the County utilize eligibility criteria for users to receive pumpout services to help incentivize compliance with state and local rules and regulations. For example, eligibility could include having a valid license, registration, and being current on any marina fees owed. One recommended exception is to waive this eligibility

criteria for at-risk and derelict vessels, as it is in the County's best interest to have these vessels pumped out for the protection of public health and the marine environment. RER and DERM also recommend the pumpout service be free of charge to users, subject to the established eligibility criteria. The success of the mobile pump out vessel service relies upon it being convenient and not cost prohibitive to boaters. Therefore, should fees be charged, it is recommended that the cost be no more than $5-$10 per vessel. Based on this recommended fee, these revenues are expected to be nominal and it is unlikely that the program could be self-sufficient.

Proof-of-Pumpout Regulations

It is also recommended that the County adopt proof-of-pumpout regulations under section 327.60, Florida Statutes (F.S.), following the establishment of the mobile pumpout vessel service. Section 327.60 F.S. states in part: "Before a local government may adopt an ordinance to enact and enforce such regulations, the local government must ensure that there are approved sewage pumpout services, approved sewage pumpout facilities, or approved waste reception facilities available within its jurisdiction." Requiring proof-of-pumpout will encourage and facilitate use of the county's mobile pumpout vessel service, while also aiming to protect the marine environment from discharges by polluters. Proof of pumpout can be provided via receipt in paper or digital format. For example, proof of pumpout could be required for a predetermined timeframe via receipt at the request of any marine patrol officer. RER and DERM also recommend standardizing the use of eco-friendly dye tab flushing when marine law enforcement or marina staff board a vessel to check for proof-of-pumpout, to determine if the sewage holding tank is in good working condition. This practice, along with proof-of-pump out regulations, can help keep Biscayne Bay healthy and safe for recreational users and protect the ecosystem. Proper enforcement of these rules and regulations will be essential to its success. Implementing warning notices and/or fines to those who fail to provide proof of pumpout or fail dye testing, will act as a deterrent. Although, it should be noted this year the Florida Legislature enrolled bill SB 1388, the "Boater Freedom Act" signed into law by the Governor with an effective date of July 1, 2025, which hinders marine law enforcement's ability to stop or board a vessel for the sole purpose of making a marine sanitation equipment inspection. This essentially limits enforcement of proof of pumpout regulations.

Outreach and Education

Implementing a new mobile pumpout vessel service should include sufficient education and outreach to the boating community to spread awareness of the service. The FDEP CVA Grant Program, in partnership with the Florida Sea Grant (a university-based program supporting research and education serving Florida's coasts), developed an initiative for the "Pumpout Nav" mobile application. Florida boaters can now access this app for free, to locate over 250 publicly available pumpouts, portable toilet dump stations, and mobile pumpout vessels throughout the state. "Pumpout Nav" helps boaters find the amenities they need and helps marinas promote their services. Boaters can use the app to not only locate pumpout services, but also keep a log of their pumpouts, learn their holding tank capacity to avoid emergency pumpouts, and report broken pumpout stations. Upon Miami-Dade County's establishment of a mobile pumpout vessel service, it could be added to the "Pumpout Nav" mobile app to facilitate awareness and advertise use of the new service.

No-Discharge Zone Designation
Lastly, DERM recommends the County pursue designation of all of Biscayne Bay and other County waters as a no-discharge zone (NDZ). An NDZ is an area in which both treated and untreated sewage discharges from vessels are prohibited. Within NDZ boundaries, vessel operators are required to retain their sewage discharges onboard for discharge at sea (beyond three miles from shore) or onshore at a pump-out facility. In order to ensure adherence to the rules and regulations, avoid confusion by boaters, and implement successful enforcement, all of Biscayne Bay should be designated as a no-discharge zone, including jurisdictions of the Biscayne Bay Aquatic Preserves and Biscayne National Park, if possible. Therefore, it is also recommended that the County urge the State of Florida to apply to the EPA for approval of Biscayne Bay as a no-discharge zone determination and further urge the EPA to grant such an application once it is received.

In accordance with Ordinance No. 14-65, this report will be placed on the next available Board meeting agenda. If additional information is needed, please contact Loren Parra, Director, Department of Environmental Resources Management, at Loren.Parra@miamidade.gov or at 305-372-6754.

Attachments:
Attachment A – Report by Monroe County Establishing a Mobile Pumpout Vessel Service
Attachment B – Comprehensive Overview of Monroe County's Pumpout Program
Attachment C – Contract managed by FDEP for Monroe County's Pumpout Services

c: Geri Bonzon-Keenan, County Attorney
Jess McCarty, First Assistant County Attorney
Office of the Mayor Senior Staff
Lourdes M. Gomez, Director, Department of Regulatory and Economic Resources
Loren Parra, Director, Department of Environmental Resources Management
Christina White, Director, Parks, Recreation, and Open Spaces Department
Yinka Majekodunmi, Commission Auditor
Basia Pruna, Director, Clerk of the Board
Eugene Love, Agenda Coordinator
Office of Policy and Budgetary Affairs

Overview of the Current Pumpout Vessel Program
and the
Efficacy of Expanding the Program

Historical Overview:

In the spring of 2004 the Marine Resources Department was invited to a meeting of the Sheriffs Department Citizens Advisory Council (Sector 7 Zone 1) to hear discussion of the need for a sewage pumpout vessel to serve anchor-outs in the Key Largo area. It was suggested that liveaboard vessels at anchorages on both the bayside and oceanside of Key Largo were pumping sewage directly into the water. Few shoreside pumpout facilities were available at the time, and the federal No Discharge Zone had been recently established.

On April 7, 2004 the Marine and Port Advisory Committee (MPAC) listened to a presentation by Sgt. Lou Caputo (representing the Citizens Advisory Council) regarding the need for a pumpout boat in Key Largo. The MPAC responded with a recommendation to the Board for the development of a pumpout program for the Key Largo area. Subsequently the Board of County Commissioners (BOCC) at its September 2004 regular meeting approved the budget for a staff position for a pumpout vessel operator. At its December 2004 meeting the BOCC approved a CVA grant contract for purchasing a pumpout vessel. And, at its August 2005 meeting the BOCC approved the purchase of a 27' pumpout vessel to be used in the Key Largo area.

A pumpout captain was hired in September of 2005 and the pumpout program began. Immediate issues with the program (logistical in nature) were faced, including: where to dock the pumpout boat, where to off-load sewage, how to effectively cover a large geographic range (30 miles on both sides of the island), how to fund maintenance and fuel costs, etc.

Arrangements were made with the state (FWC) providing dockage for the new pumpout vessel at the old Estes Fish Camp on Windley Key, seven miles south of Key Largo. While this arrangement was financially attractive, this placed the vessel well south of the southern end of its operational area. No arrangements could be approved for fueling the vessel other than using the County fuel station at the Plantation Key office. This arrangement required the pumpout vessel operator to transport (by truck) fuel cans back and forth from the fueling station to Estes Fish Camp several times a week costing staff time, in additional to the potential safety hazard created. And while the vessel was purchased with a grant, operational and maintenance costs came out of the Growth Management Budget. Arrangements were made with Mangrove Marina, located on the bayside of Key Largo, to receive the collected sewage from the pumpout vessel. In return the County agreed to pay the sewage truck costs for all the vessel sewage collected at the marina, further increasing the cost of sewage disposal.

The program functioned somewhat successfully for a year and a half. However, the logistical issues of fueling and docking in one location, while attempting to service vessels throughout a thirty mile range both bayside and oceanside, limited the effectiveness of the program. Offloading of sewage at one site on the bayside of Key Largo drastically restricted the pumpout vessel, as it had to return to Mangrove Marina continuously to offload sewage before servicing additional vessels. And as word of the pumpout vessel spread, clientele of the program began to shift from anchor-outs to liveaboards at marinas which had no pumpout facilities. Also, since the vessel was typically docked overnight on the bayside of Windley Key, liveaboards proximate

to that location began requesting pumpout service. Soon the pumpout program extended beyond the Key Largo area, well into the Village of Islamorada. And while no direction was provided by the Board to do so, the program expanded south to Robbies Marina at the north end of Lower Matecumbe, further stretching the capabilities of the program and increasing logistical issues.

In 2007 staff changes hampered the pumpout program. In February '07 the pumpout captain resigned. In March '07 that person was rehired, but resigned shortly after in July 2007. The pumpout vessel was out of service for several months while the position was vacant. During that time, Marine Resources staff evaluated the condition of the vessel, trailer, and pumpout equipment in preparation for putting the vessel back in service. The vessel had been left in poor condition- the sewage pump was seized up, trailer wheels were seized up, and the vessel was in general disarray. The Marine Resources Office began servicing the vessel, trailer and pump while waiting to fill the vacant position.

In November of 2007 a new pumpout captain was hired who spent several weeks continuing with the servicing of the boat engine and sewage pump until all systems were operating properly. The captain was then trained on the use of the vessel and equipment with the help of staff at the City of Marathon Marina. In the meantime logistical issues were once again addressed in attempt to improve on the various elements of the pumpout program (e.g. dockage, fueling, sewage offloading and costs associated with the day to day operation of the pumpout vessel). The contract for sewage offloading at Mangrove Marina was allowed to expire, and alternative provisions were explored. The following measures were taken to make the program more effective:

1) A sewage truck service was set up as a vendor to allow for the vessel to be pumped out at various locations throughout the operating range. Also, provisions were made to allow offloading of sewage at the Lorelei Marina in Upper Matecumbe Key.
2) Several marinas were set up as vendors to provide fuel throughout the operating range, eliminating the need to carry fuel from the County fuel pumps at Plantation Key
3) A CVA grant was established which provided for 75% of maintenance costs for the vessel.
4) Dockage was made available at the Pilot House Marina on the oceanside of Key Largo.

While the above measures facilitating the pumpout program have addressed some of the logistical issues, several problems remain. Sewage offloading at the Lorelei became unavailable after June '09. And due to the lack of an available County owned shoreside facility to serve the pumpout vessel, sewage offloading continues to be the bottleneck to the program. When the vessel fills with sewage, the operation stops until a sewage truck can offload the vessel. Also, due to the expanded operating range of the program the pumpout vessel must cover many miles to get to some of the clientele, often just to pumpout one or two vessels. Wear and tear on the vessel is a significant issue, as the vessel typically runs long distances in a chop with several thousand pounds of sewage on board. In 2008 the hull underwent major repairs due to heavy pounding and several collisions with objects. The engine also had to be replaced due to high hours after two years of service (typical of a commercially operated vessel). An unexpected issue needing to be addressed has been the large capacity holding tanks on houseboats being served by the program. Two or three houseboats can easily fill the pumpout boat holding tank, causing the boat to need offloading before additional vessels can be served.

Weather is also a controlling factor with the program, as windy conditions can limit the range or areas that the pumpout vessel can serve. And when the boat is out of operation due to weather (or other reasons, including operator vacation or sick leave, vessel repairs, etc) it throws the pumpout schedule out of sequence causing numerous complaints from clientele who expect their vessels to be pumped out on schedule.

