

Final Evaluation Findings

Florida Coastal Management Program

September 2007 to July 2015

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Executive Summary

The Coastal Zone Management Act requires the National Oceanic and Atmospheric Administration (NOAA) to conduct periodic evaluations of the performance of states and territories with federally approved coastal management programs. This evaluation examined the operation and management of the Florida Coastal Management Program administered by the Florida Department of Environmental Protection, the designated lead agency, for the period from September 2007 to July 2015. The evaluation focused on three target areas: coastal resilience and coastal hazards, aquatic preserves, and communications, engagement, and networking.

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

Accomplishment: The Florida Coastal Management Program has demonstrated leadership in supporting the Community Resilience Initiative implemented by the Department of Economic Opportunity. This initiative has produced an array of adaptation planning guidance for Florida coastal communities that will serve as the basis for policy action in the future. The Office for Coastal Management acknowledges the value of the tools and guidance documents and encourages the Florida Coastal Management Program to promote implementation of these approaches throughout the state.

Accomplishment: Many Florida communities, including six pilot communities (Hillsborough County, Sarasota County, Polk County, Manatee County, Nassau County, and Panama City), have adopted post-disaster redevelopment plans. These plans are based on the *Post-Disaster Redevelopment Planning* guide created by the Department of Economic Opportunity and the Division of Emergency Management and funded in part by the Florida Coastal Management Program. The guide provides a planning roadmap that encourages vulnerable communities to prepare for disasters. This represents a tremendous example of local adoption of statewide guidance. Implementation of plan recommendations is promoted through an excellent video that offers an overview of how communities can and should execute their plans.

Accomplishment: The NOAA Office for Coastal Management acknowledges the strategic approaches and sound investments that are being used effectively to target restoration at aquatic preserves in order to maintain or enhance critical species such as native oysters and submerged aquatic vegetation beds.

Accomplishment: Staff members at the Florida aquatic preserves are dedicated, enthusiastic, and competent strategic thinkers. Science to management integration is strong within and among many of the preserves and, where feasible, these models should be replicated for all preserves. Community engagement was also evident for those aquatic preserves where interviews were conducted.

Accomplishment: *Coastal Currents* is a well-designed and formatted messaging tool providing the compelling stories behind many projects carried out by the Florida Coastal Office.

Accomplishment: Both the Beach Access Guide and Rip Tide Awareness campaigns are effective outreach tools that foster deeper relationships with key drivers of economic activity in Florida, including the real estate and recreation and tourism industries.

Recommendation: The NOAA Office for Coastal Management encourages the Florida Coastal Management Program to invest in more detailed economic valuations of ecosystem services (e.g., nonmarket values for the aquatic preserves) and to deepen coordination with state partners, academic institutions, and nongovernmental organizations to develop actionable economic studies that better inform land use, coastal resource use, and conservation decisions.

Recommendation: The NOAA Office for Coastal Management recommends that the Florida Coastal Management Program initiate and lead a dialogue among its network partners to assess current implementation of state laws and policies related to coastal community resilience. One of the purposes of the dialogue would be to determine if current practices could be improved to reduce coastal community vulnerabilities to coastal hazard risks related to erosion, sea level rise, and the impacts of coastal storms.

Recommendation: The NOAA Office for Coastal Management recommends that the Florida Coastal Office further strengthen the aquatic preserve system through enhanced statewide systematic procedures. Examples include the following:

- ✓ Standardize and normalize approaches for data collection, ecosystem monitoring, and programmatic functions either across the state or regionally.
- ✓ For the purpose of managing actions in the watershed that could negatively affect coastal resources within aquatic preserve boundaries, explore the relationship between the habitat quality of submerged lands with upstream watershed and groundwater systems.
- ✓ Continue to work closely with the water management districts and nongovernmental entities as key strategic partners in these endeavors.
- ✓ Evaluate the creation of an aquatic preserves coordinator position within the Florida Coastal Office to serve as state coordinator for all preserves.
- ✓ Evaluate strategic partnerships with nongovernmental organizations to sustain the aquatic preserves.

Recommendation: Improve visibility and awareness of the Florida Coastal Management Program by considering the following actions:

- ✓ Use the Florida Coastal Management Program brand at state and regional meetings.
- ✓ Promote the Florida Coastal Management Program brand to target audiences, using social media where appropriate.
- ✓ Expand distribution of *Coastal Currents*, including a web-based version that can be shared.

- ✓ Expand the use of Section C success stories in grant performance reports to highlight Coastal Partnership Initiative projects and Section 309 projects.
- ✓ Invite grant recipients (e.g., network partners, local governments) to develop success stories.
- ✓ Evaluate the use of abbreviated, intermediate program updates using electronic media between distribution dates for *Coastal Currents*.

Necessary Action: To meet NOAA requirements and improve visibility and awareness of the Florida Coastal Management Program, the Florida Coastal Management Program must immediately strengthen enforcement of the logo policy for all funded projects.

Recommendation: To build off of the momentum of the Coastal Managers Forum, the NOAA Office for Coastal Management supports the creation of an annual coastal partner's symposium that brings together network partners, local governments, state agencies, and other relevant stakeholders. Such a symposium could be rotated throughout the state's regional geographies.

This evaluation concludes that the Florida Coastal Management Program is satisfactorily 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 fiscal year 2015. The evaluation team consisted of John Kuriawa, evaluation team lead; Hank Hodde, site liaison; Todd Davison, regional director for the Southeast, and Barbara Neale, state representative from South Carolina. The evaluation team worked with the Florida Coastal Management Program staff members to conduct the evaluation.

