

Summary of Discussions  
Mid-Atlantic Regional Planning Body Meeting  
January 21-22, 2015  
New York, New York

This document summarizes discussions and presentations at the third in-person meeting of the Mid-Atlantic Regional Planning Body. The meeting took place on January 21-22, 2015 at the Jacob K. Javits Federal Building at 26 Federal Plaza. This summary was developed by Meridian Institute, which provides process design, meeting planning, and facilitation services to the Mid-Atlantic Regional Planning Body.

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## Executive Summary

The third in-person meeting of the Mid-Atlantic Regional Planning Body (RPB) took place on January 21-22, 2015 at the Jacob K. Javits Federal Building in New York, New York. Meeting participants included State, Federal, and Tribal RPB members, a member of the Mid-Atlantic Fishery Management Council (MAFMC), and appointed alternates. Approximately 63 members of the public were in attendance, and approximately 19 comments were offered during the public comment sessions. A complete roster of RPB members and alternates representing State, Federal, and Tribal members, and the MAFMC can be found [here](#). The meeting was chaired by State, Federal, and Tribal RPB Co-Leads and facilitated by Meridian Institute, which also developed this summary document.

The objectives for the third RPB meeting were to:

- Refine and approve a proposed approach for a Mid-Atlantic Regional Ocean Action Plan (OAP)
- Identify next steps to develop the OAP, including a work plan, a stakeholder engagement plan, and interjurisdictional coordination opportunities and actions
- Develop clear and detailed guidance for further development of the Regional Ocean Assessment (ROA)
- Share information about activities underway that are relevant for Mid-Atlantic regional ocean planning
- Receive public input on topics under consideration by the Mid-Atlantic Regional Planning Body

### Day 1: Wednesday, January 21, 2015

On January 21, the RPB began the meeting with introductions and review of progress to date, including the development of:

- A series of options for developing a regional ocean action plan
- A strategy for promoting interjurisdictional coordination (IJC) among RPB member entities
- An approach to organizing and populating the ROA
- An interim plan for engaging stakeholders in RPB activities
- Coordination with the Mid-Atlantic Ocean Data Portal (Data Portal)

The RPB reviewed an updated timeline through 2017, which includes development and periodic updates of a work plan, upcoming RPB meetings, and National Ocean Council (NOC) concurrence on the OAP in late 2016.

The RPB discussed an approach to the OAP, which is grounded in the RPB's [Mid-Atlantic Regional Ocean Planning Framework](#) (Framework) and represents a combination of the preferred elements of various proposed draft options submitted for public input in October and

November 2014. The approach allows the RPB to address both region-wide and geographically-specific opportunities for IJC and to conduct further analyses of ecological and economic ocean resources in the Mid-Atlantic to inform planning and management. RPB members expressed a general sense of support for the flexibility built into the approach and eagerness to initiate plan development and make refinements as progress unfolds.

Following this initial discussion of the OAP approach, the RPB received public comment, which focused on: areas of ecological importance, compatibility assessments, maintaining a regional focus, stakeholder engagement, leveraging existing resources, and the timeline for OAP development. After comment, the RPB further reflected on the importance of identifying the right level of comprehensiveness for a region-wide focus while enabling nimbleness to address site-specific issues. Additionally, the RPB expressed interest in and support for conducting the kinds of ecological and economic assessments commenters were recommending, and the importance of up-to-date data and information to help inform the RPB's identification of IJC opportunities and actions.

The RPB then heard several presentations on relevant efforts in the region. Two presentations were given on ocean planning processes in New York State: the New York Ocean Action Plan and the New York Offshore Atlantic Ocean Study. The RPB then heard updates from the Mid-Atlantic Regional Council on the Ocean (MARCO) on its stakeholder engagement activities. This included presentations from two members of the Stakeholder Liaison Committee (SLC) about the communities they represent and their interest in ocean planning: the submarine cables sector and the tug and barge community. MARCO representatives expressed interest in conducting outreach to additional sectors through the SLC to continue information sharing and collaboration, likely through sector-specific meetings, multi-sector meetings, and webinars. Finally, the Shinnecock Indian Nation provided an overview of the Tribal engagement scope of work, which is being initiated with early outreach to individual Tribes throughout the region.

The RPB then heard an update on a draft ROA outline and example sections. RPB members engaged in a wide-ranging discussion about the role of the ROA and its relationship to other products and information needed to develop the OAP. Public comment was then heard, which focused on: science-based decision making, differentiating between the development of a ROA and any additional data analyses the RPB may wish to pursue, comprehensiveness of data gathering and assessment, and stakeholder engagement.

## **Day 2: Thursday, January 22, 2015**

On January 22, the RPB revisited the proposed approach to the OAP and reflected on how the Framework provides the guiding goals and objectives on which all RPB activities are based. The RPB discussed that the ROA, any additional analyses the RPB elects to pursue, working criteria and member interests will all contribute to the selection of IJC opportunities and actions at a region-wide and geographically-specific scale. Articulation of IJC actions and any data and assessment products developed by the RPB will form the basis for the OAP. Based on this

understanding, the RPB made the consensus decision to approve the *Proposed Approach to the Regional Ocean Action Plan*.

Following approval of the OAP approach, the RPB transitioned to discussing the IJC workflow, which involves member entities identifying potential opportunities and actions with stakeholder input. RPB member entities clarified that once the RPB has expressed comfort with a particular IJC action, that action could be included in the OAP and the individual Federal, State, and Tribal entities involved could move forward with (or in some cases continue) implementing that action. RPB members expressed comfort with this logic and flow of the proposed approach to IJC. In discussing a set of working criteria for identifying IJC opportunities and actions, it was clarified that these criteria may be updated and refined over time.

The RPB heard several presentations on existing approaches to analyses and data products that could support the work of the RPB going forward. A representative of the Northeast Regional Ocean Council (NROC) described a range of options for different data and analysis tools being considered by the Northeast RPB (NE RPB). A representative of Duke University then described the activities of the Marine Data Life and Analysis Team to develop marine life data and models for NROC to help support the NE RPB's decision making and how this work could potentially extend to the Mid-Atlantic region. A representative of the Virginia Coastal Zone Management Program described the Coastal Virginia Ecological Value Assessment, which is a collaborative effort among several Virginia programs to synthesize best available ecological data into one map that classifies the natural systems of Virginia's coastal landscape. The RPB then engaged in a question and answer session with the presenters.

The RPB then revisited discussion on IJC and additional analyses. The RPB agreed to proceed with a refined set of working criteria for IJC opportunities and actions. The RPB elected to establish a workgroup to further investigate the types of ecological and economic analyses available that could support the RPB's work and make recommendations to the RPB about which methodologies or tools could be most useful.

The RPB then turned to discussion of next steps for the workflows to develop the OAP going forward, which will be described in an overarching work plan. It was determined that a new workgroup focused on data synthesis would take on the mission of identifying data analyses and other decision support tools related to both ecological and economic resources, and that the IJC workgroup should focus on both region-wide and geographically-specific opportunities and actions. It was determined that the ROA workgroup would shift its focus in the near-term to developing a white paper describing unique features of the Mid-Atlantic ocean and providing rationale for why ocean planning is important in the region. The RPB also discussed the importance of prioritizing some short-term actions and analyses that are achievable before 2016, and identifying others that can be pursued in the longer term. Public comment was then heard on: stakeholder engagement, additional analyses, leveraging existing work, and interjurisdictional coordination.

At the close of the meeting, the Mid-Atlantic RPB identified several next steps, including:

- Continuation and/or establishment of the three workgroups discussed at the meeting:
  - *IJC*: identifying short and long-term region-wide and geographically-specific opportunities and actions, using the working criteria discussed as touchstones
  - *Data synthesis*: reviewing existing methodologies for ecological and economic analyses the RPB could pursue and make a recommendation on one or more analyses to undertake to inform the development of the OAP in the short and longer terms
  - *ROA*: crafting a white paper to describe what is important and special about the Mid-Atlantic ocean, including a rationale for regional ocean planning, and potentially revisiting the population of the full ROA at a later date
- Identifying appropriate staff within each member institution to participate in those workgroups and workflows.
- Developing a draft work plan for RPB consideration, which will include responsibilities for each workgroup, a timeline for OAP development, and other key steps.
- Incorporation of stakeholder engagement in the activities of each workflow.

## About this Meeting

The third in-person meeting of the Mid-Atlantic Regional Planning Body (RPB) took place on January 21-22, 2015 at the Jacob K. Javits Federal Building in New York, New York. The meeting was attended by State, Federal, and Tribal RPB members, a member of the Mid-Atlantic Fishery Management Council (MAFMC), and appointed alternates. Approximately 63 members of the public were in attendance, and approximately 19 comments were offered during the public comment sessions. A complete roster of RPB members and alternates representing State, Federal, and Tribal members, and the MAFMC can be found [here](#). The meeting was chaired by State, Federal, and Tribal RPB Co-Leads and facilitated by Meridian Institute, which also developed this summary document.

## Meeting Objectives

Objectives for the third RPB meeting were to:

- Refine and approve a proposed approach for a Mid-Atlantic Regional Ocean Action Plan (OAP)
- Identify next steps to develop the OAP, including a work plan, a stakeholder engagement plan, and interjurisdictional coordination opportunities and actions
- Develop clear and detailed guidance for further development of the Regional Ocean Assessment (ROA)
- Share information about activities underway that are relevant for Mid-Atlantic regional ocean planning
- Receive public input on topics under consideration by the Mid-Atlantic Regional Planning Body

The full suite of meeting materials can be found in Appendix A, the slides presented at the meeting on Day 1 can be found in Appendix B, and the slides for Day 2 can be found in Appendix C. These materials, a full meeting transcript, and additional information about the RPB and ocean planning in the region can be found on the RPB [website](#).

## Wednesday, January 21, 2015

The first day of the RPB meeting was focused on reviewing the RPB's progress and discussions to date, reviewing a proposed timeline for RPB activities, discussing the *Proposed Approach to the Mid-Atlantic Regional Ocean Action Plan*, discussing two New York State ocean planning processes, reviewing updates on stakeholder and Tribal engagement activities from the Mid-Atlantic Regional Council on the Ocean (MARCO), and discussing the Regional Ocean Assessment outline and example sections. The first day included two public comment sessions, one of which was focused on the *Proposed Approach to the Mid-Atlantic Regional Ocean Action Plan*, the other of which focused on the Regional Ocean Assessment outline and example



sections. Those sessions were intentionally placed before the continuation and conclusion of RPB deliberations so that RPB discussion could be informed by public input.

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### Welcoming remarks and Tribal blessing

Laura Cantral of Meridian Institute facilitated the meeting. She began by introducing Ms. Kelsey Leonard of the Shinnecock Indian Nation and Tribal Co-Lead of the RPB, who offered a Tribal blessing to open the meeting. Karen Chytalo, Assistant Bureau Chief at the New York Department of Environmental Conservation then introduced Kathleen Moser, Assistant Commissioner of the New York Department of Environmental Conservation, who welcomed the RPB and meeting participants to New York and shared some brief remarks.

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### Introductions and agenda review

Ms. Cantral next turned to the RPB Co-Leads and members for further introductions, and then reviewed the agenda for the meeting and outlined the meeting objectives. She described specific decision and discussion points planned for the proceedings, and emphasized the approval of the *Proposed Approach to the Mid-Atlantic Regional Ocean Action Plan* as the cornerstone decision for the meeting. She noted the sequencing of the three public comment sessions in the midst of RPB discussion of key topics, sequencing intended to allow the RPB to continue discussions about or reach resolution on a topic as informed by public input. She also encouraged input from members of the public, and emphasized the importance of public input and feedback to inform RPB deliberations.

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### Review of progress since last meeting and context setting

During this session, RPB Co-Leads—Bob LaBelle, Gwynne Schultz, and Kelsey Leonard—set the context for the meeting by providing a brief overview of RPB progress to date and a proposed timeline moving forward. Slides associated with this presentation can be found in Appendix B1.

Kelsey Leonard of the Shinnecock Indian Nation and RPB Tribal Co-Lead, reviewed the history of the RPB, referencing the RPB's establishment in 2013 pursuant to the National Ocean Policy. She then discussed the RPB's mission to work collaboratively to address current challenges and emerging opportunities to improve management and conservation of ocean resources. Ms. Leonard indicated that State, Federal, Tribal, and Mid-Atlantic Fishery Management Council members are working together to foster improved decision-making about ocean uses, informed by increased data and information. Ms. Leonard also emphasized the fact that the RPB is not a regulatory body and has no independent legal authority.

Gwynne Schultz, Senior Coastal and Ocean Policy Advisor at the Maryland Department of Natural Resources and RPB State Co-Lead, reviewed the RPB's progress to date. She reviewed activities since the second RPB meeting in May 2014 in Baltimore, Maryland, at which the RPB approved the [Mid-Atlantic Regional Ocean Planning Framework](#) (Framework). Ms. Schultz reiterated that the Framework serves as the RPB's guide to develop products and processes. She described the activities of a set of workgroups that have been working since May to develop several critical elements of the ocean planning process, including:

- A series of options for developing a regional ocean action plan (OAP)
- A strategy for promoting interjurisdictional coordination (IJC) among RPB member entities
- An approach to organizing and populating the Regional Ocean Assessment (ROA)
- An interim plan for engaging stakeholders in RPB activities
- Coordination with the Mid-Atlantic Ocean Data Portal (Data Portal)

Ms. Schultz then referenced a set of RPB activities throughout fall 2014, including the approval of the RPB Charter in September 2014, which describes the purpose, mission, membership, and procedures of the RPB. She also referenced several stakeholder engagement efforts during this time period. These include a public webinar that was held in October 2014 to present a series of documents released for public review and comment, and a series of public listening sessions hosted with the Mid-Atlantic Regional Council on the Ocean's (MARCO's) support to further discuss the draft public documents at five sessions in Delaware, Virginia, Maryland, New York, and New Jersey. Ms. Schultz indicated that the RPB workgroups incorporated the public feedback received via the webinar, public listening sessions, and in writing, to refine those drafts. She further indicated that the RPB would further discuss during this meeting those refined products, including next steps in their development and implementation.

Bob LaBelle, Senior Advisor to the Director at the Bureau of Ocean Energy Management (BOEM) and RPB Federal Co-Lead, reviewed a timeline to guide the RPB's activities from this meeting through 2017 and beyond. He reviewed the activities suggested for 2015, starting with the approval of the OAP approach at the meeting and subsequent development and periodic updates of a work plan. Mr. LaBelle indicated that the existing workflows to guide OAP development are already underway and would likely be refined based on RPB discussion at the meeting. He highlighted the plan to convene one more RPB meeting in 2015 and two meetings in 2016 at different phases in the development of the OAP, and in preparation for the release of a final OAP for National Ocean Council (NOC) concurrence by the end of 2016. He emphasized that through all proposed activities, the RPB would continue to engage stakeholders, focus on collecting, sharing, and integrating data, and refine the RPB's products and processes.

## **Presentation and discussion: *Proposed Approach to the Mid-Atlantic Regional Ocean Action Plan***

During this session, Karen Chytalo of the New York Department of Environmental Conservation and Bob LaBelle of BOEM, co-chairs of the internal RPB Ocean Action Plan Options Workgroup, made a joint presentation describing the development and content of the document *Proposed Approach to the Mid-Atlantic Regional Ocean Action Plan*. Slides associated with this presentation can be found in Appendix B2. Ms. Chytalo described the activities of the RPB workgroup, which met via teleconference on a weekly basis to develop the approach. She explained that the proposed OAP approach is grounded in the Framework's goals. She outlined characteristics of an OAP, including:

- Inform decision making under existing authorities
- Build on existing partnerships and planning efforts
- Be designed and implemented with robust stakeholder input
- Be updated periodically

Ms. Chytalo then described the workgroup's process in developing the approach, including developing a series of options for public comment, receiving feedback through public listening sessions and written public input, and developing the proposed approach that combines elements of the various options on which the public commented. She stressed the RPB's mindfulness about setting realistic and achievable goals in order to produce an OAP by 2016.

Mr. LaBelle then described that the public expressed support for specific elements of the proposed draft options, and demonstrated interest in the RPB developing a hybrid approach with the capability to address both region-wide and geographically-specific opportunities and to conduct further analysis of ecological and economic ocean resources in the Mid-Atlantic to inform planning and management. Given this feedback, the workgroup combined the preferred ideas from various options into the proposed OAP approach and identified four categories that region-wide opportunities or issues could fall into:

- Identifying research needs
- Informing and improving management decisions
- Improving information for environmental and regulatory review
- Leveraging resources

Mr. LaBelle indicated that any geographic areas selected would demonstrate progress on the region-wide opportunities or issues, and that the RPB would address both region-wide actions and specific geographies by clarifying criteria, analyzing compatibility, and improving collective understanding. He referenced that more information about the mechanics of those processes would be discussed in greater detail later in the meeting, during sessions focused on interjurisdictional coordination and through additional analyses to support and inform the RPB's efforts. Mr. LaBelle also emphasized that all workflows to be discussed at the meeting will contribute to the development of the OAP, and indicated that by approving an approach,

the RPB would be well positioned to develop a work plan to further define and make progress on those workflows throughout 2015 and 2016.

Following these presentations, Ms. Cantral clarified that the approval sought was on the first three pages of the *Proposed Approach to the Regional Ocean Action Plan*, and that the appendix was an illustrative OAP outline subject to change over time. She then opened the floor for clarifying questions and RPB discussion.

RPB members expressed a general sense of support for the flexibility built into the approach and eagerness to initiate plan development and make refinements as needed as progress unfolds. The RPB discussed how improving information sharing earlier in regulatory and permitting processes through interjurisdictional coordination would enable RPB member entities to be proactive rather than reacting to specific challenges. RPB members also reflected that it will be important to strike a balance between that flexibility and the ability to operate reactively in the event of unexpected circumstances. RPB members also suggested that more discussion would be needed about the actual contents of the plan, the relationship between region-wide opportunities and actions and specific geographies, the end point for a first iteration plan, and how success would be defined and measured. Ms. Cantral indicated that discussions of specific workflows throughout the meeting would allow the RPB to delve into detail on each of those topics.

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### **Public comment session: *Proposed Approach to the Mid-Atlantic Regional Ocean Action Plan***

During this session, members of the public were invited to offer public comment on any topic, but encouraged to tailor their comments to the topic currently being discussed by the RPB. Nine individuals provided comments and their ideas presented are summarized as follows. The details of comments for the record can be found in the full meeting transcript, which can be found on the RPB's [website](#). Comments focused on:

- *Areas of ecological importance:* The RPB should commit to doing the type of analyses suggested for consideration in the *Potential Data Analyses and Decision Support Tools* document in order to serve as a baseline for RPB discussions, inform interjurisdictional coordination, and improve decision making. Some indicated that the results of these analyses should be used to provide the RPB with non-binding information and data, while others posited that they should result in concrete commitments by member entities. The process of conducting any analyses would require engagement with the scientific community and should build on existing methodologies. These analyses would be important to the RPB fulfilling the ecosystems goal in the Framework.
- *Compatibility assessments:* Some expressed support for conducting compatibility assessments as a useful tool for decision making that would examine co-occurring human uses and ecological uses and bring together both goals in the Framework.

Others expressed concern, in particular based on the observation that such assessments would require high quality information and understanding about specific potential interactions in specific sites, which is not readily available.

- *Regional focus:* The flexibility of the approach should not detract from the regional focus of the OAP. The OAP should be tailored to address existing and future planning issues. A balance between selecting individual geographic areas while maintaining a clear regional approach will be critical for a credible and effective OAP.
- *Stakeholder engagement:* The RPB should make every effort to develop a systematic role for stakeholders in the planning process. Reference was made to a stakeholder event held the previous evening, which indicated significant interest among the public in staying abreast of the RPB's activities and willingness of some organizations to assist with raising awareness about the RPB's activities. Any stakeholder engagement effort should be sure to engage the fishing community and a diversity of other sectors to ensure the RPB is receiving a well-rounded and diverse set of input.
- *Leveraging existing resources:* The RPB should leverage the capacities of its member entities in terms of institutional knowledge and manpower, including Federal agencies, States, Tribes, and the Mid-Atlantic Fishery Management Council.
- *Timeline for OAP development:* Support was expressed for the goal of 2016 for finalization of a first iteration OAP, and indication that it will be important to build in sufficient time for the NOC to concur with the plan before the close of 2016 to demonstrate meaningful progress by that deadline.

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### **Discussion: *Proposed Approach to the Mid-Atlantic Regional Ocean Action Plan (continued)***

Following public comment, Ms. Cantral turned to the RPB for any reflections on the public comments received. RPB members reflected on the importance of balancing the right level of comprehensiveness to enable a region-wide focus while enabling nimbleness to address site-specific issues. A main tenet of RPB discussion was interest in and support for conducting the kinds of ecological and economic assessments commenters were recommending, and the importance of up-to-date data and information to help inform the RPB's identification of interjurisdictional coordination opportunities and actions.

RPB members recognized that the RPB could improve its messaging about how integral scientific information will be to the planning process, and expressed appreciation to commenters for helping identify the need to clarify that communication. There was agreement that the RPB should take more explicit action to identify decision support tools and conduct some analysis, and to the extent possible the RPB should build on existing knowledge and

capacities (e.g., the Mid-Atlantic Ocean Data Portal) and consult with key stakeholders in the process of synthesizing and interpreting that information.

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### **Presentation on New York ocean planning processes**

During this session, Karen Chytalo of the New York Department of Environmental Conservation and Gregory Capobianco, Division Director at the New York Department of State offered a joint presentation about ongoing planning efforts in the State of New York. Slides associated with these presentations can be found in Appendix B3.

Ms. Chytalo described the draft New York Ocean Action Plan, which was released for public comment on January 14, 2015, and was a joint effort between the New York Department of Environmental Conservation and the New York Department of State. The goal of the New York Ocean Action Plan is to provide a framework for an integrated, adaptive approach to management that seeks to address the increased man-made stressors that threaten the ecological integrity of the ocean ecosystem, and spans all estuarine, coastal, and offshore waters off New York out to the Atlantic outer continental shelf break. The plan has four clearly defined goals, 11 objectives, and is written on a 10-year timeline, with 61 prioritized actions and incremental steps to guide the action implementation through collaboration with key partners. The New York Ocean Action Plan is designed to be updated periodically based on data from monitoring efforts that will help inform adaptive management, including a suite of ocean indicators that are currently being developed. Ms. Chytalo emphasized that the draft plan highlights New York's regulatory and resource management interests that were identified through extensive engagement with stakeholder groups, and could serve as a platform on which the RPB can expand in developing the regional OAP.

Next, Mr. Capobianco provided an overview of the New York Department of State's involvement with Offshore Ocean Planning, which complements the New York Ocean Action Plan's near-shore focus and prioritizes siting offshore wind, protecting areas important to New York's economy and natural resources, and identifying offshore sand resources to bolster beach nourishment and resilience efforts. Mr. Capobianco referenced the Offshore Atlantic Ocean Study released in July 2013, which is a collaborative effort that focuses on data to identify areas important to New York's economy, including potential offshore wind energy areas, key habitats, and sand resources. Many Federal and State partnerships informed the development of the study. This includes an ongoing partnership through a joint New York and BOEM Intergovernmental Renewable Energy Task Force to consult with State, Federal, and local partners on current and prospective leasing activities and a Cooperative Agreement with BOEM to conduct research on sand resources. Mr. Capobianco emphasized that together the New York Offshore Atlantic Ocean Study and Ocean Action Plan address the many New York ocean uses, resources, and concerns, lay a foundation for progress on identified State ocean priorities, and present an opportunity to increase State, Federal, and stakeholder partnerships. These planning

efforts can help support regional ocean planning by providing information about individual State interests to inform the work of Federal agencies and the formation of regional priorities.

Following these presentations, Ms. Cantral turned to the RPB for discussion and clarifying questions. RPB members reflected that in thinking about building on these efforts, it will be important for the RPB to consider how regional priorities interact with State priorities. It was noted that the RPB could learn from how the Northeast RPB has built on the State-level plans that Massachusetts and Rhode Island have developed in determining the appropriate intersection between State and regional interests. RPB members also discussed the magnitude of effort involved in completing this kind of plan, and how important partnerships and institutional knowledge and manpower are to completing a credible product in a realistic timeframe. In order to meet the 2016 deadline for a regional OAP, the RPB will need to leverage existing work, including at the State level. The RPB can also benefit from how the States are communicating that kind of work and gathering and communicating their stakeholders' perspectives to the RPB to inform a regional dialogue. Finally, Ms. Chytalo and Mr. Capobianco underscored that New York welcomes feedback on the draft New York plan from RPB member entities, including specific ideas about how to translate some of the plan's contents to inform the RPB's dialogue.

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### **Updates from the Mid-Atlantic Regional Council on the Ocean (MARCO) on its stakeholder engagement activities**

Ms. Cantral next turned to Gwynne Schultz of the Maryland Department of Natural Resources and Chair of the MARCO Management Board to describe MARCO's recent activities related to stakeholder engagement in support of the RPB. Slides associated with this presentation can be found in Appendix B4. Ms. Schultz referenced MARCO's support for the five public listening sessions held throughout November 2014 and the use of its communications channels to disseminate information about RPB activities through the MARCO website, newsletters, blogs, and informational posters.

Kris Ohleth, Executive Director of MARCO, then described recent activities of the MARCO Stakeholder Liaison Committee (SLC), a body of stakeholder representatives formed in March of 2014 to provide input and feedback to MARCO about regional ocean planning, act as a conduit for information between regional stakeholders and MARCO related to regional ocean planning, and to serve as a venue for dialogue and improved shared understanding for different stakeholder groups. Ms. Ohleth described a number of SLC activities in 2014, including an inaugural meeting, webinars, and two sector-specific meetings on issues of interest to the submarine cable and tug and barge sectors. She then turned to representatives of those two sectors to describe their sectors' use of the Mid-Atlantic ocean and their interest in regional ocean planning.

Bob Wargo, President of the North American Submarine Cable Association, described the significant and long-standing role that undersea cables play in channeling telecommunications and the specialized techniques for placement that haven't changed in decades. He indicated that although the United States considers undersea cables to be critical infrastructure, the sector is often overlooked and various projects (e.g., sand dredging, beach replenishment) have at times interfered with and damaged cables. Mr. Wargo expressed appreciation for MARCO convening the sector-specific meeting, indicating that it presented a good opportunity for information sharing and referencing ongoing work between the Mid-Atlantic Ocean Data Portal team and members of the submarine cable sector to include submarine cable data on the Data Portal and on the BOEM and National Oceanic and Atmospheric Administration (NOAA) Multipurpose Marine Cadastre. He also described how the submarine cable sector engages with a range of Federal partners to site and expand projects, and emphasized that the RPB's efforts should not make those processes more challenging or complicated for the sector or any other marine sector.

Next, John Harms, Atlantic Region Manager at the American Waterways Operators (AWO) and representing the tug and barge community, shared information about the importance of cargo carried by tug and barge operators. Mr. Harms reflected that the MARCO-convened sector specific meeting brought together knowledgeable mariners to discuss issues of importance to the tug and barge community and how regional ocean planning can factor in the sector's needs. He highlighted that tugboats have been using the same routes for hundreds of years, and that there is a pressing need to preserve a coastal route for these vessels between the coastline and any future development (e.g., offshore wind farms) to ensure safety. Mr. Harms also indicated that the Automatic Identification System (AIS) data included on the Mid-Atlantic Ocean Data Portal does not sufficiently display the variance in tug and barge routes, and should be considered with a larger buffer for planning purposes. The AWO and the U.S. Coast Guard have been collaborating throughout the development of the Atlantic Coast Port Access Route Study (ACPARS) to try to identify safe and accurate vessel routes.

Following the remarks from the sector representatives, Ms. Schultz reiterated MARCO's desire to continue pursuing a range of stakeholder engagement activities. Ms. Schultz emphasized MARCO's interest in conducting outreach to additional sectors through the SLC to continue information sharing and collaboration. She indicated that this outreach will likely occur in the form of sector-specific meetings, multi-sector meetings, and webinars.

After these concluding comments, Ms. Cantral opened the floor for any clarifying questions and RPB dialogue with the sector representatives. Several members of the RPB expressed thanks to the industry representatives for their perspectives, and identified a desire to improve channels of communication to and from industry interests to help ensure well-informed RPB discussions. RPB members also acknowledged that each marine sector faces unique challenges and their interests are not uniform. They reflected that the goal of regional ocean planning is to foster improved communication and collaboration among Federal, State, and Tribal partners to lessen the burden on ocean users, and that robust stakeholder engagement is required to ensure that RPB processes move toward that goal. The RPB also discussed the importance of involving



stakeholders in data collection for the Mid-Atlantic Ocean Data Portal and continued discussions between the Portal team and key stakeholder groups in that pursuit. Ms. Schultz reminded the RPB members that concise summaries of each of the sector-specific meetings are posted to the MARCO and RPB websites, and RPB members recognized a need to explore additional mechanisms through which SLC members can effectively convey important messages through MARCO to inform RPB deliberations.

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### **Updates on tribal engagement efforts**

During this session, Gwynne Schultz referenced the collaboration between MARCO and the Shinnecock Indian Nation to expand and enhance Tribal engagement in the Mid-Atlantic regional ocean planning process. Slides associated with this presentation can be found in Appendix B5.

Ms. Schultz explained that MARCO has hired two consulting firms to facilitate a new engagement initiative with state and federally recognized Tribes throughout the region. Kelsey Leonard of the Shinnecock Indian Nation then provided an overview of the Tribal engagement framework and scope of work, which is being initiated with early outreach to individual Tribes throughout the region. The two main components for this outreach will include listening sessions to provide information about regional ocean planning activities, and participatory geographic information system (pGIS) workshops to identify and collect existing Tribal data. Ms. Leonard then reviewed a preliminary timeline for Tribal Engagement activities, which involved surveys of Tribal Nation representatives, initial engagement, execution of scope, and reporting back to the RPB within the next calendar year.

Following this brief presentation, Ms. Cantral opened the floor for clarifying questions from RPB members. It was clarified that there are 29 State- and Federally-recognized Tribes in the Mid-Atlantic region, and this effort will seek to engage representatives from as many as possible. MARCO and the Shinnecock Indian Nation will keep RPB members informed about the progress of activities and opportunities for RPB member entity engagement at local listening sessions and other events.

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### **Presentation and discussion: Regional Ocean Assessment outline and example sections**

During this session, Dr. Kevin Chu, Assistant Regional Administrator for Constituent Engagement at the National Marine Fisheries Service at NOAA and co-chair of the internal Regional Ocean Assessment (ROA) workgroup, described the workgroup's progress in refining an outline and developing example sections of the ROA and posed several questions for the RPB's consideration. Slides associated with this presentation can be found in Appendix B6. He explained that the purpose of the ROA is to describe the marine environment and human

activities in the Mid-Atlantic region to inform the development of the OAP. As currently constituted, the ROA outline is structured around the two goals identified in the Framework, to provide information about the ocean ecosystem and human uses and issues. Dr. Chu reminded the RPB that based on RPB guidance at the May 2014 in-person meeting and subsequent teleconferences, the workgroup has aimed to provide short summaries of topics organized under each of the two Framework goals with links to more authoritative and up-to-date sources. After reviewing the major headings of the outline, Dr. Chu posed two questions for RPB discussion:

- 1) Is the version of the outline presented sufficient for the ROA workgroup to continue drafting the ROA?
- 2) Which topics would the RPB like to see prioritized for development during the spring of 2015?

Dr. Chu then turned to the draft example sections presented for RPB consideration regarding a cross section of the issues the ROA would address: deep sea corals, offshore wind energy, and the Panama Canal expansion. In the context of these example sections, he posed two additional questions for discussion:

- 3) Is the level of information appropriate?
- 4) Is the scope of the information on each topic sufficient to inform the development of the OAP?

