

# Final Evaluation Findings

## Florida Coastal Zone Management Program

August 2015 to September 2020

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## Summary of Findings

The Coastal Zone Management Act (CZMA) requires the National Oceanic and Atmospheric Administration (NOAA) to conduct periodic evaluations of the performance of state coastal management programs. This evaluation examined the operation and management of the Florida Coastal Management Program by the Florida Department of Environmental Protection, Office of Resilience and Coastal Protection, the designated lead agency, for the period from August 2015 to September 2020. The evaluation focused on two target areas: resilience to coastal hazards and coastal change, and aquatic preserves and water quality connections.

The findings in this evaluation document will be considered by the NOAA Office for Coastal Management in making future financial award decisions concerning the reserve. The evaluation came to these conclusions:

**Accomplishment:** The Office for Coastal Management commends the staff and leadership for navigating a significant change in both leadership and staff support for the Florida Coastal Management Program during the recent reorganization. The Office of Resilience and Coastal Protection staff are clearly passionate and dedicated to the mission of the office, and during the transition, dedicated significant effort to ensuring that any impact to the implementation of the Florida Coastal Management Program was minimized.

**Accomplishment:** The Office for Coastal Management recognizes the Florida Coastal Management Program for successfully leveraging Coastal Zone Management Section 309 funding, including Projects of Special Merit, to incubate, grow, and scale resilience efforts, including the Florida Resilient Coastlines Program and Coastal Adaptation and Resilience Tools Initiative. These programs have increased the capacity of Florida communities to plan and adapt, and their successes have attracted additional support from the state for resilience.

**Accomplishment:** The Office for Coastal Management applauds the partnership between the Florida Coastal Management Program and Florida Sea Grant to expand and improve implementation of the Coastal Partnership Initiative. This partnership resulted in 15 additional projects on the ground and increased support of these additional coastal communities in Florida.

**Accomplishment:** The Office for Coastal Management applauds the work of the Resilient Coastlines Program and 309 strategy on Adaptation Action Areas to advance the work of planning councils and other regional efforts, as well as strategic placement of resources, funding, and collaborations that have aligned to ensure implementation of the Peril of Flood Act (Senate Bill 1094). These strategic efforts concerning the Peril of Flood Act have moved planning and other resilience efforts forward and have positioned the Florida Coastal Management Program to be a leader in the implementation of Senate Bill 178, Public Financing of Construction Projects, which requires consideration of sea level impacts for public financing of construction projects.

**Accomplishment:** The Office for Coastal Management commends and supports the ongoing work of the coastal program to administer the Aquatic Preserve Program. The Aquatic Preserve Program provides strong mechanisms for communication between managers and knowledge transfer across sites at both the preserve and regional scales to improve management efforts of Florida's natural resources within the preserves.

**Accomplishment:** The Florida Coastal Management Program is recognized for the successful fostering of a statewide nexus of regional Estuarine Restoration Teams that formed partnerships with state agencies, local community governments, and private businesses to aid in identifying and securing funding streams for restoration. The coastal program was a key partner in the Northeast Estuarine Restoration Team at its inception in 2010, and supported this effort through the development of the Florida Estuarine Habitat Restoration Planning Guide. The application of Coastal Zone Management Act funding and coastal program staff engagement has resulted in increased communication across the state and multiple regional teams.

**Accomplishment:** The Florida Coastal Management Program is recognized for its efforts to update aquatic preserve management plans using a consistent approach that allows these plans to better identify and address stressors affecting each preserve. Since 2015, the program has used Coastal Zone Management Act funding to support the development and approval of at least eight aquatic preserve management plans, and an additional five are continuing the process of receiving approval for their updated plans.

**Accomplishment:** The Office for Coastal Management commends the Florida Coastal Management Program's work on developing the Statewide Ecosystem Assessment of Coastal and Aquatic Resources, which has greatly enhanced stakeholder engagement across the state on data collection for management of Florida's managed resources. The resulting process, as well as the Data Discovery Interface tool, have made a significant impact on the availability and interpretation of the status and trends of coastal resources in Florida. As a result of the program, state resource management agencies are better positioned to be able to use the data to inform management decisions.

**Recommendation:** The Office for Coastal Management encourages the Florida Coastal Management Program to improve retention of high-performing staff members in order to maintain program effectiveness and meet programmatic requirements. The coastal program may consider professional development opportunities, internal information transfer among staff members, and compensation that is commensurate with expertise, tenure, and local cost of living to reduce the rate of staff turnover.

**Recommendation:** The Office for Coastal Management encourages the Florida Coastal Management Program to explore opportunities to apply economic valuation approaches to the program's resilience investments, aquatic preserve monitoring efforts, and relevant recreation and tourism activities.

**Recommendation:** The Office for Coastal Management encourages the Florida Coastal Management Program to leverage its expertise in the realm of shoreline management to examine the permit approval process for living shorelines projects to determine possible options for reducing barriers for project implementation.

**Recommendation:** The Office for Coastal Management encourages the Florida Coastal Management Program to focus on at-risk and underserved communities and continue efforts to broaden engagement through the Coastal Partnership Initiative and the Coastal Adaptation and Resilience Tools Initiative, and explore more options to include justice, equity, diversity, and inclusion into the Coastal Partnership Initiative.

**Recommendation:** The Office for Coastal Management recommends that the Florida Coastal Management Program engage in broader watershed-level planning and management efforts to reduce land-based sources of pollution from watersheds associated with aquatic preserves and support healthy water quality within the preserves. This includes increased coordination with Water Management Districts and any watershed management plans within the sphere of influence that impact the aquatic preserves.

**Recommendation:** The Office for Coastal Management recommends that the Florida Coastal Management Program develop a sustainable financing plan for the aquatic preserves network to identify long-term and reliable sources of funding and to diversify funding sources that support management of the aquatic preserves. This is especially timely, considering the establishment of the new Nature Coast Aquatic Preserve and the funding needs for management plan development and implementation.

This evaluation concludes that the Florida Coastal Management Program is successfully implementing and enforcing its federally approved coastal management program, adhering to the terms of the federal financial assistance awards, and addressing coastal management needs identified in section 303(2)(A) through (K) of the Coastal Zone Management Act.

