

Memorandum



Date: May 3, 2024

To: Honorable Chairman Oliver G. Gilbert, III
and Members, Board of County Commissioners

Agenda Item No. 2(B)(3)
June 4, 2024

From: Daniella Levine Cava
Mayor

A handwritten signature in blue ink that reads "Daniella Levine Cava".

Subject: Transmittal of Biscayne Bay Watershed Management Advisory Board Annual Report Pursuant to Ordinance No. 21-72, Sec. 2-2426

The Chair of the Biscayne Bay Watershed Management Advisory Board (Advisory Board) has requested that the attached Annual Report be transmitted to the Board of County Commissioners (BCC) pursuant to Ordinance No. 14-65. The Annual Report reflects the activities and accomplishments of the Advisory Board toward the goal of improving and restoring the ecosystem of Biscayne Bay. I am happy to report that urgings related to funding water quality improvement projects supported by the Advisory Board in 2023 received funding from the state Department of Environmental Protection (DEP) including septic to sewer conversions, a force main extension, and continued identification of phosphorous hot spots in the Biscayne Bay watershed. During the four years of the Biscayne Bay Water Quality Improvement Grant program, Miami-Dade County has received a total of \$63.9 million for projects supported by the Advisory Board and implemented by our dedicated staff at RER-DERM and WASD. Additionally, by request of the Chair of the BBWMAB, the 2024 Annual Biscayne Bay Report Card is being included with and incorporated as part of the report.

The Miami-Dade County Biscayne Bay Watershed Management Advisory Board (Advisory Board) was created by the Board of County Commissioners, through Ordinance No. 21-72, as recommended by the Biscayne Bay Task Force. The Advisory Board was created by enacted Article CLXIV of Chapter 2, Sections 2-2420 to 2-2426 of the Code of Miami-Dade County (Code) as a permanent board established to advise the Board of County Commissioners ("BCC") and the County Mayor on issues related to Biscayne Bay. These recommendations to the Board of County Commissioners will be used to prioritize projects for Biscayne Bay recovery and update chapter 24 of the Code of Miami-Dade County as necessary.

Should you require additional information, please contact Nancy Jackson, Biscayne Bay Program Manager, at (786) 747-1977 or Nancy.Jackson@miamidade.gov.

The Annual Report is found in Attachment A. The 2024 Biscayne Bay Report Card is incorporated as Attachment B.

c: Geri Bonzon-Keenan, County Attorney
Gerald Sanchez, First Assistant County Attorney
Jess McCarty, Executive Assistant County Attorney
Office of the Mayor Senior Staff
Department Directors

Yinka Majekodunmi, Commission Auditor
Jennifer Moon, Chief, Office of Policy and Budgetary Affairs
Basia Pruna, Director, Clerk of the Board

Memorandum



Date: February 2, 2024

To: Honorable Chairman Oliver G. Gilbert, III
and Members, Board of County Commissioners

From: Commissioner Danielle Cohen Higgins
District 8 – Biscayne Bay Watershed Management Advisory Board Chair

Subject: Biscayne Bay Watershed Management Advisory Board Annual Report

On July 20, 2021, the Board of County Commissioners (Board) approved [Ordinance No. 21-72](#), relating to Biscayne Bay Task Force Recommendation 2-A – Establish by ordinance a Biscayne Bay Watershed Management Advisory Board, creating CLXIV of Chapter 2 of the Code of Miami-Dade County. Per Section 2-2426 of the Ordinance, the Board of County Commissioners directed the Chair or Vice Chair of the Biscayne Bay Watershed Management Advisory Board (BBWMAB) to present to the Board on an annual basis a written report describing the BBWMAB’s activities and appear as needed before the Board to present any matters pertinent to the BBWMAB. The completed report required by this section shall be placed on an agenda of the Board pursuant to [Ordinance No. 14-65](#).

The BBWMAB is grateful for the support of the Office of the Mayor, Board of County Commissioners, and Local, State, and Federal partners as we continue to adopt policies and take other actions as recommended by the Biscayne Bay Task Force (Task Force), implement projects to improve the health of Biscayne Bay (Bay), and work with the Office of Resilience (OOR), Department of Regulatory and Economic Resources (RER), the Division of Environmental Resources Management (DERM), the County Attorney’s Office (CAO) and County staff to develop the Reasonable Assurance Plan (RAP) and Watershed Plan (WP) for Biscayne Bay.

As Chair of the BBWMAB, I am pleased to present the 2023 annual report, which provides updates on the Task Force recommendations, our policy work, projects, and accomplishments to improve the health of the Biscayne Bay watershed.

BBWMAB Meetings:

The BBWMAB convened five meetings during 2023. Meeting agendas and recordings can be found here: [Biscayne Bay Watershed Management Advisory Board \(miamidade.gov\)](https://www.miamidade.gov/bbwmab/)

The following policies related to water quality and initiatives to improve the health of Biscayne Bay were adopted by the Board of County Commissioners in 2023:

REPORT ON CONDUCTING AN EDUCATIONAL CAMPAIGN AS TO SEPTIC SYSTEM MAINTENANCE- DIRECTIVE NO. 210738

The purpose of this report is to convey to the Board how the educational campaign related to septic system maintenance was implemented this past year and the effectiveness of the

campaign. The Department of Regulatory and Economic Resources (RER), Division of Environmental Resources Management (DERM) launched Miami-Dade County's new septic system care webpage, utilized social media platforms to promote the importance of septic system maintenance over a seven-month period and developed a companion campaign with Miami-Dade County Water and Sewer Department (WASD) for properties that cannot yet connect to public sewer.

[Legislative Matter](#)

1/17/2023

RESOLUTION URGING THE FLORIDA LEGISLATURE TO PROVIDE FUNDING TO ASSIST WITH SEPTIC-TO-SEWER CONVERSIONS ALONG STATE ROAD 976/BIRD ROAD BETWEEN SW 77TH AVENUE AND SW 117TH AVENUE IN MIAMI-DADE COUNTY

[Legislative Matter \(miamidade.gov\)](#)

1/17/2023

RESOLUTION URGING THE UNITED STATES CONGRESS AND THE FLORIDA LEGISLATURE TO APPROPRIATE FUNDS FOR SEAWEED REMOVAL ON BEACHES LOCATED IN MIAMI-DADE COUNTY, TO STUDY THE CAUSE OF THE INCREASE IN SARGASSUM SEAWEED AND ANY POSSIBLE SOLUTIONS TO MINIMIZE ITS IMPACT, AND TO EXPLORE ACTIONS FOR THE REMOVAL OF SEAWEED FROM THE OCEAN

[Legislative Matter \(miamidade.gov\)](#)

4/4/2023

RESOLUTION APPOINTING KEVIN M. CUNNIFF TO THE MIAMI-DADE COUNTY BISCAYNE BAY WATERSHED MANAGEMENT ADVISORY BOARD FOR A FOUR-YEAR TERM

[Legislative Matter \(miamidade.gov\)](#)

4/4/2023

TRANSMITTAL OF BISCAYNE BAY WATERSHED MANAGEMENT ADVISORY BOARD ANNUAL REPORT

[Legislative Matter \(miamidade.gov\)](#)

5/16/23

PROVIDE REPORT ON PROGRESS MADE ON COUNTY STORMWATER AND SEA LEVEL RISE PROJECTS

[Legislative Matter](#)

6/21/2023

PROHIBITING SMOKING IN PARKS AND BEACHES

[Legislative Matter \(miamidade.gov\)](#)

6/21/23

**COMPANIES THAT DAMAGE MIAMI-DADE WATER AND SEWER PIPES
DURING CONSTRUCTION**

The Board of County Commissioners desires that the ongoing report Ordinance No. 23-14 and amended section 10-8 of the Miami-Dade County Code to include negligently causing damage to an underground facility, including a WASD facility, three or more times in a 12-month period and failing to fully compensate the County for such damage within 90 days of notice of the same as a cause for debarment; identify which company or companies have been referred by WASD to the County's Small Business Development division as a proposed debarment pursuant to section 10-38 of the Miami-Dade County Code of Ordinances.

[Legislative Matter \(miamidade.gov\)](https://www.miamidade.gov)

7/6/2023

PROMOTE AND IMPROVE AWARENESS REGARDING BISCAYNE BAY

The Board of County Commissioners (Board) adopted Resolution No. R-474-21 on May 4, 2021, directing the administration to develop and implement a multilingual, multimedia public awareness campaign and educational outreach program to promote and improve awareness regarding Biscayne Bay. The public awareness campaign and educational outreach program shall, at a minimum, (a) promote and improve awareness of the economic, commercial, and recreational opportunities of Biscayne Bay; and (b) inform the public of proper and improper ways to dispose of trash and the impacts of littering, marine debris, and fertilizers to the health and management of Biscayne Bay.

[Legislative Matter \(miamidade.gov\)](https://www.miamidade.gov)

7/18/2023

**REPORT ON THE COUNTY'S COMPREHENSIVE FLOOD MITIGATION
MEASURES AND FUTURE STORMWATER PLANNING**

[Legislative Matter \(miamidade.gov\)](https://www.miamidade.gov)

7/18/2023

**REPORT ON THE COUNTY'S CODE CHANGES RELATED TO OPERATIONS,
MAINTENANCE, DESIGN AND CONSTRUCTION OF MUNICIPAL
STORMWATER SYSTEMS; EXPANDING THE COUNTY'S ASSET
MANAGEMENT SYSTEM TO INCLUDE STORMWATER INFRASTRUCTURE;
AND CONDUCTING EDUCATIONAL CAMPAIGNS RELATED TO BISCAYNE
BAY**

[Legislative Matter \(miamidade.gov\)](https://www.miamidade.gov)

7/18/2023

**REPORT EVALUATING THE COUNTY'S DRAINAGE INFRASTRUCTURE IN
SOUTH DADE**

[Legislative Matter \(miamidade.gov\)](https://www.miamidade.gov)

7/18/2023

REPORT ON THE COUNTY'S WELLFIELD PROTECTION AREAS

[Legislative Matter \(miamidade.gov\)](https://www.miamidade.gov)

7/18/2023

RESOLUTION APPOINTING GERARDO “JERRY” F. MENENDEZ TO THE MIAMI-DADE COUNTY BISCAYNE BAY WATERSHED MANAGEMENT ADVISORY BOARD FOR A FOUR-YEAR TERM

[Legislative Matter \(miamidade.gov\)](https://www.miamidade.gov)

9/6/2023

RESOLUTION DIRECTING THE COUNTY MAYOR OR COUNTY MAYOR’S DESIGNEE TO PROVIDE ANNUAL REPORTS WITH DATA AND ANALYSIS REGARDING ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS IN THE COUNTY

[Legislative Matter \(miamidade.gov\)](https://www.miamidade.gov)

9/6/2023

REPORT ON THE COUNTY’S STORMWATER MASTER PLAN

[Legislative Matters \(miamidade.gov\)](https://www.miamidade.gov)

9/6/2023

FEASIBLE DISTANCE REQUIREMENTS PUBLIC SANITARY SEWERS

Amends feasible distance ordinance allowing for three instances where new ordinance does not apply: during building permit stage when subdivision previously determined NOT to be within feasible distance at time tentative plat was approved; if applications is made to extend or modify a previously approved tentative plat under the old requirements; and in the case of building permits required to make improvements to homes/buildings such as roofs or other improvements per update in building code.