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 May 27, 2015, and notified members of Florida’s congressional delegation. The coastal management program posted a notice of the public meeting and opportunity to comment in the *Florida Administrative Register* on July 1, 2015, and in the *Tallahassee Democrat* on June 1, 2015.

The evaluation process included a review of relevant documents, a survey of stakeholders, the selection of three target areas, and discussions with staff members and stakeholders about the target areas. In addition, a public meeting was held on July 15, 2015, at 4:00 p.m. Eastern time at the Florida Coastal Office, Department of Environmental Protection, Douglas Building, Conference Rooms A & B, 3900 Commonwealth Boulevard, Tallahassee, FL 32399 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 the opportunity to provide written comments. No written comments were received. NOAA then developed draft evaluation findings, which were provided to the coastal management program for review, and the program’s comments were considered in drafting the final evaluation findings.

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

Necessary Actions address programmatic requirements of implementing regulations of the Coastal Zone Management Act and of the state coastal management program approved by NOAA. 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 the Coastal Zone Management Act §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 Office, with the Department of Environmental Protection, continues to successfully implement the federally approved Florida Coastal Management Program. During this evaluation time frame, the Florida Department of Environmental Protection has instituted a major organizational realignment integrating the Florida Coastal Management Program into the Florida Coastal Office (formerly the Office of Coastal and Aquatic Managed Areas), which includes the aquatic preserves system and the national estuarine research reserves. This merger has resulted in an increased focus on coastal resilience through strategic partnerships with state agencies and local governments. The integration of place-based habitat protection programs is having a positive effect thus far for coastal management coordination both in terms of internal coordination among staff and external communication to the public.

The coastal program has demonstrated leadership in addressing challenging coastal management issues such as community post-disaster planning, sea level rise, mitigation of coastal flood risks, habitat restoration, and improving public access and safety. Stakeholders and interview participants lauded the program for positive contributions to statewide coordination efforts, effective use of staff expertise, and fostering cooperation and partnerships. Challenges noted during the evaluation included influencing policy change, communicating program results, and ensuring engagement of local elected officials and state decision makers, especially with regard to issues associated with sea level rise and coastal development. The Florida Coastal Management Program is effectively using Section 309 Coastal Zone Management Act funds to maintain a focus on coastal resilience and management of coastal and aquatic areas. Further, the coastal program's Coastal Resilience Initiative can be viewed as a national model to assess vulnerability and promote adaptation planning at the community level as evidenced by two competitively awarded "projects of special merit" during this evaluation period designed to address community needs related to understanding and planning for coastal hazards.

Coastal Resilience and Coastal Hazards

The Florida Coastal Management Program has focused on community resilience primarily through the Community Resilience Initiative, managed by the Florida Department of Economic Opportunity, and statewide efforts to protect and restore coastal habitats. The Community Resilience Initiative relies on three main strategies to increase coastal resilience and reduce the impacts of coastal hazards: protection, including shoreline armoring and beach renourishment; accommodation, including changes in building elevation and stormwater improvements; and retreat, including removal of existing development and possible relocation. Facilitating new ways of planning to address these strategies has been both an ongoing effort and a great success of the program. Two examples of retreat are the movement of Highway 1 in Broward County and the relocation St. Joe Lighthouse.

The State of Florida has also been a national leader in the adoption of policies that reduce the vulnerability of coastal populations, such as the adoption of the International Building Code and the formation of the Southeast Florida Regional Climate Compact. However, Florida continues to face challenges in balancing coastal development with coastal resource protection, particularly with regard to construction in and adjacent to beaches, dunes, mangroves, and tidal wetlands. Details of the ways by which the Florida Coastal Management Program is supporting resilient coastal community development are noted in this section.

Adaptation Action Areas

In 2011, the Florida state legislature passed the landmark Community Planning Act. The act implemented the most sweeping change to Florida's growth management laws since the passage of the 1985 Local Government Comprehensive Planning and Land Development Regulation Act. The Community Planning Act permits a local government with a Comprehensive Plan coastal management element to include a plan for sea level rise impacts. Specifically, this adaptation planning allowance provides local governments with the option of developing an adaptation action area designation with associated policies for those coastal zones vulnerable to rising sea levels in order to inform prioritization of funding to improve resilience. In addition, with regard to community planning, the state has adopted a new "redevelopment component" in the coastal management element of comprehensive plans that permits communities to reduce flood risk, including sea level rise-related impacts. By this means, local units of government can identify geographic areas within the coastal management element of their local government comprehensive plan that are experiencing coastal flooding due to extreme high tides and storm surge, and those geographies vulnerable to the related impacts of rising sea levels. The designation also allows for the prioritizing of funding for infrastructure needs and adaptation planning. As an example, the City of Fort Lauderdale has adopted adaptation action-area policies to meet its climate resilience, sea level rise, and natural resource protection goals. These include investing in infrastructure, drainage systems, bridges, roads; protecting assets from inclement weather and high tides; and managing increased water supply demands. See the example below for additional details.