## Program Review Procedures

The National Oceanic and Atmospheric Administration (NOAA) evaluated the Florida Coastal Management Program in 2020. The evaluation team consisted of Susie Holst Rice, evaluation team lead, NOAA Office for Coastal Management; Kristin Ransom, site liaison, Office for Coastal Management; Laura Petes, manager, Coastal Communities Program, Office for Coastal Management; Makeda Okolo, Southeast and Caribbean regional lead, Office for Coastal Management; Dana Wusinich-Mendez, management liaison, Office for Coastal Management; Jan Mackinnon, manager, Coastal and Ocean Management, Georgia Department of Natural Protection; and Shelby Butz, Knauss Fellow, Coastal States Organization and U.S. Environmental Protection Agency. The support of the program's staff members was crucial in conducting the evaluation, and their support is most gratefully acknowledged.

NOAA sent a notification of the scheduled evaluation to the Secretary of the Florida Department of Environmental Protection, published a notice of "Intent to Evaluate" in the *Federal Register* on August 17, 2020, and notified members of the Florida congressional delegation ahead of the evaluation site visit. The coastal management program posted a notice of the public meeting and opportunity to comment in the *Tallahassee Democrat* on August 10, 2020.

The evaluation process included a review of relevant documents, a survey of stakeholders, the selection of two target areas, and discussions with staff members and stakeholders about the target areas. In addition, a virtual public meeting was held Wednesday, September 23, 2020 at 12:00 p.m. to provide an opportunity for members of the public to express their opinions about the implementation of the program. Stakeholders and members of the public were also given an opportunity to provide written comments. A summary of the written comments received and the NOAA Office for Coastal Management's responses are included in Appendix A. NOAA then developed draft evaluation findings, which were provided to the program for review, and the program's comments were considered in drafting the final evaluation findings.

Final evaluation findings for the coastal management programs highlight each program's accomplishments in the target areas and include recommendations, which are of two types:

**Necessary Actions** address programmatic requirements of the Coastal Zone Management Act (CZMA) and its implementing regulations. These must be carried out by the date specified. Failure to address necessary actions may result in a future finding of non-adherence and the invoking of interim sanctions, as specified in CZMA §312(c).

**Recommendations** are actions that the office believes would improve the program, but which are not mandatory. The state is expected to have considered the recommendations by the time of the next evaluation or dates specified.

## Evaluation Findings

The Florida Coastal Management Program is a networked program led by the newly created Office of Resilience and Coastal Protection within the Florida Department of Environmental Protection. This office was created during a recent reorganization and is responsible for the management of over 4.9 million acres of submerged lands and coastal uplands in Florida. Previously, the coastal management program was housed in the Florida Coastal Office. The last evaluation in July 2015 was conducted under the previous organizational structure and those findings included a necessary action that Florida has successfully responded to by strengthening enforcement of the logo policy for funded projects. The new Office of Resilience and Coastal Protection includes 10 programs related to natural resource management, including the National Estuarine Research Reserve System, Coral Reef Conservation Program, Florida Keys National Marine Sanctuary, offshore and outer-continental shelf activities, Aquatic Preserve Program, Clean Marina Program, Clean Vessel Act Program, Florida Coastal Management Program, Florida Resilient Coastlines Program, and State Buffer Preserve Program. After the reorganization, an additional consolidation of the Beaches Program into the Office of Resilience and Coastal Protection occurred in November 2019 to allow for greater intra-agency coordination and to benefit Florida's resilience and coastal protection goals.

In this new office, the coastal program is well-positioned to continue its role as steward of Florida's coasts and improve the management of natural resources, while balancing coastal development activities. Throughout this evaluation, the coastal program staff clearly demonstrated passion for their work and are a major driver of the success of the various initiatives of the program. As one stakeholder who participated in the evaluation meetings aptly put it, "The program staff don't have a job, they have a calling." Their drive, professionalism, and devotion to the goals of the program are inspiring and are noted by the evaluation team. We also commend office leadership for recognizing the need to provide support for their dedicated staff and for strategically identifying paths forward for continuing to provide the necessary resources (both staff and material) to move long-term Florida Coastal Management Program priorities forward.

**Accomplishment:** The Office for Coastal Management commends the staff and leadership for navigating a significant change in both leadership and staff support for the Florida Coastal Management Program during the recent reorganization. The Office of Resilience and Coastal Protection staff are clearly passionate and dedicated to the mission of the office, and during the transition, dedicated significant effort to ensuring that any impact to the implementation of the Florida Coastal Management Program was minimized.

Relatedly, office leadership has recognized a need to provide additional staff support for the numerous programs that are under the umbrella of the Office of Resilience and Coastal Protection, and has been creative and resourceful in identifying opportunities to bring the necessary staff on board to manage these programs. Leadership has also recognized the difficulties some programs face with regular turnover of staff members, and has made it a priority to identify ways to mitigate that turnover. Challenges with staff turnover rates and

retention of high-performing program staff members have also been identified with both the Aquatic Preserve Programs and the Coral Reef Conservation Program by Office for Coastal Management staff and by partner organizations that work with these programs. While the programs have continually done an impressive job at orienting newly hired personnel and training them to manage and coordinate various aspects of the programs, the high rate of turnover presents challenges in maintaining effective and productive partnerships with stakeholders and program partners. One reason for challenges with staff retention seems to be the salary levels that are associated with many positions within these programs. The programs have been able to attract dedicated and capable personnel, but some staff members acquire sufficient experience that allows them to compete for higher paying positions and move to other organizations that are able to offer more competitive salaries. Continuity is important for effective implementation of the coastal program, and the office is encouraged to look into succession planning to maintain forward progress when key staff turnover.

**Recommendation:** The Office for Coastal Management encourages the Florida Coastal Management Program to improve retention of high-performing staff members in order to maintain program effectiveness and meet programmatic requirements. The coastal program may consider professional development opportunities, internal information transfer among staff members, and compensation that is commensurate with expertise, tenure, and local cost of living to reduce the rate of staff turnover.

The recent reorganization at Florida Department of Environmental Protection and the notable budget increases for several programs within the Office of Resilience and Coastal Protection has been beneficial for resilience-related work in Florida. NOAA encourages the office to identify a vision and unifying long-term goals through a strategic planning process in order to clarify connections between and among its many programs. Outreach and stakeholder engagement is important during the development of the plan, and is important to continue to enhance connections with coastal communities.

