

Final Evaluation Findings

Michigan Coastal Management Program

July 2014 to August 2022

Published September 2023



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

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Summary of Findings

The Coastal Zone Management Act requires the National Oceanic and Atmospheric Administration (NOAA) to conduct periodic evaluations of the performance of states and territories with federally approved coastal management programs. This evaluation examined the operation and management of the Michigan Coastal Management Program currently administered by the Michigan Department of Environment, Great Lakes, and Energy (EGLE), the designated lead agency. Prior to its relocation to EGLE, which was created in 2019, the coastal program was part of the Department of Natural Resources for a year. Prior to its move to the Department of Natural Resources, the coastal program was part of the Michigan Department of Environmental Quality, which became part of EGLE in 2019. The evaluation period covers July 2014 to August 2022. The evaluation focused on two target areas: program administration and coastal hazards and resilience.

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

Findings for Program Administration

Accomplishment: The Michigan Coastal Management Program completed a strategic direction, articulating ambitious goals for all of its focus areas: habitat, public access, community development, coastal waters, and coastal hazards. The program will be moving forward with building the networks of partners needed to become the “go-to coastal hub” for addressing coastal issues.

Accomplishment: The Michigan Coastal Management Program has funded a range of public access projects from water trails to boardwalks that have provided enhanced coastal access and incorporated access for people with disabilities.

Recommendation: The NOAA Office for Coastal Management encourages the Michigan Coastal Management Program to work with its state, regional, and local partners and stakeholders to develop an updated strategic plan to guide its next five years.

Necessary Action: The Department of Environment, Great Lakes, and Energy and Michigan Coastal Management Program must continue to improve both internal controls over their NOAA federal awards and communications regarding award status. As one tool to facilitate these practices, the Michigan Coastal Management Program must provide timely (the end of January, April, July and October) quarterly financial tracking reports for all open awards that include personnel or fringe benefits as a budget category. The quarterly financial reports should include tables of task progress and financial expenditures by section, federal share, cost-share, and cost category to accurately track spend rate and accurate accounting among object classes. This necessary action will be met after NOAA determines that the coastal program is on track with its financial expenditures, meeting all federal award terms and conditions, and meeting all federal award guidance and regulations for a consecutive 30-month period.

Recommendation: The NOAA Office for Coastal Management strongly encourages the Michigan Department of Environment, Great Lakes, and Energy to support outside professional Federal Award Management Training for the Finance Division staff member(s), Water Resources Division finance staff member(s), and Michigan Coastal Management Program staff member(s) tasked with managing NOAA federal awards.

Necessary Action: The Michigan Department of Environment, Great Lakes, and Energy and the Michigan Coastal Management Program must work with NOAA to develop an agreed-upon schedule for updating the coastal program by [120 days of approval of findings] and submit the program changes as agreed upon in the schedule.

Recommendation: The NOAA Office of Coastal Management encourages the Michigan Coastal Management Program to (a) inventory public access points and add the information to the shoreline viewer. The coastal program may wish to partner with regional planning bodies and could start with the addition of water trails and (b) creating a guide to inform public access permitting that addresses resilience, sustainable structures, and Public Trust Doctrine issues.

Findings for Coastal Hazards

Accomplishment: The Michigan Coastal Program's creation and support of the Coastal Resilience Team has resulted in an increased understanding of community needs, research to better understand hazard risks, and the development of tools such as Michigan's Coastlines Through Time that are helping communities address hazard risks.

Accomplishment: The Michigan Coastal Management Program, through its leadership and support of the Coastal Resilience Team, has used the knowledge and tools that were developed, and partnerships, to facilitate the integration of resilience into the development of 17 local policies and plans. These efforts have also led to the development of the Coastal Leadership Academy, which provides training to local communities to build their resilience.

Recommendation: The NOAA Office for Coastal Management encourages the Michigan Coastal Management Program and Water Resources Division's regulatory programs to continue to build on efforts to strengthen collaboration and build on each other's strengths to improve coastal resilience.

Recommendation: The NOAA Office for Coastal Management encourages the Michigan Coastal Management Program to continue to build capacity and effectiveness to address coastal hazards and promote resilience through staff professional development, support of research and data collection, continued expansion of partnerships, and leadership in bringing partners together to address problems and build collective knowledge.

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

Program Review Procedures

The Coastal Zone Management Act of 1972, as amended,¹ requires that state coastal zone management programs (coastal programs) and national estuarine research reserves (research reserves) that are developed under the act and approved by the secretary of the Department of Commerce be evaluated periodically. Section 312 of the Coastal Zone Management Act and implementing regulations at 15 CFR Part 923, Subpart L, requires that a state coastal program be periodically 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 section 303(2)(A)-(K) of the act; and 3) adhered to the terms of any grant, loan, or cooperative agreement funded under the act.

The National Oceanic and Atmospheric Administration (NOAA) evaluated the Michigan Coastal Management Program in fiscal year 2022. The evaluation team consisted of Carrie Hall, evaluation team lead; Rachel Franks Taylor, senior coastal management specialist; Rebecca Nicodemus, environmental scientist and Great Lakes learning services coordinator; and Todd Breiby, program coordinator, Wisconsin Coastal Management Program. The support of Michigan Coastal Management Program staff was crucial in conducting the evaluation, and this support is most gratefully acknowledged.

NOAA sent a notification of the scheduled evaluation to the director of the Michigan Department of Environment, Great Lakes, and Energy, published a notice of “Intent to Evaluate” in the *Federal Register* on July 13, 2022, and notified members of Michigan’s congressional delegation. The coastal program posted a notice of the public meeting and opportunity to comment in the *Detroit News* on July 25, 2022.

The evaluation process included a review of annual federal financial assistance award reports, Coastal Zone Management Act Section 309 Assessments, and information provided by the programs documenting how they are implementing their programs and addressing the programmatic requirements of the Coastal Zone Management Act. The review also included a survey of interested parties, which helped identify two target areas for the evaluation: program administration and coastal hazards and resilience. An onsite visit was conducted August 8-11, 2022, and the evaluation team held meetings with staff members and group discussions with program partners, interested parties, and staff members about the target areas. In addition, a virtual public meeting was held on August 8, 2022 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 August 19, 2022. No comments were received. The NOAA Office for Coastal Management then developed draft evaluation findings, which were

¹ [16 U.S.C. 1451 et. seq.](#)

provided to the Michigan Department of Environment, Great Lakes, and Energy for review. The state's comments were considered in drafting the final evaluation findings.