Following this presentation, Ms. Cantral turned to the RPB for discussion about the four questions posed by the ROA workgroup. RPB members engaged in a wide-ranging discussion about the role of the ROA and its relationship to other products and information needed to develop the OAP. Key topics and comments discussed during this session include:

- General support for the level of detail included in the example sections and outline
- Lack of clarity about the role of the ROA as a description of the Mid-Atlantic ocean environment or an assessment of the management implications of trends related to co-occurring uses and natural resources
- The relationship between the ROA, IJC commitments and actions, and potential economic and ecological analyses and synthesis that need to be conducted
- The need for significant input from the scientific community to inform any ecological or economic analyses, and the level of suitability of the ROA to conduct and report on the results of such analyses
- The appropriateness of the ROA serving as a venue for making value judgments and/or conducting information synthesis
- An idea to have the ROA identify and list indicators of ocean health and compatibility to which the RPB could refer in conducting additional analyses

- The challenges associated with prioritizing the population of some ROA sections over others in the absence of agreed-upon criteria
- The significant resources and effort required to develop anything more than a basic description of existing ocean resources and uses
- The best strategies to leverage information from existing RPB member entities (e.g., the Mid-Atlantic Fishery Management Council) and the scientific community to facilitate the population of the ROA
- The benefits and drawbacks of drafting a comprehensive description or taking a more targeted and reactive approach based on specific information needs as they arise
- The opportunity to use the ROA as a forum to clearly state why regional ocean planning is important in the Mid-Atlantic region

In her role as facilitator, Ms. Cantral suggested the RPB move on to hear input from the public and revisit the topic of the ROA after further consideration of what role the ROA could play in the overall context of OAP development.

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### Public comment session: Regional Ocean Assessment outline and example sections

During this session, members of the public were invited to offer public comment on any topic, but encouraged to tailor their comments to the topic currently being discussed by the RPB. Five individuals provided comments and the ideas presented are summarized as follows. The details of comments for the record can be found in the full meeting transcript, which can be found at the RPB [website](#). Comments focused on:

- *Science-based decision-making*: Commenters reiterated strong support for undertaking analyses to identify areas of current and future ecological and economic importance, suggesting that a comprehensive base layer of key habitats and resources (e.g., including spawning grounds, migratory corridors) should be added to the Mid-Atlantic Ocean Data Portal.
- *Separate the ROA from ecological and economic analyses*: Concern was expressed that a description of the ocean environment, while a helpful reference tool, will not advance the collective understanding of the region's ecological health or economy. The RPB should launch a series of data-driven analyses as soon as possible to ensure that useful results are produced within the window of opportunity and separate that work stream from any effort to further populate the ROA outline.
- *Comprehensiveness of data gathering and assessment*: It is critical to be as comprehensive as possible in any description or analysis and consider all existing and future resources and uses. A lack of support for prioritizing certain topics over others was expressed.

- *Stakeholder engagement*: Mechanisms for engaging different user groups and the scientific community to inform ROA development should be identified and clarified. There are resources available for the RPB to leverage to raise awareness (e.g., the regional screenings of the documentary *Ocean Frontiers II*) and the RPB should be intentional about engaging with interested communities.
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### Reflection on public comment and day 1 wrap-up

Ms. Cantral wrapped up Day 1 by indicating that the RPB would revisit many of the threads of conversation held on Day 1 during Day 2, and that the public would have the opportunity to comment again in the afternoon of Day 2. She then adjourned the meeting for the day.

### Thursday, January 22, 2015

The second day of the meeting was focused on approving the *Proposed Approach to the Regional Ocean Action Plan*, discussing ideas about interjurisdictional coordination, hearing a panel presentation about different potential data analysis and decision support tools, and discussing proposed next steps for RPB workflows based on the memorandum *Summary of MidA RPB decisions to be made at January 21-22, 2015 meeting and overview of proposed RPB workflows* put forth by the RPB Co-Leads, as well as discussion of key steps needed to move toward the drafting of a work plan to support development of the regional ocean action plan. The day included one additional public comment session focused on data and analysis tools, IJC, and RPB next steps. This session was intentionally sequenced to fall in the midst of RPB discussion and consideration of those topics, so that the RPB could be informed by public input in the course of its discussions.

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### Welcome back, summary day 1, agenda review day 2

During this session, Ms. Cantral briefly reminded the group about outcomes of Day 1, outlining several key topics to be taken up throughout the course of Day 2, and described the agenda for Day 2, including several timing refinements to enable a logical flow of discussion. She referenced that several of the unresolved issues during the discussion of the ROA in the afternoon of Day 1 may be addressed during the sessions on IJC and additional analyses and decision support tools. She explained that the discussions for the day would focus on two additional workflows and then would shift to discussing next steps and how each of the topics discussed throughout the meeting fit together in support of the development of an OAP.

## Discussion, reflection on comments received, and approval of the Proposed Approach to the Mid-Atlantic Regional Ocean Action Plan

Ms. Cantral initiated the morning's discussion by introducing a graphic (available in Appendix C1) which put into the broader context of OAP development each of the workflows discussed on Day 1 and on the agenda for discussion on Day 2. She described how the Framework provides the guiding goals and objectives on which all RPB activities are based, and that the ROA, any additional analyses the RPB elects to pursue, and specific criteria informed by stakeholder input and member interests will all contribute to the selection of IJC opportunities at a region-wide and geographically-specific scale. The actions associated with the IJC opportunities and deliverables associated with each contributing workflow will together comprise the OAP. Having introduced this context, Ms. Cantral opened the floor to the RPB for any additional discussion of the approach. RPB members signaled that Day 1 had involved sufficient discussion for approval, and made the consensus decision to approve the *Proposed Approach to the Regional Ocean Action Plan*.

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### Interjurisdictional coordination opportunities and next steps

Following the approval of the OAP approach, the RPB transitioned to discussing IJC, which Ms. Cantral explained will be a cornerstone in the OAP development process under the approach just approved by the RPB. Deerin Babb-Brott, Senior Partner at SeaPlan under contract with Meridian, presented the content of the document, *Proposed Process, Criteria, and Examples of Potential Interjurisdictional Coordination Actions*. Slides associated with this presentation can be found in Appendix C2.

Mr. Babb-Brott explained the concept of IJC as a mechanism through which the goals and objectives outlined in the Framework can be accomplished through specific multi-jurisdictional actions. RPB entities may, under existing authorities, identify and implement IJC actions to better coordinate their work and use data and information to:

- Inform and improve management
- Improve the use of information for environmental and regulatory review
- Identify and address research needs
- Leverage resources

Under the approach just approved by the RPB, IJC would occur on a region-wide basis and in specific geographic areas. RPB entities would identify region-wide opportunities with stakeholder input, organize them among the four categories listed, and subsequently identify opportunities that would be best addressed in geographically specific areas.

As potential IJC opportunities are considered, specific IJC actions to address them would be developed using a set of decision criteria. These decision criteria would frame and guide RPB discussion, and provide consistency, transparency, and a common starting point for RPB

member entities and others engaged in the process. They would be flexible working criteria that could be adapted over time as the RPB obtains new information, and would be touchstones to help the RPB target discussions, but would not necessarily restrict the nature of IJC opportunities and actions identified. To illustrate how these criteria could be used to identify IJC opportunities and actions, Mr. Babb-Brott described two examples from the document of how IJC could be used to build on the goals and objectives in the Framework, one each in the region-wide and geographically-specific contexts.

Following this presentation, Ms. Cantral underscored several key points. She reminded the RPB that an IJC workgroup has been working with Mr. Babb-Brott in his role as an advisor under contract with Meridian, over the past several months to assemble these initial ideas, and that the group would benefit from the RPB's reactions to and ideas about the proposed approach to IJC, and any specific refinements to the suggested working criteria. Ms. Cantral also emphasized that the examples included in the *Proposed Process, Criteria, and Examples of Potential Interjurisdictional Coordination Actions* document were designed to help the RPB conceptualize the IJC process, and should be considered illustrative. After these additions, she opened the floor for clarifying questions and RPB discussion.

RPB members expressed comfort with the logic and flow of the proposed approach to IJC, and particular support for the graphic included in the presentation as helpful tools to contextualize the relationship among workflows. RPB members sought clarification that IJC opportunities and actions would *not* be project-specific or counter to member entities' existing work and priorities. Mr. Babb-Brott indicated that through identifying IJC opportunities and actions, the RPB would seek to build upon the good work member entities have already conducted under existing authorities, and would not seek to redirect existing member entity priorities or projects. RPB members further clarified that any commitments made or actions taken would not seek to impose on individual agency decisions in a project-specific context, but rather would identify multi-jurisdictional actions that are supported by existing authorities and were identified through the consensus RPB process.

The transition from identification of opportunities to implementation of specific actions was also discussed. In particular, RPB member entities explained that once the RPB has expressed comfort with a particular IJC action, that action could be included in the OAP and the individual Federal, State, and Tribal entities involved could move forward with (or in some cases continue) implementing that action. RPB members also reflected on the importance of basing IJC decisions on best available science and including relevant data as a key factor in discussions, to the extent possible. Mr. Babb-Brott noted that the panel on data and analysis tools later in the afternoon would shed further light on how data and analysis could contribute to RPB thinking and decisions. In response to a question about how State interests would be incorporated into IJC discussions, Mr. Babb-Brott also offered that State representatives to the RPB should join the IJC workgroup to help inform how the Federal agencies might interact with States on opportunities and actions to be identified.

In discussing the decision criteria, it was clarified that the decision criteria proposed by the IJC workgroup should be considered as working criteria to be updated and refined over time. While they would guide decision making, they may be most useful if considered flexible parameters rather than a strict checklist. RPB members indicated that the three criteria listed to guide the identification of geographically-specific opportunities related to ecological value, socio-economic value, and high current or potential use conflict should also apply to region-wide opportunities, and suggested refining the criteria to reflect that idea. RPB members also recognized the need to incorporate a more overt linkage to traditional values and knowledge as part of the criteria. The discussion of criteria included a range of views on the merits of collapsing the criteria for region-wide and geographically-specific opportunities into one comprehensive list. The RPB ultimately determined that reflecting the geographically-specific criteria as part of the region-wide criteria would provide sufficient clarity, and that maintaining the distinction between the two lists would help ensure that the geographically-specific opportunities and actions are maintained as important aspects of the IJC process.

Ms. Cantral closed the session by indicating that the Meridian team including Mr. Babb-Brott would propose refinements to the working criteria based on these discussions for RPB consideration later in the afternoon.

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### **Panel and discussion: data and analysis tools to support ocean planning going forward**

During this session, Nick Napoli, Ocean Planning Project Manager at the Northeast Regional Ocean Council (NROC), Dr. Patrick Halpin, Associate Professor of Marine Geospatial Ecology and Director of the Geospatial Ecology Program at Duke University, and Laura McKay, Program Manager at the Virginia Coastal Zone Management Program, presented an array of existing approaches to analyses and data products that could support the work of the RPB going forward. Slides associated with these presentations can be found in Appendix C3. Throughout the presentations, the panelists referenced the *Potential Data Analyses and Decision Support Tools* document included in the meeting materials.

Mr. Napoli started by describing a range of options for different data and analysis tools including economic and ecological analyses, analyses of proposed ocean uses and restoration priorities, and compatibility assessments that have been considered by the Northeast Regional Planning Body (NE RPB). He reflected that the NE RPB's decisions to date about which options to pursue have been informed by public input, potential for use under existing authorities, budget and level of effort required, and practicality. He reviewed five options the NE RPB has considered for ecological assessments, which include:

- Defining areas using existing maps through existing authorities
- Utilizing new distribution and abundance maps

- Identifying hotspots and core habitat for individual species from new distribution and abundance maps
- Overlaying abundance hotspots, core habitat, and other occurrence areas for protected and important marine species
- Measuring ocean health

Mr. Napoli indicated that the NE RPB has assembled data to support the first option, and has hired a set of researchers, including a team led by Dr. Halpin at Duke University, to develop distribution and abundance maps for important marine life species. The NE RPB has set up expert workgroups to help develop these products, and once these maps are complete, the NE RPB will consider whether and how to proceed with identifying hotspots and core habitat for key species. He then described the work of a team at the Woods Hole Oceanographic Institute to develop a baseline assessment that includes efforts to analyze the economics of different marine sectors building on the NOAA Economics: National Ocean Watch (ENOW) tool and to characterize ecosystem services in economic terms for the Northeast region. Mr. Napoli then discussed how challenging, nuanced, and time-consuming compatibility assessments can be, and indicated that the NE RPB is in very early stages of determining whether and how analyses of compatibility could be used in conjunction with the suite of data analysis and support tools currently being developed. He closed his presentation by describing the activities of a recently-established workgroup on ecosystem-based management, and indicated that the suite of work he described will evolve based on discussions of the NE RPB workgroups and full NE RPB in the coming months.

Next, Dr. Halpin described the activities of the Marine Data Life and Analysis Team (MDAT) to develop marine life data and models for NROC to help support the NE RPB's decision making and how this work could potentially extend to the Mid-Atlantic region. He provided information about the members of MDAT and the process for gathering best available data and constructing models for seabirds, marine mammals and sea turtles, and fish in conjunction with stakeholder review and NE RPB workgroups in order to develop a single database that can be used by all RPB member entities and other Northeast stakeholders. The team finished aggregating data in mid-November 2014, and has moved into data and model product development, which will continue through summer of 2015. Dr. Halpin stated that the primary motivation for undertaking this work is to provide information to help planning bodies assess ecological vulnerability and risk. This requires the data gathered to be processed into understandable and usable data products that factor in uncertainties, which are important considerations for management decisions.

Dr. Halpin then provided an overview of the work underway related to marine mammals, seabirds, and fish to demonstrate the variety of data sources incorporated and the data gathering and synthesis process each team has undertaken. Final products will predict density of selected species. He also described how throughout conversations with expert work groups, cross-cutting issues across each of the three major groups have been identified and are actively considered. Next, Dr. Halpin described potential next steps for the work in pursuit of



identifying important ecological areas including areas of persistent multiple use, critical habitat, or high vulnerability, some of which are underway and others are being considered. He closed his presentation by indicating that much of the data referenced and included in analyses to date spans from Cape Hatteras in North Carolina to Canada, and that with some additional resources, effort, and key regional inputs, the MDAT work could readily expand to the Mid-Atlantic region. Dr. Halpin described the benefits of a potential expansion as including seamless data collection, models, methods, and approaches among the two regions; broader peer review and acceptance; and scalability to the broader regional context.

Ms. McKay offered the final presentation, describing the Coastal Virginia Ecological Value Assessment, which is a collaborative effort among several Virginia programs to synthesize best available ecological data into one map that classifies the natural systems of Virginia's coastal landscape. She emphasized that this approach may not be directly applicable to the RPB, but should serve as an example of how data can be synthesized to generate a useful product. Ms. McKay described how the assessment was initiated because of collective frustration with differing state level information. The effort represented a decision to merge an abundance of existing data related to various ecosystem characteristics, including wildlife conservation areas, natural landscape characteristics, conservation sites, stream and river resource integrity, and estuarine resources. Each data layer was ranked on a five-point scale according to individual agency specifications for ecological value, and those layers were then overlaid to provide a best estimate of a ranking of terrestrial and aquatic areas according to ecological value. Ms. McKay described how the entire process was relatively low-cost, and the synthesis function increased the utility of each individual data set. She then advocated for the RPB to establish a workgroup focused on identifying the types of data and analysis support tools that could result in progress toward an ecological and/or economic assessment of the Mid-Atlantic region to inform planning efforts.

Following these presentations, Ms. Cantral reminded the RPB that the intention behind the panel was to provide the RPB with some information about feasible tools and analyses that could inform regional ocean planning in the Mid-Atlantic. She also provided the caveat that it would be premature for the RPB to make any decisions about potential analyses to pursue without more detailed information, and that the discussion could focus on what steps could be taken for the RPB to consider what kind of additional analyses may be helpful in supporting its planning efforts. With these clarifications, she opened the floor for RPB questions and discussion. Some RPB members were curious about the resources that would be required to extend the MDAT work to the Mid-Atlantic, to which Dr. Halpin responded that several factors could influence the costs and more scoping would be needed to identify a clear answer. RPB members also expressed interest in better understanding the mechanisms for accounting for industry perspectives in the analyses and the stakeholder engagement efforts NROC and the analysis team have been undertaking.

In response to a question about how the analyses are tested for accuracy, Dr. Halpin described the important role of validation and testing against observation points in helping to develop

confidence maps and other indicators to assist with the interpretation of the data. The discussion indicated that further conversations about the boundary between the Northeast and Mid-Atlantic regions, compatibility among regional Data Portals, temporal aspects of data analyses, and incorporation of Tribal knowledge would benefit the RPB. The discussion included a reiteration of support for the idea of the Mid-Atlantic RPB undertaking some kind of ecological and/or economic analysis. RPB members expressed a desire to learn more about existing methodologies to inform any decision about work that could be undertaken in the Mid-Atlantic region. Ms. Cantral closed the discussion by reminding the RPB that key elements of the discussion of data support and analysis tools would be folded into the afternoon's discussion of next steps and how to carry all RPB workflows forward.

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### Discussion of interjurisdictional coordination and data and analysis tools (continued)

Ms. Cantral noted that before moving to the final discussion of the day on next steps for RPB workflows, the group would return to the topics of interjurisdictional coordination and additional analyses to discuss any outstanding questions. Slides associated with this presentation can be found in Appendix C4. Ingrid Irigoyen of Meridian Institute then reviewed several specific suggested changes to the criteria for region-wide and geographically-specific IJC opportunities and actions that reflected the RPB's discussions from earlier in the day. Ms. Irigoyen outlined the following refined working criteria:

Potential working criteria for the selection of *region-wide IJC opportunities*:

- Foundational (e.g., related to core authorities or practices regarding management, regulation, education, etc.)
- Interdisciplinary and/or interjurisdictional (e.g., meaningful to multiple RPB member missions in the context of the OAP)
- Regional in nature and/or policy priorities for a number of RPB member entities and/or stakeholders
- Consistent with and/or advance the Framework principles, goals, and objectives
- Significant ecological value
- Socio-economic value
- High current or potential use conflict
- High cultural/traditional value

Potential working criteria for the selection of *specific geographic areas*:

- Potential to demonstrate progress on the region-wide IJC opportunities identified above
- Significant ecological value

- Socio-economic value
- High current or potential use conflict
- High cultural/traditional value

Potential working criteria for the selection of specific *IJC actions*:

- Are consistent with and serve to achieve the Framework principles, goals, and objectives
- Are achievable within the capacity limitations of the RPB and/or any collaborating entity to accomplish within the planning horizon
- Lead to an improvement in process and/or outcome over current practice
- Advance member entity missions and/or stakeholder interests under existing authorities
- Leverage existing programs, processes, and/or resources

Ms. Cantral clarified that the RPB would not make any formal decisions about the criteria, but rather that by expressing a sense of comfort with these working criteria, the RPB would enable IJC discussions to proceed using these as guideposts that could be updated over time. RPB members expressed support for the revised working criteria as a starting point for IJC discussions, reflecting on the important connection between the region-wide and geographically-specific criteria. RPB members also discussed how the criteria would inform the selection of IJC opportunities and actions, but would not dictate the exact parameters of selection. With these clarifications, RPB members expressed comfort with the IJC work proceeding as described in *Proposed Process, Criteria, and Examples of Potential Interjurisdictional Coordination Actions* and reflecting the refinements to the working criteria.

Following these clarifications in the IJC workflow, the RPB resumed discussion of whether the RPB should pursue one or more data analyses or decision support tools to better inform the IJC discussions and other RPB activities. Several RPB members reflected on how challenging compatibility assessments can be, and the extent of value judgment that would be required to interpret the results of such an analysis.

There was general agreement that the RPB should seek outside expertise to help conduct any analyses selected, and that any ecological or economic data gathered would need to be synthesized into a useful information product. A key tenet of these discussions was that any products developed must inform the IJC work and broader RPB discussions, and that the information contained should relate to the selected IJC categories of informing and improving management, improving the use of information for environmental and regulatory review, identifying and addressing research needs, and leveraging resources.

RPB members also expressed strong support for ensuring that any economic and ecological assessments/products consider natural and human systems side-by-side. RPB members elected to establish a workgroup to further investigate the types of ecological and economic analyses available that could support the RPB's work, and to make recommendations to the RPB about

which methodologies or tools could be most useful. Ms. Cantral closed the session by indicating that the RPB would discuss the mechanics of establishing this workgroup, its membership, and mission more fully in the subsequent session on next steps for workflows.

### Discussion of next steps for RPB workflows

At the outset of this session, Ms. Cantral directed the group to the memorandum developed by the RPB Co-Leads, *Summary of MidA RPB decision to be made at January 21-22, 2015 meeting and overview of proposed RPB workflows*, which offered several points of clarification and process suggestions for next steps for the RPB. To help frame RPB discussion about next steps for RPB workflows following the approval of the OAP approach, Meghan Massaua of Meridian Institute provided an overview of the suggestions from the RPB Co-Leads for activities of four proposed workflows and associated workgroups (i.e., region-wide IJC actions, specific geographic areas for IJC action, regional ocean assessment, and stakeholder engagement). Slides associated with this presentation can be found in Appendix C5. The activities of these workflows would be guided by a work plan that would document steps in the development of a regional ocean action plan throughout 2015 and 2016.

Progress on each of the workflows identified would be guided by an overarching work plan designed to guide the development of various components of the OAP. Steps and timelines for each workflow, including opportunities for stakeholder engagement, would be included in the work plan and would be updated as the workflows proceeded and new needs emerged. The RPB would hold two meetings per year in 2015 and 2016 and would release a draft OAP for comment prior to finalizing a version and submitting it for NOC concurrence by the end of 2016.

Following this presentation, Ms. Cantral turned to the RPB for discussion about the proposed workgroups and reflections about logical next steps following the flow of meeting discussions. RPB members reflected on the importance of allowing sufficient time for member entities to review the draft plan before submission to the NOC at the end of 2016. It was noted that ongoing RPB member engagement in discussions on emerging IJC opportunities and actions will be essential to ensuring comfort among member entities with different components of the plan. Nonetheless, higher-level review will still require adequate time before the OAP would be declared final.

In terms of workgroup composition, RPB members expressed concern with the concept of two separate IJC workgroups as proposed in the memorandum, indicating that region-wide and geographically-specific IJC opportunities and actions should be identified by the same group. It was proposed that a helpful approach could be to consider the needs those groups would fill and subsequently establish workgroups with the mission to fill those needs. RPB members identified two primary needs:

- Technical skills and understanding to work with contractors to complete synthesis and analysis products focused on economic and ecological value in the region, including examining opportunities for stakeholder input
- Expertise in government programs, regulatory practices, and management to identify region-wide and geographically-specific IJC opportunities and actions, including soliciting stakeholder input

With these needs identified, it was determined that a new workgroup focused on data synthesis, as proposed earlier in the day, could take on the mission of identifying data analyses and other decision support tools related to both ecological and economic factors. Meanwhile, the current IJC workgroup should continue, focusing on both region-wide and geographically-specific opportunities and actions. RPB members reflected that data gathering and synthesis should operate in parallel with IJC discussions, and that any analyses identified and pursued may inform both short-term and longer-term IJC actions and discussions. Some concern about workgroup fatigue was expressed, highlighting the need for the workgroups to maintain consistent lines of communication with one another to be most efficient.

The RPB then revisited the purpose and mission of the Regional Ocean Assessment (ROA). RPB members reflected on the ongoing challenge the ROA workgroup has faced in considering how to develop a helpful product for the RPB that is succinct but substantive in a reasonable timeframe. It was also noted that as presented, the ROA outline and example sections would result in a description of the Mid-Atlantic rather than an assessment. Throughout the meeting, some RPB members suggested that the ROA workgroup prioritize the population of certain topics in the current outline that have greatest potential to contribute to other RPB workflows.

The RPB then recommended a change of course for the ROA workflow. It was proposed that the ROA workgroup shift its focus to developing a concise white paper describing unique features of the Mid-Atlantic ocean and providing rationale for why ocean planning is important in the region. This white paper could help set the stage for the products of other workflows by outlining what the RPB seeks to accomplish through its planning process. RPB members recommended that the ROA group should put population of the outline presented on hold and focus attention on the white paper; additionally the ROA workgroup should potentially reassess its mission after completion of the white paper. Members recommended that the ROA workgroup take care to coordinate with other workgroups to ensure that the contents of the paper are not duplicative of other workgroup efforts.

Finally, the RPB discussed the potential content of the OAP, including whether the OAP should describe steps that could be taken to preserve ecologic and economic value and describe collaboration through IJC mechanisms, rather than describing actual commitments and actions. It was noted that the work plan to be developed in early 2015 to guide OAP development would describe those steps, and some RPB members expressed a sense of urgency to launch meaningful IJC discussions as soon as possible and to shift from a focus on process into substance. The group also discussed the importance of striving for achievability in drafting the

OAP, including prioritizing some short-term actions and analyses that are achievable before 2016, and identifying other actions and process steps to pursue in the longer term. With this approach, the RPB could demonstrate success in the short term while building architecture for a sustained effort that will become increasingly comprehensive through future OAP iterations. RPB members reflected on the importance of ensuring that the draft OAP in 2016 is well-developed and not rushed by the short timeframe, and stressed the importance of clearly communicating to the public what exactly is being developed, seeking input at key junctures, setting a realistic pace for OAP development, and managing expectations about what the OAP will and will not contain.

Following these discussions, Ms. Cantral commended the RPB on clarifying its sense of direction, and indicated that the public would have a final opportunity to provide comments to inform the RPB's thinking before the conclusion of the meeting.

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### **Public comment session: additional topics, including data and analysis tools, IJC, and RPB next steps**

During this session, members of the public were invited to offer public comment on any topic, but encouraged to tailor their comments to the topic currently being discussed by the RPB. Five individuals provided comments and the ideas presented are summarized as follows. The details of comments for the record can be found in the full meeting transcript, which can be found on the RPB [website](#). Comments focused on:

- *Stakeholder engagement:* It is critical for the RPB to involve stakeholders in the review of decision criteria for IJC opportunities and actions and to seek the perspectives of a range of ocean users to help inform any additional analyses conducted. Communities that may be affected by IJC actions should be included in discussions early on. The work some stakeholders have done to support the RPB was highlighted, and an offer of support moving forward was reiterated. More webinars were requested in the coming months, and it was suggested that a next round of public listening sessions could accompany the release of a draft OAP. Improved mechanisms for integrating traditional knowledge into the RPB's processes, particularly among the fishing community, were requested. Commenters emphasized the importance of meaningful engagement throughout OAP development, and particularly the importance of continuing to bring industry perspectives into the fold through the SLC and other mechanisms.
- *Additional analyses:* The RPB should ensure that any decisions emerging from analyses conducted are within the statutory authority of member entities. Support was expressed for further investigating the Ocean Health Index as a potential model for further analysis, and strong support was reiterated for identifying specific areas of ecological and/or economic importance to inform RPB decision making. Commenters also stressed

the importance of integrating any work into the Data Portal and leveraging the good information that it already contains.

- *Leverage existing work:* Commenters reiterated the importance of the RPB leveraging existing efforts on data gathering and issue identification, including the Mid-Atlantic Fishery Management Council strategic plan, ongoing academic research on a variety of marine species, and data that RPB member entities currently possess (e.g., NOAA's fisheries data).
- *Interjurisdictional coordination:* Support was expressed for the RPB proactively addressing IJC issues among member entities, and commenters indicated that anticipating and addressing regulatory issues early will help maintain the integrity of existing processes and improve their efficiency and effectiveness, which could prove helpful for some industries. A sense of urgency was expressed related to initiating IJC discussions as soon as possible with the intention of building a plan with concrete actions, not just descriptions of actions.

Following these comments, Ms. Cantral thanked the members of the public on behalf of the RPB for participating in the process and providing input to guide the RPB's consideration of the best mechanisms for meaningfully engaging stakeholders.

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### Identify any next steps still outstanding, and revisit timeline for 2015-2016

During this session, Ms. Cantral briefly reviewed next steps. These steps, including RPB reflections, included:

- The RPB will pursue the continuation and/or establishment of the three workgroups discussed at the meeting: interjurisdictional coordination, data synthesis, and the regional ocean assessment.
- RPB members will volunteer themselves and/or colleagues within their member entities with appropriate expertise to participate in each workgroup.
- The Co-Leads will work with Meridian to propose a mission for each workgroup that is reflective of RPB discussions, including:
  - *IJC:* identifying short- and long-term region-wide and geographically-specific opportunities and actions, using the working criteria discussed as touchstones
  - *Data synthesis:* reviewing existing methodologies for ecological and economic analyses the RPB could pursue and make a recommendation on one or more analyses to undertake to inform the development of the OAP in the short and longer terms

- ROA: in the near-term, crafting a white paper to describe what is important and special about the Mid-Atlantic ocean, including a rationale for regional ocean planning
  - The Co-Leads will develop a first draft work plan for RPB consideration, which will include proposed responsibilities for each workgroup, a timeline for OAP development, and other key steps to guide RPB work coming out of the meeting.
  - Once formed, all workgroups will reflect on the critical role stakeholder engagement will play in the activities of their respective workflows, and the RPB will consider how to deploy the right engagement mechanisms at the right moments to ensure that progress is informed by stakeholder input.
  - The ROA workgroup co-chairs will discuss the concept of drafting a white paper with the full workgroup, and will communicate with the RPB Co-Leads and full RPB in the coming weeks to work through any final points of clarification needed (e.g., length, level of detail, topics to be included). The workgroup will consider how to build on the work that has already been done in drafting the white paper, to the extent possible. The workgroup will reassess its mission after completion of the white paper and make recommendations on this matter to the full RPB.
- 

## Summary and adjourn

Ms. Cantral summarized major outcomes of the meeting, noting that significant progress had been made and the RPB had met its meeting objectives, including approval of the *Proposed Approach to the Mid-Atlantic Regional Ocean Action Plan*. She provided an overview of the three workflows discussed and thanked the RPB members and public for their active engagement throughout the meeting and commitment to building on their work to initiate development of a robust regional OAP. Following brief closing remarks by the Co-Leads, Ms. Cantral adjourned the meeting.



## Appendix A1

# Mid-Atlantic Regional Ocean Planning

*Mid-Atlantic Regional Planning Body Meeting*

January 21-22, 2015

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## Agenda

### Meeting Objectives

- Refine and approve a proposed approach for a Mid-Atlantic Regional Ocean Action Plan (OAP)
- Identify next steps to develop the OAP, including a work plan, a stakeholder engagement plan, and interjurisdictional coordination opportunities and actions
- Develop clear and detailed guidance for further development of the Regional Ocean Assessment (ROA)
- Share information about activities underway that are relevant for Mid-Atlantic regional ocean planning
- Receive public input on topics under consideration by the Mid-Atlantic Regional Planning Body

**Location:** Jacob K. Javits Federal Building at 26 Federal Plaza, 6<sup>th</sup> Floor  
Conference Room AB, New York, NY 10278

### Wednesday, January 21, 2015

**8:30 am**      **Registration**

**9:30 am**      **Welcoming remarks**

**9:45 am**      **Introductions and agenda review**

*Laura Cantral, Meridian Institute*

**10:15 am**      **Review of progress since last meeting and context setting**

- *Robert LaBelle, Federal RPB Co-Lead, Senior Advisor to the Director, Bureau of Ocean Energy Management, Department of the Interior*
- *Kelsey Leonard, Tribal RPB Co-Lead, Shinnecock Indian Nation*
- *Gwynne Schultz, State RPB Co-Lead, Senior Coastal and Ocean Policy Advisor, Maryland Department of Natural Resources*

During this session, RPB Co-Leads will present brief updates of progress since the last RPB meeting in May 2014 and describe the decisions to be made by the RPB at this meeting.

