Status of the Mid-Atlantic Regional Ocean Assessment

What is the Mid-Atlantic Regional Ocean Assessment (ROA)?

The Mid-Atlantic Regional Ocean Assessment (ROA) will support development of the Mid-Atlantic Regional Planning Body's (MidA RPB's) Regional Ocean Action Plan (OAP). Building upon the goals and objectives in the *Mid-Atlantic Regional Ocean Planning Framework,*[1] the ROA will: provide information about the baseline conditions, resources and uses of the Mid-Atlantic ocean; contain the best available data that currently exists or is in development; and identify trends, data gaps and future uses (to the extent possible). For the past few months, the MidA RPB has begun collecting information relevant to the ROA using an online collaboration tool designed for content and project management. Given the changing nature of the marine environment and human activities, the ROA is currently envisaged as an online tool with links to other sources of information, rather than as a static, potentially unwieldy compilation of existing information.

What is this Status Update?

This status update provides the draft outline and template for collecting content for the ROA. The primary audience for the ROA is the MidA RPB, who will be seeking input from experts and stakeholders on the content of the ROA. **We are currently seeking stakeholder input on the proposed structure and content for the ROA**.

Please consider the following questions in your review of this document:
- Does the outline capture the topics that need to be considered for ocean planning in the Mid-Atlantic?
- Will the chosen format (i.e., a high-level summary plus web links and maps) inform the development of a Mid-Atlantic Ocean Action Plan?
  If not, would you recommend another format?
- Are there additional types of information that should be compiled for each topic?
- When we ask for stakeholder input on the content of the ROA, would you prefer to go to a data portal, web platform, and/or a printed document?
- What ideas do you have for keeping this information up-to-date?

[1] Framework, available at http://www.boem.gov/Mid-Atlantic-Regional-Ocean-Planning-Framework/

How will the Regional Ocean Assessment be organized?

The ROA will include an executive summary, introduction, and summaries of authoritative information on specific topics that the MidA RPB will consider when developing the OAP.

Each topic-specific section will contain references and hyperlinks to supplemental information sources for further review and analysis. The reference section will provide links and references to peer-reviewed scientific articles or government publications. We also recognize that there is information that is not easily captured in scientific articles, so there is also a section for "other sources of information" where more traditional knowledge and other relevant information can be included.

The MidA RPB **does not** intend to develop a comprehensive assessment of the status of every resource, feature, and use in the Mid-Atlantic ocean waters. Instead, we designed the ROA to focus on topics most relevant to the Framework goals and objectives for the Mid-Atlantic and on specific topics where there is potential overlap between marine resources, habitats and ocean users, and where constituent viewpoints may differ and decision-making is more complex.

Next Steps

Formal public comment on this document can be submitted via email until November 20, 2014, during the public webinar on October 29, or during the scheduled MARCO-hosted public listening sessions (for details, see www.boem.gov/MidA-RPB-Meetings). Note that comments on the ROA and MidA RPB efforts can be submitted at any time to the RPB at MidAtlanticRPB@boem.gov.

Stakeholder input will be considered as the first version of the ROA is compiled. The public will be invited to provide advice on the content of the draft ROA before the MidA RPB adopts it as a working product. It is unlikely that the ROA will ever be considered truly complete; the RPB currently envisions regular updates to the ROA as information needs evolve.

Outline for the Mid-Atlantic Regional Ocean Assessment

The following outline represents the evolving organization and diversity of ROA topics.[2] It does not reflect any MidA RPB prioritization of content or resources. As the ROA and OAP are developed, more information will be added to address RPB needs. Content for the ROA will be contributed by RPB members, experts, and stakeholders and the final product will be subject to MidA RPB review and approval.

The outline is based on the goals and objectives included in the *Framework*[3] approved by the MidA RPB in May 2014. More detailed information on the agreed-to goals and objectives are included in an Appendix to this document.

