

Evaluation Findings

Indiana Lake Michigan Coastal Management Program

September 2014 to April 2021

Published September 2021



Office for Coastal Management
National Ocean Service
National Oceanic and Atmospheric Administration
United States Department of Commerce

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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 states and territories with federally approved coastal management programs. This evaluation examined the operation and management of the Indiana Lake Michigan Coastal Management Program by the Indiana Department of Natural Resources for the period from September 2014 to April 2021. The evaluation focused on three target areas: program administration, resilience to coastal hazards, and public access.

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

Accomplishment: The Indiana Lake Michigan Coastal Management Program has supported much-needed access improvements to both coastal waters and beaches for disadvantaged residents and visitors.

Accomplishment: The Indiana Lake Michigan Coastal Management Program has addressed all of the concerns expressed in the 2008 conditional approval of the Indiana Coastal Nonpoint Program, has submitted these changes to the U.S. Environmental Protection Agency and NOAA.

Recommendation: The NOAA Office for Coastal Management recommends that the Indiana Department of Natural Resources focus on strategies for staff retention and consider a number of techniques to ensure staffing continuity in the Indiana Lake Michigan Coastal Management Program.

Recommendation: The NOAA Office for Coastal Management recommends that the Indiana Department of Natural Resources examine the composition of the Indiana Lake Michigan Coastal Program's Coastal Advisory Board to ensure that all appropriate agencies, interest groups, and the diversity of the coastal population are represented.

Recommendation: The NOAA Office for Coastal Management recommends that the Indiana Department of Natural Resources consider amending the annual coastal management grants process to specifically target the program's stated goals, such as applied science.

Recommendation: The NOAA Office for Coastal Management recommends that the Indiana Department of Natural Resources work with public and private partners to develop a comprehensive shoreline management strategy for the state's coastal area.

Recommendation: The NOAA Office for Coastal Management encourages the Indiana Department of Natural Resources to make every effort to quickly fill a vacancy in the position of

Lake Michigan Specialist with a well-qualified professional before the retirement of the incumbent.

Recommendation: The NOAA Office for Coastal Management recommends that the Indiana Department of Natural Resources help local communities identify possible funding sources for resilience activities.

Recommendation: The NOAA Office for Coastal Management recommends that the Indiana Department of Natural Resources, working with the Coastal Advisory Board, develop an outreach plan to the larger shorefront landowners to explore opportunities for improving access for land and water trails adjacent to their landholdings.

Recommendation: The Indiana Lake Michigan Coastal Management Program should examine opportunities to improve coastal access and recreation opportunities for all residents and visitors, including coordination of the annual Coastal Grants program with the Coastal and Estuarine Land Conservation Program and the Statewide Outdoor Recreation Plan.

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

Program Review Procedures

The Coastal Zone Management Act (CZMA) of 1972, as amended (CZMA; 16 U.S.C. 1451 et. seq.) requires that state coastal management programs and national estuarine research reserves that are developed pursuant to the CZMA and approved by the secretary of commerce be evaluated periodically. Section 1458 of the CZMA and implementing regulations at 15 CFR 923, Subpart L, require that state coastal management programs be evaluated concerning the extent to which the state has 1) implemented and enforced the program approved by the secretary; 2) addressed the coastal management needs identified in 16 U.S.C. 1452(2)(A) through (K); and 3) adhered to the terms of any grant, loan, or cooperative agreement funded under the CZMA.

The NOAA Office for Coastal Management evaluated the Indiana Lake Michigan Coastal Management Program in fiscal year 2021. The evaluation team consisted of Ralph Cantral, evaluation team lead; Diana Olinger, site liaison; Heather Stirratt, Great Lakes regional lead; and Rebecca Nicodemus, environmental scientist—all from the NOAA Office for Coastal Management; and Stacey Box, grants coordinator, Pennsylvania Coastal Resource Management Program. The support of the Indiana Lake Michigan Coastal Management Program staff was crucial in conducting the evaluation, and their support is most gratefully acknowledged.

NOAA sent a notification of the scheduled evaluation to Daniel Bortner, Director, Indiana Department of Natural Resources, on January 27, 2021, and published a notice of “Intent to Evaluate” in the *Federal Register* on February 18, 2021. The Indiana Lake Michigan Coastal Management Program issued a press release and posted a notice of the public meeting and opportunity to comment on April 4, 2021.

