



MARCO Mid-Atlantic Ocean Planning Stakeholder Workshop Summary

This workshop provided an opportunity to engage stakeholders on data, information, and draft interjurisdictional coordination (IJC) actions to support Mid-Atlantic regional ocean planning and inform the Mid-Atlantic Regional Planning Body meeting on September 23-24. It was hosted by the Mid-Atlantic Regional Council on the Ocean (MARCO). Participants included 32 members of the public representing a variety of sectors (including conservation, commercial fishing, recreational fishing, shipping, academia, realty, and aquaria), 15 Members and Alternates of the Mid-Atlantic Regional Planning Body, the five Members of the MARCO Management Board, several other representatives of federal, state, and tribal entities, and a number of staff and consultants.

Workshop Objectives

- Learn about and provide input on Mid-Atlantic Regional Council on the Ocean (MARCO) draft data and information products to inform Mid-Atlantic regional ocean planning.
- Learn about and provide input on Mid-Atlantic Regional Planning Body (MidA RPB) draft interjurisdictional coordination (IJC) actions to include in the Mid-Atlantic Regional Ocean Action Plan (OAP).
- Engage in thoughtful dialogue among stakeholders, MARCO, and MidA RPB Members.

The full suite of meeting materials can be found in Appendix A and the slides presented at the workshop can be found in Appendix B. These materials and additional information about MARCO and its work on ocean planning in the Mid-Atlantic region can be found on the MARCO [website](#).

Welcome, introductions, and agenda review

Laura McKay, MARCO Management Board Chair, welcomed workshop participants. She provided some background on MARCO and explained their support for the data and information products that were presented and discussed during the workshop. These products will help to further ocean planning by synthesizing data and information to inform decision making. She explained that the workshop is an opportunity to get feedback and generate buy-in on what will eventually feed into an Ocean Action Plan (OAP) for the Mid-Atlantic.

Laura Cantral, Meridian Institute, facilitated the meeting. She reviewed the day's agenda, emphasizing that the workshop is an important opportunity for stakeholders to give feedback

to MARCO project teams on their data and information products and to the RPB on draft interjurisdictional coordination (IJC) actions. Additionally, this dialogue will inform the MidA RPB meeting that directly follows the workshop.

Introduction to ocean planning

Bob LaBelle, Senior Advisor to the Director at the Bureau of Ocean Energy Management (BOEM) and RPB Federal Co-Lead, gave a brief overview of regional ocean planning in the Mid-Atlantic. His presentation can be found in Appendix B1. He described regional ocean planning as a process for bringing together ocean managers and stakeholders in the Mid-Atlantic to share information and plan for the use, management, and conservation of ocean resources in a manner that meets the region's goals. An Executive Order established the National Ocean Policy for the Stewardship of the Ocean, Coasts, and Great Lakes in 2010 and the MidA RPB (established in May 2013) grew out of this effort. The MidA RPB consists of representatives from Mid-Atlantic states, federally recognized tribes, federal agencies, and the Mid-Atlantic Fishery Management Council. Mr. LaBelle then reviewed MidA RPB activities to date, including approving a charter, a framework identifying goals and objectives, and an approach to the Mid-Atlantic Ocean Action Plan (OAP). Over the next year the MidA RPB plans to continue to refine data and information products and draft IJC actions, host two more in-person meetings, release the draft OAP for review, and submit a final OAP to the National Ocean Council (NOC) for concurrence by the end of 2016.

Data and information overview

Ms. Cantral then introduced presenters from each of the three MARCO-funded project teams focused on developing data and information products to inform Mid-Atlantic regional ocean planning. These presenters included Pat Halpin of Duke University, representing the Marine Life Data and Analysis Team (MDAT) working on ecological synthesis products, Melanie Schroeder Gearon of RPS ASA, representing the team working on the Mid-Atlantic Regional Human Use Spatial Data Synthesis Project (HUDS), and Emily Shumchenia, of E&C Enviroscope, representing the team working on the Mid-Atlantic Regional Ocean Assessment (ROA). Each presenter then shared an overview of their methods and draft products illustrative of their approach regarding the creation of data and information products.

Marine Life Data Analysis Team (MDAT)

Dr. Halpin explained that the MDAT team members are from three different entities including the Marine Geospatial Ecology Lab at Duke University, the National Oceanic and Atmospheric Administration (NOAA)'s National Centers for Coastal Ocean Science (NCCOS), and NOAA's Northeast Fisheries Science Center (NEFSC). His presentation can be found in Appendix B2. He described how the team is developing data for the entire Atlantic seaboard as well as focusing

in on the Mid-Atlantic region, which will allow for more integrated and multi-scale products up and down the coast.

He then explained his team's thinking about the hierarchy of marine life data products and potential uses, which was represented in his presentation via a pyramid graphic. The bottom of the pyramid represents species-level data products, the middle represents taxa synthesis products, and the top tiers represent multi-taxa synthesis products that may be the most relevant to ocean planning. He then gave examples of products from each tier of the pyramid. He mentioned that the team has developed most of the baseline maps, and is now developing methodologies for synthesis products further up the pyramid. Potential products include maps based on specified species groupings, core areas for single species or species groups, Ecologically Rich Areas (ERAs), and Ecological Marine Units (EMUs).

Upon completion of the presentation, one workshop participant asked if it would be possible to identify species richness by depth. Dr. Halpin explained that this is possible, and that similar analysis can be done to factor in temporal shifts.

Mid-Atlantic Regional Human Use Spatial Data Synthesis Project (HUDS)

Ms. Schroeder Gearon explained that her team's goals for the project include analyzing human use spatial data; developing a tool to simultaneously view multiple data sets in the same area; coordinating effectively with MARCO, the MidA RPB, and other contractors; vetting any new data sets, products and tools with stakeholders; coordinating with the Northeast Regional Planning Body; and completing the project by January 2016. Her presentation can be found in Appendix B3. She mentioned that the main project team consists of RPS ASA as the team lead, SeaPlan, and three subject matter experts. The MidA RPB Data Synthesis Workgroup serves as the project steering committee. The data assessment phase of the project that includes an inventory and characterization of datasets is well underway. The HUDS team has also initiated design efforts to develop a "smart grid tool" that will allow key information about multiple and different kinds of human use data in the planning area to be displayed. Ms. Schroeder Gearon indicated that specific feedback from stakeholders on this tool during the day's sessions would be helpful.

She explained that in using the HUDS tool, the user would be able to select the human use data layers they are interested in and then a "smart grid" would combine the data layers that the user selected. The grid would return a map depicting the number of layers with data present within each cell. The smart grid would then allow users to click on a cell and create a summary report that would contain distilled information on the selected layers within the cell(s). This report would serve to provide additional information and context for the layers being displayed in the map, including identifying necessary caveats (i.e., identify the completeness of datasets for a specific sector in that geographic area). The team is currently proposing a one kilometer by one kilometer grid cell resolution.

Ms. Schroeder Gearon then opened the floor for questions. Discussion topics included:

- Clarification that the “Communities at Sea” dataset utilizes Vessel Trip Report (VTR) information to show the connection between communities on shore to specific places in the ocean.
- Emphasis on the need to include shipwreck data and clarifying that the Mid-Atlantic Ocean Data Portal (Data Portal) team is working to incorporate Participatory Geographical Information Systems (pGIS) data.
- Explanation that the HUDS team is working on clarifying to the smart grid user whether an area does not show activity because of an absence of data or an absence of activity.
- Identification of the need for the MDAT and HUDS teams to work on ways to overlap their products to show users ecological and human use information at the same time.

Mid-Atlantic Regional Ocean Assessment Project (ROA)

Ms. Shumchenia then provided an overview of the Regional Ocean Assessment (ROA) project. Her presentation can be found in Appendix B4. She explained that the National Ocean Policy lists an ROA as an essential element of a regional ocean plan. The goals for the project are to provide information about ocean uses and resources, focusing on the two goals outlined in the *Mid-Atlantic Regional Ocean Planning Framework*, healthy ocean ecosystems and sustainable uses; and to develop an accessible web-based system to deliver the ROA. At this point the ROA team has collected most of the information it needs and is now focused on designing the structure for the information and the system by which it is delivered to the public. The team’s proposed outline for the ROA includes an introduction and sections on ocean ecosystem and resources, ocean uses, and strategic objectives for Mid-Atlantic regional ocean planning. She then opened the floor for questions. Discussion topics included:

- Clarifying that the proposed section of the ROA on strategic objectives was developed by the contracting team in consultation with the MARCO Management Board and the ROA steering committee. Most of the objectives are drawn from the *Mid-Atlantic Regional Ocean Planning Framework*.
- Emphasizing the need for coordination among all three MARCO-funded contracting teams. The teams are interacting informally and there is also a MARCO steering committee that meets on a monthly basis to discuss the progress of the projects.

Breakout groups and report outs: Data and information

Following a break for lunch, workshop participants self-selected into facilitated small groups to further explore the draft data and information products and associated methodologies for MDAT, HUDS, and ROA. Each breakout session was repeated twice, participants had the chance to attend and provide input during two distinct sessions on different topics. Information gathered from both sessions on each topic is integrated under each subheading below. RPB Workgroup co-chairs subsequently provided brief report-outs in plenary on the key themes and

ideas discussed in the breakout groups they attended. Because the information is consistent, the content of these report-outs is also accounted for below.

Marine Life Data Analysis Team

Discussion topics in the breakouts focused on the MDAT project included data quality, clarifications on product development, identification of new opportunities, and considerations for collaboration and use of the products.

Data quality

- There is a need to differentiate between areas with no survey effort versus areas that are true zeros. Need to be transparent about data quality based on both survey effort and survey methods (e.g. time gaps, different gear types, different geographic areas, etc). Uncertainty products will help interpret data products.
- Northeast Area Monitoring and Assessment Program (NEAMAP) data should be included in MDAT products. This data covers nearshore areas missed by Northeast Fishery Science Center (NEFSC) trawl survey data and is respected by the fishing industry. Merging NEAMAP and NEFSC data could be identified as a future research goal.
- It is important to vet data with fishermen over time and account for traditional knowledge. This need could be included in the section of the OAP where additional research needs are identified.

Clarifications

- Any updates to base products (i.e., species-level) will be regularly updated in the MARCO Portal. However, updates to synthesis products would require them to be regenerated. The team is trying to create a system that makes updates as seamless as possible and consider what updates can be anticipated and planned for. The team also acknowledged that it needs to think further about a maintenance plan and schedule.
- MDAT data products will be publically available and can be adapted for different audiences. For example, “story mapping” could be developed from MDAT products in the future.
- The MDAT team is currently exploring methods for identifying ecologically rich areas and considering marine life and habitat data both together and separately.
- The MDAT team is working to map data at multiple scales (entire Atlantic seaboard, Northeast and Mid-Atlantic, just Mid-Atlantic) to account for different management needs. Smaller sub-regions could be explored in the future. The MDAT team is also considering seasonal representations for individual species, if data availability will support these analyses.
- Sea turtle models are being developed but data are limited by the aerial sampling methods. Telemetry data are not compatible with current models and therefore cannot be incorporated.

New Opportunities

- The identification of region-wide features is a new and evolving concept that has not been thoroughly discussed. However example products could be developed to depict migratory pathways for some species (e.g., North Atlantic Right Whale). The OAP could highlight these examples as illustrative of future research.
- The MDAT team should consider development of brief summary reports as companions to the synthesis products, to supplement the more detailed documentation of model parameters in metadata. These could include more explicit identification of data gaps and making caveats of data limitations clearer (e.g. descriptions of sensitivity analyses and highlighting drivers of the model(s)).
- In the future, species groupings by sensitivity could be further explored (e.g., sound sensitivity, electromagnetic fields, endangered species, entanglement etc.). This could be included in the future research needs section of the OAP.

Collaboration and use of products

- The MDAT team should share ERAs, region-wide features, and maps with the ROA team along with suggestions for narrative of hard to capture concepts and broad scale features.
- The RPB needs to carefully consider the implications of synthesis products when translating them into recommended management actions. Using the data will be an iterative process but will help form the foundation for good decision making.

In plenary, Laura McKay, co-chair of the Data Synthesis Workgroup, summarized input she heard during the two MDAT breakout sessions, reflected above. She explained that participants in both sessions were supportive of the methodological approach the MDAT team was using and thought they were headed in the right direction.

Mid-Atlantic Regional Human Use Spatial Data Synthesis Project (HUDS)

Discussion topics in the breakouts focused on the HUDS project included data quality, clarifications on product development, and considerations of collaboration and use of the products.

Data quality

- The HUDS team identified data gaps including shipwrecks, sand and gravel resources, unexploded ordnances, and operational areas and is working with partners to fill these gaps.
- The HUDS team is using data on artificial reefs and shipwrecks that currently exists in the MARCO Portal. It was recommended that the team look into using U.S. Army Corps of Engineers data for artificial reef placement and Environmental Protection Agency (EPA) data on shipwrecks.
- There are some limitations associated with Automatic Identification System (AIS) data; currently the team is working from 2011-2012 data, but they should be able to include newer data from 2013. The HUDS team can bring those gaps to the MidA RPB to

consider how they could be filled. For instance, there is a need to work with the Department of Defense to have military vessels included in this data.

- A concern was raised over whether the commercial fishing data used by the HUDS team is accurate. The HUDS team should consider incorporating NOAA Study Fleet data. There is work underway to make the commercial fishing data more comprehensive including VMS and communities at sea data. Much of the “Communities at Sea” data has been vetted with fishing communities.
- The HUDS team is currently exploring ways to make it clear to users whether an area with no data is truly a zero value, or whether there is just no data available for that area. This information could be integrated into the summary report that describes a given cell. The team is looking for stakeholder input on what metric (e.g., sampling effort) should be used and how to display these data gaps.
- The HUDS team is developing a plan to further vet some of the data being developed. Further input on additional stakeholder outreach that is needed is welcome.

Clarifications

- It was clarified that incorporating tribal data is not in the scope of the HUDS project but that a pathway is being developed to incorporate this data when it becomes available.
- Currently the HUDS team is planning to have one kilometer by one kilometer cells, or an agreed upon resolution that maximizes resolution given the extensive region the grid must cover. While cells could be tailored to be coarser in some areas and more specific in others, the scales need to be consistent in order for grids to be integrated, which is a vital component of the tool.

Collaboration and use of products

- The HUDS team expects to have a beta version of the grid tool available in December 2015 and new data sets integrated into the portal and a fully functioning tool by January 2016. During development they will further explore full integration of HUDS and MDAT products, likely a next step after January 2016.
- There is a need to continue to explore how to keep the tool updated as information changes. While mapping of potential future human uses is not in the HUDS scope of work, the final report will include details about future data integration and any potential future uses the team identified during the project.
- Data gaps identified by the HUDS team will help inform the development of a future science needs section of the OAP.
- There was a suggestion for possible future refinement of the grid to allow for zooming in and out on grid cells (to view data at a coarser or finer scale), and using data to find areas of potential future use.

In plenary, Mary Boatman, co-chair of the Data Synthesis Workgroup, summarized input she heard during the two HUDS breakout sessions, reflected above.

Mid-Atlantic Regional Ocean Assessment Project (ROA)

Discussion topics in the breakouts focused on the ROA project included clarifications on product development and the role of the ROA and the identification of new opportunities.

Clarifications/Role of the ROA

- Clarification that the utility of the ROA is as a baseline to assess the success of an OAP and as a current snapshot of what is going on in the ocean.
- The online version of the ROA should be interactive and include summary statistics about the region (including on uses). The ROA team has been focused on content, but will develop further ideas for information delivery next.
- Clarification that the ROA will summarize past and current information, but will not address future impacts.
- Concern about ROA strategic objectives being developed without stakeholder input and whether these will line up with the draft IJC actions being developed by the MidA RPB. The ROA should reframe what is currently “strategic objectives” as problem statements or areas the MidA RPB should be focused on.
- There was a lot of concern expressed over the concept of metrics and a suggestion to establish metrics for each “strategic objective” in the ROA Outline and vet them with the public. Metrics are needed for draft IJC actions as well as for plan performance as a whole. Metrics associated with plan performance may have to be process-oriented.
- Clarification that section 2(b)(i) “Key Ocean Characteristics and Indicators” will be introductory information to inform long-term indicator discussions that are part of the healthy ocean ecosystems IJC action.
- Concern that the concept of cumulative impacts is missing from the ROA.

New Opportunities

- Request to include references to legislative mandates and laws that require interagency coordination (e.g., MOUs and CZMA).
- Request to add documentation of key potential threats to ecosystems. Caution that this type of information should consider data limitations and the concept that overlapping uses is not necessarily a threat. Recommendation to indicate where there are conflicts in the ocean since multiple human uses and ecosystem features in the same area does not necessarily indicate conflict.
- Data gaps and research needs identified by the ROA team could feed into the section of the OAP on future resource needs.
- Suggestion to tie the ROA more closely to the data layers on the portal. Perhaps information from the ROA could show up in portal summary reports or cross-references and links between the ROA and the MARCO Data Portal could be employed.

In plenary, Kevin Chu and Sarah Cooksey, co-chairs of the ROA Workgroup, summarized input they heard during the two breakout sessions on that topic, reflected above.

