

Updated March 15, 2017

Semi-Annual Work Plan and Progress Report December 2017

MID-ATLANTIC REGIONAL

**OCEAN
ACTION
PLAN**



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INTRODUCTION

The Mid-Atlantic Regional Planning Body (RPB), comprised of representatives of Mid-Atlantic States, federally recognized Tribes of the Mid-Atlantic, Federal agencies, and the Mid-Atlantic Fisheries Management Council, is working to implement the actions of the Mid-Atlantic Ocean Action Plan (<https://www.boem.gov/Mid-Atlantic-Regional-Ocean-Action-Plan/>). The tables in this document present progress on actions and best practices for the period June – November 2017 and proposed work plans for January –June 2018. Note that some actions may not have planned activities in 2018, but may be addressed in future years.

The Mid-Atlantic RPB is facilitated and guided by three co-leads with one each representing States, Tribes, and Federal agencies. Many actions in the OAP have established work groups with “champions” or “co-champions” leading them. Other actions are undertaken primarily by a single federal agency “champion.” The RPB holds monthly calls to share updates on actions, coordinate activities and plan for annual public meetings. Comments on the work plan and progress report may be submitted by January 30, 2018 to the RPB at: MidAtlanticRPB@boem.gov. We thank you for your interest and support in our actions to promote a healthy ocean ecosystem and to foster sustainable ocean uses.

Laura McKay, Virginia, State Co-lead
 Kelsey Leonard, Shinnecock Nation, Tribal Co-lead
 Darlene Finch, NOAA, Federal Co-lead

Mid-Atlantic Regional Planning Body Member Entities

STATES
 Delaware | Maryland | New Jersey | New York | Virginia

FEDERALLY RECOGNIZED TRIBES
 Shinnecock Indian Nation | Pamunkey Indian Tribe

FEDERAL AGENCIES
 Department of Agriculture (represented by the Natural Resources Conservation Service)
 Department of Commerce (represented by the National Oceanic and Atmospheric Administration)
 Department of Defense (represented by the U.S. Navy and the Joint Chiefs of Staff)
 Department of Energy (represented by Energy Efficiency & Renewable Energy)
 Department of Homeland Security (represented by the U.S. Coast Guard)
 Department of the Interior (represented by the Bureau of Ocean Energy Management)
 Department of Transportation (represented by the Maritime Administration)
 Environmental Protection Agency

MID-ATLANTIC FISHERY MANAGEMENT COUNCIL



Major Benchmarks Timeline for Jan – Jun 2018

Action	Benchmark	January	February	March	April	May	June	July
Ecologically Rich Areas	Develop plan for integrating component data into portal				X			
	Draft technical approach for layer classification and overlay				X			
	Develop draft fact sheets on each of the 5 ERA components						X	
	Outline options for classification & overlay				X			
	Meeting/ Webinar/Workshop on draft communication tools and draft classification options							X
	Plan for integrating ERA component data and accompanying data caveats, gaps and limitations notes into portal							X
Ocean Acidification	Webinars	X	X	X				
	Develop draft plan for ocean acidification monitoring and research priorities					X		
Marine Debris	Regional projects uploaded to collaborative regional portal					X		
	Notification on NOAA/Marine Debris Program grant award				X?			
Indicators	Identification of indicators					X		
	Plan for vetting proposed Indicators						X	
National Security	Development of guidance to national security agencies on use of the OAP and Portal						X	
Ocean Energy	Posting of Atlantic Science Year in Review 2017		X					
	Meet with Tribes to improve agency consultation on protecting sites from impacts						X	

Action	Benchmark	January	February	March	April	May	June	July
	BOEM presentation on Ocean Energy at Fisheries Council meetings		X					
	Release of National Academy's workshop summary on fisheries and ocean energy	X						
Fishing	Shinnecock/NOAA round table that will include some consideration of commercial & recreational fishing		X					
	Potential recreational fishing workshop hosted by NOAA (TBD)							
	Training for federal agencies and fisheries management staff on essential fish habitat (Dates TBD)							
MCNS	Maritime Commerce & Navigation Safety (MCNS) BOEM Workshop on transportation and wind in Baltimore (Feb or Mar – tbd)		X	X				
	MCNS webinar on new AIS data				X			
Sand	Association of American State Geologists meeting						X	
	Roll out of National Sand Inventory & Marine Mineral Information System		X					
	Posting of requests for OCS sand on BOEM website		X					
	Meeting with fishing community on sand tbd in 2018							
	Annual conference on Underwater Archaeology	X						
NCR	Complete non-consumptive recreation (NCR) survey and workshops report			X				
	Develop recommendation for RPB for further NCR investigation on data regarding importance of rec areas and impacts & use conflicts						X	
	Develop white paper on NCR best practices for RPB approval						X	
Portal	Draft plan for maintaining Ocean Data Portal						X	
	Ocean Mapping & Data Team quarterly calls	X			X			

Action	Benchmark	January	February	March	April	May	June	July
	New data layers to be added fishing, maritime, oceanography, sand, marine life and socioeconomic themes by end of 2018							
	Post new ocean data use success stories						X	
Science	Collect science needs listed in semi-annual reports		X					
	Develop criteria for determining regional priorities and submit to RPB for approval along with a stakeholder consultation plan						X	
RPB	RPB meeting materials and semi-annual reports posted							X
	In-person RPB Meeting (August 2 2018)							

Goal: Healthy Ocean Ecosystem	Action: #1 Identify & Increase Understanding of Ecologically Rich Areas
<p>Champion: Laura McKay (VA)</p> <p>Work Group Members: Federal Agencies: Lisa Croft (NOAA), Joe Atangan and Sarah Bowman (DoD), Chris Darnell (USFWS), Mary Boatman and Leann Bullin (BOEM), Buddy Lobue and Mark Reiss (EPA); States: Catherine McCall and Kim Hernandez, (MD); Kim Cole (DE), Liz Semple and Kevin Hassell (NJ), Karen Chytalo, Sherryll Jones, Peter Clouse, Mina Innes (NY); MAFMC Rep: Stew Michels; Tribal Reps: Kelsey Leonard (Shinnecock Tribe), Kathryn MacCormick (Pamunkey Tribe) ; Technical Input: Pat Halpin, Jesse Cleary, and Corrie Curtice (Duke); Nick Napoli (Portal Team); Kate Morrison (MARCO)</p>	
Progress Report: June – November 2017	
Milestones for January - December 2017	Progress through November 2017
1. Finalize and post Framework for identifying ERAs	<ul style="list-style-type: none"> This was completed during summer 2017. Final framework is posted at: https://www.boem.gov/Final-Framework-for-Identifying-ERAs/ .
2. Continue updates of marine mammal, seabird, sea turtle and habitat layers by fall 2017	<ul style="list-style-type: none"> Marine mammal models have passed through an external review process and will be ready for MDAT summary product creation and web service update in spring 2018. Avian models are currently being reviewed and will be ready for MDAT summary product creation and web service update in spring 2018

3. Develop SeaSketch survey	<ul style="list-style-type: none"> The Sea Sketch survey was deployed and completed over the last half of 2017. The survey was organized around the 5 ERA components with relevant data listed under each component.
4. Determine which data sets best illustrate each of the 5 ERA components	<ul style="list-style-type: none"> Results from the SeaSketch survey were collated by Emily Shumchenia and presented at the fall 2017 ERA workshop. The survey results document is now available at: https://www.boem.gov/ERA-data-methods-review-results/
5. Create draft maps illustrating the 5 components by mid-October	<ul style="list-style-type: none"> Map layers for the datasets best illustrating the five components, as shaped by survey responses and other review input, now appear in a new section of SeaSketch - “Draft IEA/ERA Data products (Revised from Survey)”.
6. Conduct workshops in May and November 2017 to present marine life data syntheses and gather stakeholder input	<ul style="list-style-type: none"> MDAT synthesis and ERA data workshops were held on May 19, 2017 in Dover, DE (49 attendees) and November 2, 2017 in Annapolis, MD (39 attendees). The May workshop summary is available (at: http://midatlanticocean.org/wp-content/uploads/2017/09/ERA-May-19-2017-Workshop-Summary.pdf) while the November workshop report is nearing completion.
7. Present May 2017 workshop results at June 2017 RPB public meeting	<ul style="list-style-type: none"> May workshop results were presented at the June 2017 full RPB meeting in Silver Spring, MD.
8. Identify opportunities to engage stakeholders in reviewing data sets for ERA components	<ul style="list-style-type: none"> The SeaSketch data survey was used in a variety of presentations, webinars, and in-person meetings to solicit feedback from stakeholders, in addition to the effort to have stakeholders fill out the survey online. Overall, 240 users were granted access to review the component layers. Over 110 individuals were engaged in 2017 via in-person meetings, webinars, phone calls, and facilitated review of SeaSketch. 16 individuals additionally completed the data survey providing detailed feedback.
9. Develop an outline for a sample ERA report	<ul style="list-style-type: none"> Work on this task will be addressed after resolution of the decision on further data synthesis by the RPB.
10. Develop an ERA Fact Sheet	<ul style="list-style-type: none"> Work on this task will be addressed after resolution of the decision on further data synthesis by the RPB. The front side of the fact sheet describing the five components of ERAs is nearly complete.
11. Solicit input on criteria for selecting a first ERA on which to develop a report	<ul style="list-style-type: none"> Work on this task was suspended in light of the need for additional guidance on further synthesis.

<p>12. Explore resources for conducting additional work on this action</p>	<ul style="list-style-type: none"> ● A grant proposal to the Virginia CZM Program was prepared by VA CZM and MARCO staff for work on ERAs as part of Virginia CZM’s FY17 Section 309 Ocean Resources Strategy. This project funds MARCO staff to assist with identification of and improved understanding of ERAs and covers the period of October 2017 through September 2018.
<p>13. Finalize criteria for selecting first ERA report at Dec 2017 RPB public meeting</p>	<ul style="list-style-type: none"> ● This work is suspended until a decision is made as to how to proceed with any further data synthesis at the Jan 24 RPB meeting.
<p>14. Contract with appropriate entity to begin work on first ERA report</p>	<ul style="list-style-type: none"> ● The Virginia CZM Program contracted with MARCO in October 2017 for \$48,000 for an 18 month project to assist in development of ERAs and reports.
<p>Progress on Best Practices: June – November 2017</p>	
<p>Best Practice 2.1.1 Enhance Use of Data Portal</p>	<ul style="list-style-type: none"> ● See semi-annual report on Portal actions
<p>Best Practice 2.1.2 Enhance Participation in Agency Coordination</p>	<ul style="list-style-type: none"> ● All five states, federal agencies (NOAA, BOEM, DoD, EPA), MAFMC and the Shinnecock Nation have been actively participating in the ERA Work Group.
<p>Best Practice 2.1.3 Enhance Coordination with Stakeholders</p>	<ul style="list-style-type: none"> ● A stakeholder workshop was held on November 2, 2017 in Annapolis MD. 39 attendees representing RPB entities, fisheries, ocean energy, and ENGOs participated.
<p>Best Practice 2.1.4 Enhance Federal-State Coordination</p>	<ul style="list-style-type: none"> ● See 2.1.2 above.
<p>Best Practice 2.1.5 Enhance Federal-Tribal Coordination</p>	<ul style="list-style-type: none"> ● N/A
<p>Work Plan: January - June 2018</p>	
<p>Steps <i>Verbatim from the Plan</i></p>	<p>Milestones for January – June 2018 <i>Expected dates for steps and substeps to be taken</i></p>

<p>NOTE: This work plan was revised and updated on March 14, 2018, following RPB approval of ERA Work Group recommendation on the February 13, 2018 RPB Public Webinar,</p>	
<p>A. Evaluate and refine marine life data layers and synthesis approach. Finalize framework for identifying ERAs.</p>	<ul style="list-style-type: none"> ● Continue MDAT data updates for individual species and species groups and summary products based on those data. Special emphasis on incorporating additional fish species and species group products. <ul style="list-style-type: none"> ○ Provide updates to the portal as data are available and given portal team availability (ongoing). ○ Draft portal documentation on data layer caveats, gaps, limitations, and appropriate use. (by July 2018). ● Finalize the list of data under each ERA component. Improve documentation of the ERA components and data layers. <ul style="list-style-type: none"> ○ Create template for ERA component fact sheets (March 2018) ○ Create draft fact sheets for each ERA component (by June 2018) ○ Incorporate documentation on data layer caveats, gaps, limitations, and appropriate use into draft ERA fact sheets and portal metadata. (by June 2018)
<p>B. Apply methodologies and identify potential ERAs.</p>	<ul style="list-style-type: none"> ● Outline a plan for ERA component data portal integration with the MidA portal team <ul style="list-style-type: none"> ○ Outline how to include and highlight ERA-linked data layers (May 2018) ○ Outline the technical approach for ERA layer classification and overlay (June 2018) ● Identify data layers and classification methods to demonstrate the classify and overlay approach <ul style="list-style-type: none"> ○ Develop a draft tool that includes selected ERA data products , classification thresholds and simple overlays (June 2018) ○ Post draft example of a “classify and overlay” methodology (by July 1 2018) ○ Create opportunities for stakeholder input. (ongoing – June 2018)
<p>C. Select one or more potential ERAs based on set of criteria to be developed for development of the first report.</p>	<ul style="list-style-type: none"> ● No activity planned for this period. The concept of developing ERA reports will be re-assessed after testing of the “classify and overlay” synthesis approach is completed and evaluated.

<p>D. Review the selected ERA and develop report on ecological function, trends and current management</p>	<ul style="list-style-type: none"> ● No activity planned for this period.
<p>Research/Data Needs</p>	
<ul style="list-style-type: none"> ● Better data on fish abundance and distribution for the winter, spring and summer seasons ● Comprehensive coverage of sea turtle abundance & distribution ● Distribution of corals on the continental shelf ● Areas of importance for particular life history stages of ocean animals. 	

<p>Goal: Healthy Ocean Ecosystem</p>	<p>Action 2 – Map shifts in ocean species and habitats.</p>
<p>Co-Champion(s): Laura McKay (VA), Vince Saba (NOAA) Currently investigating whether a work group is needed to move this action forward.</p>	
<p>Progress Report: June – November 2017</p>	
<p>Milestones for January - December 2017</p>	<p>Progress June through November 2017</p>
<p>A. Identify information sources. (short-term)</p>	<ul style="list-style-type: none"> ● A workshop was hosted on April 4-5, 2017 by MARCO and MARACOOS at Rutgers University. A summary of the workshop was posted in November 2017 on the MARCO website at: http://midatlanticocean.org/wp-content/uploads/2017/11/Changing-Ocean-Conditions-Workshop-Summary.pdf ● The Marine Data Analysis Team completed a literature review, which was posted by the MARCO on its website at http://midatlanticocean.org/resources/#oceanplanning.

<p>B. Recommend ways to make current information more accessible to RPB members and the public. (short-term)</p>	<p>Capacity constraints, including the retirement of the Federal co-lead and other demands on the state co-lead, have limited progress on these activities. Nevertheless, NOAA has identified a new Federal co-lead and expects to make progress on these actions in 2018. Note the following:</p> <ul style="list-style-type: none"> ● We will continue to solicit input on the literature review (developed by MDAT folks at Duke and posted by MARCO) to ensure a comprehensive overview of existing sources of information about shifting species in the Mid-Atlantic. ● New Federal co-lead is scheduled to present information on NOAA’s data related to shifting fish species during the March RPB call. At the same time, a request will be made to engage other members of the MidA RPB in the work group so progress can be made on these actions in 2018.
<p>C. Convene resource managers, scientists, Traditional Knowledge holders, and commercial fishermen and other stakeholders to review and discuss: (1) data and methodologies that can be used to create draft maps that illustrate existing, historic, expected, or potential shifts in the distribution of marine species and habitats; (2) potential management applications of the maps; (3) additional data or information needed to enhance utility of draft maps; and (4) caveats for their use. (underway, short-term, and ongoing)</p>	<ul style="list-style-type: none"> ●
<p>D. Coordinate among RPB partners and stakeholders on necessary mapping data acquisition, using existing tools available for integrated ocean and coastal mapping collaboration, and leveraging support where feasible. (short-term and ongoing)</p>	<ul style="list-style-type: none"> ●

<p>E. Develop an approach to the production, peer review, metadata, and publication of maps that illustrate regional climate change-related biological and ecological changes. (underway and short-term)</p>	<ul style="list-style-type: none"> ●
<p>F. Facilitate the publication of maps on the Data Portal, after they have been vetted and finalized. (short-term)</p>	<ul style="list-style-type: none"> ●
<p>G. Identify resource needs and recommend methods to use new information to support initial and periodic updates of Data Portal mapping products, in order to maintain their utility for management agencies and stakeholders and ensure that updates occur regularly, as appropriate. (short-term and ongoing)</p>	<ul style="list-style-type: none"> ●
<p>Progress on Best Practices: June – November 2017</p>	
<p>Best Practice 2.1.1 Enhance Use of Data Portal</p>	<ul style="list-style-type: none"> ● Nothing to report at this time.
<p>Best Practice 2.1.2 Enhance Participation in Agency Coordination</p>	<ul style="list-style-type: none"> ● Nothing to report at this time.
<p>Best Practice 2.1.3 Enhance Coordination with Stakeholders</p>	<ul style="list-style-type: none"> ● Nothing to report at this time.
<p>Best Practice 2.1.4 Enhance Federal-State Coordination</p>	<ul style="list-style-type: none"> ● Nothing to report at this time.
<p>Best Practice 2.1.5 Enhance Federal-Tribal Coordination</p>	<ul style="list-style-type: none"> ● Nothing to report at this time.
<p>Work Plan: January - June 2018</p>	
<p>Steps <i>Verbatim from the Plan</i></p>	<p>Milestones <i>Expected dates for steps and substeps to be taken</i></p>
<p>A. Identify Information sources</p>	<p>Completed but additional sources can be added to document on MARCO website on an ongoing basis as they are identified.</p>
<p>B. Make current info more accessible</p>	<p>TBD</p>

C. Convene stakeholders to discuss data, methodologies, applications and needs	TBD
D. Coordinate with partners to acquire necessary data	TBD
E. Develop an approach to the production, peer review, metadata, and publication of maps that illustrate regional climate change-related biological and ecological changes.	TBD
F. Facilitate the publication of maps on the Data Portal, after they have been vetted and finalized.	TBD
G. Identify resource needs and recommend methods to support updates of Data Portal with new maps or tools.	TBD

Research Needs

Several research needs were identified during the Changing Ocean Conditions Related to Fisheries Workshop (held at Rutgers in New Brunswick, NJ, April 4-5, 2017). Page 7 of the summary report (see link above) summarizes a discussion on “Gaps and barriers to more efficiently develop tools that support ecologically informed management.” Participants particularly noted that more environmental data is needed, particularly bottom temperature, salinity, dissolved oxygen, current, structure and sediment data.

