

Final Evaluation Findings

Weeks Bay National Estuarine Research Reserve

April 2007 to September 2015

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Executive Summary

The Coastal Zone Management Act requires the National Oceanic and Atmospheric Administration's Office for Coastal Management to conduct periodic evaluations of the performance of state programs participating in the National Estuarine Research Reserve System. This evaluation examined the operation and management of the Weeks Bay National Estuarine Research Reserve by the Alabama Department of Conservation and Natural Resources, the designated lead agency, for the period from April 2007 to September 2015. The evaluation focused on three target areas: program administration, partnerships and collaborations, and science to management and education.

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:

This evaluation concludes that the Alabama Department of Conservation and Natural Resources is adhering to the programmatic requirements of the National Estuarine Research Reserve System in the operation of the Weeks Bay National Estuarine Research Reserve.

Necessary Action: The Weeks Bay National Estuarine Research Reserve must submit a revised five-year management plan to NOAA by September 30, 2016 and finalize the management plan in the Federal Register by December 31, 2016.

Recommendation: The Office for Coastal Management encourages the reserve to strengthen the Needs and Opportunities section of the research and monitoring plan in the draft management plan and to include specific research and monitoring needs that would further the reserve's priorities.

Recommendation: The Office for Coastal Management encourages the reserve to strengthen the stewardship section of the draft management plan through the inclusion of (a) a discussion of the watershed management planning effort for the Weeks Bay area and how it will be used to guide restoration efforts at the reserve; (b) describe the status of restoration and conservation plans and the relationship between the plans and watershed management plan for the Weeks Bay area; (c) a general description of restoration activities that are likely to occur within the reserve boundary including living shorelines; (d) a discussion of the primary purpose, restoration, of building living shoreline projects within the core boundary; and (e) include specific projects that are already planned for the reserve and for which funding has been obtained and projects are in, or have completed, the permitting process.

Recommendation: The Office for Coastal Management strongly encourages the reserve to include the following in the draft management plan: (1) a communication plan to increase community and partner awareness of the reserve's mission, accomplishments, and educational

and recreational opportunities, and to identify strategic communication opportunities to further the reserve's priority issues; and (2) a more robust volunteer plan that considers how the volunteer program can help support cross-sector issues and assist with implementation of the communication plan. If the communication plan cannot be completed in time to be included in the new management plan, the reserve should consider including a task in its next cooperative agreement to complete the plan.

Recommendation: The Office for Coastal Management encourages the reserve to explore and pursue opportunities to more deeply engage and effectively use its advisory board.

Recommendation: The Office for Coastal Management encourages the Alabama Department of Conservation and Natural Resources to maximize the utilization of the reserve's unique combination of education, training, stewardship, and research and monitoring to inform and assist future restoration efforts in the Gulf.

Recommendation: The Office for Coastal Management encourages the Weeks Bay National Estuarine Research Reserve to focus on integrating sector efforts with priority issues.

Recommendation: The Office for Coastal Management encourages the Weeks Bay National Estuarine Research Reserve to capitalize on its cross-sector restoration expertise by considering restoration as a priority issue when revising its management plan, and identifying its unique niche to complement other restoration efforts in the region.

Accomplishment: The Weeks Bay National Estuarine Research Reserve has been a national leader in creating a disaster response plan that serves as a resource for reserve staff members; provides emergency responders with information on reserve priorities, infrastructure, and natural resources; guides internal response actions and details capabilities; and presents the incident command structure. The reserve worked with other Gulf reserves to create a model disaster response plan and a template that has been adopted by the National Estuarine Research Reserve System.

Accomplishment: The Alabama Department of Conservation and Natural Resources and Weeks Bay National Estuarine Research Reserve have successfully worked with partners to acquire and protect over 900 acres of key habitats in a rapidly growing watershed.

Accomplishment: The Weeks Bay National Estuarine Research Reserve continues to have a strong volunteer program that contributes over 5,000 volunteer hours yearly in support of the reserve's mission.

Accomplishment: The Weeks Bay National Estuarine Research Reserve and partners successfully completed a Science Collaborative Program project, "Exploring the Cost-Effectiveness of Restored Marshes as Filters of Runoff Pollution in a World of Rising Seas," that capitalized on the strength of both research and monitoring and the Coastal Training Program.

Accomplishment: The Weeks Bay National Estuarine Research Reserve has built regional capacity to implement low-impact-development techniques to improve stormwater management cost-effectively.

Accomplishment: The Weeks Bay National Estuarine Research Reserve Coastal Training Program has served in a leadership role in the Gulf and has worked with the other Gulf Coastal Training Programs to secure funds to support a region-wide coordinator. The addition of this position has enabled the Gulf Coast reserves to provide numerous additional trainings for coastal decision makers on regional priorities.

Accomplishment: The Weeks Bay National Estuarine Research Reserve continues to implement the successful Grasses in the Classes program, engaging students in restoration efforts; developed Art Without Limits in partnership with the Eastern Shore Arts Center, a popular summer day camp program that combines art and field studies to teach children, including underserved populations, about local environments; and hosted one of five regional Teachers on the Estuary workshops in the Gulf, providing local teachers with valuable hands-on experience to improve understanding of the environment using local examples, as well as providing resources and experience to support the incorporation of estuary and watershed topics into classroom teaching.

Program Review Procedures

The NOAA Office for Coastal Management evaluated the Weeks Bay National Estuarine Research Reserve in fiscal year 2015. The evaluation team consisted of Carrie Hall, evaluation team lead; Hank Hodde, site liaison; Todd Davison, director, Southern Region; and Jennifer Harper, environmental administrator and manager of the Apalachicola National Estuarine Research Reserve. The support of the reserve staff was crucial in conducting the evaluation, and this support is most gratefully acknowledged.

NOAA sent a notification of the scheduled evaluation to the commissioner of conservation at the Alabama Department of Conservation and Natural Resources, published a notice of “Intent to Evaluate” in the *Federal Register* on August 6, 2015, and notified members of Alabama’s congressional delegation. The reserve posted a notice of the public meeting and opportunity to comment in *The Press-Register* on July 19, 2015.