Overview of draft IJC actions for OAP

Greg Capobianco, MARCO Management Board Member, MidA RPB Member for New York, and New York Department of State, transitioned the day's discussions to the RPB's draft interjurisdictional coordination (IJC) actions. He provided an overview of the RPB's process to date in developing draft IJC actions for inclusion in the OAP, the current status of the actions, and an explanation of connections between the draft actions and data synthesis and information discussions from earlier in the day. His presentation can be found in Appendix B5.

Mr. Capobianco started by outlining the actions that MARCO has taken with regard to the IJC action development process. MARCO developed a document with draft actions for the MidA RPB to consider reflective of state interests and what MARCO had heard from stakeholders, entitled *Suggested Interjurisdictional Coordination Priorities* (Appendix A8). This, along with additional in depth discussions with RPB entities and among the RPB as a whole, has led to the current suite of draft IJC actions that will be discussed during breakout groups. He emphasized the value that would be gained by robust input from workshop participants on these draft actions. He shared his view that the plan should have detailed actions that feed into an aspirational OAP.

Ms. Cantral directed participants to the meeting material titled *Mid-Atlantic Regional Planning Body Draft Interjurisdictional Coordination Actions* that reflects the current thinking on draft IJC actions presented in slide form (Appendix A7). She also explained that the current draft IJC actions emerged initially through a series of one-on-one discussions with each RPB member entity. MARCO submitted the document that Greg described for consideration, and all of that fed into an inventory of potential IJC actions. RPB members have since formed small groups around many of these draft IJC actions. She mentioned that three topics do not have action champions yet, but the RPB still considers them important: undersea cables, aquaculture, and non-consumptive recreation. She also noted that Ms. Leonard is the RPB member champion on the topic of tribal uses, but since she could not attend the workshop there is not a specific breakout session devoted to that topic. Instead, input on these four topics can be shared in any of the breakout sessions.

Breakout groups and report outs: Draft IJC actions

Workshop participants self-selected into facilitated small groups to hear from IJC action champions and discuss their draft ideas. Information gathered in sessions on each topic is integrated under each subheading below. RPB draft IJC action champions subsequently provided brief report-outs in plenary on the key themes and ideas discussed in the breakout groups they attended, also reflected below.

Healthy Ocean Ecosystems and Maintaining a Data Repository

Ms. McKay, champion of the group working on Healthy Ocean Ecosystems, offered a brief overview of the Healthy Ocean Ecosystems (HOE) draft IJC actions, which were described in the slides as follows:

1. Select Ecologically Rich Areas (ERAs) for in-depth review
2. Select region-wide features for in-depth review
3. Identify Mid-Atlantic ocean health indicators/metrics
4. Develop a management research agenda
5. Assess and plan for climate change impacts

Slides for this action are included in Appendix A7.

Ms. McKay also gave a brief summary of the draft actions related to maintaining a data repository (Mid-Atlantic Ocean Data Portal) that include maintaining operational components including data development, management, and web maintenance; expanding public engagement in collaboration with the RPB and MARCO to enhance data and functionality; and adding new data and mapping products to support RPB ocean actions as they evolve. Slides for this action are included in Appendix A7.

Highlights from the ensuing discussion included:

Clarifications and Connectivity

- Clarification that action one (select ERAs for in-depth review) does not only include selecting areas but also recommending actions to take to eliminate risk of degradation.
- Clarification needed on the link between HOE action five (assess and plan for climate change impacts), and the Fisheries IJC action related to the same topic.
- Agreement that ERAs will be useful to inform many agency decisions (e.g., wind siting) and suggestion to also overlay human use maps and ERA maps to inform decision making.
- Clarification that tribal uses data has not been mapped yet and it is unclear whether such maps will be done in time to be included in the first iteration of the OAP.
- Suggestion that mechanisms to support this work (e.g., ongoing funding, Data Portal maintenance) could be addressed through discussions about an ongoing forum.
- Clarification needed on how the HOE actions will connect to the ROA. Suggestion that the ROA team can start to capture some information about indicators already being measured and indicators that would be useful to measure. Indicators are needed for measuring both ocean health and the effectiveness of the OAP.
- Recognition of the importance of matching indicators with management objectives and suggestion to use existing tools as a model (e.g., Pacific Fishery Management Council integrated ocean assessment tool).

New ideas

- Suggestion to add a process for monitoring cumulative impacts to action four (develop a management research agenda), but with the need to clearly identify goals for assessing cumulative impacts before doing so.
- Suggestion to engage in close coordination with the Mid-Atlantic Fishery Management Council (MAFMC) as they are already taking many actions listed under actions one (essential fish habitat and areas of concern), three (databases), and four (research priorities).
- Suggestion to connect draft IJC actions to actions in the National Ocean Policy Implementation Plan and other existing policies (e.g. NOAA's climate science strategy).
- Suggestion to create a "coldspot" map in addition to a "hotspot" map that could identify areas where new activities could potentially be sited to reduce potential impacts.
- Discussion about how to select an initial set of ERAs from MDAT's analysis for review. Acknowledgement of challenges associated with selecting methodology.
- Recommendation to select a few illustrative ERAs and region-wide features for the first iteration of the OAP. These areas could be chosen based on their ability to demonstrate the value of the regional ocean planning process. The RPB should account for threats and identify specific actions to take in these areas.
- Recommendation to have a January in-person stakeholder meeting to provide updates on the results of the three MARCO contracts and for the public to provide input before the OAP is drafted.

In plenary, Laura McKay, co-champion of the group working on Healthy Ocean Ecosystems and the working group on Maintaining a Data Repository, summarized input she heard during the breakout session on those topics, reflected above.

Offshore Wind Energy and Offshore Sand Management

Mr. LaBelle and Mr. Capobianco, co-champions of the group working on Offshore Wind Energy and Offshore Sand Management, gave a brief overview of the Offshore Wind Energy draft actions. Goals for this topic include increasing collaboration and participation in wind energy processes, improving data for decision making, leveraging existing networks like the BOEM Intergovernmental Task Forces, creating efficiencies that will reduce the time frame for development, and including state input in research priorities. Slides for this action are included in Appendix A7.

Mr. LaBelle and Mr. Capobianco then described the draft actions related to Offshore Sand Management. Slides for this action are included in Appendix A7. Goals for this topic include increasing collaboration, identifying and prioritizing the use of Federal sand resources, forming a Regional Sand Management Working Group, sharing a BOEM geospatial database, addressing research priorities, and increasing Federal and State collaboration on resources. Highlights from the ensuing discussion included:

General Comments on both Wind and Sand

- Suggestion to make the actions on both the wind and sand topics more specific. The RPB should consider including some of MARCO's recommendations put forth in May 2015.
- There is a strong connection between wind, sand, and fishing activities, and the RPB should consider actions to increase coordination among these activities.
- The fishing industry needs greater representation in Federal decisions on wind and sand. In order to accomplish this, there is a need for education of the fishing community about offshore activities and recognition that information needs for the fishing industry differ from academic and agency interests. Eventually, establishing an organized group of fishermen that are well-versed in ocean planning issues would be beneficial for fishing industry engagement in the process (for example, NOAA has a Marine Fisheries Advisory Committee).
- Support for the idea of an information clearinghouse on activities in Federal waters.
- The best practices commitments in the OAP should consider multiple interests and have a flexible approach. More specifically, a recommendation to include an action in the OAP requiring a more robust use of consultation processes (including Essential Fish Habitat) with respect to wind and sand management and in a more timely and effective way.
- Emphasis that the OAP should be a framework detailing how various issues should be dealt with, not necessarily solving problems. For example, the RPB should weigh in on conflict avoidance (e.g. help out on LNG and wind conflicts). The OAP is a living document and can be added to in the future.
- Request for state involvement in developing BOEM's research agenda.

Comments specific to Offshore Wind

- The RPB should develop recommendations on how data could be used to avoid conflict between wind siting and other offshore activities and resources.
- There is a need to think beyond siting and leasing to other potential impacts on fisheries (e.g., geophysical surveys) and account for the divide between fished areas and landed areas in planning processes.
- There is a need to reduce the timeframe for wind development projects in order to keep investment interest in these projects.

Comments specific to Sand Management

- Clarification that in addition to offshore sand management in federal waters, there is a need for the RPB to also consider regional sediment management and focus on dredge disposal and coastal resilience and account for coastal populations and state interests. This would require more engagement from the US Army Corps of Engineers (USACE). To pursue this, the RPB should identify existing regional sediment management programs (e.g. those managed by USACE). The RPB should also explore connections between offshore sand and regional sediment management.

- While there is a need for better data on the location of sand resources, the BOEM geospatial database will include data from over 20 years of cooperative agreements, nearly 13 leases and agreements, and data collected from the Hurricane Sandy related Atlantic Sand Assessment Project, and is forthcoming in 2016.
- This is an opportunity to create Best Management Practices (BMPs) for coastal sand mining. The RPB should consider incorporating BMPs on sand management from a 2008 Northeast Fisheries Science Center document and the New England Fishery Management Council white paper on anthropogenic impacts to fisheries.
- There is a need for more input from the dredging industry.

In plenary, Mr. LaBelle and Mr. Capobianco reflected on input they heard during the breakout session on those topics, as summarized above.

Marine Commerce and Navigation

Doug Simpson, champion of the group working on Maritime Commerce and Navigation, gave a brief overview of the draft IJC actions related to the topic, which include:

1. Incorporate stakeholder review
2. Coordinate data product development
3. Coordinate on data acquisition to leverage/share costs and expand utility of data
4. Incorporate releasable U.S. Coast Guard (USCG) data into MARCO Data Portal
5. Develop navigation data that represents sub-sectors of vessel traffic
6. Identify navigation trends to understand traffic patterns over time
7. Identify impacts to navigation and port infrastructure stemming from the Panama Canal expansion
8. Develop data layers that represent activities and structures in nearshore and estuarine waters

Slides for this action are included in Appendix A7. Highlights from the ensuing discussion included:

- Consider resiliency through multiple lenses in terms of the desired maritime transportation system. Suggestion that these lenses should include environmental and climate change resiliency as well as market and use changes and increasing port capacity and infrastructure.
- Need to address impacts of climate change on the marine transportation system, including sea level rise and storm surge with respect to port activities and expansion, including the full range of land-based infrastructure subject to flood hazards.
- Emphasis that the plan needs to be dynamic and adaptable to future changes.
- Need to identify how to use MDAT and other forthcoming data products in the commerce and navigation arena, though there is some concern about how to ensure the data is kept up-to-date.

In plenary, Mr. Simpson provided a brief summary of the breakout discussion, as reflected above.

Other draft IJC actions addressed during this breakout included tribal uses and non-consumptive recreation. Highlights related to these topics included:

- Need for dialogue with the Pamunkey Indian Tribe to determine their maritime equities including any interest in submerged lands, aquaculture, and cultural heritage. Additionally, there is a need to determine the best engagement and outreach practices to engage tribes on ocean planning issues.
- Need to address recreational activities in the strategic objectives developed by the ROA.
- Need to consider seasonality of activities when analyzing data on non-consumptive recreation.
- Need to address oil and gas and other potential energy industries and what infrastructure they might require in the future. The OAP should have a placeholder for infrastructure needs for undersea cables and potential oil and gas development.
- Need to identify specific timelines for draft IJC actions.

Doug Simpson summarized input on these actions in plenary as well.

National Security

Mr. Atangan, champion of the group working on National Security, gave a brief overview of the draft IJC actions related to that topic, which include:

1. Coordination and management: leverage existing processes, practices, programs, and groups to assess potential National Security impacts of proposed actions, identify potential mitigations, and facilitate decision making
2. Data: Identify authoritative, publically releasable data for use in management, environmental, and regulatory reviews
3. Research: Partner in on-going and planned studies and identify knowledge gaps
4. Issue Areas: Focus on use compatibility issues and potential impacts on National Security

Slides for this action are included in Appendix A7. Highlights from the ensuing discussion included:

- Need to be proactive about making sure the OAP is compatible with National Security interests and to identify how national security impacts are being reviewed and assessed. For example, the OAP will include information on the environmental regulatory review process and identify Department of Defense Environmental Impact Statements for potential leveraging.
- Need to identify timelines for implementation associated with each IJC action.

- Need to tie MDAT and HUDS data into draft IJC actions and transparently incorporate data from a wide array of stakeholders, while considering practicalities associated with maintaining and updating data products.
- Emphasis on raising awareness of data gaps. Data gaps can be discovered by layering data across all stakeholder groups.

In plenary, Mr. Atangan summarized input he heard during the breakout session on that topic, summarized above.

Commercial and Recreational Fishing

Kevin Chu, champion of the group working on Commercial and Recreational Fishing, gave a brief overview of the draft actions related to the topic, which include:

1. Support dialogue between NOAA and State Fisheries Managers
2. Collaborate on climate change studies (science/managers/planners)
3. Work with the MAFMC Ecosystems and Ocean Planning Committee
4. Improve collaboration with tribes
5. Improve understanding of recreational fishing

Slides for this action are included in Appendix A7. Highlights from the ensuing discussion included:

- Consider outreach strategies to all recreational fishermen, not just recreational fishing group leaders who may not adequately represent all views. Use a variety of approaches and tailor outreach methods to each state; consider using online forums, newsletters (e.g., New Jersey fisheries digest), and other alternative forms of communication to relay information.
- The RPB should help identify conflicting uses preemptively and develop a specific communication mechanism that allows stakeholders to be involved in the process sooner. Consider adding a new action about finding ways to alert fishermen to upcoming decisions earlier in the process so they can be more engaged in decision making.
- A main goal of the RPB should be to make coordination among agencies more efficient.
- Need language on following consistent protocols for assessing impacts on fisheries.
- Importance of integrating NEAMAP data into the MDAT products.

In plenary, Dr. Chu summarized input he heard during the breakout session on that topic, reflected above.

Ongoing Intergovernmental Communication and Coordination

Sarah Cooksey, champion of the group working on continuing an intergovernmental forum, gave a brief overview of the options for continuation post-2016, which include:

1. MidA RPB operation is modified to provide more opportunities for communication and informal coordination
2. MidA RPB focuses on OAP implementation and another forum focuses on intergovernmental communication about ocean activities
3. MidA RPB goes away but intergovernmental communication forum continues

Slides for this action are included in Appendix A7. Highlights from the ensuing discussion included:

- Support for the option to continue the MidA RPB as is for the time being. Creation of another group would be confusing.
- The RPB should consider revisiting its membership to make sure all entities with jurisdiction in the oceans are adequately represented (e.g., USACE). The process also needs consistent leadership (not rotating Co-Leads) and funding to continue.
- The RPB should consider ways to help de-politicize the planning process.
- IJC action deliverables need to demonstrate the value of the planning process in order to get support for the MidA RPB to continue. For example, the Data Portal and new data products will add value.
- An interstate compact could be another option to continue intergovernmental coordination post-2016. However, this would require Congressional action.

In plenary, Ms. Cooksey reflected on input she heard during the breakout session on that topic, reflected above.

Summary and closing remarks

Ms. Cantral thanked the participants for their engagement in the workshop and their input throughout the day.

Appendix A1



MARCO Mid-Atlantic Ocean Planning Stakeholder Workshop

This workshop will provide an opportunity to engage stakeholders on data, information, and draft interjurisdictional coordination (IJC) actions to support Mid-Atlantic regional ocean planning and inform the Mid-Atlantic Regional Planning Body meeting on September 23-24.

Date: September 22, 2015
10:30 am – 5:15 pm

Location: Norfolk Waterside Marriott
235 East Main Street
Norfolk, VA 23510
Room: Norfolk V-VI

Workshop Objectives

- Learn about and provide input on Mid-Atlantic Regional Council on the Ocean (MARCO) draft data and information products to inform Mid-Atlantic regional ocean planning.
- Learn about and provide input on Mid-Atlantic Regional Planning Body (MidA RPB) draft interjurisdictional coordination (IJC) actions to include in the Mid-Atlantic Regional Ocean Action Plan (OAP).
- Engage in thoughtful dialogue among stakeholders, MARCO, and MidA RPB Members.

Agenda

9:30 am Registration opens

10:30 am **Welcome, introductions and agenda review**

- *Laura McKay, MARCO Management Board Chair, Member of the MidA RPB for Virginia, Virginia Coastal Zone Management Program*
- *Laura Cantral, Meridian Institute*

10:40 am **Introduction to ocean planning**

- *Robert LaBelle, Federal RPB Co-Lead, Bureau of Ocean Energy Management, Department of the Interior*

A brief overview of regional ocean planning, Mid-Atlantic RPB efforts to date, and where the initiative is heading, including timeline for OAP development.

10:50 am Data and information overview

- *Pat Halpin, Duke University, Marine Life Data and Analysis Team (MDAT)*
- *Melanie Schroeder Gearon, RPS ASA, Mid-Atlantic Regional Human Use Spatial Data Synthesis Project (HUDS)*
- *Emily Shumchenia, E&C Enviroscope, Mid-Atlantic Regional Ocean Assessment Project (ROA)*

Project teams will present an overview of their methods, approach, and draft products illustrative of their approach regarding the creation of data and information products for ecological synthesis, human use synthesis, and the Regional Ocean Assessment (ROA). This will be followed by a brief opportunity for clarifying questions.

11:50 am Lunch (provided)

12:45 pm Breakout groups: Data and information

Participants will break into facilitated small groups to further explore the draft data and information products and associated methodologies, and provide input.