There was also a recognition among the breakout groups that new technology is becoming more available to augment existing data streams. These include animal borne sensors and camera systems in nets that will provide additional behavior and movement data. Physical models of past, present and future conditions can also be generated to inform ecological models. Such ecological models that incorporate these physical fields are then used to incorporate the ecology, economics, and human behavior (e.g. ATLANTIS). Even with these new technologies and products coming online, bottlenecks still exist, particularly fish data (age and diet) and data that integrate across social and economic aspects of the ecology.

Actions to be taken right away

- Better incorporation of fishermen’s ecological knowledge of the system into the management process.
- Dedicate more resources to event response (i.e. anomalous temperature events, anomalous catch densities).
- Simplify data presentation to be more appropriate to targeted audience. It is critical to define clearly the audience for the data presentation.
- Incorporate animal behavior and movement data from acoustic and satellite sensors.

Longer term action

- Develop techniques to tell ecologically relevant stories better with the data. Management needs to transition to a process that acknowledges and quantifies the dynamics of the system, appropriate for ecologically based management.
 - Improve data translation by engaging computer science expertise.
 - Incorporate growing genetic datasets into population estimates and stock assessments, including population and meta-population studies, origin, stresses, EDNA (existing tool), and stable isotope analysis.
- Future ideas that require much more time**
- More expertise is needed to bridge the significant information gap that presently exists between the biology (individual species' population dynamics) and the ecosystem (ecosystem-based fisheries management).
 - Develop methodology for audience and application appropriate visualization of more complex ecological model output.
 - Incorporate additional fish information, including disease and predation data.

Goal: Healthy Ocean Ecosystem	Action: #3 Develop a Mid-Atlantic Ocean Acidification Monitoring Network
<p>Co-Champions: Laura McKay (VA), Sherilyn Lau (EPA) RPB Work Group Members: Erica Ombres (NOAA/OAP), Gabrielle Canonico (NOAA/IOOS), Beth Phelan (NOAA Sandy Hook Lab), Karen Chytalo (NY DEC) Technical Input: A.J. Erskine (VA shellfish grower), Wei Jun Cai (UDel), Whitman Miller (SERC), Pete Rowe (NJ Sea Grant), Elizabeth Shadwick (VIMS), Grace Saba (Rutgers/MARACOOS), Peter Moore (MARACOOS), Kaity Goldsmith (MARCO), Robert Newberry (Delmarva Fisheries Assoc.)</p>	
Progress Report: June – November 2017	
Milestones for January – December 2017	Progress through November 2017
1. Establish a network (MACAN) and develop partnership with MARACOOS	The Mid-Atlantic Coastal Acidification Network (MACAN) is an established network and MARACOOS co-leads the network with MARCO. MACAN serves as the OA Work Group for the RPB. In addition to the HOE Action #3, MACAN further provides a platform for resource managers, academia and industry to share information, guide research and cultivate a better understanding of the potential impacts of coastal acidification on the Mid-Atlantic region.

2. Conduct series of 4 webinars	<p>MACAN hosted a webinar series consisting of four webinars between December 2016-March 2017 on a variety of topics relevant to the MACAN objectives. Webinars were hosted in order to begin to grapple with many of the questions that MACAN took on at the workshop in May 2017 (see 6 below). The webinars focused on understanding key stakeholder needs, developing priority research gaps, and creating a comprehensive monitoring plan. Webinar recordings can be found at http://midacan.org/webinars. The initial MACAN webinar series was a great success, and as such, the Network will be hosting a second webinar series starting December 2017. MACAN also presented on an Ocean Data Portal webinar about the acidification monitoring maps that the Network developed on the Portal (see 3 below), you can view the webinar recording http://portal.midatlanticocean.org/news/video-rewind-ocean-acidification-webinar/.</p>
3. Develop map of OA monitoring locations	<p>MACAN, with help from the VA GIS Coordinator and Portal Team, created one map that shows all known current or previous acidification related monitoring in the Mid-Atlantic and five subsequent maps that show this data in different ways. This will help MACAN in developing a monitoring plan for the region. These five maps are: only currently sampled sites (no historical sites), sites separated by the number of parameters measured, sites measuring partial pressure carbon dioxide (pCO₂), sites measuring total alkalinity (TA), sites measuring dissolved inorganic carbon (DIC), and sites measuring pH. All maps can be found under the Oceanography theme on the Data Portal http://portal.midatlanticocean.org/visualize/.</p>
4. Compile list of research resources	<p>A list of compiled research resources can be on the MACAN website found at: http://midacan.org/reference-library. Additional research is added to this page as it becomes available.</p>
5. Establish a MACAN website	<p>The MACAN website (http://midacan.org/) was launched in April 2017 and new webpages continue to be added.</p>
6. Convene and post summary of May 2017 workshop to identify data gaps and monitoring needs	<ul style="list-style-type: none"> • MACAN convened its first state of the science workshop on May 9, 2017 in Annapolis, MD. The workshop gathered 45 in-person and 13 webinar attendees from diverse backgrounds including academic scientists, industry representatives, and various levels of governmental agencies. The workshop consisted of informative presentations and breakout discussions for 3 topics: <ol style="list-style-type: none"> 1. Monitoring plan

	<ul style="list-style-type: none"> 2. Ecological research gaps 3. Stakeholder concerns and needs • A workshop summary was disseminated to participants on August 3, 2017 and next steps were developed: https://img1.wsimg.com/blobby/go/958b6fdd-eef6-4609-8108-20b4e4b02bdd/downloads/1bmugrgee_310957.pdf . • As next steps following the workshop, MACAN initiated two new sub-work groups: 1) to develop a comprehensive regional monitoring network plan and 2) to develop regional research priorities.
<p>7. Develop list of research needs and data gaps</p>	<p>The sub-work group to develop regional research priorities (RPWG) will identify priority research to improve understanding of regional acidification impacts. Guiding principles, a timeline, and a work plan have been developed to complete this objective. Members of this group joined via an announcement to the MACAN listserv, and some individuals were specifically recruited to ensure well-rounded and knowledgeable work group participants. The inaugural call for this work group was held at the end of September 2017. The group has begun discussing the relevant impacted species and ecosystems as well as synthesizing existing scientific knowledge on the impacts.</p>
<p>8. Develop preliminary plan for monitoring by summer 2018</p>	<p>The Monitoring Plan Work Group, established after findings and stakeholder input from the workshop, is a sub-group within MACAN working to develop a robust monitoring plan for the Mid-Atlantic region from estuary to open ocean in order to improve understanding of the carbonate chemistry variability and change in the region. Guiding principles, a timeline, and a work plan have been developed to complete this objective. Members of this group joined via an announcement to the MACAN listserv, and some individuals were specifically recruited to ensure well-rounded and knowledgeable work group participants. The inaugural call for this work group was held at the end of September 2017. The group has begun discussing existing monitoring and where there may be gaps in the current monitoring.</p>
<p>Progress on Best Practices: June – November 2017</p>	
<p>Best Practice 2.1.1 Enhance Use of Data Portal</p>	<ul style="list-style-type: none"> • MACAN and the Data Portal worked closely to develop and launch the six new acidification monitoring maps described in three above.

<p>Best Practice 2.1.2 Enhance Participation in Agency Coordination</p>	<ul style="list-style-type: none"> As MACAN members and participants in various work groups, agencies work with one another to achieve network objectives.
<p>Best Practice 2.1.3 Enhance Coordination with Stakeholders</p>	<ul style="list-style-type: none"> As MACAN members and participants in various work groups, stakeholders are engaged at a variety of stages in this effort.
<p>Best Practice 2.1.4 Enhance Federal-State Coordination</p>	<ul style="list-style-type: none"> As MACAN members and participants in various work groups, state and federal entities work with one another to achieve network objectives. The MACAN Steering Committee includes two states (NY and VA) and two federal agencies (EPA and NOAA).
<p>Best Practice 2.1.5 Enhance Federal-Tribal Coordination</p>	<ul style="list-style-type: none"> Some tribal members are on the MACAN network membership list and are regularly provided updates on MACAN work progress and opportunities to engage through the MACAN listserv.
<p>Work Plan: January - June 2018</p>	
<p>Steps <i>Verbatim from the Plan</i></p>	<p>Milestones for January – June 2018 <i>Expected dates for steps and sub-steps to be taken</i></p>
<p>A. Identify and compile a list of current regional ocean acidification monitoring efforts and technologies, research, and data gaps, as well as opportunities for partnerships and support.</p>	<ol style="list-style-type: none"> Some discussion regarding technologies for monitoring occurred at the MACAN workshop. The conversation will continue with the Monitoring Plan Work Group. The experts on the Monitoring Plan Work Group will be convened to define the high quality calibrated sensor systems ideal for monitoring in the Mid-Atlantic. (to be completed by June 2018) Discussions around monitoring gaps were initiated at the MACAN workshop. The Monitoring Plan Work Group will identify monitoring data gaps based on areas that are currently monitored, areas of high impact, and areas monitoring multiple stressors. (to be completed by June 2018) Research gaps were discussed at the MACAN workshop, and will continue to be discussed through the Research Priorities Work Group. Data gaps will target regionally vulnerable species, ecosystem level research gaps, life history, vulnerable habitats, and food sources. (to be completed by June 2018)

	<p>4. Identifying opportunities for partnership in filling in gaps in the monitoring plan is part of the work plan for the Monitoring Plan Work Group. (to be completed June 2018).</p>
<p>B. Identify and prioritize questions the Monitoring Network should address (e.g. location and number of needed monitoring sites, time intervals for measuring ocean acidification, etc.).</p>	<ol style="list-style-type: none"> 1. The Monitoring Plan being developed by the Monitoring Plan Work Group will seek to identify number and location for additional monitoring sites need to develop a robust monitoring network in the Mid-Atlantic. (to be completed June 2018). 2. The Monitoring Plan being developed by the Monitoring Plan Work Group will seek to identify time intervals for measurement for the various additionally needed monitoring sites as well as water column depth. (to be completed June 2018).
<p>C. Convene scientists, stakeholders, Traditional Knowledge holders, and the public to develop and vet options for establishing and supporting the Monitoring Network.</p>	<ol style="list-style-type: none"> 1. MACAN co-leads convened expert stakeholders to develop the monitoring plan and research priorities sub-work groups and their knowledge will be invaluable in achieving work group objectives. 2. Two webinars are planned for winter of 2018, one for each sub-work group. These will provide an opportunity for additional stakeholder to reflect on the findings of the two work groups.
<p>Research Needs</p>	
<ul style="list-style-type: none"> • The Research Priorities Work Group will develop a white paper that delineates acidification priority research needs in the region. This is anticipated to be available in late spring/early summer 2018. 	

<p>Goal: Healthy Ocean Ecosystem</p>	<p>Action: #4 Develop Regionally Appropriate Marine Debris Reduction Strategy</p>
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<p>Co-Champions: Laura McKay (VA), Buddy LoBue (EPA) RPB Work Group Members: Jason Rolfe, Andrew Larkin (NOAA); Kelly Somers, Lingard Knutson, Sherilyn Lau, Kristin Regan (EPA); Terron Hillsman (USDA); Sherryll Jones (NY); Liz Semple, Kevin Hassell, Virginia Loftin, Megan Rutkowski (NJ); Nicole Rodi, Kari St. Laurent (DE), Kim Hernandez, Donna Morrow (MD), Virginia Witmer (VA) Technical Input: Katie Register (VA - CVW), Kaity Goldsmith (MARCO)</p>	
<p>Progress Report: June – November 2017</p>	
Milestones for January – December 2017	Progress through November 2017
<p>1. Develop form for collecting data on current and recent projects; collect and analyze data by April 2017</p>	<ul style="list-style-type: none"> An excel document was developed and shared across the work group so each member could enter information regarding marine debris related projects across the region. This project inventory was developed to be included in a digital sharing space (see step 2 below).
<p>2. Develop a digital sharing space by fall 2017 to house projects inventory and other resources</p>	<ul style="list-style-type: none"> A Mid-Atlantic Regional Marine Debris Collaboration Portal was developed via a NOAA Marine Debris program contract by November 2017. The updated project inventory will be incorporated into this sharing space
<p>3. Survey RPB members for priority marine debris sources and project types and analyze results</p>	<ul style="list-style-type: none"> RPB members were surveyed in spring 2017 using Survey Monkey. Results were analyzed and used in consideration of the appropriate marine debris strategy for the work group to pursue.
<p>4. Conduct regional marine debris workshop to develop concepts for a Mid-Atlantic project</p>	<ul style="list-style-type: none"> A regional marine debris workshop was hosted in June 2017. Several ideas were identified through the RPB survey results from step 3 (above); these ideas were presented and further developed with a variety of stakeholders at this event. Ultimately, the workshop identified a few, targeted potential projects/strategies to pursue, with balloon litter reduction using Community Based Social Marketing rising to the top.
<p>5. RPB selects marine debris source and project type at June 2017 public meeting</p>	<ul style="list-style-type: none"> The work group co-leads presented results of the RPB survey and workshop to the RPB at the June 2017 meeting. The RPB

	agreed to pursue the balloon litter reduction using Community Based Social Marketing strategy as the first effort to be pursued by the RPB.
6. Work group selects specific project by July 2017	<ul style="list-style-type: none"> In considering input from the RPB surveys and workshop and the decision of the RPB at the June 2017 meeting, the work group decided to rollout a Mid-Atlantic regional implementation of a balloon litter reduction pilot effort conducted in Virginia.
7. Identify funding sources	<ul style="list-style-type: none"> The work group identified a few opportunities for funding the strategy (e.g. the NOAA Marine Debris Program. A proposal is being submitted to NOAA/MDP in December 2017. In addition, VA is pursuing use of its CZM funds to retain coaching on a regional project by Doug McKenzie-Mohr and NJ is pursuing avenues for expanding some of its CZM funds for the regional strategy.
8. Begin implementation	<ul style="list-style-type: none"> Implementation will begin when/if funds are awarded.
Progress on Best Practices: June – November 2017	
Best Practice 2.1.1 Enhance Use of Data Portal	<ul style="list-style-type: none"> N/A
Best Practice 2.1.2 Enhance Participation in Agency Coordination	<ul style="list-style-type: none"> Multiple agencies (NOAA and EPA) and all five states in the RPB are members of the marine debris work group and have played critical roles in identifying the marine debris regional reduction strategy.
Best Practice 2.1.3 Enhance Coordination with Stakeholders	<ul style="list-style-type: none"> Stakeholders helped the RPB identify a marine debris reduction strategy to pursue via their participation in the workshop hosted in June 2017 in Richmond, VA. The work group hopes to engage a variety of additional stakeholders in pursuing the strategy as resources become available.

<p>Best Practice 2.1.4 Enhance Federal-State Coordination</p>	<ul style="list-style-type: none"> The Marine Debris work group established effective coordination among the states and federal agencies in focusing regional marine debris reduction efforts and cataloging and sharing information on ongoing projects.
<p>Best Practice 2.1.5 Enhance Federal-Tribal Coordination</p>	<ul style="list-style-type: none"> The Marine Debris work group provides a platform for engaging federal-tribal coordination in marine debris reduction strategies.
<p>Work Plan: January - June 2018</p>	
<p>Steps <i>Verbatim from the Plan</i></p>	<p>Milestones <i>Expected dates for steps and substeps to be taken</i></p>
<p>A. Identify existing efforts and prioritize options for regional strategies for marine debris reduction. Note: Step A of the OAP contains additional tasks (including development of a region-wide marine debris shoreline monitoring program and a cost-benefit analysis on full lifecycle costs of plastics) not anticipated to be addressed in 2018.</p>	<ol style="list-style-type: none"> Complete uploading of projects database into the new digital collaboration portal (by June 2018). As additional projects are identified, add them to the MD collaboration portal (ongoing).
<p>B. Present options for regional strategies and implementation mechanisms to the public and RPB.</p>	<ul style="list-style-type: none"> Completed. See steps 4 and 5 above.
<p>C. Implement selected strategies.</p>	<ol style="list-style-type: none"> In support of the Indicators Work Group, help to identify potential marine debris indicators for the Mid-Atlantic. Obtain one-on-one coaching by Community Based Social Marketing expert Doug McKenzie-Mohr for balloon litter reduction project. Work towards hosting Community Based Social Marketing workshop in New Jersey to build capacity in the region. Develop balloon litter monitoring protocol appropriate for project by adapting existing protocols.

	5. Develop tool to enter real-time (or near real-time) monitoring data to be accessed by work group for data analysis.
Research/Data Needs	
<ul style="list-style-type: none"> Fate and transport of ocean floatables relative to landfall of marine debris (e.g., balloons). 	

