



BISCAYNE BAY COMMISSION

Strategic Plan

January 2024

PROTECTING FLORIDA TOGETHER

OVERVIEW

Biscayne Bay is the largest estuary in Florida and home to mangrove-lined islands, lush seagrass beds, fish, sponges, corals and an array of endangered species. It is a destination for both locals and tourists alike and helps support the economy for over 2.7 million residents of Miami-Dade County. The bay contains the largest passenger port in the world (Port Miami), is an international sailing destination and plays a critical role in the health of Florida's Coral Reef. Protecting the bay is important to Florida both environmentally and economically by addressing pollutants that threaten the ability of the bay to continue providing environmental, economic, and socio-cultural value to residents and visitors. Portions of the bay are included in the Biscayne Bay Aquatic Preserve (Figure 1).

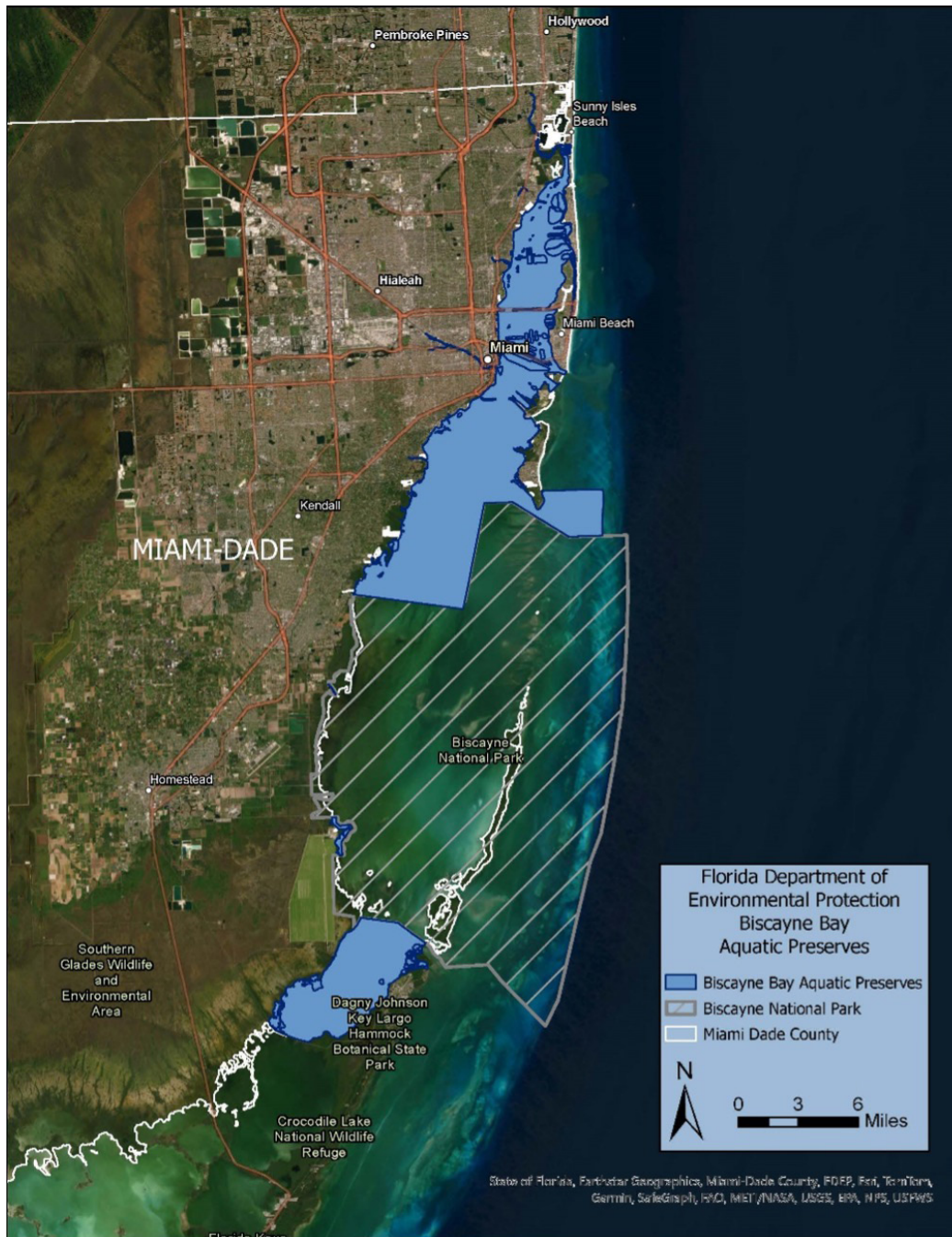


Figure 1. Biscayne Bay Aquatic Preserve management boundaries.

Established by Governor Ron DeSantis in 2021 and codified in statute, the Biscayne Bay Commission was created to monitor the natural resources within Biscayne Bay. The goal behind this initiative was to “unite all governmental agencies, businesses, and residents in the area to speak with one voice on bay issues; to develop coordinated plans, priorities, programs, and projects that might substantially improve the bay area; and to act as the principal advocate and watchdog to ensure that bay projects are funded and implemented in a proper and timely manner.” (s. 163.11, F.S.). The commission is comprised of nine members who are responsible for holding quarterly meetings throughout the year and publishing semi-annual reports. The Florida Department of Environmental Protection (DEP) aids in the facilitation of Commission meetings and coordination of its member entities and representatives.

The commission is charged with adopting a “coordinated strategic plan for improvement of Biscayne Bay and the surrounding areas, addressing environmental, economic, social, recreational and aesthetic issues” (s. 161.11, F.S.). This first strategic plan focuses on water quality and natural system restoration and is intended to be paired with initiatives prioritized by the Biscayne Bay Task Force, which was developed by Miami-Dade County.

