

Request for Proposals

Mid-Atlantic Regional Human Use Spatial Data Synthesis Project

Issued May 1, 2015

1. Purpose

The Mid-Atlantic Regional Council on the Ocean¹ (MARCO) is soliciting project proposals to conduct a Regional Human Use Spatial Data Synthesis depicting levels of intensity of human use in the Mid-Atlantic Ocean. The resulting map products will be used to *signal* to ocean managers areas from which economic, social, and cultural values are derived. This project will not address *compatibility* of ocean uses, but rather will serve to illustrate where multiple uses co-occur and where improved interjurisdictional coordination could benefit both ocean health and the sustainability of ocean uses. This project could, however, serve as a precursor to possible future compatibility assessments. Funding is available for a seven month (June – December 2015) project to identify and collate the best available data for the Mid-Atlantic, convert the data to spatial layers using simple yet meaningful and informative scales to classify intensity of human use with measures appropriate for each component data layer (e.g., classification of actual metrics for the underlying data where possible or at a minimum high, medium, or low or on a scale of 1 to 3) and synthesize them into a single map layer. Any data used in this synthesis should be as current as possible, preferably gathered within the last ten years.

This work should be coordinated with work under separate contracts which will result in synthesis of data layers to depict ecological value or importance in the region as well as work being conducted to develop a Mid-Atlantic Regional Ocean Assessment (ROA).² The contractor would also be expected to coordinate and align this work with the work of three Mid-Atlantic Regional Planning Body (RPB) workgroups (see sidebar) and the Mid-Atlantic Ocean Data Portal Team.³ These three workgroups (Interjurisdictional

The *Mid-Atlantic Regional Planning Body* (MidA RPB or RPB) has established three workgroups to support the development of the Mid-Atlantic Ocean Action Plan (OAP). The activities of each of these workgroups include:

Interjurisdictional Coordination (IJC): to identify interjurisdictional coordination opportunities and actions, both region-wide, and with consideration of specific geographic areas, as appropriate. The workgroup will initiate a set of discussions across the RPB to identify region-wide and geographically specific ocean management needs, opportunities, and recommended actions for consideration by the full RPB.

Data Synthesis: To help the RPB identify and meet new and emerging data synthesis/analysis needs, oversee development of data products that help the RPB identify areas of ecological, socioeconomic, and cultural importance in the Mid-Atlantic, and work with the IJC workgroup to consider the potential use of data products.

Regional Ocean Assessment (ROA): to use the best available information on ocean uses and resources to develop an assessment that includes a description of the Mid-Atlantic Region's natural resources, ecological features, maritime activities, socioeconomic activity, marine infrastructure, and economic, cultural, and ecosystem value.

¹ <http://www.midatlanticocean.org>

² <http://www.midatlanticocean.org/about/careers/>

³ The Mid-Atlantic Ocean Data Portal is an online toolkit and resource center that consolidates available data, develops new data and enables State, Federal, and local users to visualize and analyze ocean resources and human use information such as fishing grounds, recreational areas, shipping lanes, habitat areas, and energy sites, among others. More information about the Portal is available at <http://midatlanticocean.org/data-portal/>.

Coordination, Data Synthesis and Regional Ocean Assessment) will assist the Mid-Atlantic Regional Planning Body⁴ (RPB) in meeting its two broad ocean planning goals: Healthy Ocean Ecosystems and Sustainable Ocean Uses, as defined in the *Mid-Atlantic Regional Ocean Planning Framework*⁵ (Framework).

This synthesis should be designed to result in a single comprehensive map layer that includes all human use data available and is supported by underlying data layers and information. Human use defined for this synthesis should include economic, social, and cultural uses, and should also include component synthesized layers such as “recreation” where multiple layers that depict recreational activities are synthesized into one layer which is subsequently synthesized into the single comprehensive layer. These layers will depict best available current information in a format that can be updated and expanded upon over time and potentially include areas that could become important for human use in the future.