Cost Analysis:

The following breakdown of costs and revenues are provided for the program startup and first (2006) and last (2008) years of continuous operation of the pumpout program (2005 and 2007 saw partial operation). This breakdown indicates the trends in expenditures, including utilization of grant funding to offset operating costs.

Item	*Startup*	*2006*	*2008*
Pumpout vessel purchase	$100,495.00		
Clean vessel act reimbursement	-$66,666.67		
Staff salary/benefits		$47,005.66	$50,083.15
Travel/per diem		$400.00	
Phone		$685.57	$459.36
Repair and maintenance (internal)		$409.78	$3,340.77
Office Supplies		$174.61	
Operating Supplies		$1,446.11	$925.09
Gasoline			$6,513.06
Internal fuel		$6,060.09	$3,319.24
Waste haulout costs		$7,800.00	$5,753.00
Repairs and maintenance (other)			$1,986.43
	Subtotal	**$63,981.82**	**$72,380.10**
Pumpout fees revenues ($5 per pumpout)		-$1,545.00	-$3,060.00
Clean Vessel Act Grant reimbursement			-$11,946.28
	Subtotal	**-$1,545.00**	**-$15,006.28**
	Net cost to County	**-$62,436.82**	**-$57,373.82**

The data above describe the various costs associated with staffing and operating the pumpout vessel. Significant costs to the program include fuel, repairs, and sewage haulout. The acquisition of Clean Vessel Act Grant funding has helped offset the costs of repairs and sewage haulout in the last year. Fuel costs (not allowable for reimbursement under the CVA program) will continue to be an issue. Repair costs tend to be low in the year or two following the purchase of the pumpout vessel, but climb dramatically as the vessel and engine age due to expected wear and tear. Revenues received from the $5 cost of pumpouts are nominal.

Current Program Summary:

There are a variety of issues that challenge the effectiveness and success of the County's vessel pumpout program. Fuel costs, repairs and maintenance, dockage, sewage offloading, and weather continue to be issues to be dealt with. However, the sheer size of the coverage area will continue to be the greatest logistical issue for the program.

Most pumpout programs throughout the country are developed around a single protected mooring field or anchorage, with a shoreside facility close by to dock and offload the boat. For the County's program, providing service to vessels throughout a thirty mile range (i.e. Key Largo) or a forty five mile range (i.e. Key Largo through the Village of Islamorada) is a challenging task at best. There is a high level of ineffectiveness, as the pumpout vessel runs many miles to service vessel at the far ends of the operating area. And the unanticipated expansion of the range (since the inception of the program) exacerbates an already difficult job. In addition, the shift from serving anchor-outs to serving liveaboards at marinas has caused marina owners and managers to rely on the program, minimizing any incentive to provide their own pumpout facilities.

There are approximately forty five marinas located from Key Largo to Lower Matecumbe Key, providing dockage to hundreds of liveaboard vessels. Only eleven of those marinas have pumpout facilities (some of which are not operational). Staff is currently drafting an ordinance requiring marinas to provide vessel sewage pumpout facilities (as per Comprehensive Plan Policy 202.5.1). Once marinas are equipped with pumpouts the need for a County pumpout vessel will be greatly reduced, or possibly eliminated (as even anchor-outs will be able to motor in to adjacent marinas to pumpout). An increase in cost effectiveness and practicality will be realized by shifting from a mobile oriented pumpout program to one which provides pumpouts at every marina. The above cost analysis derived from the first and last continuous years of the program indicates the costs associated with running and staffing a pumpout vessel. And the $5 generated per pumpout, while maximizing incentive to pumpout, is budgetarily insignificant.

The annual net cost to the County for running the vessel pumpout program hovers around $60,000 (utilizing grants as available). This cost is not prohibitive, and is within the budget anticipated for the program. The primary obstacle to the program is the large operating range and the logistical issues created by servicing such a large area, both oceanside and bayside.

Potential for Expansion to the Lower Keys:

There has been consideration for developing a mooring field and associated pumpout facilities at the anchorage in Boca Chica Harbor in attempt to address multiple boating impacts. An evaluation completed by the Marine Resources Office in 2008 concluded that there is little potential for creating a mooring field in the location, primarily due to objections by the Navy. However, existing liveaboards in the harbor could be served by a pumpout vessel in attempt to address one of the impacts created at the anchorage (i.e. vessel sewage).

The geographic layout of the harbor is conducive to a pumpout program in that all the anchored vessels are in one general location, in addition to the potential for sewage offloading at the newly developed Key West Harbor Yacht Club on Stock Island.

Staff Recommendations:

Staff has generally been able to find solutions to budgetary issues associated with the pumpout program (e.g. CVA grants, etc). Issues that cannot be resolved relate to the large operating area and the logistics involved. If the home base for the vessel were located near the center of the current operating area, it would still require a run of twenty miles or more to reach the northern and southern extents. This far of a run, and returning with a full load of sewage, consumes an enormous amount of fuel and the added weight applies great stress on the hull and engine. If the operating area were to only include the bayside and oceanside of Key Largo, as originally envisioned, the fuel and maintenance costs would be drastically reduced. More importantly logistical issues would be reduced or eliminated, as the pumpout vessel would be significantly closer to the homebase from which it operates. Recently the Village of Islamorada has indicated a desire to provide their own pumpout vessel. Coordination between the County and the Village regarding responsibilities according to jurisdiction will alleviate the issue of the current large operating area for the County.

Currently the homebase for the pumpout vessel is at the Pilot House Marina on the oceanside of Key Largo, well north of the center of the operating area. And while the use of a sewage truck provides the flexibility of offloading at various sites throughout the operating area, the operator often waits for hours to be serviced when full. A county owned facility which provides both docking and sewage offloading at a central location in Key Largo would be optimal for daily operations from the standpoints of running, docking and offloading (in conjunction with a sewage truck service as needed).

Breakdowns and routine servicing of the County pumpout vessel are to be anticipated. The vessel has been out of service on numerous occasions. A second pumpout vessel would allow the pumpout captain to provide continuous operation on such occasions. The vessel could be a smaller, more easily trailered pumpout boat that could also be used to provide service in Boca Chica Harbor, which has already been identified as a priority for boating management and in need of pumpout facilities. However a smaller boat used as a backup in the upper Keys would have more problems operating in windy conditions than the current pumpout vessel.

Finally, the lack of functioning sewage pumpout facilities at marinas has placed an unanticipated burden on the pumpout program, with at least 75% of all pumpouts being provided for liveaboards in slips rather than at anchor. If marinas were required to have pumpout facilities, the pumpout program could better focus on the serving anchor-outs at the many anchorages located throughout the upper Keys. Suitable land-based vessel sewage pumpout facilities should be required at all marinas as per Comprehensive Plan policy.

Synopsis of Recommendations

1- Concentrate the operating area for the County pumpout program in the upper Keys to Key Largo
2- Provide a County facility for dockage and sewage disposal for the pumpout vessel in a central location on the bayside of Key Largo
3- Consider the purchase of a second pumpout vessel, both as a backup and to potentially serve the anchorage at Boca Chica Harbor.
4- Require all marinas facilities to have suitable vessel pumpout facilities in accordance with Comprehensive Plan Policy 202.5.1

MEMORANDUM

Agenda Item No. 11(A)(13)

TO:	Honorable Chairman Anthony Rodriguez and Members, Board of County Commissioners	**DATE:**	April 21, 2026
FROM:	Geri Bonzon-Keenan County Attorney	**SUBJECT:**	Resolution urging the United States Congress to appropriate funding to support projects recommended in the 2024 report of the United States Army Chief of Engineers in furtherance of the Miami-Dade County Back Bay Coastal Storm Risk Management Study

The accompanying resolution was prepared and placed on the agenda at the request of Prime Sponsor Commissioner Micky Steinberg.

For
Geri Bonzon-Keenan
County Attorney

GBK/ks

MEMORANDUM

(Revised)

TO: Honorable Chairman Anthony Rodriguez
and Members, Board of County Commissioners

DATE: April 21, 2026

FROM: Geri Bonzon-Keenan
County Attorney

SUBJECT: Agenda Item No. 11(A)(13)

Please note any items checked.

_____	**"3-Day Rule" for committees applicable if raised**
_____	**6 weeks required between first reading and public hearing**
_____	**4 weeks notification to municipal officials required prior to public hearing**
_____	**Decreases revenues or increases expenditures without balancing budget**
_____	**Budget required**
_____	**Statement of fiscal impact required**
_____	**Statement of social equity required**
_____	**Ordinance creating a new board requires detailed County Mayor's report for public hearing**
✓	**No committee review**
_____	**Requires more than a majority vote (i.e., 2/3's present ____, 2/3 membership ____, 3/5's ____, unanimous ____, majority plus one ____, CDMP 7 votes (majority of membership) ____, CDMP 2/3 members present but not less than 7 votes (majority of membership) ____, CDMP 9 votes (2/3 membership) _____) to approve**
_____	**Current information regarding funding source, index code and available balance, and available capacity (if debt is contemplated) required**

Approved _____ Mayor
Veto _____
Override _____

Agenda Item No. 11(A)(13)
4-21-26

RESOLUTION NO. _____

RESOLUTION URGING THE UNITED STATES CONGRESS TO APPROPRIATE FUNDING TO SUPPORT PROJECTS RECOMMENDED IN THE 2024 REPORT OF THE UNITED STATES ARMY CHIEF OF ENGINEERS IN FURTHERANCE OF THE MIAMI-DADE COUNTY BACK BAY COASTAL STORM RISK MANAGEMENT STUDY

WHEREAS, the Miami-Dade County Back Bay Coastal Storm Risk Management Study ("Back Bay CSRM Study") is an $11,200,000.00 fully federally funded study led by the United States Army Corps of Engineers ("USACE") in partnership with the non-federal sponsor, Miami-Dade County, and in collaboration with key stakeholders and municipalities; and

WHEREAS, in 2018, pursuant to Resolution No. R-1011-18, this Board approved an agreement between the USACE and the County, as the non-federal sponsor, related to the Back Bay CSRM Study; and

WHEREAS, the purpose of the study is for the USACE to identify, evaluate, and recommend a set of solutions that manage coastal storm surge risks to the County's infrastructure and improve resilience by managing risks to public health and safety; and

WHEREAS, on August 25, 2024, the USACE Commanding General and 55th United States Army Chief of Engineers issued a report ("the 2024 Chief's Report") in furtherance of the Back Bay CSRM Study; and

WHEREAS, the 2024 Chief's Report outlines a suite of recommended projects focused on six of the County's most physically and socioeconomically vulnerable areas; and

WHEREAS, such recommended projects include voluntary elevations of residential homes, floodproofing of non-residential buildings and critical infrastructure, a Nature-Based Solutions Pilot Program, and Programmatic Nonstructural Studies; and

WHEREAS, as noted in the 2024 Chief's Report, federal implementation of the recommended projects would require cooperation by Miami-Dade County as the non-federal sponsor, including but not limited to the contribution of a 35-percent share of design and construction costs; and

WHEREAS, it is anticipated that the various components of the recommended projects may be divided into phases, and that certain smaller components could proceed separately at an earlier stage; and

WHEREAS, on January 21, 2026, through the adoption of Resolution No. R-66-26, this Board approved the 2026 Federal Legislative Package, which includes support for the funding of projects recommended in the 2024 Chief's Report; and

WHEREAS, Miami-Dade County submitted a Community Project Funding Request to fund the design phase for certain projects recommended in the 2024 Chief's Report; and

WHEREAS, specifically, the Community Project Funding Request seeks to fund the Nature-Based Solutions Pilot Program and projects to protect critical infrastructure and flood-proof non-residential buildings; and

WHEREAS, the Nature-Based Solutions Pilot Program includes a diverse range of engineered features such as hybrid coral reef structures, dune reinforcement, living shorelines, restoration of mangroves, and human-made island enhancements to help address erosion and storm surge flooding; and

WHEREAS, the requested federal funding would support multiple lines of defense strategy with the goal of reducing property damage and disruption caused by tropical storms, hurricanes, coastal erosion, and waves in highly vulnerable coastal areas of the County; and

WHEREAS, additionally, such funding would support projects that are anticipated to provide comprehensive benefits by restoring ecosystem health in and around Biscayne Bay; and

WHEREAS, this Board wishes to urge the United States Congress to appropriate funds to support projects recommended in the 2024 Chief's Report, including those projects described in the Community Project Funding Request,

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF MIAMI-DADE COUNTY, FLORIDA, that this Board:

Section 1. Urges the United States Congress to appropriate funds to support projects recommended in the 2024 Chief's Report, including those projects described in the Community Project Funding Request.