Goal: Healthy Ocean Ecosystem	Action: #5 Develop, Monitor, and Assess Indicators of Ocean Health
<p>Champion: Karen Chytalo (NY)</p> <p>Work Group Members (i.e. Steering Committee Members): <i>Federal Agencies:</i> Mary Boatman, Leann Bullin (BOEM); Chris Kinkade, Darlene Finch (NOAA); Sarah Bowman (NAVY); Hugh Sullivan (EPA); <i>State Agencies:</i> Sherryll Jones (NY-DEC), Kari St. Laurent (DE), Laura McKay (VA)</p> <p>Technical Input: Kaity Goldsmith (MARCO); Tony MacDonald (Monmouth); Pat Field, Nick Napoli and Emily Shumchenia (CBI)</p>	
Progress Report: June – November 2017	
Milestones for January – December 2017	Progress through November 2017
1. Initiate a steering committee to guide contractors and hire contractors	<ul style="list-style-type: none"> A Steering Committee was initiated in February 2017 and which guided the contractor's work throughout the contract period (ended September 2017).
2. Develop list of existing indicators by April 2017	<ul style="list-style-type: none"> The Steering Committee and contractors compiled a list of existing indicators in early spring to be included in the conversations with stakeholder groups (see 3 below). The list can be found in the white paper on pages 5-11 at:

	http://midatlanticocean.org/wp-content/uploads/2017/06/MidA-Heathy-Ocean-Ecosystem-Indicators-white-paper-June-2017.pdf .
3. Present list of indicators to stakeholder groups; develop a framework of indicators; and identify data gaps by May 2017	<ul style="list-style-type: none"> In early April 2017, the group arranged several webinars with ocean planning participants and stakeholders to share a project overview, report on progress to date, and obtain feedback on initial draft indicator themes and data categories for a healthy ocean ecosystems monitoring and assessment program. Over 50 individuals were invited to participate within the following groups: Academic and agency science/research, Commercial and recreational fishing, Environmental non-governmental organizations, Non-consumptive recreation, Aquaculture, Tribes, Maritime commerce, Energy, and Sand management. The group hosted seven 90-minute webinars between April 27 and May 15, 2017. Invitees and participants were asked to provide input, such as whether the proposed indicator themes and data categories were appropriate for ocean planning goals, if there were additional categories or data to consider, and which indicators or metrics should be prioritized. Findings from the outreach webinars were used to influence the white paper.
4. Develop options for monitoring and assessment and reporting and display by June 2017	<ul style="list-style-type: none"> Options for a healthy ocean ecosystem monitoring, assessment, reporting, and display of indicators, including references to example programs were provided in the white paper. Developing a healthy ocean ecosystem indicator monitoring and assessment program (pg. 13-29). These options were then further discussed and refined at the July workshop (see 6 below).
5. Develop a white paper by July 2017	<ul style="list-style-type: none"> As alluded to in the steps above, the white paper (http://midatlanticocean.org/wp-content/uploads/2017/06/MidA-Heathy-Ocean-Ecosystem-Indicators-white-paper-June-2017.pdf) was completed in July to summarize research on existing indicators, outreach feedback, indicator framework and display options. This white paper was used as the basis for conversations advanced at the July workshop (see 6 below).
6. Conduct a 2 day workshop on indicators to gather stakeholder input on options for indicators	<ul style="list-style-type: none"> The group hosted a 2-day workshop on July 19-20, 2017 in Baltimore, Maryland. There were 44 in-person attendees and 25 webinar attendees. The workshop agenda can be found here: http://midatlanticocean.org/wp-content/uploads/2017/06/MidA-Healthy-Ocean-Ecosystem-Indicators-DRAFT-

	<p>AGENDA.pdf. The workshop summary can be found here https://www.boem.gov/Final-Indicators-report-from-CBI-with-appendices-for-RPB/ as Appendix B (starting on page 61).</p>
7. Produce a final report to the RPB by fall 2017	<ul style="list-style-type: none"> A final report, which summarizes recommendations and options for a Mid-Atlantic healthy ocean ecosystem indicator program, can be found here: https://www.boem.gov/Final-Indicators-report-from-CBI-with-appendices-for-RPB/. The final report includes a recommended framework for the indicators program and recommended display options. The final report also provides key decisions points to be made to move the indicators program forward, and recommended next steps. Feedback and input provided during the workshop significantly influenced the final report.
Best Practice 2.1.1 Enhance Use of Data Portal	<ul style="list-style-type: none"> The data portal is a key part of consideration for the indicators effort, including potential indicators whose data may already exist on the portal as well as a possible location for the indicators dashboard.
Best Practice 2.1.2 Enhance Participation in Agency Coordination	<ul style="list-style-type: none"> A common theme throughout the development of the indicators effort is the need to consider and compile existing datasets that measure the indicators ultimately selected. The RPB will need to coordinate regularly between the indicator effort and any agencies who collect existing indicator datasets.
Best Practice 2.1.3 Enhance Coordination with Stakeholders	<ul style="list-style-type: none"> A common theme throughout the development of the indicators effort is the need to consider and compile existing datasets that measure the indicators ultimately selected. The RPB will need to coordinate regularly between the indicators effort and any stakeholder who collect existing indicator datasets.
Best Practice 2.1.4 Enhance Federal-State Coordination	<ul style="list-style-type: none"> Any data used for indicators that is collected by either Federal or State governments will be better communicated across agencies and level of government through the indicators effort.
Best Practice 2.1.5 Enhance Federal-Tribal Coordination	<ul style="list-style-type: none"> A common theme throughout the development of the indicators effort is the need to consider and compile existing datasets that measure the indicators ultimately selected. The RPB will need to coordinate regularly between the indicators effort and any Tribes who collect existing indicator datasets.
Work Plan: January - June 2018	

<p style="text-align: center;">Steps <i>Verbatim from the Plan</i></p>	<p style="text-align: center;">Milestones for January – June 2018 <i>Expected dates for steps and substeps to be taken</i></p>
<p>A. Summarize existing indicators currently available. Analyze the potential for available indicators to gauge the overall health of the Mid-A ecosystem, understand what the indicators may show us, and identify needed indicators not currently available. Vet the list of available and needed indicators with scientists, Traditional Knowledge holders, and stakeholders in the region.</p>	<ol style="list-style-type: none"> 1. The white paper developed during 2017 (see 5 above) provides a summary of existing indicators available. 2. Solicit additional RPB members for the work group and reconfirm current Steering Committee members. 3. Identify Federal co-lead for the work group. 4. The work group will initiate the identification of indicators within the framework determined in 2017 based on knowledge of existing indicators available (winter/early spring 2018). <ol style="list-style-type: none"> a. Reorganize indicators identified in the white paper into the framework (winter 2018). b. Iterative process with the work group to whittle down indicators (early spring 2018). 5. The work group will identify initial indicators that would be useful if the data existed/were available (late spring 2018). <ol style="list-style-type: none"> a. Cross-walk this list with the ROA to identify further missing indicators (late spring 2018). 6. The work group will develop a plan for vetting the indicators identified in substeps 4 and 5 above (June 2018).
<p>B. Submit refined indicators to the RPB for consideration and endorsement</p>	<ol style="list-style-type: none"> 1. This step will occur beyond the January-June 2018 timeframe. <ol style="list-style-type: none"> a. The RPB will be kept apprised of progress during the Jan-June 2018 timeframe through teleconference and documentation.
<p>Research Needs</p>	
<ul style="list-style-type: none"> • While the RPB will focus on identifying existing datasets for indicators whenever possible, the RPB also acknowledges the worth in identifying potential indicator data gaps that could be filled in the future. Several gaps will likely be identified through the Jan-June 2018 work plan. 	

Goal: Sustainable Ocean Uses – National Security	Action: #1 Use the Plan and Data Portal to guide and inform Department programs, initiatives, and planning documents.
Champion: Joe Atangan (Joint Staff/Navy) Coordinating Federal Agencies: Mike Jones (DoD), Chris Scraba (USCG)	
Progress Report: June – November 2017	
Milestones for January - December 2017	Progress through November 2017
<ol style="list-style-type: none"> 1. Inform region Navy NEPA practitioners and biologists of Department commitments and Plan implementation requirements. 	<ul style="list-style-type: none"> • July 2017: Region Navy NEPA practitioners and biologists were briefed by the DoD and JCS RPB representatives on Regional Ocean Action Plan implementation requirements and DoD commitments.
<ol style="list-style-type: none"> 2. Inform region Navy NEPA practitioners and biologists of Data Portal capabilities. 	<ul style="list-style-type: none"> • Sept 2017: The Mid-Atlantic Data Portal team provided training to Navy NEPA practitioners and biologists who support the development of Navy environmental planning documents.
Progress on Best Practices: June – November 2017	
<p>Best Practice 2.1.1 Enhance Use of Data Portal</p>	<ul style="list-style-type: none"> • April-Sept 2017: NEPA practitioners utilized the portal for a variety of NEPA projects, using it as a resource for information when applicable and relevant to the project.

<p>Best Practice 2.1.2 Enhance Participation in Agency Coordination</p>	<ul style="list-style-type: none"> • Ongoing: DoD has established agency coordination mechanisms in place and works closely with other agencies and task forces to review proposed ocean uses. DoD continues to work closely with partner agencies via established means and is committed to building on relationships forged during the ocean planning process.
<p>Best Practice 2.1.3 Enhance Coordination with Stakeholders</p>	<ul style="list-style-type: none"> • DoD has leveraged RPB working group sessions to engage with stakeholders not routinely reached via the NEPA planning process.
<p>Best Practice 2.1.4 Enhance Federal-State Coordination</p>	<ul style="list-style-type: none"> • Ongoing: DoD has established agency coordination mechanisms in place and works closely with other Federal-State agencies and task forces to review proposed ocean uses. DoD continues to work closely with partner agencies via established means and is committed to building on relationships forged during the ocean planning process.
<p>Best Practice 2.1.5 Enhance Federal-Tribal Coordination</p>	<ul style="list-style-type: none"> • Navy Region Mid-Atlantic has renewed its commitment to Tribal Coordination through a project designed to establish Programmatic Agreements with affected tribes throughout the Mid-Atlantic Region.
<p>Work Plan: January - June 2018</p>	
<p>Steps <i>Verbatim from the Plan</i></p>	<p>Milestones <i>Expected dates for steps and substeps to be taken</i></p>
<p>A. Identify the Plan and Data Portal as important sources of information in decision-making.</p>	<p>Work with the DoD/JS HQ to develop broad internal guidance to the Services on the use of the Plan and Data Portal.</p>
<p>B. Consult the Plan and the Data Portal, along with other sources of information, in the preparation of internal agency guidance, existing procedures, and environmental planning.</p>	<p>Ongoing</p>

C. Leverage the Plan and Data Portal to obtain supplemental regional information related to proposed actions and activities.	Ongoing
Research Needs	
<ul style="list-style-type: none"> N/A 	

Goal: Sustainable Ocean Uses – National Security	Action: #2 Identify Department of Defense points of contact for the range of national security data layers in the Data Portal
Champion: Joe Atangan (Joint Staff/Navy) Coordinating Federal Agencies: Mike Jones (DoD)	
Progress Report: June – November 2017	
Milestones for January - December 2017	Progress through November 2017
1. Review and update National Security layers in the Data Portal.	<ul style="list-style-type: none"> July 2017: Completed a review of all National Security data layers in the Data Portal. Sep 2017: Provided updated National Security data layers and metadata to the Marine Cadastre.
Best Practice 2.1.1 Enhance Use of Data Portal	<ul style="list-style-type: none"> N/A
Best Practice 2.1.2 Enhance Participation in Agency Coordination	<ul style="list-style-type: none"> N/A
Best Practice 2.1.3 Enhance Coordination with Stakeholders	<ul style="list-style-type: none"> N/A

Best Practice 2.1.4 Enhance Federal-State Coordination	<ul style="list-style-type: none"> N/A
Best Practice 2.1.5 Enhance Federal-Tribal Coordination	<ul style="list-style-type: none"> N/A
Work Plan: January - June 2018	
Steps <i>Verbatim from the Plan</i>	Milestones <i>Expected dates for steps and substeps to be taken</i>
A. DoD will, to the extent practicable, update the national security data on the Data Portal as needed, such as when applicable permits are renewed or operations significantly change.	1. Conduct an annual review of Portal data by July 2018.
B. Identify appropriate points of contact for the national security data layers provided for inclusion into the Data Portal.	<ol style="list-style-type: none"> Review Code of Federal Regulations (CFR) to determine who is listed as responsible authorities for danger zones and restricted areas by June 2018. Review data layer metadata and update responsible authorities for danger zones and restricted areas by July 2018. Based on CFR review, submit required changes by October 2018.
Research Needs	
<ul style="list-style-type: none"> N/A 	

Goal: Sustainable Ocean Uses – Ocean Energy	Action: #1: Identify key intersections of relevant federal programs and authorities that affect wind energy development
Champion(s): Darryl Francois (BOEM)	

Progress Report: June – November 2017	
Milestones for January - December 2017	Progress through November 2017
1. Develop and post leasing information on the BOEM website for stakeholders	<ul style="list-style-type: none"> • BOEM posted A Citizen’s Guide on its website to explain BOEM’s authorization process for overseeing renewable energy projects on the OCS and to highlight opportunities for public involvement • BOEM collaborating with BSEE to develop guidelines for Facility Design Review (FDR) and Fabrication Installation Review (FIR) for industry • BOEM collaborating with BSEE to develop guidance for Oil Spill Response Plans for renewable energy Construction and Operations Plans (COP) • BOEM will leverage a related interagency effort to provide a regulatory roadmap to be posted on BOEM’s website; anticipated in late 2017 • BOEM developing guidance for the use of design envelopes in COPs; a BOEM-funded study investigating this issue as well as phased development was completed in August 2017 (see https://www.boem.gov/Phased-Approaches-to-Offshore-Wind-Developments-and-Use-of-Project-Design-Envelope/) • BOEM posted on its website the results of the New York lease sale that occurred in December 2016 and the leasing materials and auction results of the Kitty Hawk, NC sale that occurred in March 2017
2. Develop and post materials that identify intersections of key federal programs	<ul style="list-style-type: none"> • Offshore Wind Permitting Subgroup chaired by BOEM met in person Nov. 7, in addition to monthly webinars; working to document the processes, requirements, and roles of BOEM and other Federal agencies for the review and approval of COPs • BOEM developing guidelines for lighting and marking of structures supporting renewable energy development to enhance navigation and maritime vessel traffic safety and clarify the requirements of BOEM, FAA, and USCG; BOEM plans to host an industry webinar in early 2018 to obtain feedback on draft guidance
Progress on Best Practices: June – November 2017	

<p>Best Practice 2.1.1 Enhance Use of Data Portal</p>	<ul style="list-style-type: none"> • BOEM is using the data portal and encouraging others to use the portal when reviewing or proposing offshore wind energy projects, such as the New York Bight Areas for Consideration recently submitted to BOEM • BOEM developing a handout about the portals to be used at intergovernmental renewable energy task force and other meetings
<p>Best Practice 2.1.2 Enhance Participation in Agency Coordination</p>	<ul style="list-style-type: none"> • Monthly webinars with the Offshore Wind Permitting interagency working group to discuss lessons learned from other interagency coordination efforts, project updates • Planning “Offshore Wind and Navigation Knowledge Exchange” workshop with USCG on Intersection of Offshore Wind and Maritime Transportation in March 2018 in Baltimore, MD to review interagency efforts
<p>Best Practice 2.1.3 Enhance Coordination with Stakeholders</p>	<ul style="list-style-type: none"> • BOEM presented at AWEA Offshore Windpower Oct. 24-25 in New York, NY and held a stakeholder engagement session • BOEM planning a webinar for industry and stakeholders seeking input on draft guidance document about the use of design envelopes in COPs • BOEM working on a Note to Stakeholders seeking input on proposed future renewable energy leasing offshore the Atlantic Coast
<p>Best Practice 2.1.4 Enhance Federal-State Coordination</p>	<ul style="list-style-type: none"> • BOEM approved Site Assessment Plans to deploy meteorological buoys offshore Virginia (and MA and RI) in 2017; BOEM coordinated with federal and state agencies during the review of the plans and posted the plans on its website • BOEM reviewed New York’s Offshore Wind Master Plan and held an intergovernmental renewable energy NY state task force meeting Oct. 3 to discuss the path forward for future leasing and the NY Plan and study efforts; BOEM held a joint NY and NJ task force webinar Dec. 4 and invited CT, RI, and MA task force members to participate (BOEM held a joint RI and MA task force meeting May 2017) • BOEM held a joint intergovernmental Virginia and North Carolina task force meeting on Dec. 7 regarding the renewable energy research and commercial leases
<p>Best Practice 2.1.5 Enhance Federal-Tribal Coordination</p>	<ul style="list-style-type: none"> • BOEM held an intergovernmental renewable energy NY state task force meeting Oct. 3 to discuss the path forward for future leasing and New York’s Offshore Wind Master Plan and study efforts and Dec. 4 webinar; VA task force meeting Dec. 7
<p>Work Plan: January - June 2018</p>	

<p>Steps <i>Verbatim from the Plan</i></p>	<p>Milestones <i>Expected dates for steps and substeps to be taken</i></p>
<p>A. Develop materials to describe leasing, environmental review, and regulatory entities, including where and when relevant authorities play roles in decisions related to offshore wind energy.</p>	<ul style="list-style-type: none"> • BOEM is reviewing the NYSERDA recommendations and their methodology and will prepare a Call for Information and Nominations offshore New York as the next step • BOEM signing on to an interagency MOU with DOD, DOE, DHS, FAA, and NOAA, with a work group studying the potential for wind turbine operations to interfere with radar signals, identifying information gaps and possibly developing recommendations for measures to take to mitigate potential interference; a related BOEM study will be complete in Sept. 2018
<p>B. Develop materials that identify intersections of key federal programs and statutes related to offshore wind energy.</p>	<ul style="list-style-type: none"> • BOEM participated in the first meeting of the Offshore Wind Technical Advisory Panel Oct. 24, an international group of renewable energy stakeholders that will update AWEA’s existing guidelines for the offshore U.S. wind energy industry and develop U.S. specific engineering design standards for offshore wind facilities • BOEM hosted the quarterly Wind Turbine Radar Interference and Mitigation interagency meeting on Nov. 1-2. The meeting included discussion of ongoing research into effects of wind turbine operations on use of radar for agency activities and to indicate any concerns about future renewable energy development
<p>C. Post information developed in Steps A and B to the Data Portal and BOEM websites.</p>	<p>Ongoing</p>
<p>Research Needs</p>	
<ul style="list-style-type: none"> • BOEM is reviewing responses to the Broad Agency Announcement for the 2017 Technology Assessment Program on five topic areas related to renewable energy development on the OCS (i.e., designs, methods, etc.) 	