2. Background

On July 19, 2010 a Presidential Executive Order established a National Policy for the Stewardship of the Ocean, Coasts, and Great Lakes.⁶ To implement this policy, the National Ocean Council (NOC) released the National Ocean Policy Implementation Plan⁷ to guide the protection, maintenance, and restoration of our oceans and coasts. The plan requires federal agencies to work in a more harmonized, goal-oriented structure with states, tribes, and stakeholders.

As part of a 2009 agreement⁸ signed by the Governors of New York, New Jersey, Delaware, Maryland, and Virginia, MARCO was established to help institute partnerships to better coordinate, share data, and plan for new and expanding uses in an already crowded Mid-Atlantic Ocean. One of the first accomplishments of MARCO was the launching of the nation’s first regional Ocean Data Portal in 2010⁹.

These collaborations have laid a strong foundation for regional ocean planning. As a recommendation of the National Ocean Policy Implementation Plan, the five MARCO states, as well as Pennsylvania, and federal, tribal, and Fishery Management Council representatives, came together to form the Mid-Atlantic Regional Planning Body (RPB) in April 2013 with the goal to formally coordinate and implement regional ocean planning within current agency jurisdictions.

The National Ocean Council (NOC) issued *The Final Recommendations of the Interagency Ocean Policy Task Force*,¹⁰ which calls for the development of a regional assessment¹¹ to guide ocean planning efforts and support the RPB’s development of an OAP. MARCO has also identified an interest in supporting development of a component or multiple components of such an assessment, particularly the synthesis of existing data layers to aid in understanding where areas of high ecological value or human use intensity are located.

⁴ <http://www.boem.gov/mid-atlantic-regional-planning-body/>

⁵ <http://www.boem.gov/Mid-Atlantic-Regional-Ocean-Planning-Framework/>

⁶ <https://www.whitehouse.gov/the-press-office/executive-order-stewardship-ocean-our-coasts-and-great-lakes>

⁵ <https://www.whitehouse.gov/administration/eop/oceans/policy>

⁸ <http://midatlanticocean.org/about/marco-overview/>

⁹ <http://portal.midatlanticocean.org/portal/>

¹⁰ https://www.whitehouse.gov/files/documents/OPTF_FinalRecs.pdf

¹¹ <http://www.data.gov/ocean/ocean-tools>

During the RPB in-person meeting in January 2015 the RPB agreed to create a Data Synthesis Work Group to explore methodologies for synthesizing ecological and human use data in order to create an overall general understanding of the location of areas that may benefit from better interjurisdictional coordination and management. The ecological synthesis is being addressed through other efforts, but should be coordinated with this human use data synthesis in order to provide a final, unified product.

3. Objectives

The objective of the proposed work is to provide a synthesized snapshot of the human use intensity in the Mid-Atlantic Ocean as a map depicting the areas of relative intensity based on existing data and an appropriate scale. The geographic range to be included extends from New York to Virginia and from the beach to the outward edge of the Exclusive Economic Zone. The final product of the Human Use Spatial Data Synthesis should be designed to support the ocean planning priorities identified in the draft OAP Approach and Outline¹² approved by the RPB, and be structured to address the goals and objectives identified in the Framework.

The syntheses should incorporate data already available through the MARCO portal (see included list of data sets) as well as other relevant regional data synthesis efforts such as the US Navy *Marine Resource Assessments*,¹³ the *National Ocean Economics Project*¹⁴ (which includes six major industry sectors: marine construction, marine living resources, offshore minerals, ship and boat building/repair, coastal tourism/recreation, and marine transportation) and the *Economics National Ocean Watch*.¹⁵ The level of effort to seek out additional data sources should be commensurate with the value added to the final product from the data, the accessibility of the data, the age of the data and the time and resources needed to incorporate the data. It should also include an appropriate level of review with scientists and stakeholders. If possible the contractor should also provide an analysis of present trends and forecasts for Mid-Atlantic ocean uses.

The selected contractor will report to a project Steering Committee which may include representatives from the MARCO Management Board and staff, RPB workgroups (Interjurisdictional Coordination - IJC, Regional Ocean Assessment - ROA and Data Synthesis - DS), and the Portal Team. The Steering Committee will ensure coordination with the contractors selected to work on the Regional Ocean Assessment and the Ecological Data Synthesis to build upon information already identified and work completed and to coordinate and integrate all efforts.