As the office integration continues to take shape, it may be helpful to consider the broader use of economic valuations, as was suggested in a recommendation from the 2015 evaluation findings, to inform decision makers on various management strategies and the use and non-use values of coastal resources across the state. The Beaches Program uses economic valuation studies within feasibility studies to document storm damage reduction benefits and to justify the investments in this work. Economic valuation studies, such as those that have been conducted on beach and coral-reef resources in Florida, can help to quantify the use and non-use values of those resources and further justify continued and increased investment in the conservation of other priority coastal resources and habitats that are managed by the Florida Coastal Management Program, such as mangroves, estuaries, coastal lagoons, and seagrass beds. The economics team at the Office for Coastal Management welcomes the opportunity to work with the Florida Coastal Management Program to scope feasible methods for valuing coastal resilience approaches and other topics of interest to the program.

**Recommendation:** The Office for Coastal Management encourages the Florida Coastal Management Program to explore opportunities to apply economic valuation approaches to the program's resilience investments, aquatic preserves monitoring efforts, and relevant recreation and tourism activities.

The Florida Coastal Management Program has made great advances in supporting living shoreline project development, implementation, and monitoring. The program has been successful in partnering with a variety of stakeholders to highlight living shorelines. Partnering with researchers, nonprofit organizations, local communities, Florida Sea Grant, and others has strengthened the state's knowledge of living shoreline success.

Based on stakeholder feedback, the evaluation team recommends that the coastal program evaluate the permit approval process for varying scales of living shoreline projects to identify potential opportunities for increasing efficiency and reducing barriers to project implementation. This recommendation applies to both the state and federal permitting processes. State and federal exemptions and conditions will dictate the timeframe, scopes, and budgets for project development and implementation. This evaluation will afford an opportunity to modify state processes where necessary.

**Recommendation:** The Office for Coastal Management encourages the Florida Coastal Management Program to leverage its expertise in the realm of shoreline management to examine the permit approval process for living shorelines projects to determine possible options for reducing barriers for project implementation.

## **Resilience to Coastal Hazards and Coastal Change**

Over the evaluation period, the Florida Coastal Management Program has put in a lot of effort to build programs to support communities as they develop adaptation strategies to increase their resilience to coastal hazards and coastal change. For example, funds provided under CZMA Section 309 for the period of 2011-2015 focused on building the Adaptation Action Area Initiative, a community resilience initiative and partnership between the Florida Coastal Management Program and the Florida Department of Economic Opportunity. These funds served as a catalyst for resilience work and eventually the creation and successful implementation of the Florida Resilient Coastlines Program, which is now fully funded by the State of Florida. The program provides funding opportunities, holds a statewide focus group, has developed and piloted adaptation action areas and conducted vulnerability assessments, and has developed technical assistance documents. The program also holds a Quarterly Coastal Resilience Forum, to share knowledge across the community of coastal-resilience practitioners in the state. Despite recent budget constraints, Florida has continued to expand funding (including a doubling this year), and the program funds are now recurrent. This support has enabled the program to reach more communities across the state, totaling over 100 communities, with approximately \$6.5 million in support.

The Coastal Adaptation and Resilience Tools (CART) Initiative was sparked by a CZMA Section 309 Projects of Special Merit grant with the Florida Department of Economic Opportunity and regional planning councils in 2016, in support of their resilience-focused strategies. This grant focused on “training the trainers,” hosting workshops with practitioners and regional planning councils on how to use online tools through the NOAA Digital Coast and other resources. The intent was for these individuals to then go back to their regions and train interested local government staff on use of these tools. This was the catalyst for what would become CART in 2017. CART focuses on increasing awareness of existing tools, especially for smaller communities that may not have the capacity to travel and learn about these resources or to develop their own tools in-house. Florida Coastal Management Program staff reach out to communities to offer information and to coordinate a meeting, and the coastal program staff member travels to them. As part of this process, the community participants use the tools on their own, which results in higher adoption rates of the tools and data presented. CART raises awareness of the different risks that communities face, as well as what information is available to help them plan and adapt. The coastal program has met with communities all over the state, with a focus on smaller communities that wouldn’t necessarily have strong in-house capacity for tool and data development. CART has also engaged with large cities, such as the City of Jacksonville, to understand the needs of larger communities and share lessons learned and resources with other communities. To date, nearly 30 locations around Florida have participated in CART. During the COVID-19 pandemic, CART continues to engage virtually with communities, and virtual engagement is an opportunity to broaden the reach of the program. Perhaps while in-person meetings are not possible during the COVID-19 pandemic, the coastal program may consider dedicating additional capacity to the CART Initiative for more widespread awareness and engagement with high-need communities. In the interim, the coastal program may consider a public-facing sign-up list and virtual opportunities to engage new communities and those that have been hard to reach previously through online workshops or content until such capacity is realized.

Testimonial:

“The training county staff received from [the coastal program’s Government Operations Consultant] spurred many internal staff conversations and, among several actions, lead to the establishment of permanent monitoring stations where flooding is expected—as predicted by tools like the Coastal Flood Exposure mapper. With help from the state’s resilience program we have been able to move forward and develop more refined maps that include a suite of information related to county infrastructure. Already some infrastructure retrofits that are backed up by projections for near term SLR are in process.

“I truly can’t say enough about the value and accessibility of these programs, and the personal interest that people like [the Florida Resilient Coastlines Administrator and the Government Operations Consultant] take when connecting with the local government staff. Their efforts have paved the way for the Martin County resilience program to take shape.”

– Kathy Fitzpatrick

The Florida Coastal Management Program has been incredibly successful at leveraging its coastal zone management funding to start and grow new initiatives that often develop into long-term, sustainably funded programs. Evidence for this can be squarely found in the resilience realm with the transition of the Adaptation Action Area Initiative (309 funded program) into the Florida Resilient Coastlines Program and the CART Initiative, which began as a Project of Special Merit to support the Adaptation Action Area Initiative strategy. We commend the coastal program on these efforts, and recommend that they continue to identify opportunities where the application of Coastal Zone Management Program funding early in development can move long-term priorities forward.