<p>Goal: Sustainable Ocean Uses – Ocean Energy</p>	<p>Action: #2: Develop internal BOEM guidance on integrating the Plan-developed best practices for using the Data Portal in management, environmental, and regulatory reviews</p>
<p>Champion(s): Darryl Francois (BOEM)</p>	
<p style="text-align: center;">Progress Report: June – November 2017</p>	
<p style="text-align: center;">Milestones for January - December 2017</p>	<p style="text-align: center;">Progress through November 2017</p>
<p>1. BOEM will increase use of the Data Portal in management, environmental, and regulatory reviews, as appropriate</p>	<ul style="list-style-type: none"> • BOEM posted on its National and Regional Guidelines for renewable energy activities and Survey Guidelines for renewable energy development and State Activities Environmental Studies webpages information stating that BOEM will use the Ocean Action Plan to inform and guide its actions and decisions in the Mid-Atlantic, and will consider the data products available from the Data Portal in its decision-making, and encourage lessees and applicants to do so also • In summer 2017, Data Portal linked with BOEM’s Environmental Studies Program Information System (ESPIS), developed in partnership with NOAA. The search tool allows specific text- and map-based searches to find relevant study information including summaries, final reports, peer-reviewed publications, and digital data
<p style="text-align: center;">Progress on Best Practices: June – November 2017</p>	
<p>Best Practice 2.1.1 Enhance Use of Data Portal</p>	<ul style="list-style-type: none"> • BOEM encourages developers to use the information to inform the siting of their offshore wind energy structures within a lease area, and developers may provide data and information that they gain from offshore activities in developing wind energy • BOEM’s guidelines for developers include the recommendation to use the most recent data available to inform any proposed survey work • Post-leasing, the process is also useful to identify data gaps • BOEM used data information tools including the data portal in its review of NYSERDA’s Offshore Wind report for development of potential areas for future leasing in the Mid-Atlantic Bight

<p>Best Practice 2.1.2 Enhance Participation in Agency Coordination</p>	<ul style="list-style-type: none"> • BOEM supports the use of the data portal in supplying important data to the public, lessees, and decision-makers
<p>Best Practice 2.1.3 Enhance Coordination with Stakeholders</p>	<ul style="list-style-type: none"> • BOEM participated in AWEA Offshore Wind conference in New York Oct. 24-25 (panels about New York’s Offshore Wind Master Plan; studies; continuing permitting and leasing, data collection and environmental review of construction and operations plans, stakeholder public listening session; exhibit booth) • BOEM planning a webinar about draft Design Envelope Guidelines for industry to solicit input before finalizing the guidance
<p>Best Practice 2.1.4 Enhance Federal-State Coordination</p>	<ul style="list-style-type: none"> • BOEM using data information tools including the portal in its review of NYSEERDA’s report about developing potential areas for future leasing in the Mid-Atlantic Bight
<p>Best Practice 2.1.5 Enhance Federal-Tribal Coordination</p>	<ul style="list-style-type: none"> • BOEM continues to implement its internal renewable energy policies inviting federally-recognized tribal partners to be cooperating agencies in the preparation of NEPA documents, including inviting tribes to provide data
<p>Work Plan: January - June 2018</p>	
<p>Steps <i>Verbatim from the Plan</i></p>	<p>Milestones <i>Expected dates for steps and substeps to be taken</i></p>
<p>A. Using best practices described in section 2.1 and Healthy Ocean Ecosystem Action 6, BOEM will increase use of the Data Portal in management, environmental, and regulatory reviews, as appropriate.</p>	<p>Industry groups are helping to develop "best practices" to assist developers in launching offshore wind projects along the U.S. coasts. The three-year effort will write a set of comprehensive standards covering everything from how to design a wind turbine to building its foundations to assist the offshore industry. DOE’s National Renewable Energy Laboratory (NREL) is involved with BOEM and Bureau of Safety and Environmental Enforcement (BSEE). They will update a set of recommendations finalized by AWEA in 2012 and add new standards. Federal agencies regulating offshore wind, including BOEM and BSEE, can then begin using the standards to advise developers on how to build. BOEM will continue to utilize information in the data portal throughout the leasing process to inform decision-making.</p>
<p>Research Needs</p>	

<ul style="list-style-type: none"> BOEM will continue to reach out to stakeholders through public meetings and encourage ideas for studies in the Mid-Atlantic to assist with identifying data gaps 	
Goal: Sustainable Ocean Uses – Ocean Energy	Action: #3: Partner in on-going and planned studies, identify knowledge gaps, and increase access to research planning cycles related to ocean energy
Champion(s): Darryl Francois (BOEM)	
Progress Report: June – November 2017	
Milestones for January - December 2017	Progress through November 2017
1. Broad Agency Announcement for 2017 Renewable Energy Technology Assessment Program	<ul style="list-style-type: none"> BOEM is reviewing white papers received in response to the Broad Agency Announcement (BAA) for the 2017 Renewable Energy Technology Assessment Program for five topic areas related to renewable energy development on the OCS, will award these studies in 2018
2. BOEM’s National Studies List	<ul style="list-style-type: none"> BOEM notified stakeholders about opportunities to provide suggestions for the annual Environmental Studies Program Planning cycle in the Fall 2016 for FY 2018 and published in the Environmental Studies Plan for FY 18-20 posted on BOEM’s website BOEM published and posted in Spring 2017 the Atlantic Science Year in Review 2016 about the ongoing and completed studies in support of its offshore renewable energy program
Progress on Best Practices: June – November 2017	
Best Practice 2.1.1 Enhance Use of Data Portal	<ul style="list-style-type: none"> Post studies on BOEM ESPIS which now links to the Portal (summer 2017) BOEM informed stakeholders that the newly designed Quarterly Report for its funded study reports are posted on ESPIS for the third quarter of FY 2017 providing concise descriptions of 14 reports, the purpose of each study, findings, and how BOEM will use the research results. The Quarterly Report also includes a list of new studies funded between April and June. All completed ESP reports are available with links to the Data Portals and peer-reviewed articles. Technical summaries of more than 1,800 BOEM-sponsored environmental research projects and more than 3,500 research reports are available: http://marinecadastre.gov/espis/#/. BOEM develops, funds, and manages

	<p>rigorous scientific research to inform policy decisions regarding development of OCS energy and mineral resources.</p> <ul style="list-style-type: none"> • BOEM provided funding to NOAA to support the development of distribution and abundance maps about birds in the data portal
<p>Best Practice 2.1.2 Enhance Participation in Agency Coordination</p>	<ul style="list-style-type: none"> • Jan. 2017: MidA and NE RPBs jointly submitted suggestions to the Subcommittee on Ocean Science and Technology for the “Plan for Ocean Research in the Coming Decade.”
<p>Best Practice 2.1.3 Enhance Coordination with Stakeholders</p>	<ul style="list-style-type: none"> • BOEM co-sponsored the Southern New England Offshore Wind Energy Science Forum Dec. 11-12 at URI on completed and ongoing research to improve the management and development of offshore wind energy, and presented priority research topics of interest to resource users, municipalities, and state and federal regulators
<p>Best Practice 2.1.4 Enhance Federal-State Coordination</p>	<ul style="list-style-type: none"> • Continue to encourage states to provide ideas for BOEM’s national studies list
<p>Best Practice 2.1.5 Enhance Federal-Tribal Coordination</p>	<ul style="list-style-type: none"> • Encourage tribes to provide ideas for BOEM’s national studies list
Work Plan: January - June 2018	
Steps <i>Verbatim from the Plan</i>	Milestones <i>Expected dates for steps and substeps to be taken</i>
<p>A. Increase awareness of research planning cycles to facilitate early involvement of RPB entities.</p>	<p>BOEM will share its National Studies List with the RPB and encourage ideas for studies in the Mid-Atlantic for FY 19-21; BOEM compiling the Atlantic Science Year in Review 2017 for publication and posting on the BOEM website in early 2018</p>
<p>B. Maintain maps, data, information of OCS leasing areas, including boundaries and studies, and ensure data are provided to appropriate repository.</p>	<p>BOEM develops, maintains, and uses GIS data for activities related to planning, assessment, and environmental review of renewable energy projects on the OCS; BOEM’s website provides direct access to data that it has developed or maintains.</p>

C. Partner in planned studies.	5-year NOPP study awarded in 2016 will establish an ecosystem observation network that provides baseline monitoring and supports predictive modeling of the soundscape and its relationship to marine life and the environment in the region; 7 ocean bottom landers deployed in late November 2017 on the mid- and south Atlantic OCS
D. Work with RPB member entities to develop a MidA regional studies list in support of new regional offshore wind issues, areas, and projects.	BOEM will share its National Studies List with the RPB and encourage ideas for studies in the Mid-Atlantic for FY 19-21
E. Identify opportunities for collaboration with the NOPP to assess interest among federal agencies on common topics for possible joint funding.	BOEM awarded a 4 ½ year NOPP study “Deepwater Atlantic Habitats II: Continued Atlantic Research and Exploration in Deepwater Ecosystems with Focus on Coral, Canyon, and Seep Communities” with scientists from USGS and 7 academic institutions ; the first cruise was recently completed
Research Needs	
<ul style="list-style-type: none"> • BOEM will continue to reach out to stakeholders through public meetings and encourage ideas for studies in the Mid-Atlantic to assist with identifying data gaps 	

Goal: Sustainable Ocean Uses – Ocean Energy	Action: #4: Use the data portal to enhance access to data, environmental reports, and proposed offshore wind development activities
Champion(s): Darryl Francois (BOEM)	

Progress Report: June – November 2017	
Milestones for January - December 2017	Progress through November 2017
1. Link the Data Portal with ESPIS	<ul style="list-style-type: none"> • BOEM and the Data Portal Team linked the data portal with BOEM’s Environmental Studies Program Information System (ESPIS) in summer 2017
2. Place and maintain links to agency announcements about proposed offshore development activities on the Data Portal	<ul style="list-style-type: none"> • BOEM develops, maintains, and uses GIS data for a wide range of activities related to planning, assessment, and environmental review of renewable energy projects on the OCS, and provides direct access to data BOEM has developed or maintains on its website and on the Data Portal • Links to BOEM news related to regional ocean planning topics are on the Portal
Progress on Best Practices: June – November 2017	
Best Practice 2.1.1 Enhance Use of Data Portal	<ul style="list-style-type: none"> • Linked the data portal with BOEM’s Environmental Studies Program Information System (ESPIS); summer 2017
Best Practice 2.1.2 Enhance Participation in Agency Coordination	<ul style="list-style-type: none"> • BOEM participated in interagency working group on ocean and coastal mapping on Nov. 28 in Silver Spring, MD to discuss the National Ocean Mapping Strategy next steps and identify areas of collaboration in 2018 • BOEM partners with NOAA on the marine cadastre which feeds into the data portal
Best Practice 2.1.3 Enhance Coordination with Stakeholders	<ul style="list-style-type: none"> • BOEM posted information on its Renewable Energy webpage about the data portal now linking with BOEM’s ESPIS, and mentioning it in a Note to Stakeholders seeking input into the National Studies List for FY 19-21
Best Practice 2.1.4 Enhance Federal-State Coordination	<ul style="list-style-type: none"> • BOEM to receive preliminary study findings regarding offshore fish telemetry work in and around the Maryland Wind Energy Area including next steps for understanding utilization of the area by migratory fish
Best Practice 2.1.5 Enhance Federal-Tribal Coordination	<ul style="list-style-type: none"> • BOEM invites the tribes to provide data and traditional knowledge regarding proposed offshore wind development activities
Work Plan: January - June 2018	

Steps <i>Verbatim from the Plan</i>	Milestones <i>Expected dates for steps and substeps to be taken</i>
A. Link the data portal with BOEM ESPIS.	Ongoing; related to interagency action to improve communication of related studies and research to continuously update the data portal.
B. Place and maintain links to agency announcements about proposed offshore development activities on the data portal.	Ongoing: http://portal.midatlanticocean.org/news/news-our-partners/
Research Needs	
<ul style="list-style-type: none"> BOEM will continue to reach out to stakeholders through public meetings and encourage ideas for studies in the Mid-Atlantic to assist with identifying data gaps 	

Goal: Sustainable Ocean Uses – Ocean Energy	Action: #5: Improve consultations and communication with Tribes in the region
Champion(s): Darryl Francois (BOEM)	
Progress Report: June – November 2017	
Milestones for January - December 2017	Progress through November 2017
1. Consult and communicate with Tribes	<ul style="list-style-type: none"> The Shinnecock Indian Nation requested government-to-government consultation with BOEM to discuss renewable energy activities offshore New York and Rhode Island; meeting held on June 20, 2017
Progress on Best Practices: June – November 2017	

<p>Best Practice 2.1.1 Enhance Use of Data Portal</p>	<ul style="list-style-type: none"> • BOEM is using the data portal and encouraging others to use the portal when reviewing or proposing offshore wind energy projects
<p>Best Practice 2.1.2 Enhance Participation in Agency Coordination</p>	<ul style="list-style-type: none"> • BOEM participated in Federal Tribal Trust Responsibility meeting with BIA, USFWS, USGS, NOAA, and EPA Nov. 15 in Boston, MA, about how various federal agencies identify tribal trust responsibilities and carry out their consultation responsibilities with federally-recognized tribes, and how we can better coordinate our policies and procedures
<p>Best Practice 2.1.3 Enhance Coordination with Stakeholders</p>	<ul style="list-style-type: none"> • BOEM presented at the Visual Resource Stewardship conference: Landscape and Seascape Management in a Time of Change in Chicago, IL on Nov. 7-9 about how BOEM integrates visual impact analysis into planning for offshore wind, and what BOEM plans to do in the future.
<p>Best Practice 2.1.4 Enhance Federal-State Coordination</p>	<ul style="list-style-type: none"> • BOEM conducted meetings with its intergovernmental renewable energy state task forces (In New York Oct. 3 and via webinar Nov. 4 with NY and NJ to discuss the New York Bight; and in Virginia Dec. 7 with VA and NC to discuss leases offshore Virginia Beach and Kitty Hawk)
<p>Best Practice 2.1.5 Enhance Federal-Tribal Coordination</p>	<ul style="list-style-type: none"> • Consulted with the Shinnecock Indian Nation about wind energy offshore New York in June 2017
<p>Work Plan: January - June 2018</p>	
<p>Steps <i>Verbatim from the Plan</i></p>	<p>Milestones <i>Expected dates for steps and substeps to be taken</i></p>
<p>A. Continue to implement BOEM's internal renewable energy policies.</p>	<p>Continue to invite federally-recognized tribal partners to be cooperating agencies in the preparation of NEPA documents, require lessees to invite federally-recognized tribes to pre-survey meetings, and include Post-Review Discoveries Clauses with tribal partners for each stage of BOEM's renewable energy process</p>

<p>B. Coordinate closely with tribal partners to protect sites from impact and resolve any impact in consultation with the tribes.</p>	<p>As a follow-up to Federal Tribal Trust Responsibility Meeting, the next step will be a meeting with the tribes in 2018 to present an overview of the results of the Nov. 15 meeting and continue a dialogue on improving agency consultation with federally-recognized tribes</p>
<p>C. Work to communicate effectively BOEM's science strategy regarding studies of interest to tribes in the Mid-Atlantic region.</p>	<p>Continue to engage stakeholders in BOEM's annual national studies planning process</p>
<p>Research Needs</p>	
<ul style="list-style-type: none"> • BOEM will continue to reach out to stakeholders through public meetings and encourage ideas for studies in the Mid-Atlantic to assist with identifying data gaps 	

<p>Goal: Sustainable Ocean Uses – Ocean Energy</p>	<p>Action: #6: Enhance BOEM engagement of fishing industries through improved data and specific interactions</p>
<p>Champion(s): Darryl Francois (BOEM)</p>	
<p>Progress Report: June – November 2017</p>	
<p>Milestones for January - December 2017</p>	<p>Progress through November 2017</p>
<p>1. NAS Fisheries Steering Committee and Workshop</p>	<ul style="list-style-type: none"> • BOEM contracted with the National Academy of Sciences to establish a Fisheries Steering Committee and held a workshop (Nov. 7-8 in MA) to provide feedback to BOEM regarding fisheries related studies and monitoring priorities related to offshore

	wind energy development http://nas-sites.org/dels/studies/atlantic-offshore-renewable-energy-development-and-fisheries/meetings/
2. Share information with fishing stakeholders	<ul style="list-style-type: none"> • BOEM co-sponsored the Southern New England Offshore Wind Energy Science Forum Dec. 11-12 at URI on completed and ongoing research to improve the management and development of offshore wind energy, and presented priority research topics of interest to resource users including fishermen, municipalities, recreational boaters, and state and federal regulators • BOEM maintains an Atlantic Fishing Industry Communication and Engagement webpage with maps to help commercial fishers learn more about BOEM’s mission, related studies, and activities
Progress on Best Practices: June – November 2017	
Best Practice 2.1.1 Enhance Use of Data Portal	<ul style="list-style-type: none"> • Continuing to evaluate Communities at Sea and other data in environmental assessments
Best Practice 2.1.2 Enhance Participation in Agency Coordination	<ul style="list-style-type: none"> • Cooperating with Maryland Department of Natural Resources on passive acoustic monitoring and fish telemetry offshore Maryland
Best Practice 2.1.3 Enhance Coordination with Stakeholders	<ul style="list-style-type: none"> • BOEM briefed the Mid-Atlantic Fishery Management Council Dec. 13 regarding the NY offshore wind next steps, and about other leases in the Mid-Atlantic • Public workshop and webinar on Atlantic Offshore Renewable Energy Development and Fisheries hosted by the NAS Fisheries Steering Committee, sponsored by BOEM, Nov. 8-9 in New Bedford, MA to inform and advance the research and monitoring needed to assess fisheries impacts from offshore wind
Best Practice 2.1.4 Enhance Federal-State Coordination	<ul style="list-style-type: none"> • Ongoing; BOEM New York Bight task force webinar on Dec. 4 to discuss the draft Call for Information, and a Virginia/North Carolina Task Force meeting on Dec. 7 to discuss the Virginia Coastal Offshore Wind Project and the Avangrid project offshore North Carolina
Best Practice 2.1.5 Enhance Federal-Tribal Coordination	<ul style="list-style-type: none"> • Ongoing; Tribes are members of the intergovernmental state renewable energy task forces; BOEM NY Bight task force webinar on Dec. 4 to discuss the draft Call for Information, and a VA/NC Task Force meeting Dec. 7 to discuss the Virginia Coastal Offshore Wind Project and the Avangrid project offshore North Carolina