**10:30 am**     **Presentation and discussion: *Proposed Approach to the Mid-Atlantic Regional Ocean Action Plan***

- *Karen Chytalo, New York Department of Environmental Conservation, Ocean Action Plan Options Workgroup Co-Chair*
- *Robert LaBelle, Federal RPB Co-Lead, Bureau of Ocean Energy Management, Ocean Action Plan Options Workgroup Co-Chair*

This session will begin with a presentation of the *Proposed Approach to the Mid-Atlantic Regional Ocean Action Plan* and how the RPB created this approach from November 2014 through January 2015, as informed by public input. This will be followed by RPB discussion.

**11:15 am**     **Public comment session: *Proposed Approach to the Mid-Atlantic Regional Ocean Action Plan***

Interested members of the public will be provided an opportunity to offer public comment. They will be encouraged to focus their comments on the specific topics being discussed by the RPB at this point on the agenda (the *Proposed Approach to the Mid-Atlantic Regional Ocean Action Plan*) although they are welcome to address any topics they wish. Depending on how many individuals would like to comment, the time limit will be between 2-3 minutes. A sign-up list and instructions will be available at the meeting registration table.

**12:00 pm**     **Lunch**

Lunch options are available outside of the meeting venue for public participants.

*(12:30 pm is the cut-off to sign up for the 1:00 pm public comment session)*

**1:00 pm**     **Continue discussion: *Proposed Approach to the Mid-Atlantic Regional Ocean Action Plan***

This session is an opportunity for further discussion related to the OAP as informed by public input.

**1:45 pm**     **Presentation on New York ocean planning processes**

*Karen Chytalo, New York State Department of Environmental Conservation*

*Michael Snyder, New York State Department of State*

The objective of this session is to provide an update on New York State's ocean planning processes to help inform the RPB's thinking and discussions of the regional ocean action plan.

**2:15 pm Break**

**2:30 pm Updates from the Mid-Atlantic Regional Council on the Ocean (MARCO) on its stakeholder engagement activities**

- *Kris Ohleth, MARCO Executive Director*
- *Bob Wargo, North American Submarine Cable Association, Member of MARCO Stakeholder Liaison Committee*
- *John Harms, Port of New York and New Jersey, in collaboration with MARCO Stakeholder Liaison Committee*
- *Gwynne Schultz, State RPB Co-Lead, Maryland Department of Natural Resources, MARCO Management Board Chair*

This session will provide MARCO and representatives of the MARCO Stakeholder Liaison Committee an opportunity to update the RPB about MARCO's recent stakeholder engagement efforts, activities of the Stakeholder Liaison Committee, and potential future stakeholder engagement opportunities.

**3:00 pm Updates on Tribal engagement efforts**

- *Kelsey Leonard, Tribal RPB Co-Lead, Shinnecock Indian Nation*
- *Gwynne Schultz, State RPB Co-Lead, Maryland Department of Natural Resources, MARCO Management Board Chair*

This session will be an opportunity for the Tribal RPB Co-Lead and MARCO Management Board Chair to update the RPB about the status of tribal engagement in the Mid-Atlantic region.

*(3:45 pm is the cut-off to sign up for the 4:15 pm public comment session)*

**3:15 pm Presentation and discussion: Regional Ocean Assessment outline and example sections**

*Kevin Chu, National Oceanic and Atmospheric Administration, Regional Ocean Assessment Workgroup Co-Chair*

This session will begin with a presentation of the Regional Ocean Assessment (ROA) outline and example sections developed by the RPB as informed by public input. This will be followed by RPB discussion.

**4:15 pm      Public comment session: Regional Ocean Assessment outline and example sections**

Interested members of the public will be provided an opportunity to offer public comment. They will be encouraged to focus their comments on the specific topics being discussed by the RPB at this point on the agenda (the ROA outline and example sections) although they are welcome to address any topics they wish. Depending on how many individuals would like to comment, the time limit will be between 2-3 minutes. A sign-up list and instructions will be available at the meeting registration table.

**5:00 pm      Reflection on public comment and day 1 wrap-up**

The RPB will briefly reflect on public input during the previous comment session and any other points to conclude day 1.

**5:15 pm      Adjourn**

<b>Thursday, January 22, 2015</b>
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**8:30 am      Registration**

**9:00 am      Welcome back, summary day 1, agenda review day 2**

*Laura Cantral, Meridian Institute*

**9:15 am      Discussion, reflection on comments received, and approval of the *Approach to the Mid-Atlantic Regional Ocean Action Plan***

This session will be an opportunity for the RPB to discuss any outstanding topics related to the *Proposed Approach to the Mid-Atlantic Regional Ocean Action Plan*, including any final refinements, and approve the approach.

**10:00 am      Discussion, reflection on comments received, and refinement of ROA outline and example sections**

This session will be an opportunity for the RPB to discuss any outstanding topics related to the ROA materials and to discuss whether the RPB is comfortable with proceeding to populate the ROA as proposed.

**10:30 am      Break**

**10:45 am Panel and discussion: Data and analysis tools to support ocean planning going forward**

- *Nick Napoli, Northeast Regional Ocean Council*
- *Pat Halpin, Duke University*
- *Laura McKay, Virginia Coastal Zone Management Program*

This panel will discuss potential analyses and products that could support the work of the RPB going forward. This will be followed by RPB discussion.

**12:15 pm Lunch**

Lunch options are available outside of the meeting venue for public participants.

**1:15 pm Interjurisdictional coordination opportunities and next steps**

*Deerin Babb-Brott, SeaPlan*

Interjurisdictional coordination would be a key component of the proposed OAP approach. This session will begin with a presentation of the *Proposed Process, Criteria, and Examples of Potential Interjurisdictional Coordination Actions* document. This will be followed by RPB discussion of a proposed process and criteria for identifying interjurisdictional coordination (IJC) opportunities and actions, examples offered in the document, consideration of how potential data and analyses discussed earlier in the meeting could support IJC discussions, and ideas about IJC opportunities in the region.

**2:45 pm Discussion of next steps for RPB workflows**

During this session, the RPB would discuss next steps for key workflows needed to support development of the OAP in 2015-2016. These would include:

- 2:45 pm: Stakeholder engagement opportunities and next steps
- 3:15 pm: ROA process and timeline
- 3:30 pm: Moving ahead to develop the OAP

*(3:30 pm is the cut-off to sign up for the 4:00 pm public comment session)*

**3:45 pm Break**

- 4:00 pm**      **Public comment session: Additional topics, including data and analysis tools, IJC, and RPB next steps**  
Interested members of the public will be provided an opportunity to offer public comment. They will be encouraged to focus their comments on the specific topics being discussed by the RPB at this point on the agenda although they are welcome to address any topics they wish. Depending on how many individuals would like to comment, the time limit will be between 2-3 minutes. A sign-up list and instructions will be available at the meeting registration table.
- 4:45 pm**      **Identify any next steps still outstanding, and revisit timeline for 2015-2016**  
The RPB will wrap up the meeting by reflecting once more on the timeline for 2015-2016 and discussing any remaining next steps that have not yet been clarified.
- 5:15 pm**      **Summary**
- 5:30 pm**      **Adjourn**

# Mid-Atlantic Regional Planning Body

*Roster of Members and Alternates*

*February 2015*

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# Updated MidA RPB Timeline

## 2014 Accomplishments

- May RPB meeting: Framework goals and objectives approved
- Charter approved in September
- Developed options for OAP approach
- Developed ROA approach
- Held two rounds of public listening sessions

## 2015 Proposed Process Steps

- Approval of OAP approach
- Development and updates of work plan
- Workflows to develop OAP underway
- Two RPB meetings

## 2016 Proposed Process Steps

- Two RPB meetings
- Release of Draft OAP
- Release of Final OAP



**Late 2016:**  
**National  
Ocean  
Council  
certification  
of Mid-  
Atlantic  
Ocean Action  
Plan**



## 2017 and Beyond

- Implementation of Mid-Atlantic Ocean Action Plan
- Continued work to formalize IJC commitments
- Monitoring of implementation efforts and periodic updates

**Continuous:** Stakeholder Engagement, Data Collection/Sharing/Integration, and Refinement of Products and Processes

## Appendix A4

*Note to the reader: This document has been developed by the MidA RPB in response to careful consideration of verbal and written comments received by members of the public between October 24, 2014 and November 20, 2014 on the document entitled Mid-Atlantic Regional Ocean Action Plan Options. It is the intention of the MidA RPB to hear final public comments and approve the approach at the January 21-22, 2015 meeting in New York, New York.*

# Proposed Approach to the Mid-Atlantic Regional Ocean Action Plan

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## Introduction

The purpose of this document is to propose an approach to the Mid-Atlantic Regional Ocean Action Plan (OAP) for Mid-Atlantic Regional Planning Body (MidA RPB or RPB) deliberation and decision-making at its in-person meeting on January 21-22, 2015 in New York, New York. Appended to this document is a draft OAP outline that will also be discussed at the RPB meeting, although a decision about that draft outline is not being sought at this time. The MidA RPB expects the draft outline to be modified as work proceeds and the RPB learns more about the Mid-Atlantic ocean ecosystem, ocean uses, and various tools available for planning.

In May 2014, a MidA RPB internal workgroup was established to consider options for the type of OAP that would be practical for the region, enhance current ocean management, and satisfy the diverse interests of Mid-Atlantic ocean stakeholders. Five plan types (referred to as Options A-E) that fell across a spectrum of approaches ranging from process-oriented to geographically-oriented were considered. These options were released for public consideration and input in October 2014. Feedback received in written form and through a series of public listening sessions included support for various specific elements of the proposed draft options, development of a hybrid approach that can address both region-wide and geographically-specific opportunities, and further analysis of ecological and economic ocean resources of the Mid-Atlantic to inform planning and management. The RPB also heard concerns from stakeholders regarding the need to ensure RPB actions are appropriate and achievable under existing authorities and are identified and implemented with sufficient stakeholder input and support. Given this feedback, the workgroup combined the preferred ideas from each option into the approach proposed in this document.

By participating in the regional ocean planning process and working collaboratively to develop an OAP, MidA RPB member entities have agreed to: participate in the planning process; work collaboratively to develop an OAP; build on and complement existing programs, partnerships, and initiatives; and commit to following the plan to the extent that it is consistent with existing authorities. The purpose and mission of the RPB are further described in the *Charter for the Mid-*

*Atlantic Regional Planning Body*, available on the RPB website at <http://www.boem.gov/MidA-RPB-Charter/>.

It is important to remember that, in accordance with the [National Ocean Policy](#), “regional planning bodies are not regulatory bodies and have no independent legal authority to regulate or otherwise direct Federal, State, Tribal, or local government actions. All activities will continue to be regulated under existing authorities.”

## Proposed approach to the Mid-Atlantic Regional Ocean Action Plan

The proposed approach to the OAP would support the goals and objectives for Mid-Atlantic regional ocean planning set forth in the *Mid-Atlantic Regional Ocean Planning Framework* (Framework), available on the RPB website at [www.boem.gov/Mid-Atlantic-Regional-Ocean-Planning-Framework/](http://www.boem.gov/Mid-Atlantic-Regional-Ocean-Planning-Framework/). It would be grounded in existing data and analysis, as well as new data and analysis and stakeholder input. The MidA RPB is aiming to reach consensus on a first iteration OAP by the end of 2016.

Under the proposed OAP approach, the RPB would identify and implement interjurisdictional actions (i.e., agencies working more closely together across organizations). Enhanced coordination would increase information sharing, improve interagency coordination, and could inform more holistic and coherent decision making on a regional basis going forward. The actions would help MidA RPB member entities achieve Framework goals and objectives under existing authorities and practices. MidA RPB collaboration on these actions would be pursued through both a region-wide approach and, in some situations, within specific geographic areas as follows:

- *An initial limited number of region-wide interjurisdictional actions* would be pursued by addressing four basic categories of opportunities: (1) identifying research needs; (2) informing and improving management decisions; (3) improving information for environmental and regulatory review; and (4) leveraging resources. Region-wide actions would be identified in coordination with neighboring regions in recognition of the fact that human activities, marine life, and other key components of the marine system cross regional boundaries.
- *An initial limited number of specific geographic areas* would be identified that would benefit from enhanced information and interagency coordination to inform improved decision making. These areas should be selected because they can potentially demonstrate progress on region-wide interjurisdictional issues, and other criteria such as:
  - significant ecological value
  - socio-economic value
  - areas of high current or potential user conflict

As appropriate, the RPB would delineate the boundaries of these specific geographic areas and spatial information would enhance the RPB’s understanding of important characteristics of and activities in those areas. Specific potential interagency actions and

improvements to decision making processes would then be identified for those areas. These specific actions and process improvements would be identified based on the specific needs and characteristics of each area and would be informed by input from stakeholders.

In addressing both specific region-wide actions and geographies, the MidA RPB would:

- **Clarify criteria:** Document criteria and processes for choosing the initial region-wide interjurisdictional actions and specific geographic areas. For example, consideration should be given to the regional applicability of issues, breadth of RPB member entities affected, potential transferability of lessons to be learned, etc.
- **Analyze compatibility:** Strive to enhance compatibility among ocean uses and between uses and ecosystem health objectives. This may involve use of one or more types of compatibility assessment to inform decision making, and the OAP would potentially include commitments to use resulting products to inform decision making under existing authorities. The specific types of assessments and how information resulting from them would be used to inform decision making have yet to be determined.
- **Improve collective understanding:** Seek a better, shared understanding of the Mid-Atlantic ocean including human uses, natural resources, the ecosystem services the ocean provides, and important and sensitive habitats by clearly delineating and documenting those in a manner that stakeholders, ocean resource managers, and other decision makers can use to inform decision making going forward. The specific types of data and analysis and exactly how those would inform decision making have yet to be determined.

*Notes:*

- The process steps and timeline for identifying region-wide interjurisdictional coordination opportunities and actions and specific geographic areas, which would include stakeholder input, have not yet been determined. These will be reflected in a MidA RPB work plan in early 2015.
- In further iterations of the OAP, additional region-wide interjurisdictional coordination opportunities and actions and specific geographic areas would potentially be identified and included in the planning effort.

## Appendix: Draft Outline of Proposed Approach

*This appendix provides an illustration of how the structure of a plan might appear under the proposed approach and an annotated description of each possible section. **This outline will not be approved by the RPB at the January 21-22, 2015 meeting**, but rather will remain open to refinement over the course of 2015-2016, and the MidA RPB will continue to welcome public input on it. Each component of the outline can draw from and integrate with existing and ongoing data gathering and planning efforts, and would inform decision making under existing authorities. A complete draft of a first iteration OAP would be available for review by the end of 2016, and the OAP would be reviewed and updated periodically.*

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### Introduction to the OAP

The OAP would begin with brief framing and context describing the regional ocean planning process. This would include some description and explanation of how the RPB's work fits within the context of existing state and regional priorities, authorities, partnerships, and planning efforts.

### Mid-Atlantic Framework for Regional Ocean Planning

The goals and objectives established in the *Mid-Atlantic Framework for Regional Ocean Planning* (Framework) would be reiterated here.

### Regional Ocean Assessment

Regional Ocean Assessment (ROA) is an ongoing effort to compile best available information on ocean uses and resources in the Mid-Atlantic. The ROA would be a companion product to the OAP, and would live primarily in digital format and include narrative descriptions, summaries of key concepts, spatial data where applicable, and links to further information. It is structured according to the goals and objectives identified in the Framework and will be updated over time.

### Data Analyses and Decision Support Tools

To support the planning process, the MidA RPB will, pending resources, consider conducting additional analyses to understand areas of ecological importance, characterize the Mid-Atlantic marine economy, examine compatibility among resources and uses, etc. These kinds of additional analyses could improve understanding about the interactions between and among ocean uses and resources in the Mid-Atlantic, serve as a bridge between the ROA and OAP, and provide the RPB with information it needs to determine meaningful interjurisdictional coordination actions to improve management of ecological resources and economic activities. More information about potential analyses for consideration is provided in a separate document entitled [\*Potential Data Analyses and Decision Support Tools\*](#).

## **Interjurisdictional Coordination Opportunities and Actions**

This section would include:

- Narrative and spatial description of the region-wide interjurisdictional opportunities and actions and key geographies identified by the MidA RPB.
- Articulation of RPB member entity commitments to use the information in the OAP and Mid-Atlantic Ocean Data Portal (Data Portal) and improve business practices to address those region-wide actions and specific geographies.

RPB member entity commitments would focus on:

- Enhanced coordination among Federal, State, and Tribal entities.
- The use of existing and new data and information from the Data Portal and other sources (e.g., ROA and additional analyses) to achieve MidA RPB Framework goals and objectives under existing authorities.

Coordinated actions and use of information could address four basic categories of opportunities: (1) identifying research needs; (2) informing and improving management decisions; (3) improving information for environmental and regulatory review; and (4) leveraging resources.

More information about interjurisdictional coordination including a proposed process, criteria, and examples of potential interjurisdictional actions are presented in [\*Draft Process, Criteria, and Examples of Potential Interjurisdictional Coordination Actions\*](#), which is included in the meeting materials for the January 21-22, 2015 meeting.

## **Plan Updates**

This section would describe the process for updating the OAP periodically. The OAP would be reviewed and updates would be considered periodically with additional and/or refined information, new and/or refined region-wide actions and specific geographies, and commitments made in the OAP to address them. Major outcomes of various assessments and analyses would be reviewed and updates would be considered periodically, or as indicated by changed circumstances and data. Minor process and data improvements could be ongoing throughout implementation. The appropriate timeframe for updating the OAP would need to be determined.

## **Monitoring Strategy**

Progress made would be evaluated through the development of metrics and criteria agreed upon by the RPB. The monitoring strategy would be described in this section of the OAP.

## **Stakeholder Engagement Plan (possibly as appendix to OAP)**

A stakeholder engagement plan would be developed in early 2015, in conjunction with an RPB work plan, to guide meaningful stakeholder engagement throughout the development of the OAP in 2015 and 2016. In the OAP itself, ongoing key stakeholder engagement commitments

and opportunities would be articulated to show how the RPB plans to sustain stakeholder engagement throughout implementation.

**RPB Member Institution Capacities and Authorities (possibly as appendix to OAP)**

An additional appendix could include a description of the capacities and authorities of each RPB member entity.

**RPB Charter (possibly as appendix to OAP)**



## Appendix A5

**Memorandum to:** Mid-Atlantic Regional Planning Body (MidA RPB)

**From:** Sarah Cooksey (Delaware) and Kevin Chu (NOAA)  
Co-Chairs, Regional Ocean Assessment Work Group

**Date:** January 12, 2015

**Subject:** Decisions Requested re: Mid-Atlantic Regional Ocean Assessment

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The Mid-Atlantic Regional Ocean Assessment (ROA) is an ongoing effort to compile the best available information to support development of the Mid-Atlantic Regional Planning Body's (RPB) Ocean Action Plan (OAP). Building upon the goals and objectives in the [Mid-Atlantic Regional Ocean Planning Framework](#), the ROA will provide information about the baseline conditions, resources, and uses of the ocean. The ROA is not envisioned as an encyclopedia of information about the region. Rather, it will provide brief summaries of specific topics of interest, focusing on information that Federal, State and Tribal governments should be aware of when collaborating on ocean management.

### Outline

The proposed outline has been modified based on comments received from the RPB and during public listening sessions. This version includes more topics than the one reviewed in November.

The ROA Work Group (WG) seeks RPB approval to use this draft outline as the basis for further development of the ROA. **The adoption of this outline at this stage of drafting does not mean that the outline cannot be modified in the future.** As topics are identified for which the RPB needs information, the outline can be modified and information on new topics compiled and included.

### Decisions for the RPB:

1. Is the revised version of the outline sufficient to continue drafting other sections of the ROA?
2. Which topics would the RPB would like to see prioritized for development during the spring of 2015?

### Example Sections

To illustrate the information we envision including in the ROA, the WG is providing three example sections on Deep Sea Corals, Renewable Energy, and Panama Canal Expansion. Each example section follows a standardized format to address the complex and varied needs of the RPB in a concise and user-friendly way. These topics have been drafted by

Federal leads and reviewed by the WG, including Federal, State, and Tribal members. Nevertheless, we do not consider the content of these example sections to be complete because there has not yet been formal public, scientific or technical expert review of the contents. The WG recommends seeking input from the scientific community once additional ROA sections have been drafted.

**Decisions for the RPB:***Format and Content*

3. Is the level of information appropriate? (too detailed? not detailed enough?)
4. Is the scope of the information on each topic sufficient to inform the development of the OAP?

## ROA Outline

Major Sections (Goals/Objectives)	Sections	Topics	Sub-Headings/ Content
<b>SECTION I</b>			
Goal- Healthy Ocean Ecosystem: Promote ocean ecosystem health, functionality, and integrity through conservation, protection, enhancement, and restoration.			
<b>I.1 Biology &amp; Ecology</b>	<b>Introduction</b>		
	<b>Habitats</b>		
		<b>Benthic (sea floor)</b>	<i>Biogenic Habitats</i>
			<i>Hard Bottom</i>
			<i>Soft Bottom</i>
		<b>Pelagic (water column)</b>	<i>Coastal Bays</i>
			<i>Continental Shelf</i>
			<i>Deep Water</i>
	<b>Flora</b>		
		<b>Marine Algae</b>	
		<b>Plankton</b>	
		<b>Submerged Aquatic Vegetation</b>	
	<b>Invertebrates</b>		
		<b>Crustaceans</b>	<i>e.g. Blue Crab, American Lobster, Jonas Crab, Red Crab, other species TBD</i>
		<b>Jellyfish &amp; Comb Jellies</b>	
		<b>Marine Worms</b>	
		<b>Mollusks</b>	<i>e.g. Surf Clams &amp; Ocean Quahogs, Oysters, Sea Scallops, Bay Scallops, Squids, other species TBD</i>
		<b>Sea Stars, Sea Urchins &amp; Sea Cucumbers</b>	
		<b>Sponges, Anemones &amp; Corals</b>	<i>e.g. Deep Sea Corals, other species TBD</i>
		<b>Zooplankton Community</b>	
	<b>Vertebrates</b>		
		<b>Bony Fishes</b>	<i>Demersal: e.g. Sand lance, Summer Flounder, Black Sea Bass, other species TBD</i>
			<i>Diadromous: e.g. River Herring, Sturgeons, other species TBD</i>
	<i>Large Pelagic Species: e.g. Marlins, Tunas, other species TBD</i>		
	<i>Small Pelagic Species: e.g. Menhaden, Butterfish, other species TBD</i>		
	<b>Sharks &amp; Rays</b>	<i>e.g. Spiny Dogfish, White Sharks, other species TBD</i>	
	<b>Birds</b>	<i>Seabirds, e.g. Gulls, Shearwaters, Gannets, other species TBD</i>	

Major Sections (Goals/Objectives)	Sections	Topics	Sub-Headings/ Content
<b>I.1 Biology &amp; Ecology (cont.)</b>	<b>Vertebrates (cont.)</b>	<b>Birds (cont.)</b>	<i>Shorebirds, e.g. Plovers, Sandpipers, Phalaropes, other species TBD</i>
		<b>Mammals</b>	<i>Toothed Whales &amp; Dolphins: e.g. Sperm Whales, Bottlenose Dolphins, other species TBD</i>
			<i>Baleen Whales, e.g. Northern Right Whale, Humpback Whale, other species TBD</i>
		<b>Sea Turtles</b>	<i>Seals</i>
<b>I.2 The Ocean Environment</b>	<b>Introduction</b>		
	<b>Natural Conditions and Actions</b>		
		<b>Currents</b>	
		<b>Erosion &amp; Longshore Transport</b>	
		<b>Upwelling</b>	
		<b>Water Chemistry</b>	
		<b>Wind</b>	
	<b>Physical Features</b>		
		<b>Barrier Islands</b>	
		<b>Beaches</b>	
		<b>Harbors</b>	
		<b>Under-sea sand waves</b>	
		<b>Shelf-slope Break, Submarine Canyons</b>	
		<b>Continental Shelf</b>	
<b>Deep Water</b>			
<b>Reefs</b>			
<b>I.3 Emerging Issues</b>	<b>Introduction</b>		
		<b>Carbon Sequestration &amp; Ocean Acidification</b>	
		<b>Ocean Warming</b>	
		<b>Coastal Inundation</b>	
		<b>Sea Level Change</b>	
		<b>Water Quality</b>	
<b>Invasive Species</b>			

Major Sections (Goals/Objectives)	Sections	Topics
<b>SECTION II</b>		
Goal - Sustainable Ocean Uses: Plan and provide for existing and emerging ocean uses in a sustainable manner that minimizes conflicts, improves effectiveness and regulatory predictability, and supports economic growth.		
<b>II.1 National Security</b>		
<b>II.2 Ocean Energy</b>	Conventional Energy	<i>e.g. Oil &amp; Gas Leasing, Geological &amp; Geophysical Surveys</i>
	Renewable Energy	<i>e.g. Offshore Wind Energy Resources</i>
<b>II.3 Fishing</b>	Commercial	
	Fishing for Sustenance	
	Recreational	
<b>II.4 Ocean Aquaculture</b>		
<b>II.5 Marine Commerce &amp; Navigation</b>	Maritime Traffic Analysis	
	Panama Canal Expansion	
	Post-Panamax Port Issues	
	Proposed Anchorage Areas	
	Shipping (Mid-Atlantic Ports)	
	Short-Sea-Shipping and Marine Highways	
	LNG as an Import & Export	
<b>II.6 Offshore Sand Management</b>		
<b>II.7 Non-consumptive Recreation</b>		
<b>II.8 Tribal Uses</b>	Aquaculture	
	Canoe Journey Routes	
	Climate Change	
	Conservation Resource Management	
	Fishing	
	Heritage Sites	
	Submerged Cultural Resources	
	Subsistence Issues	
	Traditional Navigation Routes	
	Whales	
<b>II.9 Undersea Infrastructure</b>	Current Undersea Infrastructure	
	Foreseeable Future Infrastructure	

## Mid-Atlantic Regional Ocean Assessment Example Sections

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<i>Panama Canal Expansion</i> .....	23

## Deep Sea Corals

**Authors:** David Stevenson (NOAA) and Kiley Dancy (MAFMC), **Contributors:** Kevin Chu (NOAA)



### Introduction

As their name implies, deep sea corals are unlike the shallow, reef-forming corals that require warm water and sunlight. Deep sea corals inhabit deep, cold water environments. Although some species also grow in shallower water on the Mid-Atlantic shelf (some as shallow as intertidal), most of them are found on the Outer Continental Shelf (OCS) and slope. Overall, scientists have discovered more species of deep sea corals (also known as cold-water corals) as shallow-water species throughout the world. Most species grow on rocky substrates and are particularly abundant in submarine canyons that cut into the outer shelf and slope.

Deep sea corals grow very slowly and live for hundreds and sometimes thousands of years. They provide refuge for many other species, thereby increasing the productivity of the environment. Due to the depths where these corals occur and the significant resource investment required to study them, there is still much to be discovered regarding the biology, interactions with other species and intersections with natural events and human activities.

One of the objectives of the Mid-Atlantic Regional Council on the Ocean (MARCO) is to coordinate among its members the protection of important marine habitats, including sensitive and unique offshore areas such as corals and canyons (<http://midatlanticocean.org/shared-regional-priorities/marine-habitats>).

*For more information, see the following:*

- The NOAA's National Marine Fisheries Service, Habitat Conservation provides an array of information on Deep Sea Corals and their habitat requirements, including sensitive and unique offshore locations such as coral canyons: [http://www.habitat.noaa.gov/about/habitat/deep\\_sea\\_corals.html](http://www.habitat.noaa.gov/about/habitat/deep_sea_corals.html).
  - The Smithsonian Institution's Ocean Portal has a good introduction to deep sea corals at: <http://ocean.si.edu/deep-sea-corals>.
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## Economic, Social and/or Cultural Importance Considerations

There is inherent cultural and ecological value in conserving corals in isolated deep sea environments. They are long-lived and grow slowly, making them particularly susceptible to stress or damage since their recovery timeframe is extremely slow. They provide an oasis for marine fish and invertebrates at depths with otherwise limited habitat substrates. They are especially vulnerable to any disturbances that affect the ocean bottom (e.g. contact with fishing gear, oil and gas drilling, cable laying activities, etc.). Conservation of deep sea corals and their habitats is a growing area of international attention as human activities extend into deeper waters.

*For more information, see the following:*

- For more information about deep sea corals and relevant policy considerations in the United States National Ocean Policy Implementation Plan (2013)  
[http://www.whitehouse.gov/sites/default/files/national\\_ocean\\_policy\\_implementation\\_plan.pdf](http://www.whitehouse.gov/sites/default/files/national_ocean_policy_implementation_plan.pdf)

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## Current Status and Trends/Indicators

*Current Status:*

Within the Mid-Atlantic region, research about deep sea corals, including known and predicted (based on scientific models) locations in the Mid-Atlantic, has been conducted and is still ongoing (NOAA,

<http://oceanexplorer.noaa.gov/oceanos/explorations/ex1404/dailyupdates/dailyupdates.html>;

BOEM, <http://www.boem.gov/Curriculum-Lophelia-II/>).

*Trends:*

Due to the technical and financial challenges to studying the deep ocean, it is difficult to assess trends in deep sea coral populations. What is known is that many deep-sea corals grow extremely slowly and that they are damaged by human activities. Once damaged, the corals and the communities they support may take centuries to recover.

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## Identification of Gaps and Ongoing Studies

*Gaps:*

More research is necessary to understand the biology of deep sea corals, ecological connections and their sensitivity to human activities, including:



- Improving scientific knowledge regarding the distribution and abundance of deep-sea corals in the Mid-Atlantic region and the ecosystem services they provide for other organisms,
- Identifying and monitoring activities on the OCS and slope that could potentially be harmful to deep-sea corals and their habitats, and
- Identifying areas and fishing gear restrictions that can improve protection for deep-sea corals and their habitats while having acceptable impacts on existing fishing activities.

#### *Ongoing Studies:*

The US Government has funded research on deep sea corals since at least the 1970's and 1980's. Research in the Northeast is continuing through 2015. (NOAA, [http://coralreef.noaa.gov/deepseacorals/noasrole/research\\_technology/](http://coralreef.noaa.gov/deepseacorals/noasrole/research_technology/) and [http://coastalscience.noaa.gov/research/scem/coral/deep\\_coral](http://coastalscience.noaa.gov/research/scem/coral/deep_coral))

#### *For more information, see the following:*

- From 2013-2015, NOAA's Deep Sea Coral Research and Technology Program is coordinating field research in the northeast region. NOAA's research activities are being done in partnership with the NOAA's Northeast Fisheries Science Center, its Office of Exploration and Research, NOAA's National Center for Coastal Ocean Science, and a number of academic colleagues:  
<http://oceanexplorer.noaa.gov/oceanos/explorations/acumen12/welcome.html>  
<http://oceanexplorer.noaa.gov/explorations/13midatlantic/background/background.html>  
<http://oceanexplorer.noaa.gov/oceanos/explorations/ex1404/dailyupdates/dailyupdates.html>.
- NOAA has developed a strategic plan for deep sea coral conservation:  
[http://static.squarespace.com/static/511cdc7fe4b00307a2628ac6/t/51784380e4b01256f21cc732/1366836096652/noaa\\_dsc\\_strategicplan.pdf](http://static.squarespace.com/static/511cdc7fe4b00307a2628ac6/t/51784380e4b01256f21cc732/1366836096652/noaa_dsc_strategicplan.pdf)
- From 2011-2013, BOEM conducted multiple research cruises to the Norfolk and Baltimore canyons. BOEM, Environmental Studies Program: Ongoing Studies; Gregory Boland:  
<http://oceanexplorer.noaa.gov/explorations/12midatlantic/welcome.html>  
<http://oceanexplorer.noaa.gov/explorations/13midatlantic/welcome.html>  
<http://oceanexplorer.noaa.gov/explorations/13landerrecovery/welcome.html>

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## **Intersections with other ROA Topics**

Corals may be impacted by fishing activities, undersea cables, offshore oil drilling, and any other activities that affect the ocean floor on the OCS and slope. They may be affected by sediments from human activities. In addition, coral growth may be compromised by ocean acidification.