[Legislative Matter \(miamidade.gov\)](https://www.miamidade.gov)

10/03/2023

RELATED TO NOISE REGULATIONS ON THE WATER

Ordinance amends Miami-Dade code to clarify that certain noise regulations apply to noise emitted from a vessel or floating structure and that engine or exhaust noise from vessels may be enforced.

[Legislative Matter \(miamidade.gov\)](https://www.miamidade.gov)

10/03/2023

BIRD ROAD COMMERCIAL SEPTIC TO SEWER

Resolution urging the Florida Legislature to appropriate funding to assist with septic-to-sewer conversions along Florida State Road 976/Bird Road between SW 92nd avenue and SW 97th avenue in Miami-Dade County.

[Legislative Matter \(miamidade.gov\)](https://www.miamidade.gov)

10/03/2023

RESILIENT FLORIDA GRANT AGREEMENTS

Resolution approving grants received from the Florida Department of Environmental Protection (FDEP) including grants awarded to improve six canals (3.25 miles) under Miami-

Dade County control, in the C-8 Basin. Improvements include raising top of bank elevations (enhance storage), upgrade culverts (enhance conveyance), and improve outfalls; restoration of the Environmentally Endangered Lands Habitat located at Matheson Hammock; and storm water improvements for West and Northeast Transfer Stations among others.

[Legislative Matter \(miamidade.gov\)](https://www.miamidade.gov)

10/03/2023

RESOLUTION URGING THE FLORIDA LEGISLATURE TO PROVIDE INCREASED FUNDING AND A DEDICATED FUNDING SOURCE FOR THE BISCAYNE BAY WATER QUALITY IMPROVEMENT GRANT PROGRAM

The Biscayne Bay Task Force recommended sustainable funding to enable the County to bring to fruition the various projects the County has planned for the benefit of Biscayne Bay, and continued state funding will be necessary in Miami-Dade County to increase the rate of water quality improvement projects designated for recovery efforts to help improve Biscayne Bay's health.

[Legislative Matter \(miamidade.gov\)](https://www.miamidade.gov)

10/17/2023

RESOLUTION AUTHORIZING THE DISBURSEMENT OF UP TO \$98,000.00 FROM THE BISCAYNE BAY ENVIRONMENTAL ENHANCEMENT TRUST FUND FOR BAYNANZA 2024

[Legislative Matter \(miamidade.gov\)](https://www.miamidade.gov)

12/12/2023

RESOLUTION DIRECTING THE COUNTY MAYOR OR COUNTY MAYOR'S DESIGNEE TO CONDUCT A STUDY REGARDING THE ADEQUACY OF THE LIGHTING ON THE AIDS TO NAVIGATION ON BISCAYNE BAY AND TO MAKE RECOMMENDATIONS TO THIS BOARD; AUTHORIZING THE COUNTY MAYOR OR COUNTY MAYOR'S DESIGNEE TO SUBMIT APPROPRIATE RECOMMENDATIONS TO THE UNITED STATES COAST GUARD; AND DIRECTING THE COUNTY MAYOR OR COUNTY MAYOR'S DESIGNEE TO PROVIDE REPORTS

[Legislative Matter \(miamidade.gov\)](https://www.miamidade.gov)

12/12/2023

RESOLUTION DIRECTING THE COUNTY MAYOR OR MAYOR'S DESIGNEE TO PROVIDE A REPORT REGARDING UNLAWFUL ACTIVITIES OF JET SKI RENTAL BUSINESSES ON BISCAYNE BAY

[Legislative Matter \(miamidade.gov\)](https://www.miamidade.gov)

12/12/2023

RESOLUTION AUTHORIZING THE COUNTY MAYOR OR COUNTY MAYOR'S DESIGNEE TO DEPOSIT FINES COLLECTED FROM CIVIL CITATIONS ISSUED BY THE MIAMI-DADE POLICE DEPARTMENT ("MDPD"), FOR SPECIFIED VIOLATIONS OF THE CODE OF MIAMI-DADE COUNTY, FLORIDA ("CODE"),

AS THEY MAY BE AMENDED FROM TIME TO TIME, INTO THE ILLEGAL DUMPING TRUST FUND (“IDTF”)

[Legislative Matter \(miamidade.gov\)](https://www.miamidade.gov)

12/12/2023

RESOLUTION DIRECTING THE COUNTY MAYOR OR COUNTY MAYOR’S DESIGNEE TO STUDY AND MAKE RECOMMENDATIONS RELATED TO SPOIL ISLANDS WITHIN BISCAYNE BAY AND PREPARE A REPORT FOR THIS BOARD

[Legislative Matter \(miamidade.gov\)](https://www.miamidade.gov)

12/12/2023

RESOLUTION DIRECTING THE COUNTY MAYOR OR COUNTY MAYOR’S DESIGNEE TO PROVIDE A WRITTEN REPORT REGARDING THE ACTIONS THE COUNTY IS TAKING TO ADDRESS WATER QUALITY ISSUES IN MIAMI-DADE COUNTY’S WATERWAYS

[Legislative Matter \(miamidade.gov\)](https://www.miamidade.gov)

12/12/2023

RESOLUTION URGING THE FLORIDA LEGISLATURE TO APPROPRIATE FUNDING FOR THE BISCAYNE BAY WATERSHED MANAGEMENT PLAN; AND INCLUDING THIS ITEM AS A PRIORITY IN THE 2024 STATE LEGISLATIVE PACKAGE

[Legislative Matter \(miamidade.gov\)](https://www.miamidade.gov)

12/12/2023

RESOLUTION URGING THE FLORIDA LEGISLATURE TO PROVIDE INCREASED FUNDING FOR STORMWATER PROJECTS TO ADDRESS FLOODING

[Legislative Matter \(miamidade.gov\)](https://www.miamidade.gov)

12/12/2023

RESOLUTION OPPOSING SENATE BILL 664, HOUSE BILL 527, OR SIMILAR LEGISLATION PREEMPTING THE REGULATION OF DREDGE AND FILL ACTIVITIES TO THE STATE, REQUIRING THAT LOCAL GOVERNMENTS ACQUIRE CERTAIN BUFFER ZONES RELATED TO LAND AND WATER DELINEATIONS, OR REPEALING CERTAIN STATUTORY PROVISIONS RELATED TO LAND MANAGEMENT REVIEW TEAMS

[Legislative Matter \(miamidade.gov\)](https://www.miamidade.gov)

12/12/2023

RESOLUTION URGING THE FLORIDA LEGISLATURE TO ADOPT SENATE BILL 498 OR SIMILAR LEGISLATION REMOVING THE PREEMPTION ON LOCAL GOVERNMENT REGULATION OF RECYCLABLE AND POLYSTYRENE MATERIALS, INCLUDING STYROFOAM, DISPOSABLE PLASTIC BAGS, AND WRAPPERS [Legislative Matter \(miamidade.gov\)](https://www.miamidade.gov/legislative-matter)

12/12/2023

ORDINANCE RELATING TO REAL ESTATE TRANSACTIONS IN THE INCORPORATED AND UNINCORPORATED AREAS; AMENDING SECTION 21-49.1 OF THE CODE OF MIAMI-DADE COUNTY, FLORIDA; UPDATING THE SEPTIC TANK SYSTEM DISCLOSURE REQUIREMENT IN CERTAIN REAL ESTATE TRANSACTIONS TO REQUIRE ADDITIONAL DISCLOSURE RELATING TO THE TYPE OF SEPTIC TANK SYSTEM ON THE PROPERTY; PROVIDING SEVERABILITY, INCLUSION IN THE CODE, AND AN EFFECTIVE DATE

[Legislative Matter \(miamidade.gov\)](https://www.miamidade.gov/legislative-matter)

12/12/2023

FDEP Biscayne Bay Water Quality Grant Funding Update:

Miami-Dade County received funding from the Florida Department of Environmental Protection 2023 Biscayne Water Quality Grant. The County received over \$14.5 million to replace 200 septic tanks on properties directly adjacent to the C-7 canal and connect them to the sewer, a significant step towards protecting Biscayne Bay and its surrounding communities.

In addition, the following municipal partners received grant funding. The City of Miami Springs C-6/Miami River Water Quality and Drainage Improvement Project (East Drive and Oakwood Drive) \$2,000,000 City of North Miami for Septic-to-Sewer Conversion Project \$2,300,000 Miami River Fund, Inc. Stormwater, and Marine Debris Management Project \$600,000, Town of Cutler Bay for Cutler Bay Wetland Restoration Project \$700,000, Village of Key Biscayne Village for Key Biscayne Green Stormwater Infrastructure Project \$650,000, City of Coral Gables for Coastal Bay Service Area Sanitary Sewer Rehabilitation Project (Phase I) \$2,000,000. [2023-2024 FDEP Grant List](#)

FDEP Innovative Technology Grant

Miami-Dade County and South Florida Water Management District (SFWMD) received a \$3 million joint grant award from the Florida Department of Environmental Protection (FDEP) Innovative Tech Grant Program to test water quality technologies that reduce nutrient pollution levels in the C-7/Little River Canal Basin. The project will test three technologies to help prevent pollution in Biscayne Bay: Bold & Gold® Filtration Media is a biosorption-activated media (BAM), AbTech Smart Sponge, and Water Warriors Poseidon Pellets™ - were selected based on nitrogen and phosphorus nutrient reduction capability, scalability, and innovative promise.

Biscayne Bay Commission Participation

In 2021, the Florida Legislature adopted [\(CS/HB 1177\)](#) creating the Biscayne Bay Commission (BBC). The BBC is required to monitor the state's strategic plan and create an associated financial plan to ensure its priorities are funded, using agencies representing the commission. The BBC is comprised of state agencies and three Board of County Commissioners. BBWMAB members attended meetings, including OOR's Bay Team, RER-DERM and related County staff coordinated BBC meeting and presented important updates on water quality grants, project updates, BBWMAB accomplishments in 2022. OOR's Bay Team coordinated comments for the BBC strategic plan. The BBC convened three meetings in 2023.

Meeting agendas and recordings can be found here:

<https://protectingfloridatogether.gov/BiscayneBayCommission>

Biscayne Bay Task Force Recommendations Update

Biscayne Bay Economic Study Update – Recommendation 7C

In collaboration with the South Florida Water Management District, Miami-Dade County announced groundbreaking findings from the 2023 Biscayne Bay Economic Study, revealing the combined economic impact of Biscayne Bay-related activities at an astonishing \$64 billion annual economic output. The 2023 study is an update from the original 2005 study, which estimated Biscayne Bay's economic output at \$12.8 billion. The impressive, updated figure represents \$24 billion in income, supporting 448,000 jobs and contributing \$4 billion in tax revenue. The results of the study reaffirm that Biscayne Bay is intrinsically linked to Miami-Dade County's prosperity, accounting for 19% of Miami-Dade County's economy, 9% in the Southeast Florida region, and 3% of the State of Florida's economy.