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

Necessary Actions address programmatic requirements of the Coastal Zone Management Act or its implementing regulations at 15 C.F.R., Part 923, and of the state coastal management program approved by NOAA, and the terms of any grant or cooperative agreement funded under the Coastal Zone Management Act. Necessary actions must be carried out by the date specified. Failure to address necessary actions may result in a future finding of non-adherence and the invoking of interim sanctions, as specified in the Coastal Zone Management Act.

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

Administration

At the beginning of the evaluation period, the Michigan Coastal Management Program was part of the Michigan Department of Environmental Quality. In 2018, the coastal program moved to the Michigan Department of Natural Resources. In 2019, the coastal program moved again to the newly created Department of Environment, Great Lakes, and Energy (EGLE) in the Water Resources Division, Field Operations Support Section. The coastal program's new location has enabled a greater emphasis on coastal and inland flooding via a coastal waters focus area, and the coastal program has been able to work more closely with the Water Resources Division's Nonpoint Source Program to address development of the 6217 Coastal Nonpoint Source Pollution Control Program. Going forward, there are opportunities for the coastal program to infuse its technical assistance, research findings, outreach, education, and planning capabilities into other parts of the agency, including its regulatory program. The move to EGLE has also resulted in challenges, particularly with cooperative agreement administration, which is discussed further in the "Financial Management" section.

The coastal program worked internally to develop the "Michigan Coastal Management Program Strategic Direction: 2019-2024" (<http://bit.ly/3s3aZ2B>), implementing a recommendation made in the previous evaluation findings (2014). The strategic direction calls for the program to increase its technical assistance at the state and local level and become the "coastal hub" for addressing coastal issues in Michigan. The strategic direction has provided a strong path forward for the coastal program to provide support, including technical assistance and guidance, to regional organizations and communities in addressing coastal management issues.

The coastal program began to initiate outreach to potential partners, including the 10 coastal regional councils of government, but this effort was placed on hold due to COVID-19. At the time of the site visit, the coastal program was starting to think about additional in-person efforts to build relationships with the 10 coastal regional councils of government. To fully realize the vision of the Strategic Direction, it will be important for the program manager and focus area coordinators to maintain, and build new, relationships with regional organizations, local governments, and other partners. The coastal program will also need to further grow its role of convening stakeholders to "collaboratively protect, preserve, restore, and enhance coastal resources and assets" (Strategic Direction). Having staff focused on specific focal areas positions the program well for this role.

Accomplishment: The Michigan Coastal Management Program completed a strategic direction, articulating ambitious goals for all of its focus areas: habitat, public access, community development, coastal waters, and coastal hazards. The program will be moving forward with building the networks of partners needed to become the "go-to coastal hub" for addressing coastal issues.

The coastal program is well positioned to build on the success of the strategic direction through a new strategic planning effort to guide the program's next five years. A new strategic plan could help the coastal program better capitalize on its new location within EGLE and guide engagement with its state, regional, and local partners. The coastal program is encouraged to work with its partners within EGLE and its broader state, regional, and local partners and stakeholders to develop an updated strategic plan. By working with its partners to develop an updated strategic plan, the coastal program will better understand how it can best meet partner needs, have an opportunity to grow its relationships, and give partners a deeper understanding of the program.

Recommendation: The NOAA Office for Coastal Management encourages the Michigan Coastal Management Program to work with its state, regional, and local partners and stakeholders to develop an updated strategic plan to guide its next five years.

Staffing

The coastal program has a staff of seven, including the coastal program manager and an administrative assistant. The remaining staff are focus area coordinators, each focused on a major coastal issue area: coastal community development; coastal habitat; public access; coastal waters; and coastal hazards. All staff members also focus on promoting resilience within their focal area. This assignment of duties is allowing staff to develop expertise in their subject area, establish relevant partnerships, and better provide technical assistance to partners and coastal communities, in addition to fulfilling grants management duties. Coastal Zone Management Act funding is also used to partially fund a number of field permitting staff, and staff in the High Risk Erosion and Critical Dune Program, Submerged Lands Program, Coastal Wetlands, and Inland Lakes, and Streams program.

The coastal program has seen full turnover of core staff, except for the program manager position, since the last evaluation. The NOAA Office for Coastal Management encourages the coastal program and department to identify and pursue retention strategies such as promoting professional development. Ensuring staff have the opportunity for skill development and training will be particularly important for the coastal program's efforts to strengthen its technical assistance and become the "go-to coastal hub."

During the evaluation site visit, the evaluation team found that the coastal program could benefit from hiring additional staff to further support coastal resilience efforts, including a coastal engineer. This is discussed further in the "Coastal Hazards and Resilience" section. Since the evaluation site visit the Water Resources Division and coastal program have hired a coastal engineer for the Field Operations Support Section. This shared position provides support to coastal program's grant projects and is assisting in the development of technical assistance documents and development of the Resilient Coastal Communities Adaptation Strategies Toolkit. The coastal engineer is also assisting the Water Resources regulatory program staff working in the coastal zone. In addition to this new shared position, the coastal program is encouraged to explore and pursue supplemental capacity and specific skills needed to address

current, and future, coastal issues through shared positions, coastal fellowships, and other partnerships or funding sources.

Financial Management

Coastal programs are funded by NOAA through cooperative agreements that involve close collaboration and substantial involvement from the issuing federal agency. In 2018, the coastal program joined a multi-year (30 months) award pilot project designed to reduce the administrative burden for both the recipient and NOAA. The program certified that they were willing and able to do additional financial tracking as part of their performance progress reporting and attested that they had the means to separately track Year 1 and Year 2 funds.

The coastal program has had significant issues in spending its cooperative agreement funding in a timely manner and adhering to award conditions, including financial reporting and spend-down requirements. When the coastal program moved from the Department of Natural Resources to EGLE, the coastal program's multi-year cooperative agreement, NA18NOS4190162, remained under the Department of Natural Resources administration. Unfortunately, there appeared to be a disconnect in EGLE's awareness of the award terms and conditions, reporting requirements, and tracking and executing of funds.