The evaluation process included a review of annual federal financial assistance award reports, Section 309 Assessments, and information provided by the programs documenting how they are implementing their programs and addressing the programmatic requirements of the CZMA. The review also included a survey of interested parties, which helped identify three target areas for the evaluation: program administration, coastal hazards, and public access. A virtual site visit was conducted April 6-8, 2021, and the evaluation team held meetings with staff members and group discussions with subject matter experts, interested parties, and program staff members about the target areas. In addition, a virtual public meeting was held on April 7, 2021, to provide an opportunity for members of the public to express their opinions about the implementation of the coastal program.

Interested parties and members of the public were given the opportunity to provide written comments via email or U.S. mail through April 16, 2021. No written comments were received from interested parties or members of the public. The NOAA Office for Coastal Management then developed draft evaluation findings, which were provided to the Indiana Department of Natural Resources for review. The department’s comments were considered in drafting the final evaluation findings.

Evaluation findings for all coastal programs highlight the coastal program's accomplishments in the target areas and include recommendations that are of two types:

Necessary Actions address programmatic requirements of the implementing regulations of the Coastal Zone Management Act (CZMA) and of the state coastal program approved by NOAA. 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 CZMA §312(c).

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

Evaluation Findings

The Indiana Lake Michigan Coastal Management Program is led by the Indiana Department of Natural Resources. The program focuses on the Lake Michigan shoreline and watershed. Although the coastline is only 43 miles in length, the coastal area incorporates diverse communities and heavy industry as well as protected areas, including Indiana Dunes National Park. The national park and Indiana Dunes State Park together contain more than 1,400 species of plants. The population of the three counties with Lake Michigan shoreline—Lake, Porter, and LaPorte—is nearly 900,000.

Target Area 1: Program Administration

The coastal management program is designed to maximize pass-through grants to local communities and organizations. The coastal program has a small staff to guide the grants process, provide technical information, and coordinate coastal activities within the Department of Natural Resources and in the other agencies with responsibilities in the coastal area.

Examples of Key Efforts

During the evaluation period of 2014 to 2021, all positions within the Indiana Lake Michigan Coastal Program, including the program manager, turned over at least once. This turnover, coupled with periodic state government hiring freezes, created vacancies that lasted as long as 10 months. Temporary part-time positions have also remained unfilled. Despite these personnel shortages, the staff was able to fulfill necessary functions related to the implementation of the program and the necessary reporting related to the cooperative agreement with NOAA.

The evaluation team learned that staff attrition experienced during the evaluation period may be due to a number of factors, including higher paying positions elsewhere, lack of advancement potential within the coastal program, and the relatively high cost of living in the coastal area. Creative approaches to acquiring and retaining staff might include pay incentives based on job performance, opportunities for training and professional development, or travel allowances and incentives to attend national and regional coastal meetings and conferences.

Regardless of the reasons for staff attrition, a proven method of expanding staff capacity at little cost is to explore fellowship opportunities. Fellowships may be available through several federal agencies, as well as through Indiana colleges and universities. One possibility is the NOAA Coastal Management Fellowship. Through this program, fellows are available for two years through a competitive process that is conducted yearly.

Because the Indiana Lake Michigan Coastal Management Program has such a small staff, the Department of Natural Resources might also benefit from setting aside a portion of the annual

NOAA cooperative agreement to address out-of-the-ordinary, yet predictable requirements such as developing strategic plans or the once-every-five-years requirement for developing an assessment and multi-year strategy under the CZMA Section 309 Enhancement Grant Program. Contractual set-asides would help add capacity from the outside, ensure that the program is timely in its future obligations, and allow the state employees to concentrate on their regularly assigned duties.

Another approach to ensuring continuity of operations would be to develop knowledge journals and standard operating procedures for grants and other administrative management tasks to serve as guidance for staff in the future. This method has proven useful to coastal management programs in other states.

Recommendation: The NOAA Office for Coastal Management strongly recommends that the Indiana Department of Natural Resources focus on strategies for staff retention and consider a number of techniques to ensure staffing continuity in the Indiana Lake Michigan Coastal Management Program.