2:20 pm Transition to general session

2:30 pm Report out from RPB workgroup co-chairs

- *Laura McKay, MARCO Management Board Chair, Member of the MidA RPB for Virginia, Virginia Coastal Zone Management Program*
- *Mary Boatman, Bureau of Ocean Energy Management*
- *Sarah Cooksey, MARCO Management Board Member, Member of the MidA RPB for Delaware, Delaware Coastal Programs*
- *Kevin Chu, Member of the MidA RPB for Department of Commerce, National Oceanic and Atmospheric Administration*

RPB members will provide a brief report out on the key themes and ideas discussed in the breakout groups they attended.

2:45 pm Overview of draft IJC actions for OAP

- *Greg Capobianco, MARCO Management Board Member, Member of the MidA RPB for New York, New York Department of State*

Mr. Capobianco will provide an overview of the RPB's process to date in developing draft IJC actions for inclusion in the OAP, the current status of the draft

actions, and an explanation of connections between the draft actions and data synthesis and information discussion from earlier in the day. This will be followed by an opportunity for clarifying questions.

3:10 pm Transition to breakout groups

3:20 pm Breakout groups: Draft IJC actions

Participants will break into small groups to explore the draft IJC actions and provide input.

4:30 pm Transition to general session

4:40 pm Report outs from IJC breakout groups

- *Laura McKay, MARCO Management Board Chair, Member of the MidA RPB for Virginia, Virginia Coastal Zone Management Program*
- *Sarah Cooksey, MARCO Management Board Member, Member of the MidA RPB for Delaware, Delaware Coastal Programs*
- *Kevin Chu, Member of the MidA RPB for Department of Commerce, National Oceanic and Atmospheric Administration*
- *Robert LaBelle, Federal RPB Co-Lead, Bureau of Ocean Energy Management, Department of the Interior*
- *Greg Capobianco, MARCO Management Board Member, Member of the MidA RPB for New York, New York Department of State*
- *Doug Simpson, Member of the MidA RPB for Department of Homeland Security, USCG 5th District Waterways Management Branch*
- *Joe Atangan, Member of the MidA RPB for Joint Chiefs of Staff, U.S. Fleet Forces Command*

In plenary, the RPB members championing specific draft IJC actions will provide a brief report out on the key themes and ideas discussed in breakout groups. This will be followed by a brief opportunity for further Q&A.

5:00 pm Summary and closing remarks

- *Laura McKay, MARCO Management Board Chair, Virginia Coastal Zone Management Program*
- *Laura Cantral, Meridian Institute*

5:15 pm – Informal gathering

6:15 pm

MARCO Mid-Atlantic Ocean Planning Stakeholder Workshop Participant List

September 22 • Norfolk Waterside Marriott • 235 E Main Street, Norfolk, VA

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Appendix A3

Updated Mid-Atlantic RPB Timeline for Ocean Action Plan Development (September 2015)

Notes: Timing subject to change; best current assessment. Light blue indicates stakeholder engagement. Red lines indicate deadlines, some of which are mid-month. Coordination across workgroups will be continuous throughout. Quarters displayed represent calendar year. After NOC concurrence at the end of 2016, focus will shift to plan implementation.

	2015												2016											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	Q1			Q2			Q3			Q4			Q1			Q2			Q3			Q4		
RPB BUSINESS MEETINGS	[Dark Blue Bar: Jan, Sep]												[Dark Blue Bar: Mar, Sep]											
Public comment at RPB meetings	[Light Blue Bar: Jan, Sep]												[Light Blue Bar: Mar, Sep]											
Approve OAP Approach	[Grey Bar: Jan]												[Grey Bar: Mar]											
Proceed with workgroup activities	[Grey Bar: Feb - Sep]																							
MidA RPB public webinars	[Light Blue Bar: May]												[Light Blue Bar: Dec, Jun]											
Stakeholder engagement events	[Light Blue Bar: Jul, Sep]												[Light Blue Bar: Mar]											
Prepare draft OAP	[Grey Bar: Oct - Dec]												[Grey Bar: Jan - May]											
Make final edits and release draft OAP (mid-June)	[Grey Bar: Jun]												[Grey Bar: Jun]											
Public comment on draft OAP (45 days)	[Light Blue Bar: Jun - Jul]												[Light Blue Bar: Jun - Jul]											
Public listening sessions/roundtables	[Light Blue Bar: Jun]												[Light Blue Bar: Jun]											
Integrate comments into final OAP	[Grey Bar: Jul - Sep]												[Grey Bar: Jul - Sep]											
Deliver final MidA OAP to NOC (mid-Sept.)	[Red Line: Sep]												[Red Line: Sep]											
NOC concurrence process	[Grey Bar: Oct - Dec]												[Grey Bar: Oct - Dec]											
Final concurrence received on OAP	[Red Line: Dec]												[Red Line: Dec]											

Mid-Atlantic Regional Ocean Action Plan (OAP) Draft Outline

(1) Introduction

- History (MARCO, NOP, RPB)
 - NOC context (NOC guidance and process)
 - Planning process (summary of process and key steps; link to Charter, other)
 - Regional overview (drawing from ROA white paper)
 - Summary discussion of goals and objectives (link to Framework)
 - Brief description of Mid-Atlantic Ocean Data Portal (and link to the portal)
 - Overview of OAP (description of how OAP is organized)
-

(2) Mid-Atlantic Ocean Conditions and Key Issues

This chapter would include regional characterization of conditions and key issues, using information from the Human Uses Synthesis, Ecological Data Synthesis, and Regional Ocean Assessment (ROA), and other sources. This chapter would be comprised of sections organized by the goals and objectives (as articulated in the [Framework](#)), that: 1) generally characterize conditions and issues related to each objective; 2) present a relevant map(s); and 3) identify key issues for interjurisdictional coordination (IJC).

Note: The intent is to maximize use of data synthesis and assessment products by providing very concise summary information here and then link to relevant full documents in the Appendix or elsewhere as appropriate.

Goal 1: Healthy ocean ecosystem

- Objective 1: Discovering, understanding, protecting, and restoring the ocean ecosystem AND Objective 2: Accounting for ocean ecosystem changes and increased risks.
 - Marine life distribution and abundance
 - Other marine ecosystem components
 - Ecologically rich areas
 - Other discussion/products related to ecosystem-based management and/or ecosystem change
- Objective 3: Valuing traditional knowledge

Goal 2: Sustainable ocean uses

Objectives:

1. National security
 2. Ocean energy
 3. Commercial and recreational fishing
 4. Ocean aquaculture
 5. Maritime commerce and navigation
 6. Offshore sand management
 7. Recreation
 8. Tribal uses
 9. Undersea infrastructure
-

(3) Interjurisdictional coordination actions

In this chapter, the OAP describes collaborative actions that will be taken to address the goals and objectives (as articulated in the [Framework](#)). It describes how the RPB (through internal agency discussion, workgroup and full RPB discussion, and application of working criteria) has identified certain interjurisdictional coordination (IJC) actions to include in this first OAP, and then details those IJC actions. The specific IJC actions typically will have multiple components that have immediate, near-, and longer-term implementation schedules. Some of these will be addressed through procedural actions (e.g., project review coordination) and the use of data and information (e.g., use of data portal to inform regulatory or other actions that could affect stakeholders). Since ocean planning is intended to be an iterative process, actions may be refined and new ones developed over time.

For each Framework objective, the RPB will define actions and sub-actions in varying levels of detail as determined appropriate by the RPB and its member entities. Where deemed appropriate by the RPB, actions could be described in the OAP under the following categories:

- Description of the action¹
- Output/outcome
- Responsible entities and key partners
- Sub-actions/steps and milestones (including immediate, near-, and longer-term components)
- Stakeholder input
- Geographic dimension
- Resources
- Research and science needs related to this action

Topics that would be addressed in this section of the OAP in varying levels of detail that link directly to specific Framework objectives:

¹ Commitments to undertake actions will reflect a determination that it is feasible to do so, based on consideration by RPB champions of that action and collaborating RPB entities.

- Valuing traditional knowledge and Tribal uses
- Healthy ocean ecosystems
- Wind energy
- Offshore sand management
- Commercial and recreational fishing
- National security
- Navigation and commerce
- Ocean aquaculture
- Non-consumptive recreation
- Critical undersea infrastructure

In addition, the OAP would identify IJC actions on the following cross-cutting topics²:

- Ongoing intergovernmental communication and coordination³
- Maintaining a data repository (the Mid-Atlantic Ocean Data Portal)⁴

At the end of this chapter would be a reference to the following documents, which would appear in appendices to the OAP and are intended to help the reader find/navigate the actions:

- Summary of actions organized by immediate, near-, and longer-term components
- Comprehensive matrix of goals, objectives, and actions

(4) Plan implementation

This chapter would have descriptions of how entities will engage with the OAP and use it to guide and inform their actions under existing authorities, including implementation mechanisms and processes (in detail or summary form) with reference to further content in Appendices. This may include:

- Best practices for agency coordination and use of data
- Agency guidance, including:
 - Technical guidance (on use of specific data)⁵
 - Implementation guidance (how agencies will use the OAP)⁶
- Administration (technical revisions, scheduled review and updating, other)
- Performance monitoring/metrics

² The RPB may decide to add IJC actions related to the Coastal Zone Management Act as well.

³ This action is not related to a specific objective, but it fundamentally supports the achievement of all objectives.

⁴ This action is not related to a specific objective, but it fundamentally supports the achievement of all objectives.

⁵ Under development by NMFS and USFWS for marine animals in association with development of MDAT products.

⁶ Under development at NOC/agency general counsel; both MidA and NE RPBs have provided comments to the NOC draft guidance that touches on this. The RPB will engage in review of guidance documents as the NOC and agency GCs develop drafts and provide for comment.

- Data Portal-specific information (including how it should be used in implementation)
-

(5) Science and Research Plan

A compilation of data, research, and science needs identified under Chapter 3 and as determined necessary/appropriate to update and advance the OAP broadly (per ROA, other), including needs associated with:

- On-going updates to OAP data synthesis products
- Studies and research
- Continuing evaluation or and engagement around ecosystem-based management

Description of relevant federal agency programs and processes for coordination/integration on science and research.

Appendices

- Charter
- Framework
- Full technical materials as appropriate
 - ROA
 - Human Use
 - Ecological Synthesis
 - Other
- Implementation Guidance
- Agency commitments (“decision document” formal mechanisms that commit entities to specific actions)⁷
- Stakeholder engagement report/continuing engagement plan
- Summaries of actions (organized by timeframe and/or in matrix format)
- Other

⁷ Agency commitment will be developed in a process parallel to, but on a somewhat later schedule than, the implementation guidance, as the commitment will be keyed to specific actions and planning processes currently being developed by the RPB. We anticipate that additional guidance on the nature and detail for agency commitments will be developed through the NOC and agency general counsel and provided to the RPB for review and discussion.

Scopes and Objectives for Information Synthesis to Support Mid-Atlantic Regional Ocean Planning

In support of Mid-Atlantic regional ocean planning efforts, the Mid-Atlantic Regional Council on the Ocean (MARCO) continues to manage three projects for data and information synthesis. Scopes and objectives for information synthesis projects are meant to complement each other, and there is coordination across projects and with stakeholders. Summary information for these projects is provided below:

Ecological Data Synthesis Project:

Objectives/Outcomes: The Ecological Data Synthesis project is being conducted by the Marine Life Data & Analysis Team (MDAT), led by Duke University Marine Geospatial Ecology Lab, NOAA National Center for Coastal Ocean Science, NOAA Northeast Fisheries Science Center, and Loyola University. The project seeks to *develop the Mid-Atlantic regional marine life database and web services* by hosting marine mammal, sea turtle, avian, and fish data products, as well as other synthesized ecological data (including corals, canyons and other benthic habitats) for use in desktop GIS systems and data portals, in particular the Mid-Atlantic Ocean Data Portal. As part of this objective, the MDAT will produce maps of distribution and abundance for diverse species. Spatial data products will include models based on observations and environmental co-variables, observation based density maps for fishes and a suite of maps that characterize uncertainty for model based products. MDAT will also provide technical support at MARCO and Mid-Atlantic Regional Planning Body (MidA RPB)-sponsored meetings with state, federal, and tribal entities to ensure the utility of the information for decision-making. MDAT will develop synthetic data products and overlays to identify preliminary areas of ecological richness across multiple taxonomic groups, including additional habitat considerations. The final product set will be completed in December 2015.

Human Use Data Synthesis Project:

Objectives/Outcomes: The Human Use Data Synthesis (HUDS) project, led by RPS ASA and SeaPlan, seeks to *compile spatial data on human uses and develop synthesized data products and tools* to advance ocean planning priorities in the Mid-Atlantic region. Work products will support decision-makers' consideration of human use data. The team will characterize the strengths and caveats associated with the project's available human use data and develop synthesis methods and new spatial data products in consultation with MARCO and the Mid-Atlantic Ocean Data Portal Team. A new data summary tool will be developed to reveal and highlight locations where multiple uses occur, identify patterns of use intensity, provide summary information for user selected ocean areas, and help illustrate where improved Inter-jurisdictional Coordination (IJC) will benefit ocean health and promote sustainable use. The project team will produce a final report to include:

- Summary of human use data prioritization criteria,
- Evaluation of available human use data,
- Documentation of data gaps,
- Summary of identified potential future human use data, and
- Data synthesis methods and guidance for use of an interactive summary tool.

The project team will also develop clear user-friendly fact sheets for all synthesis products that describe the human use data sets and explain caveats, collection methods, interpretability, and any classification or scaling techniques that were applied. The HUDS final product will be completed in December 2015.

Regional Ocean Assessment Project:

Objectives/Outcomes: The Regional Ocean Assessment (ROA) project, led by Waterview Consulting and E&C Enviroscope, seeks to *characterize ocean uses and resources in the Mid-Atlantic* with a priority focus on two broad ocean planning goals: Healthy Ocean Ecosystems and Sustainable Ocean Uses. The project will also develop an innovative, dynamic, and easily updated web-based system to deliver the final ROA product. The project team will gather, integrate, and distill the best available information from publications, data sources, subject-matter experts, and related MARCO projects to characterize biological, chemical, ecological, physical, cultural, economic, and historical conditions of the Mid-Atlantic Ocean.

The project will:

- Highlight relationships and potential linkages between and among ecosystem features and human uses;
- Highlight knowledge/data gaps by assessing data using a common framework and metrics;
- Suggest appropriate scales of interpretation, analysis, and application of data for decision-making; and
- Provide information needed to jumpstart potential new data products that address ecosystem services valuation, definition of ecologically rich areas, cumulative impact analysis and/or vulnerability, and resilience assessments.

The project will produce a dynamic digital information resource that conveys the best available scientific information in an engaging and useful way. It will also serve as a quick reference and summary to MidA RPB members, agencies and the public on the best available information for decision-making. The ROA final product will be completed in January 2016.

Mid-Atlantic Regional Ocean Assessment: Outline (DRAFT)

1. Introduction

- a. Need for Ocean Planning
- b. Overview of Mid-Atlantic Regional Ocean Planning Process
 - i. Use of Traditional Knowledge in Ocean Planning
- c. Overarching Goals for Mid-Atlantic Regional Ocean Planning
- d. Purpose and Structure of the Regional Ocean Assessment

2. Ocean Ecosystem and Resources

- a. Characterizing the Mid-Atlantic Ocean Ecosystem
 - i. Oceanographic Setting and Processes
 - ii. Important Biological, Chemical and Physical Attributes
 - iii. Living Marine Resources
 1. Overview
 2. Important or Sensitive Species, Guilds, and Habitats
 - iv. Human Settlements Relative to the Ocean
 - v. Ecosystem Services
 - vi. Ecosystem Responses to Climate Change
- b. Toward Ocean Planning Objectives: Status and Trends
 - i. Key Ocean Characteristics and Indicators

3. Ocean Uses

- a. Characterizing Mid-Atlantic Ocean Uses and Values
 - i. Overview of Human Uses and Values
 - ii. Overview of the Mid-Atlantic Ocean Economy
- b. Toward Ocean Planning Objectives: Status and Trends
 - i. Tribal Uses
 - ii. Commercial and Recreational Fishing
 - iii. Critical Undersea Infrastructure
 - iv. Maritime Commerce and Navigation
 - v. National Security and Military Uses
 - vi. Non-consumptive Recreation (e.g., boating, sailing, wildlife watching, diving)
 - vii. Ocean Aquaculture
 - viii. Ocean Energy
 - ix. Offshore Sand Management for Resilience Planning
 - x. Scientific Research

4. Strategic Objectives for Mid-Atlantic Regional Ocean Planning

- a. Adapt to Climate Change
- b. Build a Stronger Network of Monitoring and Science
- c. Maintain and Improve Sustainable Fisheries in a Changing Environment
- d. Manage Offshore Sediment for Coastal Resiliency
- e. Prepare for Expanded Shipping and Port Activities
- f. Site Ocean Renewable Energy Facilities
- g. Support Maritime Heritage
- h. Sustain Ecologically Rich Areas and Linkages

Mid-Atlantic Regional Planning Body Draft Interjurisdictional Coordination Actions

September 2015

Introduction

A key purpose 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):¹

1. Promote ocean ecosystem health, functionality, and integrity through conservation, protection, enhancement, and restoration.
2. 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.