The evaluation process included a review of relevant documents and a survey of stakeholders, which helped identify three target areas for the evaluation: program administration, partnership and collaboration, and science to management and education. A site visit was conducted and the evaluation team held meetings with staff members and group discussions with stakeholders and program staff members about the target areas. In addition, a public meeting was held on Wednesday, September 9, 2015, at 6:00 p.m. at the Weeks Bay Auditorium at 11300 U.S. Highway 98, Fairhope, Alabama, to provide an opportunity for members of the public to express their opinions about the implementation of the reserve. Stakeholders and members of the public were given the opportunity to provide written comment via email or U.S. mail through Friday, September 18, 2015. No written comments were received. The NOAA Office for Coastal Management then developed draft evaluation findings, which were provided to the reserve for review, and the reserve’s comments were considered in drafting the final evaluation findings.

Final evaluation findings for the national estuarine research reserves highlight each reserve’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. These must be carried out by the dates 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

Program Administration

The reserve is located administratively in the Coastal Section of the State Lands Division in the Alabama Department of Conservation and Natural Resources. The coastal program and reserve continue to share a GIS specialist, educational specialist, and an accounting clerk, and the coastal program grants manager provides direct support to the reserve. In addition, a coastal stewardship position at the department provides support for stewardship activities along the coast, including the reserve. The director of the coastal program regularly attends staff meetings, and the reserve is taking a lead role in the coastal program's new Section 309 Community Resiliency Initiative.

Management Plan

All national estuarine research reserves are required by the Coastal Zone Management Act to have five-year management plans. The current Weeks Bay Reserve Management Plan 2007-2012 is out of date. A draft management plan was submitted to the Office for Coastal Management for comment in September 2015.

The reserve should ensure that its management plan meets the Reserve System Management Plan Guidelines and Resources of 2013. The management plan should lay out clear and concrete objectives for the next five years. The reserve is strongly encouraged to identify one or two high-priority coastal management issues toward which every sector would contribute. The issues should be used to focus staff effort and increase active collaboration across sectors. The reserve staff members should work together to design a cross-sector approach to the priority issues and meet regularly (for example, quarterly) to discuss progress, brainstorm solutions to challenges, identify funding opportunities and discuss budgets, identify opportunities to work across sectors, and identify and agree upon the path forward to achieve the priority issues. The reserve should also strategically consider what partnerships will need to be strengthened or developed and the level of engagement that will most effectively and efficiently achieve the priority issues. Since the evaluation site visit, the reserve has identified climate impacts and land use changes as coastal management priorities that will be addressed in the new management plan.

The implementing federal regulations of the reserve system (921.13(a)(9)) require that management plans include, "if applicable, a restoration plan describing those portions of the site that may require habitat modification to restore natural conditions." The reserve should ensure that the new management plan includes a discussion of the ongoing watershed management plan development process in the Weeks Bay Area and how it will guide future reserve restoration activities. The reserve's management plan should also describe the status of the tract level restoration and conservation plans that are being developed by 2020 and the relationship between those plans and the watershed planning effort for the Weeks Bay area. The reserve's management plan should also include a general description of restoration

activities that are likely to occur within the reserve boundary including living shorelines and discuss the primary purpose, restoration, for building living shoreline projects within the core boundary. In addition, descriptions of any specific projects that are already planned for the reserve and for which funding has been obtained and projects are in, or have completed, the permitting process should also be included. This information will also be valuable as extensive restoration projects are being planned and initiated in the Gulf. Funding agencies, including other offices within NOAA, often reference plans to determine if proposed projects are included.

The reserve should also prioritize the development of a strong and robust research plan within the management plan. The research plan should take into consideration the key information needs of local coastal decision makers and identify the reserve's priority research and monitoring needs, including those related to the priority objectives. The reserve staff should then reach out to the research community, such as Dauphin Island Sea Lab and the Mississippi Alabama Sea Grant Consortium, to make them aware of the reserve's high-priority research and monitoring needs. One researcher the evaluation team met with noted that they wished to give more back to the reserve and conduct monitoring that would benefit the reserve. Another partner in the region noted that they were interested in furthering research that benefited the reserve but that they did not know the reserve's research priorities. Other stakeholders the evaluation team heard from noted that the reserve's research program was not well known in some research circles, which might be limiting opportunities, and that the reserve could benefit from proactively seeking research and support. The reserve is also completing a new dormitory facility that will increase its capacity to support researchers. A robust research plan and associated outreach could assist in attracting resources and research and monitoring to the reserve to accomplish high-priority objectives.

Staffing and Funding

The reserve has well-respected and dedicated staff members that are working at capacity. During the evaluation period, the reserve acquired land and took on new land management responsibilities and has been successfully building out its facilities. As the reserve's responsibilities grow, the need to be strategic and resourceful will increase. The reserve should consider if there are activities that could be addressed through a partnership or concession, such as conducting boat tours in the reserve. Currently, the stewardship coordinator is the only staff member with a captain's license, and about 25 percent of the coordinator's time is spent giving boat tours to students and other interested parties. The reserve must also turn down requests from groups because of lack of capacity. The reserve could investigate a partnership with a nonprofit or grant a concession to run boat tours that would emphasize the role of the reserve. This would free up time for the stewardship coordinator to develop management plans for reserve properties and conduct stewardship activities while also providing opportunities for additional local groups to get out on the water and learn more about the reserve. In addition, the reserve could benefit from a system-side monitoring technician (Weeks Bay is one of a few reserves that does not have a technician position), a splitting of the coastal training program and watershed coordinator position, and potentially other positions as funding allows.

During the evaluation period, the reserve has successfully pursued additional funding sources to support its work, for example a partnership to obtain a Science Collaborative grant, and has secured funding to restore the existing canals that were part of the previous recreational vehicle park. With flat funding and increasing responsibilities, the Office for Coastal Management encourages the reserve to continue to look for additional funding opportunities to support priority objectives of the reserve. Another opportunity that was brought up during the site visit was the potential sale of timber to assist with, and fund, restoration activities.

The reserve has a long-standing partnership with the Baldwin County School District. The education coordinator is an employee of the school district and provides programming at the reserve for county schoolchildren. The position is currently a 10-month appointment, so the reserve does not have an education coordinator for two months during the summer. The education coordinator is planning to retire in 2016. The Baldwin County School District is facing budget restrictions, and concerns were raised by stakeholders that the district might choose to eliminate the position. Stakeholders that the evaluation team met with encouraged the reserve to build and nurture the relationship with the school board, for example, by holding a Baldwin County School Board meeting at the reserve. The reserve has an excellent education program, and a new education coordinator will have a strong platform to build on, including the existing market analysis and needs assessment. The Office for Coastal Management encourages the reserve to plan for the transition to a new education coordinator and to ensure that the reserve education coordinator position, one of three core reserve positions, is staffed in a timely manner.