The evaluation team learned that a valuable contribution the Indiana Lake Michigan Coastal Program has made to resource protection and management is to serve as a convener of a variety of organizations in the region. Several Coastal Advisory Board members expressed their appreciation that the staff has been helpful in bringing a variety of challenges and potential solutions as well as interested parties to their attention and to their meetings.

The Indiana Lake Michigan Coastal Program's Coastal Advisory Board has proven to be a valuable resource since the program was initially developed. Unfortunately, in recent years, the advisory board has not been as active as it once was. The membership of the board has not been revised in recent years, and does not fully reflect the needs of the coastal area. As an example, the state's emergency management agency is not represented on the advisory board. The evaluation team also learned that some long-time members of the board have retired and not been replaced by their agency or organization. Yet another area of concern is that the rich diversity of the population of Indiana's coastal area is not adequately reflected on the board. If the Coastal Advisory Board were to be realigned to address pressing current issues such as coastal resilience and to be more reflective of the area's population, it could provide even more valuable insights as each year's grant proposals are reviewed. Having set terms and staggered appointments could also be helpful in ensuring active participation.

There are also opportunities for the Coastal Advisory Board to serve as a liaison with coastal communities, providing a better understanding of community needs and providing current information on assistance available to meet those needs.

Recommendation: The NOAA Office for Coastal Management recommends that the Indiana Department of Natural Resources examine the composition of the Indiana Lake Michigan Coastal Program's Coastal Advisory Board to include all appropriate agencies, and ensure a diversity of interests and representation.

The Lake Michigan Coastal Program's strategic plan has a goal related to increasing awareness of coastal region resources, issues, and values. During the course of the evaluation site visit, coastal program staff and interested parties also mentioned the need to bring more science-based information to local decision-makers. The evaluation team noted that only one applied research project was funded in fiscal year 2020. The annual grants process provides a great opportunity to make science more accessible to the coastal management program's partners. The program should consider a more targeted project solicitation process to address key resource management questions as identified by the local communities.

Recommendation: The NOAA Office for Coastal Management recommends that the Indiana Department of Natural Resources consider amending the annual coastal management grants process to specifically target the program's stated goals, such as applied science.

Target Area 2: Resilience to Coastal Hazards

The Indiana Lake Michigan shoreline is susceptible to a variety of hazards, including water level fluctuations, ice cover, and severe storms. Since the last evaluation in 2014, Lake Michigan water levels have been consistently above the average of 578.87. Prior to 2014, however, the lake levels had been below the average, and record low levels were recorded as recently as December 2012 and January 2013. Changes in water levels can have negative effects on navigation, flooding, and public access, and damage has been reported by most shoreline communities in recent years. These fluctuations, coupled with more intense storms, have made shoreline management exceedingly difficult, as many local governments are in a reactionary posture because they had done little hazard mitigation planning or ordinance development. Most local governments also lack the technical ability to ensure that infrastructure and development are located to minimize risk from coastal hazards.

Examples of Key Efforts

In 2016, the Indiana Lake Michigan Coastal Program developed the *Coastal Hazards Planning Guidance for Indiana Coastal Communities*. That report provided technical information on wave and beach dynamics, an analysis of the effectiveness of erosion control structures, and information about how local governments could approach the development and adoption of ordinances to better control development along the shoreline. Unfortunately, this information has not been available during the time of high lake levels when communities needed it the most. Because this document has become dated, it is no longer available on the program's website. The program staff should place a high priority on updating this guide, developing an outreach plan, and sharing the information and targeted technical assistance with local communities throughout the coastal area.

Recommendation: The Indiana Department of Natural Resources should update the Coastal Hazards Planning Guidance for Indiana Coastal Communities as soon as possible and make both the document and technical assistance available to coastal communities and residents.

During the evaluation period, the coastal program supported a number of efforts to educate local officials, nonprofit organizations, and the public about coastal hazards. The coastal program partnered with Illinois-Indiana Sea Grant, the Association of State Floodplain Managers, Northwestern Indiana Regional Planning Commission, and the Porter County Surveyor to host a Coastal No Adverse Impact Approach Workshop in Hammond in 2016 with emphasis on green infrastructure and regionally relevant legal issues. The program also supported Illinois-Indiana Sea Grant as they hosted a series of virtual workshops in 2020 to improve communication about changing Lake Michigan water levels. The latter workshop included presentations from NOAA, the Illinois Coastal Management Program, and the U.S. Army Corps of Engineers.