Interjurisdictional coordination (IJC) is a critical component of the regional ocean planning process and addresses specific processes and mechanisms that will allow the Federal, State, and Tribal member institutions of the RPB to enhance coordination, leverage resources, and improve decision-making to benefit ocean users and ecosystem health through the implementation of their existing mandates and authorities. The agreements and products resulting from IJC actions will serve as the cornerstone of the Mid-Atlantic Regional Ocean Action Plan (OAP).

Throughout the spring and summer of 2015, RPB member entities generated ideas about specific draft IJC actions to foster improved information exchange, data sharing, and coordination in the region. At the September 23-24 2015 in-person RPB meeting, the RPB will agree to further develop a set of IJC actions for inclusion in the OAP. RPB discussion will be informed by stakeholder input during the Mid-Atlantic Regional Council on the Ocean Stakeholder Workshop on September 22.

¹ <http://www.boem.gov/Mid-Atlantic-Regional-Ocean-Planning-Framework/>

Draft actions for consideration

For each Framework objective, the RPB will define actions and sub-actions in varying levels of detail as determined appropriate by the RPB and its member entities. As a result of RPB discussions to date, a draft suite of actions have been developed for consideration and discussion in September 2015.

Draft actions are being developed that link directly to specific Framework objectives, related to the following topics:

- Valuing traditional knowledge and Tribal uses
- Healthy ocean ecosystems
- Wind energy
- Offshore sand management
- Commercial and recreational fishing
- National security
- Navigation and commerce
- Ocean aquaculture
- Non-consumptive recreation
- Critical undersea infrastructure

Draft actions on cross-cutting topics:

- Ongoing intergovernmental communication and coordination
- Maintaining a data repository (the Mid-Atlantic Ocean Data Portal)

These draft IJC actions are detailed further in the slides below.

Please note that these draft IJC actions are initial working ideas at different stages of development. They are designed to spark discussion and deliberation at the September 22 MARCO stakeholder workshop and September 23-24 RPB meeting and do not represent RPB decisions on OAP content at this time.

Tribal Uses

Kelsey Leonard, Tribal Co-Lead, Shinnecock Indian Nation
Kevin Chu, NMFS/NOAA

Tribal Uses Goal and Objectives from the “Framework”

- Goal: 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.
- Objectives:
 1. Increased coordination among Tribes, states, and federal entities for integrated management efforts.
 2. Document and foster shared understanding of ocean and coastal sites important to Tribal use, beliefs, and values related to the Mid-Atlantic ocean.
 3. Consider climate change effects on tribal uses, emergency management, and territorial erosion/degradation.

Overview of Proposed IJC Actions

1. Identify data gaps pertaining to tribal uses and develop research agenda to address the need
2. Improve ability of RPB entities to use traditional knowledge for planning, management and decision-making purposes
3. Identify best-practices for increased coordination among tribes, states, and federal entities for marine planning
4. Assess opportunities for marine planning to consider and where appropriate support of tribal economic self-sufficiency
5. Assess and plan for climate change impacts

1. Data and Research

- Building on the ROA, identify areas for research such as:
 - Submerged Cultural Resources (e.g. Clovis Point Concentration on Delmarva Peninsula of Mid-Atlantic)
 - Timeline of treaties with tribes in the region and history of laws affecting use of ocean by tribes
 - Beach Access laws, Current restrictions; Private Beaches; Parking Permitting
- Identify and recommend to appropriate agency(ies) actions that could increase tribal participation in data collection and analysis.
 - Incorporate tribal review
 - Enhance tribal engagement through access to and participation in management, environmental, and regulatory review
- **Desired Outcome:** Increased Tribal participation in data collection and analysis and prioritized list of research needs to be shared with funding entities.



2. Traditional Knowledge

- Develop best practices for identifying and incorporating or accessing traditional knowledge, as appropriate, in current and future planning products (e.g., Data Portal, OAP, protocols for sensitive information, other) and decision-making processes.



- Develop database for Mid-Atlantic Marine Traditional Knowledge
- **Desired Outcome:** Tribal Nations, States, and Federal entities have tools necessary to access and incorporate TK, as appropriate, in planning and decision-making.

3. Increase Coordination & Management

- Incorporate existing and/or develop best practices for government-to-government consultation and tribal participation in planning, management, and environmental and regulatory review processes
- Develop Tribal Ocean Planning Network (TOPN) facilitating coordination between Mid-Atlantic Tribes in the ocean planning process.
- Develop best practices to work with tribes to concurrently define jurisdiction (if appropriate), create co-management programs, and coordinate applicable regulations including sharing of state and tribal management plans.

3. Increase Coordination & Management

- Increased coordination with tribal historic preservation officers when burial sites and other funerary/cultural objects may be desecrated by a proposed use
 - MARCO Portal: Zones of Notification
- Identify mechanism(s) and process(es) to support tribal engagement in coastal bays and estuaries programs as tribal ocean uses flow into those areas of geographic scope.
- **Desired Outcome:** Tribal Nations, states, and federal entities have foundation for sustained coordination for ocean planning in Mid-Atlantic.



4. Tribal Economic Self-Sufficiency

- Undertake measures to encourage tribal economic self-sufficiency
 - Commercial fishing/aquaculture
 - Renewable energy
 - Commercial eco-tourism, etc.
- **Desired Outcome:** Increased tribal economic development in Mid-Atlantic Ocean supported by diverse entities.



5. Assess and plan for Climate Change impacts

- Increased awareness on Tribal Climate Change Adaptation planning
 - Identify funding system
 - Emergency Management and Preparedness
- Coastal Resiliency
- Identify Species of Concern for Cultural Preservation
- Increased tribal climate change data (e.g. composite map overlay tribal territories, floodplains, shoreline erosion)
- **Desired Outcome:** Tribal Nations prepared for climate change impacts on ocean uses and resources



Member Entities and Stakeholder Involvement

- RPB Tribal Uses members
 - Tribes: Shinnecock, Pamunkey, Oneida
 - Federal Agencies
 - States
 - MARCO
- Tribal Nation input Opportunities
 - MARCO Tribal Listening Sessions
 - RPB written comment period

Healthy Ocean Ecosystems

*Laura McKay, Virginia CZM Program
Kevin Chu, NMFS/NOAA*

Healthy Ocean Ecosystem Goal and Objectives from the “Framework”

- Goal: Promote ocean ecosystem health, functionality, and integrity through conservation, protection, enhancement, and restoration.
- Objectives:
 1. Discover, understand, protect, and restore the ocean ecosystem
 2. Account for ocean ecosystem changes and increased risks



Overview of Proposed IJC Actions

1. Select ecologically rich areas (ERAs) for in-depth review
2. Select region-wide features for in-depth review
3. Identify Mid-Atlantic Ocean health indicators/metrics
4. Develop a management research agenda
5. Assess and plan for climate change impacts



1. Select ecologically rich areas (ERAs) for in-depth review

- Based on relative ecological richness and/or immediacy of risk of negative impacts, select initial set of ERAs from MDAT's analysis for review
- Overlay human use data to identify managing agencies
- Review Traditional Knowledge habitat stewardship practices and current management practices affecting ERAs
- Identify and recommend to appropriate agency(ies) actions to reduce or eliminate risk of degradation for each ERA
- As new data are collected, update & re-run ERA model
- **Desired outcome:** Maintenance and or restoration of health of ERAs



2. Select region-wide features for in depth review

- Building on the ROA, identify region-wide features, e.g.
 - migration corridors
 - linkages between ERAs
- Overlay human use data to identify managing agencies
- Review current management affecting region-wide features
- Identify and recommend to appropriate agency(ies) actions that could reduce or eliminate risk of degradation for region-wide features
- **Desired outcome:** Maintenance and or restoration of health of region-wide ecological features



3. Identify Mid-Atlantic Ocean indicators/metrics

- Building on ROA, identify easily measured parameters to measure ocean health and/or effectiveness of actions
- Determine time intervals and appropriate agencies to measure indicators
- **Desired outcome:** A sustainable program for monitoring ocean ecosystem health



4. Develop a management research forum and agenda

- Establish a forum for sharing current and planned Mid-Atlantic Ocean research
- Identify management research needs
- Review and build upon existing research agendas
- Pool resources to study cumulative impacts of human uses
- **Desired outcome:** Prioritized list of research needs to be shared with potential funding entities



5. Assess and plan for climate change impacts

- Enhance the region's ability to address **ocean acidification** impacts
 - Review existing efforts/identify gaps
 - Identify funding stream
 - Ensure a robust, integrated Mid-Atlantic OA monitoring network is in place
- Enhance the region's ability to address expected **shifts in species and habitats**
 - Review existing efforts/identify gaps
 - Map expected species/habitat shifts
 - Assess need for and develop recommendations for actions
- **Desired outcome:** Management agencies prepared for climate change impacts



Member Entities and Stakeholder Involvement

- RPB Healthy Ocean Ecosystem members
 - Federal Agencies: NOAA, BOEM
 - States: VA, MD, DE, NY
 - Tribes: Shinnecock
- Stakeholder input opportunities (Sep –Dec)
 - MARCO SLC meeting
 - RPB written comment period



Offshore Wind Energy

*Dept. of the Interior, BOEM
New York Department of State*

Overview of Offshore Wind Energy

- **RPB objective:** Facilitate greater collaboration around ocean energy issues with states, tribes, and federal partners
 - **Example action:** Coordinate data collection for environmental assessment to inform development of new Mid-Atlantic offshore renewable energy projects
- **Desired outcome:** More efficient, predictable and informed process that supports effective coordination; provides more meaningful participation for affected states in a shorter timeframe; enhances agency management and environmental and regulatory review processes; and advances state and federal wind energy development objectives

Proposed Interjurisdictional Actions

- **Coordination and management:** Identify intersections among federal programs; develop clearly defined coordination mechanisms to inform site assessment and project construction plans; and ensure activities are mutually reinforcing and provide the necessary information for decision-making where statutes intersect
 - BOEM consults with tribes to better understand impacts to economics and the environment, marine mammals, sacred ceremonial sites, and cultural resources
- **Data:** Develop agency guidance that addresses how data will be used in management, environmental, and regulatory reviews; agree on what data is sufficient for responsible entities to use for their reviews
- **Research:** Partner in on-going and planned studies; identify knowledge gaps
- **Issue Areas:** Focus on siting issues beyond project-specific scales, collaborate on shared data sets, and outline where and when relevant authorities play a role in decisions

Member Entity and Stakeholder Involvement

- RPB member entities working together to further develop the details of the proposed actions
 - BOEM, New York DOS, Virginia, Delaware, Maryland, DoD, DOE, NOAA, USCG, DOT, EPA
- Anticipated stakeholder engagement to further develop the actions from now to December 2015
 - Seek input from BOEM's state intergovernmental renewable energy task forces and from targeted stakeholders on BOEM's offshore wind energy program

Offshore Sand Management

*Dept. of the Interior, BOEM
New York Department of State
Virginia Dept. of Environmental Quality*

Overview: Offshore Sand Management

- **RPB objective:** Enhance participation among coastal jurisdictions, federal (USACE) and state regulatory agencies, and tribal entities to identify and prioritize the use of Mid-Atlantic sand and gravel resources for coastal adaptation, resilience planning, and implementation
 - **Example action:** Coordinate regional identification and prioritization of sand borrow sites in federal and state waters and link to RPB's regional sediment management initiatives
- **Desired outcome:** Enhanced coordination among local coastal jurisdictions, federal and state regulatory agencies, and tribal entities to share data and help identify short and long-term sand resource projects

Proposed Interjurisdictional Actions

- **Coordination and management:** Identify and improve existing state / federal interactions and cooperative agreements in the Mid-Atlantic
 - BOEM and USACE coordinate with tribes for sand re-nourishment projects during the planning and analysis phase (NEPA & consultations)
- **Data:** Inform decision making by sharing BOEM geospatial database that will contain data from over 20 years of cooperative agreements, nearly 13 leases and agreements, and new data being collected from the Hurricane Sandy funded Atlantic Sand Assessment Project
- **Research:** Numerous BOEM studies; for ex., FY 2015 study planned in collaboration with USACE examining dredging best management practices and multiple uses of borrow sites
- **Issue Areas:** Existing sand projects may be used as pilot demonstrations on how RPB efforts might be of assistance

Member Entity and Stakeholder Involvement

- RPB member entities working together to further develop the details of the proposed actions
 - BOEM, New York DOS, Virginia, Delaware, Maryland, DoD, DOE, NOAA, USCG, DOT, EPA
- Anticipated stakeholder engagement to further develop the actions
 - BOEM working now to establish a Mid-Atlantic Regional Sand Management Working Group to meet in early 2016 to discuss needs for offshore federal sand, data, and future environmental study needs; and address local government and near-shore issues

National Security

Joe Atangan, Joint Staff, U.S. Fleet Forces

Mike Jones, Dept. of Defense, Navy Region Mid-Atlantic

Overview of National Security

- **RPB objective:** To ensure National Security interests in the Mid-Atlantic are accounted for through enhanced coordination, increased transparency, and sharing of information across agencies
- **Desired outcome:** An established, efficient, and informed process that supports effective coordination; leverages existing processes, practices, and programs; and facilitates addressing National Security impacts/concerns throughout the agency management and environmental and regulatory review processes

Proposed Interjurisdictional Actions

- **Coordination and management:** Leverage existing processes, practices, programs, and groups to assess potential National Security impacts of proposed actions, identify potential mitigations, facilitate decision making
- **Data:** Identify authoritative, publically releasable data for use in management, environmental, and regulatory reviews.
- **Research:** Partner in on-going and planned studies; identify knowledge gaps
- **Issue Areas:** Focus on use compatibility issues and potential impacts on National Security

Member Entity and Stakeholder Involvement

- RPB member entities working together to further develop the details of the proposed actions
 - DoD, USCG
- Anticipated stakeholder engagement to further develop the actions from now to December 2015
 - Seek input from DoD Regional Environmental Coordinators, OSD Clearinghouse, intergovernmental task forces and targeted stakeholders

Marine Commerce & Navigation

Doug Simpson, DHS, USCG

John Kennedy, DOT, MARAD

Greg Capobianco, New York Department of State

Overview of Marine Commerce and Navigation

RPB objective: Generate greater awareness and participation by states, tribes, and the public in offshore marine commerce and navigation issues.

Desired maritime transportation system:

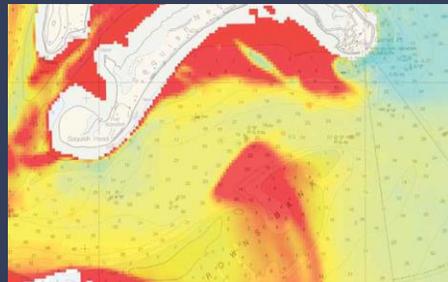
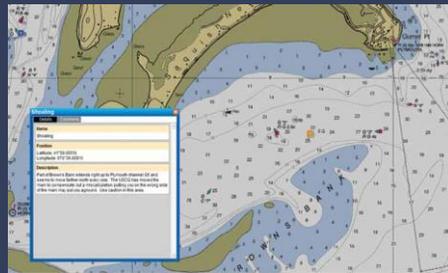
- Safe for increased, multifaceted use
- Meets national, regional, & local needs
- Resilient to market & use changes
- Values environmental stewardship



Proposed Interjurisdictional Actions: Coordination & Management

Incorporate stakeholder review: Identify and continue to leverage existing navigation safety committees.

Coordinate data product development: Catalogue intersections between federal agencies and between federal and state agencies, identifying opportunities for improving service to stakeholders.