STATUS OF RESTORATION

Existing Plans And Programs

The Biscayne Bay Commission supports and encourages the continued implementation of several existing plans and programs, including:

- **The Biscayne Bay Task Force and Recommendations**

Between 2019 and August 2020, the Miami-Dade County Biscayne Bay Task Force, made up of nine members, consisting of professionals and the community at-large, reviewed relevant data, prior studies and reports related to the Biscayne Bay and determined how various issues may affect residents and property owners. The task force finalized a [report](#) that identified problem areas, prioritized projects and provided recommendations regarding state and federal legislation, activities and appropriations.

- **Biscayne Bay Watershed Management Advisory Board**

Created by the Board of County Commissioners (BCC) upon recommendation from the Biscayne Bay Task Force. Advises the BCC and the Miami-Dade County Mayor on issues related to Biscayne Bay, including: (1) the long-term management of Biscayne Bay, (2) health of the marine community, (3) run-off and other impacts to water quality, (4) marine debris, (5) education and outreach, (6) economic development and vitality related to Biscayne Bay, and (7) how conditions in Biscayne Bay may affect residents and property owners.

- **FDEP’s Biscayne Bay Aquatic Preserve (BBAP) Management Plan.**

Created in 2013, the BBAP [management plan](#) prioritizes expanding the water quality and benthic monitoring program, tackling sewage and stormwater problems, increasing the education and outreach of county residents, and securing public access to the bay for recreation.

- **Municipal Separate Storm Sewer (MS4).**

There are 33 co-permittees covered under the Miami-Dade County Phase I MS4 permit including Florida Department of Transportation (FDOT), Florida Turnpike Enterprise, and Miami-Dade Expressway Authority (MDX). The city of Miami and Hialeah are covered under separate Phase I MS4 permits. The city of Sweetwater, Florida International University (FIU) and city of Florida City are covered under separate Phase II MS4 permits.