[2023 Biscayne Bay Economic Study Update \(miamidade.gov\)](#)

Biscayne Bay Reasonable Assurance Plan Update – Recommendations 1A and 1B

RER DERM and OOR's Bay Team are collaborating with municipal partners, state agencies, community stakeholders, and environmental organizations to develop a Reasonable Assurance Plan (RAP) covering the entire Biscayne Bay Watershed. DEP has approved the Plan of Study outline, and a final RAP is expected to be submitted for FDEP approval in 2024. The RAP will ultimately help inform and be integrated into the Biscayne Bay Watershed Plan, a comprehensive plan to restore the Bay's health. The BBWMAB will continue to monitor progress.

Marine Debris Planning Team Update – Recommendation 5B

The Task Force recommended the County create a comprehensive marine debris prevention, reduction, and removal program. The Division of Environmental Resources Management (RER-DERM) convened stakeholders during a first meeting to create a comprehensive plan for 2022. The Marine Debris Planning Team was reconvened in 2023 by DERM's Restoration and Enhancement Section. The Planning Team comprised of staff from the state Fish and Wildlife Commission (FWC), Florida Department of Environmental Protection (DEP), county staff from DERM and DTPW, the City of Miami, the Miami River Commission (MRC), and various non-profit advocates. During 2023, the Planning Team met eight times and worked on prioritizing aspects of the plan, dividing action items into nine categories: Source Reduction, Education, Data, Community Action; Circular Economy; Littering and Dumping, Derelict

Vessels, Protecting downstream water bodies, and Boaters. The goal is to finalize a draft plan for BBWMAB review by the end of 2023.

Development of Biscayne Bay Watershed Plan – Recommendation 2C

The Miami-Dade County Board of County Commissioners adopted [Ordinance No. 21-72](#), creating the Biscayne Bay Watershed Management Advisory Board (BBWMAB) to advise the Board and the County Mayor on a variety of Biscayne Bay-related issues, provide local perspective, and make recommendations for development of a new Biscayne Bay watershed management plan based on the Task Force recommendation. At the July 2023 meeting, the BBWMAB adopted a resolution recommending the Mayor to direct staff to develop and implement a comprehensive Watershed Plan (WP) encompassing a holistic approach to multifaceted water management, pollution mitigation, habitat restoration, land use, and community resilience challenges. The County is currently seeking matching funds from a state legislative appropriation, DEP grants, and other grant opportunities to begin plan development.

Biscayne Bay Coastal Wetlands Phase 1 Cutler Flow Way Groundbreaking – Recommendation 4F

On March 21, 2023, the South Florida Water Management District (SFWMD), U.S. Army Corps of Engineers (USACE), Miami-Dade County and many federal, state, and local officials broke ground on the Biscayne Bay Coastal Wetlands (BBCW) Project - Cutler Wetlands Component. This project will improve the health of Biscayne Bay and will aid in wetland rehydration - building coastal resiliency and improving water quality in this area of Miami-Dade County. The Cutler Wetlands Component is the final component of the five-part Biscayne Bay Coastal Wetlands Project.

Biscayne Bay Coastal Wetlands Phase 1 Ribbon Cutting – Recommendation 4F

On August 22, 2023, the U.S. Army Corps of Engineers, the South Florida Water Management District and Miami-Dade County celebrated the completion of the Biscayne Bay Coastal Wetlands Project S-709 Pump Station in Biscayne National Park in Homestead, Fla. The Pump Station project will rehydrate coastal wetlands and reduce damaging point-source freshwater discharge to Biscayne Bay and Biscayne National Park. Overall, the BBCW project will restore wetland and estuarine habitats and divert an average of 59 percent of the annual coastal structure discharge into freshwater and saltwater wetlands instead of direct discharges to Biscayne Bay and Biscayne National Park.

Biscayne Bay Education and Outreach

Biscayne Bay Report Card 2023

In May 2018, the Miami-Dade County Board of County Commissioners (BCC) adopted Resolution No. [R-463-18](#) directing staff to develop and implement an annual report card to evaluate the health of Biscayne Bay using an easy-to-understand “stop-light” approach that was to be data-driven, employ sound scientific principles, include easy-to-read graphics and be publicly accessible. The Miami-Dade County Board of County Commissioners (BCC) noted the importance of providing the public with important information about the improvement or decline in the health of the bay. Indicators for water quality and habitat were selected and a baseline and thresholds were established for each indicator based on either criterion in scientific literature or through analysis of the County’s historical record of data.

The report card evaluates water quality and habitat in Biscayne Bay as the three representative aspects of the Bay's overall ecological health. There are several indicators of water quality and habitat quality that are collected on a regular basis by RER DERM. Water quality parameters include total phosphorus, total nitrogen, water clarity, bacteriological indicators and chlorophyll-a. Habitat quality indicators include submerged aquatic vegetation (i.e., seagrass and macroalgae) as well as sponges. Data collected during calendar year 2022 were used. Water quality indicators include phosphorus, nitrogen, chlorophyll-a, water clarity and bacteria, and habitat indicators include submerged aquatic vegetation (i.e., seagrass and macroalgae).

[2023 Biscayne Bay Report Card](#)

Biscayne Bay Friendly Campaign Launch – Recommendation 6A

Biscayne Bay Friendly is a multimedia campaign developed by OOR's Bay Team in collaboration with the Communications and Customer Experience Department (CCED) to educate residents, tourists, and students on how their actions impact the Bay. The goal is to develop personal connections with the environment and promote conservation. Trash and pollution from stormwater systems can harm the Bay, so everyone can help by being a friend to it. This will improve the quality of life and benefit the local economy. The "Biscayne Bay Friendly" campaign showcases educational PSAs called "Captain Baywatch" created by Jayme Gershen, one of the winners of the 2021 Oolite Arts "Save the Bay" competition. The PSAs aim to raise awareness and offer solutions for improving water quality in Biscayne Bay. The campaign is displayed across various platforms, including social media, web banners, radio, outdoor ads, and connect TV to reach Miami-Dade County residents, business owners, students, and tourists.

Mayor's Scientific Roundtable for 2023 Heat Season

Mayor Daniella Levine Cava hosted a series of Scientific Roundtables this summer to prepare for potential impacts on marine life due to high temperatures. The Mayor convened the scientific community to share data and impacts of high temperatures and other criteria relevant to Biscayne Bay and its ecosystem. The goal of the collaboration between the County and academic communities is to prepare for potential impacts on marine life, keep the community informed of the County's planned response to environmental emergencies, and encourage the community to report environmental concerns and report through Eyes on the Bay during environmental emergencies. Attendees included academic scientists from the BBWMAB and scientists and staff from OOR's Bay Team, RER DERM – Water Resources, the Department of Emergency Management, and the South Florida Water Management District.

To view recordings of the meetings, visit:

<https://www.miamidade.gov/global/government/boards/watershed-management-advisory-board.page>.

Miami International Boat Show – February 15 – 19, 2023

OOR's Bay Team partnered with NGO volunteers to participate in the 2023 Miami International Boat Show at the Miami Beach Convention Center hosting a booth to promote education and awareness about protecting Biscayne Bay. The event provided a great platform to reach a larger audience of residents and tourists.

FDEP RAP Field Trip – April 10 - 12, 2023

RER-DERM's – Water Resources and OOR's – Bay Team hosted a multi-day tour of the Biscayne Bay watershed for members of FDEP's Water Quality Evaluation & TMDL Program and County consultants. The tour covered areas from north to south on both land and water, highlighting hot spots, land uses, and water quality impacts. Due to a severe rain event during the visit, the tour shifted to a land tour, allowing County staff to demonstrate the challenges of flooding and nutrient pollution entering the Bay from various locations. The tour offered FDEP staff great insight as the County continues to develop the RAP for Biscayne Bay.

Biscayne Bay Friendly Cleanup/ Ghost Trap Rodeo – July 16, 2023

On July 16, 2023, Miami-Dade County hosted the first ever Biscayne Bay Friendly clean-up and Ghost Trap Rodeo presented by Ocean Aid 360. The event was organized by Miami-Dade Mayor Daniella Cava, District 7 Commissioner Raquel Regalado, OOR's Bay Team, the Miami-Dade County Parks, Recreation, and Open Spaces Department, and The Miami Foundation. Volunteers worked to clean up the shoreline and mangroves by picking up litter and debris. The event featured the first-ever Ghost Trap Rodeo by Ocean Aid 360, in partnership with Friends of Biscayne Bay, and participation from Miami-Dade County's RER DERM, and the FDEP leading up to the 50th Anniversary of the Biscayne Bay Aquatic Preserve in 2024. The waterside clean-up featured teams competing to collect derelict crab traps, plastic trash, and other marine debris that could harm wildlife and people who recreate in Biscayne Bay. The successful event removed 43 traps and over 2,100lbs. of trash & debris out of Biscayne Bay.

International Coastal Cleanup Day – September 16, 2023

OOR's – Bay Team and The Miami Foundation participated in 2023 International Coastal Cleanup Day on September 16th, 2023, hosted by Volunteer Cleanup.org. The cleanup brought in 2,929 volunteers participating in 58 cleanups around Miami-Dade County, collecting a total of 22,233 lbs. of trash making a significant impact on protecting Biscayne Bay.

Protect Biscayne Bay Specialty License Plate – September 16, 2023

In celebration of International Coastal Cleanup Day, The Brady Hunter Foundation made a generous donation to cover the voucher fee for the license plate making the reservations free of charge. The donation will help fulfill the statewide circulation requirement of 3,000 for manufacturing and distribution of the plate. Proceeds of the sales of the license plate will go to The Miami Foundation to fund education and restoration projects.

Biscayne Bay Economic Study Update – October 16, 2023

Miami-Dade County Mayor Daniella Levine Cava and the South Florida Water Management District Governing Board announced the 2023 Biscayne Bay Economic Study results at Terminal V – Port Miami. The event was hosted in collaboration with the SFWMD, Office of the County Mayor, OOR's Bay Team, Port Miami, and The Miami Foundation.

Honorable Chairman Oliver G. Gilbert, III
and Members, Board of County Commissioners
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In 2004 and 2005, a study on the economic value of Biscayne Bay was conducted by Hazen and Sawyer for the South Florida Water Management District. In 2022 and 2023, Miami-Dade County partnered with the district to update the study. The new study found that Biscayne Bay-related activities contribute \$64 billion to Miami-Dade County's economy, amounting to 19% of the of Miami-Dade County's economy in 2022 while contributing 9% to the Southeast Florida region and 3% to the State of Florida's economy.


[2023 Biscayne Bay Economic Study Update \(miamidade.gov\)](#)

If you have any questions, please contact, Nancy Jackson, Biscayne Bay Program Manager
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Basia Pruna, Director, Clerk of the Board

Date: April 12, 2024

To: Honorable Chairman Oliver G. Gilbert, III
and Members, Board of County Commissioners

From: Daniella Levine Cava
Mayor 

Subject: Report on the 2024 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 (Bay) and employs a simple and easy-to-understand "stop-light" approach to reporting on the health of the Bay. The Resolution also directed that the evaluation shall be data-driven, use sound scientific principles, incorporate information on water quality and habitat values throughout Biscayne Bay, 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 attached 2024 Biscayne Bay Report Card was developed by staff in the Department of Regulatory and Economic Resources, Division of Environmental Resources Management (RER-DERM), and captures inputs and progress from all areas of our County, including the Biscayne Bay Watershed Management Advisory Board (BBWMAB) and our Chief Bay Officer. The County has created a website dedicated to Biscayne Bay (www.miamidade.gov/BiscayneBay), which provides public access to the annual report card in an interactive online format.