At this time, area-based restrictions on bottom trawling are in place in portions of four offshore canyon, three in the area managed by the New England Fishery Management Council (FMC) and one (Norfolk Canyon) in the southern end of the region. These gear restricted areas were created to manage squid trawling on bottom habitats used by federally-managed demersal fish species and to protect hard clay outcrops used by tilefish to make burrows. They also indirectly benefit deep sea corals by protecting their habitats from disturbance.

*For more information, see the following:*

- The Mid-Atlantic and New England FMC's are currently developing measures to protect deep sea corals from fishing gear that could damage corals or their habitats on the OCS and slope between North Carolina and Georges Bank:  
<http://www.mafmc.org/actions/msb/am16>.
- Observations of deep sea corals and their habitats made during these cruises are being used by the Mid-Atlantic FMC to develop area-specific deep-sea coral management measures. Area-based management proposals are also based on the results of a predictive model and bathymetric data that highlight areas of high habitat suitability (<http://www.habitat.noaa.gov/pdf/blueprintinitiatives.pdf>).

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## Maps relevant to the Activities & Resources

### *a. Societal Uses and Activities: current & planned*

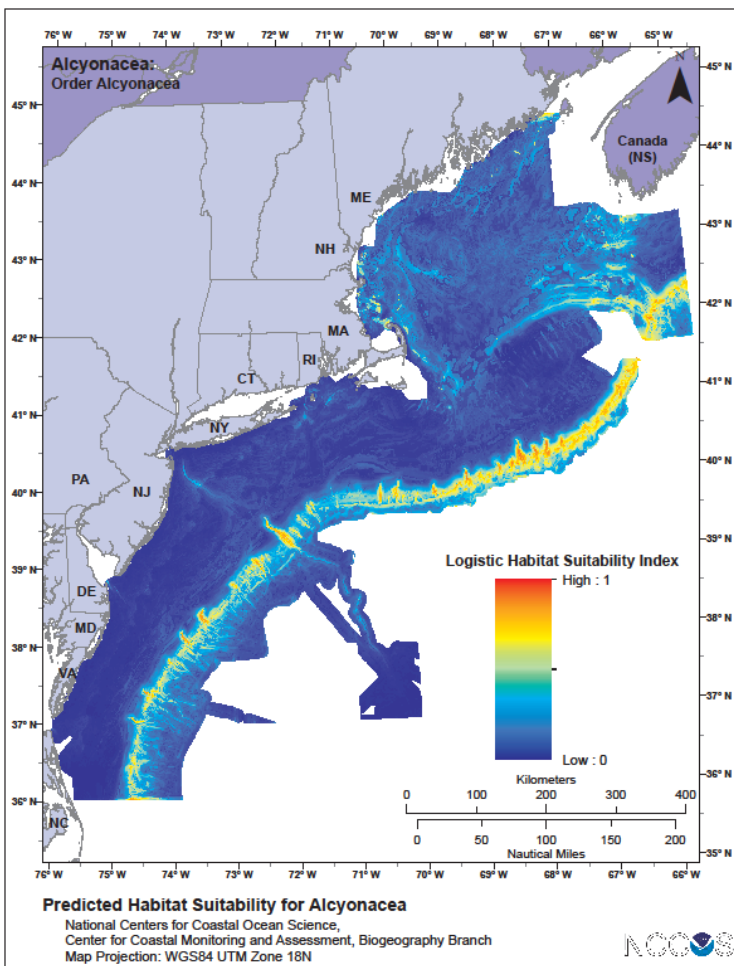
*TBD, if applicable*

### *b. Resource distribution and abundance*

- The Mid-Atlantic Ocean Data Portal includes coral point data linked to detailed survey records and the Alcyonacea coral family predictive model illustrated below:  
<http://portal.midatlanticocean.org/learn/conservation>
- A summary of research and an extensive collection of maps showing known and modeled coral distribution along the Mid-Atlantic shelf slope break and within submarine canyons is found within this document: Mid-Atlantic Fishery Management Council (Aug 2014): Measures to Protect Deep Sea Corals from Impacts of Fishing Gear (DRAFT)  
[http://static.squarespace.com/static/511cdc7fe4b00307a2628ac6/t/53e4cacde4b09a46dcc9afb/1407503053985/Corals%20PID\\_August%202014.pdf](http://static.squarespace.com/static/511cdc7fe4b00307a2628ac6/t/53e4cacde4b09a46dcc9afb/1407503053985/Corals%20PID_August%202014.pdf)

### *c. Areas of Interest*

*TBD, if applicable*



Predicted areas in the Mid-Atlantic and northeast where species of the coral family Alcyonacea may be found. (Source: NOAA)

## References

### *a. Peer reviewed or government documents*

*Under Construction*

### *b. Other sources of information, including grey literature*

*Under Construction*

## Key Words

Deep sea corals, outer continental shelf, fishing, submarine canyons, undersea cables, ocean acidification

## Renewable Energy

*Authors: Michelle Morin (BOEM) and Mary Boatman (BOEM)*

### Introduction

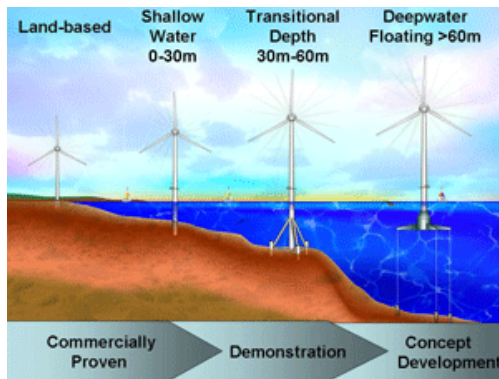
Ocean renewables could play a significant role diversifying our nation's energy portfolio. There is the potential to harness energy from offshore wind, waves, tides and currents.

### *Offshore Wind Energy*

Wind energy has been used by humans for more than two thousand years. For example, windmills were often used by farmers and ranchers for pumping water or grinding grain. In modern times, wind energy is mainly used to generate electricity, primarily through the use of wind turbines. All wind turbines operate in the same basic manner. As the wind blows, it flows over the airfoil-shaped blades of wind turbines, causing the turbine blades to spin. The blades are connected to a drive shaft that turns an electric generator to produce electricity.

The nacelle is a shell that encloses the gearbox, generator, and blade hub (generally a three-bladed rotor connected through the drive train to the generator) and the remaining electronic components. Once the turbine is operational, wind sensors connected to a yaw drive system turn the nacelle to face into the wind, maximizing the amount of electricity produced.

While the tower, turbine, and blades of offshore turbines are generally similar to onshore turbines, the substructure and foundation systems that support the tower and nacelle differ considerably (see figure below). Their foundations must be designed to withstand the harsh environment of the ocean, including storm waves and hurricane-force winds. The most common substructure type is the monopile—a large steel tube with a diameter of up to 20 feet. Monopiles are typically used in water depths up to 100 feet (30 meters). The piles are driven into the seabed at depths of 80 to 100 feet below the mud line, ensuring the structure is stable. A transition piece protrudes above the waterline, which provides a level flange to fasten the tower. In even shallower environments with firm seabed substrates, gravity-based systems can be used, which avoids the need to use a large pile-driving hammer. Tripods and jackets foundations have been deployed in areas where the water depth starts to exceed the practical limit for monopiles.



Source: National Renewable Energy Laboratory (NREL) 2014

All of the power generated by the wind turbines needs to be transmitted to shore and connected to the power grid. Each turbine is connected to an electric service platform (ESP) by a power cable (BOEM, 2014a). The ESP is typically located somewhere within the turbine array, and it serves as a common electrical collection point for all the wind turbines and as a substation. In addition, ESP's can be outfitted to function as a central service facility, and may include a helicopter landing pad, communications station, crew quarters, and emergency backup equipment. After collecting the power from the wind turbines, high voltage cables running from the ESP transmit the power to an onshore substation, where the power is integrated into the grid. The cables used for these projects are typically buried beneath the seabed. Cables are buried to avoid or minimize impacts from anchoring and fishing gear, and also for heat dissipation. The typical burial depths are 1 to 2 meters. Where minimal burial depth isn't possible, cable protection measures would be used, such as concrete mattresses, rock armoring, and articulated pipe or ducting. Cables could become exposed with time, especially in areas with mobile sediments.

Offshore wind turbines are being used by a number of countries to harness the energy of strong, consistent winds that are found over the oceans. The first offshore wind project was installed off the coast of Denmark in 1991, and wind turbines have been installed offshore a number of countries, mostly in Europe, to harness the energy of the moving air over the oceans and convert it to electricity. Wind resource potential is typically given in gigawatts (GW), and 1 GW of wind power could supply between 225,000 to 300,000 average U.S. homes with power annually (BOEM, 2014a). The Department of Energy (DOE) estimates a gross wind power resource of over 4,000 GW off the coast of the United States (Lopez et al., 2012, Table 7). For comparison, 4,000 GW is over four times the generating capacity of the current U.S. electric grid (EIA, 2013).

For more information, see the following:

- DOE's "How does a wind turbine work?" <http://energy.gov/eere/wind/how-does-wind-turbine-work>
- NREL's "Wind Energy Basics: How Wind Turbines Work" [http://www.nrel.gov/learning/re\\_wind.html](http://www.nrel.gov/learning/re_wind.html)

- DOE's "Wind Resource Assessment and Characterization"  
<http://energy.gov/eere/wind/wind-resource-assessment-and-characterization>.

### *Offshore Hydrokinetic*

Marine hydrokinetic (MHK) energy technologies convert the energy of waves, tides, and currents into electricity. This is an emerging industry with hundreds of potentially viable technologies (DOE, 2015). Test and pilot projects are being planned and deployed to evaluate the technical and economic viability of MHK energy production. A commercial-scale facility on the Mid Atlantic Outer Continental Shelf (OCS) is not anticipated in the foreseeable future and therefore, not discussed further in this document.

*For more information, see the following:*

- DOE: <http://energy.gov/eere/water/marine-and-hydrokinetic-energy-research-development>;
- BOEM: <http://www.boem.gov/Renewable-Energy/>; and
- Open Energy Information:  
[http://en.openei.org/wiki/Marine and Hydrokinetic Technology Database](http://en.openei.org/wiki/Marine_and_Hydrokinetic_Technology_Database)

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## **Economic, Social and/or Cultural Importance Considerations**

Renewable energy development has cross-cutting economic, social and cultural implications for the Mid-Atlantic region. Renewable energy projects would also support three goals of the President's All-of-the-Above energy strategy: 1) to support economic growth and job creation; 2) enhance energy security; and 3) deploy low-carbon energy technologies and lay the foundation for a clean energy future (Executive Office of the President of the United States, 2014).

*For more information, see the following:*

- U.S. Report- The All-of-the-Above Energy Strategy as a Path to Sustainable Economic Growth: <http://www.whitehouse.gov/blog/2014/05/29/new-report-all-above-energy-strategy-path-sustainable-economic-growth>.

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## **Current Status and Trends/Indicators**

### *Offshore Wind Energy*

*Current Status:*

Wind speeds off the Atlantic Coast are lower than wind speeds off the Pacific Coast. However, the presence of shallower waters in the Atlantic could potentially make development and siting more economically feasible. Offshore winds also tend to blow harder and more uniformly than on land. The DOE provides a number of maps showing average wind speed data through its

Resource Assessment and Characterization studies (DOE, 2014; <http://energy.gov/eere/wind/wind-resource-assessment-and-characterization>). The NREL estimates a gross wind power resource of 4,200 GW off the coast of the United States (Lopez et al., 2012).

While the United States does not have any operational offshore projects, there are multiple projects in the planning and leasing stages. Within Federal waters, BOEM has the authority to issue leases, easements, and rights-of-way on the outer coastal shelf for the purpose of renewable energy development (BOEM, 2014b; <http://www.boem.gov/Renewable-Energy>). Currently, within the Mid-Atlantic and beyond, BOEM has leased areas for commercial development of wind energy off the shores of Delaware, Maryland, Virginia, North Carolina, Rhode Island, and Massachusetts. BOEM is in the process of leasing areas offshore New Jersey, New York, North Carolina, and additional areas offshore Massachusetts, and is considering research lease requests and proposals off the shores of Virginia and Oregon (BOEM, 2014c; <http://www.boem.gov/Renewable-Energy-State-Activities>).

After execution of a commercial lease, the lessee has five years to conduct site assessment activities (install and operate meteorological towers and buoys) and submit a Construction and Operations Plan (COP). To date, no plans for commercial-scale development have been submitted for the Mid-Atlantic.

Within state waters, the U.S. Army Corps of Engineers (USACE) has the lead for permitting renewable energy facilities. Along the Mid-Atlantic coast, one small-scale wind project is fully permitted in state waters. On June 14, 2012, the USACE issued a permit to Fishermen's Energy of New Jersey, LLC to install five 5-megawatt wind turbines approximately three miles off the coast of Atlantic City, New Jersey (Fishermen, 2014; <http://www.fishermensenergy.com/atlantic-city-windfarm.php>).

#### *Trends:*

The DOE's report '2014 Offshore Wind Market and Economic Analysis' states "Globally, offshore wind projects continue to trend farther from shore into increasingly deeper waters; parallel increases in turbine sizes and hub heights are contributing to higher reported capacity factors" (Navigant Consulting, Inc. 2014). Approximately 90% of the U.S. outer continental shelf wind energy occurs in waters that are too deep for current turbine technology. New technologies, such as innovative foundations and floating wind turbines, will help transition wind power development into the harsher conditions associated with deeper waters. The trend toward taller towers and larger blades is likely to resume, as the newly announced 7 megawatt turbines and larger machines reach commercial deployment in the next few years (Navigant Consulting, Inc., 2014).

To take advantage of steadier winds, offshore turbines are bigger than onshore turbines. More recently constructed offshore wind facilities globally have hub heights up to approximately 100 meters (328 feet) and rotor diameters of up to approximately 130 meters (427 feet) (Navigant

Consulting, Inc., 2014). The average turbine size for projects in the United States is expected to utilize larger offshore turbines (between 5.0 and 5.3 megawatts) compared to the turbines that have previously been installed in European waters (Navigant Consulting, Inc., 2014). The USACE recently approved the construction of five 6-MW turbines off the coast of Block Island, Rhode Island

([http://www.army.mil/article/133452/Deepwater Wind s permit signed to construct five wind turbines off Block Island coast/](http://www.army.mil/article/133452/Deepwater_Wind_s_permit_signed_to_construct_five_wind_turbines_off_Block_Island_coast/)) while BOEM is currently considering a plan for two test 6 MW turbines offshore Virginia (<http://www.boem.gov/VOWTAP/>). The maximum height of structures offshore the United States, at the very tips of the blades, would easily surpass 500 feet (150 m.).

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## Identification of Gaps and Ongoing Studies

### *Offshore Wind Energy*

#### *Gaps:*

Since no wind turbines are installed in U.S. waters, there is a shortage of critical data on the environmental and siting effects of turbines and on the installation, operations, and maintenance of these turbines. This lack of data drives up the costs of financing offshore wind projects to the point where financing charges account for approximately half of the cost of offshore wind energy (DOE, 2011).

#### *Ongoing Studies:*

To address information gaps, research is occurring nationwide to develop and deploy offshore wind technologies that can capture wind resources off the coasts of the United States and convert wind into electricity (DOE's Offshore Wind Research and Development Program; <http://energy.gov/eere/wind/offshore-wind-research-and-development>). In a July 2012 Technical Report (Lopez et al., 2012), NREL estimates a gross wind power resource of 4,200 GW off the coast of the United States. One GW of wind power will supply between 225,000 to 300,000 (on average) U.S. homes with power annually (BOEM, 2014a).

In addition, multiple studies have been conducted and more are ongoing to evaluate the potential impacts of renewable energy development (BOEM 2014d: <http://www.boem.gov/Renewable-Energy-Environmental-Studies>). Workshops have been conducted to identify data gaps and to evaluate other European renewable energy projects and marine spatial planning methodologies (Michel and Burkhard, 2007, CSA International, Inc., 2011; <http://www.boem.gov/Renewable-Energy-Completed-Studies/#Synthesis>).

With stakeholder input, national and regional guidelines are being developed for site characterization studies (BOEM, 2014e; <http://www.boem.gov/National-and-Regional-Guidelines-for-Renewable-Energy-Activities>). These studies will be used to evaluate the impact of proposed renewable energy activities on physical, biological, and socioeconomic resources, in



addition to evaluating the seafloor and sub-seafloor conditions potentially affected by the construction, installation, and operation of meteorological towers, buoys, cables, wind turbines, and supporting structures. Information submitted will be used by Federal and State agencies for consultations, the preparation of National Environmental Policy Act (NEPA) documents, and other regulatory requirements.

*For more information, see the following:*

- BOEM hosted two workshops to identify data needs related to offshore renewable energy development.
    - *'Workshop to Identify Alternative Energy Environmental Information Needs'* (Michel and Burkhard, 2007),
    - *'Atlantic Wind Energy Workshop'* (CSA International, Inc., 2011) and,
    - *'Offshore Wind Energy Development Site Assessment and Characterization: Evaluation of the Current Status of European Experience'* (Rein et al., 2013).
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## **Intersections with other ROA Topics**

A primary concern in the Mid-Atlantic region is multiple use conflicts: for example, between renewable energy projects and marine transportation, fishing, and military activities. BOEM works with interested and affected Federal, State, local and Tribal governments through Intergovernmental Task Forces. Task Forces have been initiated in the following Mid-Atlantic region states: New York, New Jersey, Delaware, Maryland, and Virginia (<http://www.boem.gov/BOEM-Stakeholder-Engagement/>). The role of each Task Force is to collect and share relevant information, identify areas of significant promise for offshore development, and provide early identification of, and steps toward resolving, potential conflicts.

With respect to offshore wind energy, BOEM has sought input from the fishing industries and management agencies, in order to identify issues, foster dialogue and develop recommendations for best management practices (Farrell et al., 2014; <http://www.boem.gov/Fishing-Offshore-Wind-Mitigation-Measures-Development-Workshops>). For example, after collecting the power from the wind turbines, high voltage cables running from the ESP transmit the power to an onshore substation, where the power is integrated into the grid. The cables used for these projects are typically buried beneath the seabed, to protect the cables from ocean bottom disturbance activities (such as fishing gear, anchors, etc.) and to reduce their exposure to the marine environment. These types of cables are expensive and the amount of cable used depends on many factors, including how far offshore the project is located, the spacing between turbines, the presence of obstacles that require cables to be routed in certain directions, and other considerations.

Environmental considerations are also a key component in siting and assessing renewable energy activities. In 2007, BOEM published the Final Programmatic Environmental Impact

Statement (EIS) for Alternative Energy Development and Production and Alternate Use of Facilities on the Outer Continental Shelf (Programmatic EIS, MMS 2007, <http://www.boem.gov/Renewable-Energy-Program/Regulatory-Information/Guide-To-EIS.aspx>). This document examines the potential environmental impacts related to renewable energy development on the OCS for each phase of development (technology testing, site characterization, construction, operation, and decommissioning). Actual proposals will include project-specific analyses under the National Environmental Policy Act.

### *Offshore Wind Energy*

For example, Chapter 7.6.2 of the Programmatic EIS discusses generic cumulative impacts associated with offshore renewable energy on environmental and socioeconomic resources (MMS, 2007). In general, most impacts would be negligible to moderate for all phases of wind energy development assuming that proper siting and mitigation measures are followed.

Vessel activity on the outer continental shelf related to a wind facility is relatively low, with only a few support vessels in operation at any one time during the highest activity period (construction). Potential impacts during the construction phase are the highest, because this phase involves the highest amount of vessel traffic, noise generation, and air emissions. There is a potential for major impacts to some threatened and endangered species of marine mammals, birds, or sea turtles from vessel or turbine strikes, disturbance of nesting areas, alteration of key habitat, or low-probability large spills of fuel or lubricating oil or dielectric fluids, because population-level impacts are possible from injury or death of individual females if population numbers are critically low.

Compliance with the regulations and coordination with appropriate wildlife protection agencies would ensure that project activities would be conducted in a manner that would greatly minimize or avoid impacting these species or their habitats. Moderate impacts to fish and fisheries could occur due to the establishment of exclusion zones within wind energy facilities. Potential visual impacts can be mitigated through several means, especially siting facilities away from sensitive areas.

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## **Maps relevant to the Activities & Resources**

### *a. Societal Uses and Activities: current & planned*

*TBD, if applicable*

### *b. Resource distribution and abundance*

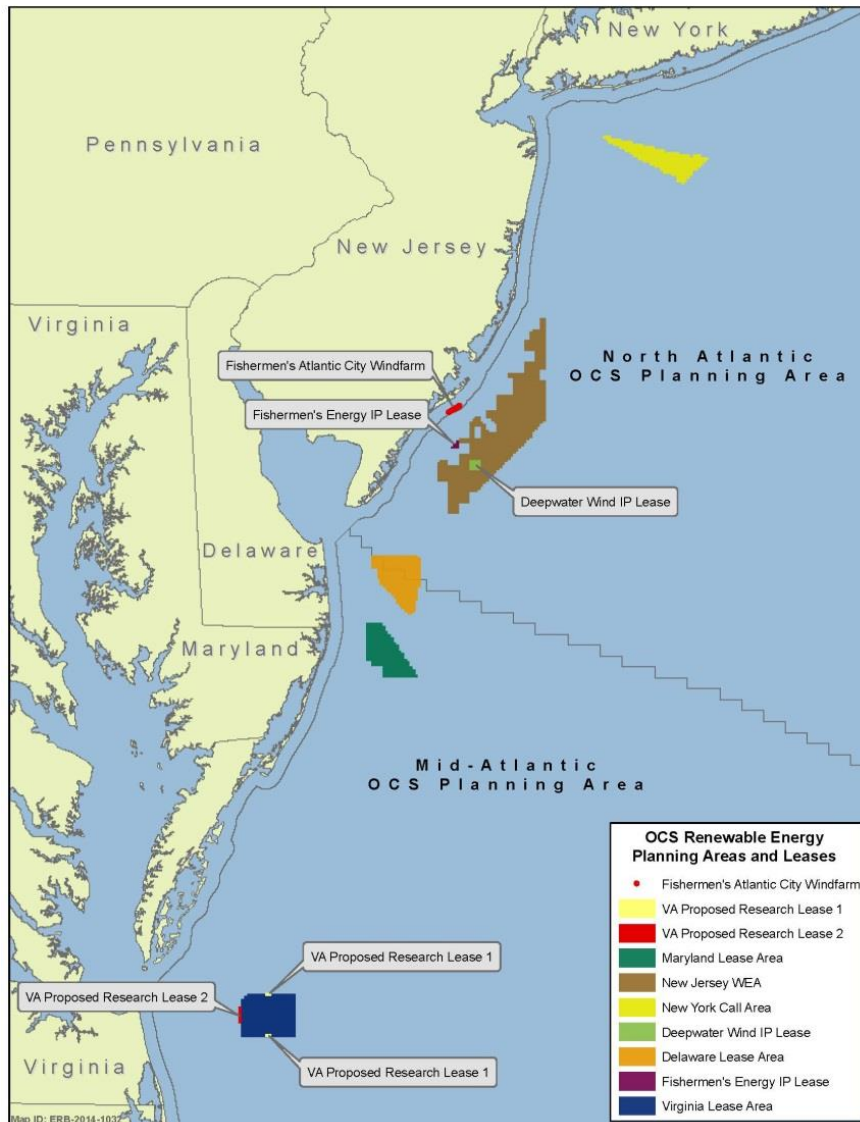
- The Mid-Atlantic Ocean Data Portal includes a map layer showing annual estimated average wind speeds categorized by their value at a height of 90 meters above the surface. The data were created by the National Renewable Energy Laboratory (NREL) and AWS Truepower. <http://portal.midatlanticocean.org/learn/energy>

### *c. Areas of Interest*

- The Mid-Atlantic Ocean Data Portal includes map layers showing BOEM wind power planning and lease areas and additional map layers including a Department of Defense compatibility layer with site specific stipulations.

<http://portal.midatlanticocean.org/learn/energy>

**By State, maps of offshore renewable energy activities:**



Source: BOEM

- New York:  
[http://www.boem.gov/uploadedImages/BOEM/Renewable\\_Energy\\_Program/State\\_Activities/ny\\_mapL.jpg](http://www.boem.gov/uploadedImages/BOEM/Renewable_Energy_Program/State_Activities/ny_mapL.jpg)
- New Jersey:  
[http://www.boem.gov/uploadedImages/BOEM/Renewable\\_Energy\\_Program/State\\_Activities/nj\\_web\\_graphicL.jpg?n=825](http://www.boem.gov/uploadedImages/BOEM/Renewable_Energy_Program/State_Activities/nj_web_graphicL.jpg?n=825)

- Delaware:  
[http://www.boem.gov/uploadedImages/BOEM/Renewable\\_Energy\\_Program/State\\_Activities/de\\_web\\_graphicL.jpg?n=1257](http://www.boem.gov/uploadedImages/BOEM/Renewable_Energy_Program/State_Activities/de_web_graphicL.jpg?n=1257)
  - Maryland:  
[http://www.boem.gov/uploadedImages/BOEM/Renewable\\_Energy\\_Program/State\\_Activities/md\\_web\\_graphicL.jpg?n=8570](http://www.boem.gov/uploadedImages/BOEM/Renewable_Energy_Program/State_Activities/md_web_graphicL.jpg?n=8570)
  - Virginia: <http://www.boem.gov/assets/0/79/101/209/bd103579-7570-4a9c-bc1e-6b973d2ca5a0.jpg?n=6836>
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**Key Words**

Renewable energy, wind, transmission, offshore wind, offshore wind energy, wind farms, and wind turbines, BOEM, offshore wind leases

## Panama Canal Expansion

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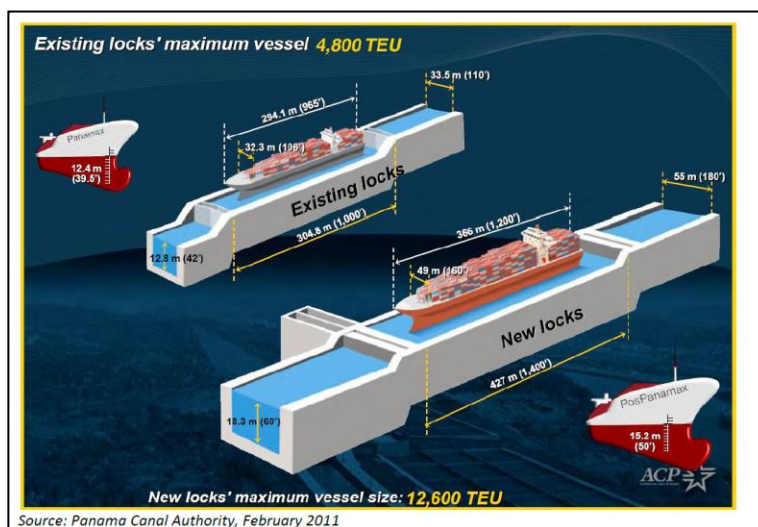
### Introduction

Since opening in 1914, the Panama Canal has been a critical element of the global transportation network. It now serves over 140 maritime trade routes to over 80 countries; an estimated five percent of global maritime cargo transits the Panama Canal every year (Panama Canal Authority, 2009). Providing an all-water passage between the Atlantic and Pacific Oceans, the Canal facilitates trade between Northeast Asia, Europe, the Caribbean, and the Americas, which are some of the heaviest cargo flows in the world.

Much of the material in this topic is excerpted from a study by the Maritime Administration, which has reviewed the impacts of the expansion of the Panama Canal on U.S. ports. For a more thorough treatment of this subject, see the Maritime Administration's Panama Canal Expansion Study, Phase 1 Report: Developments in Trade and National and Global Economies, November 2013. ([http://www.marad.dot.gov/documents/Panama\\_Canal\\_Phase\\_I\\_Report\\_-\\_20Nov2013.pdf](http://www.marad.dot.gov/documents/Panama_Canal_Phase_I_Report_-_20Nov2013.pdf))

From the perspective of the U.S. economy, the Panama Canal is an alternative to West Coast routing of Asian trade and serves as a critical link to Central and South American economies. With respect to the Mid-Atlantic region (e.g. east coast ports, along with gulf ports), the Canal is the most economical shipping option for many U.S./Asian commodity exchanges, as alternative water routes are too long and costly (Panama Canal Expansion Study, Phase I, Maritime Administration (MARAD), 2013).

The Panama Canal Expansion Project objectives are to increase the capacity of the Canal to allow the transit of large vessels that are currently restricted by the dimensions of the existing Canal locks, and to maximize the Canal's total possible cargo transport and traffic. Panamax and Post-Panamax are terms used to delineate the size limits for ships traveling through the Panama Canal (see picture below).



The project will essentially create a third lane of traffic through the Canal for the passage of increasingly prevalent Post-Panamax vessels. The major components of the Panama Canal Expansion Project include: deepening and widening the Canal entrances; construction of two new Post-Panamax complexes, one at the Atlantic (north) and another at the Pacific (south) ends of the Canal; excavation of a new north access channel for the Pacific Post-Panamax locks; elevation of Gatun Lake's maximum operation level; and deepening and widening of the Gatun Lake and Culebra Cut navigational channels (Panama Canal Expansion Study, Phase I, MARAD, 2013).

The project creates a new lane of traffic along the Canal through the construction of a new set of locks, thus doubling the waterway's capacity. The existing locks allow the passage of vessels that can carry up to 5,000 twenty-foot equivalent units (TEUs). Once the project is completed, Post-Panamax vessels will be able to transit through the Canal carrying up to 13,000 TEUs. As of January 2015, the project is at 83% completion (Canal De Panama: <http://micanaldepanama.com/expansion/>).

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### **Economic, Social and/or Cultural Importance Considerations**

The Panama Canal is an important link in global trade, accommodating an estimated five percent of the world's total cargo volume (Panama Canal Authority, 2009). The Panama Canal Expansion Project is currently one of the largest construction projects in the world and is expected by many in the logistics industry to have significant impacts on global trade and on U.S. ports and inland infrastructure. Expansion of the Canal will allow for the passage of larger container vessels, potentially reducing the cost of trans-ocean shipping. This is especially applicable to the East-West trade routes, i.e. between the Far East and U.S. East and Gulf Coast ports.

Over the past half-century, container shipping services have evolved and trade between Asia and Western economies consume the majority of Panama Canal's transport capacity. The Panama Canal Authority (PCA) estimates that the combined effect of allowing between 12 and 14 larger vessels per day through the new locks and using the existing locks for smaller vessels will double the Canal's capacity. The increased size of the vessels, particularly container ships of up to 13,000 TEUs (twenty-foot equivalent units), will play a critical role in increasing Canal throughput capacity, which is estimated to increase from 300 million Panama Canal Universal Measurement System (PCUMS) Tons to 600 million PCUMS Tons. PCUMS also determine what vessels are charged for use of the Canal. (Panama Canal Expansion Study, Phase I, MARAD, 2013).

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## Current Status and Trends/Indicators

### *Current Status:*

Without increases to container terminal capacity, the number and geographic configuration of Far East all-water services that can be effectively operated to the East and Gulf Coasts could become constrained over the long term (beyond 2025).

Draft is a significant factor limiting navigable waterways, as it determines the minimum depth of water a ship or boat can safely navigate. Air draft, the distance from the surface of the water to the highest point on a vessel, also determines whether a ship can pass safely under a bridge or other obstruction, such as power lines. The largest Post-Panamax vessels require 47.6 feet of draft without tidal restrictions; therefore Mid-Atlantic ports would require channels and water depths alongside berths that are at least 50 feet deep.