Advisory Board

The reserve has a large advisory board that brings a diversity of expertise and potential partnerships to the table. The reserve should explore opportunities to more deeply engage and effectively use its advisory board members to provide constructive feedback and further reserve priorities. For example, advisory board members can serve as a voice and carry the reserve's message to their constituents, and engage in projects as partners or provide technical assistance. The advisory board may also be used to help identify the goals, objectives, and strategies of future management plans. The Office for Coastal Management has staff members who can facilitate the reserve working with board members to develop a process that more deeply engages the advisory board in furthering the mission of the reserve.

Facilities

In 2008, the 5,000 square foot Weeks Bay Resource Center was completed. The Resource Center has two buildings, one funded through a NOAA construction grant and the second funded through the Coastal Impact Assistance Program. At the time of the site visit, the reserve was also in the process of constructing a new dormitory facility with Coastal Impact Assistance Program funds. The Department of Conservation and Natural Resources also provided additional funding to complete the dormitory. Stakeholders that the evaluation team met with

highlighted the importance of the new dormitory in supporting research and research collaborations at the reserve.

The reserve completed a Facilities Master Plan and Study in 2011. The Facility Master Plan and Study prioritizes new and improved facility projects into three tiers and provides guiding principles related to future facility design. As the reserve continues to build out, the Department of Conservation and Natural Resources will need to prepare for the additional maintenance costs and staff time required for expanded facilities. The Office for Coastal Management encourages the department to support any increases in maintenance costs, allowing the reserve to continue to use NOAA funds to support the ongoing programmatic work.

During the evaluation site visit, participants pointed out some issues with the reserve's technology infrastructure, including the phone system and technology. Since the site visit, the department has been working to upgrade the phone system and technology infrastructure. Improving the reserve's technology infrastructure will enable the reserve to work efficiently and effectively and capitalize on new ways of efficiently communicating information.

Disaster Response Plan

After the Deepwater Horizon incident, reserves in the Gulf region became acutely aware of the importance of being prepared for disasters. Weeks Bay Reserve, along with the other four Gulf reserves, received support from the Office for Coastal Management and the NOAA Office of Response and Restoration's Disaster Response Center to develop disaster response plans and a template that could be used by reserves nationwide. Reserve staff members used data from past habitat surveys conducted by the stewardship and research sectors to identify sensitive areas to be avoided if practicable by first responders. Research areas such as the sentinel sites are also included in the plan. Bathymetric studies were included to help responders avoid shallow water and subsequent negative effects to important benthic habitat. The plan provides emergency responders with information on reserve priorities, infrastructure, and natural resources; guides internal response actions and details capabilities; and presents the incident command structure. As part of the planning process, the coastal training program also hosted workshops, and a stakeholder the evaluation team met with stated that "the training had better prepared their local government for a disaster." The template and disaster plans of Weeks Bay and other Gulf reserves have served as a model for the National Estuarine Research Reserve System.

Land Acquisition and Land Management

Both Mobile and Baldwin Counties have experienced rapid population increases, as well as urban growth. Baldwin County has been identified as one of the fastest growing counties in the state of Alabama, with the population increasing 18 percent from 2007 to 2015 to an estimated 203,709 (U.S. Census Bureau). Such growth has led to changes in land use in the Weeks Bay watershed. These changes have resulted in loss of habitat and increased nonpoint source

polluted runoff that has impacted water quality. The population is projected to continue to grow rapidly. Numerous partners in the region are working together to preserve more of the area's land to protect the estuary's resources and provide recreational opportunities.

The reserve's management area has been expanded through the acquisition of lands with funding and assistance from the Alabama Forever Wild Land Trust, NOAA, The Conservation Fund, Weeks Bay Foundation, and Baldwin County Commission. The reserve has also been supported in these efforts by the Alabama Coastal Foundation, Audubon Society, Dauphin Island Sea Lab, Mobile Bay National Estuary Program, The Nature Conservancy, and U.S. Fish and Wildlife Service. The reserve has successfully partnered with organizations in the region to protect lands and the local estuarine ecosystem. Many stakeholders the evaluation team heard from cited land acquisition as the reserve's most important accomplishment over the evaluation period.

The reserve's draft management plan proposes expanding the reserve boundary to include seven tracts acquired by the State of Alabama from 2007 to present totaling 962 acres, including the Pryor tract (11 acres), Key tract (40 acres), Dever tract (64 acres), Metcalf tract (30 acres), Matrin tract (63 acres), Lipscomb tract (40 acres), and Meadows tract (685 acres). In addition, the expansion includes 1,790 acres of water bottom adjacent or in close proximity to these tracts that are held in title by the State Lands Division. The acquisition of additional lands has increased the stewardship responsibilities of the reserve. The Office for Coastal Management encourages the Department of Conservation and Natural Resources and Weeks Bay National Estuarine Research Reserve to consider staffing and state resources needed to manage additional lands before acquiring additional parcels.

Volunteer Program

The reserve has a strong volunteer group (Weeks Bay Volunteer Board) that contributes over 5,000 volunteer hours a year to the reserve, greatly enhancing the reserve's capacity to conduct educational programming and other activities. The volunteer group conducted its 22nd native plant sale in 2015, placing over 40,000 native plants into local landscapes, educating hundreds of people on the value of native plants and expanding awareness of exotic invasive species. Over the years, the volunteer group has raised over \$200,000 to support the reserve. The volunteer group also established an arboretum on the old Safe Harbor RV park site. Reserve volunteers serve as ambassadors in their community, educating their neighbors about the reserve's activities, mission, and recreational and learning opportunities. The reserve has a volunteer coordinator that manages the volunteer program and provides outreach within the community, supports key programmatic needs for the sectors and conducts training for new volunteers. The Office for Coastal Management commends the reserve for its strong volunteer program and encourages the reserve to develop a more strategic and robust volunteer plan as part of its new management plan that addresses how the volunteer program can help support cross-sector priorities and communication plan priorities.