Major Sections (Goals/Objectives)	Topics[2]	Sections[2]
SECTION I **Healthy Ocean Ecosystem: Promote ocean ecosystem health, functionality, and integrity through conservation, protection, enhancement, and restoration.**		
I.1 Biology & Ecology	**Ecosystem Based Management**	
	Ecosystem Changes in Mid-Atlantic	
	Ecosystem Services	
	Habitats	*Artificial Reefs*
		Benthic
		Deep Sea Corals
		Gravel/Rock
		Migration Corridors
		Pelagic
		Sand& Silt
	Flora	*Harmful Algal Blooms*
	Invasive Species	
	Invertebrates	*Clams*
		Squids

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[2] This is not a complete list of all topics or species; more so, it is an example of the types of information that will be contained within the ROA.

[3] Framework, available at http://www.boem.gov/Mid-Atlantic-Regional-Ocean-Planning-Framework/

Major Sections (Goals/Objectives)	Topics[2]	Sections[2]
I.1 Biology & Ecology (continued)	**Vertebrates**	
	Fish	*Atlantic Sturgeon*
		Atlantic Menhaden
		Black Sea Bass
		River Herring
		Shortnose Sturgeon
		Striped Bass
		Summer Flounder
	Marine Mammals	*Bottlenose Dolphins*
		Harbor Porpoise
		Harbor Seals
		Humpback Whales
		Fin Whales
		Minke Whales
		Northern Right Whales
		American Oystercatcher
		Marbled Godwit
		Piping Plover
		Red Knot
		Roseate Tern
	Sea Turtles	
I.2 The Ocean Environment	**Natural Conditions and Actions**	*Currents*
		Erosion and Longshore Transport
		Upwelling
		Water Chemistry
		Wind
	Physical Features	*Barrier Islands*
		Beaches
		Harbors
		Shelf-slope break/Submarine Canyons
		Continental Shelf
		Deep Water
		Reefs
	Coastal Inundation	
	Ocean Warming	
	Sea Level Change	
	Water Quality / Pollutants	
I.3 Air/Sea Interactions	**Carbon Sequestration & Ocean Acidification**	

Major Sections (Goals/Objectives)	Topics[2]	Sections[2]
SECTION II 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.		
II.1 National Security		
II.2 Ocean Energy	**Oil & Gas**	
	Renewable Energy	
II.3 Fishing	**Commercial**	
	Fishing for Sustenance	
	Recreational	
II.4 Ocean Aquaculture		
II.5 Marine Commerce & Navigation	**Energy Export**	
	Maritime Traffic Analysis	
	Panama Canal Expansion	
	Post-Panama Canal Expansion Project (Panamax) Port Issues	
	Proposed Anchorage Areas	
	Shipping (Mid-Atlantic Ports)	
	Short-Sea-Shipping and Marine Highways	
II.6 Offshore Sand Management		
II.7 Non-consumptive Recreation		
II.8 Tribal Uses	**Aquaculture**	
	Canoe Journey Routes	
	Climate Change	
	Conservation Resource Management	
	Fishing	
	Heritage Sites	
	Submerged Cultural Resources	
	Traditional Navigation Routes	
	Whales	
II.9 Undersea Infrastructure	**Current Undersea Infrastructure**	
	Foreseeable Future Infrastructure	

Template for Collecting Content for the Mid-Atlantic Regional Ocean Assessment

The ROA is being developed by the MidA RPB to take stock of the current resources and uses of the Mid-Atlantic Ocean and to identify future trends and information gaps. It will include short summaries that expand upon activities and uses relative to the goals and objectives the MidA RPB established in the Framework. Each summary will also contain references and web links so that a reader can easily find out more information on a topic. The structure of the ROA is:

- "Major Sections," which provide summary information on activities and uses relative to the goals and objectives;

- "Topics," which expand upon each major section and provide more detailed information on specific resources or activities; and

- "Sections," which are specific to topics and provide an even higher level of resolution.