The selected contractor should also identify ways that the synthesized human use data and information can be reflected, linked, and incorporated into the Mid-Atlantic Ocean Data Portal. Data layers produced from this effort will be made available to the public through the portal and should be compatible with the current structure of the portal. Each data layer should include a fact sheet that describes the data layer, identifies sources, and describes the methodology for creating the layer (i.e., how the scaling or classification was determined).

¹² <http://www.boem.gov/Proposed-Approach-Mid-Atlantic-Regional-Ocean-Action-Plan/>

¹³ https://www.navfac.navy.mil/products_and_services/ev/products_and_services/marine_resources/marine_resource_assessments.html

¹⁴ <http://oceanomics.org/>

¹⁵ <http://coast.noaa.gov/digitalcoast/data/enow>

4. Scope of Work/Tasks

The following list of project tasks is intended to assist in guiding project proposals; however, respondents can propose and justify a different approach that is consistent with and advances the goals and objectives set out in this RFP. The final project scope and work will be refined and confirmed after the contractor is identified.

Task 1: Project Clarification

- Develop a detailed project management plan, with milestones within two weeks of contract execution.

Task 2: Project Coordination with Related Efforts

- Participate in a *process for coordination* with regional ocean planning partners. A project Steering Committee comprised of select members of the MARCO Management Board, MARCO staff, the three Regional Planning Body workgroups and the MARCO Mid-Atlantic Ocean Data Portal Team will direct the project and ensure its coordination with the Ecological Spatial Data Synthesis contractor and the Regional Ocean Assessment contractor. The Human Use Data Synthesis contractor will participate in regularly scheduled updates with the Steering Committee, which will ensure coordination of all parties, and especially with the Interjurisdictional Coordination (IJC) workgroup as it identifies opportunities for synthesis and collaboration on data discussions.¹⁶
- Work with the Project Steering Committee to establish a *process for engaging with scientists and other stakeholders* to review data syntheses. One avenue for engaging stakeholders will be through MARCO's Stakeholder Liaison Committee.¹⁷ At appropriate stages of development, data should be shared with relevant scientists and stakeholders to provide transparency and ensure that all relevant and valid data have been included in the synthesis.
- Participate in key MARCO, full RPB, RPB workgroup, stakeholder, and scientific meetings and teleconferences to report on progress, inform development of the data synthesis, and align the data synthesis with the activities or outcomes of these groups. For budgeting purposes, assume travel to meetings along the Mid-Atlantic once a month and three to five teleconference calls a month lasting no longer than one hour.

Task 3: Initial Data Gathering

- Focus data gathering on *existing, current, spatial* human use data sets and data layers.
- As useful tabular or *narrative data* are discovered, provide them to the Project Steering Committee for potential inclusion in the Regional Ocean Assessment.
- *Document data gaps* that are uncovered as they arise.
- Using the data available on the MARCO Mid-Atlantic Ocean Data Portal as a primary resource (and ensuring that data layers currently being updated are used, e.g. Communities at Sea commercial fishing maps, recreational use maps -see Appendix for some current and soon to be added datasets) gather existing data and data layers identified in this RFP as well as any other datasets determined to be timely and relevant.
- Include existing data from states, tribes and federal agencies. Note that the Department of Defense has a contract to develop specific data layers to support ocean planning. This

¹⁶ <http://midatlanticocean.org/about/careers/>

¹⁷ <http://midatlanticocean.org/wp-content/uploads/2014/09/MARCO-SLC-Roster-Sept-2014.pdf>

contractor will work with DOD designated personnel to obtain military use information to support data products for use in ocean planning and coordinate with this effort.

- *If possible*, identify locations of *potential future human use* and deliver data to the Project Steering Committee.