Much of the resilience policy development has been made possible through funding from NOAA via grants from the Florida Department of Environmental Protection and the Florida Department of Economic Opportunity. As a result, the South Florida Regional Planning Council, Broward County, and the City of Fort Lauderdale collaborated to research adaptation action-area implementation strategies and adopt new science-based policies. Following completion and fulfillment of the City of Fort Lauderdale grant in December 2014, the city adopted adaptation action area policies and objectives as part of the comprehensive plan coastal management element and administration element. To implement adaptation policy, the city designated 16 adaptation action areas and identified 38 projects for funding in the city's Community Investment Plan that will reduce current and future flood risk.

Coastal Resilience Initiative

To address national Coastal Zone Management Act goals, the Coastal Resilience Initiative began as a focal area of the successful Coastal Partnership Initiative grants program in 2010 and was further strengthened through the Community Resiliency: Planning for Sea Level Rise Section 309 Strategy that began in 2011. The Office for Coastal Management supported continued investment in the overall Coastal Partnership Initiative in the last evaluation findings and strongly encouraged the Florida Coastal Management Program to find ways to strengthen the program and to play a strong role in identifying funding priorities. The Coastal Resilience Initiative accomplishes both of these recommendations through a results-oriented partnership with the Department of Economic Opportunity.

The Office for Coastal Management commends the state for developing Section 309 strategies that will continue to enhance coastal resilience and recommends fully implementing the final adaptation action strategies of the 2016-2020 Coastal Zone Management Act Section 309 Assessment and Strategy document approved by NOAA on December 17, 2015. These strategies are designed to integrate resilience planning and design practices into local planning, development, and investment decisions, especially at the local level. The Office for Coastal Management encourages the Florida Coastal Management Program to continue to lead efforts that take advantage of the array of guidance documents and planning practices developed over the last five years through local implementation.

The 309-supported Community Resilience Initiative has served as the foundation for coordination, analysis, and implementation of adaptation and resilience planning for select coastal communities in Florida. Part of the initiative was the formation and facilitation of the statewide Community Resilience Focus Group, which is made up of resilience-related experts from local governments, state and federal agencies, regional planning bodies, nongovernmental organizations, and universities. The Office for Coastal Management recommends the continuance of this group, as it has proven useful to inform the Department of Economic Opportunity's efforts and to foster collaboration. While also useful and sometimes more tangible in nature, there have been Coastal Partnership Initiative projects that have had less lasting impacts for the coastal environment, such as those used to provide small amounts of funding to local governments for small construction projects or new signage. The Office for Coastal Management views the longer lasting policy changes, while difficult to achieve, as preferential to the one-time projects, but recognizes that a balance between the project types is most appropriate.

Through the suite of resilience-oriented efforts offered to local governments, the state has determined that the following factors can be important precursors to change at the community level: 1) very informed citizenry, 2) a more progressive voter base, 3) specific events that demonstrate local vulnerability, and 4) local leadership. For example, the town visioning dubbed "Fast Forward Ft. Lauderdale" brought to life community interest in resilience by engaging citizens and fostering participation in adaptation planning.

The foundational guidance for and awareness of coastal hazards developed by the Department of Economic Opportunity under the auspices of the Coastal Resilience Initiative affords a great opportunity to move toward direct implementation of practices that increase resilience both in the policy realm and in engineering and building design. So the next step for local communities is adaptation action. The new Coastal Zone Management Act Section 309 strategy developed in partnership with the Office for Coastal Management outlines specific projects to foster the adoption of adaptation practices at the local level. Two interrelated goals for the Section 309 strategies are to provide a suite of options and tools communities can choose from, and to have the pilot communities serve as models to see what is successful and relevant across a diversity of communities. These projects are also expected to develop better estimates of costs and benefits of local adaptation action, and more highly refined local data to assess flood risk. Building the capacity of governments and regional planning councils to use tools and models will also be crucial to achieve these goals.

Reducing Coastal Community Vulnerabilities

The Office for Coastal Management recognizes that significant, high-value coastal infrastructure exists throughout the state's coastal zone, providing direct connection to the rivers, bays, estuaries, and oceans of the state and driving residential, commercial real estate development and tourism, and that such infrastructure can be sited in areas vulnerable to coastal hazards. The issue is especially evident on highly developed shorelines and in floodplains where infrastructure can be exposed to the hazards of coastal storms, high winds, inundation events, tidal fluctuations, erosion, and sea level rise. As with coastal development throughout the United States, a wide array of federal, state, and local policies and decisions come into play in the siting and design of development along the Florida coastline.

In consideration of recent academic literature in Florida, stakeholder survey input, and the 312 evaluation site visit, the Office for Coastal Management noted opportunities to formulate a broader dialogue with network partners regarding the long-term resilience of coastal community infrastructure. Issues that could be assessed in collaboration with network partners include, but are not limited to, the uncertainty of sea level rise estimations; evaluating time frames being used in state, local, and regional planning and policy guidance documents to ensure the planning horizons are compatible with longer-term changes in coastal systems; the potential to integrate coastal and floodplain management practices through the Community Rating System; and clarification of permitting criteria within coastal use oversight programs. While stakeholders have offered specific recommendations to address perceived issues, the Office for Coastal Management recommends that the Florida Coastal Management Program begin with a networked dialogue designed to gauge the effectiveness of current coastal laws, policies, and authorities to achieve the balance of development that is resilient to coastal hazards.