Section 2. Directs the Clerk of the Board to transmit a certified copy of this resolution to the members of the Florida Congressional Delegation and the Assistant Secretary of the Army for Civil Works.

Section 3. Directs the County's federal lobbyists to advocate for the funding described in section 1, and directs the Office of Intergovernmental Affairs to amend the 2026 Federal Legislative Package to include this item.

The Prime Sponsor of the foregoing resolution is Commissioner Micky Steinberg. It was offered by Commissioner , who moved its adoption. The motion was seconded by Commissioner and upon being put to a vote, the vote was as follows:

Anthony Rodriguez, Chairman
Kionne L. McGhee, Vice Chairman

Marleine Bastien	Juan Carlos Bermudez
Sen. René García	Oliver G. Gilbert, III
Roberto J. Gonzalez	Keon Hardemon
Danielle Cohen Higgins	Vicki L. Lopez
Natalie Milian Orbis	Raquel A. Regalado
Micky Steinberg	

The Chairperson thereupon declared this resolution duly passed and adopted this 21st day of April, 2026. This resolution shall become effective upon the earlier of (1) 10 days after the date of its adoption unless vetoed by the County Mayor, and if vetoed, shall become effective only upon an override by this Board, or (2) approval by the County Mayor of this resolution and the filing of this approval with the Clerk of the Board.

MIAMI-DADE COUNTY, FLORIDA
BY ITS BOARD OF
COUNTY COMMISSIONERS

JUAN FERNANDEZ-BARQUIN, CLERK

By:_____
Deputy Clerk

Approved by County Attorney as
to form and legal sufficiency.

Cristina M. Rabionet

Memorandum

Date: May 18, 2026

To: Honorable Chairman Anthony Rodriguez
and Members, Board of County Commissioners

From: Daniella Levine Cava
Mayor

Subject: Report on the 2026 Annual Report Card Program on the Health of Biscayne Bay – Directive No. 180799

Executive Summary

This report is provided pursuant to Resolution No. R-463-18, which I sponsored as Commissioner, directing the County Mayor or County Mayor's designee to develop an annual report card program that evaluates the health of Biscayne Bay and employs a simple and easy-to-understand "stoplight" approach to reporting on the health of Biscayne Bay. The Resolution further directed that the health evaluation shall be data-driven, shall use sound scientific principles, shall incorporate information on water quality and habitat values throughout Biscayne Bay, shall include easy-to-read graphics suitable for the general public to understand, and that the results of the health evaluation shall be made publicly accessible.

The Biscayne Bay Report Card methodology was developed by the Department of Environmental Resources Management (DERM), and each year DERM scientists and other technical staff conduct the analysis required to summarize the health of the Bay. The annual Biscayne Bay Report Card provides the public with information related to the status of each water quality and habitat quality indicator evaluated for bay health and each indicator's annual "stoplight" score (red, yellow, or green) across the Bay based on data collected during the prior calendar year. Each red, yellow, or green stoplight score by region translates into conditions that are poor (red), fair (yellow), or good (green). The report card also illustrates locations of monitoring stations and other information about DERM's programs and highlights the County's accomplishments toward Biscayne Bay restoration over the past year as well as what the public can do to help protect the Bay. The public can access the annual report cards in an interactive format online via the County's dedicated Biscayne Bay webpage (www.miamidade.gov/BiscayneBay). Please find attached the maps associated with the 2026 Biscayne Bay Report Card for your review, which provide a summary of Biscayne Bay health using data collected during the 2025 calendar year.

The data utilized in compiling the annual Biscayne Bay Report Card are the result of a year-long effort by DERM's field biologists. The Surface Water Quality Monitoring Program collects various physical, chemical, and biological water quality parameters monthly at 138 locations, within all major canals across the County and throughout Biscayne Bay. Additionally, the Benthic Habitat Monitoring Program collects data on the health and presence of benthic resources such as seagrass, macroalgae, sponges, hard corals, and soft corals at 475 locations across Biscayne Bay on an annual basis. These data are then reviewed for quality assurance and analyzed by our Senior Water Scientist and other key staff, and then transformed into maps based on the red, yellow, or green scores assigned to each indicator. Water quality indicators include nutrients, bacteria, and water clarity and habitat indicators include seagrass and sponges. Translating this information into the tables, maps, and graphics presented in the report card requires a dedicated team of DERM's scientists, cadastral staff, and policy experts while working alongside the Communications, Information, and Technology Department and Regulatory and Economic Resources Department teams who help bring the report to life in our interactive online format for the public to access.

2026 Biscayne Bay Report Card Findings

Overall, we see slight improvements in water clarity and seagrass coverage in a few north regions of Biscayne Bay, but an increase of nutrients in the south regions of the bay. In general, there have been minimal changes to the Bay's health as compared to last year. While we have not experienced a major fish kill in the Bay since 2022, however given the predictions of this year's "El Nino", we will be diligent in monitoring key indicators associated with water temperature and dissolved oxygen. In 2023, in collaboration with municipal partners, DERM added 30 new sampling locations to its surface water quality monitoring program for additional monitoring coverage across the Biscayne Bay watershed. Additionally, we are partnering with Florida International University (FIU) and University of Miami (UM) to provide research, analysis, and other services to characterize and address water quality issues and habitat restoration efforts in the Bay. Findings of the 2026 Biscayne Bay Report Card continue to support analyses from prior years indicating that nutrients and bacteria from within the watershed are documented in canals and in segments of the Bay at concentrations that can ultimately impact Bay resources, and that chlorophyll-a, an indicator of nutrient loading, is impacting segments of Biscayne Bay. Most regions of Biscayne Bay, including the highly compartmentalized basins of northern Biscayne Bay largely remain in the poor to fair range for various nutrient indicators like chlorophyll-a, nitrogen, and phosphorus. **The South North Bay-B, Oleta River and Princeton Canal segments went from poor to fair condition and South North Bay-C went from good to fair condition.**

Water clarity, a measure of the amount of turbidity in the water column, appeared to be improved in several regions of Biscayne Bay and its tributaries (such as North Central Offshore and South Central Inshore) or remained the same. There is evidence that these northern regions, which experienced significant seagrass die-off in recent years, are recovering and are shifting back from a macroalgae-dominated habitat to a seagrass dominated system. Seagrass serve as nurseries, feeding grounds, and shelter for a wide range of marine species and contribute to healthy ecosystem diversity in the Bay, along with other ecosystem services such as wave energy/force reduction during storms. Seagrass abundance has increased and expanded in certain parts of northern Biscayne Bay, with some improvement in coverage shown in two South North Bay regions to the highest levels since 2018. Although seagrass density is still low overall, and presence of macroalgae remains high—which is usually an indicator of nutrient enrichment, increased seagrass coverage has been documented in these areas.

Biscayne Bay is the blue heart of our economy and our regional prosperity, now and for future generations. Given that the Bay and the tributaries canals and groundwater that feed it are facing unprecedented threats to their health and resilience, my administration continues to actively and aggressively pursue short-term and long-term actions to restore the health of our Bay. The water resources of our County know no jurisdictional bounds, and these actions will require ongoing support and long-standing commitment from our municipal, state, and federal partners. Building upon our successes in the past few years, many additional actions were taken in 2025 to improve the health and resilience of Biscayne Bay. A summary of policy and legislative updates, grants, restoration projects, and education and outreach efforts are provided below.

Policy and Legislative Updates

Boards

The Biscayne Bay Watershed Management Advisory Board (BBWMAB) and the state Biscayne Bay Commission (BBC) provided policy recommendations and opportunities for important public engagement in support of protecting and restoring Biscayne Bay. Actions include supporting investigations to inform our scientists about sources of pollution impacting our ground and surface waters as well as supporting our state and federal partners with regional restoration projects. In addition, the board was provided updates on the County's efforts to employ innovative technology to further stormwater and wastewater reduce pollution from entering into our ground and surface waters and ultimately the Bay.

Reorganization
This past year, I announced that the Division of Environmental Resources Management, previously under the Regulatory and Economic Resources (RER) Department, would become an independent department led by newly appointed Director and Chief Resilience Officer, Loren Parra. This strategic reorganization aims to streamline County functions to improve key services for our residents and businesses, strengthening our commitment to protecting our environment while helping businesses to thrive across our community by making processes and approvals more efficient and customer friendly. Along with the establishment of DERM as an independent department, comes a robust education and outreach presence with independent social media handles and communications to share DERM's mission with our residents and visitors, including ways they can help protect Biscayne Bay. DERM will also be a leader in guiding environmental policy and delivering updates to our environmental code, providing multiple benefits to our community and ensuring environmental safeguards for future generations.

Septic to Sewer Progress
As of January 1, 2023, conventional onsite sewage treatment and disposal systems (i.e., septic systems) are no longer approved for new or complete replacement systems. This is a significant win for water resource protection in Miami-Dade County because performance-based treatment systems (PBTS), of which there are several types, can significantly lower concentrations of nutrients and bacteria that reach groundwater and/or surface water. A total of 531 new PBTS were approved in 2025. Of the total number of projects approved, over 95% were for single-family residences (SFR) with Type 3 systems. For example, the equivalent of 531 three-bedroom homes each with a waste stream of 300 gallons per day, would otherwise have the potential to load total nitrogen at a rate of 48,524 pounds per year and total phosphorus at a rate of 8,734 pounds per year. Using a Type 3 PBTS at 531 single-family homes, **there was an estimated 70% reduction in total nitrogen down to 14,557 pounds per year and a 44% reduction in total phosphorus down to 4,852 pounds per year, helping reduce the amount of nutrients reaching the Bay through groundwater**.