Required by the Clean Water Act, MS4 permits require the development and implementation of a Stormwater Management Program (SWMP), designed to reduce pollutants in stormwater

discharges. SWMPs consist of a combination of legal authority, e.g., ordinances, systems and outfall mapping, inspections and maintenance, good housekeeping of roadways and public facilities, the detection and elimination of illicit discharges and connections, employee training, and education and outreach to the local community. Permittees are also required to conduct activities to address the pollutant of concern for waterbodies with an EPA-established or department-approved Total Maximum Daily Load (TDML). Additionally, Phase I MS4 permittees are required to conduct water quality monitoring, as well as pollutant load analysis in order to evaluate the effectiveness of their SWMP. Permitting for both Phase I and Phase II MS4s is considered an iterative process whereby permittees adjust and refine their SWMPs to achieve pollutant reductions to the maximum extent practicable with each permit iteration.

Status of the Biscayne Bay Reasonable Assurance Plan

This strategic plan is intended to support the development and implementation of a reasonable assurance plan (RAP) currently under development by Miami-Dade County. RAPs are a stakeholder-led water quality restoration plans that are developed through a coordinated effort that takes the place of the state-led TDML and basin management action plans (BMAPs). Under the RAP process, the state forgoes TMDL development because stakeholders have provided reasonable assurance that existing or proposed pollution control mechanisms, projects or programs will effectively address the water quality impairment. An approved RAP must include all the same elements as a TMDL and additionally identify projects with an implementation schedule to address the water quality impairment.

Miami-Dade County's Department of Environmental Resources Management (DERM), in coordination with DEP and in partnership with municipalities and other stakeholders, continues progress developing a RAP for Biscayne Bay. An initial draft RAP document was submitted to DEP on Sept. 2, 2022. DEP reviewed the draft submittal and provided written comments back to Miami-Dade County on Sept. 23, 2022. DERM adjusted their approach and timeline in response to DEP's comments. DEP was provided a draft plan of study, in outline form, on Dec. 6, 2022. The document provided an overview of the proposed updated approach, list of "work activities" and an anticipated timeframe for completion. DEP provided feedback on Dec. 22, 2022. DEP then received a revised plan of study and outline on Feb. 3, 2023, and DEP provided additional feedback on the proposed plan of study document on Feb. 8, 2023. A joint agency meeting was held on Feb. 14, 2023, to discuss the plan of study. DEP agreed that the information included in the plan of study, including the timeline, was reasonable and consistent with the RAP requirements.

Water Quality Project Implementation and Tracking

Between 2019-2024, more than \$72 million in state funds were invested in water quality projects through the Biscayne Bay Water Quality Improvement Grants administered by DEP. This included a variety of projects addressing wastewater and stormwater, including more than \$37.4 million to Miami-Dade County for source identification and project implementation. Approximately \$25.5 million has been specifically dedicated for septic-to-sewer conversions.

As part of the Biscayne Bay Commission's semi-annual report, DEP coordinated with cities, the county, other agencies and stakeholders to compile a comprehensive list of projects and programs conducted in the bay since the establishment of the commission. This was translated into a [Project Tracker](#), which is used to monitor progress on these efforts over time. In order to improve upon the tracker and include projects not only completed or underway, but also planned, the commission seeks to collect future project information from stakeholders, which may be considered for inclusion in the RAP and would provide transparency to the public. Information about potential future projects should include estimated costs and current status, as well as anticipated benefits to the bay.

STRATEGIC GOALS

1. Enhance water quality monitoring
2. Improve communication and public outreach
3. Address sources of nutrients and ecosystem restoration needs

ENHANCE WATER QUALITY MONITORING

Why does this goal matter?

Monitoring water quality allows stakeholders to evaluate the health of the bay, including identifying water quality “hot spots” for restoration and evaluating metrics to anticipate changes in conditions. Ensuring that data is of sufficient quality to be used for varied purposes and is publicly available will result in more robust datasets, increased transparency and eliminate unnecessary duplicate monitoring costs.

