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| **Grantee Organization** | The Mid-Atlantic Regional Council on the Ocean (MARCO) on behalf of the Coastal States Stewardship Foundation (CSSF) |
| **Grant Number** | F14AC01219 |
| **Project Title** | Hurricane Sandy Disaster Relief Project *Demonstrations and Science Delivery Networks for* *Coastal Resiliency Information* |
| **Amount** | $340,000 |
| **Dates of Award Period** | 11/01/14 to 10/31/16 |
| **Interim Report Due Date** | January 30, 2016 (reporting period: 7/01/15 to 12/31/15) |
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**Introduction**

The Mid-Atlantic Council on the Ocean (MARCO) is pleased to submit this interim Progress Report on behalf of the Coastal States Stewardship Foundation (CSSF), which delineates MARCO’s accomplishments in advancing grant #F14AC01219 for Hurricane Sandy Disaster Relief Project: *Demonstrations and Science Delivery Networks for Coastal Resiliency Information.*

Funds under this award support MARCO’s goals to deliver coastal resiliency science for the Mid-Atlantic and to deliver science and information for state- and community-level resiliency planning.

In this grant reporting period MARCO has hired a new Project Coordinator who works closely with the Climate Change Action Team (CCAT) to coordinate group goals and project activities. The new Project Coordinator oversees the implementation of the NALCC grant, as well as the contracting, and ensures continued forward project progress. There have been no Veterans or Youths hired by CSSF or any sub recipient as the result of this award.

The results of our work during the reporting period include:

1. Initiating a Project to Develop Wetland Restoration Priorities for Climate Risk Reduction and Resilience in the MARCO Region
   1. Contracting with Environmental Law Institute
   2. Identifying science-based wetlands and waters priority-setting tools in use
   3. Preparing for interviews on wetland priority-setting methodologies
   4. Preparing to convene an expert panel of priority-setting tool developers and coastal planners
2. Initiating a Project to Facilitate the Improved Use and Understanding of Natural and Nature-Based Features (NNBF) in the Mid-Atlantic
   1. Contracting with the National Wildlife Federation
   2. Collecting, synthesizing, and distilling existing research on NNBF
   3. Identifying, engaging, and interviewing key stakeholders on NNBF in the Mid-Atlantic
   4. Preparing logistics for two workshops on NNBF
3. Participation in the NALCC Workshop
4. Coordinating with the CCAT
   1. Convening MARCO’s CCAT to provide regular guidance and feedback for NALCC projects

**Accomplishments**

1. ***Initiating a Project to Develop Wetland Restoration Priorities for Climate Risk Reduction and Resilience in the MARCO Region***
   1. **Contracting with Environmental Law Institute**

In late-summer 2015, CSSF contracted with the Environmental Law Institute (ELI) to pursue NALCC grant goals. The partnership with ELI will assist MARCO and Mid-Atlantic coastal managers in developing and understanding wetland restoration priorities for climate risk reduction and resilience in the Mid-Atlantic region. Through an analysis of research, structured interviews, and an expert panel, ELI will provide:

1. An inventory of planning and analytical tools to aid in identifying priority wetlands based on risk reduction and associated resilience outcomes,
2. A handbook publishing these results,
3. One or more brief articles on findings and recommendations, and
4. A webinar to help users understand the recommendations.

Ultimately this project will advance understanding of the science behind wetland prioritization in light of climate change in the Mid-Atlantic. This project will provide decision support for coastal conservation and restoration to increase resiliency in the Mid-Atlantic.

* 1. **Identifying science-based wetlands and waters priority-setting tools in use**

During this reporting period, the Project Team (ELI, MARCO CCAT and staff) has conducted an extensive review of priority-setting tools, watershed approach plans, compensatory mitigation instruments, and other wetland and wetland-related NNBF protection and restoration plans and existing coastal management, resilience, or adaptation plans. This review has included:

1. Collecting and examining all of the wetland priority setting programs in the MARCO states to determine whether and to what extent they incorporate climate risk and resilience.
2. Identifying the science-based criteria in these documents with relevance to coastal locations; identifying the criteria used to set conservation priorities (and/or establish credit in the compensatory mitigation context); and identifying climate-related data used in the plans and analysis tools.
3. Evaluating the overlap of these criteria (and the data used to apply these criteria) with the needs identified in existing coastal management, resilience, or adaptation plans; and evaluating the transferability of methodologies or results.
4. Identifying those programs that are actively being applied in a decision-making context and that may serve as models for other programs, including 1) integration of tools into state and federal funding and regulatory programs for conservation and restoration, and 2) legal and policy limitations to restoration of these priority sites for climate resilience, including whether or not dredged material can be used.
5. Identifying state priority schemes outside the MARCO region that can inform an effective approach for the Mid-Atlantic.