Four major ports on the East Coast can handle such large ships already (Baltimore, MD and Norfolk, VA) or will be able to do so by the time the expanded Panama Canal opens (New York/New Jersey). Other East Coast ports are making preparations for dredging to channel depths of 45 feet or more, depths that can accommodate many of the Post-Panamax ships.

The Port of New York and New Jersey has 50-foot water depths in portions of its harbor. U.S. Army Corps of Engineers (USACE) is completing a series of dredging contracts that will provide 50-foot water depth to three of the port's major container terminals. The New York/New Jersey harbor deepening project includes 17 dredging contracts, 11 of which have already been completed.

The 50-foot access to the Newark Bay and Global Marine terminals was completed in December 2012 and deepening the channel to the New York Container Terminal was to be completed by December 2013. Since Global Marine Terminal is situated ahead of the entrance to the Kill Van Kull, ships calling at the terminal do not transit under the Bayonne Bridge. With no air draft limitations and 50 feet of water depth at its berths, Global Marine Terminal will be able to handle the largest container vessels transiting the expanded Panama Canal, as well as Post-Panamax vessels arriving from the east via the Suez Canal. Global Terminal is also scheduled to open an expanded facility in 2014 with a throughput capacity of 1.7 million TEUs. In New York Harbor, Port Newark Container Terminal can be enlarged and the New York Container Terminal on Staten Island could also add an adjacent berth.

Also in New York/New Jersey, plans are advancing rapidly to raise the deck of the Bayonne Bridge, above the Kill Van Kull Channel by 64 feet, for increased air draft. It is presently too low for larger Post-Panamax ships, limiting access to four of the port's five container terminals. The \$1.3 billion construction project is scheduled to be complete by 2017, with navigational obstructions removed in time for the Panama Canal expansion opening.

Within the Mid-Atlantic region, there are multiple ports evaluating their terminal infrastructure and capacity for future development. At Hampton Roads, both the Norfolk International Terminal and the APM-Portsmouth Terminal can be physically expanded, and the port has already secured an additional site, Craney Island, for a massive new container terminal. In Baltimore, the primary container terminal, Seagirt, has a modest amount of land available for expansion. The other container terminal, Dundalk, could handle significantly more container traffic than is presently moving through it, but this would require both a major investment and the displacement of some non-container traffic.

The primary container terminals of the Ports of Philadelphia and Wilmington cannot easily expand their footprints, given the land uses on the bordering parcels; however, they may have ample space for growth on additional acreage elsewhere in the region, (e.g. Philadelphia's Southport Marine Terminal).

*Trends:*

The geographic extent of the impacts of Panama Canal expansion will depend on a number of factors, including: the capacity of individual U.S. ports and their related infrastructure to handle shifting trade flows, the response of shipping companies to port and inland infrastructure capacity development, the adaptation of supply-chain management methods that take advantage of the scale economies offered by Canal expansion, and the allocation of cost savings among the various domestic and foreign players.

Larger (Post-Panamax) vessels, increased Canal traffic and doubled annual throughput capacity (as measured in PCUMS Tons) will affect the size of vessels calling at some U.S. ports. This will require changes in some port and landside infrastructure to handle larger vessels and move cargoes to inland markets. These changes are also likely to affect shipping patterns and routing of cargo for major U.S. trade lanes, e.g. resulting in a different traffic mix on the Eastern seaboard. After the opening of the Panama Canal expansion, liner companies will likely begin to deploy larger container vessels on long distance, high-volume trade routes in order to benefit from economies of scale.

Although some container traffic from Hong Kong/Yantian and other Chinese ports to the U.S. East Coast (particularly to New York) will move through the Suez Canal after 2015, most of that traffic segment will continue to move via Panama, which offers shorter transits to the South Florida, South Atlantic, and Mid-Atlantic markets. For carriers currently running Suez services from Hong Kong/Yantian to the U.S. East Coast with intermediate stops at hubs in the Strait of Malacca, the Indian Ocean, and the Mediterranean, switching to the Panama route can offer faster transits to the New York market as well.

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## Identification of Gaps and Ongoing Studies

*Gaps:*

*TBD, if applicable*

*Ongoing Studies:*

Panama Canal Expansion Study Phase I Report: Developments in Trade and National and Global Economies, Department of Transportation, Maritime Administration (MARAD), dated November 2013 identified and explained the pending developments in world ocean trade routes and national and global economies that are likely to affect global and U.S. freight corridors relevant to the Panama Canal expansion.

- The second phase (Phase II) of the study (not yet published) will provide a detailed assessment of the physical attributes of U.S. ports and inland infrastructure and the markets they serve. Phase II will also include the results of a shippers survey and an assessment of infrastructure conditions at key U.S. ports most likely to be affected by the Canal expansion.
- The third phase (Phase III) will assess potential opportunities for applying investment funding towards future development of port capacity.
- The fourth and final phase (Phase IV) of the study will revisit the issues identified in Phase I, in light of feedback received from listening sessions and other stakeholder outreach efforts, and will review the infrastructure needs and funding issues assessed during Phases II and III.

Additional research is nearing completion for the next report of this study (expected to be published May/June 2015) to refine these initial assessments. The research will provide more in-depth information about how transportation service providers are planning to respond to new opportunities to deploy vessels, as well as how shippers and cargo owners are likely to respond to a range of options they may face in the future as their costs change and potential new markets become available to them.

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## Intersections with other ROA Topics

The geographic extent of the impacts of Panama Canal expansion will depend largely on how U.S. ports and inland transportation providers invest in improvements to their infrastructure, the response of shipping companies to this port and inland infrastructure development, and the adaptation of supply-chain management methods that take advantage of the scale economies offered by Canal expansion.

The use of larger ships will increase the volume of containers that must be moved at each port call for those larger vessels. This will likely lead to fewer and more concentrated ship calls at larger ports for any given service, especially for vessel deployments serving the Northeast Asia

– U.S. East/Gulf Coast trade. Fewer calls by larger ships would lead to higher peak loads and tend to favor ports that have greater capacity in container handling, storage, and movement to inland destinations.

Port readiness and infrastructure will be impacted by the Panama Canal expansion. Readiness is determined by navigational channel depth and height (air draft) restrictions, terminal handling and storage capabilities, rail connectivity and capacity, and inland transportation systems (specifically, intermodal rail and “last mile” port and terminal connections).

The extent to which U.S. ports and others invest to improve vessel handling capacity and more concentrated cargo volumes, and move the cargo inland, could influence whether shipping companies decide to make greater use of the Caribbean or Panamanian container transshipment ports.

Port capacity constraints and more concentrated port calls could lead to greater use of marine highway services to move containers via water between larger and smaller U.S. ports. As with foreign transshipment, the handling and transport costs, as well as the externalities, (e.g. landside traffic congestion) of competing modes are a significant factor in determining the viability of a marine highway as a competitive option.

Panama Canal expansion could also potentially impact the following areas/activities, although currently, there are no published reports that detail the perceived potential impacts: dredge disposal, offshore wind, offshore oil and gas, and military/Department of Defense (DoD) activities.

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## Maps relevant to the Activities & Resources

### *a. Societal Uses and Activities: current & planned*

- For maps, charts, and graphics, refer to the Panama Canal Expansion Study Phase I Report: Developments in Trade and National and Global Economies, DOT, MARAD, dated November: 2013:  
[http://www.marad.dot.gov/documents/Panama\\_Canal\\_Phase\\_I\\_Report\\_-\\_20Nov2013.pdf](http://www.marad.dot.gov/documents/Panama_Canal_Phase_I_Report_-_20Nov2013.pdf).

### *b. Resource distribution and abundance*

- The Mid-Atlantic Ocean Data Portal has nautical charts that provide basic bathymetry information as a basemap option (<http://portal.midatlanticocean.org/visualize>).

### *c. Areas of Interest*

*TBD, if applicable*

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## References

### *a. Peer reviewed or government documents*

- DOT (MARAD). Panama Canal Expansion Study Phase I Report: Developments in Trade and National and Global Economies, November 2013. Available at: [http://www.marad.dot.gov/documents/Panama\\_Canal\\_Phase\\_I\\_Report\\_-\\_20Nov2013.pdf](http://www.marad.dot.gov/documents/Panama_Canal_Phase_I_Report_-_20Nov2013.pdf).
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### *b. Other sources of information, including grey literature*

*TBD, if applicable*

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## Key Words

Panama Canal Expansion Project, Panama Canal, MARAD, DOT, Marine Highway, Short Sea Shipping, Post-Panamax

# Potential Data Analyses and Decision Support Tools

To support the regional ocean planning process and identification of interjurisdictional coordination region-wide opportunities and specific geographic areas, the Mid-Atlantic Regional Planning Body (MidA RPB) could consider pursuing the following additional analyses and describe the results of those analyses in the Regional Ocean Action Plan (OAP). These kinds of additional analyses could help build understanding about the interactions between and among uses and resources in the Mid-Atlantic, serve as a bridge between the Regional Ocean Assessment and OAP, and provide the RPB with information it needs to determine meaningful interjurisdictional coordination commitments to improve management of ecological resources and economic activities. The Mid-Atlantic Ocean Data Portal will provide important information about the resources and uses in the Mid-Atlantic that can support some of these additional analyses.

***Important note:** Highly dependent on resources available, the RPB **may** pursue one or more of the types of analyses listed below. The RPB has not yet decided which, if any, of these analyses to pursue.*

- **Assessments of compatibility** among ocean uses and between ocean uses and ecosystem health objectives (e.g., matrix).
- **Region-wide assessment of areas of ecological importance**, which could potentially include one or more of the following:
  - Summarize **areas of ecological importance currently designated** through existing authorities in the MidA region.
  - Develop **distribution and abundance data products for marine life and/or important habitats**.
  - Identify **abundance hotspots, migration corridors, or other key areas** for individual species and/or overlays of multiple species.
  - Consider use of existing or new **measures of ecosystem health** to track progress over time (e.g., by adapting measures used for existing management applications, the Ocean Health Index, etc. for use in the MidA regional planning context)
- **Region-wide analysis of the marine economy** that could include valuation and mapping of economic activity and production.
- **Region-wide information sharing about proposed ocean use and conservation projects** under review by agencies.
- **Increased understanding of other potential tools and applications** to support emerging management innovations such as an ecosystem based management approach, tradeoff analyses, cumulative impact assessments, and others.

# Proposed Process, Criteria, and Examples of Potential Interjurisdictional Coordination Actions

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## Introduction

A key objective of the ocean planning process in the Mid-Atlantic region is to help member entities work better together to achieve the Healthy Ocean Ecosystem and Sustainable Ocean Uses goals and objectives identified in the [Mid-Atlantic Regional Ocean Planning Framework](#) (Framework). Interjurisdictional coordination (IJC) addresses specific processes and mechanisms that will allow member institutions of the Mid-Atlantic Regional Planning Body (MidA RPB or RPB) to better coordinate, leverage resources, and make better decisions that benefit ocean users and ecosystem health through the implementation of their existing mandates and authorities.

Simply put, IJC is a tool that helps agencies share information and coordinate efforts to accomplish common interests. This document describes:

- A proposed IJC process and timeline
- Potential criteria for the selection of IJC actions
- Region-wide IJC examples
- Geographically specific IJC examples

The content of this document is intended to be consistent with and responsive to the [Proposed Approach to the Mid-Atlantic Regional Ocean Action Plan](#) (OAP), which establishes a direction for the RPB's development of the OAP. As described in more detail below, the RPB plans to identify a number of opportunities around which the relevant entities will collaborate to facilitate enhanced information sharing and improved decision-making. Depending on the topic, collaboration may focus on the entire region and/or on specific geographic areas.

Figure 1 below provides an overview of the primary components of the IJC process and the mechanisms through which IJC will result in increased collaboration and improved business practices among RPB member entities.

**Figure 1: MidA RPB IJC Process**

RPB identifies potential IJC opportunities and IJC actions that advance:

**Goal 1: Healthy Ocean Ecosystem**

- Improved understanding of the regional ecosystem
- Improved understanding of changes occurring in the regional ecosystem
- Incorporated traditional knowledge
- Preservation, protection, enhancement, and restoration of the regional ecosystem

**Goal 2: Sustainable Ocean Uses**

- Improved management effectiveness
- Minimized conflicts
- Support for regional economic growth

*(In the context of the 9 sectors identified as the Framework objectives)*



- Decision criteria guide RPB decisions about which IJC opportunities and actions to address in the OAP
- IJC opportunities and actions are identified region-wide and for limited number of specific geographic areas



Agencies collaborate through existing authorities to support more efficient and effective:

- Acquisition of knowledge through research and science
- Program management
- Environmental and regulatory review
- Use of existing resources

## Proposed IJC process and timeline

As the planning process continues to progress, the RPB, with stakeholder input, would identify topics to address on a region-wide or geographically specific basis. Those topics will (and are already beginning to) emerge from the Regional Ocean Assessment (ROA), on-going work to build-out the Mid-Atlantic Ocean Data Portal (Data Portal) and develop new data products, stakeholder interests, and public discussion at RPB meetings. The RPB, with stakeholder input, would then identify specific opportunities and associated actions to achieve the goals and objectives in the Framework. Potential outcomes of IJC related to those goals and objectives include:

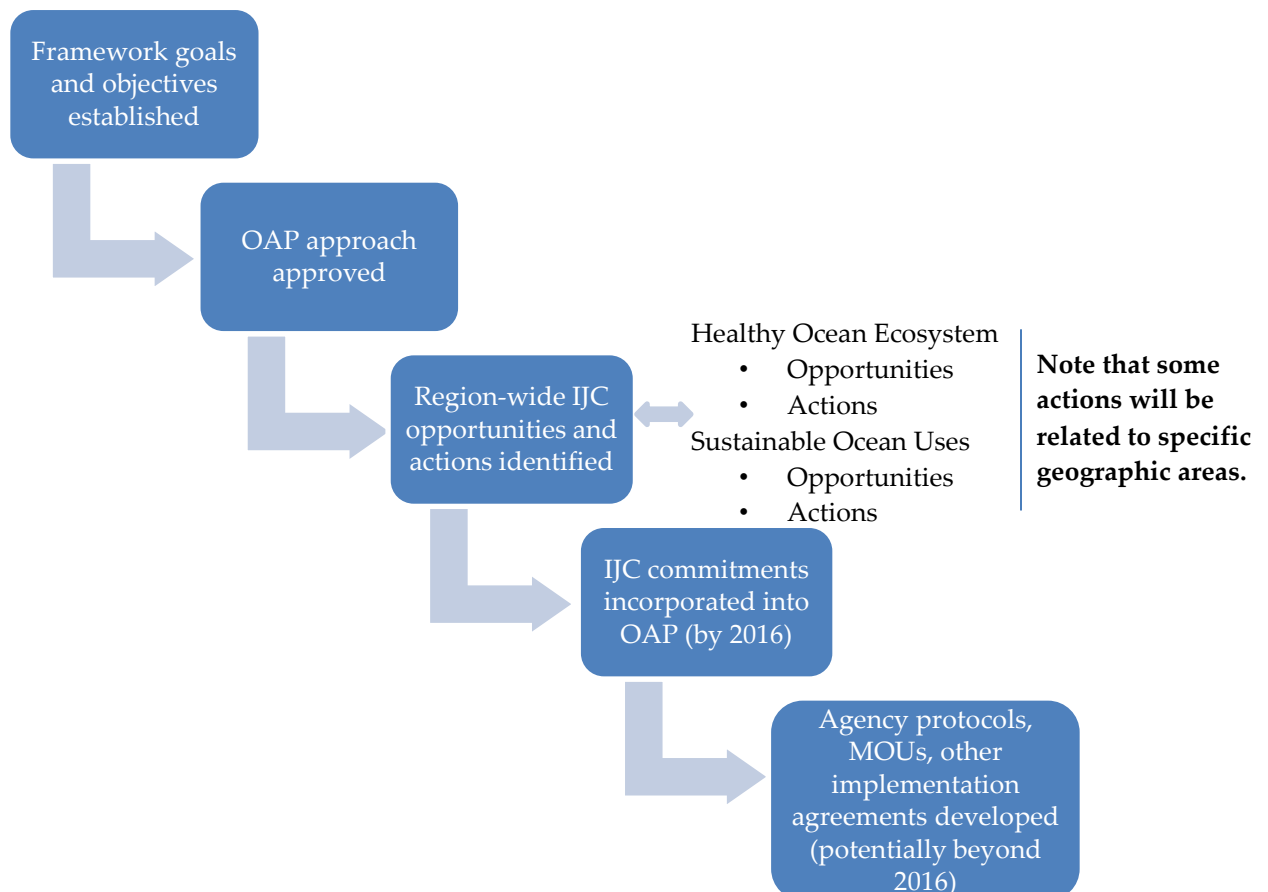


- Healthy Ocean Ecosystem Goal: improving understanding of the regional ecosystem and changes occurring within it; incorporating traditional knowledge; and preserving, protecting, enhancing, and restoring the ecosystem
- Sustainable Ocean Uses Goal: improving management effectiveness, minimizing conflicts, and supporting economic growth

As specific opportunities are identified, the RPB, with stakeholder input, would also begin to develop IJC actions that describe specifically how RPB entities would share information and coordinate efforts to address the opportunities. Potential IJC actions would be identified, refined, and presented for public comment and RPB consideration in 2015-2016. Those IJC actions eventually committed to by the RPB would then be articulated in the OAP. Agreements among member entities to implement specific IJC actions could be supported by Memorandums of Agreement or similar materials, which could be developed concurrently with or after the OAP is finalized. All changes in business practices, protocols, agreements, etc., that result from the process would be clearly communicated to interested stakeholder groups and the public.

Figure 2 depicts the sequence of process steps to advance the identification of IJC opportunities and actions and associated RPB member entity commitments throughout 2015 and 2016. Timing and specific administration of IJC processes will be discussed further in other RPB materials.

**Figure 2: Proposed process steps to develop IJC actions**



## Potential criteria for the selection of IJC actions

The RPB has expressed an interest in establishing criteria for identifying the region-wide IJC opportunities, specific geographic areas, and specific IJC actions (as described in the [Proposed Approach to the Mid-Atlantic Regional Ocean Action Plan](#)). Potential criteria are offered here for RPB discussion.

Potential criteria for choosing *region-wide IJC opportunities*:

- Foundational (e.g., related to core authorities or practices regarding management, regulation, education, etc.)
- Interdisciplinary and/or interjurisdictional (e.g., meaningful to multiple RPB member missions in the context of the OAP)
- Regional in nature and/or policy priorities for a number of RPB member entities and/or stakeholders
- Consistent with and/or advance the Framework principles, goals, and objectives

Potential criteria to inform the selection of *specific geographic areas*:

- Potential to demonstrate progress on the region-wide IJC opportunities identified above; and/or
- Significant ecological value; and/or
- Socio-economic value; and/or
- High current or potential user conflict

Potential criteria for choosing *specific IJC actions*:

- Are consistent with and serve to achieve the Framework principles, goals, and objectives
- Are achievable within the capacity limitations of the RPB and/or any collaborating entity to accomplish within the planning horizon
- Lead to an improvement in process and/or outcome over current practice
- Advance member entity missions and/or stakeholder interests under existing authorities
- Leverage existing programs, processes, and/or resources

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## Region-wide IJC example opportunities

This section provides examples of IJC opportunities and actions. *The examples are intended to illustrate representative components of potential IJC opportunities and actions, not a comprehensive, fully organized outline. They are presented only to illustrate the form and*

***content that IJC opportunities and actions could take, and are offered solely to support RPB and public discussion at the January 21-22, 2015 RPB in-person meeting.***

As described by the *Proposed Approach to the Mid-Atlantic Regional Ocean Action Plan*, a set of interjurisdictional coordination commitments articulated in the OAP would aim to improve governmental business practices and inform management actions under existing authorities. Region-wide IJC opportunities and actions would be identified in coordination with neighboring regions in recognition of the fact that human activities, marine life, and other key components of the marine system cross regional boundaries.

Region-wide IJC opportunities and actions could be organized by four basic categories: (1) identifying research needs, (2) informing and improving management decisions, (3) improving information for environmental and regulatory review, and (4) leveraging resources. Examples are provided under each of these categories:

### **Category 1: Identifying research needs**

- *Example opportunity:* Focus collaborative efforts of RPB agencies to address key/priority region-wide data/research needs identified by the Regional Ocean Assessment (ROA).
  - *Example IJC action:* Integrate assessments of climate change impacts to commercially and recreationally important species and incorporate in OAP/ROA updates or revisions.

*Relationship to Framework:* This could help address the Healthy Ocean Ecosystem and Sustainable Uses goals and all objectives in the Framework, and is consistent with Framework principles related to Intrinsic Value, Economic Value, Best Available Science, and Coordination and Government Efficiency.

### **Category 2: Informing and improving management decisions**

- *Example opportunity:* Develop approach to support agencies' identification, analysis, and use of best available data/information.
  - *Example IJC action:* Agencies with primary responsibility for ecosystem components and human activities (e.g., NOAA for marine mammals; USCG for navigation) could identify data products, based on the Data Portal, that best represent the subject matter for management or regulatory purposes. These materials would not be used exclusively in decision-making, but would provide a consistent, transparent, and efficient starting point on a case-by-case basis.

*Relationship to Framework:* This could help address the Healthy Ocean Ecosystem goal through the Accounting for ocean ecosystem changes and increased risks objective (#2) and the Sustainable Ocean Uses goal through data products that benefit all related objectives. This is consistent with Framework principles related to Best Available Science,

Compatibility of Multiple Interests, Consistency with Existing Laws, and Coordination and Government Efficiency.

- *Example opportunity:* Support state and federal management objectives under the Coastal Zone Management Act.
  - *Example IJC action:* Develop regionally or sub-regionally consistent categories of federal agency actions, consistent with state interests, which can be addressed by general consistency or comparable provisions under the CZMA.
  - *Example IJC action:* Evaluate the opportunity to support regionally or sub-regionally consistent geographic location descriptions (GLDs) for specific activities. This could be done as a stand-alone exercise or be associated with discrete geographic areas.

*Relationship to Framework:* This is consistent with Framework principles related to Best Available Science, Compatibility of Multiple Interests, and Coordination and Government Efficiency, and could help address the Sustainable Ocean Uses goal through almost all of the objectives.

- *Example opportunity:* Enhance application of principles and practices of ecosystem-based management (EBM) under existing authorities.
  - *Example IJC action:* Provide region-specific context and information to inform existing agency actions and milestones related to EBM in the National Ocean Policy Implementation Plan (NOP IP).
  - *Example IJC action:* Identify opportunities to pilot implementation of new and emerging EBM practices.

*Relationship to Framework:* As a foundational concept, EBM can be related to both goals and all objectives in the Framework. More narrowly, it could help address the Healthy Ocean Ecosystem goal through the Discovering, understanding, protecting, and restoring the ocean ecosystem objective (#1) and the Sustainable Ocean Uses goal through consideration of any of the specific sectors. The IJC actions above are consistent with Framework principles related to Intrinsic Value, Recognize Interconnections, Best Available Science, and Compatibility of Multiple Interests.

### **Category 3: Improving information for environmental and regulatory review**

- *Example opportunity:* National Environmental Policy Act (NEPA) review and U.S. Army Corps of Engineers (USACE) permitting
  - *Example IJC action:* Develop protocols that describe how agencies will use data and coordination measures to implement the OAP through NEPA and regulatory processes.
  - *Example IJC action:* Develop communications for the public (as referenced above) that describe how agencies will engage with the OAP in the implementation of their existing authorities.

- *Example IJC action:* Develop NEPA and regulatory pre-application protocols for lead federal agencies.
- *Example IJC action:* Coordinate state and federal participation in NEPA reviews, including use of the Data Portal.

*Relationship to Framework:* This could help address the Healthy Ocean Ecosystem goal through the Discovering, understanding, protecting, and restoring the ocean ecosystem objective and the Sustainable Ocean Uses goal for all objectives. This is consistent with the Framework principles related to Best Available Science, Compatibility of Multiple Interests, and Coordination and Government Efficiency.

#### Category 4: Leveraging resources

- *Example opportunity:* Identify funding/resource needs associated with existing or new approaches to management, environmental or regulatory review, or research actions developed by the RPB and develop collaborative approaches to support funding/resource needs.
  - *Example IJC Action:* Identify opportunities to coordinate funding to continue to support on-going research in deep-water canyons.

*Relationship to Framework:* This could help address the Healthy Ocean Ecosystem and Sustainable Ocean Uses goal and all objectives. This is consistent with Framework principles related to Intrinsic Value, Economic Value, Best Available Science, Recognize Interconnections, and Coordination and Government Efficiency.

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## Geographically specific IJC examples

This section provides examples of IJC actions that advance goals and objectives associated with specific geographic areas. *As with those above, the examples are intended to illustrate representative components of potential actions, not a comprehensive, fully organized outline.*

As described in the *Proposed Approach to the Mid-Atlantic Regional Ocean Action Plan*, specific geographic areas may be selected because they are characterized by potential to demonstrate progress on the region-wide IJC opportunities, significant ecological value, and/or areas of high current or potential user conflict, and/or socio-economic value. Specific potential IJC actions would then be identified for those areas. These specific actions would be identified based on the needs and characteristics of each area and input from stakeholders.

For each of the specific geographic areas identified through the planning process, the RPB could develop information that:

- characterizes components and dynamics of the area

- identifies key issues and interactions within the area that can be enhanced to achieve Framework objectives
- identifies management, environmental and regulatory review, research, stakeholder engagement needs/opportunities, funding actions, and other actions

### **Specific geographic areas example 1: Mouth of Chesapeake Bay, Delaware Bay, and/or similar areas**

- *Example of IJC actions that would be specific to the mouth of the Chesapeake:*
  - The Bureau of Ocean Energy Management (BOEM), U.S. Navy, U.S. Coast Guard, and National Oceanographic and Atmospheric Administration (NOAA) collaborate to determine migration rate of the encroaching shoals at Northeastern and Southeastern navigation channels.
  - Integrate Data Portal and BOEM/state sand management task force data and information to support state/federal management and regulatory interests.
  - Develop CZMA general concurrence provisions for categories of actions within the sub-area. For example, some areas that could initially be addressed include: disaster response and recovery activities by the Federal Emergency Management Agency (FEMA); certain Coast Guard navigational activities; and military activities.
  - Evaluate the opportunity to develop a geographic location description under the CZMA for specific activities in the area.
  - Develop use and resource-specific compatibility assessments using the Data Portal to enhance multiple use management by responsible parties under existing authorities (i.e., *not* as the basis for RPB determinations about what goes where, rather to provide information and awareness to support agency/sectoral problem-solving).
  - Identify and address data and/or procedural challenges associated with management interactions among specific uses/situations identified by the RPB, existing management entities, and/or stakeholders.

*Relationship to the proposed criteria for identifying geographic areas:* Demonstrates progress on region-wide topics. Addresses area of high current or potential user conflict and/or socio-economic value. Is consistent with Framework principles related to Economic Value, Best Available Science, Coordination and Government Efficiency, and could help address the Sustainable Uses goal through National Security (#1) and Maritime Commerce (#5) objectives.

### **Specific geographic areas example 2: Deepwater canyons**

- *Example of IJC actions that would be specific to the deepwater canyons:*

- Enhance existing interagency research and management efforts by addressing data, analysis, and research needs.
- Develop approach to coordinate with Mid Atlantic Fishery Management Council and other entities with management responsibilities to address data needs, stakeholder engagement, management considerations, or other materials that support management and conservation responsibilities.

*Relationship to the proposed criteria for identifying geographic areas:* Demonstrates progress on region-wide topics. Addresses areas of significant ecological value and high current or potential user conflict. This is consistent with Framework principles related to Intrinsic Value, Best Available Science, and Recognize Interconnections, and could help address the Healthy Ocean Ecosystem goal through the Discovering, understanding, protecting, and restoring the ocean ecosystem objective (#1).

## Appendix of selected environmental and regulatory authorities<sup>1,2</sup> and potential use of data

All development activities in the Mid-Atlantic region are subject to NEPA compliance and similar regulatory review and [data requirements](#) under USACE permitting. At a minimum, data and information from the MARCO Mid-Atlantic Ocean Data Portal will provide a baseline context for each of the authorities. In addition, the RPB may choose to develop specific data products and management tools based on the Data Portal (which could include such IJC actions as developing best available data sets, baseline reference material, and materials that support regulatory consultations) to enhance existing review and permitting. For example, the Data Portal will help identify spatial concentrations of resources and human activities that will help the NEPA review and regulatory processes avoid, minimize, and mitigate potential impacts.

In summary form, the core environmental and regulatory review authorities include:<sup>3</sup>

- The **National Environmental Policy Act** requires “federal agencies... to determine if their proposed actions have significant environmental effects and to consider the environmental and related social and economic effects of their proposed actions.”<sup>4</sup> NEPA applies in state and federal waters, as well as to terrestrial activities, to federal actions such as leasing of public lands (e.g. through OCSLA) and permitting development proposals (including USACE permitting), adoption of fishery management plans, and other federal activities. The NEPA process generally is the first process that federal agencies implement in permitting and leasing actions (in some cases, NEPA and permit processes run concurrently). The [NEPA process](#) uses data and information from agency and public participation to identify the potential impacts of a proposed action on the environment, evaluates potential alternatives that could have less impact, and identifies means by which unavoidable impacts can be minimized and mitigated. The lead federal agency is responsible for implementing the NEPA process and will engage the public, other federal agencies (sometimes formally designated as cooperating agencies to establish a formal coordinating relationship among agencies), and outside parties. If the extent and magnitude of impacts to the environment are unknown, the agency prepares an Environmental Assessment (EA). If the lead agency initially or through the EA process determines that there are likely to be significant impacts, the agency must prepare an Environmental Impact Statement (EIS) to evaluate project alternatives and identify measures to avoid, minimize, and mitigate impacts.

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<sup>1</sup> Modified from *Northeast Regional Ocean Plan: Options for Effective Decision Making*, Report prepared for the Northeast Regional Planning Body, SeaPlan, et. al., September 2014.

<sup>2</sup> Descriptions of statutes and regulations are intended to generally characterize the subject matter. For detailed and authoritative materials, please follow the links.

<sup>3</sup>Numerous other authorities may apply depending on the type of activity.

<sup>4</sup> *A Citizen's Guide to the NEPA*, Council on Environmental Quality, December 2007.



- **Use of data:** NEPA provides administrative flexibility in how lead federal agencies implement review, and each agency has established procedures (including guidance and regulation) to guide the process. Regardless of the administrative process, regional ocean plan data can provide a consistent informational framework for the review of proposed development projects. The MARCO Data Portal could inform key elements of NEPA review, including scoping (which identifies key stakeholders, issues, information gaps and needs, and other consultations that need to occur), identification of project alternatives, evaluation of environmental effects, description of the affected environment, and development of mitigation measures.
- The **Rivers and Harbors Act, section 10**, administered by the USACE, provides for the review of [work and structures](#) below the mean high water line of waters of the United States out to the three mile limit, and of fixed structures beyond the three mile limit.
  - **Use of data:** As a component of permitting under both the Rivers and Harbors Act and the Clean Water Act, the USACE conducts a “[public interest review](#)” to evaluate “the probable impacts, including cumulative impacts, of the proposed activity and its intended use on the public interest.”<sup>5</sup> The review addresses a wide range of natural, cultural, social, economic, and other issues, including, generally, “the needs and welfare of the people.”<sup>6</sup> The MARCO Data Portal could provide strong support for the USACE review. Plan data should provide relevant information for existing and/or potential human activities, including commercial shipping, recreational fishing, commercial fishing, existing infrastructure including cables and pipelines, and others.
- The **Clean Water Act, section 404**, administered primarily by the USACE, in consultation with the EPA (which has a formal jurisdictional role), provides for the review and authorization of impacts of dredged or fill material on the marine ecosystem below the high tide line of waters of the United States out to the three mile limit, in consultation with federal resource agencies that have subject-matter jurisdiction to evaluate potential impacts to jurisdictional resources.
  - **Use of data:** The Clean Water Act section [404\(b\)\(1\) Guidelines](#) identify the information and analysis used to determine whether a proposed activity will have a significant adverse impact to the aquatic environment. The review addresses potential impacts to, among other things, the seabed, water quality, currents and circulation, endangered and threatened species, fish and other aquatic organisms, and other wildlife. In addition, the review addresses potential

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<sup>5</sup> 33 C.F.R. §320.4.