Work Plan: January - June 2018	
Steps <i>Verbatim from the Plan</i>	Milestones <i>Expected dates for steps and substeps to be taken</i>
A. Enhance existing public engagement strategies associated with fishing activities and resources and offshore wind	<ul style="list-style-type: none"> • BOEM to keep the Mid-Atlantic Fishery Management Council updated regarding the NY offshore wind next steps, and about other leases in the Mid-Atlantic • BOEM reaching out to the Atlantic States Marine Fisheries Commission about presenting at their February meeting • In early 2018, the National Academy of Sciences Fisheries Steering Committee will release a meeting summary from their Nov. 7-8 BOEM-sponsored workshop
B. Continue to work with fishermen and offshore wind lease holders in the implementation of BOEM guidance to lessees.	BOEM will continue to update its webpages about revised guidance for meteorological buoys and seek stakeholder input as appropriate
C. More effectively communicate BOEM’s science strategy for fisheries studies in its annual Studies Development Plan.	<p>BOEM awarded a multi-year Inter-Agency Agreement with NOAA Jan. 2017 to conduct experiments on the effects of sound on fish and invertebrates, focusing initially on black sea bass and squid; laboratory experiments will be conducted to simulate pile driving sound levels and monitor the response</p> <p>The first RODEO (Real-time Opportunity for Development of Environmental Observations) reports from Block Island Wind Farm monitoring will be available in early 2018 and will inform projects in the Mid-Atlantic</p>
Research Needs	
<ul style="list-style-type: none"> • BOEM will continue to reach out to stakeholders through public meetings and encourage ideas for studies in the Mid-Atlantic to assist with identifying data gaps 	

<p>Goal: Commercial and Recreational Fisheries</p>	<p>Action #1: Improve sharing of information and ideas between States, Tribes, Federal agencies, and Fishery Management Councils on fisheries science and management</p>							
<p>Champion(s): Marianne Ferguson (NOAA)</p>								
<p>Progress Report: June – November 2017</p>								
<p>Milestones for January - December 2017</p>	<p>Progress through November 2017</p>							
<p>1. Convene annual meetings between regional NOAA and FWS leadership, MAFMC leadership, and State marine fisheries directors to identify shared interests and build collaboration</p>	<ul style="list-style-type: none"> ● While no meetings occurred where all of the above groups were represented, the list below includes fishery management meetings where several groups were represented. <ul style="list-style-type: none"> ● Mid-Atlantic Fisheries Management Council meetings included GARFO leadership and staff, Council members and staff, state directors who serve on the Council ● Commission meetings included GARFO leadership and staff on some boards, Council staff on some boards, FWS staff on some boards, state directors/Council staff sitting on the Commission ● State directors meeting included GARFO leadership and staff, state directors (who also serve on the councils) ● NRCC included GARFO leadership, NEFSC leadership, Commission leadership, MAFMC and NEFMC leadership. 							
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th data-bbox="779 1227 1478 1268">Meeting</th> <th data-bbox="1478 1227 1902 1268">Dates</th> </tr> </thead> <tbody> <tr> <td data-bbox="779 1268 1478 1308">Mid-Atlantic Fishery Management Council Meeting</td> <td data-bbox="1478 1268 1902 1308">June 6-8, 2017</td> </tr> <tr> <td data-bbox="779 1308 1478 1349">State Directors Meetings</td> <td data-bbox="1478 1308 1902 1349">July 31, 2017</td> </tr> </tbody> </table>		Meeting	Dates	Mid-Atlantic Fishery Management Council Meeting	June 6-8, 2017	State Directors Meetings	July 31, 2017
Meeting	Dates							
Mid-Atlantic Fishery Management Council Meeting	June 6-8, 2017							
State Directors Meetings	July 31, 2017							

	Atlantic States Marine Fisheries Commission Summer Meeting	August 1-3, 2017	
	Mid-Atlantic Fishery Management Council Meeting	August 8-10, 2017	
	Mid-Atlantic Fishery Management Council Meeting	October 10-12, 2017	
	Atlantic States Marine Fisheries Commission Annual Meeting	October 16-19, 2017	
	Northeast Regional Coordinating Council	November 15-16, 2017	
<p>2. Offer to meet with Tribes to discuss fisheries management, and invite state officials to participate in meetings with Tribes</p>	<ul style="list-style-type: none"> • NOAA is planning a day-long roundtable with the Shinnecock Indian Nation that is scheduled for February of 2018 to address a range of issues of interest to the Shinnecock. There have also been preliminary discussions about a separate meeting between Shinnecock Indian Nation and GARFO to discuss coordination on marine mammal strandings and cultural use of parts. While both sides have expressed interest, not date has yet been set. • NOAA previously reached out to the Pamunkey Indian National to offer a meeting and provided some input regarding a shad meeting they were hosting in terms of meeting structure and participation. • NOAA has had internal discussions about meeting with the Tribes on aquaculture in general terms, but nothing has yet been scheduled. 		
<p>3. Explore with the MAFMC the possibility of RPB members participating as technical advisors to the Council’s Ecosystem and Ocean Planning Committee for the purpose of identifying and monitoring fishing and non-fishing impacts on the environment and the impacts of other human activities on fishing.</p>	<ul style="list-style-type: none"> • Stew Michaels (DE DFW) and Mid-Atlantic RPB rep is now serving as the Vice-Chair of this Committee 		

Progress on Best Practices: June – November 2017	
Best Practice 2.1.1 Enhance Use of Data Portal	<ul style="list-style-type: none"> •
Best Practice 2.1.2 Enhance Participation in Agency Coordination	<ul style="list-style-type: none"> • There are some meetings where NOAA staff, FWS staff, and Council staff interact, but they are not directly related to ocean planning interests
Best Practice 2.1.3 Enhance Coordination with Stakeholders	<ul style="list-style-type: none"> •
Best Practice 2.1.4 Enhance Federal-State Coordination	<ul style="list-style-type: none"> • State directors are present at some meetings with GARFO leadership and staff, but again, these fishery management meetings are not directly related to ocean planning interests
Best Practice 2.1.5 Enhance Federal-Tribal Coordination	<ul style="list-style-type: none"> • The planning for the NOAA’s February 2018 round table is being coordinated with the Shinnecock to ensure it addresses priority issues.
Work Plan: January - June 2018	
Steps <i>Verbatim from the Plan</i>	Milestones <i>Expected dates for steps and substeps to be taken</i>
A. Convene annual meetings between regional NOAA and FWS leadership, MAFMC leadership, and State marine fisheries directors to identify shared interests and build collaboration	<ul style="list-style-type: none"> • Continued coordination efforts at relevant meetings
B. Offer to meet with Tribes to discuss fisheries management, and invite state officials to participate in meetings with Tribes	<ul style="list-style-type: none"> • Shinnecock/NOAA Round Table with partners is scheduled for February 15, 2018 at the Shinnecock Reservation on Long Island.

<p>C. Explore with the MAFMC the possibility of RPB members participating as technical advisors to the Council’s Ecosystem and Ocean Planning Committee for the purpose of identifying and monitoring fishing and non-fishing impacts on the environment and the impacts of other human activities on fishing.</p>	<ul style="list-style-type: none"> • Stew Michaels to continue serving in the role of co-chair on this committee
<p>Research Needs</p>	
<ul style="list-style-type: none"> • None identified to date. 	

<p>Goal: Commercial and Recreational Fisheries</p>	<p>Action #2: Continue to actively engage stakeholders in fisheries science and management, and seek ways to make fishermen’s knowledge available for planning</p>
<p>Champion(s): Marianne Ferguson (NOAA)</p>	
<p>Progress Report: June – November 2017</p>	
<p>Milestones for January - December 2017</p>	<p>Progress through November 2017</p>

<p>1. Convene fisheries and marine wildlife managers and recreational fishing leaders to discuss concerns, provide information, and identify engagement opportunities</p>	<ul style="list-style-type: none"> ● Pending grant funding, Sustainable Fisheries staff at GARFO will potentially hold a recreational fishery management workshop in the Mid-Atlantic in the future.
<p>2. Work toward creation and support of ongoing surveys and/or interview projects on Tribal and fishermen’s ecological and fisheries knowledge</p>	<p>3. The Northeast Fisheries Science Center hosted a Port Outreach meeting in Montauk, NY on August 30 to discuss Groundfish Operational Assessments.</p>
<p>4. Capture and reflect fishing community knowledge, including Tribal knowledge, in ocean management and data products and in the Data Portal, as appropriate</p>	<ul style="list-style-type: none"> ● The Portal team has been reaching out to the fishing community directly and via larger meetings, like MAFMC, to obtain feedback and input on draft Communities at Sea and Vessel Monitoring System data to ensure we understand the accuracy, limitations, and caveats associated with each dataset. Dockside engagement meetings and discussions are planned for Virginia in the near future.
<p>Progress on Best Practices: June – November 2017</p>	
<p>Best Practice 2.1.1 Enhance Use of Data Portal</p>	<ul style="list-style-type: none"> ● Feedback from the fishing community has helped the development of Communities at Sea and VMS data
<p>Best Practice 2.1.2 Enhance Participation in Agency Coordination</p>	<ul style="list-style-type: none"> ●
<p>Best Practice 2.1.3 Enhance Coordination with Stakeholders</p>	<ul style="list-style-type: none"> ● Meetings have occurred and are planned with recreational fishermen and commercial fishermen
<p>Best Practice 2.1.4 Enhance Federal-State Coordination</p>	<ul style="list-style-type: none"> ●
<p>Best Practice 2.1.5 Enhance Federal-Tribal Coordination</p>	<ul style="list-style-type: none"> ●
<p>Work Plan: January - June 2018</p>	

Steps <i>Verbatim from the Plan</i>	Milestones <i>Expected dates for steps and substeps to be taken</i>
A. Convene fisheries and marine wildlife managers and recreational fishing leaders to discuss concerns, provide information, and identify engagement opportunities	<ul style="list-style-type: none"> ● Potential plans for a Mid-Atlantic region recreational fisheries management workshop
B. Work toward creation and support of ongoing surveys and/or interview projects on Tribal and fishermen’s ecological and fisheries knowledge	<ul style="list-style-type: none"> ● Continue outreach efforts
C. Capture and reflect fishing community knowledge, including Tribal knowledge, in ocean management and data products and in the Data Portal, as appropriate	<ul style="list-style-type: none"> ● Continue outreach efforts ● Dockside engagement meetings planned in the near future in VA
Research Needs	
<ul style="list-style-type: none"> ● None identified to date. 	
Goal: Commercial and Recreational Fisheries	Action #3: Improve collaboration for the conservation of essential fish habitat
Champion(s): Marianne Ferguson (NOAA)	
Progress Report: June – November 2017	
Milestones for January - December 2017	Progress through November 2017

<p>1. NOAA will provide additional training for Federal agencies in the identification of and conservation of essential fish habitat</p>	<ul style="list-style-type: none"> • NOAA Fisheries GARFO Habitat Conservation Division is providing this training on an ongoing basis. In the past six months, they provided a first-time training for the Nuclear Regulatory Commission.
<p>2. Train fisheries management staff in the use of the data portal and utilize their feedback to improve the Data Portal's utility for supporting their day to day work and advancing their initiatives</p>	<ul style="list-style-type: none"> • GARFO staff and portal staff hosted working sessions with the Sustainable Fisheries Division, Protected Resources Division, and Habitat Conservation Division. These personalized sessions provided an overview of the portal as well as an opportunity for questions and feedback. The portal team has conducted trainings with state partners in MD, VA, DE, and NJ, which included participants from coastal zone management programs, departments of natural resources, and other related partners.
<p>Progress on Best Practices: June – November 2017</p>	
<p>Best Practice 2.1.1 Enhance Use of Data Portal</p>	<ul style="list-style-type: none"> • Trainings and the associated feedback will enhance stakeholders' day to day use of the data portal, as well as the contents of the portal itself
<p>Best Practice 2.1.2 Enhance Participation in Agency Coordination</p>	<ul style="list-style-type: none"> • EFH trainings for Federal agencies help strengthen agency coordination for identifying and conserving EFH
<p>Best Practice 2.1.3 Enhance Coordination with Stakeholders</p>	<ul style="list-style-type: none"> • Data portal trainings and associated feedback enhance coordination with stakeholders that use the portal
<p>Best Practice 2.1.4 Enhance Federal-State Coordination</p>	<ul style="list-style-type: none"> • The portal team has conducted trainings at the state level
<p>Best Practice 2.1.5 Enhance Federal-Tribal Coordination</p>	<ul style="list-style-type: none"> •
<p>Work Plan: January - June 2018</p>	
<p>Steps <i>Verbatim from the Plan</i></p>	<p>Milestones <i>Expected dates for steps and substeps to be taken</i></p>

<p>A. NOAA will provide additional training for Federal agencies in the identification of and conservation of essential fish habitat</p>	<ul style="list-style-type: none"> ● Continue trainings throughout the year
<p>B. Train fisheries management staff in the use of the data portal and utilize their feedback to improve the Data Portal’s utility for supporting their day to day work and advancing their initiatives</p>	<ul style="list-style-type: none"> ● Continue trainings throughout the year ● Incorporate feedback into the Portal
<p>Research Needs</p>	
<ul style="list-style-type: none"> ● None identified to date. 	

<p>Goal: Sustainable Ocean Uses – Ocean Aquaculture</p>	<p>Actions:</p> <ol style="list-style-type: none"> 1. Use data and information in the Data Portal and other information sources developed as a result of this Plan to support aquaculture siting and permitting. 2. Improve collaboration on ocean aquaculture.
<p>Champion(s): National Oceanic and Atmospheric Administration</p>	

Progress Report: June – November 2017	
Milestones for January - December 2017	Progress through November 2017
<p>1. a. Refer potential applicants for aquaculture permits to the Data Portal as a source of information about factors affecting siting decisions. (short-term and ongoing)</p>	<ul style="list-style-type: none"> NOAA’s aquaculture coordinator refers all interested parties to the data portals of their respective regions to understand natural resources, human uses, and possible conflicts for space prior to developing site alternatives. There has only been one in the Mid-Atlantic thus far seeking ways to plan for fish farming in the EEZ (i.e. Manna Fish Farms off Long Island).
<p>1. b. Seek to include adequate information on the Data Portal so that resource managers can identify potential intersections between aquaculture and other uses and marine wildlife. (short-term and ongoing)</p>	<ul style="list-style-type: none"> None to date.
<p>2. a. NOAA’s regional aquaculture coordinator will coordinate with State aquaculture programs, the aquaculture industry, Tribes, and Federal partners to identify and develop improved communication channels. (short-term and ongoing)</p>	<ul style="list-style-type: none"> NOAA’s regional aquaculture coordinator has made introductions to several Mid-Atlantic state aquaculture coordinators as he travels travel to varying states. These introductions initiate a relationship that can be used to improve communications as issues arise or as the need for regular meetings with states and feds on aquaculture arise. NOAA has developed a project to work with tribes in our region to assess aquaculture activities, aquaculture development interest, and research needs. NOAA has advertised for an intern placement over the past year and plans to post it in USA Jobs seeking an intern for the project during summer 2018. NOAA has also expanded federal communication channels regarding aquaculture on as-needed basis in response to planned projects.
Progress on Best Practices: June – November 2017	
<p>Best Practice 2.1.1 Enhance Use of Data Portal</p>	<ul style="list-style-type: none"> Manna Fish Farms used the MidA Ocean Data Portal initially to examine characteristics while they were seeking initial site options. Phase II of the siting analysis will likely be using the Marine Cadastre tool.
<p>Best Practice 2.1.2 Enhance Participation in Agency Coordination</p>	<ul style="list-style-type: none">

Best Practice 2.1.3 Enhance Coordination with Stakeholders	•
Best Practice 2.1.4 Enhance Federal-State Coordination	•
Best Practice 2.1.5 Enhance Federal-Tribal Coordination	•
Work Plan: January - June 2018	
Steps <i>Verbatim from the Plan</i>	Milestones <i>Expected dates for steps and substeps to be taken</i>
1. a. Refer potential applicants for aquaculture permits to the Data Portal as a source of information about factors affecting siting decisions.	Ongoing
1. b. Seek to include adequate information on the Data Portal so that resource managers can identify potential intersections between aquaculture and other uses and marine wildlife.	TBD
2. a. NOAA’s regional aquaculture coordinator will coordinate with State aquaculture programs, the aquaculture industry, Tribes, and Federal partners to identify and develop improved communication channels.	
Research Needs	
<ul style="list-style-type: none"> • NOAA has identified many aquaculture research needs as part of annual and long-term strategic planning but these are not specific to the MidA. 	