Collaboration with State and Local Partners to Reduce Nutrient Pollution
On March 1, 2022, the Board of County Commissioners adopted Resolution No. R-184-22, directing the development of a Reasonable Assurance Plan (RAP) to be approved by the Florida Department of Environmental Protection (DEP) to address Biscayne Bay's water quality impairments. Biscayne Bay faces water quality impairments under the federal Clean Water Act through non-compliance with state nutrient criteria including exceedances of nitrogen, phosphorus, and chlorophyll-a. These excess nutrients have led to the Bay facing unprecedented threats to its health and resilience as evidenced by incidences of seagrass die offs, fish kills, and algal blooms. Actively and aggressively pursuing short-term and long-term actions is imperative to restore the health of the Bay. A RAP is considered an alternative restoration plan by DEP, specifically an alternative to the state's regulatory process of establishing a Total Maximum Daily Load allocation for the pollutant leading to the impairment, and associated Basin Management Action Plan to implement pollution reduction and restoration goals. This alternative approach allows the County to get to "cleaner water faster".

The RAP is a stakeholder-driven effort wherein key stakeholders who contribute nutrient loads to Biscayne Bay collaborate to develop a plan to meet nutrient reduction allocations. Quantifying nutrient loads and identifying sources is a major component of the RAP, and this includes sources from more urban land uses such as stormwater and septic tanks as well as agricultural runoff. Miami-Dade County DERM is leading coordination and development efforts which has included finalizing procurement of technical services needed to develop the RAP, identifying and initiating coordination with stakeholders both internal and external to Miami-Dade County, identifying data needs, and coordinating with DEP including submission of the RAP Plan of Study which received approval in November 2024. Ultimately, nutrient allocations will be established to reduce the nutrient load reaching Biscayne Bay. A team of technical experts who have developed such

plans support the County's effort and that of key stakeholders including all municipalities. **A draft RAP is on track to be submitted to DEP by Fall 2026.**

Grants and Projects Update

Comprehensive Everglades Restoration Plan - Biscayne Bay Coastal Wetlands Project

In December, we celebrated the completion of the Biscayne Bay Coastal Wetlands (BBCW) Project. The BBCW Project is a part of the larger Comprehensive Everglades Restoration Plan (CERP) by the US Army Corps of Engineers and South Florida Water Management District (SFWMD) in partnership with Miami-Dade County. The BBCW Project includes three components: Deering Estate, L-31E Flow Way, and Cutler Wetlands, all of which are now finished, which means another major CERP project is complete. This project now delivers freshwater from the C-1 Canal through the S-701 pump station in order to rehydrate coastal wetlands adjacent to Biscayne Bay, diverting water that would otherwise be discharged directly into the Bay with no treatment, carrying pollutants with it. I championed these rehydration projects even before becoming Mayor, and the County will continue to provide its historic support for CERP through the many supporting activities that occur through DERM.

Marine Debris Program

Many restorative actions were taken on a local level to reduce the amount of marine debris and further reduce the amount of pollution reaching the Bay. **DERM staff removed 40 derelict vessels last year, bringing the County's total number of derelict vessels removed to date to over 500**. While there have been challenges in coordination between multiple jurisdiction agencies, DERM continues to pursue grant funding and maintain close collaboration with law enforcement to progress our marine debris program. Additionally, hundreds of abandoned crab and lobster traps were removed. DERM staff also works with individuals who must serve court-mandated community service hours for environmental offenses. DERM organized 21 cleanup events and, through the effort of staff and these individuals, removed over 15 tons of marine debris from the County's coastal areas. DERM's Environmentally Endangered Lands (EEL) Program acquired 101.09 acres of land with high environmental value for the period of January 1, 2025 through December 31, 2025. These lands help the County protect water resources by storing stormwater and recharging the Biscayne Aquifer. The EEL program manages over 28,000 acres of environmental land for this and future generations.

State and Federal Grants

The County continues its tasks related to the Biscayne Bay Water Quality Improvement (BBWQI) grant program, funded by DEP. Phase 5 funding for FY 2024-2025 included $1.65 million and Phase 6 funding for FY 2025-2026 totaled $4.25 million. The main objective of the grant's Characterization and Pollution Reduction project is to identify and quantify pollution sources reaching Biscayne Bay, determine where those pollutants end up, and ultimately employ various tools and technologies to eliminate them. This work includes characterizing sources of pollution reaching Miami River, Little River, Biscayne Canal, and Arch Creek, and piloting nutrient-reducing stormwater and wastewater technologies. DERM continues to spearhead the effort to innovate not only stormwater solutions that can help eliminate and reduce nutrient pollution impacting our Bay but also wastewater solutions such as Smart Covers largely through state grant funding. There remains a total of 426 Smart Covers installed across the County, which resulted in 1,688 high level alarm notifications received, alerting utilities to the potential of a sewage spill based on system conditions.

Under Task 3 of the BBWQI grant, complex coordination between DERM, Florida International University, and the University of Miami is underway to begin the field work of characterizing water quality and identifying potential sources of pollution in the Miami River, Little River, and Biscayne Canal. More than 400 water quality and 100 sediment samples will be collected over five sampling events and an opportunistic storm event. Additionally, under Task 7 DERM has been working closely with the Department of Transportation and Public Works to install 199 stormwater treatment devices across five locations in the Little

River basin. The County will be testing the nutrient removal efficiency of these devices and evaluate their maintenance needs to determine options available to meet each basin's nutrient removal needs once the RAP is developed.

DERM was awarded $593,600.00 from the Environmental Protection Agency (EPA) for Community Project Funding (CPF) to support the Miami-Dade County Water Pollution Prevention Project. This effort focuses on hydrological improvements to Goulds Canal. By backfilling the canal, the project will reduce nutrient pollution entering Biscayne Bay from upland sources, improving water quality in the South Florida coastal wetlands and Biscayne National Park. **Additionally, DERM was awarded $1,411,538.00 for the Goulds Canal Filling and Restoration to Reduce & Prevent Pollution Project.** When funded, this initiative will prevent contaminants from entering Goulds Canal, the adjacent L-31E canal, and the CERP S-705 pump station project. By reducing nutrient inputs, the project will directly benefit Biscayne Bay, while supporting CERP goals.

The County also received a $500,000 state legislative appropriation to develop the Biscayne Bay Watershed Plan, which is a key function and goal of the Biscayne Bay Watershed Management Advisory Board (BBWMAB). This plan will serve as a binding blueprint used to achieve water quality, seagrass restoration, and the overall health of Biscayne Bay. While the Reasonable Assurance Plan which is exclusively focused on water quality and nutrient reduction in order to restore impacted habitat, to this end the watershed plan considers growth and development policies, stormwater management policies and activities, access to and recreational usage of the Bay, and other potential activities that can impact or conflict with restoration of Biscayne Bay's health and resilience. Providing recommendations for the watershed plan is a key duty of the BBWMAB and I look forward to their leadership and input on this critical priority.

Community Outreach and Education

The County's fertilizer ban goes into effect **May 15 – October 31**, and outreach last year included educational fertilizer awareness mailers being sent to all licensed pesticide and fertilizer applicators in the County. DERM also partnered with fertilizer retail outlets for the display of informational signage at fertilizer points-of-sale in Lowes, Home Depot, and Walmart Garden Centers during the restricted fertilizer application period. The County also launched a paid campaign which included search engine marketing, web banners, and social media advertising. For communities interested in educating their residents on responsible fertilizer use under the ordinance, please visit www.miamidade.gov/BiscayneBay to download our toolkit.

Residents can also do their part to help protect Biscayne Bay by volunteering for Baynanza. **This past month we celebrated the 44th anniversary of Baynanza,** the County's signature annual cleanup of Biscayne Bay that DERM has coordinated from its inception. This event spans the length of the County, providing opportunities for volunteers to find a location closest to them to help give the Bay a hand. **This year, 3,500 participants collected over 10 tons of trash at 33 sites along the Bay. I am pleased to report that DERM hosted cleanups in all 13 Commission districts for the first time—because no matter where we are in the County, we can impact the health of Biscayne Bay when trash gets into our stormwater system.** These initiatives continue to be supported by thousands of volunteers and stakeholders whose work contributes greatly to the restoration and future health of Biscayne Bay and the County is grateful for their dedication.

Additionally, I created the Boater Safety and Bay Education Task Force, working closely with the Lucy Fernandez Foundation. My administration is committed to the protection of residents and visitors on the water and protection of our natural resources. Over the last year we have increased outreach and education before boating holidays countywide, and I look forward to implementing the recommendations of this task force to continue boater education with the goal of eliminating preventable accidents and fatalities on our waterways

while protecting bay habitats.

In partnership with The Miami Foundation and several local organizations, we reached the goal of 3,000 Biscayne Bay Specialty License Plate registrations resulting in statewide production of the plates in 2025. The license plate not only helps to raise awareness about the critical importance of Biscayne Bay but will also provide a source of ongoing funding to preserve and restore Biscayne Bay including water quality improvements, marine debris clean-up and monitoring, and critical habitat restoration grants.

Conclusion

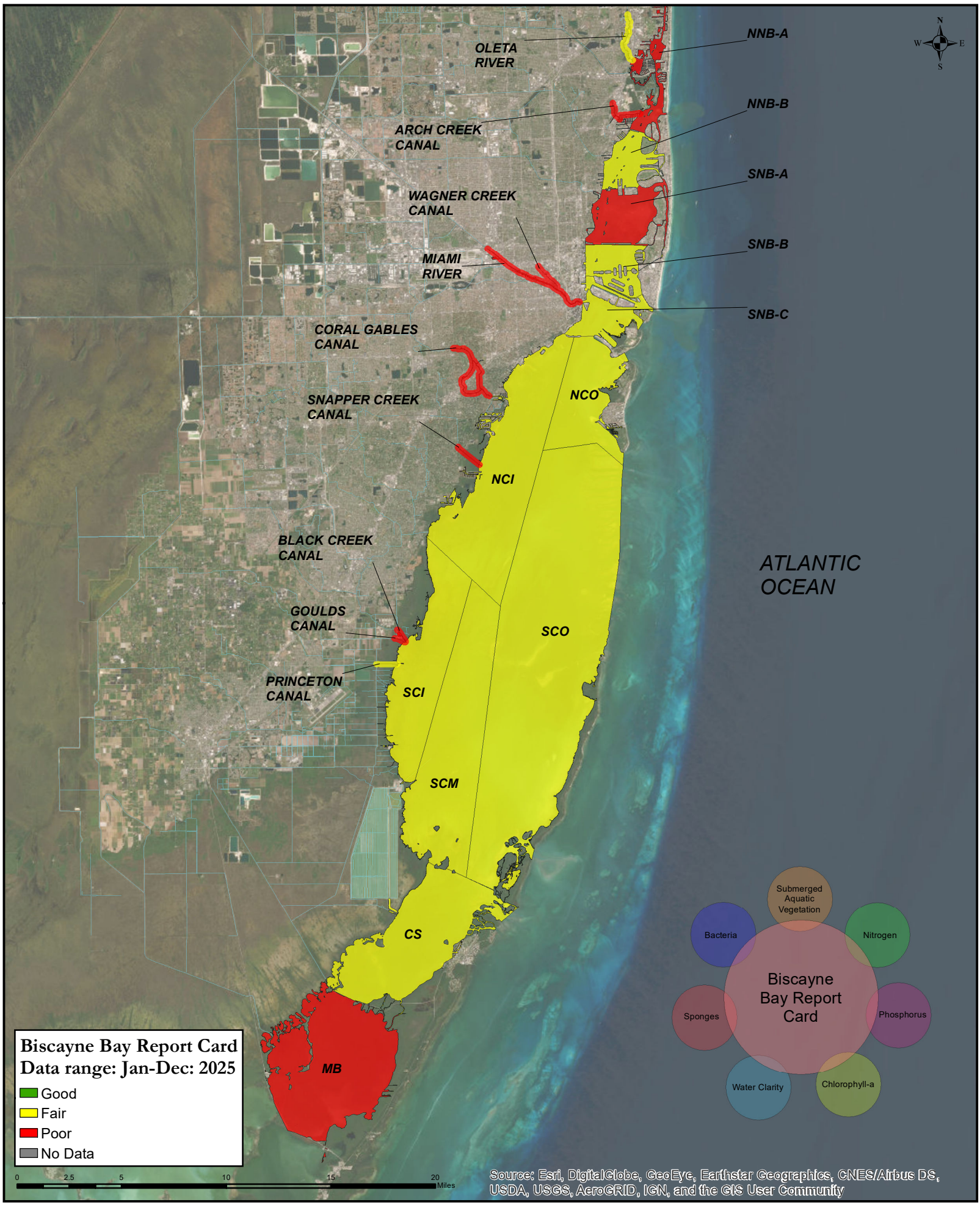
As we continue to balance the needs of our growing community, it is essential that we prioritize the work of restoring the health and resilience of Biscayne Bay to protect not only our environment but our economy. My administration remains steadfast in our commitment to continue to pursue tangible and necessary actions to protect the health of Biscayne Bay, collaborate with our stakeholders at all levels, and implement needed policies, legislation, research, and outreach to accomplish the goals we have set forth together.