<sup>6</sup> Ibid.

impacts to commercial and recreational fishing, water related recreation, aesthetics, and sanctuaries, refuges, and similar preserves.

The Guidelines identify a category of resources called Special Aquatic Sites, which are subject to a regulatory presumption that a proposed activity will have less significant impact to the aquatic environment if it is not located in the Special Aquatic Site. Such areas relevant to the ocean plan include wetlands (saltmarsh), vegetated shallows (sea grasses), mudflats, and coral reefs. The MARCO Data Portal and other sources of data and information can support spatial definition of Special Aquatic Sites and provide baseline information to inform the review process.

Federal consultations required under the following federal laws inform NEPA review and Clean Water Act and Rivers and Harbors Act permitting include:<sup>7</sup>

- The **Endangered Species Act (ESA)**, administered by the Department of the Interior's U.S. Fish and Wildlife Service (USFWS) for terrestrial species and the National Oceanic and Atmospheric Administration's (NOAA's) National Marine Fisheries Service (NMFS);
- The **Magnuson-Stevens Act Essential Fish Habitat (EFH)** provisions, administered by NOAA/NMFS provide for the review of potential impacts to essential fish habitat for species managed, in the Mid-Atlantic, by the Mid-Atlantic Fishery Management Council;
- The **Marine Mammal Protection Act (MMPA)**, administered by NOAA/NMFS, provides for the review of potential impacts to marine mammals and turtles;
- The **Migratory Bird Treaty Act (MBTA)**, administered by the USFWS, requires federal agencies to consult the Service about potential impacts to migratory bird species; and
- The **National Historic Preservation Act, section 106 (NHPA)**, administered by the Advisory Council on Historic Preservation, state historic preservation officers, and tribal preservation officers, provides for the review of potential impacts to cultural and historic resources.
  - **Use of data:** The MARCO Data Portal could support better informed and more efficient [ESA](#), [EFH](#), [MMPA](#), and [MBTA](#) consultations. The data may also provide opportunities to enhance these consultations by developing authoritative regional characterizations of resources and uses, reference data, and programmatic consultations. Baseline historic and cultural data developed to support [consultation under the NHPA](#) may be used to identify specific areas to

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<sup>7</sup> Other authorities may apply depending on the type of activity. These represent the core resource consultations that typically apply.

avoid or flag as potentially sensitive. Some data would not be represented due to sensitivity and/or confidentiality.

- The **Coastal Zone Management Act**, administered by [NOAA's Office of Ocean and Coastal Resource Management/Coastal Services Center](#) and state coastal management programs, authorizes states to review [federal actions](#) that have reasonably foreseeable effects to resources and uses of the state's coastal zone under the state's [enforceable policies](#). One way that states can formally exert jurisdiction is to define specific areas outside state waters in which it has been determined that a specific kind of activity will have an effect on uses or resources in state waters (requires approval by NOAA/OCRM). Data can also be used to support "general consistency" and similar provisions of the CZMA to achieve review efficiencies by conducting one initial review of a category or class of activity that can then be used to address all future activities within the category. This provides flexibility and efficiency for both the federal agency and the state conducting the review, both of which can ensure that their interests are addressed through the minimum necessary level of effort, and for private project applicants, who may not be required to submit an application.
  - **Use of data:** All data being developed through the regional ocean planning process will support both state and federal interests under the CZMA. Mid-Atlantic ocean planning will be based on federal, state and tribal data and will enhance the use of existing state data by providing greater regional context for data and resource issues in state waters. It will also support more informed application of the "[effects test](#)" used to determine whether federal actions will affect uses or resources of a state coastal zone.

## Appendix A8

**Memorandum to:** Mid-Atlantic Regional Planning Body (MidA RPB)

**From:** MidA RPB Co-Leads

**Date:** January 14, 2015

**Subject:** Summary of MidA RPB decisions to be made at January 21-22, 2015 meeting and overview of proposed RPB workflows

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This memorandum offers several points of clarification and administrative considerations from the MidA RPB Co-Leads for the RPB's consideration in preparation for the January 21-22, 2015 meeting in New York, New York, including:

- Clarification about the meeting materials and relationship among them
  - Description of the decisions the RPB is being asked to make at the January meeting
  - Recommendations for next steps regarding RPB work plan development and workflows in 2015
  - Proposed timeline for development of the regional ocean action plan (OAP) in 2015-2016.
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### **Materials in preparation for and decisions to be made at the upcoming January 21-22, 2015 MidA RPB meeting**

A package of meeting materials was released to the public on Monday, January 12, 2015 including several documents that have been developed by internal RPB workgroups for the full RPB's consideration, discussion, and in one case, approval. Important information related to several of these documents is described below, including the document description, key decision and/or discussion points, corresponding agenda session(s), and relationship to other materials in the package.

#### **Document 1: *Proposed Approach to the Mid-Atlantic Regional Ocean Action Plan***

- **Purpose:** This document proposes an approach to the OAP for RPB deliberation and decision-making at the January meeting. This approach was developed by incorporating public input and combining into one approach the favored components of various OAP options offered for public review in October-November 2014 in the [Mid-Atlantic Regional Ocean Action Plan Options](#) document. Appended to this document is a draft illustrative OAP outline that will also be discussed at the RPB meeting, although a decision is not being sought at this time. This draft outline will be modified by the RPB over time as work proceeds and the RPB learns more about the Mid-Atlantic ocean ecosystem, ocean uses, and various tools available for planning.

- **Decision point at the meeting:** After presentation and any discussion needed in Day 1, the RPB will be asked to approve the *Proposed Approach to the Mid-Atlantic Regional Ocean Action Plan* during the 9:15 am session on Day 2 of the meeting. The RPB will be asked to comment on to the Appendix draft outline, but not approve it. Next steps following the approval of the OAP approach will be discussed during the afternoon on Day 2.
- **Agenda session(s):** This document will be discussed by the RPB during three sessions at the January meeting:
  - 11:00 am – 12:00 pm on Day 1 (Presentation and discussion: *Proposed Approach to the Mid-Atlantic Regional Ocean Action Plan*)
  - 1:45 pm – 2:15 pm on Day 1 (Continue discussion: *Proposed Approach to the Mid-Atlantic Regional Ocean Action Plan*)
  - 9:15 am – 10:00 am on Day 2 (Discussion, reflection on comments received, and approval of *Proposed Approach to the Mid-Atlantic Regional Ocean Action Plan*)
- **Relationship to other documents:** Each of the other meeting materials will support components of the OAP. After approving an approach to developing the OAP, the RPB will be well positioned to take further steps to develop various sections of the OAP.

## Document 2: Regional Ocean Assessment outline, template, and example sections

- **Purpose:** This document provides a history of the activities to date of an internal RPB workgroup, a draft outline of the ROA, and three examples of sections of the ROA drafted by Federal agencies for RPB discussion and consideration.
- **Discussion point at the meeting:** It is not anticipated that the RPB will make any formal decisions about the ROA at the January meeting, but rather will use the time dedicated to this topic to signal comfort with or suggest refinements to the ROA outline and example sections, and provide the ROA workgroup with important information and feedback needed to continue its work.
- **Agenda session(s):** This document will be discussed by the RPB during three sessions at the January meeting:
  - 3:45 pm – 4:15 pm on Day 1 (Presentation and discussion: Regional Ocean Assessment outline, template, and example actions)
  - 10:00 am – 10:30 am on Day 2 (Discussion, reflection on comments received, and refinement of Regional Ocean Assessment outline, template, and example sections)
  - 2:45 pm – 3:45 pm on Day 2: Discussion of next steps for RPB workflows
- **Relationship to other documents:** The finished ROA will be a resource to inform the RPB on a range of topics related to the region, and will be a supporting document to the OAP.

**Document 3: *Proposed process, criteria, and examples of potential interjurisdictional coordination actions***

- **Purpose:** This document presents the concept of interjurisdictional coordination (IJC) as a cornerstone of the OAP. It recommends a series of decision steps for identifying IJC actions, offers potential criteria for making those decisions, and provides representative examples of potential IJC opportunities, specific geographic areas, and actions. The examples are organized to be consistent with the four categories of opportunities contained in the *Proposed Approach to the Mid-Atlantic Regional Ocean Action Plan*, and are meant to be illustrative of the types of IJC actions that could be pursued through interagency discussions.
- **Discussion point at the meeting:** This document is intended to stimulate discussion at the meeting about a proposed process and set of criteria to identify the kinds of IJC actions that would be articulated in the OAP. The RPB will also consider the draft examples offered, how potential data and analysis needs and next steps could support interjurisdictional coordination, and share ideas about interjurisdictional coordination opportunities. The RPB is not being asked to make formal decisions about this document at the January meeting.
- **Agenda session(s):** The RPB will discuss IJC during one session at the January meeting:
  - 1:15 pm to 2:45 pm on Day 2 (Interjurisdictional coordination opportunities and next steps)
- **Relationship to other documents:** IJC actions would be a central element of the OAP if the *Proposed Approach to the Regional Ocean Action Plan* is approved.

**Document 4: *Additional analyses and decision support tools***

- **Purpose:** This document describes some of the types of additional analyses the RPB could consider pursuing to better understand the interactions between and among ocean uses and resources in the Mid-Atlantic, serve as a bridge between the ROA and OAP, and provide the RPB with the information it needs to determine meaningful IJC actions to improve management of ecological resources and economic activities.
- **Discussion point at the meeting:** This document is intended to stimulate discussion at the meeting and in the longer-term about information the RPB may need and analyses that could be undertaken to meet those needs. The document will also supplement presentations during a panel on this topic. The RPB will provide a general sense of direction and input about potential analyses, but will not make formal decisions about this document at the January meeting.
- **Agenda session(s):** The information included in this document is relevant to the following agenda sessions:
  - 10:45 am to 12:15 pm on Day 2 (Panel: Data and analysis tools to support ocean planning going forward)

- 1:15 pm to 2:45 pm on Day 2 (Interjurisdictional coordination opportunities and next steps)
  - **Relationship to other documents:** The types of analyses included in this document would provide information to support the data and analysis section in the draft OAP outline that is presented in the Appendix of the *Proposed Approach to the Regional Ocean Action Plan*. The results of these types of analysis could inform the identification of IJC opportunities, specific geographic areas, and IJC actions.
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## MidA RPB work plan development and proposed RPB workflows

### Work Plan

Following the decision on the *Proposed Approach to the Regional Ocean Action Plan* at the January meeting, the RPB will develop a work plan in early 2015 that will guide the development of the OAP throughout 2015 and 2016. This work plan will provide more details on steps necessary to develop an OAP over the next two years. The four proposed workflows are:

1. Region-wide IJC actions – *would be taken on by the current IJC workgroup with expanded membership*
2. Specific geographic areas for IJC action – *would be taken on by the current OAP workgroup (with a modified mission)*
3. Regional Ocean Assessment – *would be continued by the current ROA workgroup*
4. Stakeholder engagement – *would be continued by the current Stakeholder Engagement workgroup*

The work plan will include descriptions of each workflow, a timeline showing the steps and timing for activities in each workflow, proposed RPB meetings and key decision points, and additional detail on stakeholder engagement opportunities. A first iteration work plan will be completed in early 2015 and will be updated periodically based on RPB discussions and decision-making.

### Workflows in 2015-2016

The four proposed workflows are outlined below, across which RPB members, alternates, and staff would develop different sections of the OAP. RPB Co-Leads would continue to connect and coordinate among the workflows to ensure a coherent OAP is being developed..

This suite of workflows and associated activities will evolve as the RPB begins to develop the OAP. Some workflows will be ongoing (e.g. ROA) while others will be launched in 2015 (e.g., specific geographic areas for IJC action). Some aspects of the plan (e.g., a monitoring strategy and process for plan updates) will need to be launched in the near future. The proposed timeline at the end of this memo addresses the steps and timing across all four proposed workflows, in addition to overarching efforts (i.e., development and refinement of the work

plan, development of the OAP, and in-person RPB meetings). This timeline will be refined as the work plan is developed and periodically updated.

*Interjurisdictional Coordination: Region-wide and geographic specific workflows*

IJC actions will be identified by the RPB and will become key components of the OAP. The IJC actions will be grounded in the goals and objectives of the Framework and will foster better coordination, improve leveraging of resources, and inform management decisions that benefit ocean users and ecosystem health through improved implementation of existing mandates and authorities. Please see the *Draft process, criteria, and examples of potential interjurisdictional coordination actions* document for further information on this workflow. IJC discussions in the coming months would be divided into two parallel and closely related tracks: (1) region-wide IJC opportunities and specific associated actions and (2) identifying specific geographic areas and associated IJC actions in those areas that demonstrate progress on the region-wide opportunities.

**Workflow 1: Region-wide IJC actions**

The RPB would identify an initial limited number of region-wide IJC actions by considering four basic categories of opportunities: (1) identifying research needs; (2) informing and improving management decisions; (3) improving information for environmental and regulatory review; and (4) leveraging resources.

Potential activities for this workflow include:

- Identification of criteria for RPB selection of region-wide IJC opportunities and actions and discussion of draft examples.
- Discussion of IJC opportunities and potential actions through agency-by-agency and interagency discussions. Agency discussions would be started in the first quarter of 2015 and continue throughout OAP development (and potentially beyond).
- Identification of draft region-wide IJC opportunities and actions, including engagement with the stakeholder communities/groups with a potential interest in those draft IJC opportunities and actions.
- RPB selection of preliminary IJC opportunities and actions as a result of stakeholder input and RPB deliberation.
- Discussions with regulators and managers about specific improvements (efficiencies, opportunities for coordination, etc.) that fall within their jurisdictions.
- RPB approval of region-wide IJC opportunities and actions as a result of discussions with regulators and managers and public comment (at an RPB business meeting).
- Continued discussion with regulators and managers about changes in business practices needed to realize the actions in practice.
- Stakeholder engagement and communication of potential changes in business practices to interested stakeholder communities/groups.



- Development of language to include in the OAP describing IJC actions and changes in agency-specific and interagency business practices and agreements, in terms both regulators and interested communities will understand.
- Development of protocols, Memoranda of Agreement, Memoranda of Understanding, or other commitments to implement best practices identified through interagency discussions and informed by input from interested communities (which may continue to be finalized after the OAP is agreed to and certified in 2016).

## **Workflow 2: Specific geographic areas for IJC action**

The RPB would identify an initial limited number of specific geographic areas that would benefit from enhanced information and IJC actions to improve decision making. Beyond characterizing the individual topics in the ROA, additional analyses may be needed to better understand the interactions among uses and resources in the Mid-Atlantic, support the identification of specific geographic areas on which to focus certain IJC actions, and more accurately understand the region's ecological and economic resources.

Potential activities for this workflow include:

- Exploration of the types of analyses that could be performed, consideration of the range of methods for conducting those analyses (e.g., methodology for identifying areas of ecological importance, assessing the Mid-Atlantic marine economy, and/or identifying other important characteristics of the Mid-Atlantic ocean), and identification of resources (e.g., costs, time, other considerations) for conducting such analyses.
- Analyses and associated products (in some cases potentially by a neutral third party) with input from stakeholders.
- Integration of analysis results with the Mid-Atlantic Ocean Data Portal (to the extent possible) to ensure results are publically accessible and transparent, and potential integration of results with the ROA.
- Identification of potential specific geographic areas and IJC actions to take within those areas.
- Specific discussions with agencies about potential changes in business practices to realize IJC actions for specific geographic areas.
- Stakeholder engagement and communication of potential geographic areas and potential coordination actions to interested stakeholder communities/groups.
- RPB approval of IJC actions for specific geographic areas and development of language to include in the OAP describing changes in agency-specific and interagency business practices and agreements, in terms both regulators and managers and interested communities will understand.
- Development of protocols, Memoranda of Agreement, Memoranda of Understanding, or other commitments to implement best practices identified through interagency discussions and informed by input from interested stakeholder communities/groups (which may continue to be finalized after the OAP is agreed to and certified in 2016).

### **Workflow 3: Regional Ocean Assessment (ROA)**

The ROA is an effort that RPB member entities are undertaking to characterize the resources, uses, and the ocean environment in the Mid-Atlantic building upon the goals and objectives established in the *Mid-Atlantic Regional Ocean Planning Framework*.

Potential activities for this workflow include:

- Finalization of the ROA outline based on discussions at the January RPB meeting.
- Population of the remaining sections of the ROA per RPB guidance, potentially with assistance from a science editor to help manage the information and ensure consistent content and language among sections.
- Opportunities for public and scientific review of a completed draft ROA.
- Discussion and RPB decision about the interface between the ROA, Mid-Atlantic Data Portal, and additional analyses being conducted.
- Finalization of the first iteration ROA, and plan for making updates and enhancements over time.

### **Workflow 4: Stakeholder Engagement**

As the RPB moves forward with selection of region-wide issues and specific geographic areas for IJC commitments and ROA development, stakeholder engagement will be crucial to the success of the outputs that are developed and implemented. To date, the Mid-Atlantic regional planning process has used communication approaches and comment opportunities to engage stakeholders, including periodic electronic updates on RPB activities, opportunities for public comment on draft documents through various mechanisms, and public listening sessions throughout the region to gather in-person feedback. These types of activities will continue to be used as the RPB moves forward with OAP development.

In addition to utilizing traditional communications channels to update and seek input from stakeholders about RPB activities, meetings, and decisions, the RPB will seek to engage stakeholders on the specific activities of each of its constituent workflows. To accomplish this, the RPB will seek to more effectively deploy existing federal, state, tribal, and MAFMC communication networks and outreach opportunities. In addition, MARCO, which is a key RPB partner supporting stakeholder engagement, is contemplating that its Stakeholder Liaison Committee, which was formed in March 2014 to support Mid-Atlantic regional ocean planning, could provide targeted engagement opportunities to support activities related to OAP development in the coming months. These opportunities could include sector-specific meetings, multi-sector workshops, and webinars. The RPB will continue to work with MARCO and the Mid-Atlantic Ocean Data Portal team to determine the specific steps in a stakeholder engagement workflow.

Potential topics around which to engage stakeholders in 2015-2016 include, among others:

- Identification of areas of ecological and economic importance to inform RPB decision making.
  - Sector-specific perspectives and considerations related to region-wide or geographically-specific IJC discussions.
  - Further development and refinement of the ROA.
- 

### **Pulling it all together: timeline for OAP development**

Once an approach to the OAP is approved at the January 21-22, 2015 MidA RPB meeting, the workflows detailed in this document would constitute the main body of work for the RPB in 2015, with some potential shifts in workflow design over time based on progress. In early 2016, additional elements (e.g., frequency of plan updates and monitoring strategy) will need to be developed and the outcomes of all workflows brought together in a first draft OAP. The OAP will then be refined, finalized and approved by the RPB, and sent to the National Ocean Council for certification by the end of 2016. Stakeholder engagement will be a key activity at each step in the process.

The process of developing the various components of the OAP will be guided by and documented in the evolving work plan that will be revised throughout 2015 and 2016 to reflect RPB decisions and workflow progress (in conjunction with RPB meetings and public engagement opportunities as needed). A preliminary proposed timeline for RPB meetings and work plan updates is detailed below, which may be subject to change based on workflow progress, RPB member institution and staff capacity, and other considerations.

<b>TIMELINE</b>	<b>2015*</b>				<b>2016*</b>			
	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>
<b>1. Region-wide IJC actions</b>	Develop criteria; Conduct agency discussions; develop draft region-wide opportunities and actions	Stakeholder engagement on draft IJC opportunities and actions; discussions with regulators	Approval of region-wide opportunities and actions	Discuss agency specific and interagency changes in business practices. Stakeholder engagement on potential changes.	Develop and approve language for OAP and communicate with stakeholders	Development of protocols, MOAs, and MOUs (may extend beyond 2016)		
<b>2. Specific geographic areas for IJC action</b>	Exploration of analyses and resources	Analyses conducted; stakeholder engagement on specific geographic areas	Approval of specific geographic areas	Discuss agency specific and interagency changes in business practices. Stakeholder engagement on potential changes.	Develop language for OAP and communicate with stakeholders	Development of protocols, MOAs, and MOUs (may extend beyond 2016)		
<b>3. ROA</b>	Finalize outline and approach to sections	Populate remaining ROA sections. Provide complete draft for RPB member entity review.	Provide complete draft for public and scientific review.	Discuss and determine interface between ROA, portal, and additional analyses	Finalize first iteration ROA and strategy for updates over time.			
<b>4. Stakeholder Engagement</b>	Opportunities for stakeholder engagement will occur throughout the above workflows							
<b>OAP and work plan development</b>	Approve OAP approach and develop work plan		Update work plan		Draft OAP language for public and RPB review	Refine draft and approve OAP	Release final OAP and submit for NOC certification	
<b>RPB meetings</b>	RPB Meeting (Jan in NYC)		RPB Meeting		RPB Meeting		RPB Meeting	

\* Quarters 1-4 above refer to calendar years starting running January through December (not Federal fiscal years)

# Mid-Atlantic Regional Ocean Planning Regional Planning Body Meeting Participant List

January 21-22, 2015 • Jacob K. Javits Federal Building, 26 Federal Plaza, New York, NY

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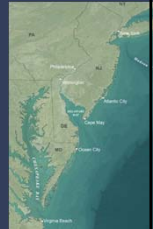
Appendix B1

# Context and Progress of the MidA RPB

*Kelsey Leonard, Tribal RPB Co-Lead  
Gwynne Schultz, State RPB Co-Lead  
Robert LaBelle, Federal RPB Co-Lead*

## About the MidA RPB

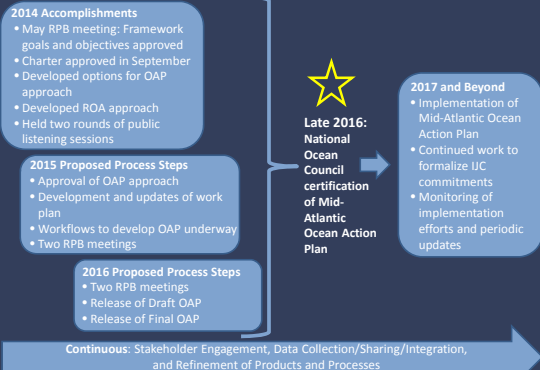
- *Mission of the RPB:* To implement and advance ocean planning in the region through collaborative process among Federal, State, Tribal, and Mid-Atlantic Fishery Management Council representatives in consultation with stakeholders.
- RPB Membership roster available at <http://www.boem.gov/Mid-Atlantic-RPB-Roster/>



## MidA RPB Activities to Date

- The RPB has held two in-person meetings to date (**September 2013** and **May 2014**).
- **May 2014:** Approval of *Mid-Atlantic Regional Ocean Planning Framework* identifying goals and objectives to guide the RPB.
- **September 2014:** Approval of *Charter for the Mid-Atlantic Regional Planning Body* that describes the purpose and mission of the RPB.
- **October 2014:** Public webinar to discuss draft MidA RPB documents and launch series of public listening sessions throughout the Mid-Atlantic.
- **November 2014:** Series of MARCO-hosted public listening sessions held in DE, MD, NJ, NY and VA.

## Updated MidA RPB Timeline



## Mid-Atlantic Regional Ocean Planning:

Regional Planning Body (RPB) Meeting

January 21-22, 2015

Jacob K. Javits Federal Building  
26 Federal Plaza  
New York, New York

Appendix B2

# Proposed Approach to the Mid-Atlantic Regional Ocean Action Plan (OAP)

*Karen Chytalo, OAP workgroup co-chair, NY DEC  
Robert LaBelle, OAP workgroup co-chair, BOEM*

## Grounded in Framework Goals

- The proposed regional OAP approach supports the goals and objectives in the *Mid-Atlantic Regional Ocean Planning Framework*:
  - Healthy Ocean Ecosystem
  - Sustainable Ocean Uses



## Mid-Atlantic Regional OAP should:

- Inform decision making under existing authorities
- Build on existing partnerships and planning efforts
- Be designed and implemented with robust stakeholder input
- Be updated periodically

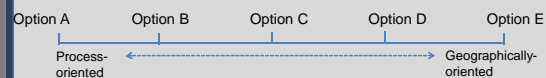


## Developing an Approach

- Internal RPB workgroup began in May 2014 to consider various ocean action plan options
- Draft options released in October for public comment
- Public listening sessions held in November to receive feedback
- Through January 2015, the RPB created a proposed approach informed by public input

## Five Options Considered

- *Option A: Issue-Triggered Coordination Process*
- *Option B: Compatibility Assessment*
- *Option C: Targeted Coordination by Issue or Geography*
- *Option D: Compatible Use Areas*
- *Option E: Comprehensive Optimal Use Maps*



## Hybrid of Options: Proposed Approach

- The OAP would identify **interjurisdictional coordination (IJC)** opportunities and actions
- On a region-wide scale the RPB would identify opportunities/issues to:
  - Identify research needs
  - Inform and improve decision making
  - Improve information for regulatory review
  - Leverage resources
- The RPB would identify specific geographic areas that exemplify region-wide interjurisdictional issues, such as:
  - Ecological value
  - Socio-economic value
  - Current or potential use conflict

## Additional Tools / Approaches

- Depending on resources, the RPB may consider pursuing additional analyses, or make use of other decision support tools. For example:
  - Assessments of compatibility
  - Region-wide assessment of areas of ecological importance
  - Region-wide analysis of the marine economy
  - Region-wide information sharing about proposed ocean use and conservation projects
  - Increased understanding of other potential tools and applications

## All workflows lead to the OAP

- All workflows and RPB activities going forward will contribute to the development of the OAP
  - ROA
  - IJC
  - Stakeholder Engagement
  - Additional Analyses
- By approving an approach, the RPB is positioned to further define and make progress on these workflows throughout 2015 and 2016



## Action Needed

- At this RPB in-person meeting:
  - RPB discussion and approval of the *Proposed Approach to the Mid-Atlantic Regional Ocean Action Plan*
  - Discussion of workflows throughout the meeting that will develop parts of the OAP
- Next steps after meeting:
  - Development of work plan to guide development of OAP
  - Workflows (IJC, ROA, Stakeholder Engagement, etc.) proceed/modified to carry out work plan

### Appendix B3



### The New York Ocean Action Plan

January 21, 2015



## Brief Background

- The 2006 New York Ocean and Great Lakes Ecosystem Conservation Act (The Act).
- The Act established EBM as the foundation to conserve, maintain and restore the health of ocean and coastal ecosystems .
- The Act also created the New York Ocean and Great Lakes Ecosystem Conservation Council (ECC); 12 state agencies plus SUNY SB.

## BACKGROUND (cont.)

- In 2009 the ECC published '*Our Waters, Our Communities, Our Future*' after gathering information from numerous stakeholder forums.
- Called for the state to develop and implement Regional EBM Action Plans for the Ocean and Great Lakes.
- In line with Action Agendas for Hudson River Estuary, Mohawk and Great Lakes.

## OAP – Critical for New York Environmental and Economic Future

- 60% of NY Population live along 2,600 coastal miles
- Significant recreational uses
- Fisheries generate \$5 billion annually and 42,000 jobs
- Shipping generates \$175 billion and 279,200 jobs
- Healthy ecosystem critical for economic support
  - 330 marine fish species (manage only 39)
  - Marine habitats
  - Water quality
  - Ocean Health
- Alternate Energy development



## Stakeholder Involvement (2011-2012)

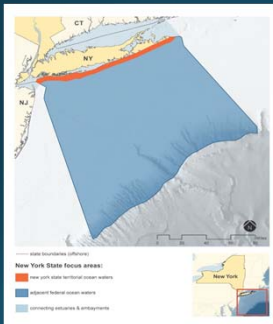
- State agencies
- Federal agencies
- Estuary programs
- Nassau and Suffolk Counties
- Shinnecock Indian Nation
- New York Marine Sciences Consortium
- Commercial and recreational fishers
- Industry
- Environmental NGOs



## New York Ocean Action Plan

- The New York Ocean Action Plan (OAP) :
  - is a collaborative planning and implementation effort among Government, academia, NGO's, stakeholders, and others involved with New York's Ocean Environment,
  - provides a framework for an integrated, adaptive approach to management, and
  - seeks to identify stressors that threaten the ecological integrity of the ocean ecosystem, and proposes relevant actions.

## Geographic Scope



Inshore waters from New York City to Montauk Point including lagoonal bays of the south shore of Long Island).

Offshore waters of the New York Bight out to the edge of the Outer Continental Shelf (OCS)

All connecting estuarine waters

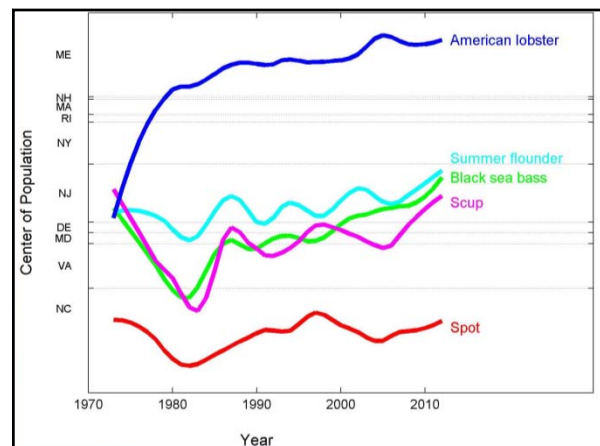
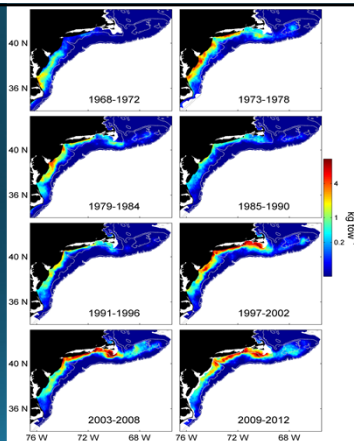
## Issues Affecting the Ocean Ecosystem

- Recreational and Commercial Fishing
- Shipping and Transportation
- Offshore Energy Development
- Habitat Loss and Destruction
- Water Quality Issues (Eutrophication, HABs, Pathogens, Toxins)
- Aquatic Invasive Species
- Climate Change (Sea Level Rise)



24 of 36 fish stocks shifted poleward and/or deeper (Nye et.al. 2009)

SUMMER FLOUNDER



## NY OAP Main Elements

- 4 clearly defined goals
- Timeline of 10 years
- 61 prioritized actions and incremental steps to guide the actions (matrix)
- Implementation through partner collaboration
- Potential partners identified within the outline (state, interstate, federal, tribal academia, NGOs)

## Summary of OAP Goals

GOAL 1: *Ensure the ecological integrity of the ocean ecosystem.*

GOAL 2: *Promote economic growth, coastal development and human use of the ocean in a manner that is sustainable and consistent with maintaining ecosystem integrity.*

GOAL 3: *Increase resilience of ocean resources to impacts associated with climate change.*

GOAL 4: *Empower the public to actively participate in decision making and ocean stewardship.*

## Actions are moving forward!

- OGL Funding:
  - Geographic Information Gateway (ongoing)
  - Whale Monitoring Pilot Program (2015)
  - Fisheries Observer Coverage (2015)
  - Breach Monitoring (ongoing)
  - Ocean Indicators Workshop (2015)



## OAP Relationship to MidA RPB Activities

- Provides state information for the ROAP (Dec. 2016)/ROA (Jun. 2015)
- Enhances collaborative partnerships for monitoring and research
- Provides guidance for sustainable management of ocean resources
- Seeks to minimize user conflict
- Improves regional policy decision-making

NEW YORK STATE OF OPPORTUNITY Department of Environmental Conservation Department of State

NEW YORK STATE OF OPPORTUNITY Office of General Services Parks, Recreation, and Historic Preservation NYSERDA

NOAA DEPARTMENT OF COMMERCE

LONG ISLAND SOUND STUDY

THE NATURE CONSERVANCY "Protecting nature. Preserving life."