The Southern North Bay Subregion C (SNB-C), one of 12 regions in the Bay, showed some improvement over the last year, and the remaining 11 regions stayed as rated in 2023. These results can vary from year to year, making it even more important to continue our long-term commitment to ongoing Bay initiatives. The SNB-C receives flushing from the Atlantic Ocean at each tidal cycle, which can allow waters impacted by pollutants to mix with and be taken away by the tide. Given that Biscayne Bay and the tributaries, canals and groundwater that feed it are facing unprecedented threats to their health and resilience, my administration continues to aggressively pursue short and long-term actions to restore the health of the Bay. As I have shared before, because the water resources of our County know no jurisdictional bounds, restoring our Bay will require ongoing support and long-standing commitment from our municipal, state, and federal partners.

Bay Health Support and Actions

Building upon the successes from prior years in my administration, many additional actions were initiated in 2023 to continue the ongoing goal of improving the health of Biscayne Bay. Some of these actions include: (1) initiating additional studies to inform our scientists on the sources of pollution impacting our ground and surface waters; (2) assisting our state and federal partners with regional restoration projects; (3) proffering Miami-Dade County Code (Code) changes to provide additional protections to our water quality while promoting resilient development and; (4) initiating capital improvement projects utilizing innovative technology to further reduce pollution from entering into our ground and surface waters which ultimately lead to the Bay.

Economic and Scientific Studies

The 2023 update to the 2005 Biscayne Bay Economic Study was completed in partnership with the South Florida Water Management District (SFWMD). The report describes Biscayne Bay as a major economic driver in the County. The overall contributions of Biscayne Bay-related activities amount to an estimated \$64 billion in economic output, \$24 billion in income, 448,000 jobs, and \$4 billion in tax revenue for the County. We are grateful to the County's first Chief Bay Officer, Irela Bagué, for her leadership on this study, as it provides important economic information for decision-makers at all levels of government. More about the study can be found at www.miamidade.gov/BiscayneBay.

I also want to again recognize the work of our Biscayne Bay Watershed Management Advisory Board (BBWMAB), whose work advising the Board included recommending that the County work with the state and federal government to develop a Reasonable Assurance Plan (RAP), in collaboration with municipalities, the state, and other Bay stakeholders. The RAP will allow the County and our collaborators to address our numerous water quality impairments with a focus on nutrient loading reductions. It will establish pollutant loading allocations across the watershed to help reduce the amount of nutrients entering canals and the Bay. In turn, this will help the County and its collaborators to foster healthier water quality conditions for seagrass communities to rebound. This past year, RER-DERM procured key services needed to develop this complex plan, including the outreach needed to engage collaborators.

Regional and Local Restoration Activities

We met two major Biscayne Bay Coastal Wetlands milestones last year, and I am proud that several Board members joined me for the groundbreaking of the Cutler Wetlands Component of the Biscayne Bay Coastal Wetlands Comprehensive Everglades Restoration Plan (CERP) project. This project is the final component of the five-part Biscayne Bay Coastal Wetlands Project that is being constructed by the United States Army Corps of Engineers (Corps) and SFWMD, in partnership with Miami-Dade County, to will deliver freshwater from the C-1 Canal through the S-701 pump station in order to rehydrate coastal wetlands adjacent to Biscayne Bay, diverting polluted water that would otherwise be discharged directly into the Bay with no treatment. This wetland restoration component will not only help improve the health of Biscayne Bay in this part of the system but will help build resilience along three miles of the County's coastline by rehydrating and enhancing mangrove communities along the coast. Another restoration win this past year was the commencement of operations of the Biscayne Bay Coastal Wetlands S-709 pump station. This project will divert water from the C-103 canal to rehydrate coastal wetlands via a series of culverts, recreating natural sheetflow to Biscayne Bay. 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 RER-DERM.

In addition to these regional efforts, many restorative actions were taken on a local level to reduce the amount of marine debris and further advance a reduction in the amount of pollution from reaching the Bay. Our County removed 39 derelict vessels last year, 281 ghost traps, more than 5,000 golf balls, and 135,000 pounds of trash from spoil islands as part of our ongoing work to address marine debris and derelict vessels and fishing gear impacting our Bay. RER-DERM's Environmentally Endangered Lands (EEL) Program acquired more than 14 acres of land with high environmental value. These lands help the County protect water resources by storing stormwater and recharging the Biscayne Aquifer. The EEL program now manages over 28,000 acres of environmental land for this and future generations. RER-DERM is also developing a plan to evaluate the potential impacts to Biscayne Bay associated with agricultural runoff, and this information will add to the County's future studies and the development of solutions, with a key solution being improved management practices at agricultural sites based on particular agricultural practice and needs.

Legislation

This past year, RER-DERM led the preparation of the Impervious Surface Ordinance and engaged stakeholders including municipalities, developers, the building industry, and environmental organizations to revise environmental and zoning regulations. Adoption of this ordinance is expected to result in increased resilience to mitigate flooding and reduce water quality impacts and risks. The new regulations, if approved by the Board, will adjust the standards based on the County's updated stormwater modeling, including the interaction of groundwater, surface water, sea level rise projections, the local hydrology, topography, and land use. Ordinance revisions include amendments to development standards and procedures related to the implementation of new and substantially improved stormwater infrastructure, retention, quality of direct discharges, and impervious surfaces. The updated ordinance also establishes recertification of stormwater management systems that serve or drain into a public right-of-way. The updates and technical changes are set to achieve higher regulatory standards to increase resilience and reduce risks from future increases in sea level rise. The ordinance is anticipated to be presented for first reading in the coming weeks.

On July 7, 2022, Ordinance No. 22-83 passed amending Section 24-15 of the County Code requiring plan review approval for properties served by Onsite Sewage Treatment and Disposal Systems (OSTDS), often regarded as “septic systems”, and creating Section 24-42.7 which provides the requirements for new and replacement OSTDS. The more rigorous standards aim to reduce the pollutants and nutrients discharged by OSTDS thereby improving the ground and surface water quality throughout Miami-Dade County. As of January 1, 2023, conventional OSTDS are no longer approved for new or complete replacement systems. This is a significant win for water resource protection of Miami-Dade County because performance-based treatment systems (PBTS), of which there are several types, can significantly lower concentrations of nutrients and bacteria reaching groundwater and/or surface water. For example, the equivalent of 672 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 61,409 pounds per year and total phosphorus at a rate of 11,054 pounds per year. Using a Type 3 PBTS at 672 single-family homes, there was a 70% reduction in total nitrogen down to 18,423 pounds per year and a 44% reduction in total phosphorus down to 6,141 pounds per year. While the Florida Department of Health (FDOH) is responsible for authorizing septic tank abandonment, the County works closely with FDOH in the authorization of new systems. Data obtained from FDOH from 2023 indicates that 603 permits were issued for abandonment and does not indicate whether abandonment is occurring because the parcel is now connecting to sanitary sewer or whether a new septic system is being installed. FDOH is also responsible for conducting inspections. More information will be provided regarding new and decommissioned systems in a forthcoming report to the Board.

I also want to acknowledge that the County lost an incredible engineer late last year, Carlos Hernandez, who spearheaded this legislation. Carlos served as RER-DERM's Chief of the Water and Wastewater Division and was a brilliant thought leader and dedicated public servant who helped the County advance key policies like this one, protecting both citizens and the environment during his tenure. We are so grateful for his service.

Addressing Pollution Using Innovative Technology Solutions

The County continues its Biscayne Bay Water Quality Characterization and Pollution Reduction Project, funded by the Florida Department of Environmental Protection (DEP). The main objective of the project is to identify and eliminate pollution reaching Biscayne Bay, and this work includes characterizing sources of pollution reaching Miami River, Little River, Biscayne Canal, and Arch Creek as well as reaching groundwater. RER-DERM has spearheaded 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. Thanks to the use of these devices being strategically located in sanitary sewer manholes across coastal Miami-Dade County where sewage spills have been known to occur, 39 sewage spills were prevented. And more than one thousand reports alerted RER-DERM staff and utility owners to potential spills, which demonstrates the many successes of this innovative technology.

The Biscayne Bay Water Quality Characterization and Pollution Reduction Project has continued to provide funding to test different types of stormwater devices to evaluate how effectively stormwater is being treated for nutrients before being discharged to the Bay. In 2023, RER-DERM completed the installation of six innovative technologies at three pilot locations to treat stormwater before discharging to the Little River Canal (C-7 Basin). These innovative applications and testing of new technologies are part of on-going activities being implemented, leveraging the DEP grant. RER-DERM is currently preparing the procurement of an additional five pilot locations for further testing and construction. Pre- and post-construction sampling and monitoring is being conducted to determine the effectiveness and applicability of these new technologies for systemwide implementation.

RER-DERM also worked to secure funding to test technology that can serve as an alternative to septic tanks in those areas where conversions are not on the horizon, but concerns exist about pollution traveling to surface waters. A signature objective of this funding is also to convert those homes from septic to sewer that are most vulnerable to failure from sea level rise and are proximal to a surface water body, like Little River. At this time 37 homes along the Little River have been fully converted. RER-DERM led the effort to work with state grant managers to assist with the cost of private side connection, a unique feat and a meaningful one when costs of connection can be steep. For those projects meeting the state's guidelines, the County was able to offset the cost of private side connection. My administration is committing to finding solutions to help all residents that must convert from septic to sanitary sewer do so with the least financial burden possible. The Water and Sewer

Department (WASD) estimates that a total of 120,000 homes are served by septic systems, with approximately 9,000 of those systems being vulnerable to failure from rising groundwater levels with more to be affected in future years. WASD's Connect 2 Protect program remains focused on providing service to those most immediately affected.

Community Outreach and Education

Regarding solutions to nutrient pollution within the reach of our residents, the County's fertilizer ban goes into effect May 15 – October 31. Outreach related to the County's fertilizer ordinance last year resulted in over 4,500 educational fertilizer awareness mailers being sent to all licensed pesticide and fertilizer applicators in the County. RER-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. For communities interested in educating their residents on responsible fertilizer use under the ordinance, please visit www.miamidade.gov/BiscayneBay and download our toolkit.

Also within the reach of our residents is volunteering for Baynanza. On April 13th, we will celebrate the 42nd anniversary of Baynanza, the County's signature annual cleanup of Biscayne Bay that RER-DERM has coordinated since 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. Last year, over 4,200 participants collected over 15 tons of trash at 31 sites along the Bay, including RER-DERM working to establish sites in four Commission districts new to Baynanza. These initiatives have also been supported by our local environmental advocacy organizations whose work contributes greatly to the restoration and future health of Biscayne Bay and the County is grateful for your dedication.