The Indiana Lake Michigan Coastal Program conducted a needs assessment in December of 2019 as part of the Section 309 Assessment and Strategy. This survey identified coastal hazards as a high priority for the coastal region, and this was reflected in the development of an enhancement strategy for coastal hazards. The strategy builds on the coastal atlas that was developed during this evaluation period using Section 309 funding. It will supplement the existing atlas by adding additional data layers showing the relationships between erosion rates and existing structures along the coast, among others. This effort will provide information for planning and management along the Lake Michigan shoreline and within coastal communities by improving the ability to model shoreline and regional impacts under specific lake level, weather, and climate scenarios. Continued and improved shoreline monitoring and modeling, including use of aerial imagery, LiDAR, bathymetry, vegetation, and soils data should improve internal agency understanding and ability to provide technical assistance to communities.

The reactionary posture created by record water levels, increased coastal erosion and hazards along the Indiana shoreline, and the current state permit requirements addressing only work lakeward of the ordinary high-water mark are a significant challenge. The absence of development setbacks and local ordinances that would help communities proactively address the impacts of coastal hazards was noted by the evaluation team. The absence of these tools in an era of rapidly changing lake conditions has created an opportunity for the coastal management program to provide leadership, coordination, and support to increase local and state capacity. New municipal-scale partnerships between the NOAA Office for Coastal Management and the Great Lakes and St. Lawrence Cities Initiative could be leveraged to address local government coastal concerns and needs through assistance from the Indiana Lake Michigan Coastal Program. A newly reconstituted Coastal Advisory Board could also be a useful tool in bringing together public and private partners to ensure a comprehensive approach to shoreline management.

The Indiana Lake Michigan Coastal Management Program could play a key role in the development of a comprehensive and proactive lakeshore management strategy. The process

to develop such a strategy should include discussions within and between agencies, developers, municipalities, and nongovernmental organizations on a variety of issues such as sustainable development, coastal hazard planning, post-hazard recovery planning, green infrastructure, and hazard mitigation. Outreach and education on the importance of limited and resilient shoreline development, dune protection, erosion, flooding prevention, living shorelines, wetland and greenspace protection, and recreational hazards will also be needed. As the coastal program is seen as a trusted facilitator and convener of groups, as well as a reliable source for high-quality information, it should play a key role in strategy development at the state level.

Recommendation: The NOAA Office for Coastal Management recommends that the Indiana Department of Natural Resources work with public and private partners to develop a comprehensive shoreline management strategy for the state's coastal area that stresses the importance of resilient shoreline development.

As mentioned previously under the "Program Administration" section, the Indiana Lake Michigan Coastal Program is managed by a very small staff that relies on other divisions of the Department of Natural Resources, as well as other state agencies, to administer crucial parts of the program. One critical position, the Lake Michigan Specialist, is located in the Department of Natural Resources Division of Water. The evaluation team learned that the incumbent in this position, who has been the state's expert on shoreline dynamics for more than 30 years, is soon to retire. The loss of the knowledge and expertise of an individual is hard to replace, but illustrates the need to hire a well-qualified individual to continue to provide much-needed information for planning and permitting to state and local governments. The Department of Natural Resources may want to coordinate with the Indiana Geological and Water Survey to find and help train the best possible person for this position.

Recommendation: The NOAA Office for Coastal Management encourages the Indiana Department of Natural Resources to make every effort to quickly fill a vacancy in the position of Lake Michigan Specialist with a well-qualified professional before the retirement of the incumbent.

Given the challenges related to coastal hazards, the Indiana Lake Michigan Coastal Management Program could also play a key role in identifying other sources of funding for resilience initiatives. The coastal program could provide assistance to communities to learn about and apply for funding under the National Coastal Resilience Fund that NOAA and the National Fish and Wildlife Foundation co-administer, as well as the Great Lakes and St. Lawrence Cities Initiative, the Federal Emergency Management Agency, and the U.S. Army Corps of Engineers.