Based on this review, and input from the interviews and expert panels, the Project Team will develop a preliminary inventory of the planning and analytical tools that may be available to aid in coastal adaptation decision-making and the data sources that may inform the development of new tools.

* 1. **Preparing for interviews on wetland priority-setting methodologies**

The Project Team has begun to identify stakeholders and develop questions to conduct a series of structured interviews with MARCO coastal managers and wetlands program decision-makers to:

1. Collect in-depth information on overlaps between priority-setting methodologies for wetlands and waters and those for coastal resilience, and
2. Determine how aquatic resource priority-setting plans and tools could be used in practice to improve the ability of federal and state practitioners to target restoration efforts for wetlands and wetland-related NNBFs to specific resiliency goals.

The information gathered in the interviews will support evaluation of whether the scientific findings and characteristics that are important for coastal resilience are present or absent in the wetland/aquatic conservation priority schemes. To date, about 20 interviewees have been identified by the Project Team. The interview questions will be developed to increase our understanding of existing coastal resilience adaptation plans, assess the wetland and water priority setting tools familiar to our region, and identifying overlaps and opportunities among the plans and tools.

* 1. **Preparing to convene an expert panel of priority-setting tool developers and coastal planners**

The Project Team plans to convene an expert panel of priority-setting tool planners from the MARCO states in two in-person meetings to review and provide input on the research findings and methodologies. Specifically, the panel will 1) help identify where wetland and wetland-related NNBF restoration and conservation goals coincide with coastal adaptation goals, 2) discuss opportunities for developing a regional framework for wetland and wetland-related NNBF restoration as a response to climate change, and 3) document the tools and data sources that could be applied to integrate the conservation and restoration of ecosystem services into coastal adaptation efforts.

Fifteen appropriate participants were identified from various state agencies and federal and NGO experts. Participants include tool developers, coastal planners, wetland planners, and the relevant research institutions (e.g., NOAA Sea Grant, Coastal Services Center, non-governmental organizations, academic institutions, state and local governments, and other federal agencies). The expert panel will provide input to the project in two phases. The first phase will be conducted in January 2016, but preparations for this panel began during the reporting period.

Phase 1: The Project Team has begun preparations to convene the expert panel for a one-day in-person meeting to discuss the science/priority-setting needs of coastal resilience/hazard planners and then review the criteria found in the existing wetland/aquatic priority schemes for their applicability in the coastal resilience context. In this meeting the Project Team will also document the tools and data sources that could be applied to create a regional framework for prioritizing wetland restoration and protection opportunities. This meeting will occur January 20th, 2016 in Washington D.C.

1. ***Initiating a Project to Facilitate the Improved Use and Understanding of Natural and Nature-Based Features (NNBF) in the Mid-Atlantic***
   1. **Contracting with the National Wildlife Federation**

In early-fall 2015, CSSF contracted with the National Wildlife Federation (NWF) to pursue NALCC grant goals. In partnership with NWF, MARCO aims to move the entire Mid-Atlantic NNBF community forward towards wider and more informed implementation of NNBF. This will be achieved by answering the most pressing questions concerning the use of NNBF and by breaking down geographic and organizational silos in order to promote collaboration and coordination of efforts across states and stakeholders.

Ultimately this project will advance understanding of the implementation of NNBF in the Mid-Atlantic. This project will provide decision support for coastal conservation and restoration to increase resiliency in the Mid-Atlantic.

* 1. **Collecting, synthesizing, and distilling existing research on NNBF**

The Project Team (NWF, MARCO CCAT and staff) has been collecting examples of best practices and lessons learned relevant to the Mid-Atlantic context from NNBF projects across the country so that these findings can be applied to help overcome some of the challenges with implementing NNBF within the Mid-Atlantic. This background research has included:

1. Collecting and examining existing research on the implementation of NNBF
2. Identifying the criteria used to determine use of NNBF projects
3. Identifying climate-related data used in NNBF implementation
4. Identifying the use of NNBF to reduce upland impacts
5. Identifying the limitations of NNBF’s abilities to address climate impacts
6. Identifying the ability of NNBF to be modified or adapted over time with climate change
7. Identifying the NNBF projects that are actively being applied in a climate change context

The information gained in this process will be used in conjunction with interviews to determine critical questions to address during two upcoming NNBF workshops and may serve as models for other programs.