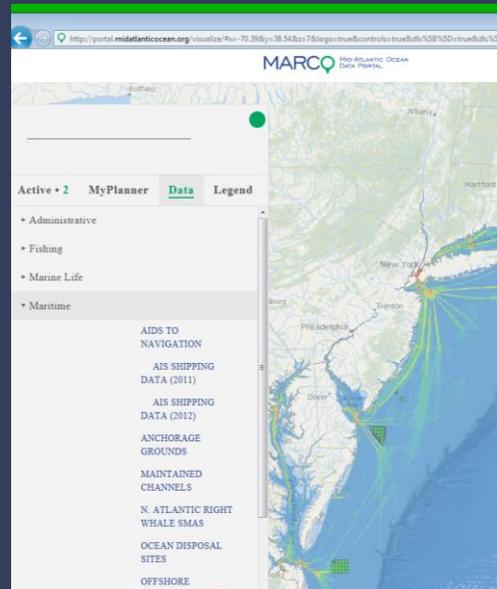
Proposed Interjurisdictional Actions: Data

Coordinate on data acquisition to leverage/share costs and expand utility of data

Incorporate releasable USCG data into MARCO data portal:

- Search and Rescue
- Marine Casualty
- Pollution

Develop navigation data that represents sub-sectors of vessel traffic

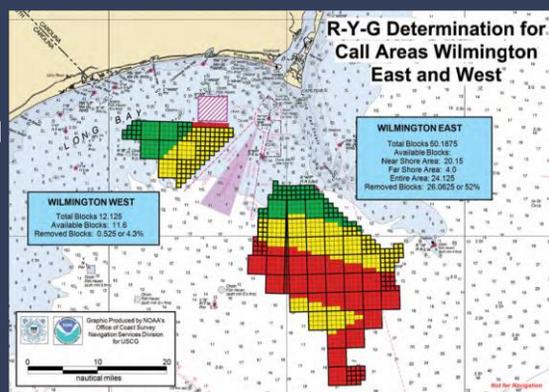


Proposed Interjurisdictional Actions: Research

Identify navigation trends to understand traffic patterns over time

Identify impacts to navigation and port infrastructure stemming from the Panama Canal expansion

Develop data layers that represent activities and structures in nearshore and estuarine waters



Member Entity and Stakeholder Involvement

- RPB member entities working together to further develop the details of the proposed actions
 - BOEM, New York DOS, Virginia, Delaware, DoD, NOAA, USCG, DOT
- Anticipated stakeholder engagement to further develop the actions from now to December 2015
 - Seek input from targeted stakeholders
 - Seek input from regional navigation safety committees

Fisheries Science and Management

Michael Luisi, Maryland Department of Natural Resources and Mid-Atlantic Fisheries Management Council

Kevin Chu, National Oceanic and Atmospheric Administration

Goals and Objectives

- RPB Framework 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*
- Objective: Commercial and Recreational Fishing
 - *Foster greater understanding of the needs of the Mid-Atlantic fishers and fishing communities in the context of the full range of ocean uses and conservation efforts*

Proposed Actions

1. Support dialogue between NOAA and State Fisheries Managers
 2. Collaborate on climate change studies (Science / Managers / Planners)
 3. Work with the MAFMC Ecosystems and Ocean Planning Committee
 4. Improve collaboration with Tribes
 5. Improve understanding of recreational fishing
- **Outcome: Improved fisheries science and better management decisions**

Background

- Current collaboration:
 - *Mid-Atlantic Fishery Management Council*
 - *Atlantic States Marine Fisheries Commission*
 - *Atlantic Coastal Cooperative Statistics Program*



Proposed Actions

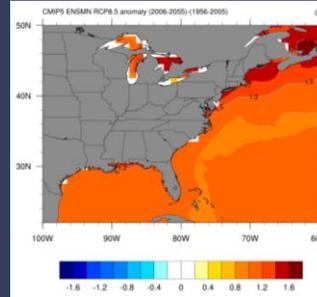
Support Dialogue Between NOAA and States

- State Fisheries Directors and NOAA/NMFS
 - *Face to face*
 - *At least once per year*
 - *Coordinated with a meeting of ASMFC*
 - *Discuss positions and develop ideas for collaboration*



Proposed Actions *Climate Change & Fisheries*

- Workshop for scientists and managers
 - *Predictions about the movement of fish stocks*
 - *Discussions of management implications of shifting populations*
 - *Develop collaborative research projects*
 - *Establish an ongoing forum*
- NOAA climate strategy
 - *Regional Action Plans*



Proposed Actions *RPB Collaboration with MAFMC*

- MAFMC Ecosystems and Ocean Planning Committee
 - *Impacts of other activities on fishing*
 - *Impacts of fishing on the environment*
- ACTION: RPB members to participate on Committee



Proposed Actions

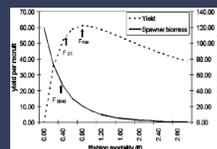
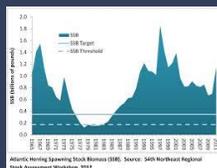
Improve Collaboration with Tribes

- In states that have Federally recognized Tribes, NOAA will meet jointly with all interested Tribes (state and Federally recognized) to share perspectives on fishery management.
 - Face to face meetings should occur at least once per year at a time convenient for the Tribes.
 - RPB members will be invited to participate.

Proposed Actions

Improved Understanding of Recreational Fishing

- Workshops for leaders in recreational fishing organizations
 - Topics to include fishery science and management
 - Discussions allow sharing of stakeholder, state and Federal perspectives



Member Entity and Stakeholder Involvement

- Member Entities
 - NOAA
 - *Mid-Atlantic Fishery Management Council*
- Stakeholder comments:
 - *Now*
 - *At Mid-Atlantic Council meeting in October*
 - *Email to:*
 - *kevin.chu@noaa.gov*
 - *michael.luisi@maryland.gov*

Sustain and Enhance Intergovernmental Coordination

Sarah Cooksey, Delaware
Supported by Darlene Finch (NOAA alternate)

Overview

- Cross-cutting objective: *Maintain forum(s) for intergovernmental coordination and communication in support of ocean planning in the Mid-Atlantic.*
- After MidA Ocean Action Plan (OAP) completion, need to:
 - monitor and track progress of actions in Plan
 - evaluate and update the Plan
 - incorporate updated scientific research and data in MidA ocean planning
 - identify and address emerging issues
 - engage governmental entities (both RPB and non-RPB members) on Mid-Atlantic ocean issues.
- Major guidance documents are mostly silent on this, although clear that ongoing coordination and communication are extremely important.

Framing the Issues

- No clarity about status of the MidA RPB after 2016.
- Three options to advance the discussion:
 - MidA RPB operation is modified to provide more opportunities for communication and informal coordination.
 - MidA RPB focuses on OAP implementation and another forum focuses on intergovernmental communication about ocean activities.
 - MidA RPB goes away but intergovernmental communication forum continues.
- Each option has positive and negative attributes. Discussion will help us consider how we organize ourselves to support future ocean planning efforts in the MidA.
- Based upon the outcomes of this discussion, we can further develop options for the OAP.

Discussion and Stakeholder Engagement

- **Questions for Discussion:**
 - Do you agree with the articulation of the need?
 - What are the benefits of continuing the MidA RPB?
 - What would be the benefits of having two forums – one that focuses on RPB business and the other that focuses on increased communication?
 - How could a separate forum be established without detracting from the efforts of the MidA RPB?
 - Are there specific topics that a separate coordination and communication forum could address?
- **Stakeholder Input**
 - During this MidA RPB meeting.
 - Offer white paper to stakeholders for comment and input.

Mid-Atlantic Ocean Data Portal: Data to Support Ocean Action Plan Development & Implementation

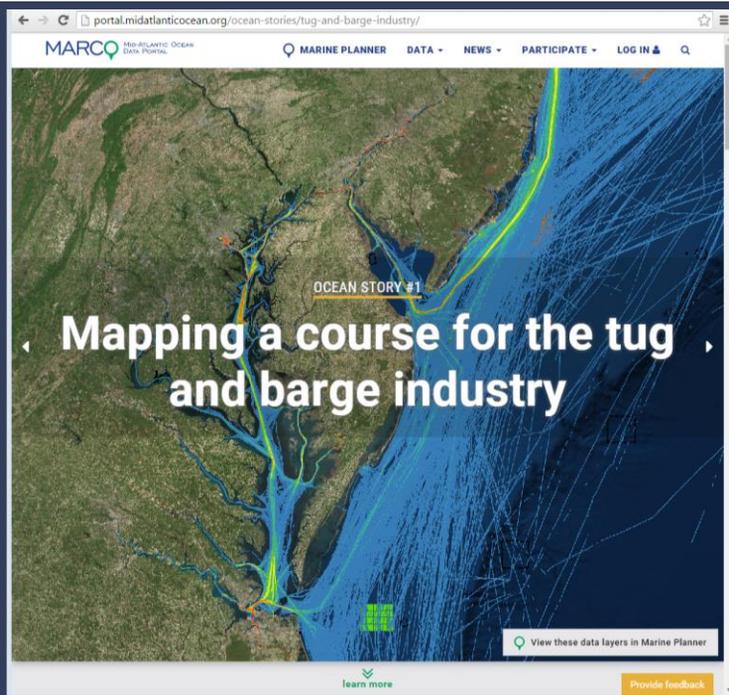
Laura McKay, Virginia CZM Program
Kevin Chu, NOAA/NMFS

Shared Data, Information and Mapping Platform

Key Objectives:

- Provide data to inform IJC actions, and advance Healthy Ecosystem and Sustainable Use goals.
- Federal – state collaboration to provide ongoing access to best available, regionally relevant ocean data

Outcome: An authoritative repository for regional data and visualization tools to reduce conflicts, and to support implementation actions and efficient ocean management decisions



Proposed Actions

- Maintain operational components including data development, management, and web maintenance
- Expand public engagement in collaboration with RPB and MARCO to enhance data, and functionality, as needed.
- Add new data and mapping products to support RPB ocean actions as they evolve



Ongoing Data Development and Public Engagement

- Work with RPB and IJC actions member entities / agency leads to focus and enhance portal data to support proposed actions
- Incorporate relevant data and information developed through ROA and DSWG, including ecological (MDAT) and human use (HUDS) synthesis products.
- Ongoing portal public/stakeholder engagement including but not limited to webinars, vetting human use data products (e.g. Communities at Sea maps), tribal data development, group briefings and meetings of opportunity (e.g. AWEA).

Ocean aquaculture

Non-consumptive recreation

Critical undersea infrastructure

Regional Planning Body

Ocean aquaculture

- *Inform ocean aquaculture siting and permitting through greater coordination among stakeholders and management authorities to address compatibility issues.*
- Address through:
 - Updates of the ROA
 - Use of data portal to characterize potential siting issues
 - Creation of agency guidance on data use
 - Ongoing evaluation of regional need for additional agency actions (pre-application coordination, policy, guidance, data)



Non-consumptive recreation

- *Account for importance and economic contributions of such uses, and in management of other uses and resources consider impacts to such activities.*
- Address through:
 - Updates of the ROA
 - Use of data portal to characterize potential siting issues
 - Ongoing coordination to develop/enhance data products and use in project planning



Critical undersea infrastructure

- *Facilitate greater understanding of the current and potential future location of submerged infrastructure such as submarine cables and pipelines.*
- Address through:
 - Updates of ROA
 - Use of data portal to characterize potential siting issues
 - Ongoing coordination to develop/enhance data products and use in project planning





Note: *This is a working draft document developed by MARCO staff for internal MARCO discussions. The draft was also submitted to the Mid-Atlantic Regional Planning Body Inter-Jurisdictional Work Group for their consideration.*

Suggested Interjurisdictional Coordination Priorities

May 15, 2015

Following the recent meeting of the Mid-Atlantic Regional Planning Body (RPB) in New York City, the RPB Interjurisdictional Coordination (IJC) workgroup has a renewed charge to identify opportunities for improving how multiple levels of government work together on key issues of importance to the region. Given that a primary purpose of the RPB is to improve the delivery of federal services to more effectively address regional needs, and understanding the critical role the IJC will now play in that process, it is in the MARCO States' collective interest to keep federal attention in the IJC focused on issues of greatest relevance to the region as identified in the Mid-Atlantic Governors' Agreement. The MARCO Management Board is taking this opportunity to provide this draft document as initial input to the IJC workgroup to shape its future discussions and the deliverables it presents to the larger RPB.

The below list summarizes examples of key actions that could be taken by federal agencies to address these regional issues of shared interest to our States. The intent of this submission is to initiate IJC discussions and begin to frame issues to be addressed in a Mid-Atlantic Regional Ocean Action Plan. IJC priorities will become a filter for determining appropriate data and data overlays, so that the Regional Ocean Assessment and Data Synthesis Work Groups (DS) provide focused data and assessments of key issues in a way that underscores the need for these priority actions to occur. The RPB would benefit from continued stakeholder participation as a further means to reinforce these issues and the specific actions identified.

Recommended priority actions to be addressed by the IJC, ROA and DS Work Groups and included in the Regional Ocean Action Plan.

1. Targeted research funding to address regional ocean management priorities

Desired outcome: Improved opportunities for states to shape funding priorities across the suite of federal ocean research programs.

Lead federal agencies: Multiple

Regional issue addressed: All

- a. RPB Workgroup relevance:
 - i. **IJC.** Focus state input to various federal programs' research agenda and provide regional coordination of state input.
 - ii. **ROA.** Research gap identification
 - iii. **DS.** Depict the geographic extent of ongoing federal research programs which could demonstrate regional overlaps and disconnects. Potentially depict administrative boundaries of various programs. Use the regional ocean data portal to illustrate geographic boundaries of research priorities to which federal agencies agree to adhere.
- b. Specific issue areas:
 - i. Coral exploration and reconnaissance work. (NOAA)
 - ii. Seabird and marine mammal migratory pathways and populations. (NOAA, BOEM, FWS)
 - iii. Ocean observing systems deployment and enhancements. (MARACOOS, NOAA)
 - iv. Sand and sediments. (BOEM, NOAA, ACOE)
 - v. Improved oceanographic data to understand and respond to climate shifts, ocean acidification.
 - a. Integrate with available fish stock data. (MAFMC)
 - b. Improve oil spill modeling forecasts for the Mid-Atlantic. (NOAA, BOEM)
 - vi. Navigation trends to understand traffic patterns over time. (USGC, MARAD)
 - vii. Identify the necessary shoreside improvements in response to post-Panamax. (ACOE, DOT)
 - viii. Sea level rise impacts on federal shoreside infrastructure/properties. (DOD, Navy, DOT, NASA, FWS)
 - ix. Actual wind speeds, not modeled.
 - x. Understanding important areas for commercial fishing effort.
 - xi. Understanding seismic survey impact on important fish and coral species and fishing communities. (NSF, BOEM, MAFMC, NOAA)
 - xii. Understanding the potential for offshore features to support coastal resiliency (e.g. the role of sand ridges in wave attenuation).

2. *Regulatory coordination across federal agencies; development of guidance*

Desired outcome: Clearly defined coordination mechanisms to ensure federal leasing activities are mutually reinforcing and provide States with the necessary information for decision making where statutes intersect, particularly the Deepwater Port Act (LNG), Outer Continental Shelf Lands Act (oil and gas, wind, and sand borrow) and Coastal Zone Management Act (all federal leasing affecting coastal states).

Lead federal agencies: DOT (Maritime Administration), US Coast Guard, BOEM, NOAA

Regional issue addressed: Renewable Energy, Habitat Protection, Ocean Planning

- a. RPB Workgroup relevance:
 - i. **IJC.** Define pathways for coordination; this could lead to development of specific interagency Memoranda of Understanding or Best Management Practices/agency guidance documents
 - ii. **ROA.** Identify the intersection pts between statutory responsibilities
 - iii. **DS.** Show examples; might be appropriate to use Port Ambrose and designated WEAs. Encourage federal agencies to use the data layers and functions on the Portal to add buffers.
- b. Specific issue areas:
 - i. Specific guidance on buffers for navigation around wind and other offshore development projects. (USCG, BOEM, MARAD)
 - ii. Agency recommendations/clarification of policy on avoiding fishing impacts from offshore wind and other offshore development projects. (USCG, BOEM, MAFMC, NOAA)
 - iii. Broadening opportunities for CZMA consultation with federal agencies for a wide range of ocean activities. (NOAA, all)

3. *Data management, use, and integration*

Desired outcome: Integration and application of data for Federal habitat protection decisions that make use of the best available information, including analysis of data already available in-house. Best management practices and guidance that federal agencies could provide that would protect habitats.

Lead federal agencies: NOAA Fisheries, BOEM

Regional issue addressed: Habitat protection, Renewable Energy

- a. RPB Workgroup relevance:
 - i. **IJC.** Understand how agencies are using state or regional data for decision-making, particularly data from the portal. Define adequacy of existing mechanisms.
 - ii. **ROA & DS.** ID data availability and need to coordinate. Identify data gaps or overlaps/disagreements in data being used.
- b. Specific issue areas:
 - i. Make canyon and coral data available for future decision-making. (NOAA, MAFMC)

- ii. Portal data layers useful in federal agency planning and decision-making for offshore wind development and habitat protection. Agencies assist in developing quality control measures. (NOAA, BOEM)
- iii. Better coordination and protocols among the Marine Cadastre.gov, Ocean-Data.gov and regional portals. (NOAA, BOEM)
- iv. Federal agencies providing states with better integration and analysis of fishing effort and stock data to help states identify and articulate state interests in federally-managed stocks. (NOAA)
- v. Consider changes to collection and analysis of fisheries data in response to accelerated changes in climate, habitat, population dynamics. (NOAA)

4. *Enhanced state role in offshore wind decision-making and development*

Desired outcome: Streamlined and more efficient federal permitting process for offshore wind development that provides more meaningful and effective participation mechanisms for affected States and in a shorter timeframe.

Lead federal agencies: BOEM

Regional issue addressed: Renewable Energy

- a. RPB Workgroup relevance:
 - i. **IJC**. Identify ways to increase state consultation in federal decision-making under existing regimes. BOEM OCS task force could be a model to identify and address regulatory issues in advance of project permitting.
 - ii. **ROA**. Identify states that have done work to demonstrate their interests beyond 3nm, e.g. DOS Offshore Atlantic Ocean Study, and other state-funded environmental studies and activities.
 - iii. **DS**. Synthesize maps and data showing state interests in federal waters, e.g. 8g line (revenue sharing).
- b. Specific issue areas:
 - i. BOEM synchronize the OCS lease award to State electricity rate review. (BOEM)
 - ii. Analyze opportunities for state input for spending offshore wind energy-related revenues. (BOEM)
 - iii. Provide for state owned commercial leases for wind to be issued non-competitively. (BOEM)
 - iv. Seek ways to reduce regulatory timeframes without changing statutes. Creative interpretation and translation of offshore wind siting regulations is needed to help states achieve appropriate offshore wind. (BOEM)

5. *Regional improvements for decision-making and policy related to regional sediment management*

Desired outcome: Regional integration of dredging and sediment management activities to provide effective and accessible means for dredge disposal and timely removal of sediments to facilitate increased trade resulting from Panama Canal expansion and other initiatives. Increased beneficial use of dredged materials to renourish eroded areas and other appropriate uses to advance coastal community resiliency.