Recommendation: The NOAA Office for Coastal Management recommends that the Indiana Lake Michigan Coastal Management Program work in coordination with the Department of Natural Resources and other state agencies to help local communities identify possible partnerships and funding sources for resilience activities.

Target Area 3: Public Access to the Lakeshore

Indiana has a long history of both promoting the Indiana Dunes as a public recreation area and protecting the sensitive dune ecosystem. Helping coastal communities balance these competing needs is a key focus of the Indiana Lake Michigan Coastal Management Program.

Examples of Key Efforts

Numerous public beaches are available for public use along the Lake Michigan shoreline, but access is sometimes limited by a lack of parking and other amenities. Improving access to Lake Michigan beaches, coastal streams, and parks has been a focus for the coastal management program during this evaluation period, and several achievements were noted by evaluation participants.

The Indiana Lake Michigan Coastal Program has provided numerous grants to local governments to address problems associated with public access. Projects have ranged from the development of land acquisition plans to the construction of boardwalks and trails, and to the stabilization of vegetation to prevent erosion of trails.

During the current evaluation period, the coastal program has made efforts to address access for people with disabilities. The program provided matching funding to the City of Michigan City to construct the state's first Americans with Disabilities Act (ADA)-compliant canoe and kayak launch on Trail Creek. Improved parking opportunities and providing better access for those with disabilities to cross over dunes to the water's edge have also been supported by the coastal program, as beach mats have been installed and maintained at both Indiana Dunes State Park and in Michigan City. An ADA-compliant beach platform has also been incorporated into the project at the state park.

One of the more innovative accomplishments of the coastal program has been the acquisition of a "HETAP [High Efficiency Trail Assessment Process] cart" to assess the accessibility of existing trails. This high efficiency trail plan cart allows park planners and managers for coastal communities and agencies to better understand the limitations of various trails by analyzing their slope and accessibility. Unfortunately, the COVID-19 pandemic slowed down the ability to immediately train potential users and put the cart into service, but several communities and agencies have expressed strong interest in using the cart.

Accomplishment: The Indiana Lake Michigan Coastal Management Program has supported much-needed access improvements to both coastal waters and beaches for disadvantaged residents and visitors.

Although the Indiana Dunes National Park and Indiana Dunes State Park offer a number of hiking opportunities, a desire has been expressed for improving the continuity of access along

the shoreline and in the waters for both hikers and paddlers. Public access to the shoreline along Lake Michigan is not continuous, as private land ownership often makes the direct shoreline and adjoining waters inaccessible. The largest stretches that are inaccessible are either large industrial complexes or private marinas. The Indiana Lake Michigan Coastal Management Program has demonstrated an ability to convene numerous interested parties to resolve issues, and may serve a vital role in identifying ways to improve trail continuity along the shoreline. Inclusion of representatives of the large landholders on the Coastal Advisory Board may also help to improve this situation.

Recommendation: The NOAA Office for Coastal Management recommends that the Indiana Department of Natural Resources, working with the Coastal Advisory Board, develop an outreach plan to the larger shorefront landowners to explore opportunities for improving access for land and water trails adjacent to their landholdings.

The coastal program continues to devote a significant level of funding to land acquisition and small capital-improvement projects. Projects such as trail improvements and replacement of invasive species with native vegetation have been very successful. The evaluation team noted, however, that, due to the relatively large expense of several of the land acquisition projects, the Indiana Lake Michigan Coastal Program may want to examine the 2002 plan prepared for NOAA's Coastal and Estuarine Land Conservation Program to determine if it still reflects both coastal program goals and the land acquisition needs in the coastal area. An analysis of the access and recreation needs of traditionally underserved communities in the area could also prove to be helpful. These analyses could yield helpful information to support the annual Coastal Grants process. The Statewide Outdoor Recreation Plan also offers an opportunity to align grant funding to achieve the maximum impact.

Recommendation: The Indiana Lake Michigan Coastal Management Program should examine opportunities to improve coastal access and recreation opportunities for all residents and visitors, including coordination of the annual Coastal Grants program with the Coastal and Estuarine Land Conservation Program and the Statewide Outdoor Recreation Plan.