Considering Economic Valuation

Economic valuation information is a key driver for connecting coastal management issues to local elected officials and local government staff members, since monetizing the costs and benefits of decisions allows for measurement and comparison. Using economic data and models to estimate the value of adaptation measures or coastal habitat protection can shed light on how specific coastal management decisions will influence jobs, public safety, tourism revenues, and quality of life issues. For example, the Office for Coastal Management found a study conducted by the Tampa Bay National Estuary Program showing that one in five jobs in the Tampa Bay area is directly linked to a healthy bay. Such research can be informative on its own and provide the means to conduct more in-depth analyses of difficult decisions that elucidate the full suite of the benefits and costs of various scenarios, which likely impact both the local economy and the local environment. Given the importance of providing economic valuation information to local decision-makers, the Office for Coastal Management encourages the Florida Coastal Management Program to work closely with its networked partners to explore state-specific economic valuation tools and studies to inform topical coastal management decisions, particularly those related to community resilience and the protection of coastal habitats.

EXAMPLE: *Project of Special Merit in Fort Lauderdale/Broward County Adaptation Action Area Pilot.*

In May 2012, the Florida Department of Economic Opportunity received funding for a National Oceanic and Atmospheric Administration Section 309 Project of Special Merit (NA12NOS4190028). The department used the funds to expand a project underway entitled “Community Resiliency: Planning for Sea Level Rise” to include guidance to local governments for developing adaptation action areas. The City of Fort Lauderdale was chosen to serve as the pilot community. An “adaptation action area,” or adaptation area, is an optional comprehensive plan designation for areas that experience coastal flooding and that are vulnerable to the related impacts of rising sea levels for the purpose of prioritizing funding for infrastructure needs and adaptation planning.

The project team first conducted research to develop a list of all policies and options for adaptation action areas, which would provide governments with language that they could incorporate into their comprehensive plans. A bibliography of research, including links where appropriate, was also created. Finally, the Department of Economic Opportunity produced the “Adaptation Action Areas: Policy Options for Adaptive Planning for Rising Sea Levels” report. The report contained discussion of planning tools and a table of more detailed policy options to implement the tools. This report was then used by the City of Fort Lauderdale to begin mapping the planning policies to their comprehensive plan. The first public meeting in the City of Fort Lauderdale regarding the adaptation areas occurred in October 2013. The city adopted the incorporation of adaptation action areas into their comprehensive plan during the June 17, 2014, city commission meeting.

This effort was recognized with a 2014 American Planning Association “National Planning Excellence Award for Environmental Planning” to Broward County’s Environmental Protection and Growth Management Department for the production of Broward County’s Climate Change Element.

In addition, to aid other local governments in adopting adaptation action areas into their plans, a report entitled “Adaptation Action Areas: Pilot Project, Fort Lauderdale, Broward County, FL” was produced as a “how-to” illustration to guide local governments interested in integrating adaptation action areas into their own planning frameworks. Additionally, a video and series of podcasts were produced as companions to the pilot project report.

Accomplishment: The Florida Coastal Management Program has demonstrated leadership in supporting the Community Resilience Initiative implemented by the Department of Economic Opportunity. This initiative has produced an array of adaptation planning guidance for Florida coastal communities that will serve as the basis for policy action in the future. The Office for Coastal Management acknowledges the value of the tools and guidance documents and encourages the Florida Coastal Management Program to promote implementation of these approaches throughout the state.

Accomplishment: Many Florida communities, including six pilot communities (Hillsborough County, Sarasota County, Polk County, Manatee County, Nassau County, and Panama City), have adopted post-disaster redevelopment plans. These plans are based on the *Post-Disaster Redevelopment Planning* guide created by the Department of Economic Opportunity and the Division of Emergency Management and funded in part by the Florida Coastal Management Program. The guide provides a planning roadmap that encourages vulnerable communities to prepare for disasters. This represents a tremendous example of local adoption of statewide guidance. Implementation of plan recommendations is promoted through an excellent video that offers an overview of how communities can and should execute their plans.

Recommendation: The NOAA Office for Coastal Management encourages the Florida Coastal Management Program to invest in more detailed economic valuations of ecosystem services (e.g., nonmarket values for the aquatic preserves) and to deepen coordination with state partners, academic institutions, and nongovernmental organizations to develop actionable economic studies that better inform land use, coastal resource use, and conservation decisions.

Recommendation: The NOAA Office for Coastal Management recommends that the Florida Coastal Management Program initiate and lead a dialogue among its network partners to assess current implementation of state laws and policies related to coastal community resilience. One of the purposes of the dialogue would be to determine if current practices could be improved to reduce coastal community vulnerabilities to coastal hazard risks related to erosion, sea level rise, and the impacts of coastal storms.

Aquatic Preserves

The Florida Aquatic Preserve Act of 1975, Chapter 258.35, F.S., established the aquatic preserve system in Florida with the intent that “state-owned submerged lands in areas which have exceptional biological, aesthetic, and scientific value . . . be set aside forever as aquatic preserves . . . for the benefit of future generations.” These sites add to quality of life in the state, have tremendous economic value, and strengthen Florida’s coastal management and protection through conservation, restoration, and education. The location and total number of preserves are included in Figure 1 below. In total there are 41 aquatic preserves, three national estuarine research reserve sites, one upland buffer preserve, and the Coral Reef Conservation Program and Florida Keys National Marine Sanctuary. Nearly all these sites employ methods to manage natural resources; monitor, protect, and restore habitats; implement conservation measures; educate and provide community outreach; and build partnerships. Florida’s efforts to acquire and protect sensitive coastal lands and waters represent a tremendous long-term accomplishment and protect a significant percentage of total submerged lands. For example, the St. Andrews Bay and St. Joseph Bay Aquatic Preserves, located in the Florida Panhandle, contain many threatened and endangered species. Preservation of these sites within an area that has been identified as one of the nation’s six biological hot spots because of relatively high biodiversity is crucial to the health of this vibrant ecosystem.

