

Date: June 30<sup>th</sup>, 2011

To: National Ocean Council (NOC) Steering Committee  
From: NOAA Marine Fisheries Advisory Committee (MAFAC)  
Subject: Input on the National Ocean Council Strategic Action Plan Full-Content Outlines

NOAA's Marine Fisheries Advisory Committee (MAFAC) is a 21-person Federal Advisory Committee appointed by the Secretary of Commerce to advise the Department and NOAA on living marine stewardship issues. MAFAC has received multiple briefings from senior Executive Branch leaders on the National Ocean Policy, and discussed at its May 2011 meeting the opportunity to comment on the nine Strategic Action Plan full-content outlines. The following represents MAFAC's review and comments on the outlines.

### General Comments on Outlines

The following list of comments is relevant to all nine Strategic Action Plan outlines.

- **Legal Impediments:** The SAP outlines give no recognition or assessment of the legal obstacles (legislative and regulatory) associated with implementing the action plans, and what actions may be necessary to remove or mitigate such roadblocks to success. This should be a standard element of each outline. [Foy]
- **Communication:** Inadequate emphasis on public education and outreach strategies is a flaw in all the outlines. Since improved public ocean literacy is a critical success factor for all the strategic plans, more specific communication and education actions need to be included for each of the nine objectives, not just the "Inform and Understand" objective.[Foy]
- **Net Benefits:** Provide more overarching context to make the case for supporting the SAPs. More specifically, explain what specific net benefits will be produced relative to the status quo, especially through the use of specific examples rather than generalized improvement statements. [Clampitt, Wallace]
- **Resources:** Explain in more detail the guidance to federal and state agencies on how to prioritize funds and support the new costs associated with the NOP and Coastal and Marine Spatial Planning (CMSP) without a corresponding negative effect on current mission priorities. Within each outline, all the actions are assumed to have equal weight when in fact prioritization of actions and desired outcomes will be an essential part of each plan.[Clampitt, Foy]
- **Division of Labor:** More clearly articulate roles and responsibilities (e.g., who does what?) of the different agencies and tribes. The SAPs are so "high level" that it is not apparent what they actually accomplish. [Clampitt, Rizzardi]
- **Specificity:** More clearly articulate specific action items within each SAP. Lacking more details on actions and outcomes, it is difficult to evaluate and comment. One may agree in principle but where there are multiple paths to reach an outcome, without a stated preference it is impossible to endorse the outline as sufficient. A meaningful policy should consist of a four step cycle: (1) assessment of existing information; (2) planning based on that information; (3) implementation of policy solutions; and (4) feedback and evaluation of the implemented solutions; followed by a return to step (1). [Rizzardi]
- **Engagement:** MAFAC supports the many actions throughout the SAPs calling for stakeholder and public engagement and participation. Expand with specific examples how the SAPs will embrace a bottom-up approach by more fully articulating the mechanisms through which public, industry and sector stakeholders can engage. Currently the need for SAPs and process ideas included in the SAPs are being generated and/or prescribed in a top-down manner, with a desire to obtain bottom-up support after the fact. [Clampitt, Wallace, Doerr]
- **Reduce Length/Complexity:** The nine outlines almost consume 100 pages; the eventual plans themselves will be even longer and more cumbersome. There is a lot of overlap and duplication in the strategies that could be eliminated if several of the SAPs could be combined and streamlined with a goal to reduce redundancy and overall wordiness of the SAPs. In addition, the length and complexity may unintentionally prejudice less organized, smaller constituencies from

full participation in the action plan processes relative to large lobbyists, trade associations and other bigger stakeholder organizations with professional staff and fiscal resources.[Clampitt, Foy]

- **Near term Focus:** Implementation of the NOP is a long term proposition that is best handled in small manageable chunks. The SAPs should provide additional focus on near-term actions, to ensure the initial resource investments are feasible and with worthwhile measurable outcomes, without raising false expectations about long term benefits that may never be realized for political, budgetary and timing reasons. [Wallace]