Desired objectives:

Objective 1: The commission recommends that the parties identify which water quality parameters are being routinely sampled within the bay to identify comparable datasets that will help inform source identification as well as project implementation. To achieve this goal, the following actions would be undertaken:

- **Strategy A:** In accordance with the DEP-funded FIU Biscayne Bay and Reef Observation, Interpretation and Prediction System (B-BROIPS) project, or similar efforts, the resulting information will be presented to the commission and made publicly available. The result of this project may compare datasets within the bay, including parameters as well as trends.
- **Strategy B:** DEP and Miami Dade County will continue to coordinate on the NOAA-funded Government Cut Watershed Inlet Contributing Area Watershed Management Plan development. The overarching goal of this watershed planning effort is to identify and reduce the loads of nutrients (total nitrogen (TN) and total phosphorus (TP) and total suspended solids (TSS)) from land-based sources of pollution in the Government Cut Inlet Contributing Area to the coastal habitats in southeast Florida.

Objective 2: The commission recognizes that currently several entities, including DEP, South Florida Water Management District (SFWMD), and Miami-Dade County (MDC), all regularly collect grab samples and input sample results into the Watershed Information Network (WIN), a data platform that consolidates water quality data from various data providers (Figure 2.). WIN requires data quality information to be entered relating to the quality assurance protocols followed in the sampling and analyses, ensuring that the data are reliable for use in assessing the waterbody to determine whether it is attaining standards. To ensure grab sample data are able to be used for the development and implementation of the RAP and that such data follow quality assurance requirements established by rule, the commission recommends that grab sample data be entered into WIN, with all appropriate data quality information, in a timely manner. In addition, the commission recognizes that coordination amongst water data providers could be beneficial to maximize effectiveness and minimize cost. In order to achieve this objective, the following actions would be undertaken:

- **Strategy A:** By April 1, 2024, DEP will provide outreach to potential data providers on the importance of entering data into WIN. DEP will subsequently provide education and training to each data provider organization intending to load data to WIN on its use, including WIN Minimum Data Quality Standards (MDQS).
- **Strategy B:** By June 2024, DEP will identify points of contact for all monitoring entities to share data and provide for an open forum for discussion on monitoring.
- **Strategy C:** Miami-Dade County will identify any data gaps and needed monitoring to support RAP development, including load reduction goals and interim targets, as well as project implementation and share such information with all member entities in a timely manner.
- **Strategy D:** Miami-Dade County will collaborate with municipalities, SFWMD, FDOT and other pollutant source-responsible entities within the Biscayne Bay watershed to develop a RAP, including model development, and to solicit implementation projects. Such projects should be made part of the BBC Project Tracker.