USGS science for a changing world

BOEM Bureau of Ocean Energy Management

And Other Partners!



# Overview of NYS DOS Offshore Atlantic Ocean Planning

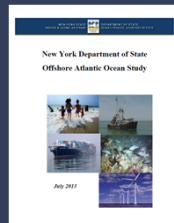
*Gregory Capobianco, Division Director  
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## NYS Offshore Ocean Planning

- Priorities:
  - Site offshore wind to meet energy needs, promote economic development
  - Protect areas important to NY's economy, natural resources
  - Identify offshore sand resources for future beach nourishment, resilience efforts
- Complements the near-shore emphasis of the NYS Ocean Action Plan

## NYS Offshore Ocean Planning

- Products:
  - Offshore Atlantic Ocean Study
    - Released July 2013
  - Locations of potential offshore wind lease areas
  - Locations of potential offshore sand borrow areas
  - Ocean-focused update to NY's Coastal Management Program



## Offshore Atlantic Ocean Study

- Focuses on data, not analysis
- Identifies areas important to NY's economy
- Supports the identification of offshore wind energy area(s), habitats, sand resources
- Is a true collaborative effort

<http://www.dos.ny.gov/opd/programs/offshoreResources/index.html>



## DOS Ocean Study Partnerships

- NOAA National Centers for Coastal and Ocean Science
  - seabird, deep sea coral, oceanographic data
- New England Aquarium / University of Rhode Island
  - marine mammal, sea turtle data
- Cornell Cooperative Extension
  - interviews with commercial fishermen
- NYS DEC, NYSERDA, Parks, SUNY, other State agencies
- Stakeholders – recreational and commercial, NGO's

## DOS Ongoing Partnerships

- NYS-BOEM Task Force
  - Consultation on current/prospective leasing activities
  - Multiple state/federal/local partners
- BOEM Cooperative Agreement
  - Research on sand resources
  - Complements in-state work
  - Collaboration with SUNY Stony Brook





## NYS Ocean Planning

- Taken together, NY's Offshore Atlantic Ocean Study and Ocean Action Plan:
  - address the multitude of uses, resources and concerns that NY has in the ocean;
  - lay a foundation for progress on NY's ocean priorities; and
  - identify opportunities for increased State, federal, and stakeholder partnerships...

*...with you!*

## For more information

- <http://www.dos.ny.gov/opd/programs/offshoreResources/index.html>

### Appendix B4

## Stakeholder Engagement

Gwynne Schultz, Chair  
MARCO Management Board  
Kris Ohleth, MARCO Executive Director

**MARCO**  
MID-ATLANTIC REGIONAL  
COUNCIL ON THE OCEAN

January 2015



## Stakeholder Liaison Committee Background/Objectives

### Objectives:

- Provide direct input and feedback to MARCO about the design and implementation of regional ocean planning;
- Act as a conduit for information between stakeholders in the region and MARCO about regional ocean planning; and
- Serve as a venue for increasing dialogue, understanding, and communication among stakeholders.

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MID-ATLANTIC REGIONAL  
COUNCIL ON THE OCEAN

## SLC Engagement Activities 2014

- Inaugural meeting – March
- SLC webinar to debrief after RPB meeting – May
- Submarine cable meeting – July
- Tug and barge meeting – September
- SLC webinar to discuss RPB's draft documents – October
- Direct engagement between SLC member and MARCO Staff – ongoing

**MARCO**  
MID-ATLANTIC REGIONAL  
COUNCIL ON THE OCEAN

## Observations from SLC Sector Representatives



Bob Wargo -  
North American Submarine Cable Association

John Harms -  
American Waterways Operators

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COUNCIL ON THE OCEAN

## SLC Engagement Activities Preview for 2015

Targeted engagements, including:

- Sector-specific meetings
- Multi-sector meetings
- Webinars

Questions or comments?



Appendix B5

## Mid-Atlantic Tribal Engagement

*Gwynne Schultz, MARCO Management Board  
Kelsey Leonard, Shinnecock Indian Nation*

## Tribal Engagement in the Mid-Atlantic Region

- MARCO and the Shinnecock Indian Nation are collaborating to expand and enhance Tribal engagement in the Mid-Atlantic regional ocean planning process



## Tribal Engagement Scope of Work

- Create opportunities for Tribal engagement in the ocean planning process (Listening Sessions or other appropriate venues)
- Identify and collect existing Tribal data for inclusion in the Mid-Atlantic Ocean Data Portal (Participatory GIS Sessions)

## Preliminary Timeline for Tribal Engagement Activities

- Survey Tribal Nation representatives in the region – Winter 2015
- Initial engagement to finalize scope of work – Spring 2015
- Execution of scope (i.e., LSs, pGIS workshops, etc.) – Summer & Fall 2015
- Reporting back to the MidA RPB – Winter 2015

Questions or comments?

Appendix B6

## Regional Ocean Assessment

*Co-Chairs:  
Kevin Chu (NOAA)  
Sarah Cooksey (Delaware)*

## Purpose of ROA

- Analyze Data, Uses, Services, and Impacts in the Mid-Atlantic Ocean
- Uses maps and information to describe the marine environment and human activities relevant to the subject matter of a marine plan.
- Inform the Regional Planning Body decision-making process

## Concept

- Provide information based on the Mid-Atlantic Planning Body's Framework
- Two main sections
  - Healthy Ocean Ecosystems
    - Provides information about ocean ecosystem
  - Sustainable Ocean Uses
    - Provides information about human uses and issues

## Proposed ROA Outline 1

### Section 1: Healthy Ocean Ecosystem

1. Biology and Ecology
2. The Ocean Environment
3. Emerging Issues



## Proposed ROA Outline 2

### Section 2: Sustainable Ocean Uses

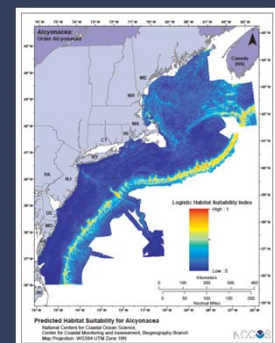
1. National Security
2. Ocean Energy
3. Fishing
4. Ocean Aquaculture
5. Marine Commerce & Navigation
6. Offshore Sand Management
7. Non-consumptive Recreation
8. Tribal Uses
9. Undersea Infrastructure

## Decisions for RPB on ROA Outline

- 1. Is this version of the outline sufficient for the ROA Working Group to continue drafting the Regional Ocean Assessment?
- 2. Which topics would the RPB would like to see prioritized for development during the spring of 2015?

## Example Sections

- 3 Examples for consideration
  - Deep Sea Corals
  - Offshore Wind Energy
  - Panama Canal Expansion



### Decisions for RPB on Example Sections

- 3. Is the level of information appropriate?
- 4. Is the scope of the information on each topic sufficient to inform the development of the OAP?

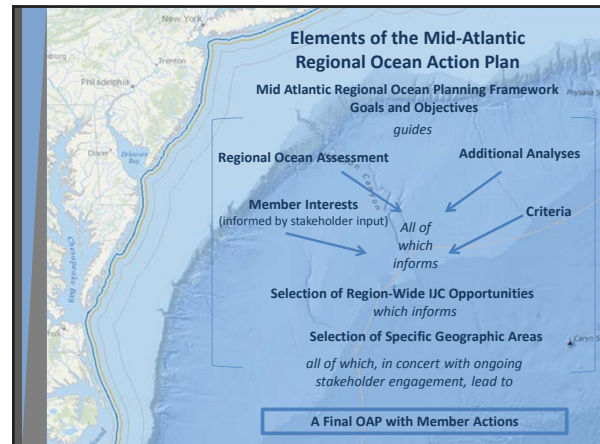
### Decisions for RPB on ROA Outline

- 1. Is this version of the outline sufficient for the ROA Working Group to continue drafting the Regional Ocean Assessment?
- 2. Which topics would the RPB would like to see prioritized for development during the spring of 2015?

## Appendix C1

### Agenda Change

- 9:00 Welcome back, summary day 1, agenda review day 2
- 9:10 Discussion, reflection on comments received and approval of the *Approach to the Mid-Atlantic Regional Ocean Action Plan*
- 9:40 Interjurisdictional coordination opportunities and next steps (part one)
- 10:45 Break
- 11:00 Panel and discussion: Data and analysis tools to support ocean planning going forward
- 12:30 Lunch
- 1:30 Interjurisdictional coordination opportunities and next steps (part two)
- 2:00 Discussion of next steps for RPB workflows
  - 2:00 Overview of workflows
  - 2:15 Discussion, reflection on comments reviewed and refinement of ROA outline, example sections, process and timeline
  - 3:00 Stakeholder engagement opportunities and next steps
  - 3:15 Moving ahead to develop the OAP
- 4:00 Public comment session: Additional topics, including data and analysis tools, IJC and RPB next steps
- 4:45 Identify any next steps still outstanding, revisit timeline for 2015-2016, and summary
- 5:00 Adjourn



## Discussion, reflection and approval of OAP Approach

## Appendix C2

## Interjurisdictional Coordination

Deerin Babb-Brott, Senior Partner, SeaPlan

### What is Interjurisdictional Coordination?

- Goals and objectives describe **what** the RPB wants to accomplish
- The Regional Ocean Assessment provides context for **why** the goals and objectives need to be accomplished
- Interjurisdictional coordination actions are **how** goals and objectives will be accomplished

### What is Interjurisdictional Coordination?

- The actions that RPB entities will take, *under existing authorities*, to better coordinate their work and use data and information to:
  - Inform and improve management
  - Improve the use of information for environmental and regulatory review
  - Identify and address research needs
  - Leverage resources

## Example of Interjurisdictional Coordination

- IJC action region-wide:
  - Prioritize research needs and identify existing programs and resources that can be leveraged to address them
- IJC action for geographically specific area:
  - In the mouth of Chesapeake Bay, collaborate to determine migration rate of the encroaching shoals at Northeastern and Southeastern navigation channels and develop management response

## How would IJC Actions be developed?

- RPB entities with stakeholder input identify region-wide opportunities (issues)
- Opportunities organized among the 4 categories (management, review/regulation, research, resources)
- RPB identifies opportunities best addressed in geographically specific areas
- As opportunities are being considered, specific IJC actions to address them are developed
- Decision criteria support discussion at each step

The RPB has approved Planning Framework goals and objectives

Goals and objectives

### Goal 1: Healthy Ocean Ecosystem

- Improve understanding of the regional ecosystem
- Improve understanding of changes occurring in the regional ecosystem
- Incorporate traditional knowledge
- Preserve, protect, enhance, and restore the regional ecosystem

### Goal 2: Sustainable Ocean Uses

- Improve management effectiveness
- Minimize conflicts
- Support regional economic growth

*(In the context of the 9 sectors identified as the Framework objectives)*

RPB entities w/ stakeholder input identify opportunities guided by decision criteria

Goals and objectives → Region-wide Opportunities

### Potential criteria

- Consistent with and serve to achieve the Framework principles, goals, and objectives
- **Foundational** (related to core authorities or practices regarding management, regulation, education, etc.)
- **Interdisciplinary and/or interjurisdictional** (meaningful to multiple RPB member missions in the context of the OAP)
- **Regional** in nature and/or policy priorities for a number of RPB member entities and/or stakeholders

Goals and objectives

Region-wide Opportunities

RPB entities w/ stakeholder input identify geographically specific opportunities guided by decision criteria

Geographically specific opportunities

### Potential criteria:

- Potential to demonstrate progress on the region-wide IJC opportunities
- Areas of significant ecological value
- Areas of socio-economic value
- Areas of high current or potential user conflict

RPB entities w/ stakeholder input identify IJC actions region-wide and for geographically specific areas, guided by decision criteria

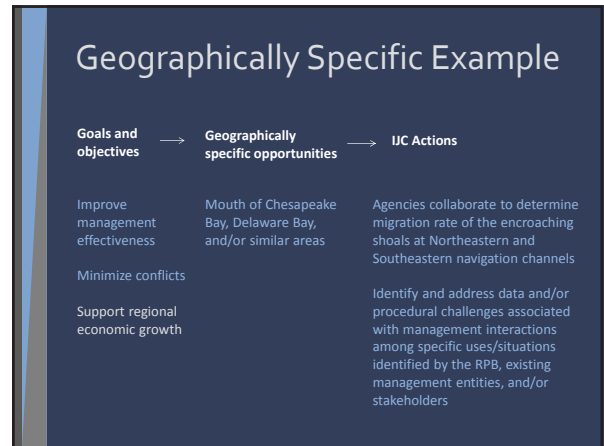
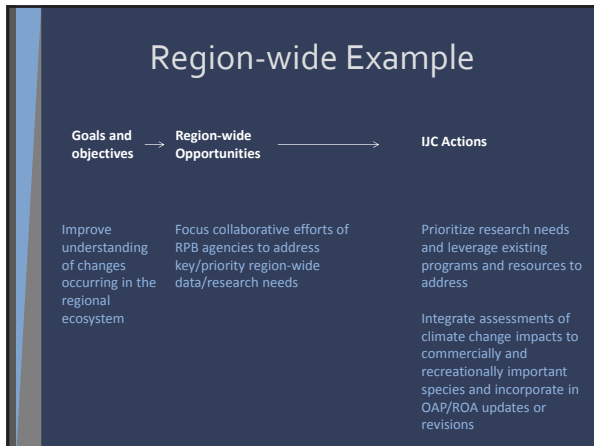
Goals and objectives → Region-wide Opportunities

Region-wide Opportunities → IJC Actions

Geographically specific opportunities → IJC Actions

### Potential criteria:

- Consistent with and serve to achieve the Framework principles, goals, and objectives
- Achievable within the capacity limitations of the RPB and/or any collaborating entity to accomplish within the planning horizon
- Lead to an improvement in process and/or outcome over current practice
- Advance member entity missions and/or stakeholder interests under existing authorities
- Leverage existing programs, processes, and/or resources



## IJC discussion

**Appendix C3**

## Panel and Discussion

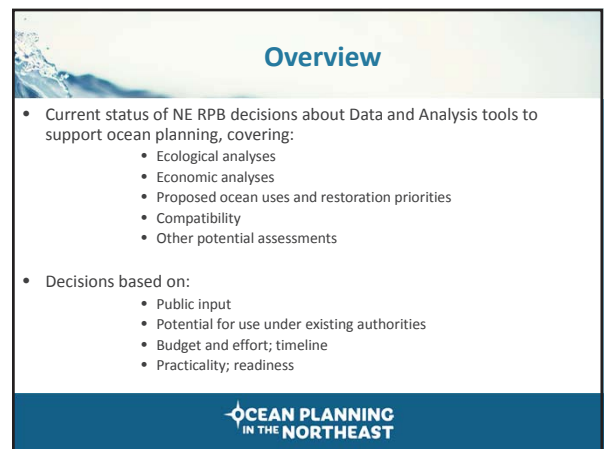
*Nick Napoli, Northeast Regional Ocean Council*  
*Pat Halpin, Duke University*  
*Laura McKay, Virginia Coastal Zone Management Program*



### Data and Analysis Tools Supporting Ocean Planning in the Northeast

Mid-Atlantic Regional Planning Body  
January 2015

**OCEAN PLANNING  
IN THE NORTHEAST**



## Overview

- Current status of NE RPB decisions about Data and Analysis tools to support ocean planning, covering:
  - Ecological analyses
  - Economic analyses
  - Proposed ocean uses and restoration priorities
  - Compatibility
  - Other potential assessments
- Decisions based on:
  - Public input
  - Potential for use under existing authorities
  - Budget and effort; timeline
  - Practicality; readiness

**OCEAN PLANNING  
IN THE NORTHEAST**

## Ecological Analyses: Important ecological areas

**OPTION 1: DEFINE AREAS USING EXISTING MAPS THROUGH EXISTING AUTHORITIES**

The Northeast Ocean Data portal team, with input from relevant agencies, is already compiling areas identified by these authorities and planning efforts.

**Some examples of existing areas**

- Endangered Species Act (1973) Critical Habitat
- Magnuson-Stevens Act (1976) Essential Fish Habitat
- Massachusetts Ocean Management Plan (2009) Special, Sensitive or Unique areas
- Rhode Island Ocean Special Area Management Plan (2010) Areas Designated for Preservation & Areas of Particular Concern

x 48 species  
 x 3  
 x 11  
 x 22  
 x 5

## Ecological Analyses: Important ecological areas

**OPTION 2: UTILIZE NEW DISTRIBUTION & ABUNDANCE MAPS**

The Marine-Life Data & Analysis Team (MDAT) is producing habitat density models and other abundance products:

- ~ 25 species
- 3 species
- 30 - 100+ species
- ~ 75 species

An extensive effort is underway for marine mammals, sea turtles, birds and fish. This includes a large research team and three expert work groups composed of over 80 individuals.

Overlay with areas identified from Option 1

## Ecological Analyses: Important ecological areas

**OPTION 3: IDENTIFY HOT SPOTS / CORE HABITAT FOR INDIVIDUAL SPECIES FROM NEW DISTRIBUTION & ABUNDANCE MAPS**

Distribution and abundance maps

Thresholds

+ Migratory corridors

+ Spawning areas

Direct existing expert work groups to inform methodologies for identifying hot spots, migratory corridors, and other potentially important habitat areas that are not captured by distribution and abundance maps.

## Ecological Analyses: Important ecological areas

**OPTION 4: OVERLAY ABUNDANCE HOTSPOTS, CORE HABITAT, AND OTHER OCCURRENCE AREAS FOR PROTECTED & IMPORTANT MARINE SPECIES**

Combine maps indicating regional abundance hot spots and other core habitat developed in OPTIONS 2 and 3 to identify areas important to multiple marine life species.

marine mammals  
sea turtles  
birds  
fish

## Ecological Analyses: Measures of Ecosystem Health

THE RPB IS ALSO CONSIDERING OPTIONS FOR **MEASURING OCEAN HEALTH**

**Overall Condition U.S. Coastal Waters**

Year	Score
2001	48
2007	45
2008	45

**The Buzzards Bay Condition**

Indicator	Score
Water Quality	75
Marine Mammals	75
Seabirds	73
Sea Turtles	63
Overall Score	60

EPA National Coastal Condition

## Economic Analyses: Coastal and Marine Economy

2005-2012 State, county and port/town (where possible) level analyses of different marine sectors, building on NOAA ENOW

**Employment: Total Ocean Economy**

Category	Value
Total Ocean Economy	66 of 402
Employment	11,918
Self-Employment	+ 364
Unemployed	12,282

**OCEAN PLANNING IN THE NORTHEAST**



## Economic Analyses: Ecosystem services

- Ecosystem service definitions and categories
- Summary of non-market valuation studies and estimates
- Knowledge gaps
- Mapping resources and infrastructure components to economic/ecosystem service value generation

## Proposed Ocean Uses & Restoration Priorities

- Spatial data for proposed ocean uses:
  - Status of renewable energy permitting, planning and pilots
  - Preliminary FERC permits
  - Proposed aquaculture projects
  - Considering adding large navigational dredging projects and research on potential sand borrow sites
- Restoration priorities:
  - Identified potential restoration projects
  - Developed criteria and prioritized projects
  - Developing a map of priority restoration projects to be endorsed by full NE RPB

## Compatibility

Range of approaches: Increasing complexity & data/research needs

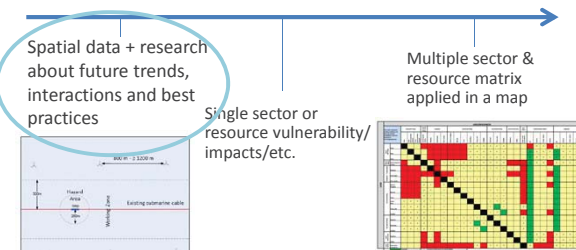


Figure 4: Vessel operation on the cable blue  
Source: International Cable Protection Committee

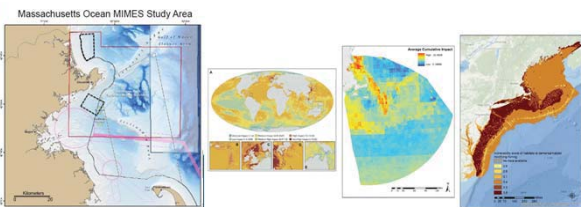
## Compatibility

NE RPB current focus:

- Continue to advance spatial data on uses/resources
- Conduct outreach and research about future trends, interactions and best management practices
- Discuss the use of data under existing authorities with regulatory agencies
- Engage the public, including different sectors/interests about compatibility issues
- Revisit at June NE RPB meeting

## Other potential assessments

- In November, NE RPB decided to establish an EBM work group
- Other potential assessments, many of which have been piloted in the region, will be considered as data, regulatory, and EBM work groups progress




Thank you

Nick Napoli


[nnapoli@northeastoceancouncil.org](mailto:nnapoli@northeastoceancouncil.org)  
518.524.4685

## Marine-life Data & Analysis




**Patrick N. Halpin**  
 Marine Geospatial Ecology Lab, Duke University  
 Marine Life Data & Analysis Team (MDAT) Principal Investigator  
 Brian Kinlan (Co-I), Earvin Balderama (Co-I), Mike Fogarty (Co-I)  
 Jason Roberts, Arliss Winship, Corrie Curtice, Jesse Cleary, Emily Shumchenia

Mid-Atlantic Regional Planning Body  
 January 22, 2015

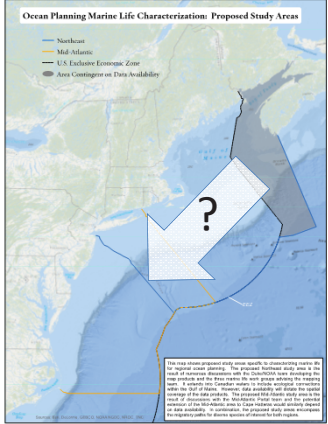


## Objective:



To describe the ongoing work we are doing to develop marine life data & models for the North East Regional Ocean Council and discuss potential extension of this work to the Mid Atlantic Region.

### Ocean Planning Marine Life Characterization: Proposed Study Areas




**North East & Mid-Atlantic Study Area options**

When discussing where to draw the boundary between the Northeast and the Mid Atlantic regions the possibility of extending data collection and model development to the Mid Atlantic region was raised.


The next phase development will focus on identifying specific study areas within the proposed study areas. The proposed study areas will be used to inform the development of the study area. The study area will be used to inform the development of the study area. The study area will be used to inform the development of the study area.

## Overview




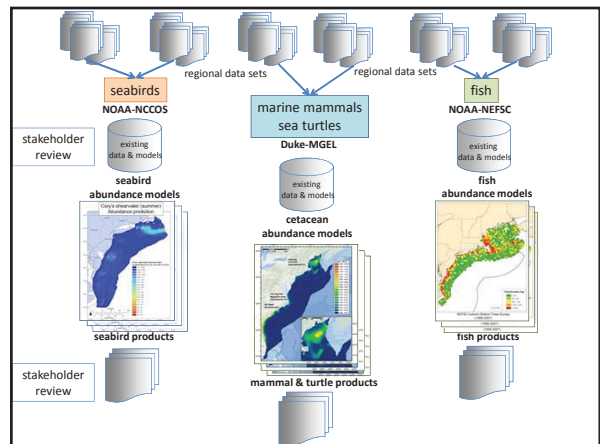
- Team and Timeline
- Study Area
- Expert Working Groups
- Important Ecological Areas
- Next Steps

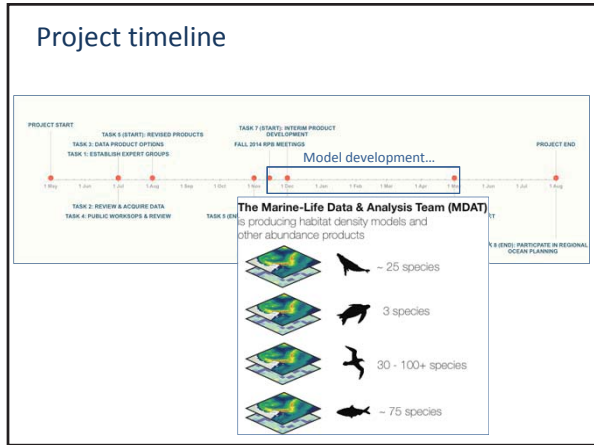
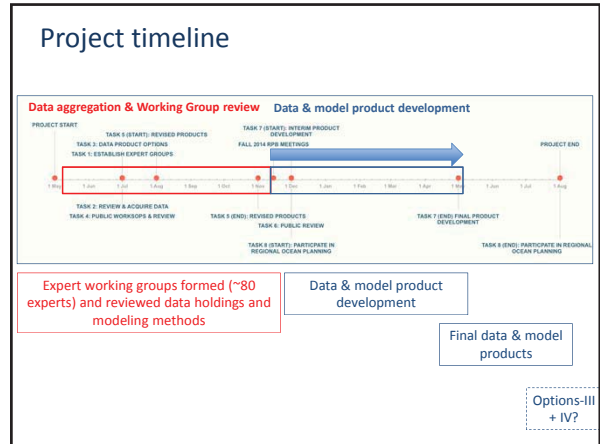
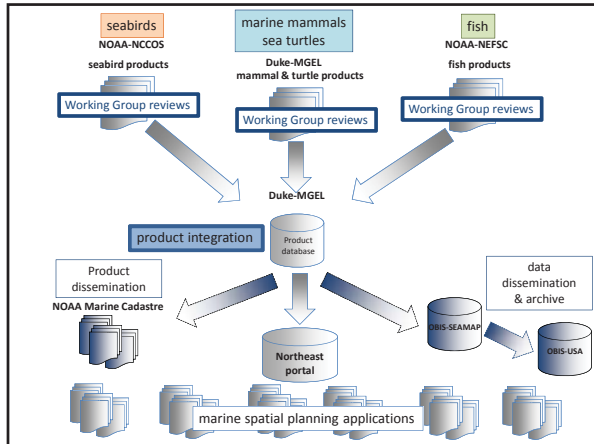
## Marine-life Data & Analysis Team



*Because it is absolutely essential to have first-hand knowledge of the data products and model development to properly interpret the results, we have assembled a core team of **primary data analysts and model developers***

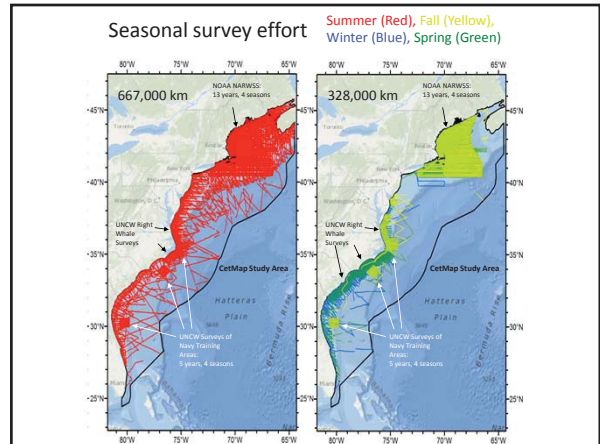
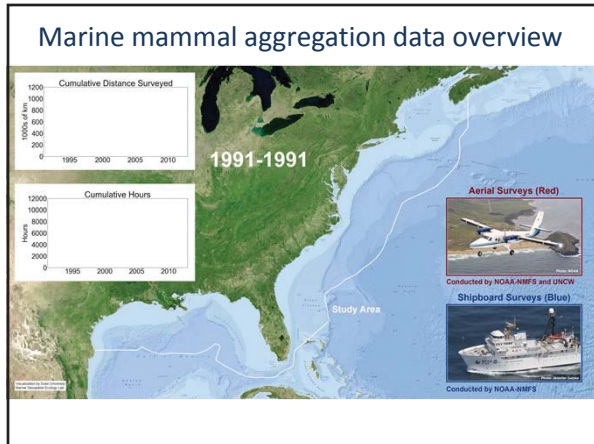
- Marine Geospatial Ecology Lab – Duke University
- NOAA – NCCOS
- NOAA – NMFS/NEFSC
- Loyola University

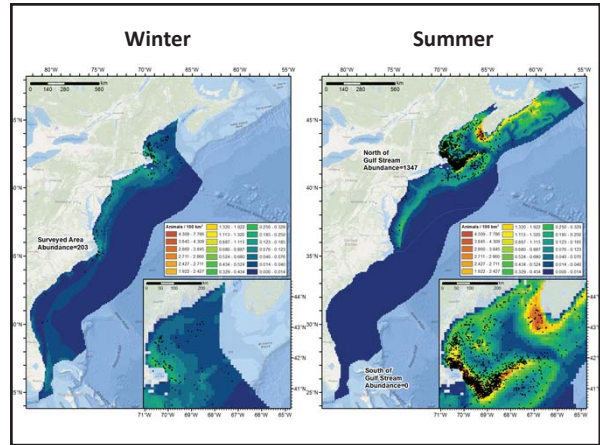
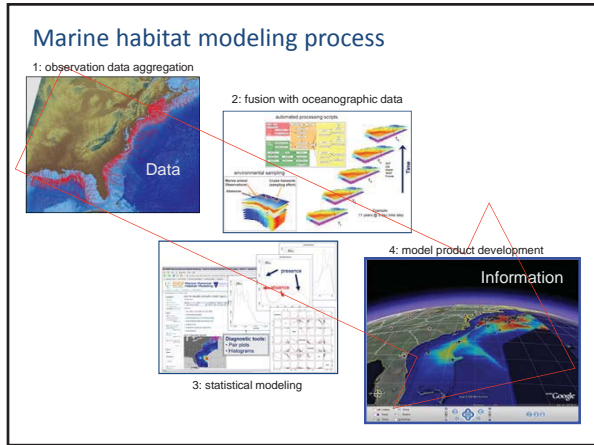
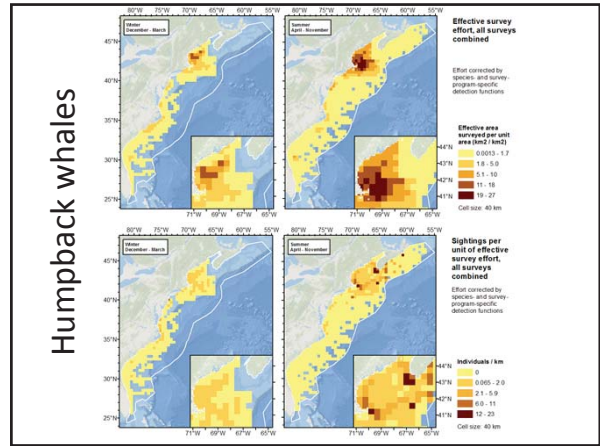
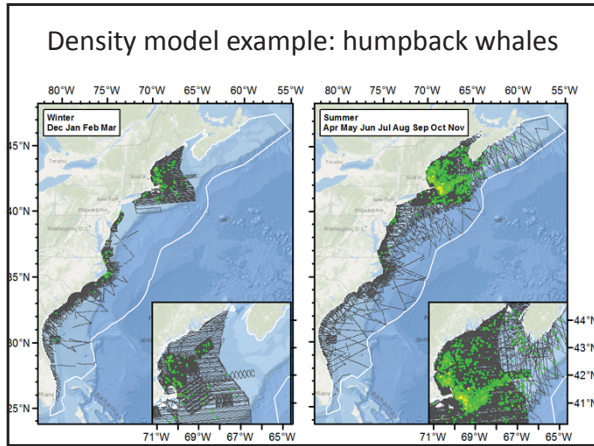





### Overview

- Team and Timeline
- Study Area
- Expert Working Groups - Mammals
- Important Ecological Areas
- Next Steps

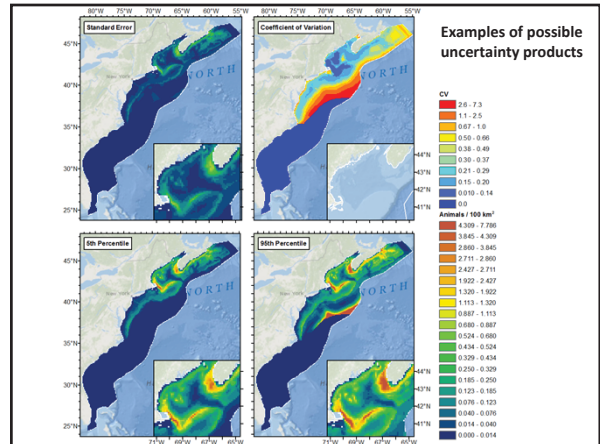





### Motivation

Regional planning bodies need more than inventories of species abundances and maps of distribution patterns; they need information to help assess *ecological vulnerability* and *risk*.