### **SAP #1- Ecosystem Based Management**

- More clearly define the expected benefits of EBM and what it means in practical terms relative to current management practices. More use of case examples would be helpful in the full plan. As currently written, the outline overly emphasizes planning and collaboration without ever demonstrating what EBM is and how it is a better way to manage our oceans. [Wallace, Morris]
- Identifying regulatory and legislative hurdles to ecosystem management will require some big -- and controversial -- thinking. The Endangered Species Act requires analysis of effects to critical habitat for a listed species. The Marine Mammal Protection Act means there can never be too many whales or seals. These are single species concepts, not ecosystem concepts, that are locked in by statutes. For example, a particular seagrass in critical habitat may really be essential to one species, but what if changes in nutrients or salinity would kill the seagrass, yet be better for a host of other species? Our environmental laws have difficulty with the concept of collective net benefit. [Rizzardi]
- There are many good points referenced in the outline :
  - Identifying key geographic areas will be good.
  - Providing EBM decision tools will be helpful.
  - Adaptive management is important for living resources
  - Establishing a work group to make sure agencies are working well together will be helpful.
  - Combining natural science and social science as the basis for management and modeling is a sound approach. [Morris]

### **SAP #2- Coastal and Marine Spatial Planning**

- Given the current fiscal restraints facing this country, establishing nine RPBs and developing initial CMS plans by 2020 may prove to be a challenge. Therefore, MAFAC recommends that the National Ocean Council supports the early investment of resources in targeted region(s) to demonstrate both the process and the success of CMSP. The goals of such an early investment should be to demonstrate robust and effective stakeholder engagement and participation, as well as demonstrate an equitable and transparent CMSP process.
- The regional process for determining and prioritizing suitable uses of marine ecosystems include consideration of the value and continuance of current and traditional uses, particularly commercial, recreational, aquaculture and subsistence fisheries. The weights/priorities given to existing versus future uses or the means to determine the relative values of these choices is a critical piece of guidance that is missing.
- MAFAC endorses the use of a scientifically grounded GIS modeling program to serve as an important tool in involving the widest range of stakeholders in Marine Spatial Planning. We therefore support the development of the National Information Management System and the incorporation of information and data from various stakeholders. We recommend that NOAA and other federal agencies work with ocean stakeholders to ensure that data provided to the NIMS is robust and in a format that addresses privacy concerns of stakeholders.
- More clearly explain the adaptive capabilities of CMSP; how can it account for the dynamic nature of living marine resources and their natural cycles such as fisheries abundance changes over time. [Clampitt]

- A new set of federally-driven regional planning bodies may fail to make much progress. They will need to overcome a long history of agencies acting independently with competition instead of collaboration. [Morris]
- The lack of membership of Regional Fishery Management Councils on the regional planning bodies may be a fatal flaw, as Councils have been exercising spatial management and regulatory responsibilities in the US EEZ for over 35 years. This unique experience and expertise has to be represented directly in the RPB process.[Wallace. Others]
- Science needs should be focused on linkages, interactions, spatial effects, and cumulative impacts. Additional emphasis is needed on tradeoffs and valuation. This research will address the current gap between data and policy. [Wallace]
- More clearly define the goals of the Regional Planning Bodies. [Wallace]
- Two important concepts here are preserving beneficial ocean use but reducing costly litigation. Unfortunately, one person's beneficial use is another person's nightmare. For example, off-shore wind energy may be desirable for some, but spoils ocean views for others. And in environmental law, even just one upset, outlying stakeholder can produce years of costly litigation. Defining beneficial use with less litigation might require a mediated or stakeholder driven rulemaking process, and also require Congressional action limiting the rights of individuals to contest the rules and actions through citizen suits.

### **SAP #3- Inform Decisions and Improve Understanding**

Action 1: Prioritize research based on "Science for an Ocean Nation."

- Near term sounds right for the timeframe.
- There should be a link to the "Science for an Ocean Nation" document.

Action 2: Provide science to support emerging sustainable uses.

- Need more specific sustainable uses outcomes; currently they are too generic.
- In the milestones, specific emerging uses are identified: aquaculture, IOOS renewable technology, and wind energy. Some interests will question whether these are sustainable uses and the science will likely be contested.
- This is listed as long term but the milestones are completed in 2014-2017.

Action 3: Provide science support for managers and policy makers

- Spatially explicit decision support tools would be very valuable.
- This is a mid-term action but its milestones are completed in 2014-2016.
- An interagency team is proposed to assess needed research and training. This will be a daunting task at the national level. Doesn't the "Science for an Ocean Nation" set research priorities?
- Training curricula will be developed, but who will deliver the training and who will be trained?
- An inventory of decision support tools could be useful, but who will use them?