Each major section has an "Introduction," which provides an overview of the topic relative to the Mid-Atlantic. Information in these sections provides a foundation for understanding the more detailed information in topics and sections. It will also have semi-standardized content, which will orient the reader and facilitate the identification of gaps in information. Content is being collected using the following template:

1. *Introduction*

2. *Key Issues*, which are specific to that section/topic and include current and future management opportunities (e.g., key issues for the topic of marine traffic analysis include identifying navigational safety risks and deconflicting waterways uses).

3. *Economic, Social, and/or Cultural Importance Considerations*, which includes available economic, social, or cultural information of the resources or activities.

4. *Current Status and Trends/Indicators*, which is a further expansion of the information in the introductory text and key issues.

5. *Identification of Gaps and Ongoing Studies*, which identifies where current data/information is lacking, as well as studies and data collection efforts that are in process (but not yet complete).

6. *Intersections*, which identifies where there are connections across major sections and topics.

7. *Relevant Spatial Data*, which will identify any spatial data available on this section/topic. To the extent possible, the MidA RPB is interested in displaying information from the ROA in the Mid-Atlantic Ocean Data Portal (http://portal.midatlanticocean.org/portal/).

8. *References*, which is divided into two components including links to either peer reviewed scientific articles or government publications; and other sources of information, where more traditional knowledge and grey literature can be added.

9. *Key Words*, which will facilitate searching information in the ROA.

Appendix A: Excerpts from the Mid-Atlantic Regional Ocean Planning Framework[4]

Mid-Atlantic Ocean Planning Goals and Objectives

Mid-Atlantic ocean planning goals are high-level statements of the desired outcomes the MidA RPB hopes to achieve. There are two overarching goals of the MidA RPB. Neither goal has been assigned higher priority than the other because the RPB views them as deeply interconnected. The objectives are also not listed in order of priority. Rather, the objectives under each goal describe specific outcomes and observable changes that contribute to the achievement of ocean planning goals. They are intended to serve as guideposts for the focus and work of the MidA RPB. These objectives include the articulation of some example actions that could be taken by the MidA RPB to achieve the goals and objectives.

Goal: Healthy Ocean Ecosystem

Promote ocean ecosystem health, functionality, and integrity through conservation, protection, enhancement, and restoration.

Note: *The Healthy Ocean Ecosystem Goal focuses on protecting and conserving our ocean and coastal resources through efforts that improve our understanding of ocean resources and habitats, account for ecosystem changes, consider traditional values and scientific data in regional ocean planning, and foster collaboration across jurisdictions around ocean conservation efforts.*

Objectives:

1) *(Discovering, understanding, protecting, and restoring the ocean ecosystem)* Enhance understanding of ecosystem functionality and the key roles of Mid-Atlantic ocean habitats and physical, geological, chemical, and biological ocean resources through improved scientific understanding and assessments of naturally occurring processes and changes and the effects of ocean uses. Foster collaboration and coordination for protection and restoration of ocean and coastal habitats that are important for improving ecosystem functioning and maintaining biodiversity.

   Example action: Map and characterize submarine canyon habitats in the Mid-Atlantic region. Identify Federal, State, and Tribal habitat protection and restoration initiatives to leverage partnerships that maximize the opportunity for success.

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[4] Framework, available at http://www.boem.gov/Mid-Atlantic-Regional-Ocean-Planning-Framework/

2) *(Accounting for ocean ecosystem changes and increased risks)* Facilitate enhanced understanding of current and anticipated ocean ecosystem changes in the Mid-Atlantic. These include ocean-related risks and vulnerabilities associated with ocean warming (including sea level rise, coastal flooding/inundation), ocean acidification (including effects on living marine resources), and changes in ocean wildlife migration and habitat use.

   Example actions: Coordinate the collection and understanding of information needed to adjust human use activities in certain ocean areas in response to changing migratory pathways of marine life. Coordinate information sharing regarding sea level rise and ocean acidification in order to inform management of living marine resources and coastal communities and industries dependent on them.

3) *(Valuing traditional knowledge)* Pursue greater understanding and acknowledgment of traditional knowledge, along with other cultural resources and values, and incorporate such knowledge and values in the ocean planning process.