Additional grant funding totaling more than \$6,000,000 were received by RER-DERM this past year and each will make a notable impact in helping to restore water quality, better protecting natural resources, and educating our residents and visitors on the importance of a healthy Biscayne Bay. These funding opportunities include \$3,000,000 from the FDEP Innovative Technology Grant - \$3,000,000; \$2,500,000 from the FDEP Resilient Florida Grant, and \$1,050,000 from United States Environmental Protection Agency (EPA). The FDEP Innovative Technology Grant, in partnership with SWFMD, will test the efficacy of three innovative technologies to scrub nutrients from canal surface water in the Snake Creek (C-9) basin. In this novel approach, surface water will be pumped onto the upland of the canal bank, with each technology having its own chamber within which the efficacy will be tested, and then released ostensibly with lower nutrient concentrations as it is discharged back into the canal. The FDEP Resilient Florida Grant will help RER-DERM restore West Matheson Hammock Park's historic Snapper Creek slough as well as restore wetlands and bring rare plant species back from near extinction. Over 150,000 tons of solid waste have already been removed from the site in partnership with United by Blue, more than 30 acres have had invasive removal activities have taken place, more than 4,000 trees will be planted among other restoration activities. The EPA is providing over \$1,050,000 to create a habitat suitability model for the County's seagrass ecosystem that will employ data from County partners to complement our own as well as develop and implement a Biscayne Bay boating community outreach initiative. I want to thank our state and federal partners for their commitment to Biscayne Bay.

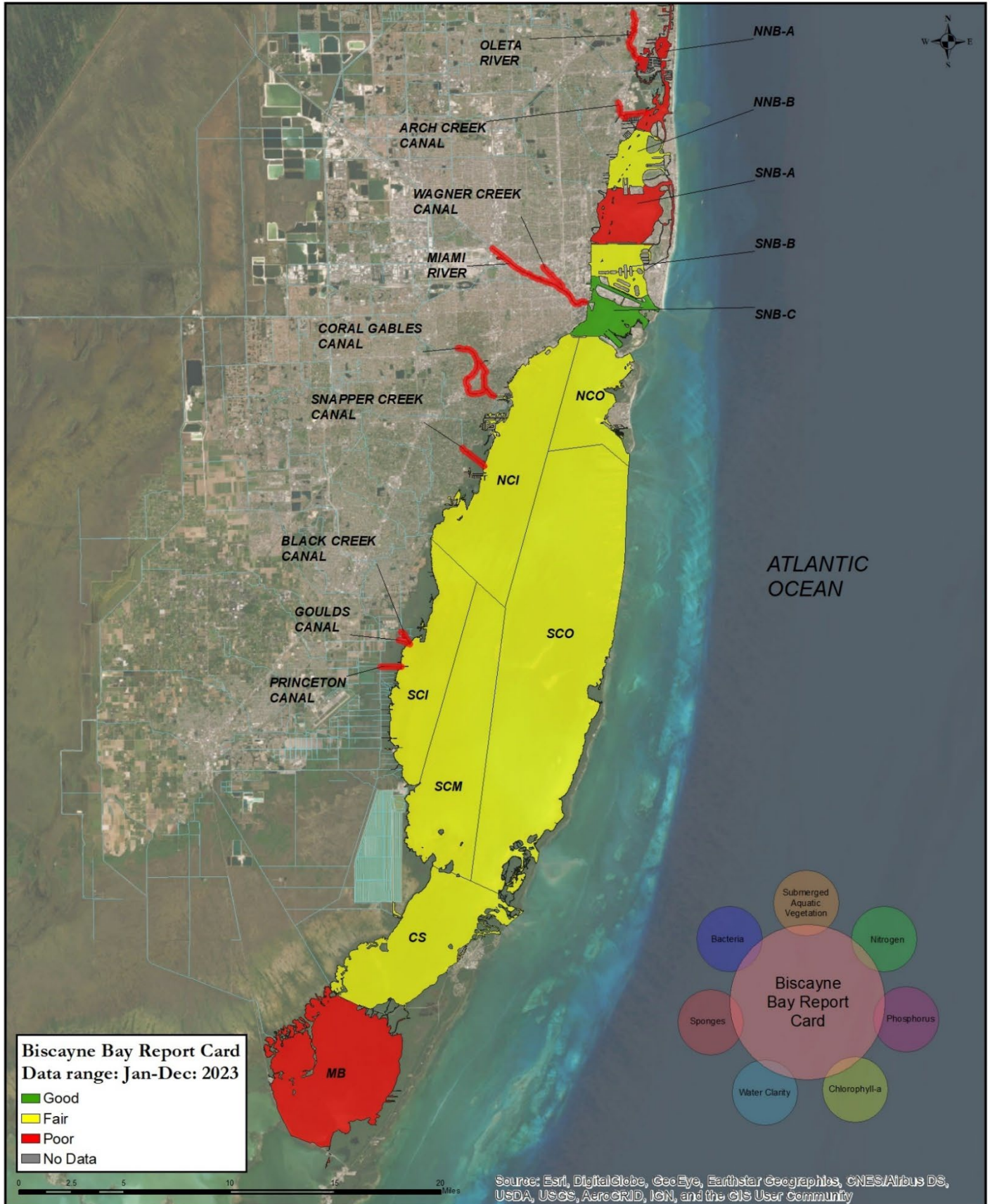
While we balance the needs of residents, a growing workforce, housing, transit, and infrastructure needs, we must conduct our work through the lens of restoring the health and resilience of Biscayne Bay. We have confirmed the extent to which Biscayne Bay plays a major role in the economy of the County. We will work to ensure that County departments are unified in this approach and that we work to help educate our residents and visitors that their care for or lack thereof for the Bay will also impact its future health. My administration remains steadfast in its commitment to continue to pursue tangible and necessary actions to restore the health of Biscayne Bay and implement needed policies, legislation, research, and outreach to accomplish the goals we have set forth together.

In accordance with Ordinance 14-65, this memorandum and report will be placed on the next available Board meeting agenda. If you have any questions regarding this report, please contact Lourdes Gomez, RER Director, at 305-375-2886 or Lourdes.Gomez@miamidade.gov.

Attachment: 2024 Biscayne Bay Report Card

c: Geri Bonzon-Keenan, County Attorney
Gerald Sanchez, First Assistant County Attorney
Jess McCarty, Executive Assistant County Attorney
Office of the Mayor Senior Staff
Lourdes M. Gomez, Director, RER
Lisa Spadafina, Assistant Director, RER-DERM
Loren Parra, Chief Bay & Water Resources Officer
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Yinka Majekodunmi, Commission Auditor
Basia Pruna, Director, Clerk of the Board
Eugene Love, Agenda Coordinator