Action 4: Develop human capacity and the workforce

- Providing intentional support for students in high school and college who study coastal and ocean management is a forward-looking idea.
- The timeline is midterm with milestones completed in 2013, which seems pretty quick.
- The focus on underrepresented youth meets general federal priorities but doesn't specifically help oceans or coasts.
- Should document downward trends in numbers of students studying oceans and coasts to justify that this emphasis is necessary.

Action 5: Increase ocean literacy

- The timeline is midterm but has milestones in 2012 and 13.
- What are the Ocean Literacy Essential Principles?
- Connecting ocean scientists with ocean educators would be a good thing.
- Milestones with greater specificity are more likely to be accomplished. The broad generic milestones will be harder to accomplish, or even measure for accomplishment.

#### Action 6: Engage in Ocean Exploration

- The timeline is longterm with milestones in 2014.
- How will areas be chosen for 5 new expeditions in poorly known areas with discoveries communicated to scientists and public.
- Good to mention generic strategies for cost-sharing.

#### Action 7: Integrate social science and natural science information

- Timeline is long term with milestones in 2013-2015
- Focus on valuation systems for ecosystem services.
- What does it mean to “analyze trends for human interactions with the ocean and coasts and identify “Cutting Edge” issues”? Examples please.
- Managers need new decision support tools to integrate social and natural science. Fishery management assesses stocks, but does a poor job of predicting fisherman and angler behavior and this often leads to management failures.
- It would be great to have methods to determine monetary and non-monetary values for ecosystem services that are easy for the public to understand. The public has a hard time understanding economic analyses, or, they are cynical about many economic methods to determine monetary values.
- MAFAC supports the actions to fill critical data gaps, especially sea level rise, CMSP, and EBM, and the development of decision support tools for government and stakeholders.

#### **SAP #4- Coordinate and Support**

No comment

#### **SAP #5- Resiliency and Adaptation to Climate Change and Ocean Acidification**

- Action 1 (provide critical information), Action 2 (forecast the impacts), Action 3 (strengthen and integrate observations) are all listed as “long term.” Whereas Action 4 (provide information, tools, guidance to support decision-making) and Action 5 (assess vulnerability) are mid-term. But it seems like Actions 1-2-3 are necessary to provide Actions 4-5. Shouldn't they all be mid-term?
- Comments on Action 1: This section is focused on forecasting and the future. In order to provide critical information about impacts, consider adding a summary of examples of living resource and human community responses to climate changes that have occurred over the past 20 years: flounder catches in Texas shifting northward, correlated with temperature increases in coastal waters; public expenditures for retrofits of storm sewer infrastructure built a century ago that no longer drain during daily high tides; etc.
- Comments on Action 2: Forecast impacts. Improved projections of changing currents, rising sea level, and shoreline changes are very important for managers.
- Comments on Action 3: Strengthen ocean observing – this is very important for climate models and closing the cone of uncertainty around forecasts.
- Comments on Action 4: Provide timely climate change information to support decision making.
- Comments on Action 5: Assess vulnerability – this is necessary to figure out the priority places for adaptation strategies.
- Comments on Action 6: Deploy and assess resilience and adaptation strategies
  - What is “gray infrastructure”?
  - This section should call for a reassessment and reframing of the federal investment in the beach renourishment program in the context of projections of rising sea level.
- The scientifically appropriate desire to identify uncertainty also can be misused as an excuse for inaction. In Florida, the implications of even a best case two-feet of sea level rise are catastrophic. The uncertainty bands should be used with caution, and in a way that helps policymakers confront the difficult but necessary risk management decisions.
- While individual MAFAC member's stance on climate change origins varies, the Committee appreciates the SAP emphasis on climate change preparedness. We suggest that this SAP needs to establish:

- A system of frequent, non political, published audits of the accepted climate models by a panel of experts drawn from across disciplines and agencies. This will allow the nation to constantly refine the official predictions of future climate conditions to allow the best use of the nations limited economic resources.
- Increased non-agenda-driven(non-advocacy) information dissemination.
- Recognition of the expected drain on scientific and financial resources as agencies deal with increased Endangered Species Act consultations as ocean use decision making increases.
- Land use decisions must be part of the adaptation discussion; otherwise, our fisheries will not have estuaries.