Implementation of Coastal Zone Management Program General Requirements

Section 6217 of the Coastal Zone Act Reauthorization Amendments requires Indiana, like all coastal states participating in the National Coastal Zone Management Program, to develop coastal nonpoint programs to control polluted runoff to coastal waters. NOAA jointly administers the Coastal Nonpoint Program with the U.S. Environmental Protection Agency (EPA). NOAA and EPA approved Indiana's Coastal Nonpoint Program, subject to certain conditions, in 2008. In the last evaluation, the state received a necessary action to require the development of a timeline for addressing the remaining conditions.

Since then, the state has been working closely with NOAA and EPA to address those conditions. The state has submitted everything it believed was needed to address the conditions placed on its program. NOAA and EPA are currently completing their review of Indiana's nonpoint program and preparing a proposed decision on whether the state has satisfied all conditions of approval that the federal agencies placed on its program in 2008. NOAA and EPA will announce the proposed decision in the *Federal Register* for public comment before making a final decision.

Accomplishment: The Indiana Lake Michigan Coastal Management Program has addressed all of the concerns expressed in the 2008 conditional approval of the Indiana Coastal Nonpoint Program, has submitted these changes to the U.S. Environmental Protection Agency and NOAA.

Another requirement of the Coastal Zone Management Act is for participating states to conduct federal consistency determinations in a timely manner. The Indiana Lake Michigan Coastal Management Program continues to effectively and efficiently issue federal consistency determinations.

Evaluation Metrics

Beginning in 2012, state coastal management programs began tracking their success by tracking three activities 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.

2012–2017 Metric 1: Coastal Hazards

Goal: Reduce risk from coastal hazards

Objective: By 2017, coastal communities have completed projects to reduce future damage from hazards as a result of technical or financial assistance from the coastal management program.

Strategy: Indiana’s Lake Michigan shoreline is subject to periodic long-term rise and fall of lake level, large periodic storm events, and shoreline erosion (including bluff and dune erosion). The Lake Michigan Coastal Program (LMCP) places a high priority on working with local communities to address the risks from these hazards. It does so by providing both financial and technical assistance to local communities for planning (development and incorporation of a shoreline erosion and hazards element in local comprehensive plans) and on-the-ground projects that include applied research on dune processes and natural area restoration.

Financial assistance is provided through an annual open grant competition. Technical assistance includes the Technical Assistance Planning Program (TAPP) and Division of Water Lake Michigan permitting process. TAPP products include the Coastal Hazard Model Ordinance, TAPP Toolkit, and shoreline structure inventory.

Performance Measure: The number of locally implemented projects completed to reduce risk from coastal hazards as a result of technical or financial assistance from the coastal management program.

Target: Three locally implemented projects completed to reduce risk from coastal hazards as a result of technical or financial assistance from the coastal management program.

Year 1: 2

Year 2: 0

Year 3: 0

Year 4: 1

Year 5: 3

Cumulative Data: 6

Discussion: The Lake Michigan Coastal Program has successfully worked with local governments to implement projects that reduce risk from coastal hazards.

2012–2017 Metric 2: Sustainable Development

Goal: Sustainable planning principles incorporated into land use planning

Objectives: By 2017, local governments in the state’s coastal program area incorporate sustainable planning principles in their local comprehensive plans, local mitigation strategies, beach or floodplain management plans, local adaptation strategies, economic development strategies, or land development regulations.

Strategy: The vision of the Indiana Lake Michigan Coastal Program (LMCP) is to provide technical, financial, and programmatic assistance to ensure that the Lake Michigan coastal area is thriving for future generations. The LMCP strives to empower the coastal community to become active stewards of coastal resources. The program provides technical assistance and produces reference documents that promote sustainable planning implementation. The Technical Assistance Planning Program (TAPP) and Coastal Nonpoint Program work with partners on updating comprehensive and watershed management plans. In addition, the Coastal Grants program funds planning projects that go above and beyond and include sustainable planning components and strategies.

Performance Measure: The number of local governments in the coastal program area that incorporate sustainable planning principles in local comprehensive plans, local mitigation strategies, beach or floodplain management plans, local adaptation strategies, economic development strategies, or land development regulations.

