# Approaches to plan content for Chapters 4 (Sections 2 + 3) and 5

#### **Introduction:**

This document focuses on the particular decision topics for the November 16-17, 2015 NE RPB meeting in Portland, Maine. At this meeting, several topics will include NE RPB decision points: monitoring and evaluation (Section 4.3), science and research priorities (Chapter 5), and plan implementation topics and roles (Section 4.2).

Section 4.3 of the draft plan outline is titled "Monitoring and Evaluation." This topic was included in the Framework for Ocean Planning in the Northeast US adopted by the NE RPB in January, 2014 as an overall objective. As indicated in the outline, there are two components of this subject: monitoring plan performance, which focuses on the progress toward achieving the plan's goals and objectives; and monitoring ecosystem health, which has a focus on those components of the ecosystem that the plan addresses (e.g., through the human use and natural and cultural resources in Chapter 3) and related topics. Therefore, this document discusses both components of the monitoring and evaluation topic.

Following those two subjects, this document provides an approach to Chapter 5 (science and research priorities). Finally, plan implementation topics and roles are described (per Section 4.2 of the draft plan outline).

# 1. Plan performance monitoring

Section 4.3.1 of the draft plan outline focuses on plan performance monitoring. Below is a summary of general discussions that have been held on this topic, including most recently at the October 20 Stakeholder Forum at the University of New Hampshire. Following the discussion summary is a proposed approach for developing content for this section of the draft plan. The NE RPB will discuss this topic at its November 16-17 meeting and will make a decision to adopt or modify this approach based on RPB discussion and public comment.

### Discussion Summary

- The Framework for Ocean Planning in the Northeast US (adopted by the NE RPB in January 2014) includes an over-arching objective to "Periodically Assess Progress Toward Achieving Regional Ocean Planning Goals"
- In general, plan performance monitoring is intended to support an adaptive management approach to implementing the ocean plan by providing information for the following:
  - a. What do we want to achieve (what are the goals)?
  - b. How will we measure progress toward what we want to achieve? (Indicators)
  - c. Analysis of indicator results supports the "what do we need to change" discussion
- Through a review of efforts within the region and elsewhere, the RPB has noted it can be difficult to specifically identify "cause-and-effect" relationships where indicators directly lead to revised approaches.
- It can also be hard to identify quantifiable metrics or indicators that directly link to plan performance. Therefore the plan may need to adopt a step-wise approach to link on-the-ground outcomes with management measures that are directly related to the plan, given the complexity of many of these systems.

• Discussions at the October 20 Stakeholder Forum suggested that an appropriate first step is to develop a framework for plan performance monitoring, with specific indicators to be identified in the future as part of plan implementation.

#### Proposed approach

Section 4.3 of the draft plan will describe the RPB commitment to a framework for assessing plan performance which will be developed in detail during plan implementation. Section 4.3 will describe principles for the plan performance framework such as:

- a. The need to relate performance metrics (outputs) to plan outcomes, including goals and objectives, management measures in chapters 3 and 4, and other pertinent components of the final plan. This would include focusing on process-based outcomes of the plan, the completion and usefulness of plan outputs, or other aspects related to the plan or implementation of the plan.
- b. The importance of describing a baseline with which to compare future results, being careful while doing so to recognize other factors or contexts to consider that could affect plan performance.
- c. The need to hone indicators to enable measurement of progress toward achieving plan goals and objectives, enable learning, and to test assumptions. Typically, to enhance their usefulness, indicators need to balance specificity with practical considerations about the availability of data and availability of resources for data or information (including considerations of the practicality of collecting new data). Qualitative or more descriptive approaches should be considered for topics that do not lend themselves to a quantitative approach.
- d. Ensuring that approaches to compiling existing or developing new data and analysis through monitoring or other appropriate measures will appropriately support identified indicators.
- e. The need to communicate outcomes of monitoring and assessment, and for there to be public discussion and input throughout the completion and implementation of the plan performance framework (identification of indicators, review of indicator results, and discussion of resulting need for plan revisions).
- f. Ensuring that results of monitoring and indicators inform changes to the plan, recognizing that for specific issues, context and the need to evaluate cause-and-effect are critical factors.