Communication

The reserve has a small visitor center, fishing pier, boat ramp, and over two miles of trails for the public. The evaluation team heard from stakeholders and partners who noted that the reserve had room to grow in raising awareness within the local community about its mission, its priority objectives, and the educational and recreational opportunities the reserve provides to the public. The NOAA Office for Coastal Management encourages Weeks Bay Reserve to strategically consider opportunities for raising awareness within the local community and new methods of reaching the public, such as newspapers, *Outdoor Alabama* articles, radio shows, social media, or other avenues. The reserve should consider whether it wishes to prioritize educational opportunities through outreach or to bring additional visitors to the reserve. Visitation to the reserve could increase community engagement and provide learning opportunities to the local community. A new 32-mile bike trail ending at the reserve was being constructed at the time of the site visit and will likely provide the opportunity to draw more visitors. The reserve will need to balance these opportunities with the potential increased workload that higher visitation will bring. The Office for Coastal Management encourages the reserve to develop a communication plan as part of its new management plan that builds on its Public Access and Visitor Use Plan, or to include a task to complete the communication plan in its next cooperative agreement.

Cooperative Agreements

The reserve is required to report semi-annually on its progress in meeting grant tasks. The Office for Coastal Management encourages staff members to focus progress reporting on the larger outcomes and impacts of their work and less on the daily details, such as the number of meetings attended. The information write-ups for the progress report could also be used to supplement other communication efforts, such as communicating the reserve's accomplishments to the surrounding communities and agency leadership. The Office for Coastal Management also encourages the reserve to work to ensure that awards are closed out in a timely manner at the end of the initial award period and not extended.

Necessary Action: The Weeks Bay National Estuarine Research Reserve must submit a revised five-year management plan to NOAA by September 30, 2016 and finalize the management plan in the Federal Register by December 31, 2016.

Recommendation: The Office for Coastal Management encourages the reserve to strengthen the Needs and Opportunities section of the research and monitoring plan in the draft management plan and to include specific research and monitoring needs that would further the reserve's priorities.

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conservation plans and the relationship between the plans and watershed management plan for the Weeks Bay area; (c) a general description of restoration activities that are likely to occur within the reserve boundary including living shorelines; (d) a discussion of the primary purpose, restoration, of building living shoreline projects within the core boundary; and (e) include specific projects that are already planned for the reserve and for which funding has been obtained and projects are in, or have completed, the permitting process.

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Recommendation: The Office for Coastal Management encourages the reserve to explore and pursue opportunities to more deeply engage and effectively use its advisory board.

Accomplishment: The Weeks Bay National Estuarine Research Reserve has been a national leader in creating a disaster response plan that serves as a resource for reserve staff members; provides emergency responders with information on reserve priorities, infrastructure, and natural resources; guides internal response actions and details capabilities; and presents the incident command structure. The reserve worked with other Gulf reserves to create a model disaster response plan and a template that has been adopted by the National Estuarine Research Reserve System.

Accomplishment: The Alabama Department of Conservation and Natural Resources and Weeks Bay National Estuarine Research Reserve have successfully worked with partners to acquire and protect over 900 acres of key habitats in a rapidly growing watershed.

Accomplishment: The Weeks Bay National Estuarine Research Reserve continues to have a strong volunteer program that contributes over 5,000 volunteer hours yearly in support of the reserve’s mission.

Science to Management and Education

Restoration

The Weeks Bay Reserve is uniquely positioned with its education, stewardship, coastal training, and education programs to provide expertise and support to Gulf restoration efforts. The reserve’s education program continues to implement the very successful Baldwin County Grasses in the Classes Program, empowering students to take action to restore beaches and salt

marshes and instilling a sense of coastal stewardship of their coast. Every year since 2006, hundreds of high school students grow native plants in their school and then plant them on public lands in the county. The program has restored coastal dune and salt marsh/brackish-water habitats. The work of students and community volunteers has resulted in thousands of hours dedicated to grass and shoreline restoration projects at Bicentennial Park in Stockton, Little Lagoon in Gulf Shores, Boggy Point in Orange Beach, several sites around Weeks Bay, Gulf State Park, 5 Rivers Delta Resource Center, Camp Beckwith, Perdido Pass Beach, and the Bon Secour National Wildlife Refuge.

The reserve and coastal program also lead the Alabama Coastal Cleanup, the largest annual volunteer event in the state. The campaign is an opportunity to educate the public about the sources and effects of ocean trash and provides the public with an opportunity to participate in the solution to marine debris. Over the last 26 years, volunteers in Alabama have removed almost 1.5 million pounds of marine debris from state waterways.

With the acquisition of new lands, the reserve stewardship program is moving forward with stewardship planning and restoration activities. The stewardship coordinator developed restoration management plans for the Damson and Foley tracts, and implementation was slated to begin in 2015 with a restoration focus on pitcher plant bog and longleaf pine communities. Eventually restoration management plans are to be developed for all tracts. During the evaluation period, Alabama State Parks has increased its support, allowing the reserve to conduct burns for restoration purposes. The reserve has also made progress on restoring the Safe Harbor tract, including the removal of infrastructure from the previous recreational vehicle park and successfully applying for funds to restore the dead end canals.

The reserve partnered with Dauphin Island Sea Lab, Weeks Bay Foundation, University of Alabama, Mississippi Department of Marine Resources, Mississippi State University, and Northern Michigan University and received a National Estuarine Research Reserve Science Collaborative Program grant for the project, "Exploring the Cost-Effectiveness of Restored Marshes as Filters of Runoff Pollution in a World of Rising Seas." The study looked at the cost-effectiveness of restored marshes as filters of runoff pollution and evaluated the effect of sea level rise on the health and services provided by the restored wetland designs. The study compared how different planting densities affected the health and functionality of the plants and the effect of projected 2030 sea levels. During the project, the researchers developed a new method to mimic sea level rise in coastal habitats in situ. The project also included a survey of local residents and visitors to gain insight on the public's understanding of marshland restoration and comprehension of conservation terminology. The results of this project will be integral to developing effective restoration designs that can be used to maximize the environmental benefits of the forthcoming restoration projects along the Gulf Coast. The reserve's research and monitoring and coastal training programs were both key in the project, and the coastal training program coordinator worked with a committee to engage stakeholders in the design of the study, the research, and communication of results.

The reserve's research program has also provided support and assistance to other researchers and graduate research fellows conducting restoration-related and other coastal and marine research. A graduate research fellow who the evaluation team met with noted that the support of the reserve staff was "unbelievable" and the combination of science and exposure to policy was very valuable. Former graduate research fellows are now serving in roles supporting regional coastal resource management, including an extension specialist in coastal ecology with the Mississippi-Alabama Sea Grant and the research coordinator for the Apalachicola National Estuarine Research Reserve. The reserve is also coordinating a research symposium to be held in August of 2016 that will highlight current and previous research conducted at the reserve.