When the coastal program fell behind in spending funds for the NA18NOS4190162 cooperative agreement, it requested a one-year extension, which was granted by NOAA. The coastal program continued to struggle to spend the funds within this extended time frame and moved ahead with spending funds outside its previously approved budget categories without obtaining the required pre-approval from NOAA. After the award ended, the program submitted a request for a reallocation of funds between budget categories. On August 1, 2022, a senior grants manager from NOAA Grants Division sent an email to the federal aid supervisor in EGLE's Finance Unit and also copied other EGLE staff, including the program manager and Water Resources Division assistant director and administration section manager. The email stated that retroactive budget requests were not acceptable and could result in significant disallowed costs. EGLE was advised to take actions to ensure that retroactive budget requests did not occur in the future.

The NOAA Office for Coastal Management has communicated concerns regarding the financial management of Coastal Zone Management cooperative agreements between NOAA and EGLE's Michigan Coastal Management Program numerous times over the past two years. This correspondence includes a letter from the Stewardship Division chief, dated June 2, 2022, requiring quarterly multi-year financial tracking for the remainder of the award NA20NOS4190200 and for the duration of award NA22NOS4190181. The reporting required includes tables of task progress and financial expenditures by section, federal share, cost-share, and cost category to accurately track spend rate and accurate accounting among object classes. Following this June 2022 requirement, the Michigan Coastal Management Program submitted its first quarterly financial report on January 31, 2023 and provided the next set of reports on August 1, 2023. Reports were not provided for the interceding quarter due to extensive

discussions regarding \$2 million in surplus funds that needed to be reallocated as part of a NA20NOS4190200 Change in Scope negotiation.

The evaluation team met with the coastal program and Department of Environment, Great Lakes, and Energy Finance Division during the evaluation site visit. Members of the Finance Division discussed that EGLE manages a number of federal grants and has a team of eight, including one staff member who is responsible for the coastal management program cooperative agreements, along with other responsibilities. EGLE provides on-the-job training to new staff to ensure that they are in compliance with federal and state regulations. They stated that they have the ability and commitment to impose financial controls and tracking that have been recently lacking; however, this has not yet been demonstrated to NOAA. One positive innovation shared during the site visit is that the coastal program has developed a monitoring system to track the portion of funding that is dedicated to its grant program, and grantees report quarterly on their expenditures. The coastal program appears to have timely information for grant recipients but still struggles with being able to spend-down Coastal Zone Management Act funds in a timely manner and to track and provide information on department expenditures.

The NOAA Office for Coastal Management wants the state coastal program to be successful and able to spend its federal funding supporting coastal management in Michigan. To be successful, it is necessary that the coastal program manager have a complete and comprehensive view of the implementation of the cooperative agreement, and that those involved in managing the cooperative agreement understand the terms, conditions, and obligations of the federal award.

Necessary Action: Necessary Action: The Department of Environment, Great Lakes, and Energy and Michigan Coastal Management Program must continue to improve both internal controls over their NOAA federal awards and communications regarding award status. As one tool to facilitate these practices, the Michigan Coastal Management Program must provide timely (the end of January, April, July and October) quarterly financial tracking reports for all open awards that include personnel or fringe benefits as a budget category. The quarterly financial reports should include tables of task progress and financial expenditures by section, federal share, cost-share, and cost category to accurately track spend rate and accurate accounting among object classes. This necessary action will be met after NOAA determines that the coastal program is on track with its financial expenditures, meeting all federal award terms and conditions, and meeting all federal award guidance and regulations for a consecutive 30-month period.

Recommendation: The NOAA Office for Coastal Management strongly encourages the Michigan Department of Environment, Great Lakes, and Energy to support outside professional Federal Award Management Training for the Finance Division staff member(s), Water Resources Division finance staff member(s), and Michigan Coastal Management Program staff member(s) tasked with managing NOAA federal awards.

Federal Consistency

The Department of Environment, Great Lakes, and Energy must ensure that Coastal Zone Management Act federal consistency decisions are made based on current state regulatory requirements that have been incorporated into the federally approved program as approved enforceable policies. Changes or additions to those policies must be approved by NOAA before those changes can be applied as enforceable policies for determining the consistency of federal actions with the Michigan Coastal Management Program.

In response to NOAA Office for Coastal Management concerns that changes to state policies were not regularly being incorporated into the federally approved program, the Michigan Coastal Program provided the NOAA Office for Coastal Management with a program change status update in 2013. Since that time, the coastal program has submitted six program changes that were approved by NOAA. At the time of the site visit, the coastal program had also prepared draft program changes for Part 325 Great Lakes Submerged Lands of National Resources and Environmental Protection Act (NREPA); 761 Aboriginal Records and Antiquities of NREPA; 91 Soil Erosion and Sedimentation Control of NREPA; 95 Watercraft Pollution Control of NREPA; 117 Septage Waste Servicers of NREPA; and 35 Use of Water in Mining Low-Grade Iron Ore of NREPA. Other updates to the federally approved program remain outstanding. As part of Michigan's process for submitting program changes, drafts are reviewed by the Department of Attorney General before they are submitted to NOAA for incorporation into the federally approved program. Coastal Zone Management Act funds are used to pay for Department of Attorney General staff time. Department of Attorney General staff time is used to address contested permitting issues and to cover review of program changes. EGLE has not submitted program changes to the Attorney General for review since 2021, instead prioritizing contested permitting issues.

Necessary Action: The Michigan Department of Environment, Great Lakes, and Energy and the Michigan Coastal Management Program must work with NOAA to develop an agreed-upon schedule for updating the coastal program by [120 days of approval of findings] and submit the program changes as agreed upon in the schedule.

Several federal partners that the evaluation team met with noted that they had questions about how EGLE was incorporating the federal consistency review process into its state permit review process. The NOAA Office for Coastal Management encourages the coastal program to work with NOAA to host a NOAA Office for Coastal Management Federal Consistency training.