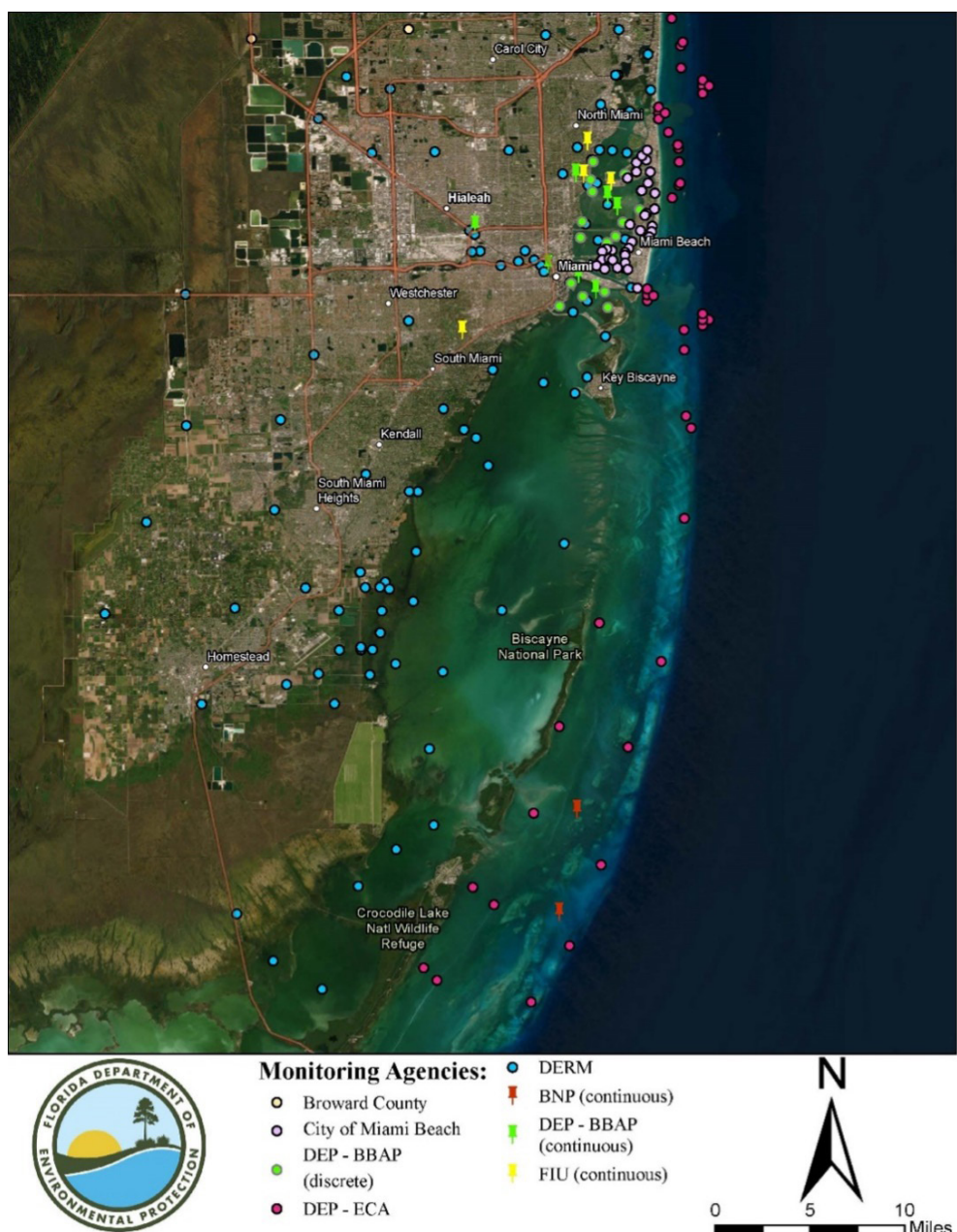


Figure 2. Monitoring Agencies in Biscayne Bay and surrounding area.

IMPROVE COMMUNICATION AND PUBLIC OUTREACH

Why does this goal matter?

Ensuring regular communication on issues important to the bay in turn promises the highest level of coordination. Engaging the public on issues important to the health of the bay helps connect citizens to the activities that they can take to support the environmental health of Biscayne Bay, which in turn supports the economic and socio-cultural benefits provided to them by the bay.

Desired objectives:

Objective 1: MDC has embarked on efforts to connect septic systems to sewer through many areas of the county. The commission is supportive of these efforts and, in doing so, additionally recommends that MDC educate homeowners on why septic-to-sewer conversions help both the bay and the homeowner.

- **Strategy A:** MDC will continue its Connect-to-Protect program and expand where possible to ensure connections are made after sewer is made available.

Objective 2: During urgent or emergency environmental disturbance events, communication is critical between stakeholders. The commission recommends communication pathways be formalized in writing to ensure quick response to urgent and emergency events.

- **Strategy A:** By June 2024, DEP, MDC, and partners will document stakeholders engaged in monitoring and response to typical urgent or environmental emergency events, including fish kills. Any existing response plans will be shared with stakeholders and the public as appropriate.

Objective 3: The reduction of litter and debris in Biscayne Bay and adjacent areas remains an important concern for the region. The commission recommends tackling trash in the bay through public education and outreach and additional coordination and action by land and aquatic managers.