Within the context of this incredibly diverse network of protected sites are some negative trends that warrant attention, including for example the loss of submerged aquatic vegetation in some preserves (e.g., St. Martins Marsh) and the challenges of balancing watershed development with protection of the shorelines, submerged resources, and water quality within the aquatic preserves. The aquatic preserve managers are proactively addressing these trends by undertaking educational campaigns and targeted restoration efforts, including projects for oysters and submerged aquatic vegetation. Timely



work is underway at the Indian River Lagoon Aquatic Preserve/National Estuary Program on oyster reef restoration. Managers are attempting to determine where the natural oyster communities are and why—so that restoration efforts might be more effective, while simultaneously working with the Army Corps of Engineers and Water Management Districts to streamline oyster restoration permitting. NOAA funds have been used in the past to assist in these efforts and may be beneficial in the future to fund work that proactively identifies areas more or less suitable for restoration and to investigate if restored reefs provide wave attenuation functions in addition to their known ecological benefits. In addition, examples highlighted during the interview process demonstrated submerged aquatic grass restoration and protection strategies at St. Joseph Bay, including new channel markers to mitigate propeller scaring in the seagrass beds. The Office for Coastal Management also learned about effective prescribed burning management of the St. Joseph Bay State Buffer Preserve to control invasive species.

Continued effective management and sustenance of the aquatic preserves network represents perhaps the most important and most cost-effective way that the Florida Coastal Management Program can maintain the balance called for in the Coastal Zone Management Act between developing and protecting coastal resources. Paired with watershed-based strategies, such as smart growth principles, stormwater controls, enhanced green infrastructure planning, and other techniques that mitigate the downstream impacts of land development, the aquatic preserves offer a way of sustaining coastal resources in perpetuity. The aquatic preserves achieve many of the national coastal management goals on the local level, including protecting natural resources, providing public access for recreation, prioritizing water-dependent uses, and coordinating state and federal actions. In addition to the tremendous existing benefits, the Office for Coastal Management recognizes that the aquatic preserves may also help address other coastal management goals, such as linking science to management for local decision-makers by initiating or enhancing their use of water quality, habitat, and living resources data to inform local community planning. Through the aquatic preserves, the Florida Coastal Office has its own “boots on the ground” that can provide essential technical assistance to local communities. The Office for Coastal Management encourages the Florida Coastal Management Program to continue to take advantage of the potential the aquatic preserves have to mobilize the constituency base in support of Florida Coastal Office strategic goals and priorities. Of particular importance is to further develop science to management applications for the purpose of reaching communities in partnership with key state agency network partners.

Example: Volunteer Water Quality and Shoreline Monitoring in Charlotte Harbor

In Fort Myers, Florida, the Charlotte Harbor National Estuary Program conducted volunteer tidal shoreline surveys in 2007, 2010, and 2013 for more than 4,000 urban parcels in each survey year. The surveys augmented 2007 aerial photograph interpretation and provided condition trends information on the tidal shorelines most subject to human management. Though none of the three surveys were 100 percent complete, there was nearly 100 percent coverage between the last two surveys of 2010 and 2013. NOAA Coastal Zone Management Act funds were used to support staff members who organized volunteers to conduct the 2013 survey and to create

maps and summary reports based on the findings. Online display of survey details and data was made possible by a grant from the Mosaic Foundation. In 2013, oysters were surveyed along 72 miles of urban shoreline, where volunteers' vessels could approach the shoreline closely enough to conduct the survey. Half of the documented shoreline had oysters and the other half had no oysters. Oysters tended to be located on the shorelines of highest estuarine salinity and not located along the banks of the Caloosahatchee River, Myakka River, and Alligator Creek. These results add to the broader Charlotte Harbor Estuaries Volunteer Water Quality Monitoring Network, which is a coordinated system of over 100 volunteers who regularly conduct water quality monitoring for 14 separate parameters throughout the six local aquatic preserves in southwestern Florida. The volunteer monitoring provides both scientific and educational functions and includes critical quality assurance, data management, and training components necessary for providing credible data and long-term volunteer support. Data from this project have determined base level conditions throughout the estuary where little data previously existed. And most importantly, the data serve as a great example of science to management, since it is used by resource managers in permitting, recreational, and watershed land use and infrastructure decisions.

Example: Restoration of Oyster Reefs in Mosquito Lagoon

The Mosquito Lagoon Aquatic Preserve, located on Florida's eastern coast just north of Cape Canaveral, is designated an Estuary of National Significance by the Environmental Protection Agency, and is one of the most diverse estuaries in the mainland United States. Mosquito Lagoon provides habitat for nine federally protected species, while simultaneously supporting multi-million-dollar recreational and commercial fisheries. Moreover, the lagoon's extensive oyster reefs and clam beds are economically important to the region. Research has shown, however, that boat wakes and waves from strong winds cause extensive oyster shell movement, which results in the formation of "dead margins," or bleached shells piled on the seaward edges of live reefs.