Coastal Nonpoint Pollution Control Program and Water Quality

The coastal program has worked with its state partners, NOAA, and the U.S. Environmental Protection Agency to develop and move towards full approval of its Coastal Nonpoint Pollution Control Program. The previous evaluation findings contained a necessary action requiring the coastal program to submit a work plan with interim benchmarks and a timeline by May 31, 2015, and documentation indicating how Michigan met the outstanding conditions by June 30, 2019. The coastal program and other EGLE staff worked with NOAA and the U.S. Environmental

Protection agency to submit an approvable program. On May 11, 2023, a *Federal Register* Notice was published soliciting comments on the proposed program. Going forward, the NOAA Office for Coastal Management encourages the coastal program to work with the state's Nonpoint Source (319) program to identify opportunities to support implementation of the Coastal Nonpoint Pollution Control Program.

From 2016 through 2019, the coastal program partnered with the Michigan Boating Industries Association and Michigan Sea Grant to reinvigorate the Michigan Clean Marina Program. The coastal program provided funding to increase staff and program capacity. An evaluation was conducted to identify challenges that were inhibiting certification and recertification of clean marinas. Based on the results, a new certification checklist, revised certification steps, and an improved website were produced. Extensive outreach materials were developed and an ambassador program was created. The coastal program participated on the Clean Marina Board and facilitated quarterly "Clean Marina Project Team" meetings. The three-year initiative was a great success, resulting in 43 new marina certifications and recertification of 34 marinas. The coastal program may also wish to consider opportunities to participate with the Great Lakes Clean Marina Network.

The coastal waters focus area coordinator position is responsible for oversight of coastal waters grants and providing technical assistance, and serves as a point of contact for the Coastal Nonpoint Pollution Control Program. During the evaluation period, the program further refined its niche as addressing coastal and inland flooding and is implementing a new project to create a Resilient Coastal Communities Adaptation Strategies Toolkit. The toolkit is part of the coastal program's Section 309 hazards strategy (2021-2025) and is focused on nature-based solutions for flood management. In 2021, the Coastal Management Planning and Construction Grants Program solicited projects promoting planning and installation of nature-based solutions, and several projects were funded. The NOAA Office of Coastal Management encourages the coastal program in its efforts to build partnerships at the local, regional, and state and national levels to promote nature-based solutions.

Grants Program

The coastal program runs an annual competitive grants program, Coastal Planning and Construction Grants. Local governments, regional planning agencies, educational institutions, tribal governments, and not-for-profit organizations are eligible to apply. The coastal program relies more on passive outreach approaches such as email list servers and its website, which have not boosted interest in the grant program as much as desired. The coastal program would like to boost interest in this grant program and increase the number and quality of applications and, ultimately, funding projects. To accomplish this, the Strategic Direction calls for focal area coordinators to build relationships in communities, help eligible applicants to develop competitive projects, and identify and overcome challenges. An extensive outreach effort to current and potential new partners, particularly partners that serve a number of communities, such as councils of government and regional planning commissions, should help the coastal program grow its reach, better understand needs, provide support to partners, and attract

strong projects. The coastal program is well positioned to support grant recipients in planning and developing projects that are then eligible to be funded through other larger funding sources, including a number of new federal funding opportunities. The coastal program may also want to focus on underserved communities, including tribal nations, to encourage their efforts to develop potential projects. The NOAA Office for Coastal Management encourages the coastal program in its efforts to empower focal area coordinators to build and strengthen their partner and stakeholder networks to include communities, agencies, and organizations they have not traditionally collaborated with, while maintaining current relationships. The office recognizes that this will be a challenge with a small staff, a lengthy coastline, and numerous potential partners.

The coastal program has also made efforts to streamline the implementation of the grants program. For example, the coastal program now encourages applicants to phase their projects: planning and permitting under one grant, and then construction under a subsequent grant to ensure that projects can be completed within the federal grant time frame. Streamlined forms were developed to ease preparation of applications and better track the status of in-progress grants.

Public Access

The coastal program has funded a range of projects during the evaluation period, including Heritage23.com, a website promoting winter tourism activities along route 23; an elevated boardwalk with interpretive signage over recently restored coastal wetlands in the St. Clair County Wetlands Park; a kayak launch in Black Lake Park that can be used by people of limited mobility; and restoration of the Grand Haven Lighthouse lantern room.

During the evaluation period, the coastal program shifted its focus on the types of public access projects it supports. While the coastal program was with the Department of Natural Resources, it created a special grant funding opportunity specific to the planning and implementation of water trails. The coastal program also provided funding for the development of Michigan Water Trails (<https://www.michiganwatertrails.org/>), a website that provides information on paddling trails. This aligned with the department's strong support of water trails. With the move to the Department of Environment, Great Lakes, and Energy and development of the Strategic Direction (2019), the coastal program moved to focus on universal public access, coastal water trails, maritime and cultural preservation, and supporting low-impact development and use of sustainable materials.

Accomplishment: The Michigan Coastal Management Program has funded a range of public access projects from water trails to boardwalks that have provided enhanced coastal access and incorporated access for people with disabilities.

The coastal program's focus areas offer great opportunities for improving public access and align well with national initiatives such as providing universal public access and support of nature-based solutions. There are many opportunities to support public access efforts in the

state, including underwater preserves and protecting and highlighting cultural resources to enhance recreational experiences and provide educational opportunities. The state is also continuing to expand its system of water trails. Another opportunity noted by evaluation participants was to work with partners to create an inventory of public access sites.

The coastal program is also well positioned to bring a resilience focus to public access projects. For example, the coastal program could provide technical support and guidance for consideration of lake level changes and incorporation of low-impact development techniques and sustainable materials into projects. A number of evaluation participants highlighted that the coastal program was well positioned to provide local governments and state permitting staff with the latest science and information on the types of installations that could provide public access and build resilience by helping to address stormwater. The coastal program could also share the latest research and information on best practices for designing structures for long-term resilience. There are also opportunities to provide information on public trust doctrine issues.

Recommendation: The NOAA Office of Coastal Management encourages the Michigan Coastal Management Program to (a) create a guide to inform public access permitting that addresses resilience, sustainable structures, and Public Trust Doctrine issues and (b) explore opportunities to work with partners to create an inventory of public access points.