In accordance with Ordinance No. 14-65, this report will be placed on the next available Board meeting agenda. If you have any questions regarding this report, please contact Loren Parra, Director and Chief Resilience Officer, Department of Environmental Resources Management, at Loren.Parra@miamidade.gov.

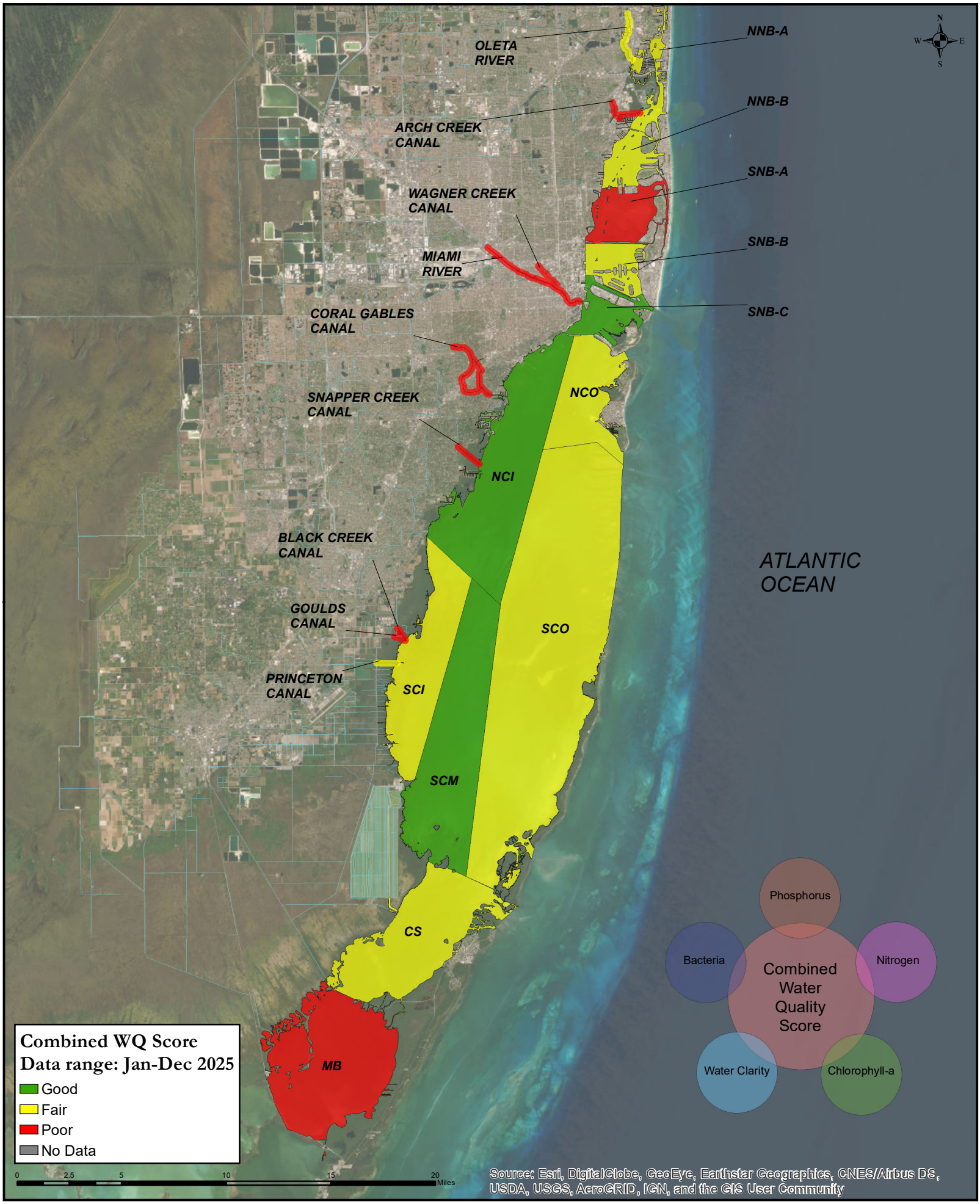
Attachment: *2026 Biscayne Bay Report Card*

c: Geri Bonzon-Keenan, County Attorney
Jess M. McCarty, First Assistant County Attorney
Office of the Mayor Senior Staff
Christina Cicilia, Director, Office of Policy and Budgetary Affairs
Loren Parra, Director, Department of Environmental Resources Management
Yinka Majekodunmi, Commission Auditor
Basia Pruna, Director, Clerk of the Board
Eugene Love, Agenda Coordinator