Lead federal agencies: US Army Corps of Engineers, EPA

Regional issue addressed: Water quality, climate change

- a. RPB Workgroup relevance:
 - i. **IJC.** Identify where regions of an agency are not consistent with one another in terms of policy or guidance or decisions being offered across the Mid-Atlantic.
 - ii. **ROA.**
 - iii. **DS.** Synthesize maps and data depicting sand management and illustrate how federal agencies with multiple regions overlap within the Mid-A.
- b. Specific issue areas:
 - i. Develop regional sediment management strategies including dredge disposal and sediment reduction. (ACOE, EPA)
 - ii. Incorporate climate change adaptation into DMMPs.
 - iii. Invest in technology advancement and marketing for the beneficial reuse of dredged material.
 - iv. Build on successful dredged material projects in the region (e.g., Poplar Island, New Jersey DOT containment island/CDFs). (ACOE)
 - v. Require the sharing of post-dredging project details including location, volume, and profile. (ACOE)
 - vi. Clarify how states achieve “reasonably foreseeable effects” threshold for consistency review. (NOAA/OCM)
 - vii. Invest in appropriate land-side transportation upgrades necessary to maintain and build on the economic value of the region’s maritime economy. (DOT)
 - viii. Consider reducing the match requirement of state cost share for beach nourishment projects.
 - ix. Improve ability of states to help prioritize beach nourishment projects based on community needs and local resilience considerations.
 - x. Consider climate change effects and ocean acidification in dredged material management standards.

6. *Federal infrastructure protection and asset resiliency*

Desired outcome: Resilient federal coastal and ocean assets – particularly naval installations and port-related intermodal infrastructure – that can withstand future sea level rise, storm surge and other climate-change related impacts.

Lead federal agencies: DOD/Navy, Corps of Engineers, DOT

Regional issue addressed: Climate change and resiliency

- a. RPB Workgroup relevance:
 - i. **IJC**. Identify what's being done to protect critical shared infrastructure in the region.
 - ii. **ROA**. Reflect the state of climate change information and how sea level rise, surge, etc. are going to impact the Mid-Atlantic in particular.
 - iii. **DS**. Synthesize maps and data depicting regional port infrastructure, transportation infrastructure, etc. and sea level rise.
- b. Specific issue areas:
 - i. Identify and undertake appropriate resiliency upgrades to regional transportation corridors adjacent to the coastline. (DOT assets, e.g. Amtrak and I-95)
 - ii. Address recurrent flooding and erosion vulnerabilities in national defense and security-related facilities in the region. (NASA Wallops/DOD/Navy, DHS)
 - iii. Undertake measures to address resiliency and sea level rise enhancements to public properties (NPS/FWS properties, e.g., national seashore, wildlife refuges, etc.)
 - iv. Develop technology and best practices (green infrastructure and nature-based features) through demonstration projects for sea level rise adaptation and resiliency in each state. (NOAA, NSF, DOD, DHS, DOI, NASA)
 - a. Coordinated and efficient permitting process for shore based resiliency measures that incorporate nature-based features.
 - v. Develop an improved integrated ocean monitoring system to improve early warning and forecasting
 - vi. Identify at-risk areas and improve standards for funding and construction to help low income communities become resilient (HUD, FEMA)

Appendix B



Mid-Atlantic Ocean Planning Stakeholder Workshop

Norfolk, Virginia
22 September 2015

MARCO
MID-ATLANTIC REGIONAL COUNCIL ON THE OCEAN

5 STATES 4 PRIORITIES 1 OCEAN
Enhancing the vitality of the region's ocean ecosystem and economy
MidAtlanticOcean.org



Agenda

- 10:30 am- Welcome, introductions, agenda review
- 10:40 am- Introduction to ocean planning
- 10:50 am- Data and information overview
- 11:50 am- Lunch (provided)
- 12:45 pm- Breakout groups: Data and information
- 2:20 pm- Transition to general session
- 2:30 pm- Report out from RPB workgroup co-chairs

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Agenda (cont.)

- 2:45 pm- Overview of draft actions for OAP
- 3:10 pm- Transition to breakout groups
- 3:20 pm- Breakout groups: Draft IJC actions
- 4:30 pm- Transition to general session
- 4:40 pm- Report outs from IJC breakout groups
- 5:00 pm- Summary and closing remarks
- 5:15 pm - 6:15 pm- Informal gathering

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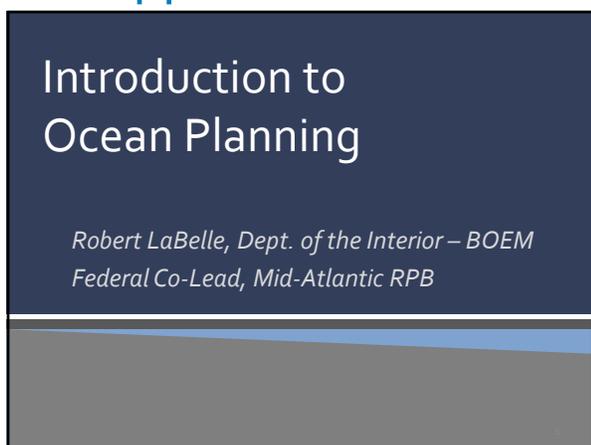
Mid-Atlantic Ocean Planning Stakeholder Workshop

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Appendix B1



Introduction to Ocean Planning

*Robert LaBelle, Dept. of the Interior – BOEM
Federal Co-Lead, Mid-Atlantic RPB*



What is Ocean Planning?

- A process for bringing together ocean managers and stakeholders in the Mid-Atlantic to share information and plan for the use, management, and conservation of ocean resources in a manner that meets the region's goals
- A science- and information-based tool that can help advance local and regional interests, including addressing specific ocean management challenges, and advancing economic development and conservation objectives

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National Ocean Policy

- Executive Order established the **National Policy for the Stewardship of the Ocean, Coasts, and Great Lakes in 2010**
 - To increase certainty, communication, coordination, and integration; and to decrease inefficiencies, bureaucracy, conflict, and cost
 - Implemented under existing laws
- The National Ocean Council released the **National Ocean Policy Implementation Plan in April 2013**
 - Encourages regions, states, and tribes to inform decisions based on coordinated marine planning
- **Marine Planning Handbook Released in July 2013**
 - Provides maximum flexibility to regions while ensuring national goals of marine planning are met

Mid-Atlantic Regional Planning Body (MidA RPB)

- Established in April 2013
- Intergovernmental group created to coordinate and implement regional ocean planning
- Includes representatives of:
 - Six Mid-Atlantic states: NY, NJ, PA, DE, MD, and VA
 - Federally-recognized tribes in the region: the Shinnecock Indian Nation, the Oneida Indian Nation, and the Pamunkey Indian Tribe
 - Mid-Atlantic Fishery Management Council
 - Eight federal agencies with ocean interests
 - Connecticut serves as an ex-officio member
- Web: www.boem.gov/Mid-Atlantic-Regional-Planning-Body/
- Email address: MidAtlanticRPB@boem.gov

Purpose of the Mid-Atlantic RPB

- Coordinate among State, Federal, Tribal, and Fishery Management Council representatives to:
 - Plan for new and expanding uses in the Mid-Atlantic ocean
 - Make better, more informed decisions about the use of ocean space
 - Improve efficiency and leverage constrained resources
 - Work together and with stakeholders to share and vet ocean data
 - Engage stakeholders and the public in creating a vision and achieving that vision

RPB Activities & Accomplishments

- Four in-person meetings: **Sept. 2013, May 2014, Jan. 2015, and Sept. 2015**
- **2013 and 2014:** Public webinars to discuss draft RPB documents and launch series of public listening sessions
- **2014:** Two rounds of MARCO-hosted public listening sessions in DE, MD, NJ, NY and VA to obtain feedback
- **May 2014:** Approved *Mid-Atlantic Regional Ocean Planning Framework* identifying goals and objectives to guide the RPB
- **September 2014:** Approved *Mid-Atlantic RPB Charter* (purpose and mission)
- **January 2015:** Approved *Proposed Approach to the Mid-Atlantic Regional Ocean Action Plan (OAP)*
- **2015:** Formed / continued RPB workgroups to support OAP development (Interjurisdictional coordination, data synthesis, regional ocean assessment)
- **2015:** Developed and updated work plan to guide development of the OAP
- **August 2015:** MARCO hosted tribal listening sessions in VA and NY

The MidA RPB's Next Steps:

- RPB's internal workgroups continue developing ideas for improved coordination and data sources
- Provide opportunities to review data synthesis methodologies and products
- Implement the work plan that will be periodically updated
- Develop the draft Ocean Action Plan (OAP)
- Discuss draft OAP actions with potentially affected communities
- Conduct public webinars in December 2015 and June 2016
- Hold RPB meetings in March and September 2016
- Release the Draft OAP for public review and hold public listening sessions / roundtables to receive comments
- Submit the OAP to the National Ocean Council for concurrence before the end of 2016



Mid-Atlantic Ocean Planning Stakeholder Workshop

**Norfolk, Virginia
22 September 2015**



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Appendix B2

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, Charles Perretti, Corrie Curtice, Jesse Cleary, Emily Shumchenia

MARCO Mid-Atlantic Ocean Planning Stakeholder Workshop
 September 22, 2015





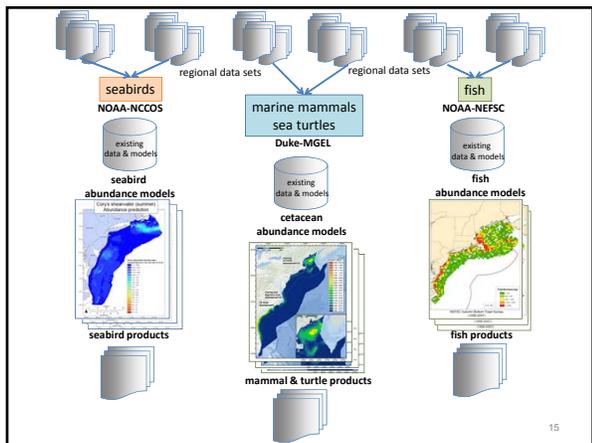





Overview

- Marine-life data analysis scope of work & review
- MDAT base product updates
- Synthetic products developed from base products

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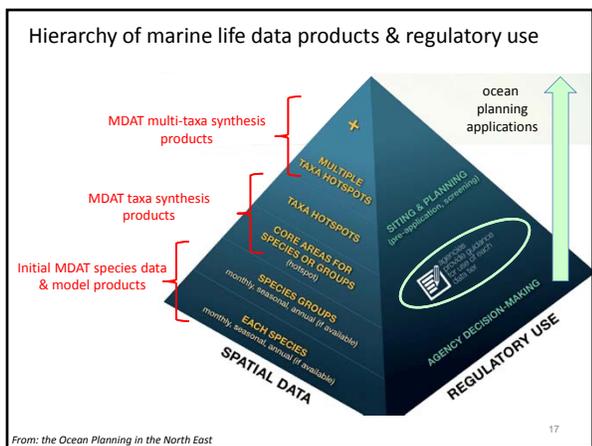
MDAT: Distribution and abundance of marine mammals, turtles, birds and fish

Broad, regional approach

- Consistent
- Seamless
- Multi-scale

North East region
Mid-Atlantic region

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Overview

- Marine-life data analysis scope of work & review
- MDAT base product updates
- Synthetic products developed from base products

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MDAT Scope of Work

1. Develop the Mid-Atlantic regional marine life database and web services by hosting marine mammal, sea turtle, avian, and fish data products for use in desktop GIS systems and data portals, in particular the MARCO data portal.

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



Data Product Overview

Marine habitat modeling process

- 1: observation data aggregation
- 2: fusion with oceanographic data
- 3: statistical modeling
- 4: model product development

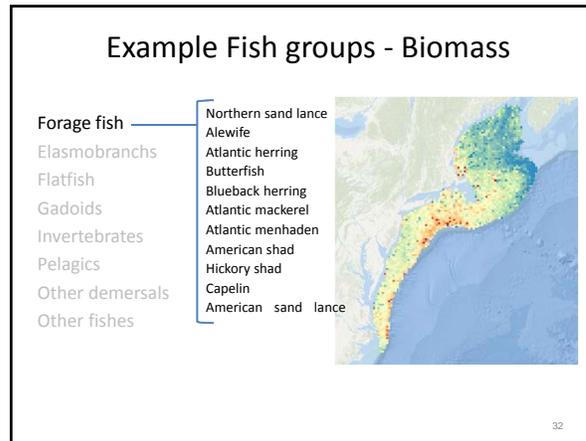
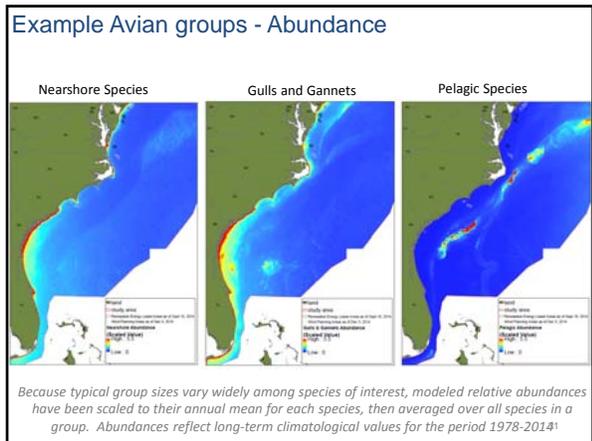
Mammal base product – Humpback whale (*Megaptera novaeanglia*) density & uncertainty

Avian base product – Surf Scoter (*Melanitta perspicillata*) Abundance & Uncertainty

Fish base products NEFSC 1970 – 2014 Biomass, uncertainty

Butterfish - biomass (*Peprilus triacanthus*)

- 4 Data sources, multiple time spans
- NEFSC 1970 - 2014
- NEFSC 2005 - 2014
- MDFM 1978 - 2014
- MDFM 2005 - 2014
- ME/NH 2000 - 2014
- ME/NH 2005 - 2014
- NEAMAP 2007 - 2014



Overview

- Marine-life data analysis scope of work & review
- MDAT base product updates
- Synthetic products developed from base products

MDAT Scope of Work

3. Develop synthetic data products for individual or groups of species within taxonomic groups (marine mammals, sea turtles, avian, fish). Provide technical support at MARCO and RPB-sponsored meetings with state and federal agencies to ensure the utility of the information for decision-making.