   Example action: Include traditional ecological knowledge and consideration of local cultural values in regional capacity assessment.

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.

Note: The Sustainable Ocean Uses Goal focuses on fostering coordination, transparency, and use of quality information to support accommodation of existing, new, and future ocean uses in a manner that minimizes conflict and enhances compatibility. The MidA RPB has chosen to organize the objectives under this goal by sector to facilitate initial data collection, future needs assessment, and highlight how the proposed actions will affect key stakeholders. During the subsequent phases of the ocean planning process, application of the principles articulated above calls for considering various sectors and concerns in an integrated, holistic, and collaborative manner, with specific actions to be determined in a forthcoming RPB workplan. The MidA RPB intends to provide the means for decision-makers to implement their programs and authorities in an integrated way, such as through enhanced interagency coordination.

The MidA RPB recognizes that additional sectors, beyond those listed below, may need to be accounted for in the regional ocean planning process. The MidA RPB also recognizes that some terms used below require further clarification, a level of specificity the MidA RPB will strive to achieve through subsequent identification and implementation of actions to achieve these objectives.

Objectives:

1) *(National security)* Account for national security interests in the Mid-Atlantic through enhanced coordination, increased transparency, and sharing of information across agencies.

   Example action: Consider military needs and preferences early in decision-making processes to avoid potential conflicts with proposed ocean activities and current and planned military training and testing areas.

2) *(Ocean energy)* Facilitate greater collaboration around ocean energy issues in the Mid-Atlantic.

   Example action: Coordinate data collection for environmental assessment to inform development of new offshore renewable energy projects.

3) *(Commercial and recreational fishing)* Foster greater understanding of the needs of Mid-Atlantic fishers and fishing communities in the context of the full range of ocean uses and conservation efforts.

   Example action: Identify areas of high fish productivity and high usage to inform management of ocean uses and habitat areas.

4) *(Ocean aquaculture)* Inform ocean aquaculture siting and permitting in the Mid-Atlantic through greater coordination among stakeholders and management authorities to address compatibility issues.

   Example action: Facilitate interagency coordination regarding ocean aquaculture permitting.

5) *(Maritime commerce and navigation)* Enhance institutional awareness of the impact maritime commerce exerts on the national and Mid-Atlantic economies and ensure new and updated maritime commerce and navigational information is available at the local and regional levels for integration into regional ocean planning.

   Example action: Coordinate information about new and proposed revisions to existing maritime corridors in the Mid-Atlantic, taking into account global and regional trends in maritime commerce and the importance of the maritime industry on the Mid-Atlantic and national economies.

6) *(Offshore sand management)* Facilitate enhanced coordination among coastal jurisdictions, Federal and State regulatory agencies, and Tribal entities on the use of sand and gravel

resources in the Mid-Atlantic in the context of coastal adaptation and resilience planning and implementation.

Example action: Coordinate regional identification and prioritization of sand borrow sites in Federal, State, and Tribal waters.

7) *(Non-consumptive recreation)* Account for the importance of near-shore and offshore non-consumptive recreational uses, and their local and regional economic contributions in the Mid-Atlantic; and in the management of other ocean uses and resources, consider impacts on non-consumptive recreational activities, (e.g., surfing, boating, whale watching, birding, diving).

   Example action: Share data about ocean areas important for recreational activity and recreational user perceptions on issues such as siting of ocean renewable energy facilities.

8) *(Tribal uses)* Recognize and respect the right of Tribal Nations to free, prior, and informed consent while taking into account important Tribal uses and submerged cultural resources in the planning process.

   Example action: Document and foster shared understanding of ocean and coastal sites important to Tribal use, beliefs, and values related to the Mid-Atlantic ocean.

9) *(Critical undersea infrastructure)* Facilitate greater understanding of the current and potential future location of submerged infrastructure, such as submarine cables, (e.g., for communication and electricity) and pipelines.

   Example action: Engage the submarine cables and submerged pipelines industries to understand their current and projected needs for ocean space, and conduct an inventory of obsolete structures.