The Indian River Lagoon National Estuary Program, in partnership with The Nature Conservancy and the University of Central Florida, was awarded \$50,000 from the Florida Coastal Management Program in fiscal year 2009-2010 to conduct restoration of intertidal reefs in the aquatic preserve. The restoration efforts involved 1) dead reef leveling, where four U.S. Army Corps of Engineers-permitted reefs were leveled to natural oyster reef elevations using an amphibious excavator; 2) oyster mat construction, where volunteers assisted with all aspects of mat construction using a tested methodology; and 3) mat construction and deployment, in which 3,576 oyster mats were created by volunteers and 2,765 mats were placed on top of the leveled shell material to prevent further movement of loose shell and reformation of dead margins. Using a coarse scale calculation, it is estimated that four acres of oyster reef habitat in the aquatic preserve have been restored using coastal management funds. These reefs will serve to stabilize benthic habitats and improve biological diversity and water quality.

Accomplishment: The NOAA Office for Coastal Management acknowledges the strategic approaches and sound investments that are being used effectively to target restoration at aquatic preserves in order to maintain or enhance critical species such as native oysters and

submerged aquatic vegetation beds.

Accomplishment: Staff members at the Florida aquatic preserves are dedicated, enthusiastic, and competent strategic thinkers. Science to management integration is strong within and among many of the preserves and, where feasible, these models should be replicated for all preserves. Community engagement was also evident for those aquatic preserves where interviews were conducted.

Recommendation: The NOAA Office for Coastal Management recommends that the Florida Coastal Office further strengthen the aquatic preserve system through enhanced statewide systematic procedures. Examples include the following:

- ✓ Standardize and normalize approaches for data collection, ecosystem monitoring, and programmatic functions either across the state or regionally.
- ✓ For the purpose of managing actions in the watershed that could negatively affect coastal resources within aquatic preserve boundaries, explore the relationship between the habitat quality of submerged lands with upstream watershed and groundwater systems.
- ✓ Continue to work closely with the water management districts and nongovernmental entities as key strategic partners in these endeavors.
- ✓ Evaluate the creation of an aquatic preserves coordinator position within the Florida Coastal Office to serve as state coordinator for all preserves.
- ✓ Evaluate strategic partnerships with nongovernmental organizations to sustain the aquatic preserves.

Communication, Engagement, and Networking

Communications and Messaging

The Florida Coastal Management Program provides many useful and well-designed communications products and techniques to the public and existing partners, but also has some opportunities to raise the visibility of the program and possibly retarget outreach to the private sector, including commercial and industrial interests, to potentially expand allies and reach additional key decision-makers. *Coastal Currents*, a quarterly update from the Florida Coastal Office offers case studies and success stories in a highly readable story format that represents an excellent way to tell the story of coastal management challenges and accomplishments. Reaching additional audiences with this information, perhaps by making the content available online in searchable formats, could potentially help expand awareness of Florida Coastal Program investments, expertise, and influence throughout the state.

The Office for Coastal Management acknowledges successful interpretive signage at public access sites and related outreach materials, and encourages the Florida Coastal Management Program to continue to use such educational and interactive venues as opportunities to describe the role and value of the program. For signage and outreach related to public safety issues, like rip current warnings and beach warning flags, there may be opportunities to

demonstrate the contribution and value of the Florida Coastal Management Program in terms of “lives saved” and contributions to tourism at Florida beaches. One effort that appears poised to increase the visibility of the Florida Coastal Management Program is the online Beach Access Guide. The guide is an interactive website that helps users find beach access points and related information on amenities such as restrooms, boat launches, and lifeguard availability. Now covering the entire state, the guide points the way to not only white sandy beaches but also many of Florida’s cultural, historic, and natural resources.

One communications and messaging area requiring ongoing oversight is the incorporation of the required NOAA award acknowledgement when sharing project specific data, information, and results with partners, stakeholders, and citizens. The specific language of this special award condition reads, “The cover of the title page of all reports, studies, or other documents, published or distributed electronically or hard copy, and acknowledgement pages of websites/web-pages, that are supported in whole or in part by this award or any sub-awards shall acknowledge the financial assistance provided by the Coastal Zone Management Act of 1972, as amended, administered by the Office for Coastal Management, National Oceanic and Atmospheric Administration.” There are examples of NOAA funded reports published by Florida Coastal Management Program partners lacking the NOAA acknowledgement. The required acknowledgement can be overlooked or left out due to space or formatting issues creating missed opportunities to highlight and appropriately acknowledge the role of the Florida Coastal Management Program to support efforts with NOAA Coastal Zone Management Act funding. Particularly on publicly available reports it is critical that the NOAA grant acknowledgement, and if feasible NOAA logo, are included.

Accomplishment: *Coastal Currents* is a well-designed and formatted messaging tool providing the compelling stories behind many projects carried out by the Florida Coastal Office.

Accomplishment: Both the Beach Access Guide and Rip Tide Awareness campaigns are effective outreach tools that foster deeper relationships with key drivers of economic activity in Florida, including the real estate and recreation and tourism industries.

Recommendation: Improve visibility and awareness of the Florida Coastal Management Program by considering the following actions:

- ✓ Use the Florida Coastal Management Program brand at state and regional meetings.
- ✓ Promote the Florida Coastal Management Program brand to target audiences, using social media where appropriate.
- ✓ Expand distribution of *Coastal Currents*, including a web-based version that can be shared.
- ✓ Expand the use of Section C success stories in grant performance reports to highlight Coastal Partnership Initiative projects and Section 309 projects.
- ✓ Invite grant recipients (e.g., network partners, local governments) to develop success stories.
- ✓ Evaluate the use of abbreviated, intermediate program updates using electronic media between distribution dates for *Coastal Currents*.