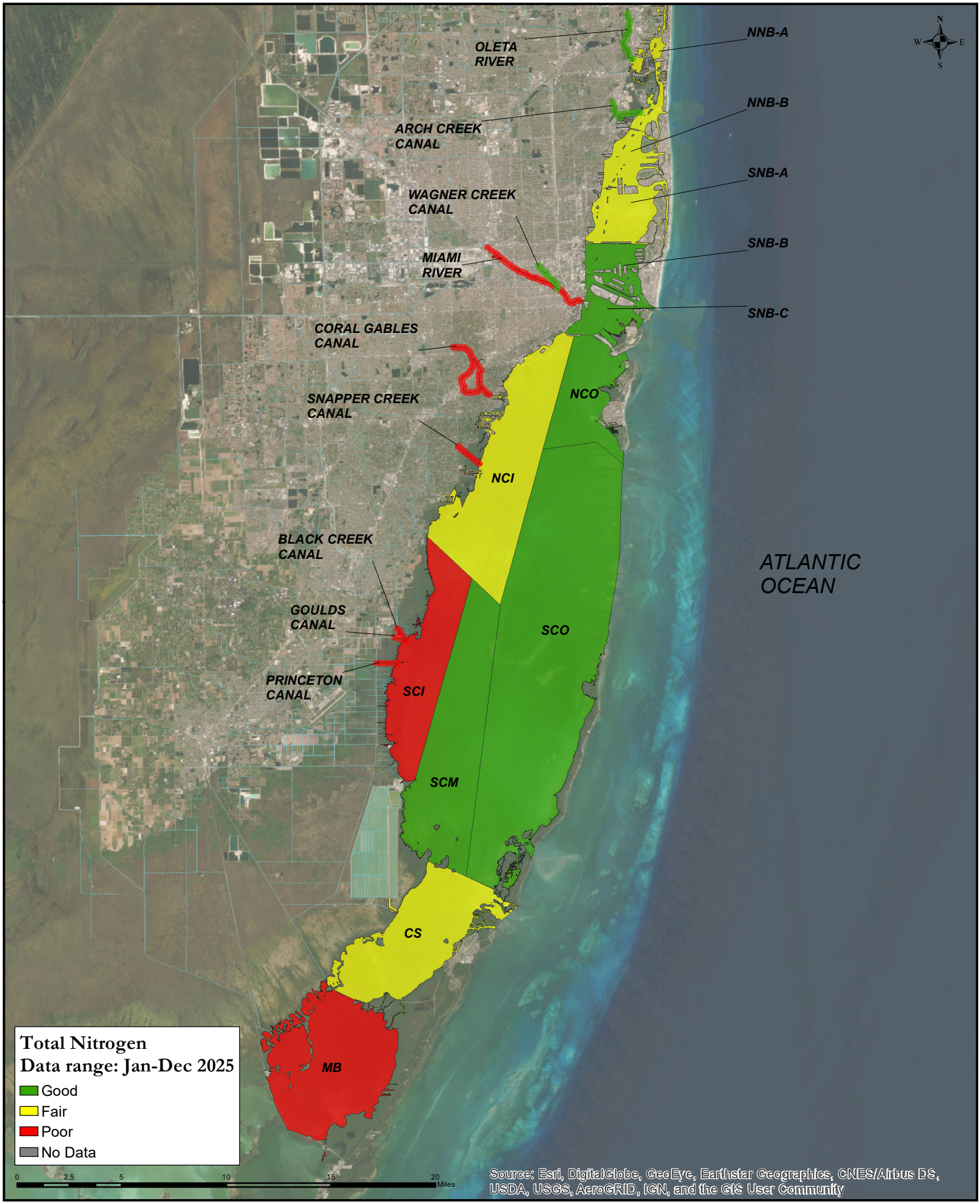
2026 Biscayne Bay Report Card



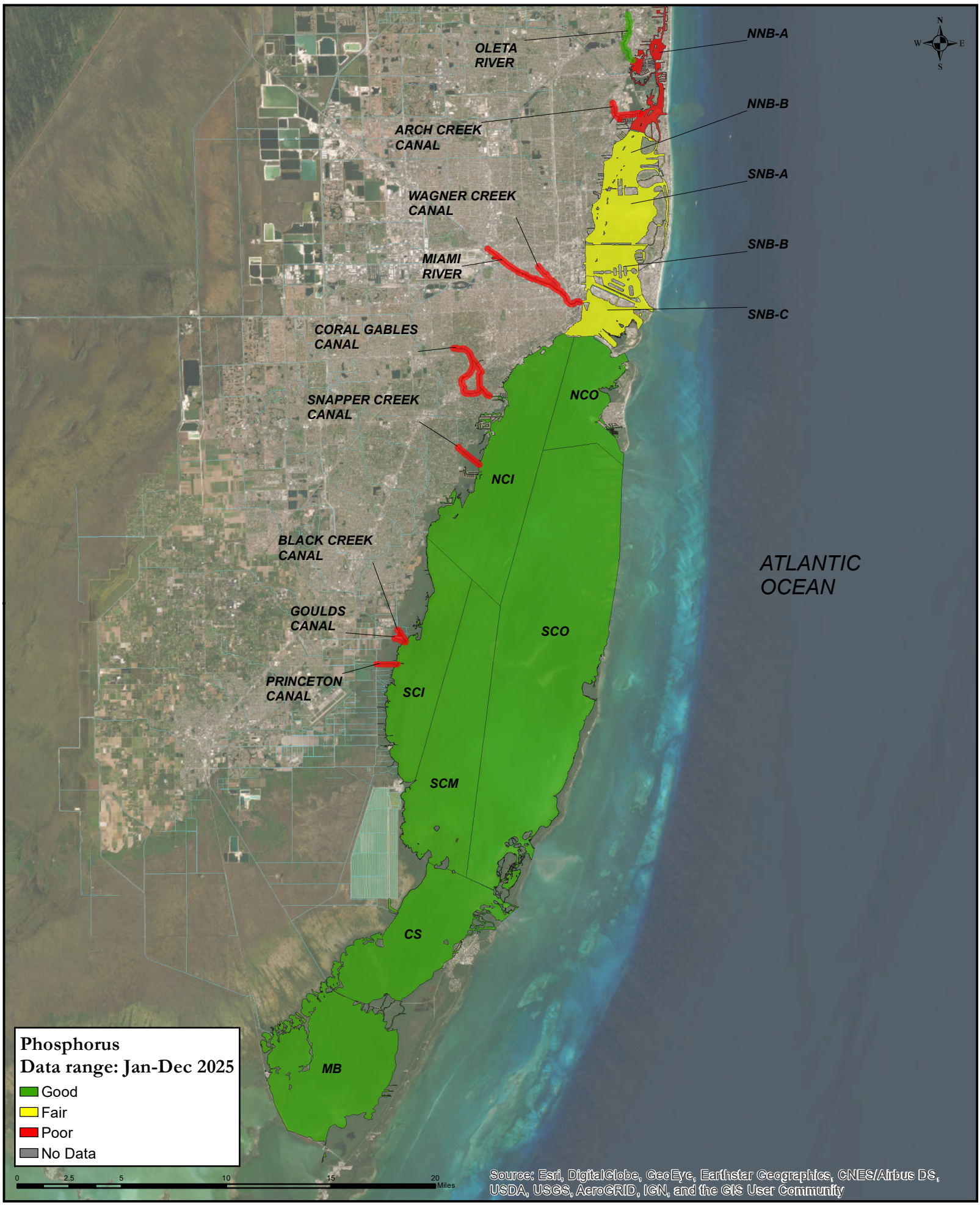
2026 Biscayne Bay Report Card
Water Quality Combined Score



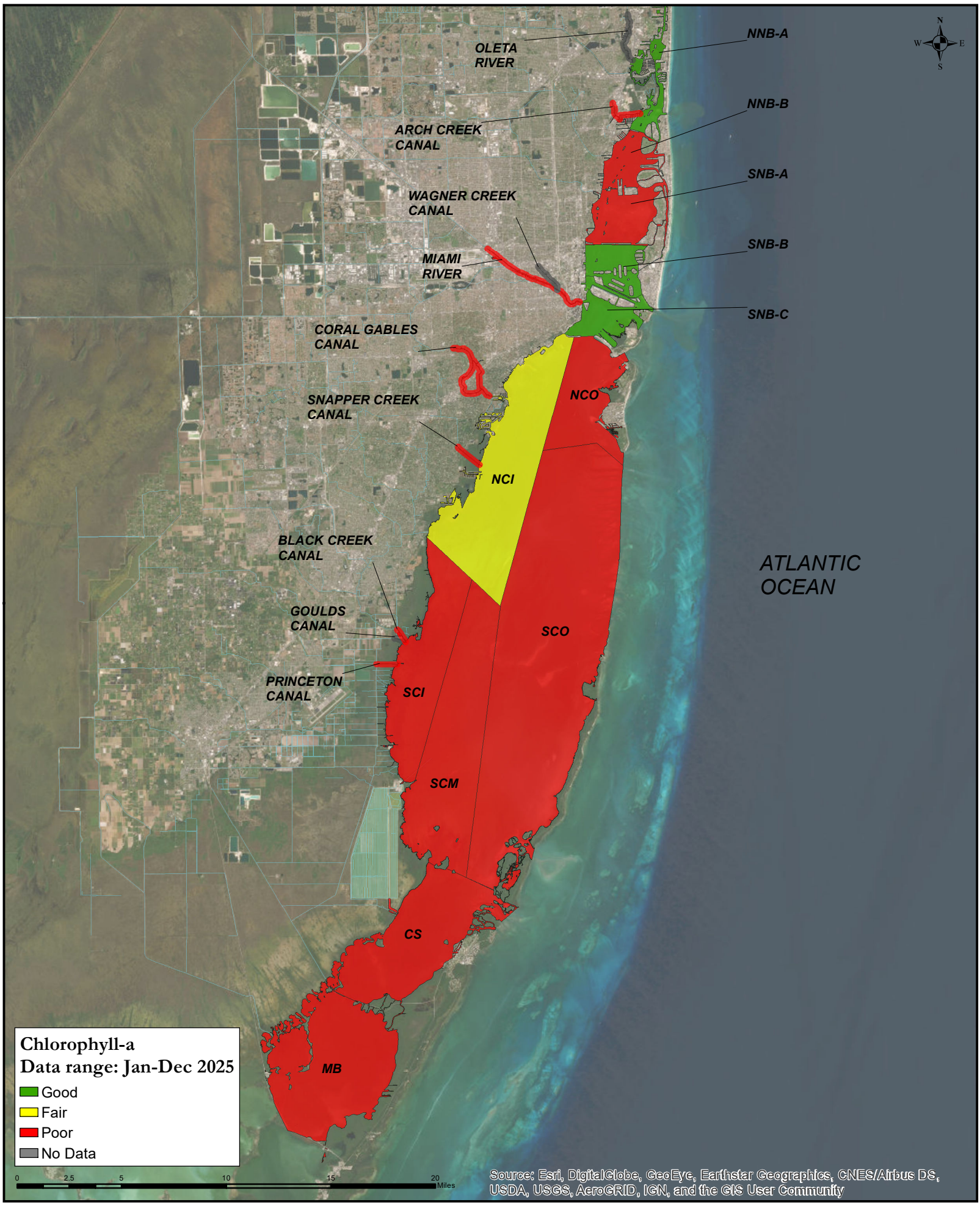
2026 Biscayne Bay Report Card
Total Nitrogen Score



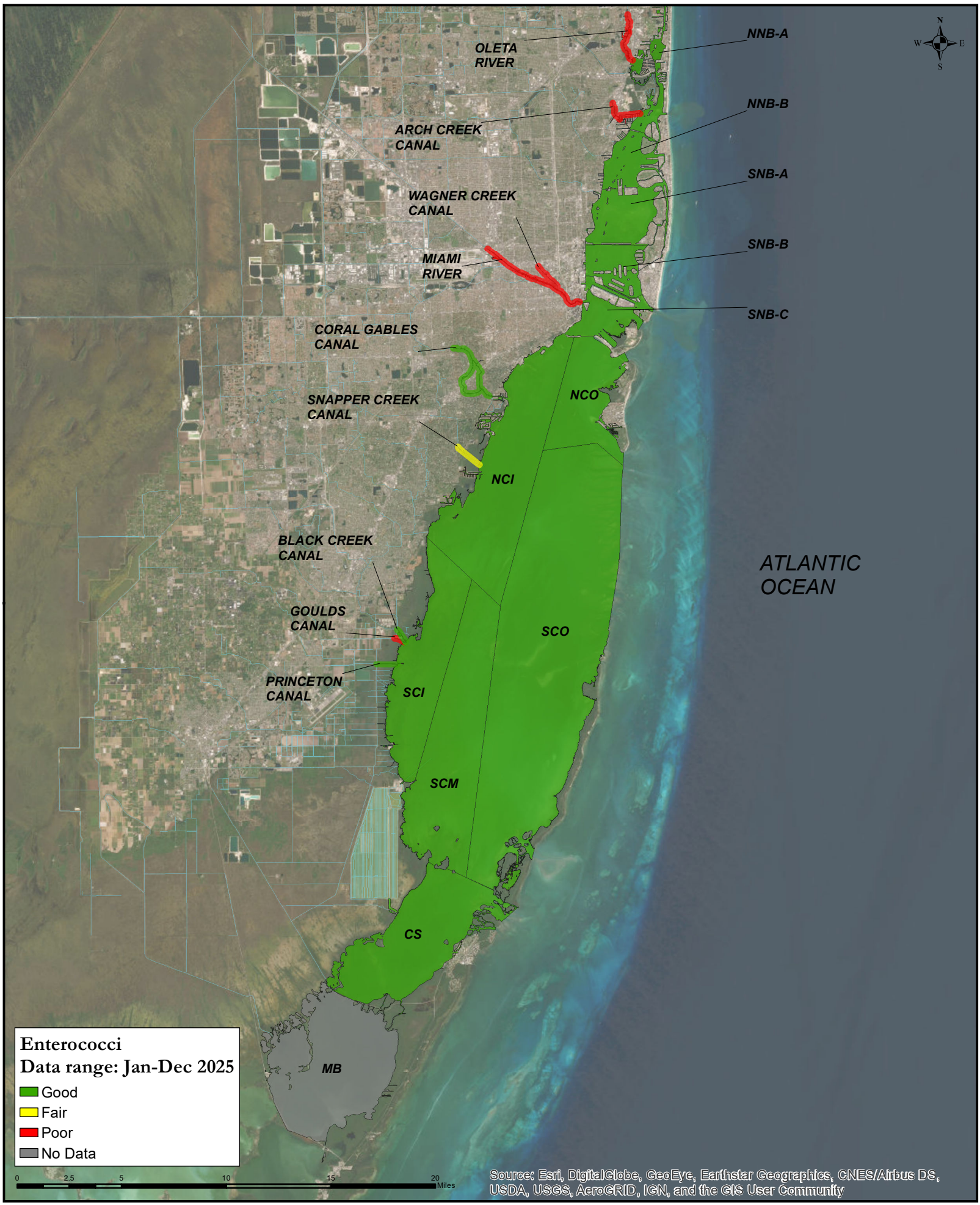
2026 Biscayne Bay Report Card
Total Phosphorus Score