Target: Four local governments in the coastal program area have incorporated sustainable planning principles in their local comprehensive plans, local mitigation strategies, beach or floodplain management plans, local adaptation strategies, economic development strategies, or land development regulations.

Year 1: 1

Year 2: 0

Year 3: 0

Year 4: 2

Year 5: 0

Cumulative Data: 3

Discussion: The Lake Michigan Coastal Program relies on partners to submit applications for projects. The number of applications for projects to implement sustainable planning principles did not meet expectations.

2012–2017 Metric 3: Local Grant Implementation

Goal: The Lake Michigan Coastal Program (LMCP) provides financial assistance to entities in the coastal program area to implement strategically developed plans.

Objective: The LMCP Coastal Grants program supports implementation of local comprehensive plans, watershed plans, public access improvement plans, and recreational strategic plans.

Strategy: The Vision of the LMCP is to provide technical, financial, and programmatic assistance to ensure that the Lake Michigan coastal area is thriving for future generations. The Coastal Grants program provides funding to communities and organizations (units of local government, state agencies, state colleges and universities, area-wide agencies, and nonprofit organizations) that seek out social, economic, and environmental solutions that promote partnerships and balance the use and protection of the coast’s valuable, yet fragile, resources. One of the ways for communities and organizations to accomplish those solutions is through the implementation of local plans and strategies, which are local comprehensive plans, watershed plans, public access improvement plans, and recreational strategic plans, via low-cost construction or land acquisition projects (Section 306A projects).

Performance Measure: The percentage of all Section 306A projects funded by the LMCP Coastal Grants program over the five-year reporting period that implement the goals of existing plans and strategies.

Target: 95% of all Section 306A projects funded by the LMCP Coastal Grants program over the five-year reporting period implement the goals of existing plans and strategies.

Year 1: 100%

Year 2: 100%

Year 3: 100%

Year 4: 100%

Year 5: 100%

Cumulative Data: 100%

Discussion: All of the projects funded over the five-year period reflected existing plans and policies.

2018–2023 Metric 1: Coastal Hazards

Goal: Indiana coastal communities are effectively planning and preparing for change.

Objective: Prepare for and minimize the risks from coastal hazards, changing conditions, and emerging issues.

Strategy:

Communities in the Indiana coastal region are at risk due to changes caused by extreme weather and climate-related hazards (i.e. flooding, erosion, decrease in stormwater storage). The impact of these challenges provide opportunities for the engagement and participation of coastal community members and decision-makers to plan, prepare, and respond in a way that is balanced, sustainable, and resilient.

The Indiana Lake Michigan Coastal Program (LMCP) leads projects to better understand and minimize hazard risk and to raise public awareness of coastal hazards. The LMCP also enables coastal communities to carry out these types of projects through financial and technical assistance, including, but not limited to, the LMCP pass-through grants program, educational signage, training opportunities, technical resources on the website, and site visits for habitat restoration guidance.

LMCP will continue to make the data collected through the Coastal Wetlands Functional Assessment and Mapping 309 project available to decision-makers and assist communities in identifying, assessing, quantifying, and communicating the value of coastal ecosystem services and functions, including how changes in these ecosystems are impacting their communities. Through LMCP collaboration and assistance, these efforts and initiatives will lead to more informed communities and decision-makers, which in turn will result in effective policies, plans, and projects that contribute to coastal sustainability and resilience.

The LMCP anticipates that a) 1 state-level policies and plans completed; b) 5 local-level policies and plans completed; c) 0 projects completed at the state level; d) 4 projects completed at the local-level to reduce future damage from coastal hazards with assistance from LMCP funding or staff.

Performance Measure: (11a-d) From 2018-2023, the number of a) state-level policies and plans completed; b) local-level policies and plans completed; c) projects completed at the state level; d) projects completed at the local-level to reduce future damage from coastal hazards with assistance from LMCP funding or staff.

Target: From 2018-2023, 10 a) state-level policies and plans completed; b) local-level policies and plans completed; c) projects completed at the state level; d) projects completed at the local-level to reduce future damage from coastal hazards with assistance from LMCP funding or staff.

Year 1: 0

Year 2: 2

Cumulative Data: 2 policies and plans completed.

Discussion: Over the first two years of the performance period, the program only achieved 20 percent of the five-year target. Additional projects can be completed over the course of the performance period to meet the expressed target.

