Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs
Ocean Management Planning Initiative

Meeting Summary of the Ocean Science Advisory Council

January 14, 2009
100 Cambridge Street, Second Floor Hearing Room C, Boston

January 14, 2009 SAC Meeting Participants:

In Attendance
Ocean Science Advisory Council Members (SAC)

Brooks, Priscilla: Conservation Law Foundation
Callaghan, Todd: Massachusetts Office of Coastal Zone Management
Ford, Kathryn: Massachusetts Division of Marine Fisheries
Frankic, Anamarija: UMass Boston, Environmental, Earth and Ocean Sciences
Hunt, Carlton: Battelle
Krauss, Scott: New England Aquarium
Muller-Karger, Frank: UMass, Dartmouth, School of Marine Science and Technology
Schwab, Bill: US Geological Survey, Wood's Hole

Guests
Barrett, Steven: New Wave Strategies
Boleri, Bob: Massachusetts Office of Coastal Zone Management
Boger, Matt: Massachusetts Ocean Coalition
Bowen, Sean: Department of Agricultural Resources
Carlisle, Bruce: Massachusetts Office of Coastal Zone Management
Chambliss, Emily: Massachusetts Office of Coastal Zone Management
Conley, Lisa: Rep. Smizik Office – Chairman of Natural Resources
Ducsik, Dennis: Massachusetts Office of Coastal Zone Management
Harrington, Jennie: MRAG Americas
Killerlain-Morrison, Kate: The Nature Conservancy
Krum, Howard: Massachusetts Ocean Partnership
Napoli, Nicholas: Massachusetts Ocean Partnership
Race, Kayla: Rep. Smizik Office – Chairman of Natural Resources
Sampson, Dan: Massachusetts Office of Coastal Zone Management
Starbuck, Kim: Massachusetts Ocean Partnership
Vella, Prassede: MA Executive Office of Energy & Environmental Affairs
Washburn, Brad: Massachusetts Office of Coastal Zone Management
Weber, John: MA Executive Office of Energy & Environmental Affairs

SAC MEETING INTRODUCTION (1:06 PM)
(John Weber, EEA)

Mr. Weber reviewed the meeting Agenda and the topics for discussion included:

1) WorkGroup Reports (Transportation Navigation Infrastructure, Regional Sediment Resource Management, Ocean Recreational and Cultural Services)
2) Baseline Assessment (BA) Discussion
3) Brainstorm ideas for a Science Plan

Mr. Weber also provided an overview of the current status in terms of creating the plan: We are currently at the end of the information gathering stage and moving into creating the plan. The MA Ocean Management Plan is going to incorporate the development of a Science Plan. There are a number of data gaps (i.e. habitat mapping, etc.) that could create issues during the development of a Science Plan. The Science Council will help with creating a robust plan of action about how to address these types of issues within the next five years, as well as determine what is reasonable to assume can be accomplished within the next five years. These topics will be discussed during the next four SAC meetings. In the meantime, the SAC should start considering:
1) Other ongoing Science Plans (i.e. MIT Sea Grant, etc.)
2) Data gaps/needs identified in the Work Group Reports and the BA, and ways to fill in those gaps (i.e. habitat mapping, climate change)
3) What the Science Plan will consist of and what should be incorporated into the Ocean Management Plan

The Goals and Objectives for the Ocean Management Plan will be emailed to the SAC in the beginning of February. The upcoming Ocean Advisory Council (OAC) meeting on January 28, 2009 will discuss the development of Goals and Objectives. Indicators will be developed later in the spring and will be informed by the Goals and Objectives. There is currently a lot of work being done on indicators in the Northeast, and this work should be considered when developing indicators. Later this spring, the SAC will also determine how available science will support management measures.

NOTICE OF NEXT OCEAN SCIENCE ADVISORY COUNCIL MEETING:
WEEK OF FEBRUARY 23, 2009

Ocean Science Advisory Council Members were informed that the next meeting of the SAC would likely be scheduled for the week of February 23, 2009. This meeting will be focused on how the Science Plan fits into the Goals and Objectives (how science will inform the Goals and Objectives).

SAC Comments on Meeting Introduction – Q & A Format:

Q: Is there going to be an assessment of work force needs and education?

> ***A****: Yes, an assessment of work force needs and education should be an important part of the Science Plan. When researching other Science Plans, the SAC should identify what resources are available and needed.*
>
> **Comment**: When researching other Science Plans, the SAC should consider the needs of the Science Plan (i.e. five fishery biologists) and where to find these resources.

Q: Have you accessed the regional indicator workshop and the follow up on the Gulf of Maine council?