Coastal Habitat

The coastal program implements projects and initiatives to preserve, protect, restore, and enhance healthy coastal ecosystems, including beaches, dunes, and wetlands. Over the evaluation period, the coastal program has funded a range of projects, including

- The development of three video shorts as part of a storytelling series, called “The Power of Nature,” by the Heart of the Lakes.
- The design and engineering plans for, and restoration of, 1.25 acres of dune habitat in Van Buren County.
- Development of an automated monitoring platform for invasives in coastal ecosystems by Michigan State University.
- Mapping of freshwater coastal sand dunes and research to learn more on how the public uses, values, and perceives coastal dunes by the Michigan Environmental Council.
- Development of a comprehensive master plan for the Ottawa Sands property through a public process and analysis of the site’s natural and cultural features.

Prior to 2019, the coastal program focused on grants for the development of plans for habitat protection and restoration. In 2019, the coastal program shifted its emphasis to soliciting projects that would lead to on-the-ground projects. Planning and engineering were funded for both Pottawattomie Park and Maheras-Gentry Park for the creation of a small pocket beach, a fishing pier, and boardwalk improvements and habitat restoration along the Detroit River.

With its new focus on on-the-ground projects, the coastal program set a five-year evaluation metric target of 25 acres restored. The program has only restored 2.1 acres as of 2022 as it

again shifted its focus with its move to EGLE. In 2022, the coastal program launched the Healthy Habitats and Resilient Communities Initiative. The goal of the new initiative is to create a pipeline of natural infrastructure projects eligible for coastal program grant funding opportunities and the proposed federal infrastructure funding. The coastal program plans to fund communities in the development of conceptual plans and implementation of nature-based solutions to mitigate coastal hazards. This focus should position coastal communities well to take advantage of new federal funding for coastal habitat projects.

Coastal Hazards and Resilience

Michigan's coasts are vulnerable to numerous hazards including fluctuating Great Lakes water levels, intense storms, flooding, erosion, and wave energy. Over the evaluation period, the coastal program worked with partners to build initiatives to support local community efforts to raise awareness of coastal hazards and build resilience. High water levels in 2019-2021 heightened public attention to coastal risks, but attention has waned as water levels have gone back down. But low water levels can impact coastal communities as well, and communities need to plan for both conditions.

The coastal program laid out a Pathway to Resilience Strategy in its 2015-2020 Section 309 Assessment and Strategy. To implement the strategy, the coastal program brought together a Coastal Resilience Team of researchers and practitioners from the Land Information Access Association, University of Michigan, Michigan Technological University, Michigan State University, Michigan Association of Planning, Michigan Sea Grant, Michigan Environmental Council, and U.S. Army Corps of Engineers. The team members supported a portfolio of complementary investments, creating an intentional approach to developing tools and assisting local governments in infusing coastal hazards risks and vulnerabilities into local planning and zoning efforts.

The effort included a number of projects, including:

- A survey of local officials and citizens to learn more about their capacity, knowledge, and commitment in addressing coastal hazards. The paper "Overlooking the Coast: Limited Local Planning for Coastal Area Management along Michigan's Great Lakes" (doi.org/10.1016/j.landusepol.2017.11.049) discusses the survey results.
- The creation of a geospatial visualization tool, Michigan's Coastlines Through Time, that allows people to view the long-term rates of shoreline change for more than 1,200 miles of coastline over 80 years. The website has helped communities understand the multi-decade trend of erosion, conduct vulnerability assessments, and develop resilience chapters for their master plans. The Army Corps of Engineers is using the data to inform the Great Lakes Coastal Resiliency Study and has trained its interns in the mapping methods used to gather data for the coastal viewer. (geospatialresearch.mtu.edu/czmp)
- The development of a handbook for coastal planners, *Planning for Community Resilience in Michigan* (2017) that includes model ordinances and a matrix to match best practices with sample ordinances. (bit.ly/3JzCAhs)

- A research study looking at six representative coastal sites and their potential to recover from erosion caused by the 2020 storms.

The coastal program further built on this work with the development of its Strategic Direction (2019-2024) that calls for the program to become the “go-to coastal hub” for information on resilience and to build its influence through strategic investments and partnerships. The coastal program is also looking to “create a culture of resilience” and weave resilience throughout its work.

In 2019, the Coastal Resilience Team built on this foundational work, with two initiatives: the Resilient Michigan Collaborative and the Coastal Leadership Academy. The Resilient Michigan Collaborative provides funding and technical assistance to help communities build resilience. The collaborative worked with communities to analyze their master plan and identify opportunities to incorporate resilient planning principles using a tool they developed, the Community Sustainability Self-Assessment Tool. Communities were then eligible to apply for funding to support hiring contractors to help incorporate, and formally adopt, the principles into their master plan through either a full plan update or a new chapter on resiliency. To further support this effort, team members held a Train the Trainer training for private sector planning consultants. Additional education and communication tools such as the “Great Lakes Resilience” podcast mini-series were developed. Since 2018, the coastal program has supported the development of 17 local policies and plans, including supporting local governments to develop resilience chapters for their master plans, as documented in their 2018-2023 evaluation metrics.

The first Coastal Leadership Academy training was held in 2019, and the coastal program is planning to continue to support the academy through its Section 309 Assessment and Strategy (2021-2025). The academy is designed to provide local community leaders and citizens with the information they need to build resilience going forward. The academy integrates the science-based solutions, data, and resources developed through the Coastal Resilience Team initiative. The training includes the Building Coastal Resilience video series and in-person or virtual meetings. The academy has been refined and improved based on feedback from participants. Communities that have participated have found value in the training. One evaluation participant highlighted the value of the training in helping their community plan for the future and incorporate data into their plan. Unfortunately, many communities are small, with few staff, and the coastal program and partners have struggled to find interested communities that are able to dedicate the time to participate. The coastal program is encouraged to explore opportunities to have successful communities share their knowledge, and to build and facilitate a community of practice for communities that have participated in the academy, and offer incentives such as additional access to grant funding to encourage participation. The coastal program could also consider developing a strategy for proactively encouraging participation of high priority communities, such as highly vulnerable communities, to participate.

The evaluation team heard from a number of Coastal Resilience Team members about their work and how they valued being able to participate on the team. Members highlighted the

value of bringing together people with different skills to work together and the opportunity to share and learn from each other and build their network. The team's work has also served as a training ground for the next generation of coastal researchers and decision-makers as university students have supported the different projects. The success of the team also inspired the organization of a community action coalition in the Upper Peninsula, and the relationships that were built have led to new collaborations funded by other entities. Team members also highlighted that the efforts of the previous five years were invaluable in providing the opportunity to experiment and build on knowledge gained.