**Accomplishment:** The Office for Coastal Management recognizes the Florida Coastal Management Program for successfully leveraging Coastal Zone Management Section 309 funding, including Projects of Special Merit, to incubate, grow, and scale resilience efforts, including the Florida Resilient Coastlines Program and Coastal Adaptation and Resilience Tools Initiative. These programs have increased the capacity of Florida communities to plan and adapt, and their successes have attracted additional support from the state for resilience.

Additionally, the Coastal Partnership Initiative (CPI) is run by the Florida Coastal Management Program to make federal Coastal Zone Management Act funds available to Florida's 35 coastal counties and the municipalities within those counties that are required to include a coastal element in their comprehensive plans. There are four focus areas that CPI directs these funds to, including resilient communities, coastal resource stewardship, access to coastal resources, and working waterfronts. During the recent evaluation period, CPI partnered with Florida Sea Grant on projects where there were shared interests in resilience topics, and this partnership earned Florida Sea Grant a best practice award during its last evaluation. This partnership with the Florida Sea Grant Program is an ideal example of NOAA-funded programs collaborating to make the most impact with the dollars available. Through this partnership, both the coastal program and Florida Sea Grant have made tangible, on-the-ground impacts in local communities across the state. During the review period, the two programs were able to fund an additional 15 resilience projects in local communities that would not have occurred without this partnership. We commend both programs on this partnership, and encourage them to identify other areas where further collaboration would be beneficial. In addition, we recommend that the two programs identify ways that, together, they can advertise the successes from the Coastal Partnership Initiative.

**Accomplishment:** The Office for Coastal Management applauds the partnership between the Florida Coastal Management Program and Florida Sea Grant to expand and improve implementation of the Coastal Partnership Initiative. This partnership resulted in 15 additional projects on the ground and increased support of these additional coastal communities in Florida.

The evaluation team commends the Florida Coastal Management Program's efforts to strengthen capacity and address the needs of vulnerable and underserved communities in hazard mitigation and resilience planning efforts. Such focus is encouraged to continue

particularly through the efforts of CPI and CART. CART is encouraged to continue outreach to local communities to increase the awareness of existing tools and also include additional smaller communities that have minimal opportunities to learn about coastal resilience planning and risk communication training and tools. Stakeholder feedback also indicated an opportunity for CPI members to intentionally consider justice, equity, and inclusion during regular meetings and other ongoing efforts. Lastly, through the ongoing review of coastal community comprehensive plans, the coastal program is also positioned to acknowledge those that have placed emphasis on ensuring that flood and other risks are communicated to marginalized communities most at risk from changing climate conditions and that share successful approaches with other coastal communities.

**Recommendation:** The Office for Coastal Management encourages the Florida Coastal Management Program to focus on at-risk and underserved communities and continue efforts to broaden engagement through the Coastal Partnership Initiative and the Coastal Adaptation and Resilience Tools Initiative, and explore more options to include justice, equity, diversity, and inclusion into the Coastal Partnership Initiative.

The Florida Coastal Program has taken a practical approach to planning for coastal hazards, meeting local communities where they are, and providing needed tools and resources to assist communities in planning for a number of different coastal hazards. By focusing their work and resources on advancing the work of other partners, such as the regional planning councils, the Florida Coastal Management Program has strategically aligned its resources to be of use as communities need. This approach resulted in the coastal program, through its partnership with the Florida Department of Economic Opportunity, significantly moving efforts forward to address the Peril of Flood Act (Senate Bill 1094) passed in 2015. The act directs jurisdictions that have a “Coastal Management Element” as a part of their comprehensive plans to include a redevelopment component with principles that must be used to eliminate inappropriate and unsafe development in the coastal areas when opportunities arise. With the incorporation of the Beaches Program to the Office of Resilience and Coastal Protection, this approach has also positioned the coastal program to be a leader in the implementation of the newly passed Senate Bill 178: Public Financing of Construction Projects, which prohibits certain state-financed construction projects from occurring in coastal areas without first taking certain steps to conduct a sea level impact projection study, and requires the Florida Department of Environmental Protection to develop, by rule, standards for conducting these studies.

**Accomplishment:** The Office for Coastal Management applauds the work of the Resilient Coastlines Program and 309 strategy on Adaptation Action Areas to advance the work of planning councils and other regional efforts, as well as strategic placement of resources, funding, and collaborations that have aligned to ensure implementation of the “Peril of Flood Act” (Senate Bill 1094). These strategic efforts concerning the Peril of Flood Act have moved planning and other resilience efforts forward and have positioned the Florida Coastal Management Program to be a leader in the implementation of Senate Bill 178, Public Financing of Construction Projects, which requires consideration of sea level impacts for public financing of construction projects.

Florida's coastal program is doing a lot of good work under this target area and beyond. The evaluation team would like to highlight the importance of sharing stories about the impact of the work that is being done through websites, social media, and branding and messaging campaigns. By spreading the word about the program's accomplishments in a public-facing manner, more communities and interested stakeholders will understand and appreciate the program, potentially leading to additional opportunities or even a devoted constituency supporting the program into the future.

Looking ahead, the coastal program may consider more focus on inland communities. Stakeholder input indicated there is a demand for resilience-focused efforts to plan for and mitigate climate change impacts occurring away from the immediate coast. Since the entirety of Florida is considered to be within the coastal zone, the coastal program ought to consider engaging with its networked state agency partners to identify opportunities for support and increased capacity for coastal management in inland counties around the state. Additionally, the coastal program may be well-suited to address regional-scale issues such as inland flooding due to a rising water table, wetland migration, sea water intrusion, and other widespread coastal hazards.

## **Aquatic Preserves and Water Quality Connections**

Florida's Aquatic Preserve Program began in 1975 to preserve and protect coastal and inland areas that provide important wildlife habitat and cultural and recreational opportunities to Florida residents and visitors. There are now 42 preserves that dot the landscape across the state, covering 2.6 million acres, and the program includes 230 staff, including 51 positions in the Florida Coastal Management Program, that manage these sites across four regions. The evaluation team notes that a position in the Central Office is the aquatic preserves coordinator position, recommended in the last 312 evaluation. The Aquatic Preserve Program's approach to knowledge transfer across sites and across regions have resulted in opportunities for adaptive management and the adoption of new approaches to resource management across the state. Additionally, strong mechanisms for communication among aquatic preserve managers include both in-person and virtual communication and has increased networking and information sharing of lessons learned, resource inventories, management plans, and other materials for improved management. Monthly and annual meetings are held to share ideas, and the role of the central aquatic preserves liaison in each regional office creates a streamlined information flow and a holistic management style to benefit the resources and maintain them in as much of a natural state as possible.