2018–2023 Metric 2: Coastal Habitat

Goal: Coastal ecosystems are protected, preserved, and restored for use and improved public access.

Objective: Preserve, restore, and better understand the services provided by coastal ecosystems.

Strategy: The Lake Michigan Coastal Program (LMCP) will continue its efforts to encourage and enable natural area habitat restoration and the acquisition of parcels in the coastal region that provide protection of a significant natural resource. These efforts will primarily be accomplished through our pass-through grants program, in addition to long-term collaboration and financial support to the Indiana Department of Natural Resources: Division of Nature Preserves Regional Ecologists to implement natural area restoration activities throughout the LMCP Program Area.

Intact ecosystems provide multiple benefits and must be maintained and improved throughout Indiana’s coastal region. These natural areas serve as habitat for fish and wildlife and help to buffer communities from flooding and extreme weather events.

The coastal area in Indiana is a relatively small area of the state that is heavily urbanized and industrialized; as such, conservation area acquisition or restoration opportunities arise sporadically. Potentially high acquisition costs in the urbanized environment further limit plausible opportunities. Achieving about 15 acres per year of conservation opportunities represents considerable achievement based on the limiting factors described.

Performance Measure: (The Performance Measure includes CZMA Performance Measure System 8a-8h) From 2018-2023, the number of acres of coastal habitat protected by acquisition or easement and the number of acres of coastal habitat under restoration with assistance from LMCP funding or staff.

Target: From 2018-2023, 100 acres of coastal habitat protected by acquisition or easement and the number of acres of coastal habitat under restoration with assistance from LMCP funding or staff.

Year 1: 114

Year 2: 274

Cumulative Data: 388 acres

Discussion: The goal for habitat acquisition was exceeded in the first two years of the performance measurement cycle.

2018–2023 Metric 3: Public Access

Goal: Coastal ecosystems are protected, preserved, and restored for use and improved public access.

Objective: Improve public access to the coast to enhance recreation and enjoyment for all.

Strategy: The acquisition and restoration of prioritized coastal natural areas will provide more opportunities for public access and recreation. In addition, enhancing existing sites will improve public access by creating safer and more inclusive sites for all users to coastal areas.

The Lake Michigan Coastal Program (LMCP) will continue efforts initiated by our 309 ADA/Public Access project by enhancing awareness and use of coastal access sites through continued support to coastal land managers through the training and use of the High Efficiency Trail Assessment Process (HETAP) system. Land managers will be encouraged to use the data collected in these assessments to develop and install informational signage at public access sites informing users of trail conditions and accessibility.

LMCP will also provide technical and financial support through its pass-through grants program to eligible 306A projects that include educational signage, trail modifications to increase accessibility, and other improvements to recreation areas. Through partnerships and collaborations, LMCP will add to existing inventories of accessible sites and provide guidance on methodology to restore sites to a more accessible state.

Performance Measure: (The Performance Measure includes CZMA Performance Measure System 5a-5b) From 2018-2023, the number of public access sites created through acquisition or easement and the number of existing public access sites enhanced with assistance from LMCP funding or staff.

Target: From 2018-2023, 8 public access sites created through acquisition or easement and the number of existing public access sites enhanced with assistance from LMCP funding or staff.

Year 1: 3

Year 2: 10

Cumulative Data: 13

Discussion: The target for public access was exceeded in the first two years of the performance measurement cycle.

Conclusion

For the reasons stated herein, I find that the State of Indiana Department of Natural Resources is successfully implementing and enforcing its federally approved coastal management program, adhering to the terms of federal financial assistance awards, and addressing coastal management needs identified in Section 303(2)(A) through (K) of the Coastal Zone Management Act in the operation of its approved Indiana Lake Michigan Coastal Management Program.

These evaluation findings contain eight recommendations and no necessary actions. The recommendations must be considered before the next regularly scheduled program evaluation, but they are not mandatory at this time. Program recommendations that must be repeated in subsequent evaluations may be elevated to necessary actions.

This is a programmatic evaluation of the Indiana Lake Michigan 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.

Keelin S. Kuipers
Deputy Director

Date

Appendix A: Response to Written Comments

No written comments were received.