Accomplishment: The Michigan Coastal Program's creation and support of the Coastal Resilience Team has resulted in an increased understanding of community needs, research to better understand hazard risks, and the development of tools such as Michigan's Coastlines Through Time that are helping communities address hazard risks.

Accomplishment: The Michigan Coastal Management Program, through its leadership and support of the Coastal Resilience Team, has used the knowledge and tools that were developed, and partnerships, to facilitate the integration of resilience into the development of 17 local policies and plans. These efforts have also led to the development of the Coastal Leadership Academy, which provides training to local communities to build their resilience.

The Coastal Resilience Team was well facilitated by the hazards coordinator until the coordinator left for a new position in December of 2021. The position remained vacant at the time of the site visit. After the coastal hazards coordinator left, staff have worked to fill gaps and keep the team moving forward, but there has not been consistent facilitation and leadership from the coastal program. The coastal program plans to continue to work on specific projects with some members, but there did not appear to be a plan to continue to facilitate and lead the Coastal Resilience Team.

The coastal program and team members have put significant effort into building relationships that could continue to be a valuable source of expertise and provide links to other people and groups working on coastal resilience. As the coastal program moves forward with implementing its 2021-2025 coastal hazards strategy, there are numerous opportunities for the team to inform initiatives such as the Coastal Leadership Academy. There are also opportunities to bring in other interested stakeholders to share, learn, and work on resilience. The coastal program is interested in continuing to strengthen its relationships with regional planning commissions and councils of government in order to support more local communities. The NOAA Office for Coastal Management also encourages the coastal program to pursue strengthening relationships with other relevant organizations such as the Michigan Townships Association, Michigan Sea Grant, Michigan Emergency Management and Homeland Security Agency, Thunder Bay National Marine Sanctuary, watershed organizations, and the Michigan Economic Development Corporation, including its Community Development Fellowship program. Staff involvement with regional, state, and national working groups and committees can also assist with directing coastal management policy, research, and management, as well as branding the coastal program as the "coastal hub."

The coastal program is encouraged to build on its success with the Coastal Resilience Team and to continue to serve as the lead facilitator role for a community of practice that brings together organizations and people interested in building coastal resilience. The membership could expand and change to meet the state's current needs. Through filling a lead convenor or coordinator role, the coastal program will be better positioned to help direct policy, resource investment, and research in the coastal zone and fulfill its vision of being a coastal hub.

As part of its Section 309 2021-2015 strategy, the coastal program is developing a Resilient Coastal Communities Adaptation Strategies Toolkit. The coastal program will be creating a Strategy Coordination Team and technical workgroups within the agency to develop a toolkit to inform the Water Resources Division resource regulatory programs on alternatives to hardened shoreline structures. The toolkit will also provide the latest information for local and state decision-makers to increase understanding and communication on coastal adaptation approaches, including protection, accommodation, retreat, and avoidance through a comprehensive digital, public-facing coastal program toolkit. The coastal program, with its focus on resilience is well positioned to infuse the coastal program's research, training, and communication into EGLE's permitting program.

Recommendation: The NOAA Office for Coastal Management encourages the Michigan Coastal Management Program and Water Resources Division's regulatory programs to continue to build on efforts to strengthen collaboration and build on each other's strengths to improve coastal resilience.

Since the evaluation site visit, the coastal program and other Water Resources staff have worked on improving integration. Staff in the programs are collaborating on special projects, initiatives, and the division's Shoreland Committee. The coastal program manager is part of Field Operations Supervisor meetings which provides collaborative leadership to staff of the coastal and regulatory programs.

The coastal program is growing its capacity to support coastal communities in their efforts to build resilience. One area of expertise that the evaluation team noted could benefit both the coastal program and department's permitting staff is coastal engineering. There is a growing need to understand how to manage risks related to development, and this expertise would be invaluable to informing the development of the toolkit.

It is a common misconception in Michigan that shorelines are static instead of dynamic. When residents are faced with erosion, the usual solution offered by contractors is armoring, even though armoring can exacerbate the problem. There is a need and opportunity to provide residents, contractors, the real estate industry, and others with the latest science-based shoreline information on erosion and alternatives such as nature-based solutions. The coastal program is encouraged to think about opportunities to reach target audiences, the best communication tools, and supporting efforts to continue to build knowledge.

Potential opportunities identified during the site visit include

- Development of a homeowner’s guide to help inform expectations of living on the shoreline, emphasizing that the shoreline constantly changes.
- Reaching out to consultants and those in the real estate industry to provide training on coastal hazards.
- Partnering with the NOAA Office for Coastal Management to provide training and education opportunities such as those offered through NOAA’s Digital Coast.
- Funding to collect coastal data to monitor long-term hazard trends and the impacts of hardened structures.
- Leveraging the Michigan Natural Shoreline Partnership, an existing partnership of contractors and others who have recently expanded their area of interest to the Great Lakes coasts.
- Using existing networks to connect with underserved communities, including tribal nations, regarding coastal hazards and resiliency opportunities.

The U.S. Army Corps of Engineers is conducting a Great Lakes Coastal Resiliency Study in conjunction with the eight Great Lakes states. The Great Lakes Restoration Initiative is also engaged across the region, including with states, in a range of habitat restoration activities that increasingly include resilience. The NOAA Office for Coastal Management encourages the Michigan Coastal Program to determine how to be engaged with both of these regional efforts and to work with partners to infuse its mapping and research into both.

Recommendation: The NOAA Office for Coastal Management encourages the Michigan Coastal Management Program to continue to build capacity and effectiveness to address coastal hazards and promote resilience through staff professional development, support of research and data collection, continued expansion of partnerships, and leadership in bringing partners together to address problems and build collective knowledge.

Evaluation Metrics

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

Evaluation Metrics: 2012-2017

Metric 1

Goal: The Michigan Coastal Zone Management Program will promote the wise management of Great Lakes water and coastal resources by fostering the development of vibrant and resilient

coastal communities through the protection and restoration of our sensitive and biologically diverse coastal ecosystems.

Objective: Improve public safety at Michigan’s beaches.

Strategy: Improved Rip Current Forecasting and Hazard Messaging. One of the objectives of this strategy is to reduce the potential for rip current-related deaths by improving rip current forecasting and hazard messaging through research.