**Accomplishment:** The Office for Coastal Management commends and supports the ongoing work of the coastal program to administer the Aquatic Preserve Program. The Aquatic Preserve Program provides strong mechanisms for communication between managers and knowledge transfer across sites at both the preserve and regional scales to improve management efforts of Florida's natural resources within the preserves.

An example of regional collaboration and adaptive management is the Spoil Island Management Project in the Northeast region of the state, which encompasses 317 islands prone to invasive plants and high recreation use that require active management. Most of these islands are considered state submerged lands that fall under state ownership and are managed by the Aquatic Preserves Program. The project compiled the geographical location and ownership of all spoil islands and created a management plan for recreation uses, protection, and restoration. This project has helped to identify other spoil islands across the state to understand best management techniques and incorporation for sea level rise and climate change.

This work would not have been possible without the creation of regional Estuarine Research Teams. The Northeast Estuarine Research Team (NERT) was created in 2010 and is a partnership of state and federal agencies, private businesses, and nonprofits, with a goal to create healthy, thriving estuarine habitats of sufficient quantity and quality throughout northeastern Florida. The coastal program staff were key partners in getting the NERT off the ground, and in 2011 funded the creation of the Florida Estuarine Habitat Restoration Planning Guide. The guide was developed to provide natural resource managers with a standardized approach to developing comprehensive estuarine restoration projects. Following the release of the guide, the coastal program funded the NERT to develop a restoration plan for the Northeast region as a proof of concept for the guide. The NERT restoration plan has been a huge success, and during the evaluation period, the coastal program has seen the creation of a number of new Estuarine Research Teams across the state, and there is real potential for a statewide team in the future.

**Accomplishment:** The Florida Coastal Management Program is recognized for the successful fostering of a statewide nexus of regional Estuarine Restoration Teams that formed partnerships with state agencies, local community governments, and private businesses to aid in identifying and securing funding streams for restoration. The coastal program was a key partner in the Northeast Estuarine Restoration Team at its inception in 2010, and supported this effort through the development of the Florida Estuarine Habitat Restoration Planning Guide. The application of Coastal Zone Management Act funding and coastal program staff engagement has resulted in increased communication across the state and multiple regional teams.

The Florida Coastal Management Program has used Coastal Zone Management (CZM) funding to update the management plans for each of the aquatic preserves in the system. These plans were outdated, many from 1980. Using CZM funding, the coastal program developed an aquatic preserves management plan guidance document. This document resulted in management plans that are much more robust and provide more detail about the habitat features and stressors in the preserves, as well as strategic management actions to address those stressors. The coastal program is currently looking at how to build on the planning template to incorporate future change related to sea level rise and climate change. Since the creation of the management plan guidance (outside of evaluation period), all 41 preserves have begun the process of updating

their management plans, many directly supported by CZM funding. Since 2015, the coastal program has used federal funding to support the development and approval of eight management plans, and five more are continuing the process of receiving approval for their updated plans. Several external stakeholders referred to the management planning process and plans as a major accomplishment, resulting in significantly improved management of the aquatic preserves. This guidance will be particularly useful as the newest preserve, the Nature Coast Aquatic Preserve (no. 42), begins the process to develop its first management plan.

**Accomplishment:** The Florida Coastal Management Program is recognized for its efforts to update aquatic preserve management plans using a consistent approach that allows these plans to better identify and address stressors affecting each preserve. Since 2015, the program has used Coastal Zone Management Act funding to support the development and approval of at least eight aquatic preserve management plans, and an additional five are continuing the process of receiving approval for their updated plans.

The monitoring and maintenance of water quality is a critical element of the aquatic preserve management programs, and good water quality is not only a management goal of the preserves, it is inextricably linked to the health and success of the variety of coastal habitats and species that are protected by the program. Many of the factors and land-based sources of pollution that influence water quality in the aquatic preserves do not originate within the preserves themselves. Taking a watershed approach to the management of land-based pollutants that affect aquatic, coastal, and marine resources across the aquatic preserves, including sediments, toxins, nutrients, and the timing, quantity, and quality of freshwater releases, would allow Florida's coastal managers to both identify and address the various pollutant sources that originate in the watersheds associated with individual preserves and negatively impact the health of the natural resources within the preserves. The evaluation team notes the Florida Coral Reef Conservation Program has been conducting watershed scale planning efforts in Southeast Florida and these efforts may be applicable to watershed scale planning for aquatic preserves.

The recent management plan updates were a big accomplishment for the coastal program. During the next round of management plan updates, the program may consider including specific activities concerning watershed-level planning efforts in future preserve management plans and may even add this component into the management planning guidance document to ensure that impacts from the broader watershed are acknowledged in the plans for the preserves. A similar recommendation to consider watershed scale issues as they relate to the aquatic preserves was raised in the previous evaluation and is still relevant.

**Recommendation:** The Office for Coastal Management recommends that the Florida Coastal Management Program engage in broader watershed-level planning and management efforts to reduce land-based sources of pollution from watersheds associated with aquatic preserves and support healthy water quality within the preserves. This includes increased coordination with Water Management Districts and any watershed management plans within the sphere of influence that impact the aquatic preserves.

The Statewide Ecosystem Assessment of Coastal and Aquatic Resources, or SEACAR, is an ambitious program that brings together the disparate data sets and monitoring protocols collected by a variety of state agencies and academic institutions into a platform where the data can be more easily used to guide management decisions. The collaborative process brought together scientists, resource managers, planners, and policy makers from over 70 organizations to identify the best-available science and guide the assessment process, and several of those stakeholders mentioned that this collaborative process was the real accomplishment of the SEACAR process. The work carried out by the Florida Coastal Program advances the value of water quality monitoring programs and has been noticed at the national level. According to external stakeholders, a number of other entities have taken notice of what the SEACAR project is accomplishing, including the National Park Service in its California and Southeast Coastal Units, which are using this process to inform their own assessment of their efforts. Additionally, collaborators have remarked about the impressive amount of work that has been done by a relatively small team. Using the model of the System Wide Monitoring Program of the National Estuarine Research Reserve System, Florida was able to complete in 18 months what the national program took five years to accomplish. Having the SEACAR program and the Data Discovery Interface (DDI) tool will be instrumental in setting up the new Nature Coast Aquatic Preserve.