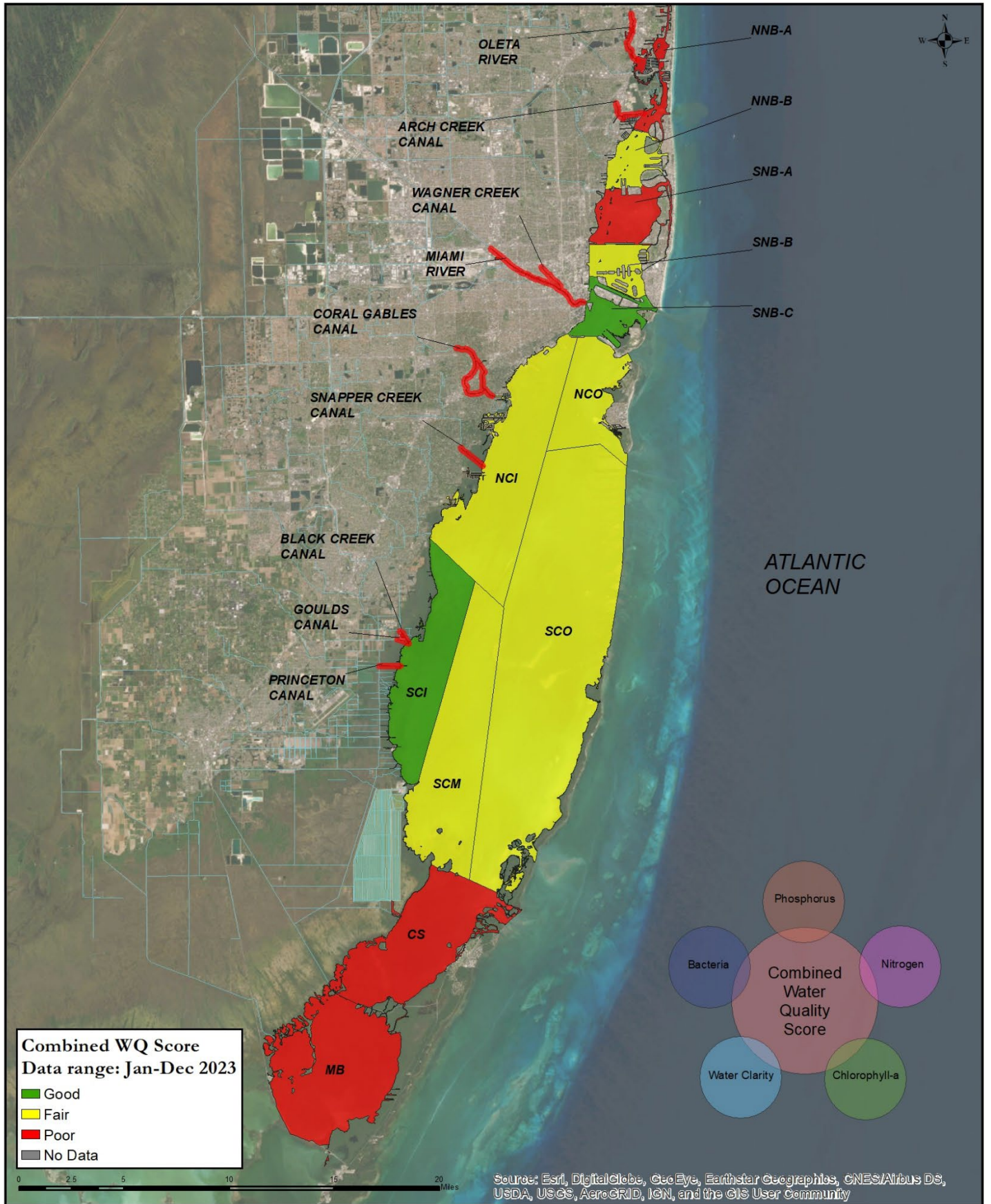
2024 Biscayne Bay Report Card



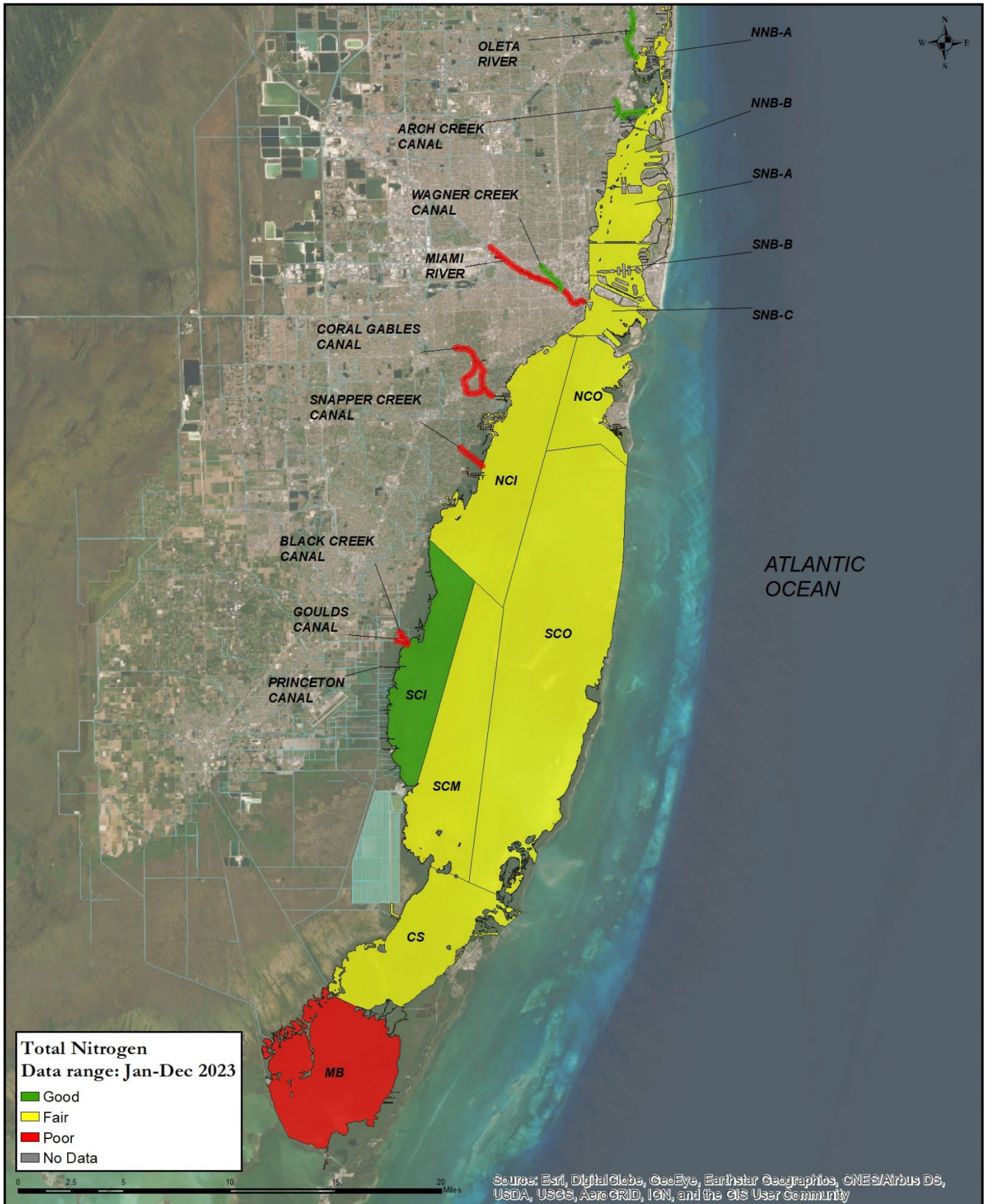
The above map represents the overall health score of each Bay region and representative canal, presenting as the “2024 Biscayne Bay Report Card”. All other maps for each parameter can be found at www.miamidade.gov/BiscayneBay.