Performance Measure: The number of research projects completed that: 1) identify the riskiest locations for rip currents; 2) improve techniques for predicting rip current conditions; or 3) develop effective ways for communicating the risks of rip currents to the public.

Target: By 2017, complete three research projects that: 1) identify the riskiest locations for rip current conditions; 2) improve techniques for predicting rip current conditions; or 3) develop effective ways to communicate the risks of rip currents to the public.

Results:

- Year 1 = 0 research projects
- Year 2 = 3 research projects
- Year 3 = 1 research project
- Year 4 = 0 research projects
- Year 5 = 2 research projects

Total: 6 research projects

Discussion: The coastal program successfully exceeded its target and made beaches safer through its research projects that have informed programs and policy. For example, Michigan Technological University improved understanding of dangerous currents by mapping risk levels for Michigan’s Lake Superior and Lake Michigan coastlines and developing a hazard-level map that was incorporated into an online geospatial decision-support dashboard (*MTRI.org/rip_dashboard*), along with resources and data sets to support local beach and coastal managers in making effective decisions to improve safety. The coastal program has supported an update of the Michigan Department of Natural Resources Designated Beach Policy to better address dangerous currents and supported education and training of parks staff and the development and installation of safety signage at coastal state parks.

Metric 2

Goal:

Objective: Coastal communities make decisions on the siting of wind facilities that properly balance coastal growth and development with protection of coastal natural resources.

Strategy: Offshore Wind Energy Regulatory Program Development

A major gap for providing guidance on classifying offshore areas as favorable, conditional, and categorically excluded is the lack of current datasets. The collection and analysis of research-based GIS data on near-shore fisheries habitat, and use of coastal and offshore areas by bats, migratory birds, and other protected species is a priority.

Performance Measure: The number of research projects and surveys conducted on migratory birds and bats, near-shore fisheries habitat, and state and federally protected species related to informed decision-making on the siting on wind facilities.

Target: By 2017, complete five research projects and surveys of migratory birds and bats, near-shore fisheries habitat, and state and federally protected species related to informed decision-making on the siting of wind facilities.

Results:

- Year 1 = 4 research projects and surveys
- Year 2 = 0 research projects and surveys
- Year 3 = 0 research projects and surveys
- Year 4 = 0 research projects and surveys
- Year 5 = 0 research projects and surveys

Total: 4 research projects and surveys

Discussion: The coastal program came close but did not meet its target. The program completed 4 projects during 2012-2013 (outside the scope of the evaluation period), but the research projects did not remain a priority of the program and no further studies were funded.

Metric 3

Goal:

Objective: Improve the resiliency of coastal wetlands to the impacts associated with climate change.

Strategy: Climate Change Adaptation in Coastal Wetland Management.

One of the objectives of this strategy is to build the capacity of local planning and zoning to address climate change impacts on coastal wetlands. Such Michigan-specific technical assistance does not currently exist.

Performance Measure: The number of coastal communities conducting vulnerability assessments for improving the resiliency of coastal wetlands to climate change impacts.

Target: By 2017, three coastal communities conduct vulnerability assessments for improving the resiliency of coastal wetlands to the impacts of climate change.

Results:

- Year 1 = 0 coastal communities conduct vulnerability assessments
- Year 2 = 0 coastal communities conduct vulnerability assessments
- Year 3 = 0 coastal communities conduct vulnerability assessments
- Year 4 = 6 coastal communities conduct vulnerability assessments
- Year 5 = 1 coastal community conducts a vulnerability assessment

Total: 7 coastal communities conduct vulnerability assessments

Discussion: The coastal program more than doubled its target and worked with seven coastal communities to conduct vulnerability assessments and raise awareness around coastal hazards.

Evaluation Metrics: 2018-2023

Metric 1

Goal: Increase the number of coastal communities that develop or update their master plans, local policies, and/or implement actions to prepare, respond, and adapt to coastal hazards, (e.g. coastal erosion and flooding), along Michigan’s coastline with assistance from coastal program funding or staff. [Source: Michigan Coastal Management Program Strategic Direction]

Objective: By 2023, the Michigan Coastal Management Program will increase the number of coastal communities that have developed Hazard-ready Resilient Master Plans, updated local coastal hazard plans, ordinances, and/or codes, and implemented actions to address coastal hazards.

Strategy: In the (2011-2015) Section 309 Hazard Strategy, given the lack of support for regulatory changes, the coastal program determined that the opportunity to develop or modify state-level policies, plans, or projects did not exist. Therefore, neither state-level policies and plans nor projects completed at the state level are not a consideration at this time. Given that the state’s high-risk shoreline protection statutes address only approximately 10 percent of Michigan’s coastline, the coastal program embarked on the current (2016-2021) Section 309 Hazard Strategy to supplement these gaps by developing mechanisms and tools for local coastal communities to incorporate hazard adaptation measures into their master plans, policies, and implement actions to prepare for, and respond and adapt to, coastal hazards.

Under the current Hazard Strategy, the coastal program is collecting geospatial data and investigating innovative planning approaches for building coastal resiliency to coastal hazards. The coastal program is virtually in a discovery stage of learning the critical components for building resiliency in coastal communities. Lessons learned thus far include that coastal communities’ capacity, knowledge, and commitment are linked; that not all coastal communities integrate their water-dependent and nature-based coastal resources (e.g. wetlands, dunes, and beaches) within master plans; and train-the-trainer on coastal hazard-risks is critical. An expectation of the Hazard Strategy is the development of a program change to move the ongoing research into sustainable actions. It is anticipated that the program change will essentially be program guidance on scenario-based planning processes, inventories of data resources, and detailed community case studies to assist communities’ development of hazard-ready resilient master plans.

Although a critical first step, Michigan must push for the implementation of actions to reduce the coastal risks. Actions may include mapping, education and outreach, and on-the-ground actions by coastal communities to reduce coastal risks.

To initiate action and engagement with coastal communities, the coastal program will place focus area preferences within its grant funding opportunity and selection processes targeting coastal communities’ development of hazard-ready resilient master plans and policies. Similarly, the coastal program will place focus area preferences within its Grant Funding Opportunity and selection processes for projects that implement site-specific nature-based shoreland management practices that provide erosion control benefits; and protect, restore, or enhance natural coastal processes.