**Accomplishment:** The Office for Coastal Management commends the Florida Coastal Management Program's work on developing the Statewide Ecosystem Assessment of Coastal and Aquatic Resources, which has greatly enhanced stakeholder engagement across the state on data collection for management of Florida's managed resources. The resulting process, as well as the Data Discovery Interface tool, have made a significant impact on the availability and interpretation of the status and trends of coastal resources in Florida. As a result of the program, state resource management agencies are better positioned to be able to use the data to inform management decisions.

The value of the Aquatic Preserves to the Florida coastal zone cannot be understated, and ensuring that they have the resources they need to continue to operate is important. Under the current funding scenario, ongoing management and administration of the aquatic preserves are publicly funded through a combination of state and federal funding. The program ought to continue to engage in long-term planning for the distribution of CZM resources across the aquatic preserves as well as identify other sources of long-term sustainable funding to supplement the CZM funding to ensure continued successful operations. Also, the evaluation team suggests improved internal communications in order to leverage surplus CZM funding when available and to reduce the administrative burden of post-award actions. To do this effectively, NOAA encourages good communication within and among staff from the preserves to Tallahassee regarding needs and emerging issues that require more support. Relatedly, stakeholder feedback acknowledged the dedication and high quality of work from the aquatic preserves staff, but noted that turnover within the staff at the preserves can often have a negative impact on partnership efforts between the preserves and other entities, and that this

turnover is often caused by higher-paying opportunities elsewhere. [*See earlier recommendation.*]

The evaluation team recognizes the impact that CZM dollars have on the implementation of the aquatic preserves, and encourages the Florida Coastal Management Program, in conjunction with all of the programs within the Office of Resilience and Coastal Protection, to identify additional long-term and reliable sources of funding in order to support the management of the entire system of preserves. In 2011, state budget cuts resulted in significant personnel and programmatic losses in many aquatic preserves, which impacted the effectiveness of affected sites and the network to monitor the status of natural resources and implement management programs. To prevent future closures or interruptions of programs run within the preserves, the development of sustainable finance plans can provide insight into alternative options for supporting costs associated with the implementation of the aquatic preserve system. These plans are designed to diversify the financing portfolio so that future funding shortfalls from public sources will not result in the termination of program functions, and to provide more stability and continuity to management programs. Such a plan would identify relevant and appropriate financing strategies for the aquatic preserve system and could include a variety of approaches such as the marketing of visitor experiences, sustainable tourism opportunities, and user fees, among others.

**Recommendation:** The Office for Coastal Management recommends that the Florida Coastal Management Program develop a sustainable financing plan for the aquatic preserves network to identify long-term and reliable sources of funding and to diversify funding sources that support management of the aquatic preserves. This is especially timely, considering the establishment of the new Nature Coast Aquatic Preserve and the funding needs for management plan development and implementation.

## Evaluation Metrics

Beginning in 2012, state coastal management programs began tracking their success in addressing three evaluation metrics specific to their programs. The evaluation metrics include a five-year target and provide a quantitative reference for each program about how well it is meeting the goals and objectives it has identified as important to the program. In 2018, coastal programs began a new five-year period and set targets specific to their programs for the coastal hazards performance measure and two additional performance measures from the Coastal Zone Management Performance Measurement System.

### SET 1: 2012-2017

#### METRIC 1

**Goal:** Integrate sea level rise adaptation into hazard mitigation and land use planning in Florida.

**Objective:** Develop guidance materials that are incorporated by local governments into existing planning and development framework and activities.

**Strategy:** The approach for meeting this goal and target is in the Florida Coastal Management Program's 2011-2016 309 Strategy Community Resiliency: Planning for Sea Level Rise. Develop guidance materials to assist local governments in incorporating sea level rise adaptation recommendations and policies into existing planning and development frameworks and activities. Guidance materials are to include information related to planning horizons, sea level rise projections, example adaptation projects for local governments, funding resources, and vulnerability assessment tools and methodologies, as well as how sea level rise adaptation can be integrated with the following topics: Comprehensive Planning, Hazard Mitigation/Local Mitigation Strategy, Historical Preservation, Environmental Planning, Economic Development, Stakeholder Engagement Techniques, Floodplain Management and the National Flood Insurance Program Community Rating System, and Redevelopment. To facilitate the development of guidance materials, the state will form a statewide focus group composed of relevant public and private stakeholders; form a state agency sub-group; and work with at least three Adaptation Pilot Communities to develop vulnerability assessments and adaptation plans and share subsequent lessons learned.

**Performance Measure:** By 2017, number of communities that have completed a vulnerability assessment and adaptation plan as part of the 309 Strategy Community Resiliency: Planning for Sea Level Rise.

**Target:** By 2017, 3 communities have completed a vulnerability assessment and adaptation plan as part of the 309 Strategy Community Resiliency: Planning for Sea Level Rise.

#### Results:

First Year: 0

Second Year: 0

Third Year: 1

Fourth Year: 3

Fifth Year: 8

**Discussion:** A total of 12 communities completed a vulnerability assessment and adaptation plan during the performance period ending in 2017. This far exceeded the target of 3 communities set by the coastal program and shows that the approach was highly successful. NOAA encourages the program to share the lessons learned across the state as additional communities continue to develop adaptation plans to prepare for sea level rise impacts.

## **METRIC 2**

**Goal:** Local initiatives that promote the protection and effective management of Florida's coastal resources.

**Objective:** By 2017, 20 projects will be completed by eligible local governments from one of the four Florida Coastal Management Program priority areas: Working Waterfronts, Resilient Communities, Coastal Stewardship, or Public Access.

**Strategy:** The Florida Coastal Management Program Coastal Partnership Initiative grant program was developed to promote the protection and effective management of Florida's coastal resources at the local level. Eligible local governments can apply for small grants to complete projects focused on one of four program priority areas: Working Waterfronts, Resilient Communities, Coastal Stewardship, or Public Access. The Florida Coastal Management Program plans to provide funding for at least four projects on average annually for the next five years. Funding from the Florida Coastal Management Program is anticipated to be approximately \$150,000 per year.