Below is a very general illustration of the concept as could be applied to the regional plan:

Step 1: Identify a particular objective to assess. For example, under the Healthy Coasts and Ocean Ecosystems goal, there is an objective to produce and implement a regional ocean science plan.

Step 2: Identify particular indicators to use in this assessment. Some indicators could be fairly simple ("Does the ocean plan include a regional ocean science plan?"), while other indicators might require analysis, investigation, and/or additional public engagement:

- Does the regional ocean science plan appropriately identify specific needs to meet the goals and objectives of the plan?
- Are there emerging issues appropriate for the regional ocean plan that are not incorporated in the science plan?

• Are particular topics identified as needs in the science plan being appropriately addressed? If not, what are the barriers to addressing these needs and is there a way to overcome them? If yes, are there any broader lessons learned that can be gained?

Step 3: Through analysis of the results of step 2, including opportunities for public discussion, identify any plan revisions (e.g., updates to the regional ocean science plan, identification and implementation of opportunities to achieve new or existing elements).

### 2. Monitoring ecosystem health

Section 4.3.2 of the draft plan outline also focuses on this subject, which has arisen in many discussions throughout the development of the Northeast Ocean Plan. Below is a summary of general discussions that have been held on this topic, including most recently at the October 20 Stakeholder Forum at the University of New Hampshire. Following the discussion summary is a proposed approach for developing content for this section of the draft plan. The NE RPB will discuss this topic at its November 16-17 meeting and will make a decision to adopt or modify this approach based on RPB discussion and public comment.

### Discussion Summary

- Generally, monitoring ecosystem health can have multiple objectives. A main focus for the
  regional ocean planning effort is to help inform the plan's intended adaptive management
  approach by providing indicators of the health of the ecosystem and changes that may be
  occurring which need management attention and, more specifically, may require future
  changes to the ocean plan.
- As is the case with plan performance monitoring, it can be difficult to specifically identify "cause-and-effect" relationships, especially when dealing with a complex, dynamic marine environment.
- There are tools that have been developed to help identify and quantify indicators of ecosystem change. The Ocean Health Index (OHI) is one such tool that combines ecological, socio-economic, and cultural considerations to provide context for ocean management. It is a quantitative, repeatable, comprehensive tool to inform decision making by measuring multiple metrics of ecosystem condition using existing data and information. It generally begins with a set of goals with specific indicators that are then analyzed and can be tracked over time or used as reference points to evaluate consequences of actions.
- In recent years in New England, a focus has been the development of a Science and Implementation Plan for an Integrated Sentinel Monitoring Network (ISMN); its development included over 60 scientists and managers from 45 state and federal agencies, universities, NGOs, and Canada DFO. Covering geography from Long Island Sound to the US/Canada border of the Gulf of Maine, it provides a long-term strategy for monitoring benthic, pelagic, and coastal components of the ecosystem that are management priorities but does not directly include human uses/socio-economic considerations. Many of its indicators coincide with marine life and habitat data considerations in Chapter 3.
- Discussions at the October 20 Stakeholder Forum suggested that there was a distinction between the two approaches (OHI and ISMN) and that both could be valuable tools to monitor the health of the ecosystem. There was recognition that an early step in such an effort would be to tailor these approaches to the plan's goals and objectives (e.g., define

ecosystem health and the goals for an OHI effort). This would be accomplished in the early stages of plan implementation and would necessitate public input.

#### Proposed approach

Section 4.3 of the draft plan will describe the RPB commitment to a framework for monitoring ecosystem health which will be developed and conducted during plan implementation. Section 4.3 will describe the approach for this effort, including:

- a. During early phase of plan implementation, move forward with finalizing the methodology for developing an OHI for New England and a plan for utilizing the ISMN to monitor key components of the Northeast Ocean Plan.
- b. Ensure that OHI and ISMN inform an adaptive management approach by relating to plan goals and objectives and management measures and associated data products in chapters 3 and 4, as appropriate.
- c. Work with the ISMN effort to identify areas where the existing ISMN framework overlaps with suitable components of the Northeast Ocean Plan, to develop practical steps to implement monitoring protocols and assess results, and to ensure analyses and conclusions inform the need for management and/or updates to the regional plan.
- d. Enable public participation in the refinement of approaches to development and application of OHI and the identification of appropriate ISMN indicators and data streams, and ensure public opportunity to discuss results of monitoring in both instances.
- e. Recognize that both OHI and ISMN provide opportunities to incorporate recent science and data in a framework suitable for management efforts, while recognizing that for specific issues context and the need to evaluate cause-and-effect are critical factors.