MDAT single species synthesis products

MULTIPLE DATA HOTSPOTS

TAXA HOTSPOTS

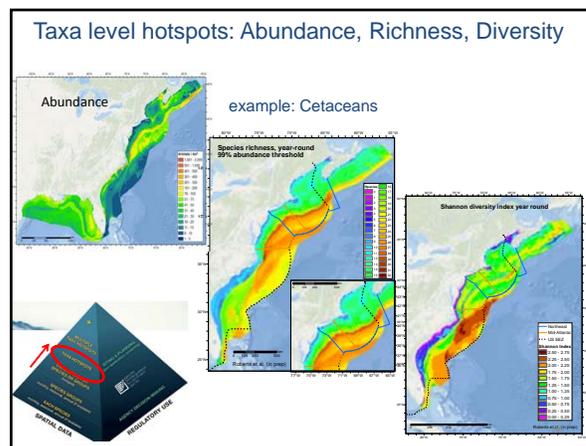
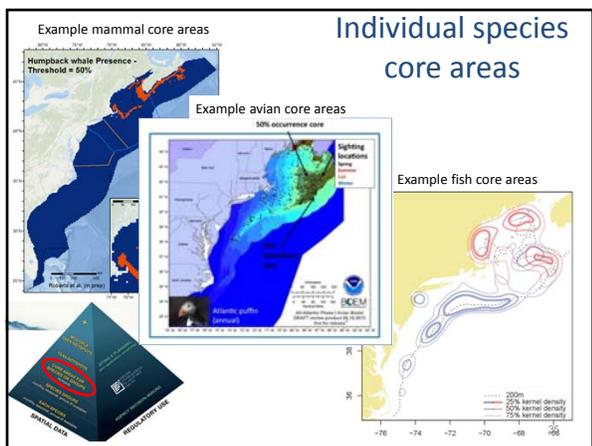
CONVEY INFORMATION FOR SPECIES GROUPS

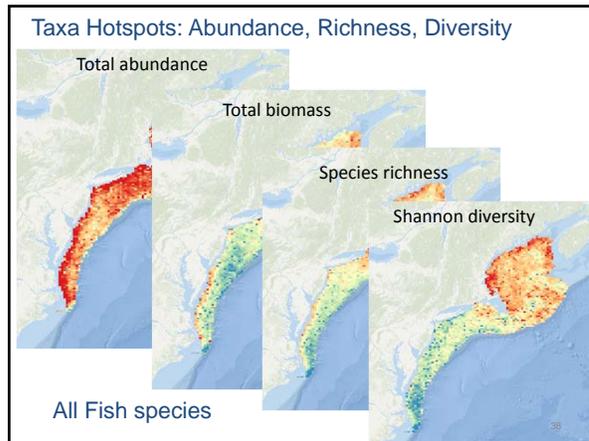
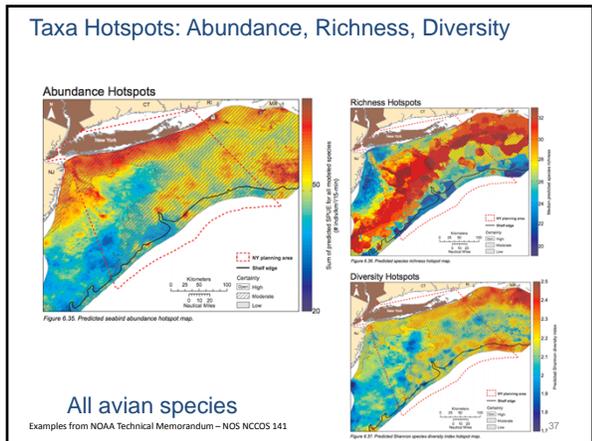
SPECIES GROUPS

EACH SPECIES

SPATIAL DATA

REGULATORY USE



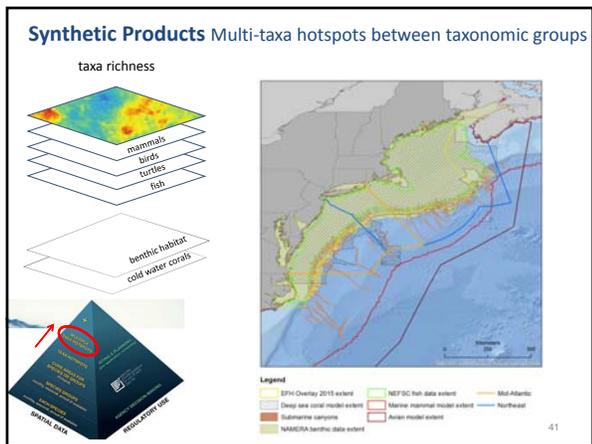


Overview

- Marine-life data analysis scope of work & review
- MDAT base product updates
- Synthetic products developed from base products
 - Ecological syntheses

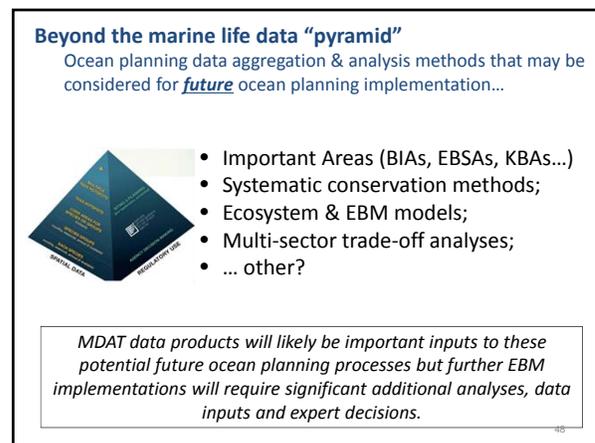
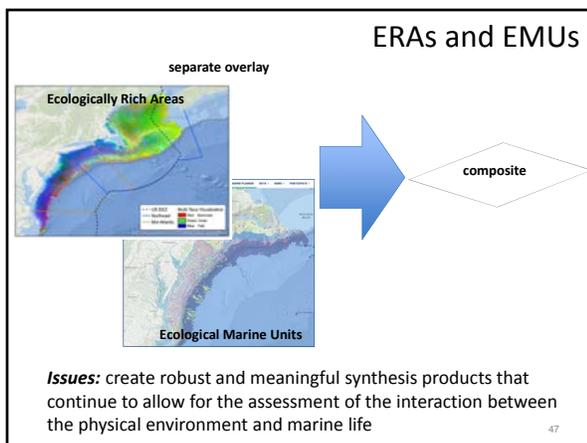
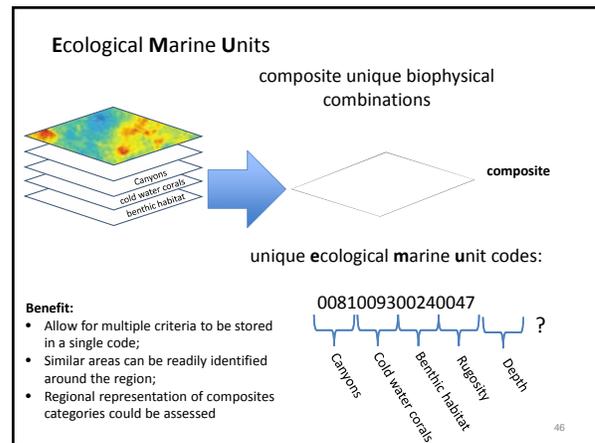
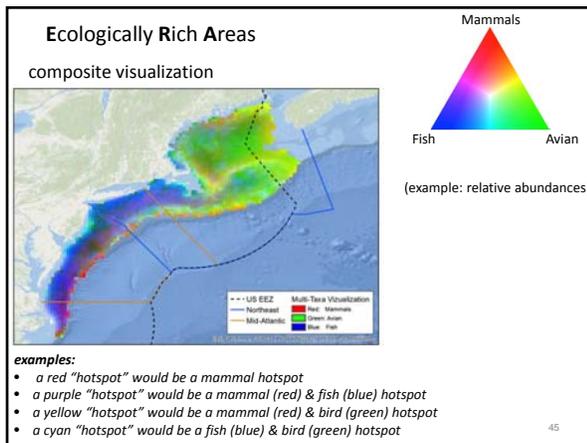
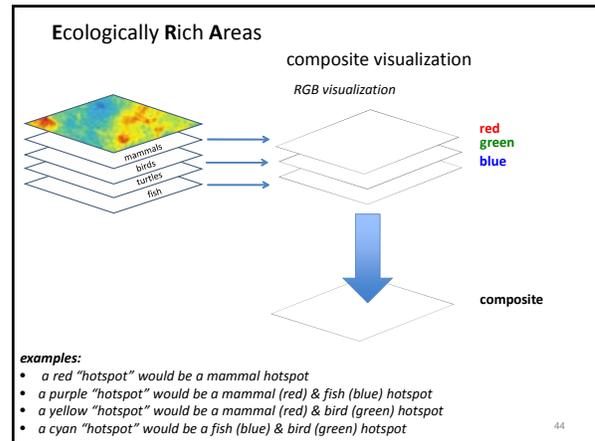
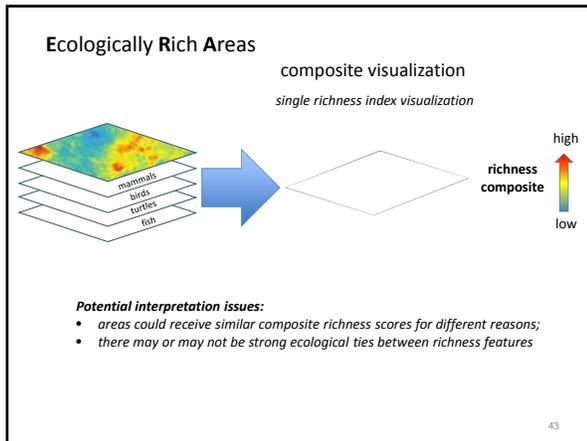
Synthetic Product Options

Our discussion of multi-taxa “hotspots” is focused on the development of synthesis products to supplement core data products.



Integrating Multiple Data Types: Multiple taxa & habitats

1. Ecologically Rich Areas
2. Ecological Marine Units



Appendix B3

Breakout Discussion Topics

- Product Taxa Groupings
- Product Extents
- Synthesis Approaches

Mid-Atlantic Regional Human Use Spatial Data Synthesis (HUDS) Project

Melanie Schroeder Gearon (RPS ASA)
September 22, 2015

HUDS Project Goals

- Assist MARCO in compiling and synthesizing human use spatial data to advance ocean planning priorities in the Mid-Atlantic region.
- Support decision-makers' consideration of use data through effective coordination among MARCO, Regional Planning Body (RPB) workgroups, and Data Portal Team.
- Ensure credibility by vetting newly developed human use data sets, synthesis methods/tools, and spatial data products through MARCO stakeholder engagement.
- Capitalize on feasible opportunities to develop and synthesize use data from the Mid-Atlantic and Northeast to support ocean planning priorities in both regions.
- Complete the project within MARCO's timeframe through effective project management and collaboration with related work.

HUDS Contractor Team

RPS ASA, SeaPlan, SMEs

Project Manager
Melanie Schroeder Gearon, RPS ASA

Coordination with Related Efforts, Stakeholders, and IJC
Stephanie Moura - Regional & Stakeholder Coordination
Deerin Babb-Brott - IJC Coordination

Data Assessment and Synthesis
Andy Lipsky - Data Inventory/Criteria
Peter Zaykoski - Data Inventory/GIS Analysis/Criteria
RPS ASA
Kelly Kneel - Data Criteria/Synthesis
Rachel Shmookler - GIS Analysis/Data Synthesis
Zach Singer Leavitt - GIS Analysis/Data Synthesis
Richard Balouskus - Data Synthesis/Programmer

Subject Matter Experts (SMEs)
Dr. Linwood Pendleton - Duke University, Environmental Policy and Economics, Marine Ecosystem Service Assessment and Valuation
Dr. Theresa Goedeke - NOAA NCCOS Biogeography Branch, Human Use of Coastal and Marine Environments
Evan Matthews - Quorum Development Corp, Maritime Commerce/Ports Data Expert

Project Task Overview

- Project Coordination with Related Efforts and Stakeholders
- Human Use Data Assessment and Characterization
- Human Use Data Synthesis Tool Development
- Final Report and Fact Sheet/Tool User Guide

Project Coordination with Related Efforts and Stakeholders

Mid-A RPB & IJC Workgroup | **MARCO Management Board and Staff**

Mid-A Data Synthesis Work Group
Project Steering Committee

MARCO Data Portal Team
Regional Data Experts

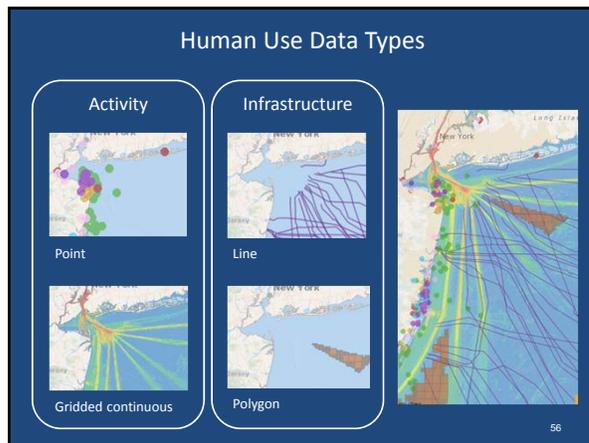
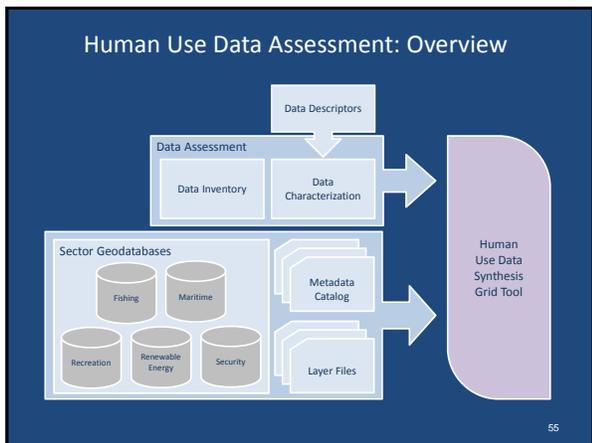
Human Use Data Synthesis (HUDS) Team

Ecological Data Synthesis Team (MDAT)

Regional Ocean Assessment (ROA) Team

Northeast Regional Ocean Council (NROC)
Cross-Regional Coordination

Stakeholder / Sector Groups
Tool Vetting



- ### Human Use Data Inventory by Sector
- Fishing Infrastructure**
 - Artificial Reefs
 - Activity**
 - Commercial Fishing (derived from VTRs)
 - Recreational Fishing (Party / Charter Vessels, derived from VTRs)
 - Communities at Sea – **under development**
 - VMS derived products – **under development**
 - Maritime Infrastructure**
 - Anchorage Grounds
 - Maintained Channels
 - N. Atlantic Right Whale Seasonal Management Areas
 - Ocean Disposal Sites
 - Offshore Discharge Flow
 - Pilot Boarding Areas
 - Port Facilities
 - Routing Measures
 - Shipwreck Density
 - Submarine Cables
 - Activity**
 - Maritime shipping (derived from AIS data) – **update under development**
-
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- ### Human Use Data Inventory by Sector
- Recreation Activity**
 - Coastal Recreation Survey
 - Recreational Boating Survey
 - Renewable Energy Infrastructure**
 - BOEM Active Renewable Energy Lease Areas
 - BOEM Wind Planning Areas
 - Coastal Energy Facilities
 - Offshore Wind Compatibility Assessments
 - Virginia Research Lease Areas
 - Security Infrastructure**
 - Danger Zones & Restricted Areas
 - Unexploded Ordnances
-
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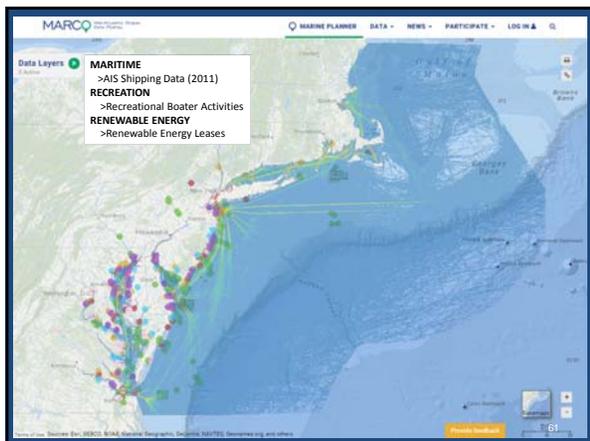
- ### Human Use Data Assessment Status
- Current Status**
 - Inventory and first pass at the assessment is nearly complete for all existing data
 - Data in development and priority gaps have placeholders
 - Data In Development**
 - Communities at Sea – targeted completion end of Sept
 - Fishing data products derived from VMS – targeted completion Oct/Nov
 - Updated 2013 AIS Data for Maritime Transit – targeted completion Oct/Nov
 - Priority Data Gaps**
 - Shipwrecks
 - Sand & Gravel Resources
 - Operational Areas
-
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Human Use Data Synthesis (HUDS) Grid Tool: Rationale

Challenge: Hard to inform a decision with multiple layers turned on.

Solution: Develop mapping tool that provides synthesis and summary products based on multiple spatial human use data layers.