> ***A:*** *Yes, they will be helpful in developing indicators. If you have ideas about groups that have developed indicators, let us know.*

EXECUTIVE OFFICES OF ENERGY AND ENVIRONMENTAL AFFAIRS
WORKGROUP REPORTS

WorkGroup On Transportation, Navigation and Infrastructure
Brad Washburn, WorkGroup chair
Massachusetts Office of Coastal Zone Management

Most of the data for this report came from the NOAA nautical charts. 16 or 17 features were chosen and are listed on page 6 of the report. These features were mapped and those that could not be moved were given the highest priority. Mr. Washburn noted that they had missed some information (i.e. pilot boarding area, anchorage areas, etc.), and they are currently in the process of collecting and integrating this information.

Mr. Washburn also discussed the need for data on recreational and commercial vessel patterns.

SAC Comments on Report of WorkGroup on Transportation, Navigation, and Infrastructure – Q & A Format

Comment (Todd C.): Some of the ferry routes are incorrect.

Comment (Carlton H.): The pipe/cable layer includes locations that are permitted, but that does not mean that pipes/cables are actually located there. We need to make sure that pipes/cables are actually there.

Comment (Brad W.): There is a process to figure out the exact location of pipes/cables. In Westport, we need to determine if the pipes/cables are actually occupying as much room as identified by the layer.

Comment (Brad W.): Stellwagen has the most data on commercial vessel patterns. We need to acquire data that show high vessel concentrations and patterns. MMTA has agreed to take maps to the stakeholders and ask for the locations of high recreational vessel concentrations.

Q (Priscilla B.): How is fishing vessel information going to be incorporated into these maps? Is the DMF information going to be overlaid?

***A (Brad W.)**: We are still working on how to include fishing.*

Comment (John W.): We have had meetings with fishermen. We would like to obtain information on when and where they are boating, location of fishery hot spots, and gear types. Through spatial mapping, we are hoping to incorporate and overlay that information.

Q (Scott K.): Is a whale watching layer included?

A (Brad W.)*: No, a different group is using the whale watching layer.*

Comment (John W.): We have some information on where the whales aggregate which has not yet been incorporated. This information needs to be digitized.

Comment (Carlton H.): Wiley and Cornell have been gathering some research on whale aggregating locations.

Q (Frank M.): ??

A (John W.)*: We want all the information to be included in MORIS. We need more metadata development. The grid located under the map will help with organizing the information.*

Q (Priscilla B.): Will all maps be made available to the public?

A (John W.)*: Ultimately, all maps will be available to the public in GIS. There is still a great deal of work to be done before the datasets are available.*

Comment (Priscilla B.): A number of stakeholders have asked if they could access certain layers.

Comment (John W.): We may be able to make those available to the stakeholders. Eventually we would like for all the layers to be available to everyone.

Comment (Kathyrn F.): There may be certain information that we do not want to release (i.e. horseshoe crab spawning data).

Q (Scott K.): Do ferries always follow the shipping lanes?

A (Brad W.)*: The layer shows the recommended routes for the ferry to follow.*

Comment (?): The AIS data shows the real routes and the impact of a potential shift in lanes.

Comment (Carlton H.): Someone from Stellwagen has a map showing commercial vessel routes.

Comment (Brad W.): We need raw data and need to narrow it down a bit depending on the type of vessel.

Q (Frank M.): Can you include real time data from ships that have tracking devices? Can the layers be updated regularly?

A (John W.)*: This is a longer-term goal that will eventually be incorporated.*

Comment (Carlton H.): I am unsure about the wording of suitable vs. unsuitable (page 11). The report should be consistent with wording. I am also not sure about the term "clean fill materials." It should be "clean dredged materials."

Q (Kathyrn F.): Does environmental monitoring include acoustic?

A (Brad W.)*: I am not sure. I will have to check.*

Q (Bill S.): Are there Army Core sites that are not on the chart?

A (Brad W.)*: Yes.*

Q (Carlton H.): What about state disposal sites? East of Cape Cod is a state disposal site?

A (Brad W.)*: I will check on it.*

Q (Priscilla B.): In reference to Figure 4, did you produce a map that discussed non-suitable areas?

A (Brad W.)*: Yes, high priority means not suitable for anything else.*

Comment (Priscilla B.): It would be useful to note the reasoning for classifying certain zones as suitable, and others as not suitable (i.e. what features make a certain zone suitable/not suitable).

Comment (Brad W.): On this scale, it would be hard to discuss reasoning. We can create zoomed in maps that discuss reasoning.

Comment (John W.): When classifying suitability, some uses/activities will conflict, while others will not. It would be useful to know the background behind the zone classifications.

Comment (Carlton H.): Some zones contain structures that cannot be moved. Those zones should be blacked out because other uses cannot occur in those zones.

Q (Scott K.): Did you include activities that occur outside of the state?

A (Brad W.)*: Everything outside of the state waters was not included.*

Q (from audience): Why were certain proposed projects included, while others were not?