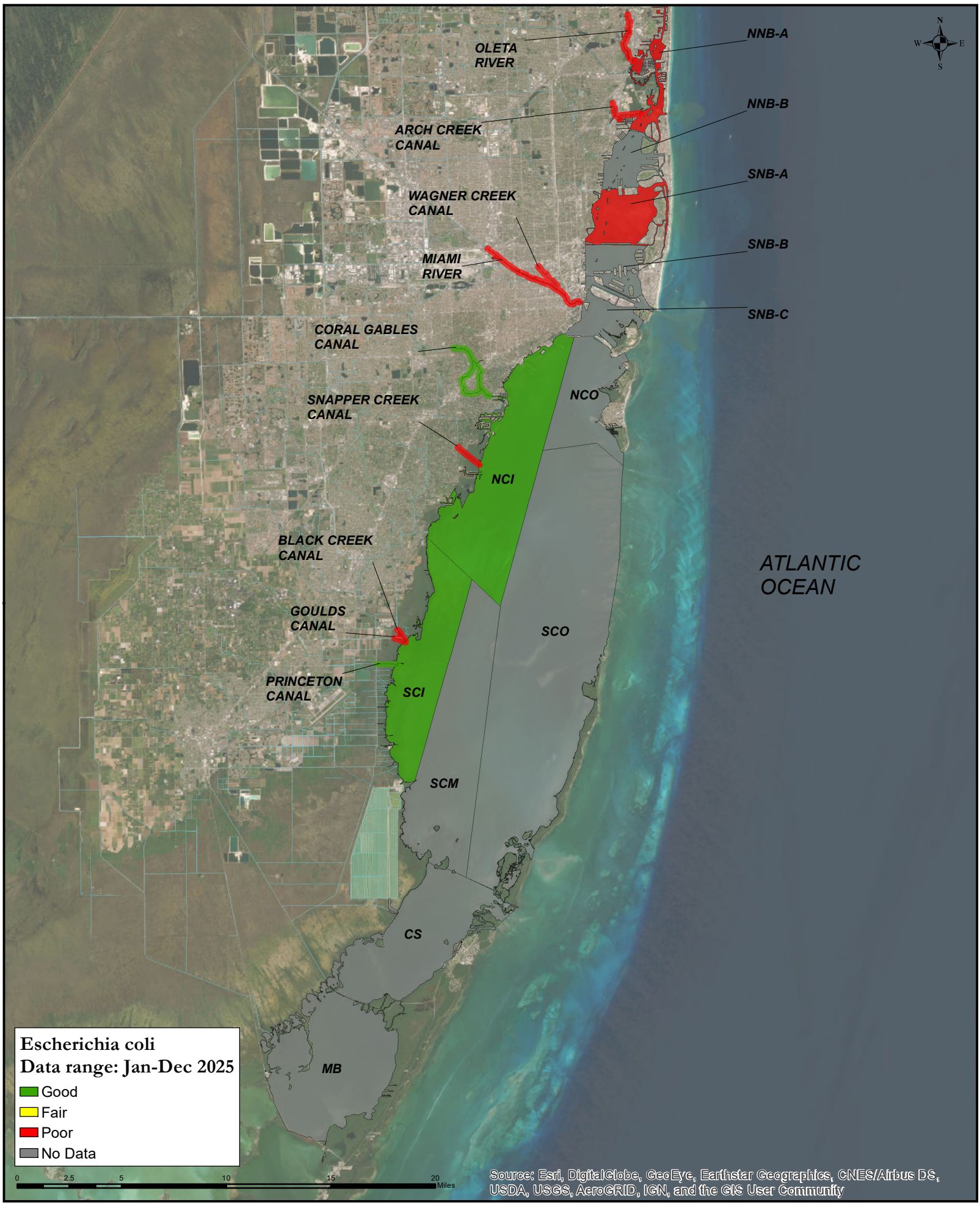
2026 Biscayne Bay Report Card
Chlorophyll-a Score



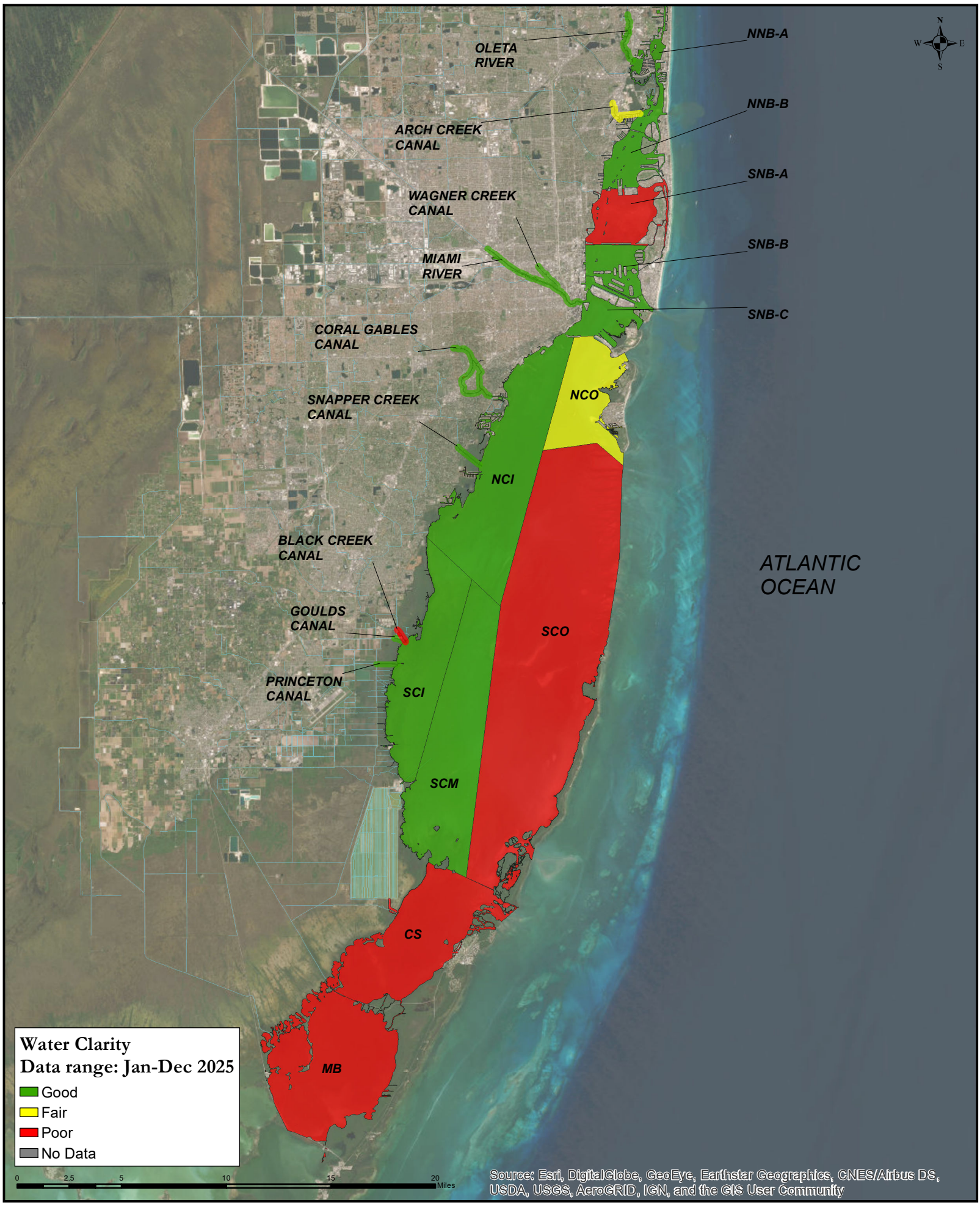
2026 Biscayne Bay Report Card
Bacteriological Score (Enterococcus spp.)



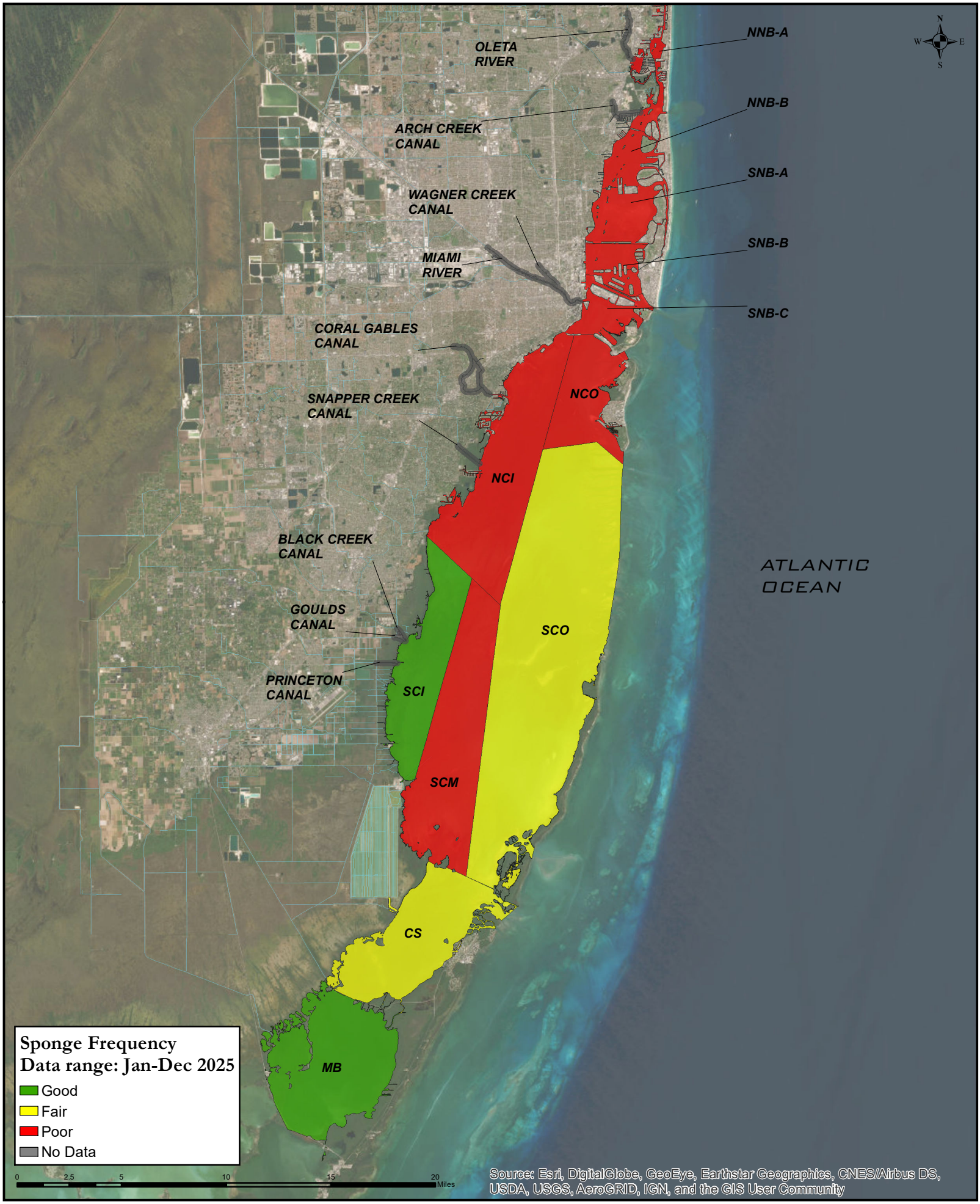
2026 Biscayne Bay Report Card
Bacteriological Score (Escherichia coli.)