Task 4: Development of Scaled Maps and Fact Sheets

- Working with the Project Steering Committee (perhaps in a project meeting) the contractor should apply a classification scale to each of the component data layers as per the specific metrics or units available for that dataset, preserve that information and then rescale each layer to whatever overall scale can be used for the single comprehensive synthesized map of human use intensity; at a minimum, three or more levels; e.g. low, medium, and high. The precise definitions and spatial scaling or classification will be dependent on what is appropriate for each data layer. The scale or classification system will necessarily be driven by the available data. The scaling should be objective and not rely upon value judgments.
- Data layers should be classified or weighted to maximize compatibility with that being used for ecological data layers (under a separate contract) so that the ecological and human use synthesized layers can be viewed together in a meaningful way.
- Where appropriate, if multiple spatial data layers reflect a single activity, combine them into one map for that topic (e.g. “recreation” or “fishing”) to create a summary map for that use.
- Develop user-friendly fact sheets for each scaled data layer and synthesized data layer describing the data sources and their date, units of measure or values for the underlying data sets, methodology for scaling and combining (if applicable), and any assumptions that may have been applied in scaling. Each fact sheet should also include narrative information describing the human use and its value. Include links to further information that describe the human uses relevant to the subject matter of the Mid-Atlantic Ocean Action Plan (OAP), a document currently under development by the RPB.
- Vet scaled maps first with the project Steering Committee, and subsequently with the full RPB and appropriate scientists and stakeholders as noted in Task 2 above.

Task 5: Final Data Synthesis and Final Report

- Create a single synthesized map and fact sheet that incorporates the scaled data layers using a spectrum or classification system that clearly depicts intensity levels of human use in the Mid-Atlantic Ocean.
- Develop and provide Federal Geographic Data Committee (FGDC)-compliant metadata for all final, synthesized data layers.
- Once approved by the Project Steering Committee, MARCO Board and the RPB, deliver individual scaled data layers, synthesized data layers, metadata and fact sheets to the Portal Team for incorporation in the MARCO portal. Any additional maps developed from data not already in the portal should be included.
- Deliver a *draft* of the final report by Dec 1, 2015 with:
 - all component and synthesized human use data layers ready to be imported into the MARCO Mid-Atlantic Ocean Data Portal
 - the single, comprehensive Human Use Synthesis map ready to be imported into the MARCO Mid-Atlantic Ocean Data Portal
 - description of methods used to generate all data layers
 - fact sheets for all layers
 - additional narrative data gathered for potential use in the Regional Ocean Assessment

- . list and description of data gaps
 - . narrative and/or spatial data (if possible) on potential future use areas.
- Deliver a *final report* incorporating all changes to the draft report requested by the Project Steering Committee by January 1, 2016.

5. Project Schedule

MARCO was awarded grant funds to support regional ocean planning, including the creation of maps depicting the human use of the Mid-Atlantic. It is anticipated that work on this project will start immediately following completion of a contract. ***Within two weeks of contract execution delivery of a project management plan with milestones is expected.*** We anticipate this approximate time schedule:

By Oct 1 2015	Complete initial data gathering, proposed scaling or classification of component spatial data layers, and draft example maps based on the data and proposed classification, including initial review by the project Steering Committee, MARCO and RPB workgroups, scientists, and stakeholders. Present to MARCO Management Board and RPB for approval at the fall 2015 in-person meeting.
Oct – Nov 2015	Incorporate additional information and revisions to address input from Steering Committee, MARCO, RPB and its workgroups and the Ecological Synthesis team.
By Dec 1 2015	Submit a <i>draft</i> Human Use Synthesis Report as described in Task 5 above and present to MARCO and the RPB for approval.
By Jan 1 2016	Submit a <i>final</i> Human Use Synthesis Report as described in Task 5 above with all changes incorporated for final approval by MARCO and the RPB.

6. Proposal Guidelines

The proposal should clearly describe the objectives, rationale, and methodology for the project, as well as the potential benefits and the qualifications of the investigators who would perform the work.

Proposals should include:

- Cover Sheet including a brief project title, names, address, affiliation, contact information (telephone and email), and total project budget.
- Project Description of up to 6 single-spaced, single-sided pages of text in 11 point font or larger, including:
 - . Objectives
 - . Rationale
 - . Methodological and adaptive approach to analyzing component data layers and synthesizing final data layers and project outputs
 - . Expected outputs of the project and relevance to the regional priorities and thematic areas identified in this RFP
 - . Project Schedule and Milestones
 - . Detailed Budget, including travel allocations for meetings (*project maximum of \$120,000*)
- Appendix containing resumes detailing the relevant qualifications of the principle investigators.