A (Brad W.)*: Because those projects were already permitted, or there was a good chance they were going to happen.*

Comment (John W.): If there are other projects that should be considered, please send me an email describing the project.

Workgroup on Regional Sediment Resource Management
Bob Boeri, WorkGroup chair
Massachusetts Office of Coastal Zone Management

Mr. Boeri read the mission statement of the sediment group and noted that there are still a number of data gaps. When analyzing the management of sediment resources, they did not consider other uses that may conflict. They assigned suitability rankings (limited suitability, low suitability, medium suitability, high suitability) to certain zones based on sediment types, hazardous materials, depth of closure, etc.

Mr. Boeri noted that this report is not yet complete. There is more data (DMF lobster habitat, dredging project data, etc.) that needs to be refined and incorporated into the report. Some data from Neptune also needs to be included. This report also noted the need for a statewide sediment regional transport study, as well as an evaluation of contaminated sediments. Wave modeling also should be conducted on a site-specific basis, and the bottom/sub-bottom needs to be refined and mapped.

SAC Comments on Report of WorkGroup on Regional Sediment Resource Management – Q & A Format

Q (Carlton H.): What do you mean by suitable?

> ***A (Bob B.)****: Suitable for beneficial use. (More information?)*
>
> **Comment (Carlton H.)**: You may need to reclassify dredged material disposal sites based on if the sediments can be reused.

Comment (Carlton H.): Shurwood (sp?) has been developing some sediment movement models. You should get in touch with them.

Q (Priscilla B.): What are the next steps?

> ***A (Bob B.)****: We need to get more information on contaminated sediments.*
>
> **Comment (Scott K.)**: Not much can be done without information on contaminated sediments.
>
> **Comment (Bob B.)**: The grain size (sand/gravel) can help with determining contamination. Sand and gravel sites are not normally contaminated.

Comment (Bill S.): We should think about having a coupled model with atmospheric conditions and sediments. It is difficult to do site specific analyses everywhere. Eventually the site specific analyses should be nesting into a statewide model. There are a number of different factors that affect sediment suspension, such as winds, tides, stress on seabed, etc.

Q (Carlton H.): Where is the interface with benthic resources?

***A (Bob B.)**: The next step is to start overlaying.*

Comment (Carlton H.): SPI has extensive sediment profile data. MWRA has been doing a lot of hard bottom work which also may be useful.

Workgroup on Ocean, Recreational and Cultural Services
Dennis Ducsik, WorkGroup chair
Massachusetts Office of Coastal Zone Management

This WorkGroup report discusses how people experience the ocean. Dr. Ducsik expressed that their group was very data starved which posed some extra challenges. The available datasets were divided into three broad categories:

1) Cultural (marine archaeology, shipwrecks, etc.)
2) Vessel-based recreation (whale watching, pleasure boating, kayaking)
3) Ocean viewing (1000 public access sites)

In general, the data on recreational and cultural resources that do exist are of little use. There is also not much information about the scenic value of the ocean. The WorkGroup provided a potential methodology for conducting an "Ocean Viewing Study." The spatial data needed on recreational and cultural resources is either non-existent or cannot be collected in the next year. It would be useful to have data on boating traffic, including kayaking, wind surfing, sailing, etc.

SAC Comments on Report of WorkGroup On Ocean Recreational and Cultural Services – Q & A Format

Comment (Scott K.): I am worried about the lack of recreational data on the water. It is very important for us to know where recreational activities are occurring. A number of land-based surveys are inaccurate. There needs to be some ground truthing, involving systematic surveys about fishing, whale watching, etc.

Comment (Dennis D.): It is a high priority to refine data on recreational behaviors.

Comment (Todd C.): There is a map of obstructions to navigation which could include shipwrecks.

Q (Priscilla B.): Should we be consulting with fishing people?

> ***A (Dennis D.)****: Yes, we need to get fishing people to come to workshops.*
>
> **Comment (Carlton H.)**: We should tell fishermen that if you don't tell us where you are fishing, we cannot make sure that we avoid that area.

Comment (Bill S.): In terms of paleolandscapes, there is a third dimension in seafloor mapping. This mapping should show areas that have no shipwrecks, as well as seabed characteristics.

Q (Carlton H.): How do you pinpoint the Native American connection to the Earth?

> ***A (Dennis D.)****: We need to talk to ethnographers, tribes, etc. Tribes should be considered stakeholders.*

Q (Priscilla): Will the WorkGroup reports be included in the baseline assessment?

> ***A (Todd C.)****: Yes, the workgroup reports will be discussed in the baseline assessment (certain figures will be referenced, etc.).*

Comment (John W.): If you have comments on the three workgroup reports, they must be emailed by the 23rd.