**Performance Measure:** An average number of priority projects completed by eligible local governments per year as a result of financial assistance from the Florida Coastal Management Program, over the five-year reporting period.

**Target:** An average of four priority projects completed by eligible local governments per year as a result of financial assistance from the Florida Coastal Management Program, over the five-year reporting period.

### **Results:**

First Year: 9

Second Year: 18

Third Year: 10

Fourth Year: 10

Fifth Year: 10

**Discussion:** A total of 57 projects were completed through the financial assistance of the Florida Coastal Management Program's Coastal Partnership Initiative. Again, the coastal program far exceeded their initial target of 4 projects for the performance period ending in 2017. The Coastal Partnership Initiative has grown to be a successful program that has partnered with Florida Sea Grant, which has allowed an additional 15 projects to be funded during the current evaluation period (2015-2020).

### **METRIC 3**

**Goal:** Protect and enhance the ecological integrity of the aquatic preserves; restore areas to their natural condition; and encourage sustainable use and foster active stewardship by engaging local communities in the protection of aquatic preserves.

**Objective:** By 2017, 15 aquatic preserve management plans will be completed that will focus on community outreach and stewardship, adjacent land uses and conservation, public access and use, water resource monitoring, water quality and habitat impacts.

**Strategy:** The approach for meeting this goal and target is in Florida Coastal Management Program's 2011-2016 309 Strategy Aquatic Preserve Management Plan updates.

**Performance Measure:** Number of aquatic preserve management plans approved by the Acquisition and Restoration Council annually as a result of financial assistance from the Florida Coastal Management Program over the five-year reporting period.

**Target:** Three aquatic preserve management plans approved by the Acquisition and Restoration Council annually as a result of financial assistance from the Florida Coastal Management Program over the five-year reporting period.

#### **Results:**

First Year: 0

Second Year: 0

Third Year: 1

Fourth Year: 3

Fifth Year: 7

**Discussion:** A total of 11 aquatic preserve management plans were completed (averaging 2.2 per year). At the end of the performance period, the coastal program did not succeed in meeting the target, however the clear trend over time showed an increasing number of plans that were completed each year. This work continued beyond 2017, earning the coastal program an accomplishment in these findings for completing updates for eight additional plans since 2015 with five more currently underway. Relatedly, the coastal program updated the plans to be more actionable by using their guidance document which called to provide more detail about the habitat features and stressors in the preserves, as well as identifying strategic management actions to address those stressors.

### **SET 2: 2018 - 2023**

#### **METRIC 1**

**Goal:** Continue to assist and provide guidance to local communities regarding adaptations to coastal hazards and support state initiatives to incorporate vulnerability analysis and adaptation planning into their comprehensive plans, local ordinances, and other planning documents.

**Objectives:** Local governments utilize guidance developed to incorporate sea level rise adaptation recommendations and policies in their local comprehensive plans, local mitigation strategies, local post-disaster redevelopment plans, beach or floodplain management plans, local adaptation strategies, economic development strategies, or land development regulations.

**Strategy – Coastal Community Resiliency and Adaptation to the Effects of Coastal Hazards:**

Projected sea level rise impacts threaten to exacerbate the vulnerability of Florida’s at-risk coastal communities and natural resources. Adapting to and mitigating sea level rise impacts will require that sea level rise be incorporated into all levels of hazard mitigation and land use planning in Florida. The state will help local governments in the coastal zone incorporate sea level rise adaptation recommendations and policies developed through the Community Resiliency: Planning for Sea Level Rise 309 Strategy process into their comprehensive plans, ordinances, or other planning documents. The Office of Resilience and Coastal Protection has taken the initiative to spearhead the Florida Resilient Coastlines Program. With strong support from the Florida Legislature, the Office of Resilience and Coastal Protection has a state-funded resilience administrator and project funding separate from the Coastal Zone Management Program grant.

The Florida Coastal Management Program anticipates a) 0 state-level policies and plans completed; b) 10 local-level policies and plans completed; c) 0 projects completed at the state level; and d) 10 projects completed at the local level to reduce future damage from coastal hazards, with assistance from Coastal Zone Management Program funding or staff.

The target reflects that a larger effort is being applied to this activity that is funded directly from state funds and by the Coastal Zone Management Program. The target may need to be refined depending upon the direction of a new state administration.

**Performance Measure:** From 2018 to 2023, number of a) state-level policies and plans completed; b) local-level policies and plans completed; c) projects completed at the state level; or d) projects completed at the local level to reduce future damage from coastal hazards with assistance from Coastal Zone Management Program funding or staff.

**Target:** From 2018 to 2023, a total of 20 a) state-level policies and plans completed; b) local-level policies and plans completed; c) projects completed at the state-level; or d) projects completed at the local level to reduce future damage from coastal hazards with assistance from Coastal Zone Management Program funding or staff.

**Results:**

First Year: 0

Second Year: 4 (4 local projects)

Third Year: –

Fourth Year: –

Fifth Year: –

**Discussion:** Performance information from 2018-2020 shows that four local projects have been completed. The Florida Resilient Coastlines Program, which originally came from initial Coastal Zone Management 309 funding, is now a fully funded state program and is poised to fund future projects. More engagement may be needed to see movement with local level policy-making and planning activities. NOAA encourages ongoing dialogue at the local level to move planning and policy actions forward to meet the target for this metric by 2023.

## **METRIC 2**

**Goal:** Share knowledge, inform network partners and the public, provide users with the knowledge and skills to sustainably use coastal resources, act to improve the coastal environment, and develop and implement the policies necessary to create an atmosphere of resilience in both the natural and built coastal areas.

**Objective:** Continue to improve and nurture relationships between agencies, nongovernmental organizations, stakeholders, businesses, users, upland property owners, the coastal urban interface, and other people with an interest in Florida’s coastal environment through participation in synergistic interaction and participation in development and implementation of coastal initiatives.