<p>Goal: Sustainable Ocean Uses –</p>	<p>Maritime Commerce and Navigation Safety (MCNS) (Section 2.4.5 to OAP)</p>
<p>Champion: Chris Scraba, Doug Simpson (USCG), Amanda Rutherford (MARAD) Maritime Commerce and Navigation Safety Work Group: <i>Federal Agencies:</i> Darryl Francois/Amy Stillings (BOEM); Lisa Croft/Darlene Finch (NOAA), Jeff Orrock (NOAA-NWS); Joe Atangan (USFFC) <i>State Agencies:</i> Michael Snyder (NY DOS); Peter Clouse (NY DOS); Karen Chytalo (NY DEC); Kevin Hassell (NJDEP); Kimberly Cole (DE DNREC; Laura McKay (VA DEQ); <i>Technical Input:</i> Kate Morrison (MARCO); Jay Odell (TNC-Portal); Matt Campo (Rutgers-Portal). <i>Port Partners and OGAs:</i> USCG Sector Hampton Roads, Maryland-NC Region, Delaware Bay and New York along with Pilots Assoc and Port Authorities of respective ports.</p>	
<p>Progress Report: May – November 2017</p>	
<p>Milestones for January - December 2017</p>	<p>Progress through November 2017</p>
<p>1. Conduct inaugural semi-annual MCNS WG Webinar MAY17. (Hosted 40 phone line connections and 30 webinar connections) -Speakers * Mr. Orrock- NWS:Hurricane/ Severe Weather port coord comms *Mr. MacDuffee-BOEM:WEA Projs *Mr. Nieves-USACE:Dredging Projs *Mr. _Martin-NOAA: Marine Cadastre-AIS Data *Sector/COTPs Round Robin *OGA/Trade Assoc comments</p>	<p>Action Items from 1 May Webinar and Progress in ()</p> <ul style="list-style-type: none"> ● MAC/SEC DEL BAY requested info on VA Severe Weather Advisory Team (Held a follow-on 8 Jun 17 call with MT Holly NJ NWS to facilitate dialogue with all MAC port partners on severe weather events/reporting to set up a Port Severe Weather Advisory Team in Del River Region). ● Obtain update on MET TOWER/data buoys for MD/NJ WEAs (Conducted update in webinar notes and follow-on 1 NOV webinar for Jan 2018 buoy install for southern NJ WEA and May 2018 ET Tower install for MD WEA) ● Status of uploading MC AIS track line data to portal sites. (Coordinated with MARCO Data Portal Site to provide updated AIS track line maps and briefed out on 1 NOV webinar on the upcoming FEB 2018 release of 2015/16 data). ● Requested to expand dialogue on recent whale strikes off the Mid Atlantic to ensure active awareness and highlight the ongoing issue with NOAA declaring event as Unusual Mortality Rate Investigation. (Added to all HSC and follow on speaker from NOAA set up for 1 NOV call).

<p>2. Conduct second semi- annual MCNS WG Webinar on 3MAY17: currently no new dat Speakers * Mr. Orrock- NWS:Hurricane/ Severe Weather port coord comms *Ms. Stillings-BOEM:WEA Projects *Mr. MacDonald-UCI: Blue Ocean Economy 2030 Forum *Mr. Kelliher-NMFS/NOAA: Whale Strikes and Avoidance SDZs. *Sector/COTPs Round Robin *OGA/Trade Assoc comments</p>	<p>Action Items from 1 Nov Webinar and Progress in ()</p> <ul style="list-style-type: none"> ● BOEM and USCG (requested agenda input for the upcoming FEB/MAR 2018 Workshop titled “Intersection of Maritime Commerce Sector and Offshore Wind Energy”.) ● SEC DEL Bay and the MAC both (requested and received Sector Hampton Roads and Sector New York ULCV Business Rules for ULCVs potentially to incorporate on the Delaware River.) ● MARCO Data PORTAL Site Update. Mr. Napoli advised that they are processing and analyzing the 2015-2016 AIS data and developing new maps that will show actual transit counts and monthly data instead of relative density on an annual basis. (Feedback on the new methodology for counting transits and displaying an accurate picture will be requested by stakeholders. MCNS is looking to set up a webinar to display new data in spring of 2018)
<p>3. Advocate for BOEM to host a Maritime Commerce and WEA Development Group Workshop</p>	<ul style="list-style-type: none"> ● Held Monthly meetings with BOEM JUL-Nov 17 but due to approval delay, venue and date conflicts, BOEM has postponed until FEB/MAR 2018
<p>Progress on Best Practices: May – November 2017</p>	
<p>Best Practice 2.1.1 Enhance Use of Data Portal</p>	<ul style="list-style-type: none"> ● Coordinating with MARCO Data Portal site on the FEB 2018 release of 2015/16 AIS data in new “transit count” format vice traditional heat maps. ● Used Data Portal in briefs at US Cong 8 NOV, AAPA 15 NOV and MCNS webinars
<p>Best Practice 2.1.2 Enhance Participation in Agency Coordination</p>	<ul style="list-style-type: none"> ● Developed formal monthly phone calls with BOEM and USCG HQ/D1/D5 to better coordinate offshore wind energy and develop agenda for workshop
<p>Best Practice 2.1.3 Enhance Coordination with Stakeholders</p>	<ul style="list-style-type: none"> ● Held MCNS webinars in May and Nov, attended Blue Ocean Economy Forum and Joint Ocean Council Initiatives, (JOCI) Resilience of the MTS ● 15 AUG 2017 transited in with VA Pilots Association President and USCG COTP Rep on ULCV M/V OOCL FRANCE (1200’LOA, 158’ Beam and 13,000 TEUs) to better understand
<p>Best Practice 2.1.4 Enhance Federal-State Coordination</p>	<ul style="list-style-type: none"> ● Attended and advised the MCNS Webinar of upcoming BOEM task force meetings and webinars for offshore WEAs. ● Attended quarterly Harbor Safety Committee meeting in VA, MD, PA

<p>Best Practice 2.1.5 Enhance Federal-Tribal Coordination</p>	<ul style="list-style-type: none"> • NSTR
<p>Work Plan: January - June 2018</p>	
<p>Steps <i>Verbatim from the Plan</i></p>	<p>Milestones <i>Expected dates for steps and substeps to be taken</i></p>
<p>Action 1. Monitor marine commerce trends and traffic patterns to identify and address emerging commerce and navigation needs</p>	<ul style="list-style-type: none"> • Coordinate with BOEM to host a high level Workshop on Intersection of Maritime Transportation community with Wind Energy Developers in Feb/Mar 2018 in the Baltimore, MD area. • Review traffic patterns to address emerging commerce and navigation needs with development of potentially new NY offshore WEAs once updated AIS data in spring of 2018 becomes available. • Monitor and track risk mitigation strategies in place in ports of VA and NJ/NY for Business Rules associated with safe transit of ULCVs as best practice
<p>Action 2. Maintain reliable ocean use data sets relevant to navigation.</p>	<ul style="list-style-type: none"> • Set up a Potential webinar for new 2015-2016 AIS data in spring of 2018 to the MCNS WG to obtain insight and feedback on new vessel track data vs the traditional heat map.
<p>Action 3. Catalogue intersections between entities whose authorities influence marine commerce and navigation and identify opportunities for improved coordination</p>	<ul style="list-style-type: none"> • Create draft product for MCNS review that evaluates the overlapping and inter-jurisdictional authorities. • Review with BOEM a more transparent process on new or changing WEAs with stakeholders to ensure everyone’s concerns are heard.
<p>Action 4. Identify impacts to navigation and port infrastructure stemming from the Panama Canal expansion.</p>	<ul style="list-style-type: none"> • Monitor ULCV business rules as best practice and track deep draft dredging projects in Mid Atlantic ports with Del River completion from 42 to 45’ scheduled for completion in OCT 2018 and Ports of VA-Thimble Shoals recommendation from 50 to 55’ up for future Congressional Authorization and Appropriation in FY-19
<p>Research Needs</p>	

- Evaluation new Data Portal 2015-16 AIS data to determine if any many changes to traditional navigation safety corridors.
- Determine change in volume of vessel tracks and cargo along Mid Atlantic ports with Panama/Suez Canal Expansions now completed.

Goal: Sustainable Ocean Uses – Sand Management		Action: #1: Promote strategic stakeholder engagement and regional partnering initiatives	
<i>Champion(s):</i> Jeff Reidenauer (BOEM)			
Progress Report: June – November 2017			
Milestones for January - December 2017		Progress through November 2017	
1. Engage stakeholders		<ul style="list-style-type: none"> ● BOEM met with fishermen about BOEM process in identifying sand resources and authorizing use of OCS sand as well as issues concerning dredging and potential impacts regarding sand resources off New Jersey in July 2017. 	
2. Post Request Information on the BOEM website		<ul style="list-style-type: none"> ● BOEM is working to post requests for OCS Sediment/Agreement Request Notifications on its website at https://www.boem.gov/Marine-Minerals-Program/. Additional new outreach efforts such as contact with stakeholders to include other potential users of a particular borrow site. 	
Progress on Best Practices: June – November 2017			
Best Practice 2.1.1 Enhance Use of Data Portal		<ul style="list-style-type: none"> ● Ongoing. BOEM continues to develop its Marine Minerals Information System (MMIS) and coordinate with its Federal and state partners on data and information; MMIS will support the Data Portal. 	
Best Practice 2.1.2 Enhance Participation in Agency Coordination		<ul style="list-style-type: none"> ● Ongoing 	

<p>Best Practice 2.1.3 Enhance Coordination with Stakeholders</p>	<ul style="list-style-type: none"> BOEM met with NJ fishing groups, NJDEP, NMFS, NOAA and USACE on July 26; fishermen expressed concerns about being part of the planning process as borrow areas are considered and about impacts to their fisheries during the development of NEPA documents. Participants stated the meeting was a productive initial step, the engagement allowed their concerns to be heard and encouraged future and ongoing dialogue; BOEM sent a meeting summary to all attendees on Sept. 20.
<p>Best Practice 2.1.4 Enhance Federal-State Coordination</p>	<ul style="list-style-type: none"> BOEM planning a Mid-Atlantic sand management working group webinar on Dec. 14 to share information on sand needs and data
<p>Best Practice 2.1.5 Enhance Federal-Tribal Coordination</p>	<ul style="list-style-type: none"> Ongoing
<p>Work Plan: January - June 2018</p>	
<p>Steps <i>Verbatim from the Plan</i></p>	<p>Milestones <i>Expected dates for steps and substeps to be taken</i></p>
<p>A. Promote engagement with federal, state, tribal, and local partners to improve coastal planning and information sharing, implement effective and sustainable resource management strategies for OCS sand, and facilitate efficient processes to best serve the public's short- and long-term coastal resilience needs.</p>	<ul style="list-style-type: none"> The AASG (Association of American State Geologists) Annual Meeting will be hosted June 3-7, 2018 by the Delaware Geological Survey (DGS); BOEM will coordinate with the DGS on holding a joint AASG/BOEM session to provide an update on BOEM programs and marine minerals program efforts at developing a National OCS Sand Inventory. BOEM will continue to work with its state cooperative agreement partners (NY, NJ, MD, DE, and VA) on evaluation of geophysical and geological data collected under BOEM's Atlantic Sand Assessment Project. BOEM participated in a workshop on Nov 29-30, 2017 in Newark, DE under its Regional Cooperative Agreement with the Delaware Geological Survey. The workshop addressed regional geology off S. NJ, DE, and MD and potential sand resources. It included representatives from NJ, DE, MD and VA.

<p>B. Serve as a liaison among federal agencies, states, tribes, and other stakeholders (through regional sand management working groups) to facilitate communication and share information regarding the use of OCS resources in an environmentally sustainable manner.</p>	<ul style="list-style-type: none"> • BOEM met with USACE mid-2017 to discuss collaboration on upcoming projects on Long Island, New York; BOEM coordinating with USACE on potential areas for future New Jersey projects. • BOEM facilitated a Mid-Atlantic Sand Management Working Group webinar to share information on sand needs and data on Dec. 14
<p>Research Needs</p>	
<ul style="list-style-type: none"> • None identified to date. 	

<p>Goal: Sustainable Ocean Uses – Sand Management</p>	<p>Action: #2: Develop a comprehensive inventory of sand resources to support planned and future restoration and resilience projects, provide availability for emergency use, and manage competing use challenges</p>
<p>Champion(s): Jeff Reidenauer (BOEM)</p>	
<p>Progress Report: June – November 2017</p>	
<p>Milestones for January - December 2017</p>	<p>Progress through November 2017</p>

<p>1. Develop sand geodatabase</p>	<ul style="list-style-type: none"> ● As part of its Atlantic Sand Assessment Project (ASAP), BOEM completed geophysical surveys of potential sand resource areas offshore southern New Jersey and Delaware in May 2017; Geological (vibracoring) sampling conducted in southern NJ and DE in June 2017 ● BOEM continuing development of its Marine Minerals Information System (MMIS) that is its centralized data repository for offshore Federal sand resource information.
<p>2. Finalize Rule on Negotiated Non-Competitive Agreements for Sand, Gravel, Shell Resources</p>	<ul style="list-style-type: none"> ● The Final Rule Governing Negotiated Noncompetitive Agreements for Sand, Gravel, and Shell Resources published in the Federal Register (30 CFR 583) on Oct. 3; effective Dec. 4, 2017
<p>Progress on Best Practices: June – November 2017</p>	
<p>Best Practice 2.1.1 Enhance Use of Data Portal</p>	<ul style="list-style-type: none"> ● BOEM creating a National Offshore Sand Inventory and Marine Mineral Information System (MMIS), will inform Portal
<p>Best Practice 2.1.2 Enhance Participation in Agency Coordination</p>	<ul style="list-style-type: none"> ● BOEM staff are assisting with the development of a multi-year roadmap for implementation of the U.S. Coastal Research Program which is being led by the USACE, USGS, and American Shore and Beach Preservation Association
<p>Best Practice 2.1.3 Enhance Coordination with Stakeholders</p>	<ul style="list-style-type: none"> ● BOEM works with the states (NY, NJ, DE, MD, and VA) through BOEM-funded cooperative agreements to support its development of a National Offshore Sand Inventory ● BOEM will provide information and perspectives on Federal offshore sand resources in a new MARCO-led effort at developing a sand resource (state and Federal) inventory for the Mid-Atlantic
<p>Best Practice 2.1.4 Enhance Federal-State Coordination</p>	<ul style="list-style-type: none"> ● USACE Norfolk District submitted a request letter to BOEM for 2 million cubic yards of OCS sand for the Sandbridge, VA project. Project construction anticipated to begin in the summer of 2018; concurrence letters for ESA Section 7 consultation are under review by USACE management; informal correspondence for EFH consultation sent to NMFS in October 2017 ● BOEM issued an amendment to the Long Beach Island, NJ MOA for an additional 3 mcy of OCS sand. Project construction expected to begin in early 2018.

<p>Best Practice 2.1.5 Enhance Federal-Tribal Coordination</p>	<ul style="list-style-type: none"> ● Ongoing
<p>Work Plan: January - June 2018</p>	
<p>Steps <i>Verbatim from the Plan</i></p>	<p>Milestones <i>Expected dates for steps and substeps to be taken</i></p>
<p>A. Leverage BOEM’s geodatabase as a central repository for OCS sand resource data collected thru state co-op agreements and environmental studies to better facilitate offshore sand management; make information on borrow site and potential resource locations available on Portal.</p>	<p>BOEM invested \$12.8 million since Hurricane Sandy to identify sand resources and update databases and maps; creating a National Sand Inventory and Marine Mineral Information System (MMIS); BOEM reaching out to MARCO and data portal team as the efforts progress.</p> <p>BOEM anticipates public roll-out of the MMIS in early 2018</p>
<p>B. Use USGS sediment transport studies to advise on short- and long-term regional cumulative impacts of offshore sand and aggregate resource extraction on stability of barrier islands, other coastal features.</p>	<p>Ongoing</p>

<p>C. Develop strategic approaches to optimize OCS sand resource management by considering geological, engineering, economic, environmental, and dredge operation variables for multiple uses of borrow sites.</p>	<p>BOEM study through interagency agreement (IA) with USACE examining geological, engineering, economic, environmental, and dredge operation variables for multiple uses of borrow sites.</p>
<p>Research Needs</p>	
<ul style="list-style-type: none"> • None identified to date. 	

<p>Goal: Sustainable Ocean Uses – Sand Management</p>	<p>Action: #3: Conduct studies to support sustainable management of offshore sand resources</p>
<p>Champion(s): Jeff Reidenauer (BOEM)</p>	
<p>Progress Report: June – November 2017</p>	
<p>Milestones for January - December 2017</p>	<p>Progress through November 2017</p>
<p>1. Input to National Studies List</p>	<ul style="list-style-type: none"> • BOEM’s 2018 National Studies List will be finalized by the end of 2017
<p>Progress on Best Practices: June – November 2017</p>	
<p>Best Practice 2.1.1 Enhance Use of Data Portal</p>	<ul style="list-style-type: none"> • Linked BOEM’s ESPIS to the data portal in summer 2017
<p>Best Practice 2.1.2 Enhance Participation in Agency Coordination</p>	<ul style="list-style-type: none"> • Through IA with NOAA, undertaking a programmatic regional geospatial assessment of EFH in 2017 to support leasing decisions in offshore waters; BOEM invited, received, and is evaluating several ideas for studies in Mid-Atlantic for FY 18-20.

<p>Best Practice 2.1.3 Enhance Coordination with Stakeholders</p>	<ul style="list-style-type: none"> • The development team for the Development of a Decision Support Tool to Reduce Sea Turtle Dredging Entrainment Risk study provided a demo of the current status of the tool to interested stakeholders including BOEM in September; developers continue to work towards completion of the tool, instruction manual, and final report by December.
<p>Best Practice 2.1.4 Enhance Federal-State Coordination</p>	<ul style="list-style-type: none"> • BOEM’s Ocean Science magazine published in November 2017 focuses on marine minerals and includes discussion of activities along the mid-Atlantic.
<p>Best Practice 2.1.5 Enhance Federal-Tribal Coordination</p>	<ul style="list-style-type: none"> • Ongoing
<p>Work Plan: January - June 2018</p>	
<p>Steps <i>Verbatim from the Plan</i></p>	<p>Milestones <i>Expected dates for steps and substeps to be taken</i></p>
<p>A. Routinely collaborate through ESP, with federal agencies and state and tribal entities with mutual study interests.</p>	<p>Continue to solicit feedback in development of short and long term strategy to address priority research gaps</p>
<p>B. Enhance access to a range of data and studies by linking the Portal to ESPIS.</p>	<p>Ongoing – MMIS development underway</p>
<p>C. Use Portal to inform ecological sustainable offshore sand extraction and placement, including information on non-consumptive recreation and other uses, when considering beach nourishment projects.</p>	<p>Ongoing</p>

Research Needs	
<ul style="list-style-type: none"> • BOEM to invite and evaluate ideas for studies in the Mid-Atlantic for FY 19-21. 	