7. Evaluation Criteria

MARCO will convene a panel including representatives from the MARCO Management Board, Portal Team and the RPB and its three workgroups to review the proposals based on the following criteria:



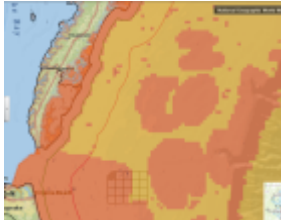
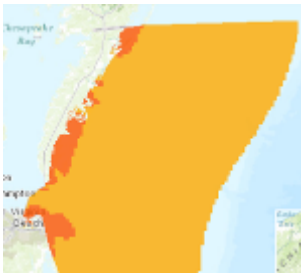
- a. Responsiveness to the objectives and priorities identified in this RFP;
- b. Overall clarity of approach and methodology;
- c. Suitability of proposed approach and methodology, and anticipated outcomes;

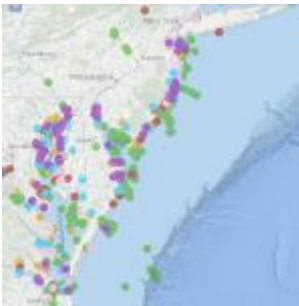



- d. Budget; and
- e. Qualifications of the investigators.


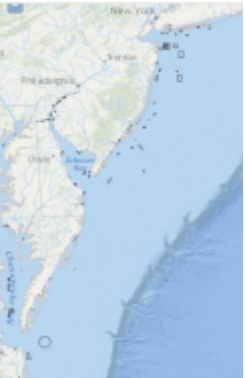


Submission Process and Deadline: Proposals should be submitted no later than **5 PM (ET) on Friday, May 29th** to the attention of Michelle Lennox, Assistant Director of the Mid-Atlantic Regional Council on the Ocean (MARCO) via email to MLennox@MidAtlanticOcean.org. Electronic files *must* be a single Microsoft Word or Adobe PDF format file.

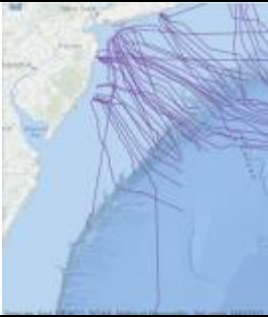
Request for Clarification: Questions and requests for clarifications regarding this solicitation should be sent to Michelle Lennox at MLennox@MidAtlanticOcean.org. No phone calls, please.

APPENDIX
MARCO Ocean Data Portal Layers (and other sources) Showing Location of
Areas from Which Economic Value Is Derived

General Topic	Specific Related Map	Status	Image	Notes
Fishing	Artificial Reefs	On portal		
	Communities at Sea Commercial Fishing Maps by port and gear type	On portal by summer 2015		
	PGIS Recreational Fishing	On portal by summer 2015		
Recreation	PGIS maps of 22 different uses	On portal by summer 2015	 <p data-bbox="802 1717 1058 1751">e.g. wildlife viewing</p>	

	Boater Survey	On portal by summer 2015		
	Surfrider Non-consumptive recreational use	On portal	 <p>boating density</p>  <p>boating routes</p>	
Cultural	PGIS maps of 22 rec uses included 2 cultural maps: scenic/natural views and historic/cultural value	On portal by summer 2015	 <p>e.g. historic/cultural value</p>	
Energy Production	Renewable Energy Planning and Lease Areas	On portal		

Maritime	AIS Shipping Data	On portal		
	Ocean Disposal Sites	On portal		
	Pilot Boarding Areas	On portal		
	Shipwreck Density (may belong with recreation or cultural values)	On portal		

	Submarine cables	On portal			
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Note that the Navy has a contract to develop DoD specific data layers to support ocean planning. This contractor will work with DOD designated personnel to obtain military use information to support data products for this effort.