The Coastal Habitat Restoration Planning Initiative is a new effort being undertaken by the Mobile Bay National Estuary Program, with funding from the National Fish and Wildlife Foundation's Gulf Environmental Benefit Fund. Comprehensive plans will be developed to identify the highest priority restoration and conservation needs within the tidally influenced watersheds that directly feed into Mobile Bay. The Mobile Bay National Estuary Program partnered with the Baldwin County Soil and Water Conservation District, which then put out a request for proposal to develop a watershed management plan for the water of Weeks Bay. The Weeks Bay Coastal Training Program coordinator and education coordinator served on the committee to select a firm to complete the plan. The coastal training program coordinator continues to support the project as a member of the Weeks Bay Watershed Management Plan Stakeholder Working Group. The working group is tasked to help steer plan development, contribute technical assistance, and provide data to the contractor team. The plan is expected to be completed in March 2017. This coast-wide planning effort provides significant opportunities for the reserve to contribute research, data, and stewardship-related information and training and education knowledge to help in the restoration and protection of Weeks Bay. The Office for Coastal Management encourages the reserve to continue supporting this watershed planning effort and to engage across sectors to support the development of the plan, ensuring that relevant reserve monitoring and research data are incorporated into plan development, and to support efforts to measure if plan implementation is making a difference.

The Weeks Bay Reserve Coastal Training Program has worked with partners to equip local government staff members and officials, consultants, and others with the knowledge to restore coastal habitats and best approaches for living shoreline projects. A series of workshops has helped to develop and communicate best practices. In 2013, the Gulf reserves held two workshops on the planning and principles of ecological restoration, and in 2014 the Weeks Bay and Grand Bay Reserves hosted the newly developed Coastal Restoration Project Design and Evaluation workshop. In 2014, the coastal training program coordinator co-facilitated a workshop for the Alabama Living Shoreline Collaboration, "Living Shorelines: Ecology and Engineering Workshop." The workshop aimed to identify the ecological and engineering aspects of shoreline protection methods that combine to make the projects successful. The workshop brought together experts from universities, nonprofit organizations, private industry, and federal, state, and local officials to discuss the best approaches to make living shorelines on the Gulf coast as effective and economical as possible. The Weeks Bay Foundation provided boats

and ferried conference participants to the living shoreline along the reserve's Swift tract in south Mobile Bay.

The coastal training program also conducted a number of other trainings that address restoration, many in partnership with other Gulf reserves. For example, the reserve partnered with the Grand Bay Coastal Training Program and Gulf Regional Training Program to provide trainings on using blue carbon as a management tool for conservation and restoration of coastal wetlands. The workshops provided planners, practitioners, and other restoration specialists with a perspective on blue carbon concepts, market and policy opportunities to increase the value of wetland conservation and restoration, and the importance of their integration in restoration and conservation planning and practice.

The reserve has a strong partnership with The Nature Conservancy and worked with them to create almost 2,000 feet of oyster reef breakwaters along a stretch of the reserve's Swift tract shoreline in 2012. The project was funded and supported by the National Fish and Wildlife Foundation, Gulf of Mexico Foundation, and the NOAA American Recovery and Reinvestment Act. It is anticipated that the oyster reef breakwaters will serve to protect and stabilize eroding shorelines, provide nursery and foraging habitat for juvenile finfish and shellfish, decrease turbidity in water column, and dampen wave energy. The breakwaters are galvanized metal baskets that are filled with rock and then covered with oyster shell. In addition, two osprey platforms were installed at the northern and southern ends of the breakwaters. An additional 1.6 miles of oyster reef breakwater has also been funded with Phase III Deepwater Horizon Oil Spill Natural Resource Damage Assessment funds. The breakwaters are a new form of restoration, and research and monitoring will need to be done to evaluate and understand the physical, biological, and economic impacts. The reserve may also consider designating a control site, an area where no breakwaters will be built, to better understand the long-term effects of this type of restoration. The new breakwaters provide an opportunity for the reserve to conduct or partner with others to conduct research and monitoring. The reserve's system-wide monitoring program and sentinel site data could provide valuable information to researchers, practitioners, and local decision makers involved in restoration activities. In addition, the coastal training program could offer training on evaluating the impacts of restoration to practitioners in the region. The breakwater can also provide educational opportunities for students visiting the reserve.

The reserve has expertise in restoration across all sectors and has extensive data that can assist with restoration efforts across the Gulf. The Office for Coastal Management encourages the reserve, in its management plan revision, to identify its unique niche to complement other restoration efforts in the region and to consider restoration as a priority issue area.

Coastal Resilience

The Weeks Bay Reserve has led, or assisted, in key efforts to support coastal resilience. The Gulf region regularly faces a number of coastal hazards, including hurricanes, high rates of erosion due to sea level rise and land subsidence, and coastal flooding during rainstorms. As part of a

Gulf-wide effort, the coastal training program has worked with local communities to build community resilience to coastal hazards through a Coastal Resilience Index Workshop. The workshops bring together elected officials, public works directors, emergency managers, and other leaders at the community-government level to take an in-depth look at their community's level of resilience. The participants discuss 57 indicators in a Resilience Index organized in six categories to identify vulnerabilities, capitalize on strengths, and assess future impacts of disasters. The Resilience Index also helps communities look at how prepared community businesses such as grocery stores and fuel distributors are, as well as the social systems such as civic organizations and churches that have a strong presence in the community.

The Resilience Index has been completed by 47 communities across the Gulf of Mexico, and 74 facilitators have been trained to deliver the tool and provide technical assistance to the communities that use it. The reserve's evaluation of the training program shows that the workshops raise participants' understanding of the community as a whole, and that they "had an opportunity to become aware of the preparations and measures in place by other agencies in our community and how they will respond to a storm event"—and "We are viewing more as a group than by individual departments." The index was also recently expanded to evaluate the resilience of the tourism and fisheries industries, which will provide opportunities for the coastal training program to engage with additional community sectors.