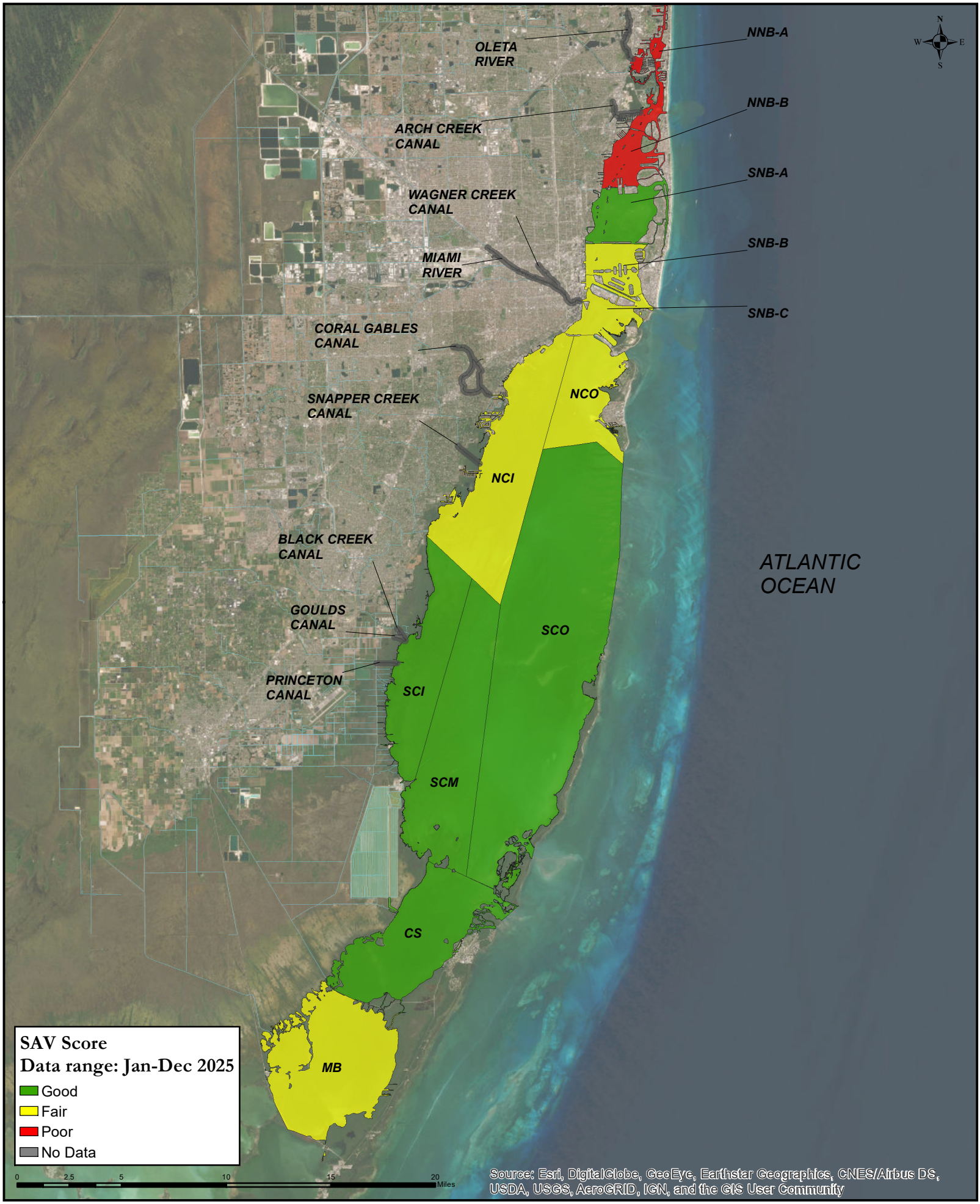
2026 Biscayne Bay Report Card
Water Clarity Score



2026 Biscayne Bay Report Card
Sponge Frequency Score



2026 Biscayne Bay Report Card
Submerged Aquatic Vegetation Score



Report Card Region	Report Card Region	2021 Overall Score (2020 data)	2022 Overall Score (2021 data)	2023 Overall Score (2022 data)	2024 Overall Score (2023 data)	2025 Overall Score (2024 data)	2026 Overall Score (2025 data)	Comment
NNB-A	**Northern North Bay NNB-A**	2	3	2.5	2.1	2.1	2.7	Chlorohyll-a (**Chl-a**), Total Nitrogen (**TN**), and Total Phosphorus (**TP**) decreased by 44%, 39%, and 18%, respectively.
NNB-B	**Northern North Bay NNB-B**	2.9	3	3.3	3.1	3.3	3.1	Chl-a and Water Clarity decreased by 23% and 17%, respectively. Invertebrates and Submerged Aquatic Vegetation (**SAV**) increased by 77% and 28%, respectively.
SNB-A	**Southern North Bay SNB-A**	1.4	2	1.4	2.3	2.1	2.5	Chl-a, TN, TP and Water Clarity decreased by 35%, 11%, 12% and 18%, respectively. Invertebrates increased by 100%.
SNB-B	**Southern North Bay SNB-B**	3.4	3	3	3.1	2.8	3.9	Invertebrates, Water Clarity, Chl-a, SAV, and Enterococci improved by 100%, 17%, 17%, 6.6%, and 44%, respectively. TN and TP increased by 18% and 2%.
SNB-C	**Southern North Bay SNB-C**	3.9	4	3.9	4	4.1	3.9	TP, TN, and Enterocci increased by 27%, 21%, and 23% respectively. Chl-aa decreased by 16%.
NCO	**North Central Offshore -NCO**	3.4	3.5	3.4	3.7	3.4	3.4	TN increased by 24%; Chl-a and Water Clarity decreased by 23% and 16%, respectively.
NCI	**North Central Inshore -NCI**	2.8	3	3.6	3.3	3.6	3.7	Chllorphyll and Water Clarity improved by 33% and 23%, respectively. TN incresed by 14%.
SCO	**South Central Offshore -SCO**	3.5	3	3.7	3.3	3.4	3.4	Chl-a and Water Clarity decreased by 26% and 31%, respectively. TN increased by 49% and Ivertebrates decreased by 31%.
SCI	**South Central Inshore -SCI**	3	3	3.3	3.8	3.2	3.9	Chl-a, TN, and Watr Clarity decreased by 40%, 25% and 24%, respectively.
SCM	**South Central Mid Bay -SCM**	3.6	3	3.6	3.7	3.4	3.7	Chl-a and Water Clarity decreased by 23% and 30%, respectively. Ivertebrates decreased by 64%.
CS	**Card Sound -CS**	3.25	3	3.2	3.3	3.4	3.1	Invertebrates decreased by 59% and TP increased by 20%.
MB	**Manatee Bay -MB**	2.5	3	2.7	2.7	2.1	2.7	Invertebrates and SAV increased by 40% and 10%, respectively.

2026 Biscayne Bay Marine Health Summit - RECAP

The Biscayne Bay Marine Health Coalition hosted a two-day convening on May 19–20, 2026, bringing together government staff, scientists, policymakers, developers, and community advocates for the most substantive annual gathering focused on Bay recovery. This was the 6th summit in 10 years.

RAP Day — May 19 (Closed Session) - A ½ day closed-door working session convened County DERM staff and consultants alongside Public Works, Resilience, and Capital Improvement representatives from most of Miami-Dade's 34 municipalities. More than 60 professionals participated in structured brainstorming to identify projects eligible for inclusion in the Reasonable Assurance Plan (RAP).

Marine Health Summit — May 20 (Public Convening, Jungle Island) - More than 400 attendees — including policymakers, government staff, scientists, community leaders, business leaders, developers, and clean water advocates — gathered for a full day focused on charting a path to Bay recovery.

Watch Summit Plenaries and Sessions: ***https://www.restorebiscaynebay.org/2026-summit***

KEY TAKEAWAYS

1. Water Quality: Persistent Challenges - Despite ongoing efforts, water quality in and around Biscayne Bay remains critically impaired. Summit discussions identified several compounding drivers:

Key findings:

- **Nutrient loading**: Runoff and aging septic systems continue to fuel algae growth and oxygen depletion, with scientific evidence directly confirming human wastewater as a primary source.
- **Organic Debris:** Leaves and grass clippings accumulating in stormwater basins decompose in the water table, creating localized hypoxic conditions that stress the Bay's ecology.
- **Heavy Metals:** Industrial and roadway runoff keeps heavy metal toxins at levels requiring active filtration before reaching the Bay.
- **Emerging Contaminants:** PFAS and microplastics are increasingly detected in Bay waters and represent a growing, largely unregulated threat.

Recommendations:

- **Watershed-Scale Approach:** Address upstream land-based pollution sources before they reach the Bay— fish kills and seagrass die-offs are symptoms of larger watershed failures, not isolated events.
- **Stormwater Infrastructure:** Prioritize upgrades and maintenance as the single most universally actionable opportunity available to every municipality in the watershed.
- **Accelerate BBSEER:** Actively lobby to advance the Biscayne Bay and Southeastern Everglades Ecosystem Restoration project to restore critical freshwater delivery.

2. Land Use: Development Pressures and the CDMP - Presenters highlighted growing development pressure on wetlands, buffer zones, and ecologically sensitive coastal areas throughout the watershed.

Recommendations:

- **CDMP Integration**: The 2020 Biscayne Bay Task Force recommendations should be formally institutionalized into the Miami-Dade Comprehensive Development Master Plan (CDMP) through the Evaluation and Appraisal Report (EAR) process.
- **Proactive Land Acquisition**: Strategically acquiring land within Everglades Restoration project footprints can accelerate project timelines and protect taxpayers from future cost escalation.

- **$64 Billion Economic Anchor:** The Bay generates an estimated $64 billion in annual economic output — making its protection both an ecological and economic imperative.

3. Innovation: New Tools and Policy Frameworks - Several sessions focused on emerging technologies and regulatory frameworks that could significantly advance Bay restoration:

Recommendations:

- **Net Benefit Development:** Proposals surfaced to revise building codes to require all new coastal development to yield a net-positive ecological benefit — through integrated green infrastructure such as oyster docks, living seawalls, and mangrove planters.
- **Sponge City Model:** Participants recommended mandating low-impact development designs that maximize water absorption, expand permeable surfaces, and move toward eliminating point-source discharges.
- **State Eco-Engineering Authority:** Panelists recommended leveraging Senate Bill 302's newly established legal frameworks and funding mechanisms to accelerate nature-based shoreline defense systems.
- **Commercial Charter Regulation:** Rapid growth in commercial boating charters — concentrated along the Miami River corridor — was flagged as a post-Task Force gap. Participants recommended integrating the Mayor's Boating Safety Committee recommendations into a strict permitting and staging zone framework.
- **Smart Navigation Technology:** Deployment of next-generation digital navigation markers was proposed to reduce seagrass-damaging boating infractions and enhance Bay-wide marine safety.

4. Funding: Sustainable Revenue Mechanisms - A recurring theme across sessions was the need for dedicated, long-term funding streams independent of annual appropriations cycles.

Recommendations:

- **Private Construction Mitigation Fee**: Model a new local funding mechanism after the Art in Public Places framework — requiring a fixed percentage of private construction valuation along the watershed to flow directly into a Biscayne Bay Restoration Trust.
- **Real Estate Transaction Allocations:** Explore legal pathways to capture a dedicated portion of documentary stamp tax revenue to fund rapid land acquisition.
- **Voter Referendum / General Obligation Bond**: Environmental polling shows broad bipartisan public support for Bay protection — making a dedicated ballot measure or GO Bond viable and timely.