# 3. Science and research priorities (chapter 5 of the draft outline)

Chapter 5 of the Northeast Ocean Plan will describe science and research priorities intended to advance understanding of the natural and cultural resources and human activities identified in the plan and managed by RPB organizations. The following is a summary of recent discussions on this topic and a proposed approach for developing content for this chapter of the draft plan. The NE RPB will discuss this topic at its November 16-17 meeting and will make a decision to adopt or modify this approach based on RPB discussion and public comment.

#### Discussion Summary

- The Framework for Ocean Planning in the Northeast US (adopted by the NE RPB in January 2014) includes an objective to "Produce a Regional Ocean Science Plan that Prioritizes Ocean Science and Data Needs for the Region for the Next Five Years."
- Actions related to this objective include engaging agencies, tribes, the scientific community, and the public in the development of the science priorities and ensuring that priorities are coordinated with and leverage existing efforts.
- Recent discussions have recognized that science priorities already exist for most agencies and there have been numerous efforts to articulate science and research priorities for the region. Therefore, the Science and Research Priorities chapter should be closely tied to improving data and information on specific resources and activities discussed in the plan, particularly in Chapter 3. At the same time, sections such as the changing conditions and ecosystem-based management portions of Chapter 5 can offer an opportunity to capture emerging issues.

- Science and research priorities have been identified and catalogued over the last three years through engagement of the public, scientists, and data managers in the development and review of data and information products that will be included in the plan or on the Northeast Ocean Data Portal.
- During the October 20<sup>th</sup> Stakeholder Forum, staff presented an initial framework for the Science and Research Priorities chapter and participants suggested specific science and research priorities that have been documented and loosely organized by theme in the Stakeholder Forum Meeting Summary.

#### Proposed approach

Chapter 5 of the draft plan will describe the RPB commitment to advancing science and research priorities to be identified and organized as follows:

- a. Science and research opportunities will be identified and prioritized based on their potential to advance specific components of the plan and, therefore, the framework for Chapter 5 will be similar to the framework for relevant parts of Chapters 3 and 4.
- b. Within each theme (e.g. marine mammals), science and research priorities will be organized into two general categories. The first category will include those science and research priorities that will update ocean plan data and information products in the short-term (roughly 1-3 years). The second category will include those science and research priorities that will require new research to fill important knowledge gaps. There will likely be fewer of these priorities, they will likely have a larger budget, and they are likely to be completed over the longer-term (roughly 3-5 or more years).
- c. Each science priority will identify potential partners, programs, and existing efforts to leverage and advance the research.
- d. Public input will be pulled from the results of extensive outreach to date on specific subjects (including outreach to industry and environmental groups), the June 2014 Natural Resources Workshop, the October 20 Stakeholder Forum, the November 16-17 RPB meeting, the Ecosystem Based Management Work Group, and other public outreach occurring between the November RPB meeting and the public release of a draft plan in 2016.
- e. Please see the Chapter 5 Addendum for additional details, including a more developed outline and some examples of science and research priorities for select plan components.

## 4. Plan implementation functions and responsibilities

Section 4.2 of the draft plan outline identifies several aspects of plan implementation that the plan must address. Several of these topics—future responsibilities for overall plan implementation and continued support for the Northeast Ocean Data Portal—have been the subject of many conversations throughout the development of the regional plan, including at the recent October 20 Stakeholder Forum. For purposes of this discussion, several assumptions are made:

- The National Ocean Council approves the regional plan in the fall of 2016;
- Staff and budget resources exist but are limited. There will be staff capacity through at least through 2016;
- Much of day-to-day implementation falls to agencies as they implement their particular authorities, but there are coordination needs that must be continued; and
- In some instances, partners and existing entities may be appropriate to take on certain responsibilities.