**Strategy – Coastal Management Training and Coordination:** Florida Coastal Management Program makes a significant investment in funding and facilitating coastal training and coordination. Activities such as the Coastal Manager’s Forum, Annual Meeting, resilience training, cross coordination with other regional and national coastal initiatives are a significant part of the Florida Coastal Management Program. The emphasis of these training events on cross coordination, training, and idea sharing multiplies the effectiveness of Office of Resilience and Coastal Protection programs. These trainings are the statewide offerings of the Florida Coastal Management Program. The target numbers reflect our focused activities and additional emphasis on resilience. The growth in resilience activity is funded by non-Coastal Zone Management Program funding; therefore, that portion of the activity is not counted in the metric.

The following performance measures in the CZMA Performance Measurement System will count towards these measures:

4. Number of training events related to government coordination offered by the Florida Coastal Management Program.
5. Number of training events related to coastal dependent uses and community development offered by the Florida Coastal Management Program.
7. Number of training events related to public access offered by the Florida Coastal Management Program.

12. Number of training events related to coastal hazards offered by the Florida Coastal Management Program.

**Performance Measure:** From 2018 to 2023 the number of training events related to government coordination, public access, coastal hazards, and community development offered by the Florida Coastal Management Program through the Office of Resilience and Coastal Protection.

**Target:** From 2018 to 2023, 35 training events related to government coordination, public access, coastal hazards, and community development will be offered by the Florida Coastal Management Program.

**Results:**

First Year: 12

Second Year: 16

Third Year: –

Fourth Year: –

Fifth Year: –

**Discussion:** During the first two years, the Florida coastal program held 28 training opportunities. With only seven more trainings needed to achieve the target of 35, it appears that the program is in a good position to easily achieve the target by 2023, despite the obstacles that may come up due to the COVID-19 pandemic. When possible, the Florida coastal program may consider offering training through virtual platforms to maintain connections with the communities across the state while in-person training options are not possible.

**METRIC 3**

**Goal:** Share knowledge, inform network partners and the public, provide users with the knowledge and skills to sustainably use coastal resources, act to improve the coastal environment and develop and implement the policies necessary to create an atmosphere of resilience in both the natural and built coastal areas.

**Objective:** Continue to improve and nurture relationships between agencies, nongovernmental organizations, stakeholders, businesses, users, upland property owners, the coastal urban interface, and other people with an interest in Florida’s coastal environment through participation in synergistic interaction and participation in development and implementation of coastal initiatives.

**Strategy – Coastal Areas of Special Management Training and Coordination:** The Florida Coastal Management Program makes a significant investment in funding and facilitating coastal training and coordination. Coastal Habitat training, environmental education, and interagency coordination at Aquatic Managed Areas are important training efforts that occur along with the Florida Coastal Management Program coastal training and coordination. The emphasis of these

training events is on natural resource stewardship, increasing knowledge of the environment, training citizen scientists and volunteers, and requisite safety training.

**Performance Measure:** From 2018 to 2023 the number of training events related to Coastal Habitat offered by the Florida Coastal Management Program.

**Target:**

From 2018 to 2023, 40 training events related to Coastal Habitat offered by the Florida Coastal Management Program.

**Results:**

First Year: 2

Second Year: 0

Third Year: –

Fourth Year: –

Fifth Year: –

**Discussion:**

During the first two years of the performance period for these metrics, the program has held two of the 40 training sessions needed to meet the target set for 2023. Over the past two years, the program has undergone significant change in personnel and a reorganization within the Department of Environmental Protection, which may explain why the contributions measured to date remain low. The program should work with its site liaison to make sure that trainings that are valid contributions for this measure are being counted annually and, if necessary, there is a process to adjust the 2023 target to a lower value, which should be done in conjunction with the site liaison's support.

## Conclusion

For the reasons stated herein, I find that the Florida Department of Environmental Protection is successfully implementing and enforcing its federally approved coastal management program, adhering to the terms of the federal financial assistance awards, and addressing coastal management needs identified in section 303(2)(A) through (K) of the Coastal Zone Management Act.

These evaluation findings contain six recommendations. Recommendations must be considered before the next regularly scheduled program evaluation but are not mandatory at this time. Recommendations that must be repeated in subsequent evaluations may be elevated to necessary actions.

This is a programmatic evaluation of the Florida Coastal Management Program that may have implications regarding the state's financial assistance awards. However, it does not make any judgment about or replace any financial audits.

*signed by Jeffrey L. Payne*  
Jeffrey L. Payne, PhD  
Director  
NOAA Office for Coastal Management

*dated December 17, 2020*  
Date

## Appendix A: Written Comments

### Holly Binns, The Pew Charitable Trusts

Comments received are favorable and support the work of the Florida Coastal Management Program and NOAA is encouraged to continue to provide support to the coastal program. Comments specific to the focus areas of the evaluation are detailed below.

#### Coastal Hazards:

Pew commends the coastal program for playing a leadership role in supporting community resiliency through research, policy guidance and training. The program was also recognized for leveraging its networked program to hold the first statewide workshop and networking event on resilience—“Resilient Florida: Planning, Policy and Practice.” Pew recommends nature-based solutions to advance resilience that include protection and restoration of salt marsh, mangroves, oysters, and corals. Pew is particularly supportive of salt marsh protection to bolster resiliency to coastal hazards, and the use CZM tools such as special area management plans as they have with the Aquatic Preserves Program to ensure that intact marshes across the state have room for inland migration due to sea level rise. Pew also has been involved with SEACAR and suggests the coastal program build off of the considerable work already undertaken by helping communities use SEACAR data and tools. Pew suggests Apalachicola Bay and the new Nature Coast Aquatic Preserve as good pilot areas for developing resilience and adaptation plans using SEACAR data.

#### Aquatic Preserves:

Pew commends the coastal program for updating the management plans for many of the state’s aquatic preserves, noted the robust stakeholder participation opportunities and encourages continued efforts to bolster public education, outreach and stakeholder engagement. They support the Florida Coastal Water Quality Assessment and Integration Project to understand and manage water quality impacts in the preserves, and remarked that the newly-designated Nature Coast preserve provides an ideal opportunity to apply this information as well as develop an effective and efficient water quality and seagrass monitoring program. Pew notes that the enforceable policies related to the coastal program’s federal consistency program could be strengthened to reflect existing management the state employs, so that federal agencies receive the clearest guidance on how Florida manages their valuable coastal resources.

**NOAA Office for Coastal Management Response:** The Office for Coastal Management thanks Ms. Binns for her comments.