The Michigan Coastal Program plans to support a) 0 state-level policies and plans; b) 12 local-level policies and plans; c) 0 projects completed at the state level; and d) 8 projects completed at the local level to reduce future damage from coastal hazards with assistance from coastal zone management funding or staff.

The performance measure is Coastal Zone Management Act Performance Measure 11.

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

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

Results:

- Year 1 = 10 state or local policies and plans or projects
- Year 2 = 0 state or local policies and plans or projects
- Year 3 = 6 state or local policies and plans or projects
- Year 4 = 1 state or local policies and plans or projects

Total to Date: 17 state or local policies and plans or projects

Discussion: The coastal program is on track to meet its target. As discussed in the findings, through the Coastal Resilience Team, which is implementing the program's 309 Coastal Hazards Strategy, the coastal program has partnered with universities and associations to support local communities in planning for coastal hazards. Through the assistance of the Coastal Resilience Team, communities have developed coastal resiliency chapters for their master plans, guidance documents and tools to support resilience, zoning ordinances, shoreline setbacks, land development codes, and policy for siting future utility installations.

Metric 2

Goal: Increase the technical skill sets of coastal managers and decision-makers of coastal hazards and living with the highs/lows of Great Lakes levels variations. [Source: Michigan Coastal Management Program Strategic Direction]

Objective: By 2023 the Michigan Coastal Management Program will provide trainings to coastal managers and decision-makers to build technical skill sets on specific coastal hazards risks.

Strategy: The Michigan Coastal Management Program is working (via its Section 306 funding) with the Michigan Association of Planning (MAP), which is conducting workshops targeting local decision-makers and planners on resiliency planning techniques. Additionally (also via its Section 306 funding), the Michigan Coastal Program is collaborating with Michigan Sea Grant, Michigan State University, to conduct research to understand steward motivations and shared governance for Great Lakes coastal resource management for hazard adaptation, risk reduction, and resiliency. This research will inform community-based engagement strategies for

the conservation and management of Michigan’s coastal resources. The MAP Resiliency Workshop project will end December 2018 and the Michigan Sea Grant research project will end its work in the Summer of 2019. The Michigan Coastal Management Program will model the MAP workshops and take the findings from the Michigan Sea Grant research to build its training program targeting coastal managers and decision-makers.

The performance measure is Coastal Zone Management Act Performance Measure 12.a: Number of trainings events related to coastal hazards offered by the coastal management program.

Performance Measure: Between 2018 and 2023, the number of training events related to coastal hazards offered by the coastal zone management program.

Target: Between 2018 and 2023, 12 training events related to coastal hazards will be offered by the coastal zone management program.

Results:

- Year 1 = 6 coastal hazard training events
- Year 2 = 0 coastal hazard training events
- Year 3 = 12 coastal hazard training events
- Year 4 = 4 coastal hazard training events

Total to Date: 22 coastal hazard training events

Discussion: The coastal program has significantly exceeded its target. As part of its 309 Coastal Hazards Strategy the coastal program created the Coastal Resilience Team and supported the development of the Coastal Leadership Academy. Three of the four trainings in 2022 were part of the Coastal Leadership Academy. Prior to this, the coastal program also provided a number of training opportunities focused on building the technical skills of local communities.

Metric 3

Goal: To increase the number of acres of restored coastal habitat (e.g., coastal wetlands, beaches, dunes, nearshore habitat, and/or other types of habitat) by working with coastal communities through the Healthy Habitats, Waters, and Communities Initiative. [Source: Michigan Coastal Management Program Strategic Direction].

Objective: The Michigan Coastal Management Program will increase the number of acres of restored coastal habitats by working with coastal communities through the Healthy Habitats, Waters, and Communities Initiative.

Strategy: The Michigan Coastal Management Program is launching an initiative entitled “Coastal Healthy Habitat, Waters, and Communities” to place greater investments with coastal community planning that leads to implementation of site-specific projects to enhance and/or restore coastal habitats and provide places for citizens to enjoy the coast. Coastal wetlands are well known for serving vital functions such as providing habitat for plants and wildlife while improving water quality; but coastal wetlands are equally valuable as natural barriers to storm surges by providing flood storage and control functions. Michigan’s sand dunes account for the world’s largest expanse of freshwater dunes as well as several miles of beaches that not only

provide scenic beauty and abundant recreational opportunities, but also as serves as natural barriers for Great Lakes level variations and erosion control functions. Healthy habitats offer recreational and tourism opportunities in addition to a variety of beneficial ecological services. The Coastal Healthy Habitat, Waters, and Communities Initiative will improve the understanding of the importance of intact ecosystems by making the connections between restoration of coastal healthy habitats while enhancing the public's use and enjoyment of the coast.

The Michigan Coastal Program will release a special funding opportunity during the launch of the initiative and then insert focus area preferences within its regular grant funding opportunity and selection processes targeting projects with coastal community planning that lead to implementation of site-specific projects to enhance and/or restore coastal habitats and provide places for citizens to enjoy the coast.

The performance measure is Coastal Zone Management Act Performance Measure 8 b., d., f., and h.: Number of acres of coastal habitat under restoration with assistance from coastal zone management funding or staff.

Performance Measure: Between 2018 and 2023, the number of acres of coastal habitat under restoration with assistance from coastal zone management funding or staff.

Target: Between 2018 and 2023, 25 acres of coastal habitat under restoration with assistance from coastal zone management program funding or staff.

Results:

- Year 1 = 0 acres
- Year 2 = 0 acres
- Year 3 = 0 acres
- Year 4 = 2.21 acres

Total to Date: 2.21 acres

Discussion: Although the coastal program switched its focus from funding planning activities to on-the-ground projects, it has struggled to attract applications for on-the-ground projects. The coastal program funded one project in the City of Marquette that includes wetlands, beach and dune, and upland habitat. The coastal program is likely to miss its target.

Conclusion

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

These evaluation findings contain two necessary actions and five recommendations. The necessary actions are mandatory and must be completed by the dates given. Recommendations must be considered before the next regularly scheduled program evaluation but are not mandatory at this time. Recommendations that must be repeated in subsequent evaluations may be elevated to necessary actions.

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

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Date