EXAMPLE: Perdido Beach

The Town of Perdido Beach conducted a Community Resilience Index (CRI) workshop to identify challenges resulting from coastal storms and participated in a climate adaptation workshop. Participation in the workshops led the town to participate in an initiative sponsored by the Sustainable Communities Institute, an eight-month leadership academy program designed to build the capacity of six local communities in the Gulf Coast to implement practical resilience measures. The collaboration resulted in the Coastal Training Program, other partners, and the town hosting two public visioning sessions and drafting plans to assist the town with sustainability issues. In 2013 the mayor of Perdido Beach was invited to participate as one of 26 members of the President's State, Local and Tribal Leaders Task Force on Preparedness and Resilience, one of only two representatives from the Gulf Coast.

The coastal training program has also provided a number of additional workshops to help coastal decision makers improve resilience. Examples include a partnership with Apalachicola and Grand Bay Coastal Training Program to deliver "An Interactive Sea Level Rise Workshop: Protecting Coastal Communities by Linking Science and Citizens" at each reserve as part of a Gulf of Mexico Alliance Environmental Education Team initiative. The trainings were designed using feedback from local officials to address concerns about reducing risks and costs, protecting infrastructure and economies, and understanding uncertainties about sea level rise. The reserve has also hosted workshops to increase community understanding of the National Flood Insurance Community Rating System: "CRS for Your Community: Guidance and Incentives to Enter and Succeed in the Community Rating System" and "Weathering Future Floods: Reducing Costs and Risks through the Community Rating System."

The reserve is currently in the process of establishing a sentinel site program that will provide researchers with the information needed to study the response of natural marsh communities to sediment elevation, long-term changes in local water levels, and tidal inundation patterns. At the time of the site visit, the reserve had completed the installation of vegetative transects; installation of sediment elevation tables and access by boardwalk; installation of a National Water Level Observation Network tide station; and leveled sediment elevation tables to tide station. The reserve has partnered with the U.S. Geological Survey, NOAA's Center for Operational Oceanographic Products and Services, Grand Bay Reserve, researchers from the University of Alabama and Southern Illinois University, and volunteers from the AmeriCorps program and Outward Bound to establish the sentinel site program. The reserve also has plans to partner with the Geological Survey of Alabama and the Alabama Department of Transportation. The reserve has worked particularly closely with Grand Bay Reserve in the development of its sentinel site program, including the installation of surface elevation tables and conducting real time kinematic surveys. The Office for Coastal Management encourages the reserve in its efforts to establish and build out its sentinel site program, and also to connect the data and research findings with coastal decision makers and partnership groups in the Gulf of Mexico.

The sentinel site program will provide valuable information on changes over time that can inform the efforts of coastal decision makers to improve resilience. Scientists and partners that the evaluation team met with pointed out the value of the reserve's monitoring and geospatial data. The Office for Coastal Management encourages the reserve to promote and incorporate the use of sentinel site data into all sectors, and in particular, ensure that the coastal training programs is able to provide coastal decision makers with the latest data and research regarding coastal changes.

The reserve has also been able to incorporate climate resilience into two Teachers on the Estuary (TOTE) trainings. These trainings are part of a new national initiative of the National Estuarine Research Reserve System to provide teachers with hands-on, field-based, professional development sessions to support high-quality estuary education. In 2010, a TOTE workshop was held using the newly developed Estuaries 101 middle school curriculum, which aligned with the National Estuarine Research Reserve System's System-wide Monitoring Program and the system's climate change initiative goals. In 2015, the Gulf education coordinators each hosted a Teachers on the Estuary training focused on resilience (see also "Partnerships and Collaborations, Regional").

Coastal Community Planning, Stormwater Management, and Water Quality

The coastal training program has had a strong focus on stormwater management, best management practices, floodplain management, and water quality throughout the evaluation period. The coastal training program has provided a number of trainings on low impact development practices, innovative methods that collect runoff and allow it to soak into the ground before it leaves a property to protect the health of waterways. The stormwater and water quality training provided by Weeks Bay was cited by stakeholders who the evaluation

team met with as “practical” and “real world.” The program was commended for being a good resource for science, research, and data for watershed design and planning. Another stakeholder noted that their city relied on the reserve and national estuary program for training, education and outreach. Another stakeholder noted that officials have become more receptive to addressing water quality issues because of the trainings provided. A partner from the coastal program also discussed how seven of ten major nonpoint source issues were related to land use and the value of the watershed trainings to help address nonpoint source issues.

The coastal training program coordinator worked through the Watershed Program and Auburn University on installation of low impact development practices in an impaired watershed and completed phase one of a guidebook. The coastal training program partnered with the Department of Environmental Management, Auburn University, Alabama Cooperative Extension System, and others to form the Coastal Alabama Stormwater Team to serve as a resource to decision makers and other groups for stormwater management education and support. Through the efforts of the team, the guidebook evolved into the statewide *Alabama Low Impact Development Handbook* published in 2013. With Alabama homebuilder and general contractor organizations, the same team hosted a 2014 Low Impact Development Summit. The reserve, Mobile Bay National Estuary Program, and others collaborated on the development of the Create a Clean Water Future initiative that provides resources online at www.cleanwaterfuture.com.

The coastal training program also collaborated with agencies, municipalities, and local groups to achieve approval of enabling legislation and a ballot initiative for a Baldwin County, Alabama, fee-based stormwater authority. The coastal training program participated in outreach programs in support of the initiative. The ballot initiative came up for a vote in 2010 on the heels of the Deepwater Horizon disaster and was defeated. Although, the ballot initiative was not successful, the coastal training program’s influence has continued to improve stormwater management in the county. Stakeholders who the evaluation team met with noted that some developers were incorporating the techniques into their developments even though they are not required, and local government staff members the evaluation team met with were very interested in incorporating more low impact development techniques into their communities.

EXAMPLE: City of Fairhope adopts first low impact development ordinance in region

In 2015, in part through the efforts of the watershed program and coastal training program, the City of Fairhope incorporated low impact development into its zoning regulations and ordinance. The City of Fairhope was the first municipality in the region to incorporate low impact development requirements into its zoning code and it serves as a model for other jurisdictions.