Necessary Action: To meet NOAA requirements and improve visibility and awareness of the Florida Coastal Management Program, the Florida Coastal Management Program must strengthen enforcement of the NOAA award acknowledgement special award condition for all funded projects, particularly when partners publish the results of NOAA funded projects.

Partner Engagement and Networking

The evaluation process includes a survey tool sent to selected Florida Coastal Management Program stakeholders to solicit their perceptions on program successes, challenges, and opportunities. Evaluation survey respondents noted that the top two strengths of the program were coordination and partnerships (5 responses) and staff expertise/responsiveness (4 responses). The Office for Coastal Management saw evidence of the successful partnerships in hearing from the Department of Economic Opportunity about the implementation of the highly strategic Coastal Resilience Initiative. This effort takes advantage of the Florida Coastal Management Program's role as an initiator and leader to enable network partners with skills and expertise to implement programs of direct benefit to Florida's coastal communities. While state agencies can often operate independently in implementing their programs, the evaluation team found the Coastal Resilience Initiative to be an example of a successful partnership connecting the national goals of the Coastal Zone Management Act to the appropriate state agency for informing and engaging local planning bodies, citizens, and elected officials. The Office for Coastal Management encourages replication of this model for addressing other program objectives in conjunction with other state network partners. The evaluation team sees a continuing role for the Florida Coastal Management Program as convener, coordinator, and partnership builder fostering connections to the citizens of Florida's communities, lasting partnerships between and among agency partners and local governments, and new policies, particularly those directly tied to coastal resilience, watershed management, and resource protection.

In addition to the Coastal Resilience Initiative, the program has embarked on a number of approaches during the evaluation period that are leading to improved coordination, networking, and partnerships. A sampling of these approaches is outlined below.

To ensure regular, periodic sharing of information, the Florida Coastal Management Program has established a "Coastal Managers Forum." This relatively new forum brings all network agencies together to share successes and upcoming projects. The forum can be advantageous to building deeper interagency coordination. As the forum matures, the Office for Coastal Management suggests that the Florida Coastal Management Program consider convening implementation partners on a regular, perhaps annual basis to share successes and challenges; inviting, when appropriate, leading nongovernmental organizations whose goals align with those of the program to participate in the forum; and rotating the geographic location for the forum meetings to engage more regional and local stakeholders.

To further deepen partner networking, the Florida Coastal Management Program could use

existing connections to regional planning councils and local governments to encourage Coastal Partnership Initiative recipients to present at the Coastal Managers Forum, as a means of transferring lessons learned from the initiative to other state-led endeavors. The Office for Coastal Management views the Coastal Partnership Initiative as a strategic partnership tool, capable of integrating shared partner goals to produce tangible on-the-ground outcomes, and its results can be shared and disseminated among state, regional, and local partners through the Coastal Managers Forum. Additional opportunities include considering application of the Coastal Managers Forum model on a regional scale and using the three fiscal year 2015 Section 309 pilot communities (i.e., Escambia, City of Clearwater, and City of St. Augustine) to share lessons learned and make necessary revisions to existing adaptation-planning guidance materials.

One area that may benefit from changes to assist in achieving these goals from a funding standpoint is that of matching funds. The Florida Coastal Management Program currently relies heavily on leveraging funds from Natural Resource Damage Assessment and Restoration Program projects as the state match for NOAA coastal awards. While these matching funds are allowable, connections to key network partners may be enhanced through the use of sources such as state agency matching funds in the form of staff time or program implementation grants. The program had previously distributed its NOAA funds among many different network partners, which allowed state funds and expertise to be leveraged by Coastal Partnership Initiative projects. It would be worthwhile to undertake a strategic analysis of how Florida's Coastal Management Program priorities align with other network partner programs so that future funding allocations could be devised to achieve the greatest impact on priority coastal management issues. In this way, the program's networked partners could be more explicitly recognized as part of the "coastal program," especially when working with Florida Coastal Management Program staff members or grant recipients on projects.

The Resources and Ecosystems Sustainability, Tourist Opportunities, and Revived Economies of the Gulf Coast States Act (RESTORE Act) and other post-Deepwater Horizon efforts are coordinated within the Florida Coastal Office. Staff members have done an excellent job representing Florida at the RESTORE Council and associated trustee work groups by ensuring that money directed to local governments in the state is spent in a manner consistent with the RESTORE Act goals and objectives.

While not a focus of staff and stakeholder discussions, the Office for Coastal Management commends the leadership roles that the Florida Coastal Office has taken with both the Gulf of Mexico Alliance and the Governor's South Atlantic Alliance. The Florida Coastal Management Program has been an active and influential participant in these forums and has offered examples of how the Florida Coastal Management Program can be aligned and integrated with the broader goals and scale of the regional ocean planning efforts. The Office for Coastal Management also commends the creation of the Florida Sea Grant-Florida Coastal Office Fellow position that is assisting with regional coordination, and hopes that this fellowship can continue to both align regional-state priorities and professionally develop graduate students.