2024 Biscayne Bay Report Card

Water Quality Combined Score

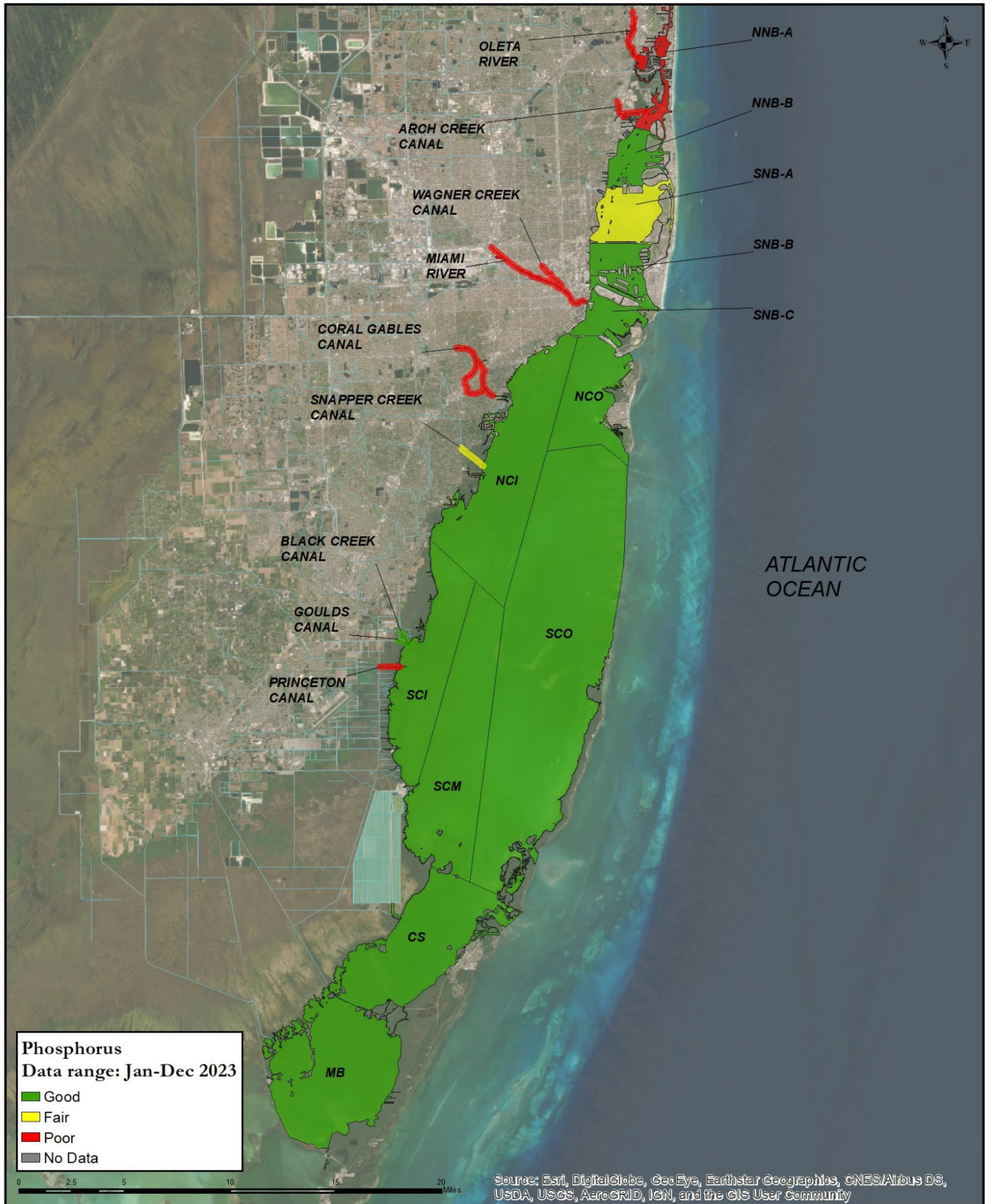


2024 Biscayne Bay Report Card Total Nitrogen Score

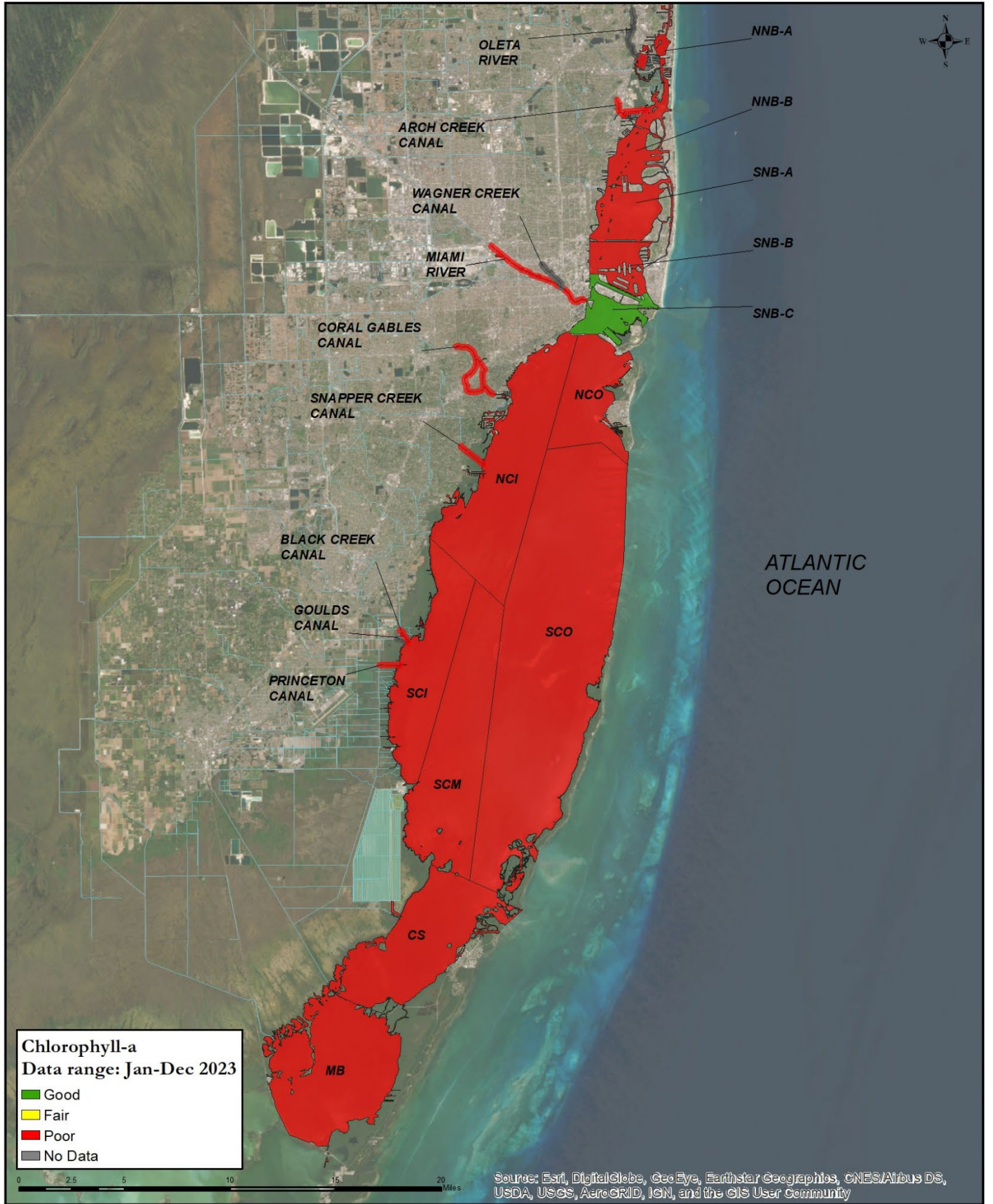


2024 Biscayne Bay Report Card

Total Phosphorus Score

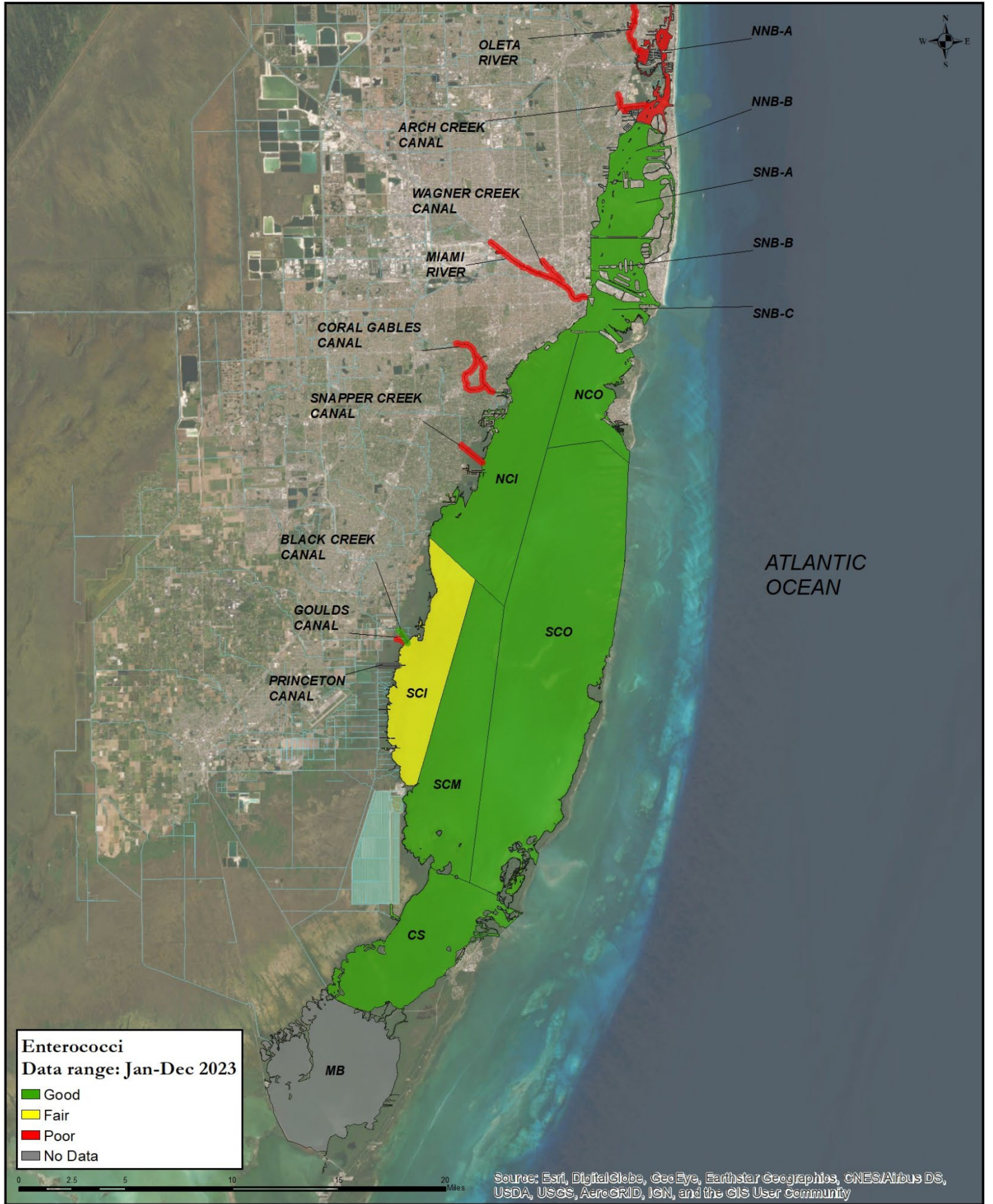


2024 Biscayne Bay Report Card Chlorophyll-a Score



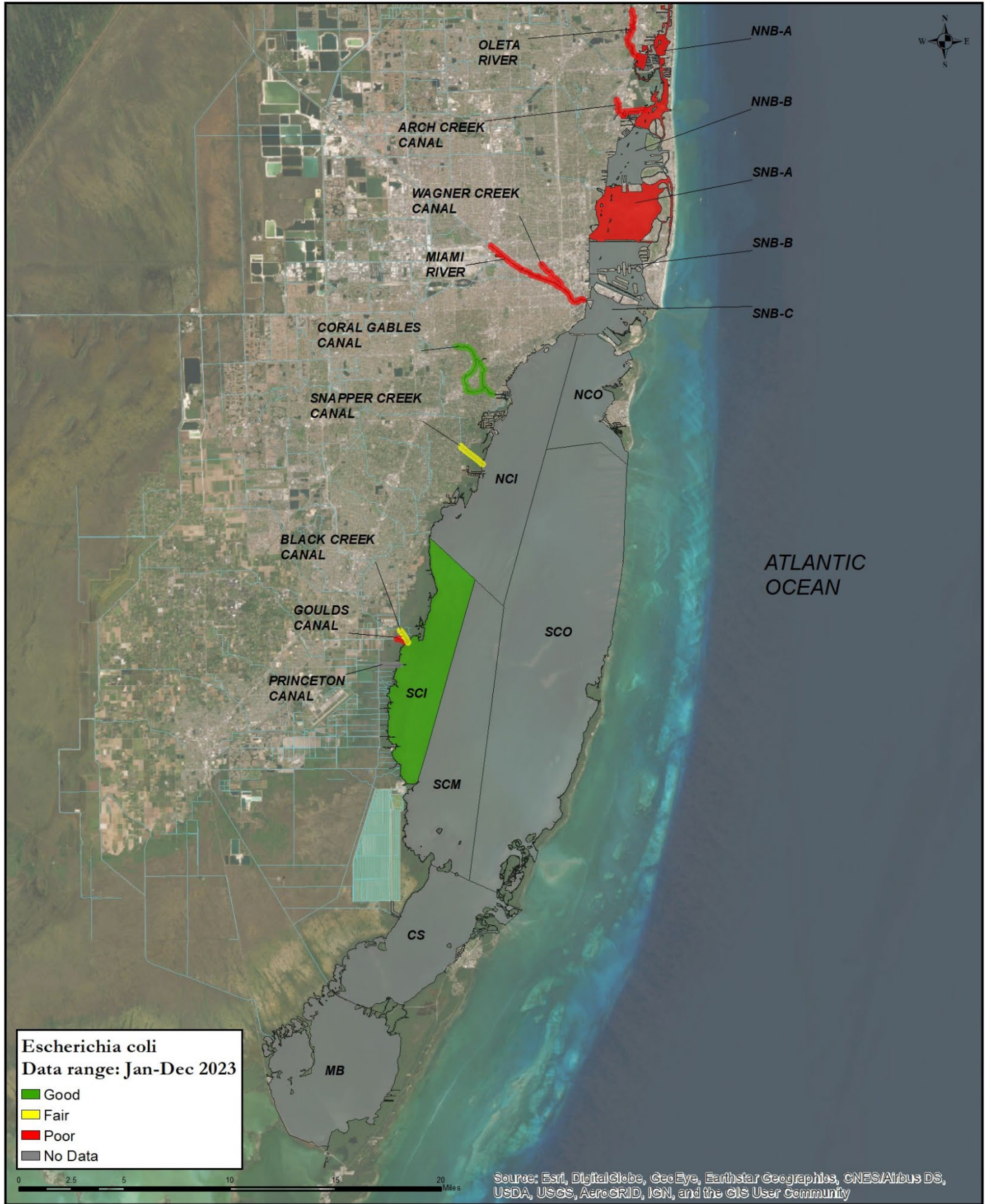
2024 Biscayne Bay Report Card

Bacteriological Score (*Enterococcus spp.*)



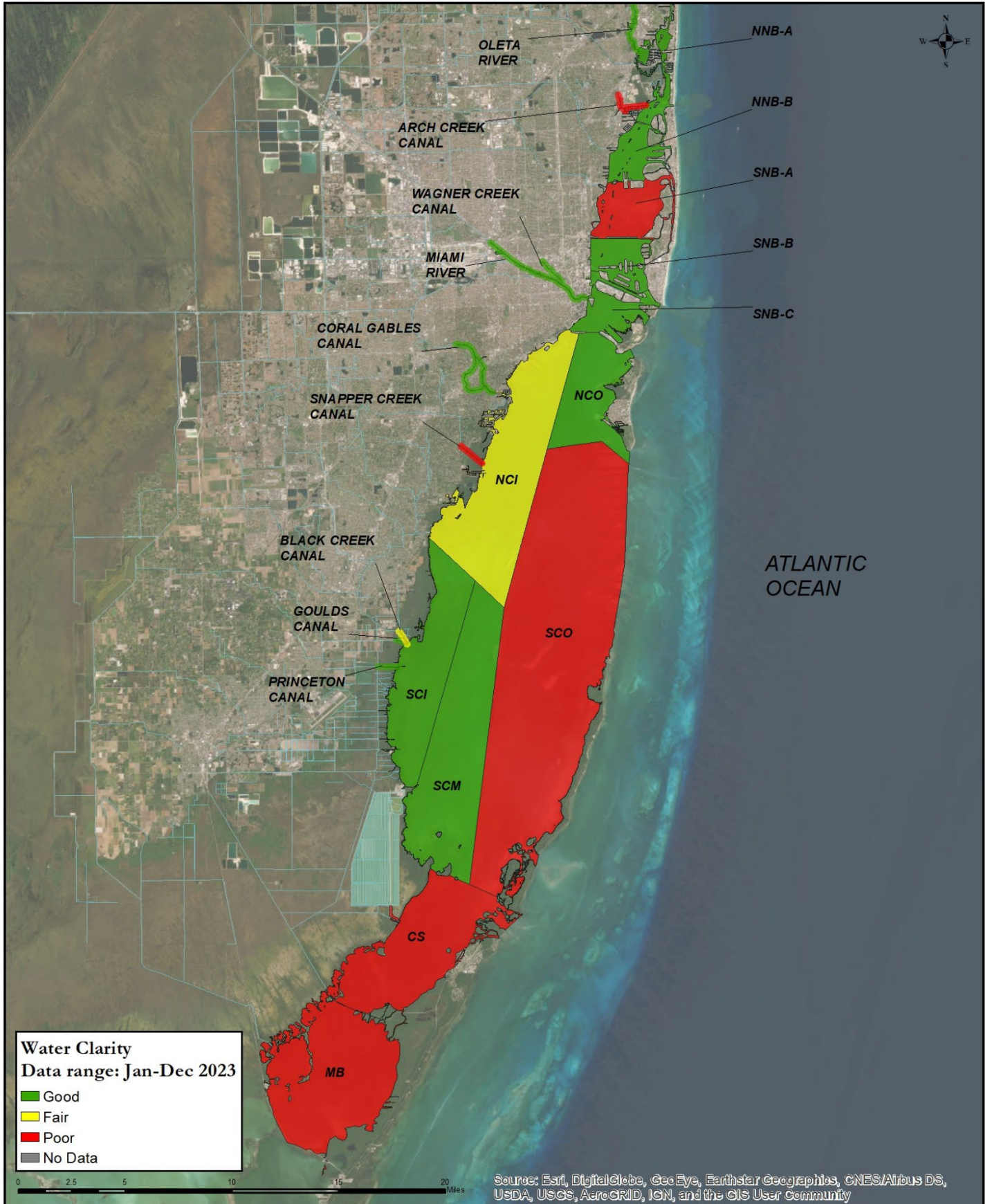
2024 Biscayne Bay Report Card

Bacteriological Score (*Escherichia coli*)