## **SAP #6- Regional Ecosystem Protection and Restoration**

**No comment**

## **SAP #7- Water Quality and Sustainable Practices on Land**

- Action 1: More clearly explain how nutrient pollution will be reduced. Will this be mandated by an agency? Which one? Who will establish the priority watersheds? Will there be an emphasis on a specific watershed (e.g., Chesapeake and Mississippi)? [Rizzardi]
- Action 2. More clearly explain how urban sources of nutrient pollution will be reduced. This document suggests a "reform of the standards for urban MS4 permitting", what does that mean to the average citizen?? [Rizzardi]
- Action 3. Reducing nutrient pollution is a worthy goal. But it is expensive. More treatment, more retention, more detention, all means more land acquisition and more construction and more permitting. What are the economic consequences of the proposed actions? [Rizzardi]
- Action 4. More clearly define what agencies will be charged with trash reduction. [Rizzardi]
- Fully addressing upstream effects on downstream water quality could require modifying the Clean Water Act, which currently exempts many agricultural activities from regulation. Merely enhancing Best Management Practices is likely insufficient.
- No specific mention in this SAP of nurdles and the enormous problem of microplastic bits in the ocean. Which other SAP is handling this issue?

## **SAP #8- Changing Conditions in the Arctic**

- While the Arctic should be a National priority, the SAP may be too ambitious for the current budget climate. [Clampitt]
- If the Arctic does continue to shrink, commercially sustainable fisheries already developed to the south could shift north. For example, the North Pacific Regional Fishery Management Council has declared the EEZ waters in the Arctic Ocean under their jurisdiction as closed to commercial fishing. If fisheries in the Aleutian Islands continue a northward extension of their range into Arctic waters, and the Arctic has been made off-limits, then these fisheries of Aleutian Islands-origin would unnecessarily be prohibited. Therefore, it is important to emphasis the need for adaptive management with periodic re-evaluation/adjustment as necessary of the goals and outcomes of the SAP. [Clampitt]

## **SAP #9- Ocean, Coastal and Great Lakes Observations, Mapping and Infrastructure**

There are many good points referenced in the outline:

- Focus on the near term is appropriate.
- Support all of the other 8 priority objectives.
- Integrated system of observing systems
- Timely integration and dissemination of data

#### Action 1: Status of the Oceanic Fleet

- It makes sense to align the research fleet priorities with the research priorities of the National Ocean Policy.
- What is the rationale for a special focus on the Arctic?
- New ship designs to improve operational efficiencies sound like they will be expensive. What are the efficiencies needed?

#### Action 2: Status of unmanned and remote sensing systems

- The outline includes many details about unmanned systems and few details about remote sensing. There should be more discussion of remote sensing.
- An inventory available unmanned systems that could contribute to ocean policy priorities would be valuable.
- What is the meaning of, "Autonomous operations of individual and swarms of unmanned systems" ?

#### Action 3: Use advanced observation and sampling technologies to study global processes at all scales.

- This is a very important set of tools for understanding ocean currents, climate, and living resources.
- Adding value to currently funded observing and sampling processes is an excellent idea.
- The several data management and communication tasks included in the action are logical and necessary, especially integrate short-term data with long term ocean observing, and inventorying data and facilities that fall outside of normal assessments.

#### Action 4: Integrated Ocean Observing system IOOS

- This will likely be costly, but will have significant benefits for many objectives of the Ocean Policy - EBM, Arctic, CMSP, Informed Decisions.
- It is unclear how IOOS improves socio economic information to quantify benefits of a better ocean. Will IOOS observe social and economic uses of the ocean?

#### Action 5: Coordinate and leverage ocean and coastal mapping efforts.

- These outcomes and milestones are logical and understandable and will support better decision-making and ocean management. They include:
  - o Identify mapping gaps and better allocation of mapping resources
  - o Complete inventory of current federal mapping services – clearing house, registry
  - o Need better mapping of shallow seafloor, turbid waters, wetland shallow bathymetry and topography
  - o Merge multiple sources of seafloor and land data to characterize environments

#### Action 6: Integrated observation data management system

- A large integrated end-to-end data service may be so big that it is vulnerable to failures.
- The federal government should be the source for authoritative observation and mapping data.
- What is the IOOS Blueprint for Full Capability, which will serve as a model for data management?
- Data archives, ready access, and data interoperability to facilitate sharing across agencies and partners will all be valuable.

Thank you for the opportunity to provide input on the SAP full content outlines. The members of MAFAC look forward to reviewing the actual draft SAPs later this summer.