Goal: Sustainable Ocean Uses – Sand Management	Action: #4: Identify and improve existing federal-state interactions and cooperative agreements in the region
<i>Champion(s):</i> Jeff Reidenauer (BOEM)	
Progress Report: June – November 2017	
Milestones for January - December 2017	Progress through November 2017
1. BOEM/USACE MOU on Coordinating on the use of OCS sand, gravel and shell resources	<ul style="list-style-type: none"> • MOU executed February 2017
Progress on Best Practices: June – November 2017	
Best Practice 2.1.1 Enhance Use of Data Portal	<ul style="list-style-type: none"> • Ongoing
Best Practice 2.1.2 Enhance Participation in Agency Coordination	<ul style="list-style-type: none"> • <u>BOEM and USACE signed a MOU</u> in February 2017 to enhance coordination on managing sand, gravel, and shell resources from the OCS; the MOU establishes a framework for early and sustained coordination and cooperation between BOEM and the USACE, and supports consistency in environmental compliance, project scheduling, and negotiated agreement requirements for projects
Best Practice 2.1.3 Enhance Coordination with Stakeholders	<ul style="list-style-type: none"> • Ongoing

<p>Best Practice 2.1.4 Enhance Federal-State Coordination</p>	<ul style="list-style-type: none"> • BOEM working with Atlantic State Cooperative Agreement partners on second round of agreements to identify new potential offshore sand resources; Co-Op agreements with NY, NJ, DE, MD, and VA; working with DE Geological Survey to develop a regional geologic model and framework, in coordination with NJ, VA, and MD Geological Surveys • BOEM’s Cooperative Agreement partner, the Delaware Geological Survey – University of Delaware (DGS) hosted an Atlantic Sand Assessment Project (ASAP) Mid-Atlantic workshop at DGS offices in Newark on Nov. 28-29, 2017. State cooperative agreement partners from New Jersey, Delaware, Maryland and Virginia attended. This project expands upon the OCS geologic knowledge of southern New Jersey and the Delmarva Peninsula in order to identify potential sand resource areas.
<p>Best Practice 2.1.5 Enhance Federal-Tribal Coordination</p>	<ul style="list-style-type: none"> • Ongoing
<p>Work Plan: January - June 2018</p>	
<p>Steps <i>Verbatim from the Plan</i></p>	<p>Milestones <i>Expected dates for steps and substeps to be taken</i></p>
<p>A. Identify new and improve existing stakeholder relationships regarding coordination around beach nourishment and coastal restoration projects that utilize OCS sand resources.</p>	<p>Ongoing</p>
<p>B. Continue to collaborate with USACE regarding coastal resiliency needs and identify priorities that best support both programs, including OCS sand resource assessment and evaluation, data gaps and science needs, environmental coordination and consultation, and other elements.</p>	<p>Ongoing. Leveraging the BOEM and USACE MOU.</p>

C. Continue working through state cooperative agreements to continue building the comprehensive inventory of OCS sand resources in the region.	Ongoing. Cooperative agreements with NY, NJ, DE, MD, and VA run through FY 2018.
Research Needs	
<ul style="list-style-type: none"> • None identified to date. 	

Goal: Sustainable Ocean Uses – Sand Management	Action: #5: Engage fishing communities in planning and environmental review of proposed activities
Champion(s): Jeff Reidenauer (BOEM)	
Progress Report: June – November 2017	
Milestones for January - December 2017	Progress through November 2017
1. Meeting with NJ Fishing Community	<ul style="list-style-type: none"> • BOEM met with NJ fishermen, USACE Philadelphia and New York District representatives, NOAA, and NJDEP on July 26 in Toms River, NJ, to address fishermen’s concerns on offshore sand dredging
Progress on Best Practices: June – November 2017	
Best Practice 2.1.1 Enhance Use of Data Portal	<ul style="list-style-type: none"> • Ongoing
Best Practice 2.1.2 Enhance Participation in Agency Coordination	<ul style="list-style-type: none"> • Ongoing

<p>Best Practice 2.1.3 Enhance Coordination with Stakeholders</p>	<ul style="list-style-type: none"> ● BOEM met with NJ fishermen, USACE Philadelphia and New York District representatives, NOAA, and NJDEP on July 26 in Toms River, NJ, to address fishermen’s concerns on offshore sand dredging
<p>Best Practice 2.1.4 Enhance Federal-State Coordination</p>	<ul style="list-style-type: none"> ● Coordinating with MidA States to identify contacts within the fishing communities to ensure effective communication and outreach occurs for each project; working with USACE and NJDEP to coordinate proposed OCS sand resource areas with fishing communities and develop a strategy
<p>Best Practice 2.1.5 Enhance Federal-Tribal Coordination</p>	<ul style="list-style-type: none"> ● Ongoing
<p>Work Plan: January - June 2018</p>	
<p>Steps <i>Verbatim from the Plan</i></p>	<p>Milestones <i>Expected dates for steps and substeps to be taken</i></p>
<p>A. Communicate BOEM’s sand resource management strategy and prioritization of OCS sand resources to avoid use conflicts with fishing grounds.</p>	<ul style="list-style-type: none"> ● BOEM engaging fishing communities to avoid use conflicts in New Jersey; working with USACE and NJDEP to coordinate proposed OCS sand resource areas with fishing communities and develop a strategy; meeting with fishing community representatives in 2017; coordinating with MidA States to identify contacts within the fishing communities to ensure effective communication and outreach occurs for each project. ● In early 2018, BOEM will begin to post requests for OCS sand on its website in order to give interested groups such as fishermen notification of pending potential projects. ● BOEM anticipates a follow-up meeting with the fishing community in 2018.
<p>B. BOEM will communicate its science strategy for fisheries studies in its annual studies planning process and solicit feedback from fishery stakeholders on priority research gaps.</p>	<p>BOEM will solicit stakeholder feedback in late 2017 on ideas to address priority research gaps for its FY19-21 Studies Plan; continue to solicit feedback in development of short and long-term strategy to address priority research gaps related to fisheries.</p>

<p>C. BOEM will continue to inform and solicit feedback from NMFS and regional FMCs and work together to develop best management practices to avoid and/or minimize fishery impacts associated with dredging of offshore sand resources.</p>	<p>BOEM’s ongoing project-specific EFH consultations; use best available science to inform development of appropriate BMPs for each project-specific scenario; coordinate with NMFS and FMCs in the SOW development for two new fisheries related studies applicable to the MidA in BOEM’s FY17-19 National Studies List.</p>
<p>D. BOEM will use data and information from the Portal and Plan to support enhanced engagement with commercial and recreational fishermen in planning and environmental review of proposed activities.</p>	<p>BOEM’s geodatabase continues to evolve and will inform the Portal; BOEM-specific data coupled with other spatial data within the Portal used as a tool to visually communicate the spatial relationship of proposed BOEM activities with other fishery use conflicts.</p>
<p>E. BOEM will identify potential conflicts or concerns through review of data used for scoping and environmental analyses, and work with fishermen to identify high use areas early on to avoid use conflicts.</p>	<p>Ongoing</p>
<p>Research Needs</p>	
<ul style="list-style-type: none"> • 	

<p>Goal: Sustainable Ocean Uses – Sand Management</p>	<p>Action: #6: Engage tribes in planning and environmental review of proposed activities</p>
<p>Champion(s): Jeff Reidenauer (BOEM)</p>	

Progress Report: June – November 2017	
Milestones for January - December 2017	Progress through November 2017
1. BOEM engages with Federally-recognized tribes on projects and topics related to OCS sand, gravel, and shell resources through outreach initiatives	<ul style="list-style-type: none"> • MidA RPB Tribal co-lead invited to BOEM’s December 14, 2017 Mid-Atlantic Sand Management Working Group webinar.
Progress on Best Practices: June – November 2017	
Best Practice 2.1.1 Enhance Use of Data Portal	<ul style="list-style-type: none"> • Ongoing
Best Practice 2.1.2 Enhance Participation in Agency Coordination	<ul style="list-style-type: none"> • Ongoing
Best Practice 2.1.3 Enhance Coordination with Stakeholders	<ul style="list-style-type: none"> • MidA RPB Tribal co-lead invited to BOEM’s December 14, 2017 Mid-Atlantic Sand Management Working Group webinar.
Best Practice 2.1.4 Enhance Federal-State Coordination	<ul style="list-style-type: none"> • Ongoing
Best Practice 2.1.5 Enhance Federal-Tribal Coordination	<ul style="list-style-type: none"> • Ongoing
Work Plan: January - June 2018	
Steps <i>Verbatim from the Plan</i>	Milestones <i>Expected dates for steps and substeps to be taken</i>
A. BOEM will continue tribal consultations for enhancing understanding of submerged cultural resources potentially impacted by OCS sand management.	BOEM will improve consultations and communication with federally recognized tribes.

<p>B. BOEM will communicate sand resource management strategies to avoid use conflicts with tribal uses and submerged cultural resources.</p>	<p>Ongoing</p>
<p>C. BOEM will communicate its science strategy and seek partnerships with other federal and state agencies for submerged cultural resource studies in its annual studies planning process and solicit feedback from tribes on priority research gaps.</p>	<p>Ongoing</p>
<p>D. BOEM will use data and information from the portal and from tribes to enhance planning and environmental review.</p>	<p>Ongoing</p>
<p>E. BOEM and other federal and state agencies should work with tribes when possible early in the project planning process to identify submerged cultural resource areas of high significance and avoid use conflicts.</p>	<ul style="list-style-type: none"> • Work underway; BOEM will engage federally-recognized tribes in planning; will solicit feedback from tribes on priority research gaps • BOEM archaeologist attending the Society for Historical Archaeology Annual Conference on Historical and Underwater Archaeology Jan. 3-7
<p>Research Needs</p>	
<ul style="list-style-type: none"> • None identified to date. 	

<p>Goal: Sustainable Ocean Uses – Non-Consumptive Recreation</p>	<p>Action: #1: Identify, characterize, and share information about measures to maintain the recreational value of important non-consumptive recreational areas and the activities they sustain.</p>
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<p>Champion(s): Elizabeth Semple & Kevin Hassell (NJ) RPB Work Group Members: Doug Simpson (USCG – Coordinating Federal Entity), Amy Freitag (NOAA), Amy Stillings (BOEM), Catherine McCall (MD), Chris Darnell (USFWS), Karen Chytalo (NY DEC), Laura McKay (VA), Lisa Gutierrez (MD), Michael Snyder (NY DOS), Nicole Rodi (DE), Peter Clouse (NY DOS), Scott Steinback (NOAA), Sherryll Jones (NY DEC), Technical Input: Jeanne Herb (Rutgers), Kate Morrison (MARCO), Matt Campo (Rutgers),</p>	
<p>Progress Report: June – November 2017</p>	
<p>Milestones for January - December 2017</p>	<p>Progress through November 2017</p>
<p>1. Develop a short survey for the public and stakeholders to be distributed through partners and stakeholder groups to account for the importance of recreational uses, the economic values, conflicts for and with recreational uses and impacts to natural resources.</p>	<ul style="list-style-type: none"> ● MARCO, in partnership with Rutgers and with input from the working group, developed the survey in spring-summer 2017. ● Working group members from each state developed contact lists for survey distribution, utilizing partner organizations and stakeholder groups wherever possible, to reach non-consumptive recreational activity participants and stakeholders.
<p>2. Surveying of stakeholders will be implemented, through partner organizations wherever possible, to determine stakeholder views on the important issues and conflicts regarding non-consumptive uses.</p>	<ul style="list-style-type: none"> ● The working group and technical partners deployed the survey in the summer of 2017, which saw the return of 1000 completed surveys. Preliminary findings from the survey served as a baseline for milestone 3. The data is still under review with technical partners and is addressed in future milestones below.
<p>3. The Work Group will work with MARCO staff to hold meetings with stakeholders and the public to provide opportunity for comment on survey results, identify impacts to/from important recreational uses, and</p>	<ul style="list-style-type: none"> ● MARCO, with assistance from WG members and support from Surfrider, held four public workshops from September to November 2017 to review preliminary survey data and further discuss the importance of recreational uses; identify the economic values, conflicts for and with recreational uses, and impacts to natural resources; and identify ways to improve stakeholder engagement. The information received from these workshops is currently under synthesis by WG members and is addressed in future milestones below.

identify ways to improve stakeholder engagement.	
Progress on Best Practices: June – November 2017	
Best Practice 2.1.1 Enhance Use of Data Portal	<ul style="list-style-type: none"> Facilitators of MARCO workshops highlighted recreational use data on the data portal for attendees’ awareness.
Best Practice 2.1.2 Enhance Participation in Agency Coordination	<ul style="list-style-type: none"> State and federal agency representatives collaborated to receive stakeholder feedback via surveys and workshops and are working together in the analysis of the information.
Best Practice 2.1.3 Enhance Coordination with Stakeholders	<ul style="list-style-type: none"> MARCO workshops were intentionally designed to address improved practices for coordination with stakeholders.
Best Practice 2.1.4 Enhance Federal-State Coordination	<ul style="list-style-type: none"> State and federal agency representatives collaborated to receive stakeholder feedback via surveys and workshops and are working together in the analysis of the information.
Best Practice 2.1.5 Enhance Federal-Tribal Coordination	<ul style="list-style-type: none"> NSTR
Work Plan: January - June 2018	
Steps <i>Verbatim from the Plan</i>	Milestones <i>Expected dates for steps and substeps to be taken</i>
A. Define, in collaboration with stakeholders, what it would mean for ocean and coastal uses and areas to be considered important for non-consumptive recreation. A variety of factors may be considered (e.g., intensity of use, contributions to local economies, maintaining dark skies and	<ul style="list-style-type: none"> Complete data synthesis from survey and workshops. March Document findings via white paper or other means for RPB consideration, including recommendations for further investigation or opportunities to publish to the data portal. June

<p>natural sounds). Complete identification and mapping of such areas and put them on the Data Portal.</p>	
<p>B. Identify and assess potential impacts and use conflicts to important non-consumptive recreational uses from other human uses, as well as potential impacts and conflicts between non-consumptive recreational uses and marine and coastal resources.</p>	<p>[see milestone for step A above]</p>
<p>C. Work with USFWS to develop and disseminate guidance for recreational users on best practices that reduce potential impacts between recreational activities and marine and coastal wildlife.</p>	<p>Create white paper documenting best practices for RPB consideration. June</p>
<p>D. Identify, catalogue, and highlight potential improvements to current Federal, State, and Tribal authorities, standards, and processes for maintaining non-consumptive recreational uses.</p>	<p>[Not addressing this step this period, but will incorporate any relevant information from stakeholder surveys and workshops.]</p>

<p>E. Convene stakeholders, the public, and RPB entities throughout the region to review findings and improve communication to increase understanding of recreational uses with and between agencies, stakeholders, and the public</p>	<p>In addition to the milestone for step A above, assess findings from public workshops to determine whether further outreach is needed. April</p>
<p>F. Develop and publicly post report(s) for Federal agencies, States, Tribes, and the RPB on potential improvements to practices and processes as determined necessary, feasible, and appropriate.</p>	<p>[see milestone for step A above]</p>
<p>Research Needs</p>	
<ul style="list-style-type: none"> ● None identified to date. 	

<p>Goal: Sustainable Ocean Uses – Enhancing Coastal Zone Management</p>	<p>Action: The RPB is interested in addressing potential options to make CZMA decisions in a more efficient, streamlined, and coordinated manner. NOAA and the Mid-Atlantic States may choose to develop further these options most likely in coordination with the NE RPB, which is also exploring these options.</p>
<p>Champion(s): National Oceanic and Atmospheric Administration</p>	
<p align="center">Progress Report: June – November 2017</p>	
<p align="center">Milestones for January - December 2017</p>	<p align="center">Progress through November 2017</p>
<p>Option 1. Earlier Federal Notice to States and Tribes/Using data portal for early notification</p>	<ul style="list-style-type: none"> There has been no new activity on this item. However, it could be something to explore if states and federal agencies want to do so.
<p>Option 2. Improve States’ ability to execute CZMA Federal Consistency in the offshore space/Coastal effects analyses</p>	<ul style="list-style-type: none"> NOAA held a webinar on using the regional plan and data portal for coastal effects analyses in the summer 2016 and at the Northeast Regional Ocean Council winter meeting in February 2017. In addition, NOAA published a proposed rule in the Federal Register in late 2016 for changes to state programs that contains the latest guidance for what a state needs to do to make an effects analysis. The link can be found at: https://www.coast.noaa.gov/czm/consistency/rulemaking/ and the FR notice at: https://www.coast.noaa.gov/czm/consistency/media/Proposed-Rule-81-FR-78514-78526-11.8.16.pdf The new proposed regulation section is 15 CFR 923.84(d) and the preamble discussion begins on page 78520 (col. 3). NOAA is currently working on the final rule.
<p align="center">Progress on Best Practices: June – November 2017</p>	
<p>Best Practice 2.1.1 Enhance Use of Data Portal</p>	<ul style="list-style-type: none">
<p>Best Practice 2.1.2 Enhance Participation in Agency Coordination</p>	<ul style="list-style-type: none">
<p>Best Practice 2.1.3</p>	<ul style="list-style-type: none">

Enhance Coordination with Stakeholders	
Best Practice 2.1.4 Enhance Federal-State Coordination	•
Best Practice 2.1.5 Enhance Federal-Tribal Coordination	•
Work Plan: January - June 2018	
Steps <i>Verbatim from the Plan</i>	Milestones <i>Expected dates for steps and substeps to be taken</i>
A. TBD	
Research Needs	
• TBD	

Mid-Atlantic Ocean Data Portal	
<p><i>(MARCO’s Ocean Mapping & Data Team serves as the work group for the portal actions.)</i></p> <p>Champion: Laura McKay (VA)</p> <p>Members: Federal Reps: Megan Trembl (NOAA), Christine Taylor, Lora Turner, Josh Wadlington (BOEM); Elizabeth Pendleton (USGS); Doug Simpson (USCG); Joe Atangan, Sarah Bowman (DoD); Sherilyn Lau (EPA); Hoyt Battey (DOE); George Jackson (DOT/MARAD); Pam Toschik, Caleb Spiegel (USFWS); State Reps: Nick Meade (VA); Kim Hernandez, George Edmonds (MD); Nicole Rodi (DE); Kevin Hassell(NJ); Jeff Herter, Mina Innes, Melissa Albino, Alex Kuttesch (NY); Tribal Rep: Kelsey Leonard (Shinnecock Tribe); MAFMC Rep: Stewart Michels (DE)</p> <p>Technical Team: Tony MacDonald, Karl Vilacoba (Monmouth University); Chris Bruce (TNC); Rick Lathrop, John Bognar, Jim Trimble (Rutgers University); Nick Napoli (MARCO contractor); Kate Morrison (MARCO)</p>	
Progress Report: June – November 2017	
Milestones for January - December 2017	Progress through November 2017
1. Develop a range of levels of portal maintenance and updating options and associated costs.	Over the last several months, the Portal team and MARCO developed a budget to maintain and update the Portal in 2018. This budget takes into consideration previous costs, cost shares with the Northeast and the Marine Cadastre, and expectations of in-kind agency support. The 2018 budget, previous budgets, and an initial assessment of different Portal funding scenarios that was developed in early 2017 will be the basis of an assessment, to be completed in 2018, of options and costs for maintaining the Portal over the long-term.
2. Convene RPB entities or data relevant to the continued maintenance and updating of the Data Portal to prioritize operational needs, agree to appropriate roles and discuss partnerships options.	MARCO’s expanded Ocean Mapping & Data Team (OMDT) serves as the primary work group for coordinating the RPB’s portal actions. The OMDT met twice during the time period (Jul 26 and Oct 25 of 2017) to review and inform progress on current data development tasks, identify potential portal case studies and ocean stories, review new data and functionality requests, and to inform RPB member trainings.