* 1. **Identifying, engaging, and interviewing key stakeholders on NNBF in the Mid-Atlantic**

The Project Team has identified and begun interviewing key stakeholders on NNBF in the Mid-Atlantic. These interviews seek to understand the current state of NNBF use in decision making and barriers for more prolific use. Interviews with prospective workshop attendees and stakeholders will reveal the most pressing issues around evaluating NNBF in light of current and future climate change impacts.

Interviewees and potential workshop attendees were identified from a rich network of affiliates, partners, and collaborators in each of the five Mid-Atlantic States. In addition, interviewees were asked to provide additional names for potential attendees to identify any additional key stakeholders, who will also be contacted and invited to the workshops. This process will help to ensure that the future workshops will include a diverse group of stakeholders and that challenges and opportunities can be directly addressed over the two days. Interview questions will focus on the specific challenges, barriers, and road blocks in promoting, planning, or implementing NNBF for coastal resiliency in order to begin to consider ways to overcome these hurdles.

* 1. **Preparing logistics for two workshops on NNBF**

Two workshops are planned for spring 2016 to advance the use of NNBF in the Mid-Atlantic. The Project Team is currently coordinating the logistics for these workshops. The Project Team is also taking stock of other relevant efforts occurring in the Mid-Atlantic States and planning workshop locations and dates in consideration of these external efforts taking place.

Broad overarching questions around which the workshops will be designed include:

* How will NNBF respond to sea level rise and climate change impacts?
* What are the strengths and limitations of NNBF in reducing upland impacts?
* How can NNBF be modified or adapted over time with climate change?

These questions will be further refined and focused based on interview outcomes. Interviewees and additional key stakeholders will be invited to these workshops.

1. ***Participation in the NALCC Workshop***

MARCO’s Project Coordinator attended the Hurricane Sandy Tidal Marsh Resiliency Coordination Workshop on December 10th, 2015. Attendance at this meeting helped MARCO exchange information and learn from other Hurricane Sandy tidal marsh resiliency related projects. The Project Coordinator also presented at the workshop on the projects being conducted under the NALCC grant. Participation in this knowledge exchange event is important in continuing to develop the role of climate resiliency science delivery in the Mid-Atlantic.

1. ***Coordinating with the CCAT***
   1. **Convening MARCO’s CCAT to provide regular guidance and feedback for NALCC projects**

Following issuing contracts to ELI and NWF, the CCAT has convened calls every 4-6 weeks to provide insight and input into the two efforts at critical juncture in project timelines. Project contractors and MARCO have collaborated on a variety of project goals to maintain sight of the overarching goal of science delivery. CCAT members have provided insight to contractors regarding:

* Potential interviewees, expert panelists, and workshop participants;
* Logistical recommendations for workshops;
* Information on other existing work happening in the Mid-Atlantic around similar topics; and
* General perspective on how to best conduct interviews, expert panels, and workshops in order to produce work that is actionable at the state and local level.

**Conclusion**

In this grant reporting period two projects have been initiated: 1) to develop wetland restoration priorities for climate risk reduction and resilience; and 2) to facilitate the improved use and understanding of NNBF. The MARCO CCAT has been engaged and regularly provides input and insight in a timely manner to maintain work plan timelines. MARCO’s new Project Coordinator has worked closely with the CCAT, NALCC, and contractors to coordinate grant goals and project activities.

In collaboration with project partners, CSSF and MARCO continue to pursue NALCC grant goals through projects that analyze and assist with the implementation of decision support tools and actionable science data dissemination. The Project Teams are working to translate and use information at the regional, state, and local level regarding wetland prioritization and the use of natural and nature based features to increase coastal resiliency. Over the course of this reporting period, the Project Teams have been actively engaged in conducting up-front collection and evaluation of existing resilience tools and planning in the region.

As always, CSSF and MARCO are grateful for the NALCC’s generous financial support. We look forward to continued progress and success with developing a program of delivery of coastal resiliency science for the Mid-Atlantic and to deliver this science and information for state- and community- level resiliency planning.