BASELINE ASSESSMENT (BA) DISCUSSION
Todd Callaghan and Kathryn Ford

There are eight chapters in the BA. The SAC and three other people have provided written comments on the BA. The six WorkGroups are currently in the process of being incorporated into the BA, which should be completed in the next couple of weeks.

SAC Comments on Baseline Assessment – Q & A Format

Q (Priscilla B.): Are the fish and habitat reports going to be linked together in some way?

> ***A (John W.)****: Yes, we are looking to get people together from the two WorkGroups to link the reports.*
>
> **Comment (Priscilla B.)**: We should address that before the baseline assessment is completed.

Q (Anamarija F.): Can we connect fisheries assessment with indicators?

> ***A (John W.)****: Indicators won't be finished, but fisheries will be mentioned.*

Comment (Kathyrn F.): There are a few potential shifts of the outline for the BA.

Q (Kathryn F.): Should we include a section on seafood quality? MWRA is interested in potential seafood toxins.

> ***A (Carlton H.)****: This should not be a separate chapter from chemical perspective. It could encompass a 1-3 page summary with references.*
>
> ***A (Anamarija F.)****: It is possible that if we overlay water quality, sediment quality, and seafood quality, we may see a connection.*
>
> ***A (Scott K.)****: We should focus on what can/cannot be controlled by the state. I can help write the section.*

Q (Kathryn F.): Should we include a section that discusses water quality changes due to climate change?

> ***A (Carlton H.)****: Maybe in a section linking it to watersheds.*

A (Scott K.)*: We should also focus on what can be managed at a state level.*

A (Frank M.)*: You could also look at changes in sediments, HABs, etc.*

A (John W.)*: There should be a smaller write-up, but a placeholder for a larger discussion.*

Q (Kathryn F.): Should we remove biological features all together?

A*: No, they should be included in the habitat section.*

Comment (Kathryn F.): There are going to be some major edits and redundant sections will be blended together (mining, sediment transport, shoreline protection, etc.).

Q (Carlton H.): When do we start to address the effect of sea level rise on buildings, etc.? What happens if we have to retreat?

A (Kathryn F.)*: That is connected to mining and shoreline protection.*

A (John W.)*: The Commonwealth does not have a policy. We should discuss sand mining and where it should be placed.*

Q (Scott K.): Should we discuss the biological effects of sea level rise/climate change on estuaries?

A (Kathryn F.)*: The BA talks about temperature change, not sea level rise.*

Comment (Scott K.)*: An estuary will behave differently than a sandy beach, etc. It is important for the state to determine how different places react to sea level rise. This is important when thinking about where to retreat.*

Q (Kathryn F.): How should we discuss changes in wind patterns because of climate change?

A (Carlton H.)*: Kathryn should call Scott Nixon.*

A (Bill S.)*: We need to point out and stress uncertainties.*

Comment (John W.): In general, one member of the SAC can discuss information with another, but you need to be careful that it doesn't involve a large amount of people. A quorum is five people.

Q (Priscilla B.): Should the BA include trends and the status of resources in MA?

> ***A (John W.)****: Attempts have been made to incorporate data/information.*
>
> ***A (Todd C.)****: We have included the most recent eelgrass data and are attempting to make comments about trends.*
>
> **Comment (Anamarija F.)**: Trends will be important for Goals and Objectives.
>
> **Comment (Scott K.)**: I will get information about marine mammal trends and include it in the marine mammal section.

DISCUSSION ON THE SCIENCE PLAN

Mr. Weber reiterated that the SAC should research other plans that are already occurring (e.g., MIT Sea Grant). These entities should have ongoing and future research that is relevant to the planning area. Any information on plans (link, entity, contact information, brief description of research) should be emailed to Mr. Weber. Mr. Weber is also looking for the general processes/rules of thumb that would be useful in developing a Science Plan, and a list of substantive items that can't be addressed by June (e.g., climate change, habitat information, etc.). He requested feedback in these areas by February 7th, 2009.

Comment (Priscilla): The Massachusetts Ocean Partnership has ideas about putting together a Science Plan. That could be a good place to start.

Comment (Scott): What are the implications of trying to do science within the boundaries of state lines? In a normal Science Plan, boundaries are more oceanographic in nature, but these are politically driven lines.

SAC MEETING CLOSING NOTES

Comments on the three workgroup reports should be emailed to John by January 23, 2009.

Feedback on the Science Plan should be emailed to John by February 7th, 2009.

OAC meeting is on January 28th.

Two public stakeholder meetings are scheduled for February (02/07 in Sandwich and 02/10 in Boston) to raise awareness and familiarize people with the workgroup reports.

The next SAC meeting is scheduled for the 4th week of February.

Final draft of the BA will hopefully be finished in May.

Meeting adjourned (4:00 PM)