<p>3. Identify partnership and collaboration commitments to meet ongoing needs.</p>	<p>The Mid-Atlantic portal team continues to maintain important partnerships and ongoing activities in close collaboration with the Northeast Ocean Data Portal and the Marine Cadastre for some of the most important data assets, including data related to the “security,” “maritime,” “fishing” and “marine life” themes. These partnerships have led to shared development of draft data products and coordinated stakeholder and scientific review of those draft data products across regions. The portal team also continues to collaborate with MARACOOS and the Mid-Atlantic Coastal Acidification Network to inform products for the portal’s “Oceanography” theme.</p>
<p>4. Continue to develop and integrate new data and updated layers from a variety of sources in consultation with RPB member entities and stakeholders.</p>	<p>During this period, the portal team made the following progress developing or updating datasets:</p> <ul style="list-style-type: none"> ● <u>Oceanography</u>: Added a dataset depicting ocean acidification monitoring locations in collaboration with the RPB’s Ocean Acidification Work Group/Mid-Atlantic Coastal Acidification Network. ● <u>Marine life</u>: Added two map layers depicting the extent of estuarine wetlands and seagrasses. ● <u>Socioeconomic</u>: Added a new map layer showing population density for coastal counties. ● <u>Security</u>: Added a new collection of Security maps, hosted by the Marine Cadastre, that reflect updates made by the Department of Defense. ● <u>Renewable Energy</u>: Added a new layer showing the offshore wind “Area of Consideration” proposed by the State of New York. ● <u>Fishing</u>: Developed draft “Communities at Sea” data and provided the data to the northeast. Integrated draft “Vessel Monitoring System” data developed by the northeast. Began reviewing both datasets with the RPB and the fishing community. ● <u>Maritime</u>: Collaborated with the Northeast to develop and review initial data products depicting vessel traffic from the “Automatic Information System” <p>In addition, portal team members continue to participate in OAP work groups to assess functionality and data needs, including non-consumptive recreation, ocean acidification, maritime commerce and navigation, ecologically rich areas, mapping species shifts, and healthy ocean indicators.</p>

<p>5. Continue and/or expand efforts to manage and publish authoritative Federal agency data in a timely and readily usable form such as web services, through mechanisms such as data sharing agreements among RPB member entities.</p>	<p>Several datasets in the Portal are provided by the Marine Cadastre, which works with federal agencies to publish authoritative federal data for consumption by regional portals and other users. During the time period, the Portal team transitioned all the Security datasets and a data layer of marine jurisdictions to web services provided by the Marine Cadastre. This transition enables those federal datasets to be maintained and updated by the responsible agencies over the long term and reduces the resources required by the Portal team to host and maintain these datasets. Continued engagement with the federal agencies through the OMDT and other RPB work groups will help to ensure that data products derived from federal sources are informed and increasingly maintained by federal agencies over the long-term.</p>
<p>6. Further explore opportunities to capture Tribal data on the Data Portal.</p>	<p>On Nov 30, a request was sent to the Tribal Co-lead for a list of species of Indigenous cultural importance. This information is to be cross-checked with species data already contained in the marine life data and a way to highlight those species needs to be developed.</p>
<p>7. Compile and post on the Data portal user success stories of applications of the Data Portal to ocean planning decisions through engagement with RPB member entities and stakeholders.</p>	<p>The portal includes nine ocean stories describing different uses of Portal data. Since June of 2017, the portal team developed a new page with shorter “use examples” that describe the use of the portal by agencies, industry, and educators. The Portal team is also developing a new design for the portal home page, which will make ocean stories and use examples more accessible to users.</p>
<p>8. Expand Federal agency data managers’ participation in relevant RPB work groups and the MARCO OMDT and help leverage their agencies’ assets.</p>	<p>Increased federal agency participation in the OMDT has led to collaborations around the integration of federal data assets into the Portal, including data related to maritime, security, and fisheries. The portal team also collaborated with BOEM and NOAA to provide smart links to BOEM’s Environmental Studies Program Information System (ESPIS), which enable Portal users to search ESPIS for environmental studies, related to any specific layer on the Portal.</p>

Progress on Best Practices : June - November 2017	
Best Practice 2.1.1 Enhance Use of Data Portal	<ul style="list-style-type: none"> ● N/A - see other actions for updates.
Best Practice 2.1.2 Enhance Participation in Agency Coordination	<ul style="list-style-type: none"> ● The expansion of the Ocean Mapping Data Team has ensured additional staff from each of the federal agencies with particular, relevant GIS responsibilities is included on the team.
Best Practice 2.1.3 Enhance Coordination with Stakeholders	<ul style="list-style-type: none"> ● The portal team attended various workshops with stakeholders including the July Indicators Workshop, the November Mid-Atlantic Fishery Management Council meeting and several portal training workshops.
Best Practice 2.1.4 Enhance Federal-State Coordination	<ul style="list-style-type: none"> ● The expansion of the Ocean Mapping Data Team has ensured additional staff from each state with particular, relevant GIS responsibilities is included on the team. There are now at least two reps from three of the five states.
Best Practice 2.1.5 Enhance Federal-Tribal Coordination	<ul style="list-style-type: none"> ● No real progress to date but see work plan below.
Work Plan: January - June 2018	
Steps <i>Verbatim from the Plan</i>	Milestones <i>Expected dates for steps and substeps to be taken</i>
1.A. Develop a range of levels of portal maintenance and updating options and associated costs	<p>In 2018, MARCO, the OMDT, and the portal team, in collaboration with the Northeast, will develop a paper describing options for updating and maintaining the Portal over the long-term. It will take into consideration different aspects of Portal operations, including data updates, IT infrastructure, stakeholder outreach, trainings, coordination across regions and with data providers, and potential funding sources.</p> <ul style="list-style-type: none"> ● Jan 2018: Initial discussion at RPB meeting about primary areas of portal operations and associated funding requirements

	<ul style="list-style-type: none"> • Jan - Jun 2018 (and likely into fall 2018): Meet with RPB entities, data providers, and stakeholders to identify potential options for maintaining each aspect of Portal operations over the long-term.
<p>1. B. Convene RPB entities or data relevant to the continued maintenance and updating of the Data Portal to prioritize operational needs, agree to appropriate roles and discuss partnerships options.</p>	<ul style="list-style-type: none"> • The OMDT will serve as a critical resource for reviewing pending data updates, identifying data needs, informing options for the long-term maintenance of the Portal, and for developing related partnerships that will be necessary to sustain portal data and operations. The OMDT will continue to meet quarterly (Jan 31, and April) and members will be engaged in relevant data updates in between meetings. RPB members and staff outside of the OMDT will also be critical to informing data updates and will also be engaged to ensure long-term options for the Portal are informed by the most relevant agency staff and leadership. • In addition, the Portal team will collaborate and coordinate with RPB work groups to define and implement data and functionality requirements. This includes coordinating with the Healthy Ocean Ecosystem Indicators Work Group to support the identification of indicators, data supporting those indicators, and potential display options through the portal.
<p>1. C. Identify partnership and collaboration commitments to meet ongoing needs.</p>	<p>Continued partnerships and collaborations with the Northeast, Marine Cadastre, and MARACOOS will be critical to implementing this work plan and sustaining the Portal. Over the course of 2018, MARCO and the portal team will need to build on partnerships with data providers at certain federal agencies, including NOAA Fisheries, USFWS, and USCG, in order to maintain and identify long-term options for the most critical data assets in the portal.</p>
<p>2. A. Continue to develop and integrate new data and updated layers from a variety of sources in consultation with RPB member entities and stakeholders.</p>	<p>2018 milestones for new or updated data layers to be added to the Portal are:</p> <ul style="list-style-type: none"> • <u>Fishing</u>: Complete stakeholder outreach and review of draft layers and add Communities at Sea and Vessel Monitoring System data to the public site in late winter or early spring with appropriate metadata and caveats. • <u>Maritime</u>: Complete stakeholder outreach and review of draft layers for 20XX and add vessel traffic map layers derived from the Automatic Identification System data to the public site in spring with appropriate metadata and caveats.

	<ul style="list-style-type: none"> ● <u>Sand</u>: Integrate sand resource potential areas from BOEM’s Marine Minerals Information System to the Portal by mid-2018. ● <u>Oceanography</u>: Develop a plan to identify and integrate key oceanography data products into the Portal with input from MARACOOS by June 2018. ● <u>Marine life</u>: Update the marine mammal and avian data products with new outputs from the revised models developed by Duke and NOAA by mid-2018. Point users to additional sources of information, including additional products and map layers produced by NOAA, USFWS, and whale watch operations. Determine how to integrate Northeast Fisheries Science Center time series products for MidA fish species into the Portal. Work with MDAT as additional data become available reflecting fish distribution and abundance for spring, summer and fall seasons. ● <u>Socioeconomic</u>: Integrate datasets from MARCO’s Climate Change Vulnerability Study. ● <u>Data Review</u>: Conduct a thorough review of Portal datasets by early 2018 to determine which datasets need to be updated and/or could be maintained by an authoritative provider. Coordinate next steps for data updates or long-term maintenance with the OMDT.
<p>2.B Continue and/or expand efforts to manage and publish authoritative Federal agency data in a timely and readily usable form such as web services, through mechanisms such as data sharing agreements among RPB member entities.</p>	<p>During the first half of 2018, the portal team and the OMDT will continue identify federal datasets that could be maintained over the long-term by the authoritative provider, potentially leading to an increase in datasets that are updated or maintained through web services or data sharing agreements and a decrease in datasets that are hosted by the portal team. It is important to note that several tasks in early 2018 will inform this, including a complete review of the datasets that are accessed through the Portal and the identification of long-term options for the maintenance of the Portal. Therefore, there may not be significant changes in the way data are served during the first six months of 2018, but instead significant progress towards identifying which potential changes are most advantageous.</p>

<p>2. C Further explore opportunities to capture Tribal data on the Data Portal.</p>	<p>Once a list of species of Indigenous cultural importance is received, these will be cross-checked against species data already in hand. A mechanism for highlighting these species will be explored and data for any species missing from the MDAT list will be noted and sought.</p>
<p>3.A Compile and post on the Data portal user success stories of applications of the Data Portal to ocean planning decisions through engagement with RPB</p>	<p>Over the next six months, the OMDT and the portal team expect to prioritize the development of new ocean stories and “use examples” describing different applications of the Portal. Potential topics under consideration include:</p> <ul style="list-style-type: none"> ● Ocean economics ● Sand management ● Whale watch operators ● Undersea cable permitting and installation ● Offshore wind ● Fisheries ● Shipwrecks <p>RPB members and stakeholders are encouraged to provide stories and/or story ideas.</p>
<p>3. B Expand Federal agency data managers’ participation in relevant RPB work groups and the MARCO OMDT and help leverage their agencies’ assets.</p>	<p>Over the next six months, the OMDT and portal team expect to continue collaborations with federal agency data managers, especially around previously described data assets that will require agency commitments to maintain over the long term. The portal team will continue to participate in relevant work groups as needed such as ERAs, Mapping Species Shifts, and Healthy Ocean Indicators.</p>
<p>Research Needs</p>	
<ul style="list-style-type: none"> ● Sea turtle data ● Continental shelf coral data ● Large pelagic or migratory fish species data ● Recreational activity data ● Seafloor habitat data 	

Goal: Actions Related to Science and Research	Action: #1: Identify priority applied science and research needs for the Mid-Atlantic region.
<i>Champion(s):</i> Joe Atangan (Joint Staff/Navy)	
Progress Report: June – November 2017	
Milestones for January - December 2017	Progress through September 2017
1. Submit topic area inputs for inclusion in the Subcommittee on Ocean Science and Technology (SOST) “Plan for Ocean Research in the Coming Decade.”	<ul style="list-style-type: none"> Jan 2017: Northeast and Mid-Atlantic RPB Federal co-leads submitted a letter to the SOST identifying science and research priorities for consideration as part of the upcoming 10-Year Ocean Research Plan.
2. Solicit inputs from Working Groups, science and research needs.	<ul style="list-style-type: none"> Sept 2017: Working Groups tasked with identifying research needs in semi-annual Progress Reports submitted in Dec 2017. Inputs will be compiled and forwarded to the full RPB for review in March 2018
Progress on Best Practices: June – November 2017	
Best Practice 2.1.1 Enhance Use of Data Portal	<ul style="list-style-type: none"> No actions to date.
Best Practice 2.1.2 Enhance Participation in Agency Coordination	<ul style="list-style-type: none"> No actions to date.
Best Practice 2.1.3 Enhance Coordination with Stakeholders	<ul style="list-style-type: none"> No actions to date.
Best Practice 2.1.4 Enhance Federal-State Coordination	<ul style="list-style-type: none"> No actions to date.
Best Practice 2.1.5 Enhance Federal-Tribal Coordination	<ul style="list-style-type: none"> No actions to date.
Work Plan: January - June 2018	

<p style="text-align: center;">Steps <i>Verbatim from the Plan</i></p>	<p style="text-align: center;">Milestones <i>Expected dates for steps and substeps to be taken</i></p>
<p>A. Identify potential applied science and research gaps, develop criteria for how to determine which should be deemed regional priorities, consult stakeholders to understand their perspectives on research needed to improve management, and review existing regional research agendas to identify areas of common interests, whether or how common research needs are being addressed, opportunities for collaboration, and other factors. (short-term)</p>	<ul style="list-style-type: none"> • Jan 2018: Consolidate science and research needs identified in the semi-annual progress reports. • Jan – May 2018: RPB establish a select committee to: <ul style="list-style-type: none"> ○ Develop criteria for how to determine which should be deemed regional priorities. ○ Review existing regional research agendas to identify areas of common interests • Jun 2018: Submit criteria to RPB for review. • TBD: Develop a stakeholder consultation plan.
<p>B. Convene scientists, resource managers, Traditional Knowledge holders, and stakeholders to review potential priority research gaps identified in step A. This will include discussion of current relevant research, criteria for determining which are regional priorities, and partnership and support opportunities. (short-term)</p>	<ul style="list-style-type: none"> • TBD: Nominate reviewers.
<p>C. Provide to the RPB for approval a compiled list of applied research topics targeted to address specific inter-jurisdictional coordination actions identified in this Plan and/or other actions that support the Framework goals and objectives. (short-term)</p>	<ul style="list-style-type: none"> • TBD: Submit compiled list of applied research topics to RPB for approval.

<p>D. Share the information with interested parties by making the list available for use by resource managers, scientists, and other sources of potential support. (short-term)</p>	<ul style="list-style-type: none"> • TBD: RPB promulgates prioritized list of research topics.
<p>E. With input from the RPB member entities, the RPB Federal agencies will discuss regional ocean science and research gaps, including identifying opportunities, as appropriate, for coordination and collaboration with the Subcommittee on Ocean Science and Technology and work with the NOPP to facilitate discussion and support of potential research projects. (short-term and ongoing)</p>	<ul style="list-style-type: none"> • TBD: RPB discuss regional ocean science and research gaps for coordination and collaboration with the Subcommittee on Ocean Science and Technology. • TBD: RPB works with the NOPP to facilitate discussion and support of potential research projects.
<p>F. Address science and research needs important to Tribal entities, for example valuing Traditional Knowledge, and furthering our understanding of submerged cultural resources. (short-term and ongoing)</p>	<ul style="list-style-type: none"> • Jan – May 2018: Engage with Tribal entities to identify science and research needs.
<p>Research Needs</p>	
<ul style="list-style-type: none"> • 	

DRAFT Performance Monitoring and Evaluation (PM&E) Tracker

The Mid RPB has developed this report for tracking the progress of actions listed in the *Mid-Atlantic Region Ocean Action Plan* (<https://www.boem.gov/Mid-Atlantic-Regional-Ocean-Action-Plan/>). The scope of this document includes actions undertaken through November of 2017. Some work plans were also updated as of March 2018 to reflect decisions made during a February 2018 public webinar. Note that some coordination actions are not covered in this update because either they do not have specific planned activities in 2017, or they may be addressed in future years.

Over the past year, the MidA RPB has sought success stories on how implementation of the *Mid-Atlantic Regional Ocean Action Plan* has enhanced intergovernmental coordination and informed the condition of and uses proposed for our ocean waters. Several of these stories are documented on the Mid-Atlantic Ocean Data Portal (<http://portal.midatlanticocean.org/ocean-stories/every-map-tells-a-story/>.) Since the *Plan* and our implementation efforts are relatively new, the MidA RPB is still considering approaches for evaluating performance or documenting effectiveness. While the exact form and process has not been decided, the MidA RPB will evaluate our progress so that it can inform any efforts to revise the *Plan* in the future.

The MidA RPB will continue to ask action champions to provide updates, on a semi-annual basis. The information will be compiled into a single progress report that reflects the status of Plan implementation that will be shared with the public.