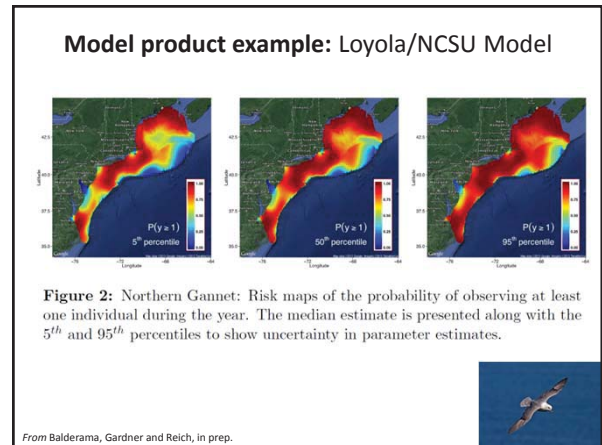
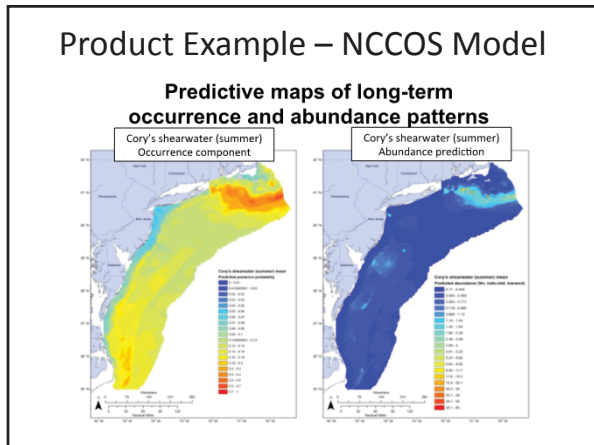
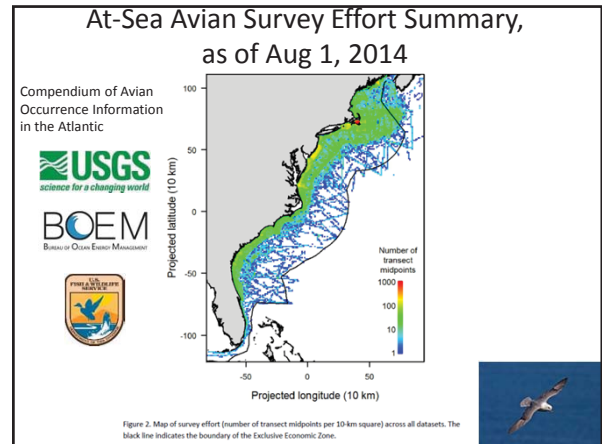

To support these goals, data need to be carefully crafted into readily understandable *data products*, indicating the quality of the information, as well as any *uncertainties* associated with the data.





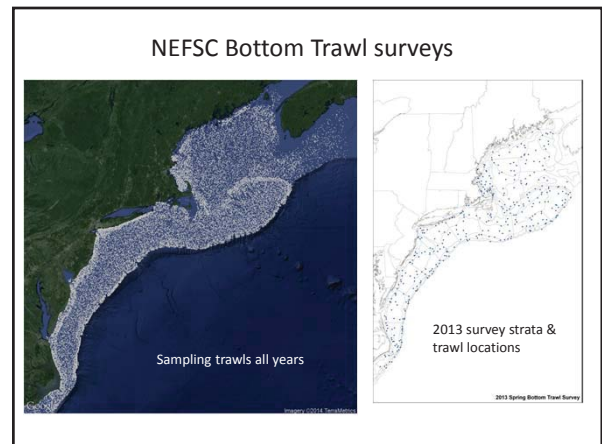
## Overview

- Team and Timeline
- Study Area
- Expert Working Groups - Avian
- Important Ecological Areas
- Next Steps

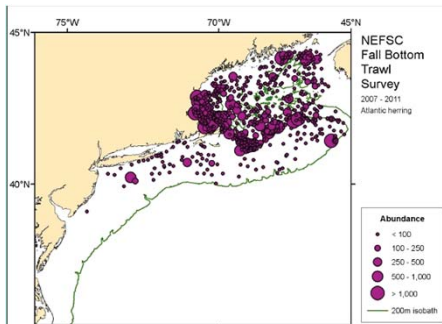



## Overview

- Team and Timeline
- Study Area
- Expert Working Groups - Fish
- Important Ecological Areas
- Next Steps

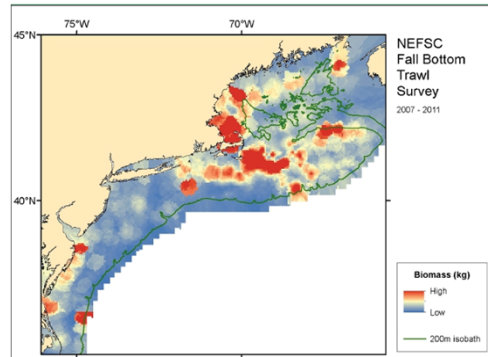


## Atlantic herring – keystone species



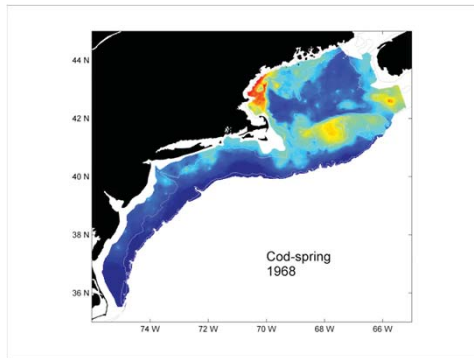
NEFSC Ecosystem Assessment Program Forage fish –potential prey indicator;

## Total biomass



NEFSC Ecosystem Assessment Program

## Atlantic Cod distribution over time



NEFSC Spring Bottom Trawl Survey 1968 – 2008

## Expert Work Group discussion: Cross cutting issues

CROSSCUTTING ISSUES	OPTIONS
DATA COLLECTION	<ul style="list-style-type: none"> <li>• Sources</li> <li>• Geographic scope</li> <li>• How to integrate survey methods?</li> <li>• How to integrate expert knowledge?</li> </ul>
TEMPORAL EXTENT	<ul style="list-style-type: none"> <li>• How many decades of data to include?</li> <li>• Monthly, seasonal, annual summaries</li> </ul>
TREATMENT OF DATA	<ul style="list-style-type: none"> <li>• Summarize by species, guilds, functional groups</li> <li>• Incorporate migration routes?</li> <li>• Which environmental covariates?</li> </ul>
SPATIAL PRODUCTS	<ul style="list-style-type: none"> <li>• Tier I spatial products (observations)</li> <li>• Tier II spatial products (observations + habitat)</li> </ul>
USES	<ul style="list-style-type: none"> <li>• As supporting information</li> <li>• For environmental impact assessment and/or permitting decisions by state or federal regulatory agencies</li> <li>• Assessing compatibility with other uses</li> </ul>

**Most important outcome:** setting expectations for which species and in what time periods is there sufficient observation data to model abundance & density



## Overview

- Team and Timeline
- Study Area
- Expert Working Groups
- Important Ecological Areas
- Next Steps

## Important Ecological Areas

### Levels of analysis

#### Distribution

Where are these species found? (data = range maps, habitat models...)

#### Abundance

How many animals are found in an area? (data = density models...)

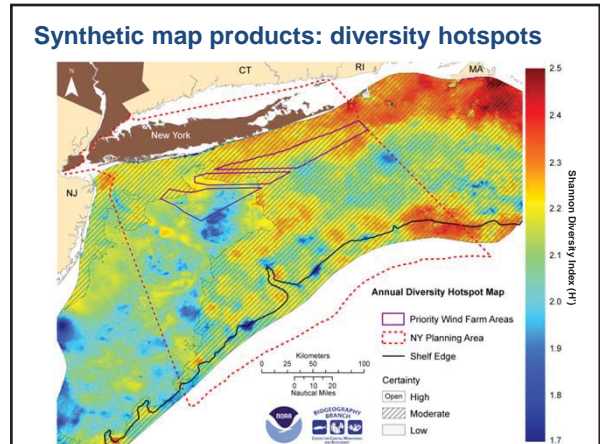
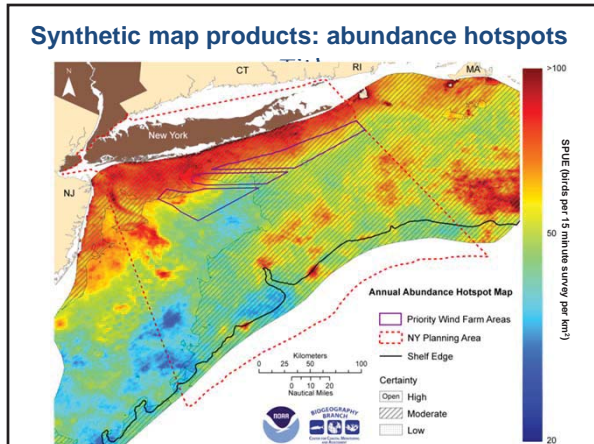
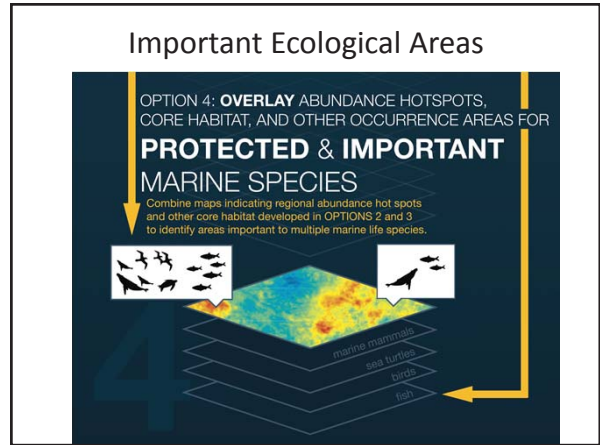
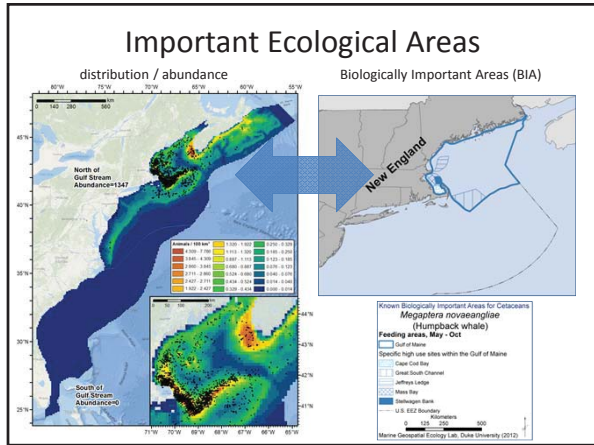
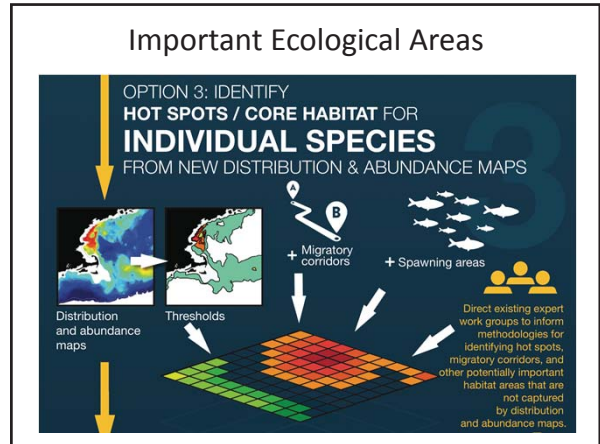
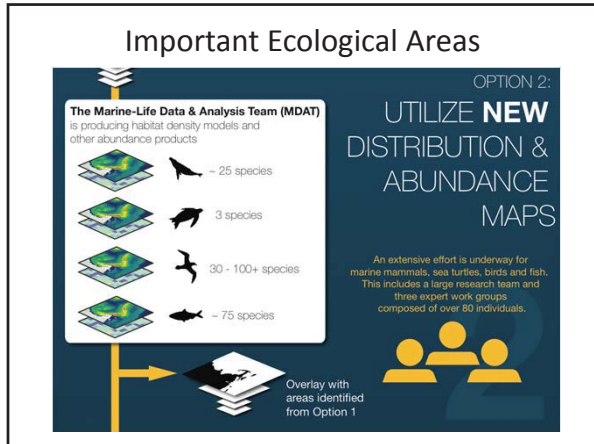
#### Persistent multiple use or critical habitat areas

Where are the critical areas for these species? (data = multi-species use "hotspots", critical feeding/breeding areas, BIAs...)

#### Vulnerability

What are the potential stresses on these areas? (data = current or potential uses, habitat degradation...)

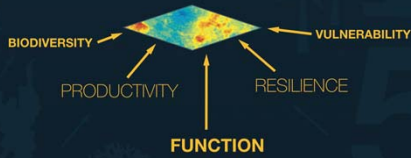
*Increasing requirements for long-term data collection, more sophisticated analysis and multi-disciplinary approaches*



## Important Ecological Areas

### OPTION 5: EXPLORE OPTIONS FOR ADVANCING AN ECOSYSTEM-BASED APPROACH TO IDENTIFYING ECOLOGICALLY-IMPORTANT AREAS

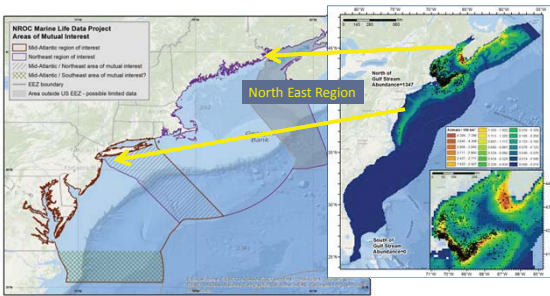
What is ecological importance?



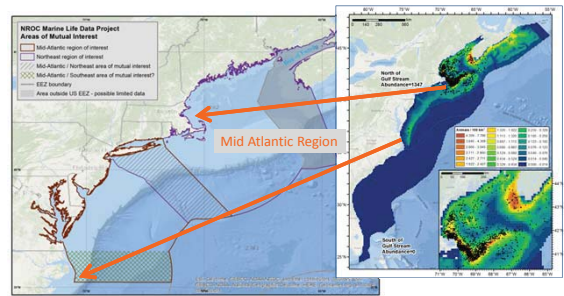
## Overview

- Team and Timeline
- Study Area
- Expert Working Groups
- Important Ecological Areas
- Next Steps

## North East & Mid-Atlantic Study Area options



## North East & Mid-Atlantic Study Area options



## What we can extend vs. what will take more effort

### What can be readily extended:

- ✓ General data and model products

### What will take more effort:

- ✓ Model updates (2015 – 2016...)
- ✓ Some of the avian models are being produced to regional areas...
- ✓ Mid Atlantic Regional data inputs
- ✓ Mid Atlantic Regional expert working group interactions / reviews
- ✓ Mid Atlantic summary maps, statistics, report products
- ✓ Reporting & interactions with the Mid Atlantic RPB
- ✓ Interactions map / data development with the regional data portal



## Benefits of extending MDAT models to the Mid Atlantic

- ✓ Seamless data collection and models;
- ✓ Consistent methods and approaches;
- ✓ Broader peer-review and acceptance;
- ✓ Ability to scale up assessments and finding to larger regional context



## Questions

Contact email:

[northeast\\_marinelife\\_data@duke.edu](mailto:northeast_marinelife_data@duke.edu)



## Coastal Virginia Ecological Value Assessment



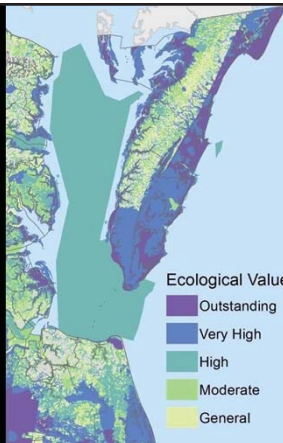
Laura McKay

Virginia Coastal Zone Management Program

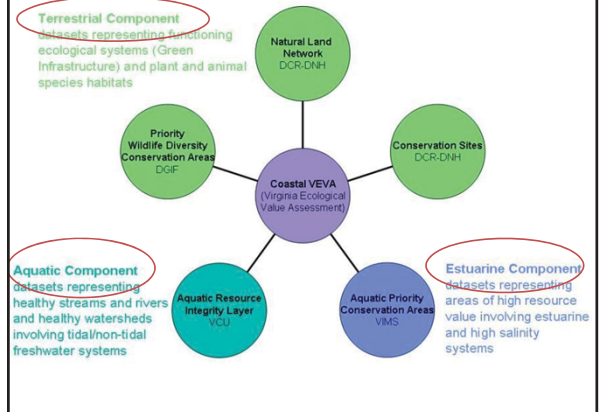


## Coastal VEVA

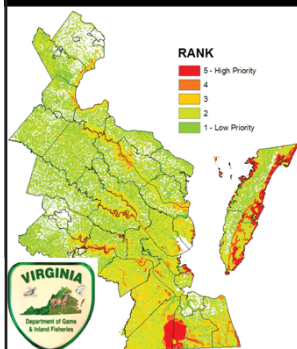
- Uses science-based, best professional judgment to classify natural systems of Virginia's coastal landscape
- Collaborative effort among state programs to synthesize best available ecological information into a single map
- Provides guidance for land use management, conservation planning and acquisition



## GREEN & BLUE INFRASTRUCTURE



## Priority Wildlife Diversity Conservation Areas

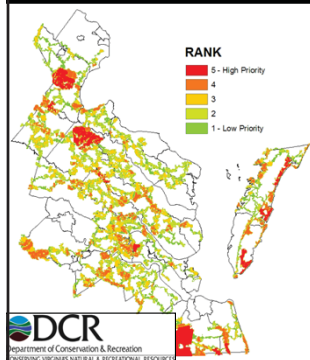


- Input from wildlife biologists
- Based on VA's Wildlife Action Plan
- Additional spatial data
  - Important bird areas
  - Colonial waterbird sites
  - Coldwater streams
  - Anadromous fish use areas
  - Etc.
- Datasets ranked on conservation value for wildlife

## Final Wildlife Component Values

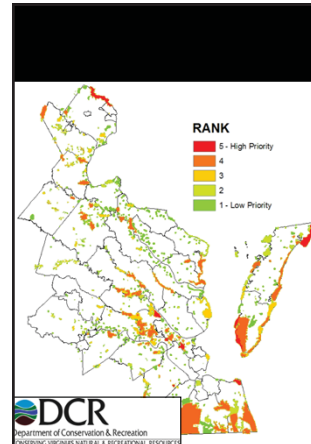
		Priority	Buffer (meters)			Priority	Buffer (m)	
Aquatic	Confirmed			Audubon	IBA's	10 or 5		
		Tier I spp reach	10	300				
		Tier II spp reach	9	300	DGIF/CCB	CWB	8	300
		Tier III spp reach	7	300				
Potential		Tier IV spp reach	5	300				
		Tier I spp reach	7	150	Cores	Large	5	
		Tier II spp reach	6	150		Medium	4	
		Tier III spp reach	4	150		Small	4	
	Tier IV spp reach	3	150		Fragments	3		
Terrestrial	Confirmed			Wetlands	Wooded	6.8	200	
		Tier I spp location	10	200		Non-wooded	4.5	150
		Tier II spp location	9	200				
		Tier III spp location	7	200				
Potential		Tier IV spp location	5	200	CWSS	Wild trout stream	4	200
		Tier I spp habitat	8	100		Stockable stream	2	100
		Tier II spp habitat	6	100				
		Tier III spp habitat	4	100	Anad. Fish	Confirmed	4	100
	Tier IV spp habitat	3	100		Potential	2	100	
				Streams	Riparian Buffers	3	100	
				Bonus	Unique aquatic	1		
					Unique terrestrial	1		

# Natural Landscape Network



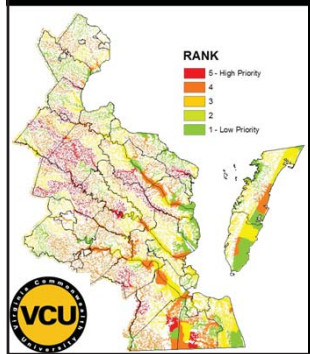
- Coarse filter
- VA Natural Landscape Assessment
  - Prioritizes natural lands
  - Identifies natural networks
- Cores and corridors
- Ranked by ecological integrity, 1-5 (5 highest)

DCR  
Department of Conservation & Recreation



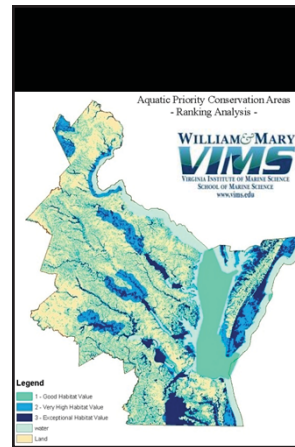
DCR  
Department of Conservation & Recreation

# Stream/River Resource Integrity Layer



- Stream reach approach
  - Individual reaches
  - Aquatic community assessment
    - Fish, habitat, macroinvertebrates
- Watershed approach
  - Coarse scale analysis to characterize whole watershed

VCU  
Virginia Commonwealth University



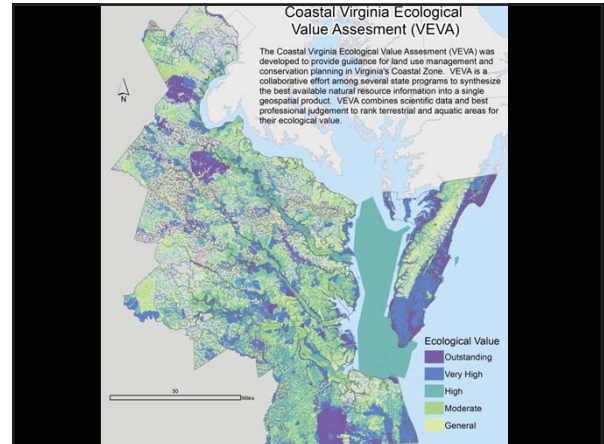
Legend

LAYER	SCORE
1) Colonial Waterbird Database	3
2) Audubon Important Bird Areas	2
3) Shellfish Suitability	2
4) Reef Restoration Sites	3
5) Oyster Reefs	3
6) Artificial Fishing Reef	1
7) Wetlands (2009 NWI)	3
8) Sand/Mud Flats (from 2009 NWI)	2
9) Seed Areas	1
10) Aquaculture sites	2
11) Turtle Nest	3
12) SAV (1999 – 2008)	3
13) Aquatic Confirmed Habitat	3
14) VCU Aquatic Resource Integrity	3
15) Stream Conservation Areas	2
16) Threatened & Endangered Waters	3
17) Regulated Areas	1



$1+1+1+1=1$     $3+2+3+3+5=5$

- Datasets in the VEVA analysis **retained their pre-existing weights** applied to lands and/or waters by the agency that developed the data input.
- All lands and waters in the VEVA display their **highest ranking** as per input datasets and agency.
- In cases of overlap, the **highest value** given to any particular land/water **was retained** for the final map.
- All lands and waters are ranked on an Ecological Value scale of 1 – 5 (1=General, 5=Outstanding).



### Cost & Time



- FY08 (Oct 08 – Sep 09 12 months)  
– Data Layer integration = \$22,400
- FY10 (Oct 10 – Jan 12 16 months)  
– Data layer integration = \$21,000
- Total: **\$43,400**

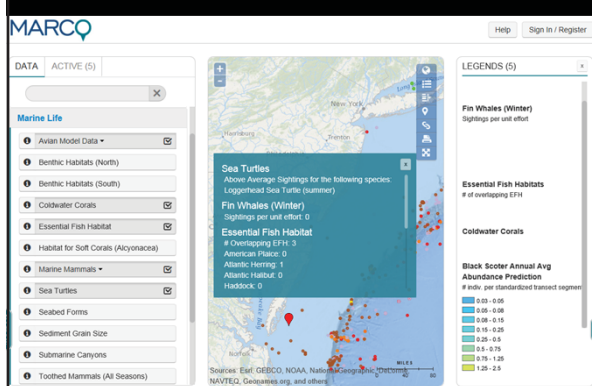
### Many Uses for Ecological Assessment

- Developing local comprehensive plans
- Prioritizing land acquisition
- Prioritizing habitat restoration
- Informing land and water-based permit decisions

[www.coastalgems.org](http://www.coastalgems.org)



### The Mid-Atlantic is almost ready!



### Appendix C4

## Interjurisdictional Coordination (continued)

Deerin Babb-Brott, Senior Partner, SeaPlan

## Criteria for the selection of *region-wide IJC opportunities*

- Foundational (e.g., related to core authorities or practices regarding management, regulation, education, etc.)
- Interdisciplinary and/or interjurisdictional (e.g., meaningful to multiple RPB member missions in the context of the OAP)
- Regional in nature and/or policy priorities for a number of RPB member entities and/or stakeholders
- Consistent with and/or advance the Framework principles, goals, and objectives
- Significant ecological value
- Socio-economic value
- High current or potential use conflict
- High cultural/traditional value

## Criteria for the selection of *specific geographic areas*

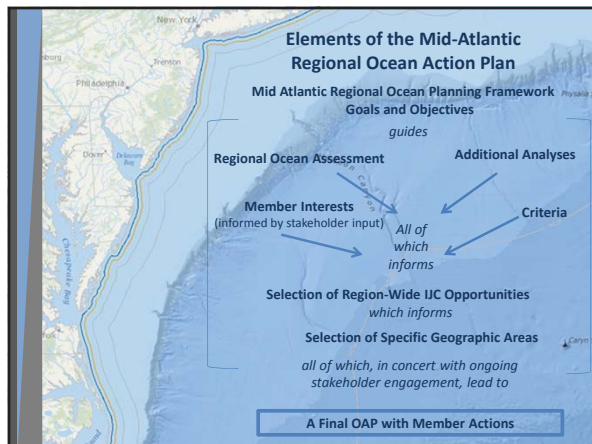
- Potential to demonstrate progress on the region-wide IJC opportunities identified above
- Significant ecological value
- Socio-economic value
- High current or potential use conflict
- High cultural/traditional value

## Criteria for the selection of *specific IJC actions*

- Are consistent with and serve to achieve the Framework principles, goals, and objectives
- Are achievable within the capacity limitations of the RPB and/or any collaborating entity to accomplish within the planning horizon
- Lead to an improvement in process and/or outcome over current practice
- Advance member entity missions and/or stakeholder interested under existing authorities
- Leverage existing programs, processes, and/or resources

## Appendix C5

# Next steps and workflows



## Four Workflows Moving Forward

- **Region-wide IJC actions**
  - would be taken on by the current IJC workgroup with expanded membership
- **Specific geographic areas for IJC action**
  - would be taken on by the current OAP workgroup (with a modified mission)
- **Regional Ocean Assessment**
  - would be continued by the current ROA workgroup
- **Stakeholder engagement**
  - would be continued by the current Stakeholder Engagement workgroup

## Region-wide IJC actions

- The RPB would:
  - Identify an initial limited number of region-wide IJC actions by considering four basic categories of opportunities: (1) identifying research needs; (2) informing and improving management decisions; (3) improving information for environmental and regulatory review; and (4) leveraging resources

	2015				2016			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Region-wide IJC actions	Develop criteria; Conduct agency discussions; develop draft region-wide opportunities and actions	Stakeholder engagement on draft IJC opportunities and actions; discussions with regulators	Approval of region-wide opportunities and actions	Discuss agency specific and interagency changes in business practices. Stakeholder engagement on potential changes.		Develop language for OAP and communicate with stakeholders		Development of protocols, MOAs, and MOUs (may extend beyond 2016)

## Specific Geographic Areas

- The RPB would:
  - Identify an initial limited number of specific geographic areas that would benefit from enhanced information and IJC actions to improve decision making.
  - Determine whether additional analyses may be needed to better understand the interactions among uses and resources in the Mid-Atlantic, support the identification of specific geographic areas on which to focus certain IJC actions, and more accurately understand the region's ecological and economic resources

	2015				2016			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Specific geographic areas for IJC action	Exploration of analyses and resources	Analyses conducted; stakeholder engagement on specific geographic areas	Approval of specific geographic areas	Discuss agency specific and interagency changes in business practices. Stakeholder engagement on potential changes.		Develop language for OAP and communicate with stakeholders		Development of protocols, MOAs, and MOUs (may extend beyond 2016)

## Regional Ocean Assessment

- The RPB will continue to:
  - Characterize the resources, uses, and the ocean environment in the Mid-Atlantic, building upon the goals and objectives established in the *Mid-Atlantic Regional Ocean Planning Framework*
  - Consider opportunities for public and scientific review

	2015				2016			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
ROA	Finalize outline and approach to sections	Populate remaining ROA sections. Provide complete draft for RPB member entity review.	Provide complete draft for public and scientific review.	Discuss and determine interface between ROA, portal, and additional analyses	Finalize first iteration ROA and strategy for updates over time.			

## Stakeholder Engagement

- The RPB would:
  - Continue to use communication approaches and comment opportunities to engage stakeholders
  - Develop engagement opportunities specific to the activities for each workflow
  - Consider resources needed to support targeted engagement for OAP development through opportunities like sector-specific meetings, multi-sector workshops, and webinars

	2015				2016			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Region-wide IJC actions	Stakeholder engagement on draft IJC opportunities and actions			Stakeholder engagement on potential changes to agency specific and interagency business practices		Develop and approve language for OAP and communicate with stakeholders		
Specific geographic areas for IJC action	Stakeholder engagement on specific geographic areas			Stakeholder engagement on potential changes to agency specific and interagency business practices		Develop language for OAP and communicate with stakeholders		
ROA		Provide complete draft for public and scientific review.						
Stakeholder Engagement	Opportunities for stakeholder engagement will occur throughout the above workflows							

## Work Plan and OAP Development

- The RPB would:
  - Hold two meetings per year in 2015 and 2016
  - Develop a work plan and periodically update it
  - Provide an opportunity for comment on a draft OAP
  - Submit the OAP to the National Ocean Council for certification by the end of 2016

	2015				2016			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
OAP and work plan development	Approve OAP approach and develop work plan		Update work plan		Draft OAP language for public and RPB review	Refine draft and approve OAP		Release final OAP and submit for NOC certification
RPB meetings	RPB Meeting (Jan in NYC)		RPB Meeting		RPB Meeting	RPB Meeting		