Recommendation: To build off of the momentum of the Coastal Managers Forum, the NOAA Office for Coastal Management supports the creation of an annual coastal partner’s symposium that brings together network partners, local governments, state agencies, and other relevant stakeholders. Such a symposium could be rotated throughout the state’s regional geographies.

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.

During this evaluation the Florida Coastal Management offered information and documentation on the status of the three evaluation metrics. NOAA requested additional documentation, which was received, and suggested minor revisions to Metric 1 and Metric 2 to improve clarity and focus on outcomes. This section provides the revised metrics and the status of progress toward achieving the targets.

METRIC 1

Climate Change & Its Impacts: Projected sea level rise impacts threaten to exacerbate the vulnerability of Florida's at-risk coastal 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. Through the Community Resiliency: Planning for Sea Level Rise 309 Strategy process, the state will develop guidance materials to assist local governments in incorporating sea level rise adaptation recommendations and policies into existing planning and development framework and activities.

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

Strategy: The approach for meeting this goal and target is in FCMP'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 NFIP 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.

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

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: One Community, the City of Fort Lauderdale, completed a vulnerability assessment and adaptation plan as part of the 309 Strategy Community Resiliency: Planning for Sea Level rise in FY2014.

Discussion: The Florida Coastal Management Program provided financial assistance to the City of Fort Lauderdale through the Department of Economic Opportunity that contributed to a project to complete a vulnerability assessment and develop adaptation action areas for incorporation into their comprehensive plan. As described in the example above, the city adopted the incorporation of adaptation action areas into their comprehensive plan during the June 17, 2014, city commission meeting. The NOAA Office for Coastal Management recognizes that it takes time to fully implement local planning activities that require extensive coordination across government units. Fort Lauderdale's accomplishments in this regard are impressive and each of the three additional communities receiving funding under the Section 309 community resilience strategy is making progress toward the completion of their vulnerability assessments and adaptation plans. NOAA anticipates the work will be completed by 2017.

METRIC 2

Local Coastal Initiatives: Local initiatives are critical to long-term protection of coastal resources. Innovative local coastal management projects can inspire community action and promote the protection and effective management of coastal resources.

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

Strategy: The FCMP 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 FCMP plans to provide funding for at least four projects on average annually for the next five years. Funding from the FCMP is anticipated to be approximately \$150,000 per year.

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

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

Results: 37 Coastal Partnership Initiative priority projects have been completed in the last three fiscal years. In summary, nine projects were completed in FY 2013, 18 projects were completed in FY 2014, and ten projects were completed in FY 2015.

Discussion: Based on the latest available data, the target of completing four priority projects per year is being greatly exceeded. NOAA commends the Florida Coastal Management Program for continuing to provide meaningful support and assistance to local communities to achieve on-the-ground results and to improve their ability to educate citizens and plan for future events. While the results to date are impressive, since available funding for the Coastal Partnership Initiative has been reduced over time, it may become more difficult for the program to continue awarding as many projects. The Office for Coastal Management views the Coastal Partnership Initiative as an important, ongoing connection between the state and local governments to address priority coastal management issues and thus strongly recommends continued investments in the program. The Office for Coastal Management is particularly supportive of those projects that result in on-the-ground outcomes, such as expanding public access or restoring coastal habitats, and those projects that result in sustainable policy changes, such as adoption of local codes and ordinances addressing anticipated coastal hazards such as sea level rise.

METRIC 3

Aquatic Preserve Management: Much of Florida's distinctive character lies in the beauty of its coastline. The best of our coastal landscapes have been set aside for protection within the state's 41 aquatic preserves. With close to two million acres of submerged lands to manage, effective and efficient management is critical to the long-term protection of Florida's most valuable coastal resources.

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.

Strategy: The approach for meeting this goal and target is in FCMP's 2011-2016 309 Strategy Aquatic Preserve Management Plan Updates.

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.

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: Four aquatic preserve management plans have been approved by the Acquisition and Restoration Council as a result of financial assistance from the Florida Coastal Management Program. In summary, 0 management plans were completed in FY 2013, 1 management plan was completed in FY 2014 and 3 management plans were completed in FY 2015.

Discussion: Coastal Zone Management Act funds are used both to assist in the development and publication of aquatic preserve management plans and to hire staff members to assist in the implementation of the plans. Once written, these plans are approved by two separate bodies: (1) The Acquisition and Restoration Council and (2) The Board of Trustees of the Internal Improvement Trust Fund. There are currently 19 plans being revised that have not yet been submitted to the Acquisition and Restoration Council for approval and four that have been submitted and approved by the council.

Since the development and approval of aquatic preserve management plans typically takes more than a year to complete, it is not unexpected that meeting the annual target of three plans approved per year by the council has been a challenge. The coastal program has only met their annual target once out of three years. However, with a total of four plans approved by the Acquisition and Restoration Council and 19 plans in process, the Florida Coastal Management Program is poised to achieve or exceed the total five-year target for this metric.

Conclusion

For the reasons stated herein, I find that the State of Florida is adhering to the programmatic requirements of the Coastal Zone Management Act and its implementing regulations in the operation of its approved Florida Coastal Management Program.

These evaluation findings contain one necessary action and five recommendations. The necessary action is mandatory and must be completed by the date given. Recommendations must be considered before the next regularly scheduled program evaluation but are not mandatory at this time. Recommendations that are 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.



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NOAA Office for Coastal Management

4/25/2014

Date

Appendix A: Response to Written Comments

No written comments were received for this evaluation.