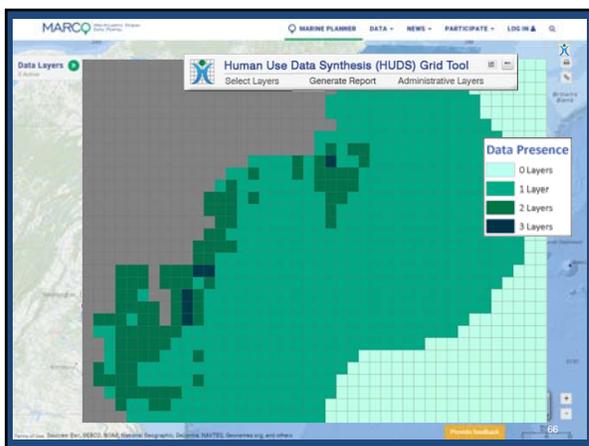
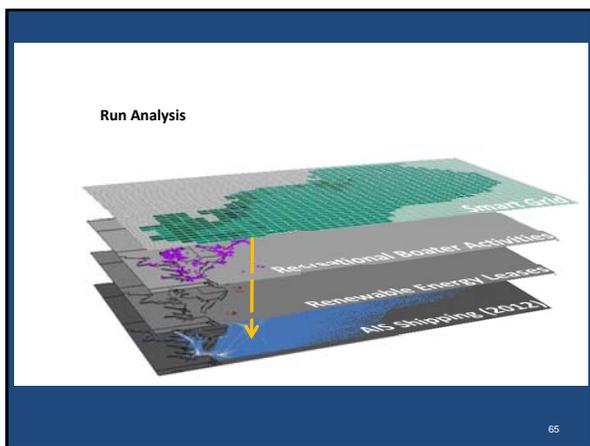
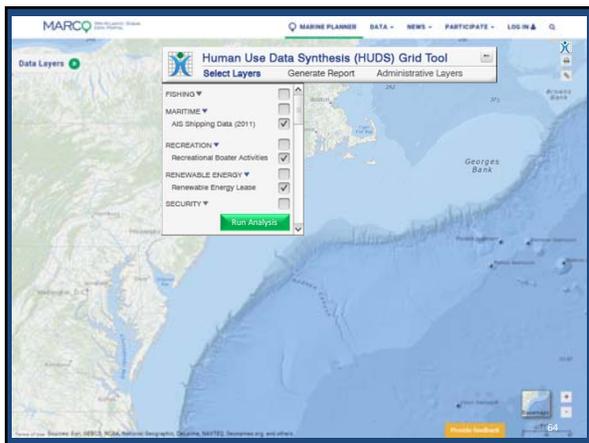
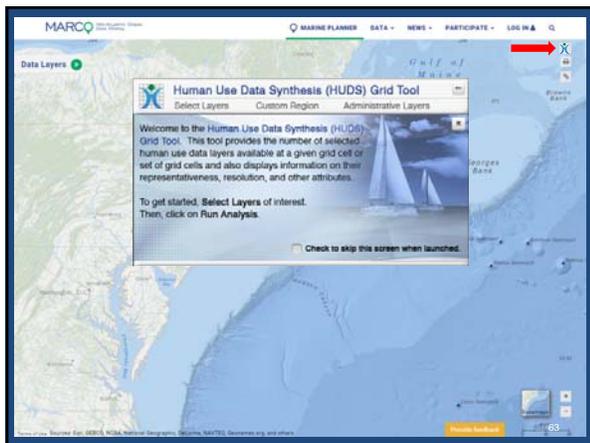
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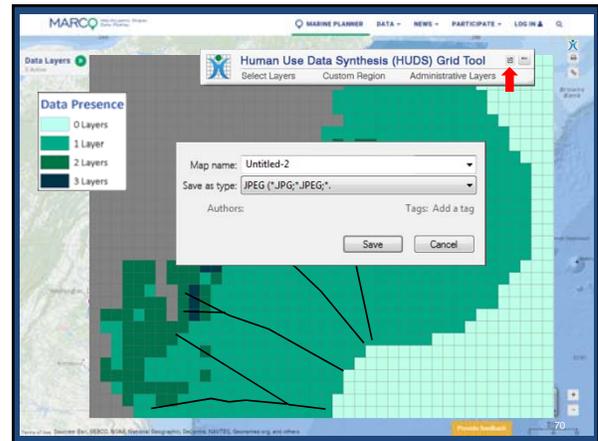
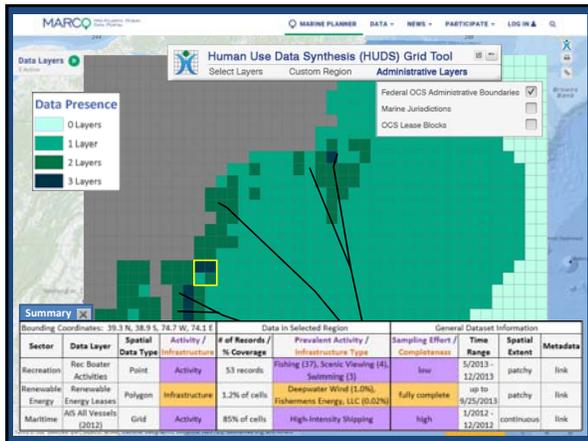
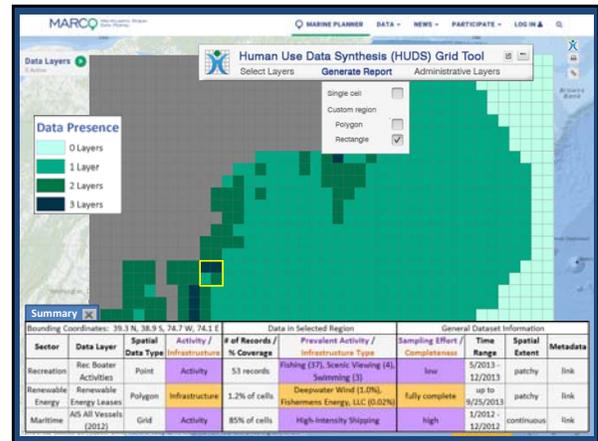


Human Use Data Synthesis (HUDS) Grid Tool: Description

HUDS Grid Tool

- Interface integrated into MARCO data portal
- Written in Python code
- Compatible with/can ingest ArcGIS formats/services
- System generates results on the fly during mapping session
- Flexible user defined analysis (all data or user defined subset)
- Analysis results can be saved and exported
- Designed to allow for future data integration (e.g. updated human use layers, MDAT layers)





Application of the Smart Grid Tool

Wind Energy Siting
*Where are there less busy areas amenable to wind energy development?
 Which sectors may be affected by wind energy development?*

- Select all layers and perform analysis
- Use smart grid data presence for focused investigation
- Interrogate cells of interest for specific human use information

Interactions between Fishing & Maritime Commerce
*What ocean places are important to both industries?
 Where is there interaction?*

- Select fishing and maritime commerce layers
- Use smart grid data to find areas of overlap between the two industries
- Investigate specific cells to determine which fisheries or transit categories are likely to interact

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Final Report and Fact Sheet/Tool User Guide

Final Report:

- Summary of human use spatial data sets, results of the data assessment
- Documentation of newly developed human use data sets (AIS, VMS, Sand and Gravel, etc.)
- Summary of identified data gaps and potential future human use data types
- Description of HUDS grid tool and methods

Fact Sheets/Tool User Guide:

- The Team will develop a clear, short, user-friendly document that describes the HUDS grid concept and work flow. This will be posted online as a user reference and guidance document for the HUDS tool.

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Project Schedule at a Glance

Project Coordination with Related Efforts and Stakeholders
 – July – November 2015 (ongoing throughout project)

Human Use Data Assessment and Characterization
 – July – October 2015

Human Use Data Synthesis Tool Development
 – Mid-August – November 2015

Final Report and Fact Sheet/Tool User Guide
 – November – December 2015

Project Completion Target: January 1, 2016

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Mid-Atlantic Regional Human Use Spatial Data Synthesis Project

Thank You!




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Appendix B4



MID-ATLANTIC REGIONAL OCEAN ASSESSMENT

Peter Taylor
Waterview Consulting

Emily Shumchenia
E&C EnviroScape





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Who Are We?

Peter Taylor
 peter@waterviewconsulting.com

- Founded Waterview Consulting in 2000
- Specialize in strategic science-based communications to advance ocean & coastal management
- Developed websites for MARCO and Northeast Regional Ocean Council (NROC)
- Designed NortheastOceanData.Org & member of Northeast Ocean Data Working Group

Emily Shumchenia, Ph.D.
 emily.shumchenia@gmail.com

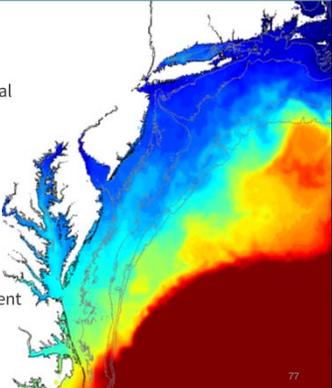
- 10 years experience translating marine science into actionable management and policy
- Produced assessment of best available marine life data for Northeast, options for ecological synthesis and measuring ocean health
- Coordinator for NROC Marine Life Data & Analysis Team (MDAT) & member of Northeast Ocean Data Working Group




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Outline of Today's Talk

1. National Ocean Policy & Regional Assessments
2. Goals for Mid-Atlantic Regional Ocean Assessment (ROA)
3. ROA Process
4. Project Timeline
5. Content and Data Sources
6. Objectives to Support the Planning Process and Ecosystem-Based Management
7. Next Steps



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National Ocean Policy & Regional Assessments



Essential Elements of the CMS Plan

- Regional Overview and Scope of Planning Area
- Regulatory Context
- Regional Assessment
- Objectives, Strategies, Methods, and Mechanisms for CMSP
- Compliance Mechanisms
- Monitoring and Evaluation Mechanisms

Final Recommendations of the Interagency Ocean Policy Task Force (2010)

“ Consistent with the scope and scale of a region's work, a marine plan should include:

- Goals and objectives that the region wants to accomplish through its marine plan;
- A **regional assessment** that uses maps and information to describe the marine environment and human activities relevant to the subject matter of the plan;

National Ocean Council Ocean Planning Handbook (2013)

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Goals for Mid-Atlantic ROA



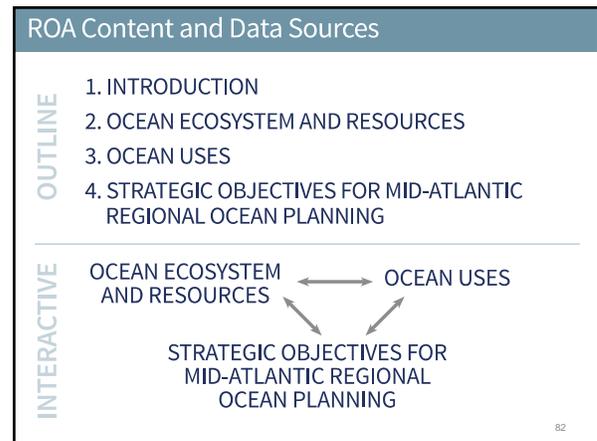
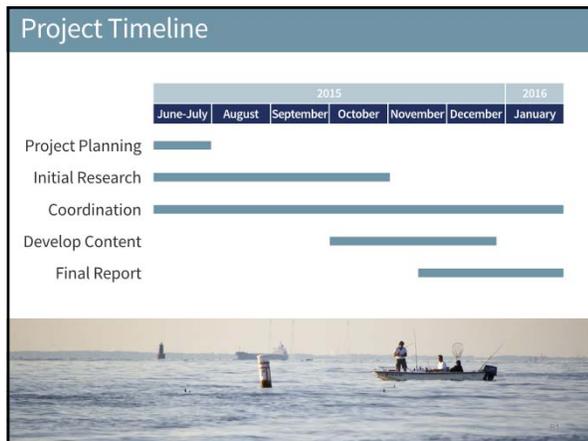
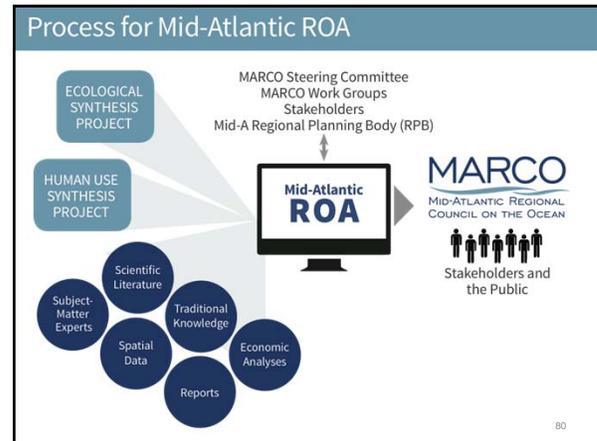
Provide information about ocean uses and resources, focusing on two goals in the Mid-Atlantic Regional Ocean Planning Framework:

- Healthy Ocean Ecosystems
- Sustainable Ocean Uses



Develop an innovative, dynamic, attractive, and easily updated web-based system to deliver the Regional Ocean Assessment report

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ROA Content and Data Sources

- 1. INTRODUCTION**
 - a. Need for Ocean Planning
 - b. Overview of Mid-Atlantic Regional Ocean Planning Process
 - i. Use of Traditional Knowledge in Ocean Planning
 - c. Overarching Goals for Mid-Atlantic Regional Ocean Planning
 - d. Purpose and Structure of the Regional Ocean Assessment
2. OCEAN ECOSYSTEM AND RESOURCES
3. OCEAN USES
4. STRATEGIC OBJECTIVES FOR MID-ATLANTIC REGIONAL OCEAN PLANNING

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ROA Content and Data Sources

1. INTRODUCTION
- 2. OCEAN ECOSYSTEM AND RESOURCES**
 - a. Characterizing the Mid-Atlantic Ocean Ecosystem
 - i. Oceanographic Setting and Processes
 - ii. Important Biological, Chemical and Physical Attributes
 - iii. Living Marine Resources
 1. Overview
 2. Important or Sensitive Species, Guilds, and Habitats
 - iv. Human Settlements Relative to the Ocean
 - v. Ecosystem Services
 - vi. Ecosystem Responses to Climate Change
 - b. Toward Ocean Planning Objectives: Status and Trends
 - i. Key Ocean Characteristics and Indicators
3. OCEAN USES
4. STRATEGIC OBJECTIVES FOR MID-ATLANTIC REGIONAL OCEAN PLANNING

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ROA Content and Data Sources

1. INTRODUCTION
2. OCEAN ECOSYSTEM AND RESOURCES
- 3. OCEAN USES**
 - a. Characterizing Mid-Atlantic Ocean Uses and Values
 - i. Overview of Human Uses and Values
 - ii. Overview of the Mid-Atlantic Ocean Economy
 - b. Toward Ocean Planning Objectives: Status and Trends
 - i. Tribal Uses
 - ii. Commercial and Recreational Fishing
 - iii. Critical Undersea Infrastructure
 - iv. Maritime Commerce and Navigation
 - v. National Security and Military Uses
 - vi. Non-consumptive Recreation (e.g., boating, sailing, wildlife watching, diving)
 - vii. Ocean Aquaculture
 - viii. Ocean Energy
 - ix. Offshore Sand Management for Resilience Planning
 - x. Scientific Research
4. STRATEGIC OBJECTIVES FOR MID-ATLANTIC REGIONAL OCEAN PLANNING

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ROA Content and Data Sources

1. INTRODUCTION
2. OCEAN ECOSYSTEM AND RESOURCES
3. OCEAN USES
- 4. STRATEGIC OBJECTIVES FOR MID-ATLANTIC REGIONAL OCEAN PLANNING**
 - a. Adapt to Climate Change
 - b. Build a Stronger Network of Monitoring and Science
 - c. Maintain and Improve Sustainable Fisheries in a Changing Environment
 - d. Manage Offshore Sediment for Coastal Resiliency
 - e. Prepare for Expanded Shipping and Port Activities
 - f. Site Ocean Renewable Energy Facilities
 - g. Support Maritime Heritage
 - h. Sustain Ecologically Rich Areas and Linkages

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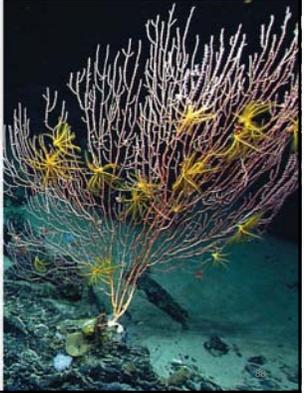
Objectives to Support the Planning Process and Ecosystem-Based Management

- Highlight **relationships and potential linkages** between and among ecosystem features and human uses
- Highlight **knowledge/data gaps** by assessing data using a common framework and metrics
- Suggest appropriate **scales of interpretation**, analysis and application of data for decision-making
- Provide information needed to inform development of **future data products** that address ecosystem services valuation, cumulative impact analysis and/or vulnerability and resilience assessments



Next Steps

- Finalize ROA Outline
- Complete Research and Information Gathering
- Develop Website Architecture and User Interface
- Produce Content
- Build Out the ROA Web Pages
- Review, Finalize, and Launch



Breakout Groups: Data and Information

Lunch: 11:50 am – 12:45 pm, Hampton Road V (3rd Floor)

Breakouts (third floor, up two escalators):
Round 1: 12:45 pm – 1:30 pm
Transition: 1:30 pm – 1:40 pm
Round 2: 1:40 pm – 2:20 pm

Topic	MDAT	HUDS	ROA
Room	Hampton Roads 7	Hampton Roads 8	Washington Room










Mid-Atlantic Ocean Planning Stakeholder Workshop

**Norfolk, Virginia
22 September 2015**




Appendix B5

Overview of draft IJC actions for OAP

September 22, 2015
Norfolk, VA

IJC Activities Since January 2015

- Frequent discussions since last RPB meeting
- Meridian/SeaPlan interviewed federal and state members for ideas
- MARCO developed a set of recommended draft actions for RPB consideration – reflective of MARCO states' interests and needs
- RPB members are working to develop IJC actions for inclusion in the final OAP
- Draft IJC actions in meeting materials represent current thinking and provide significant opportunity for input

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Status of IJC Deliberations

- Still early in deliberations
- Tentative agreements on federal and state co-championing of actions
- Robust discussion on details and commitments for actions to be included in the OAP
- Federal leads will share their perspectives on potential commitments

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Importance of Good Data

- Successful implementation of actions will rely on best available data
- Using the Mid-Atlantic Ocean Data Portal for agency decision making
- Good data includes information from federal agencies, states, tribes and the scientific community
- The OAP will build from data characterizing trends in ocean uses and resources
- Products include human use data synthesis, ecological data synthesis and the regional ocean assessment

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Stakeholders help shape the outcomes

- The RPB and MARCO are relying on your input, critique and refinements to the information presented today.
- This is your opportunity to influence and help shape our work
- Encouragement to participants to share their input and pose questions to the action champion in the upcoming breakouts.

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Breakout Topics

- Healthy ocean ecosystems
- Fishing
- On-going coordination forum
- Portal
- Wind and sand
- Commerce and navigation
- National security
- Topics to be considered in each Breakout Session-Tribal, Undersea cables, Aquaculture and Recreation

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Breakout Groups: Draft IJC Actions

Third floor, up two escalators

Topic	Healthy Ocean Ecosystems, Portal	Wind, Sand	Commerce and Navigation, National Security	Fishing, Forum
Room	Hampton Roads 8	Hampton Roads 7	Washington Room	Hampton Roads V-VI




Additional Questions or Comments?

Please send to:

- **MARCO:**
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- **MidA RPB:**
MidAtlanticRPB@boem.gov