At the October 20 Stakeholder Forum, support was expressed for continuing dialogue in plan implementation by getting into more specific detail on topics such as offshore aquaculture or sand and gravel extraction for beach nourishment. Support for the data portal was also expressed, as has been the case throughout the process to date.

At its November 16-17 meeting, the NE RPB will discuss several aspects of plan implementation. The RPB discussion will result in content addressing these aspects of plan implementation for Section 4.2. Topics include:

- 1. Oversight of plan implementation for:
  - a. Day-to-day implementation of the plan, particularly related to implementation of management measures included in Chapter 3 and the "best practices" in Chapter 4, including elements of federal-tribal-state coordination.
  - b. Ensuring Chapter 4 actions are conducted (monitoring and evaluation related to plan performance and ecosystem health, as described above)
  - c. Tracking progress for Chapter 5 (science priorities).
  - d. Oversight of plan updates and amendments:
    - 1. Plan updates include minor plan changes to reflect incremental changes in policy, plan administration measures, correct errata, or otherwise provide for minor content updates that do not substantively alter the plan's management measures. Any such updates would be accompanied by public notice and notice to affected stakeholders.
    - 2. Plan amendments are changes to the plan that would result in substantial changes to plan management measures or other elements of Chapters three, four, or five. These include reviews of the plan in its entirety at least once every five years. Plan amendments would include a public engagement process and would be an opportunity to review and incorporate results of plan performance and ocean ecosystem health monitoring.
  - e. Public engagement—in addition to above considerations, include through plan performance and ecosystem health monitoring as those elements of the plan are implemented; other opportunities such as the ideas raised at the Stakeholder Forum to convene public meetings on specific topics.

Since there is staff capacity through at least 2016, staff roles can be extended to perform the following functions:

- 1. Manage contractors for data portal, MDAT, communications/engagement
- 2. Manage continued work of EBM Work Group and/or other work groups as needed
- 3. Day-to-day responsibilities for developing and implementing Chapter 4 monitoring and evaluation activities and identifying opportunities for accomplishing Chapter 5 tasks.
- 2. Data Portal and other plan products + components
  The following aspects of the data portal need to be considered:
  - a. Priority data layers referenced in Chapter 3: This includes two primary components:

- 1. continued collection and availability of data used to develop Chapter 3 products, and
- 2. development and review of updates to ocean plan products

A key consideration is that many of these data layers were developed through extensive stakeholder engagement, which is likely desirable to continue in the future (e.g., updates to human use data layers would presumably include engagement with stakeholders).

- b. Other supporting data (e.g., bathymetry) in the portal
- c. General maintenance/technical support—web site, trouble-shooting, communications

Ultimately, priority data products are the responsibility of lead federal agencies based on their existing authorities and elements of Chapter 3. Thus, an approach to 2a above starts with identifying those data layers discussed in detail in Chapter 3 and their ultimate federal agency source. There are other agencies (such as the Corps of Engineers) who would be key to involve in the continued use of the data portal but who may not be ultimate sources of data in the same way. For example, Chapter 3 data layers and sources include:

- USCG: navigation-related data, AIS
- ii. Navy: fleet training and other activity areas
- iii. DOI-BOEM, USFWS: energy areas, avifauna respectively
- iv. NMFS: fisheries, fish and marine mammals

The suggested approach starts with an assumption that the approach to maintaining and updating the portal will likely evolve. Part of the initial phases of plan implementation will be working with individual agencies to put in place long-term responsibilities for updating particular data sets. This would be accompanied by setting in place a long-term coordination role—across federal agencies and with states and tribes—as part of continuing the portal as a single source for particularly priority data in Chapter 3. This could be accomplished in multiple ways; one example that has arisen is the notion of a cross-agency agreement to coordinate and cooperate on updating the data portal.

Thus, a key part of initial implementation is to determine the long-term home for the data portal, including the three aspects of the portal described above. This effort will take time. For at least first year of implementation, the proposed approach is that ocean planning staff provide day-to-day direction with agencies providing overall. During this initial phase of implementation, staff would also work with appropriate agencies and entities to develop (and ultimately implement) a transition plan from the current operational status to a longer term solution.