- **Strategy A:** MDC and DEP will continue to engage local communities by hosting and promoting environmental cleanup efforts around Biscayne Bay (e.g., Baynanza, International Coastal Cleanup, Ghost Trap Rodeos, and weekly Biscayne Bay Friendly coastal cleanup events with MDC Parks Recreation and Open Spaces). Cleanup metrics, including amount of trash removed and number of volunteers participating, will be reported to the commission annually and recorded in the Project Tracker.
- **Strategy B:** FDEP will coordinate with MDC Marine Debris Planning Group, local and state entities and spoil island owners within Biscayne Bay to develop a strategy to address excess trash and trash removal methods on the spoil islands. A joint strategy and messaging will be developed by June 2024 then begin implementation.
- **Strategy C:** FDEP and MDC will continue to communicate the importance of litter control and reduction in urban areas to residents and tourists, as described in the BBAP Management Plan and in accordance with the MDC's Biscayne Bay Friendly multi-media/multi-lingual Campaign. Approximate engagement numbers from outreach events and activities will be included in the Project Tracker.

ADDRESS SOURCES OF NUTRIENTS AND ECOSYSTEM RESTORATION NEEDS

Why does this goal matter?

Over enrichment of the bay can contribute to harmful algal blooms and low dissolved oxygen, which can in turn result in fish kills. Reducing sources of nutrients into the bay is critical to restoring the health and balance of flora and fauna in this important ecosystem. Miami-Dade County is currently undertaking the development of a RAP, which acts as an action plan to establish nutrient loading targets and a restoration plan for the bay to ultimately meet water quality standards. The commission seeks to support the continued development of the RAP and, in so doing, support targeting sources of nutrients in the basin including septic systems, wastewater discharges and stormwater discharges.

Desired objectives:

Objective 1: The successful development of the RAP requires necessary coordination and communication between DEP and MDC. The commission strongly supports Miami-Dade County with the RAP development process. In order to achieve this goal, the following activities would take place and be reported:

- **Strategy A:** Continue interagency coordination through regular (bi-monthly) meetings.
- **Strategy B:** DEP to provide input and feedback on RAP plan of study and the development interim milestones as needed.
- **Strategy C:** Miami-Dade County to submit interim “decision documents” to the department for key portions of the RAP.
- **Strategy D:** RAP submitted to DEP for review.
- **Strategy E:** DEP staff review the submitted RAP and prepare recommendations for Secretarial consideration.
- **Strategy F:** FDEP staff prepare recommendations and documentation for EPA consideration and approval.
-

Objective 2: The development of projects sufficient to address over-enrichment of the bay remains critical to the success of the RAP and restoration goals. The commission recommends all cities, community development districts, and special districts, coordinate with MDC in the development of those projects. Further, the commission supports the development of county municipal partner projects that can help meet future load reductions. To achieve this goal, the following actions should be undertaken:

- **Strategy A:** MDC will present to the commission the Biscayne Bay Watershed Management Advisory Board’s Annual Report and the Biscayne Bay Report Card (with a focus on nutrient-reducing efforts) each year following the presentation of that report to the MDC Commission. Within or in addition to the annual report, the commission will receive an update on the status of the following:
 - The total number of septic tanks targeted for sewer connections and annual progress towards the target;
 - An update on the implementation of projects, including but not limited to wastewater, septic-to-sewer, and stormwater projects, and;

- An update on the status of the RAP, all associated collaboration, and implementation.
- **Strategy B:** Encourage stakeholders to support county municipal partner project planning and project development to maximize opportunities for cost-effective project development.

Objective 3: Implementing projects is critical to reducing nutrient loading into the Bay. To track project implementation, and to support the RAP development, projects implemented by all stakeholders in the region should be reported accurately and regularly.

- **Strategy A:** Once annually, member entities shall coordinate with DEP to update the Project Tracker, including estimated nutrient load reductions, to identify projects planned, underway, or completed. MDC may use such data in developing the RAP. This should include the identification of strategic structural and nonstructural stormwater BMPs and retrofits.
- **Strategy B:** In addition to keeping the Project Tracker updated, DEP will coordinate with the member entities annually to provide an update to the commission on recently completed and/or ongoing projects.