The issue of water quality is also supported by the efforts of the reserve’s research and monitoring program. Weeks Bay has had a series of massive harmful algal bloom outbreaks in recent years. The system-wide monitoring data provide over 18 years of continuous records of hyperoxic and hypoxic events. The reserve’s monitoring program provides long-term water quality data sets that have contributed to valuable research results leading to a better

understanding of Weeks Bay. For example, the system-wide monitoring program data have been used by the research coordinator in partnership with other researchers to look at the factors driving primary productivity in Weeks Bay, and the key inputs for productivity modeling to determine if a hypoxia event is likely to occur. The watershed program has conducted additional monitoring to help address impairments on Fish and Magnolia Rivers and their tributaries. From 2009 to 2011, bacterial source-tracking testing was completed in partnership with the Weeks Bay Foundation, Mobile Bay National Estuary Program, and University of West Alabama. The Department of Environmental Management has used the reserve's data in its effort to develop nutrient criteria for estuarine and coastal waters consistent with the Clean Water Act and the U.S. Environmental Protection Agency's National Nutrient Strategy. The Office for Coastal Management encourages the reserve in its efforts to address stormwater and water quality through increased understanding of the dynamics of Weeks Bay and training, education, and technical assistance to coastal decision makers and members of the public.

Deepwater Horizon

Immediately following the Deepwater Horizon spill, staff members and reserve resources were used to conduct baseline sampling in support of the Natural Resources Damage Assessment. Staff members were responsible for sample chain of custody and data management. The Weeks Bay Coastal Training Program partnered with Grand Bay Reserve to complete an additional needs assessment after the Deepwater Horizon oil spill. The programs attempted to capture any new training needs to better meet the needs of decision-maker audiences. Results were not dramatically different but reiterated the ongoing needs of local and regional audiences, such as Incident Command System, shoreline cleanup assessment techniques, and first aid.

Sector integration

The above examples highlight projects where reserve staff members have worked on common issues of importance to the reserve and region. Although reserve staff members assist each other when needed, there is room to increase active collaboration and engagement and better integrate sector efforts toward achieving priority goals. The Office for Coastal Management encourages the reserve to target one to two priority issues in the new reserve management plan and for staff to regularly come together to plan and implement across sectors to achieve the identified objectives for the priority issues.

Recommendation: The Office for Coastal Management encourages the Alabama Department of Conservation and Natural Resources to maximize the utilization of the reserve's unique combination of education, training, stewardship, and research and monitoring to inform and assist future restoration efforts in the Gulf.

Recommendation: The Office for Coastal Management encourages the Weeks Bay National Estuarine Research Reserve to focus on integrating sector efforts with priority issues.

Recommendation: The Office for Coastal Management encourages the Weeks Bay National Estuarine Research Reserve to capitalize on its cross-sector restoration expertise by considering restoration as a priority issue when revising its management plan, and identifying its unique niche to complement other restoration efforts in the region.

Accomplishment: The Weeks Bay National Estuarine Research Reserve and partners successfully completed a Science Collaborative Program project, “Exploring the Cost-Effectiveness of Restored Marshes as Filters of Runoff Pollution in a World of Rising Seas,” that capitalized on the strength of both research and monitoring and the Coastal Training Program.

Accomplishment: The Weeks Bay National Estuarine Research Reserve has built regional capacity to implement low-impact-development techniques to improve stormwater management cost-effectively.

Partnerships and Collaborations

The reserve has contributed to and benefited from a number of partnerships and collaborations. These partnerships have allowed the reserve to build programming during times when base budgets are not increasing and costs are rising. This section highlights some partnerships and collaborations not discussed in the previous section, “Science to Management and Education.”

Education Program Partnerships

In 2008, the reserve began offering a new summer program, Art without Limits, now known as Squeaky Sneakers, in partnership with the Eastern Shore Art Center. The program targets a wide range of students, including underserved populations such as limited income and special needs students. Squeaky Sneakers is held for several weeks in the summer and is a week long summer day camp program that combines art and field studies to teach about local environments. Students explore the wonders of the Weeks Bay Watershed, seining for critters, taking boat rides, observing nature, and tasting and smelling plants and fruits, all while taking notes and drawing things encountered. The students then return to the classroom to express their experiences through various mediums of art under the guidance of staff from the Eastern Shore Art Center. After being displayed at Weeks Bay, each art piece is exhibited at the center in Fairhope. Squeaky Sneakers won a Gulf Guardian partnership award in 2013.

The education specialist is the reserve lead for summer programming and is assisted by the stewardship coordinator, volunteers, and AmeriCorps VISTA interns. The Eastern Shore Art Center also provides programming assistance, and the director of the Eastern Shore Art Center noted that working with the reserve had allowed them to learn more about the environment and incorporate this information into their activities throughout the region and beyond the coast. The summer education program is supported through competitive grants and partner organizations such as the Weeks Bay Volunteers, Eastern Shore Art Center, Alabama Coastal Foundation, and Baldwin County Soil and Water Conservation District.

Regional

The reserve has strong relationships in the Gulf of Mexico Region and in particular with the Grand Bay and Apalachicola Reserves. The reserve has partnered with Rookery (lead), Grand Bay, Guano Tolomato Matanzas, Mission-Aransas, and Apalachicola to successfully pursue funding and support, including B-WET educational grants. Through a B-WET grant, the Gulf education coordinators were able to work together to develop and host five TOTE workshops, one at each reserve in 2015. TOTE workshops provide valuable research and field-based teacher trainings that improve teachers' understanding of the environment using local examples, and provide resources and experience to support the incorporation of estuary and watershed topics into classroom teaching.

Weeks Bay also worked with a team led by the University of Central Florida that included Apalachicola and Grand Bay National Estuarine Research Reserves, University of South Carolina, and Florida State University and Dewberry, Inc. in the Ecological Effects of Sea Level Rise in the Northern Gulf of Mexico project. The reserve has also contributed to a Climate Community of Practice, which brings together extension, outreach, and education professionals and community officials in the Gulf to learn how coastal communities can adapt to sea level rise, precipitation changes, and other climate-related issues.

The Gulf-based coastal training programs have worked through the Gulf of Mexico Alliance to expand their ability to conduct trainings in the Gulf. In 2008, the five Gulf reserves received funding for a regional training program coordinator to work directly with the alliance's priority issue area teams and the coastal training programs to implement priority trainings. Workshops were conducted at each reserve and in areas where no reserve is located. Building on this effort, the alliance provided funds to the training programs to conduct Community Resilience Index workshops and technical support. Apalachicola Bay, Grand Bay, and Weeks Bay Reserves, along with NOAA and the University of Central Florida, received funding in 2013 to connect citizens to scientists regarding sea level rise. In 2014, the five Gulf Coastal training programs were awarded another grant to conduct regional training in collaboration with the U.S. Environmental Protection Agency's Gulf of Mexico Program. A regional training program coordinator was again contracted to increase the capacity of the reserves and national estuary programs. The Weeks Bay Foundation has served as the financial agent for these grants.