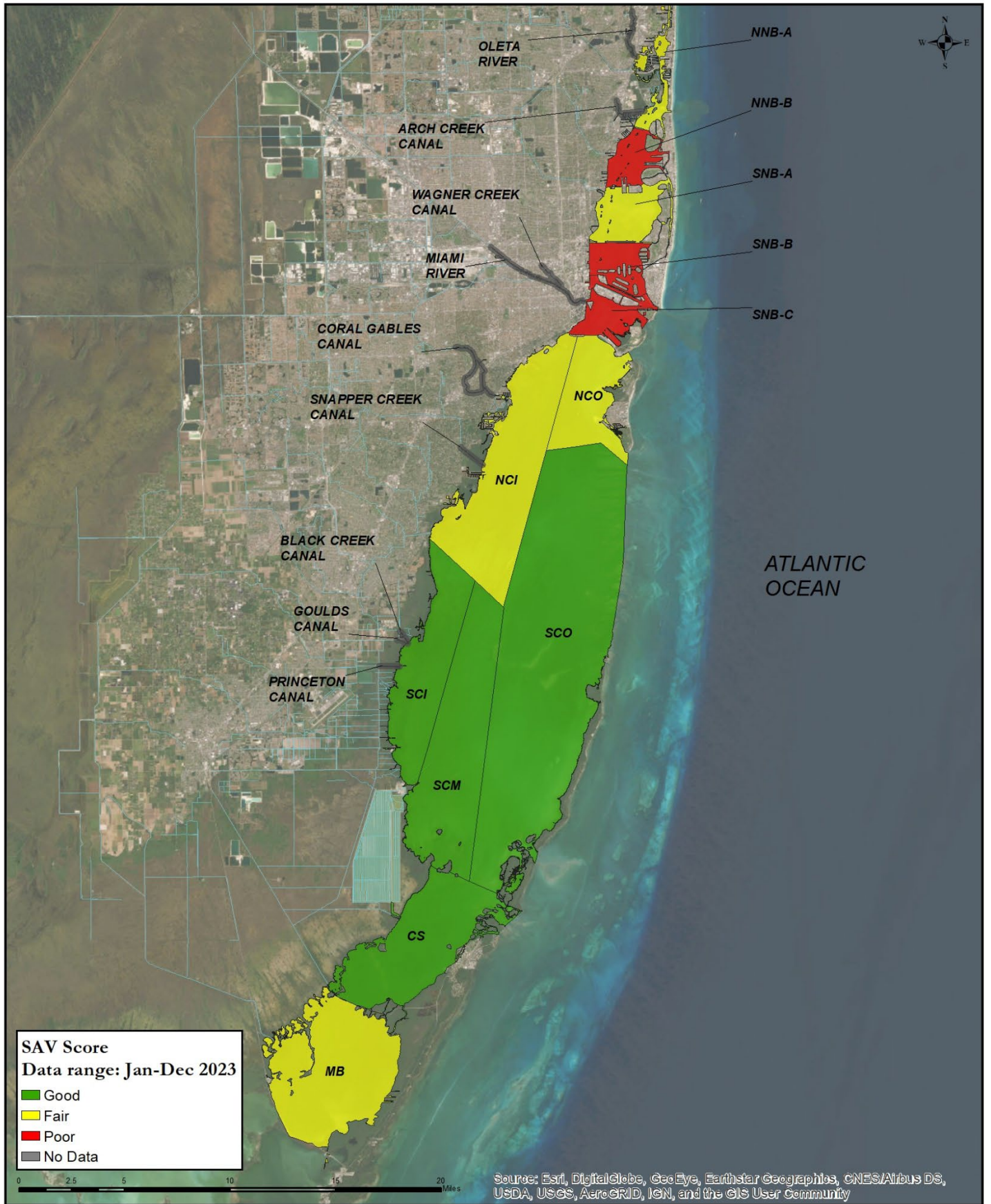
2024 Biscayne Bay Report Card

Water Clarity Score

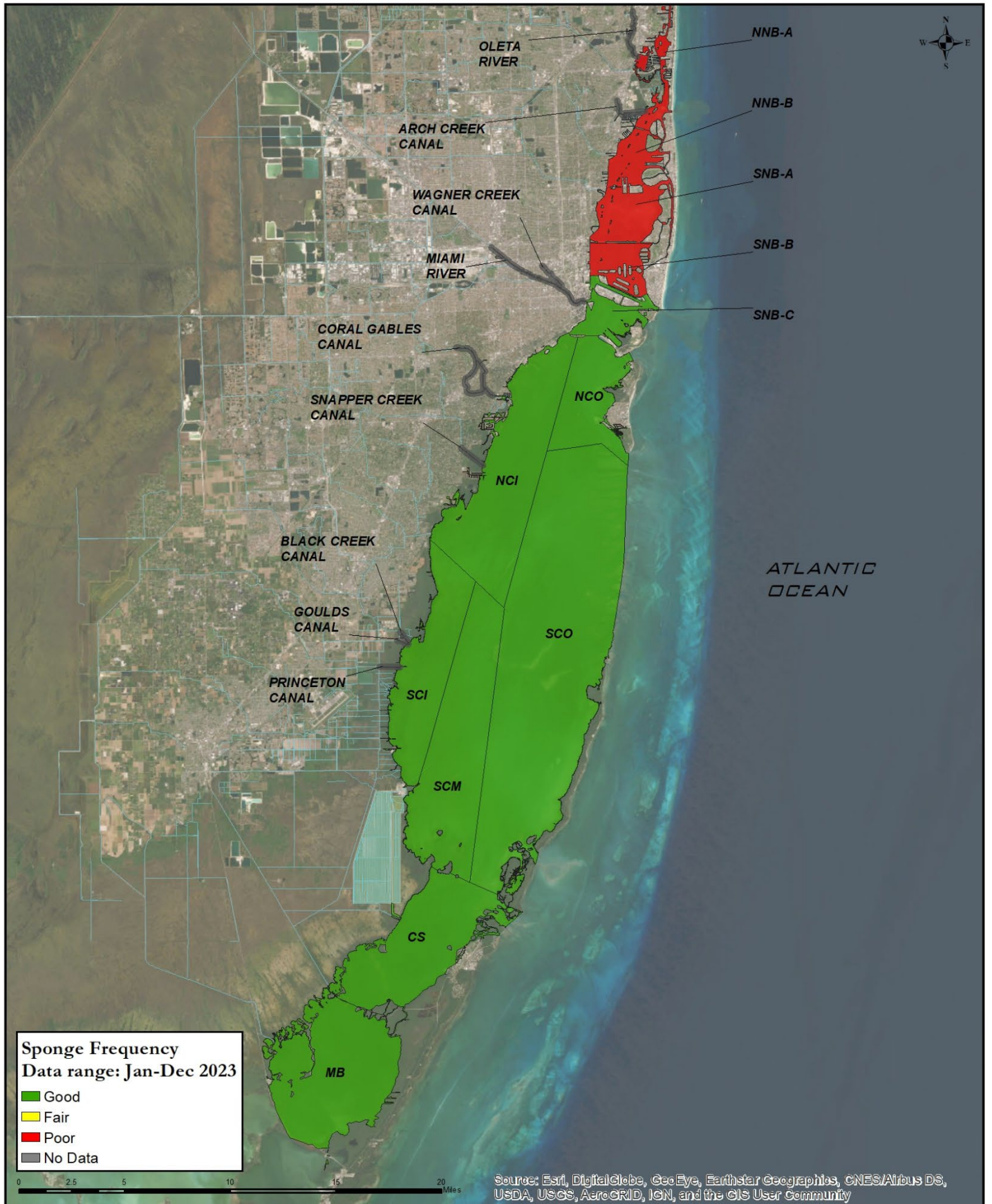


2024 Biscayne Bay Report Card

Submerged Aquatic Vegetation Score



2024 Biscayne Bay Report Card Sponge Frequency Score



Report Card Region	2019 Score	2020 Score	2021 Score	2022 Score	2023 Score	2024 Score	2024 Biscayne Bay Health Status by Region*		
							0 - 2.90	2.91 - 3.90	> 3.90
NNB-A	Fair	Poor	Poor	Fair	Poor	Poor	Continued elevated bacteria, chlorophyll, and nutrient values; some improvement in cover of submerged aquatic vegetation (includes macroalgal cover)		
NNB-B	Fair	Fair	Poor	Fair	Fair	Fair	Continued elevated chlorophyll-a and nutrient values, some improvement in total phosphorus; continued low cover of submerged aquatic vegetation and sponge frequency		
SNB-A	Poor	Poor	Poor	Poor	Poor	Poor	Continued elevated chlorophyll-a and nutrient values, some improvement in total phosphorus and nitrogen; continued low cover of submerged aquatic vegetation and sponge frequency		
SNB-B	Poor	Fair	Fair	Fair	Fair	Fair	Continued elevated chlorophyll-a and nutrient values, some improvement in total phosphorus and nitrogen; continued low sponge frequency and cover of submerged aquatic vegetation		
SNB-C	Fair	Fair	Fair	Good	Fair (3.9)	Good (4.1)	Some improvement in total phosphorus and nitrogen; continued low cover of submerged aquatic vegetation with some increase in sponge frequency		
NCI	Fair	Fair	Poor	Fair	Fair	Fair	Continued elevated chlorophyll-a values and low cover of submerged aquatic vegetation with some improvement in total nitrogen and sponge frequency		
NCO	Fair	Fair	Fair	Fair	Fair	Fair	Reduced cover of submerged aquatic vegetation with some improvement in sponge frequency		
SCI	Poor	Fair	Fair	Fair	Fair	Fair	Continued elevated chlorophyll-a values and increase in bacteria levels; some improvement in total nitrogen and sponge frequency; reduced water clarity		
SCM	Fair	Good	Fair	Fair	Fair	Fair	Continued elevated chlorophyll-a values; some improvement in total phosphorus, nitrogen, and sponge frequency		
SCO	Good	Fair	Fair	Fair	Fair	Fair	Continued elevated chlorophyll-a values; some improvement in total nitrogen		
CS	Fair	Fair	Fair	Fair	Fair	Fair	Continued elevated chlorophyll; improvement in sponge frequency		
MB	Poor	Poor	Poor	Fair	Poor	Poor	Continued elevated chlorophyll-a values and low cover of submerged aquatic vegetation with some improvement in total phosphorus, nitrogen and sponge frequency		

* The annual Biscayne Bay Report Card uses data from the prior calendar year, January through December.