Stakeholders who the evaluation team met with noted the important role the coastal training program coordinator played in regional Gulf of Mexico projects. Because of turnover of coordinators at other reserves, the coordinator served as a mentor to new coordinators in the region and was described as the "glue" that held together regional initiatives.

Weeks Bay Foundation

The Weeks Bay Foundation was incorporated in 1990 as a nonprofit organization to support the Weeks Bay National Estuarine Research Reserve. The foundation continues to support the reserve by providing annual funding to the reserve for various programs and an annual grant

for an education assistant; helping acquire lands that have been transferred to the state to become part of the reserve; sharing of AmeriCorps VISTA volunteers; and serving as a fiscal agent for a number of grants. Although the foundation still provides some support to the reserve, its primary focus is serving as a land trust. The foundation is an accredited land trust and has protected a number of key parcels in both Baldwin and Mobile Counties. The Office for Coastal Management encourages the reserve and foundation to continue to work on strengthening their relationship and identifying and working together on shared priorities. Both the reserve and Weeks Bay Foundation might wish to pursue updating their memorandum of understanding to reflect new opportunities to work together on shared priorities.

Accomplishment: The Weeks Bay National Estuarine Research Reserve Coastal Training Program has served in a leadership role in the Gulf and has worked with the other Gulf Coastal Training Programs to secure funds to support a region-wide coordinator. The addition of this position has enabled the Gulf Coast reserves to provide numerous additional trainings for coastal decision makers on regional priorities.

Accomplishment: The Weeks Bay National Estuarine Research Reserve continues to implement the successful Grasses in the Classes program, engaging students in restoration efforts; developed Art Without Limits in partnership with the Eastern Shore Arts Center, a popular summer day camp program that combines art and field studies to teach children, including underserved populations, about local environments; and hosted one of five regional Teachers on the Estuary workshops in the Gulf, providing local teachers with valuable hands-on experience to improve understanding of the environment using local examples, as well as providing resources and experience to support the incorporation of estuary and watershed topics into classroom teaching.

Evaluation Metrics

Beginning in 2012, national estuarine research reserves 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.

Goals and Objectives from the Weeks Bay National Estuarine Research Reserve Management Plan dated 2007-2012:

Metric 1

Goal: Protect and improve habitat and biological diversity within the boundary of the reserve.

Objective: By 2017, develop and implement comprehensive education and interpretation programs to increase knowledge of target audiences to protect and improve habitat and biological diversity within the boundary of the reserve.

Strategy: The Reserve Education Plan calls for the implementation of comprehensive K-12 education and interpretation programs to strengthen student understanding, appreciation, and stewardship of estuaries and associated coastal habitats in an effort to protect and improve habitat and biological diversity within the boundary of the reserve.

Performance Measure: Number of K-12 education programs held annually at the reserve that focus on the value and conservation of estuaries.

Target: 25 K-12 education programs

First Year Results: 40 K-12 education programs

Second Year Results: 47 K-12 education programs

Third Year Results: 37 K-12 education programs

Discussion: The education program greatly exceeded its target each of the past three years.

Metric 2

Goal: Improve decisions affecting estuarine and coastal resources.

Objective: By 2017, use the training and outreach center (Resource Center) for the capacity building of coastal resource managers in an effort to improve decisions affecting estuarine and coastal resources.

Strategy: The Reserve Education Plan calls for the implementation of comprehensive coastal training programs to utilize the Resource Center in building capacity for coastal resource managers and strengthening understanding, appreciation, and stewardship of estuaries, coastal habitats, and associated watersheds to improve decisions affecting estuarine and coastal resources.

Performance Measure: Number of coastal training program (CTP) workshops held annually targeting coastal resource managers and local decision makers and using reserve-specific research to support best management decisions to protect coastal estuaries.

Target: 5 CTP workshops at the reserve, held annually, target coastal resource managers and local decision makers and use reserve-specific research to support best management decisions to protect coastal estuaries.

First Year Results: 9 CTP workshops

Second Year Results: 11 CTP workshops

Third Year Results: 5 CTP workshops

Discussion: The Coastal Training Program met or exceeded its target the past three years.

Metric 3

Goal: Promote education, stewardship, and scientific research focusing on estuarine ecosystems.

Objective: By 2017, provide resources, support, and background data to facilitate independent research projects within the reserve and adjacent associated waters.

Strategy: The reserve will support and facilitate independent research projects of external researchers in the Weeks Bay Reserve boundary, the Weeks Bay watershed, and the Weeks Bay Coastal Area. Resources provided by the reserve include laboratories, lodging, and field sites. Support and facilitation mean providing background data, logistical support, including access to reserve boats, and reserve staff time.

Performance Measure: Number of reserve-supported research projects initiated annually at the reserve that investigate the dynamics and function of estuaries.

Target: 3 reserve-supported research projects initiated annually at the reserve that investigate the dynamics and function of estuaries.

First Year Results: 3 reserve-supported research projects

Second Year Results: 6 reserve-supported research projects

Third Year Results: 5 reserve supported research projects

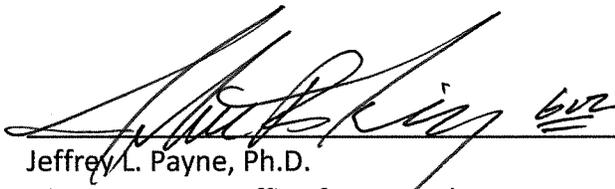
Discussion: The reserve's research program met or exceeded its target all three years.

Conclusion

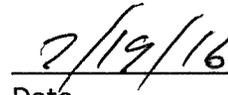
For the reasons stated herein, I find that the State of Alabama is adhering to the programmatic requirements of the Coastal Zone Management Act and its implementing regulations in the operation of its Weeks Bay National Estuarine Research Reserve.

These evaluation findings contain one necessary action and seven recommendations. The necessary action is mandatory and must be completed by the dates given. Recommendations must be considered before the next regularly scheduled program evaluation. Program recommendations that must be repeated in subsequent evaluations may be elevated to necessary actions.

This is a programmatic evaluation of the Weeks Bay Reserve and may have implications regarding the state's financial assistance awards. However, it does not make any judgment about or replace any financial audits.



Jeffrey L. Payne, Ph.D.
Director, NOAA Office for Coastal Management



Date

Appendix A: Response to Written Comments

No comments received.