Ecosystem-Based Management: Public Comments Received 1/24/2011-4/29/2011

Table of Contents

Name

Michael Helmholtz

Organization

Fla Marine Life Collectors

Which Priority Objective would you like to provide comment on?

Ecosystem-Based Management

What near-term, mid-term, and long-term actions would most effectively help the Nation achieve this policy objective?

Marine Life Collectors have been working with Fla Fish and Wildlife for 6 years to manage the Fishery's and now are working with the South Atlantic Fishery Management Councils Comprehensive Ecosystem-based Octocoral managment actions that addresses actions on fish habitat.

What are some of the major obstacles to achieving this objective; are there opportunities this objective can further, including transformative changes in how we address the stewardship of the oceans, coasts, and Great Lakes?

There are only a handfull of Octocoral Collectors like myself who harvest the species and there Billions of them in the waters of Florida and very little is known about the effects of are small impact on the Fish habitat yet the concil is lowering the limit and the quota has never been meet in 15 years I have been Harvesting in state and Federal waters.More reaserch from Harvesters who know the Habitat Not Regs That put people out of work for no good reason.The gulf of mexico is not effected by Rule set by concil members who should not have control over something they have no expertize in.FWCs Jessica Mcally has the knowledge not South Atlantic Fishery Management Council.Marinelife collectors sould be more involved.My MLD # is 1363 Michael Helmholtz abovethereef@yahoo.com.I have first hand experance and will work to protect our Oceans coasts and Great Lakes.Hire me

What milestones and performance measures would be most useful for measuring progress toward achieving this priority objective?

Trip Ticket Data

Attachment:

Name

Johnny Hines

Organization

Which Priority Objective would you like to provide comment on?

Ecosystem-Based Management

What near-term, mid-term, and long-term actions would most effectively help the Nation achieve this policy objective?

1st Is to stop pollution, and to start repairing what we've destroyed! Honestly not trying to be funny by mr. Jacque Fresco, yes founder of the Venus Project is the man who has a plan drawn up for all these questions and concerns for our environment. Mr Fresco is a leader for world peace! I put him up for nomination.

What are some of the major obstacles to achieving this objective; are there opportunities this objective can further, including transformative changes in how we address the stewardship of the oceans, coasts, and Great Lakes?

Yes, all this ties in with the enviornment. Start listening to mr. Fresco the man is trying to help all people. Jacque Fresco has had a Plan since 1974, shouldn't the US govt listen now. Time is most valuable!

What milestones and performance measures would be most useful for measuring progress toward achieving this priority objective?

A cybernated system is key all important information needs to be connected to one global system, a cybernated system. Mr. Jacque Fresco has more information on this. Please take all of his information serious! It's not a joke it's time for world peace!

Name

Roberts Leinau

Organization

lots of organizations

Which Priority Objective would you like to provide comment on?

Ecosystem-Based Management

What near-term, mid-term, and long-term actions would most effectively help the Nation achieve this policy objective?

It is important to set sustainable harvest limits and keep extractive money forces in check. It is also important to improve degraded resources.

What are some of the major obstacles to achieving this objective; are there opportunities this objective can further, including transformative changes in how we address the stewardship of the oceans, coasts, and Great Lakes?

Money lobby usually influences legislation more than good science. Go with academic honesty. LOOK A MINIMUM OF 100 YEARS OUT. Support local NGO's to work in their own communities.

What milestones and performance measures would be most useful for measuring progress toward achieving this priority objective?

comparative data collection

Name

William Frazier

Organization

BASS

Which Priority Objective would you like to provide comment on?

Ecosystem-Based Management

What near-term, mid-term, and long-term actions would most effectively help the Nation achieve this policy objective?

Overall, this entire concept has been lost. None of the primary concepts it began with have survived - or why do we have such imbalance in ecosystems.

What are some of the major obstacles to achieving this objective; are there opportunities this objective can further, including transformative changes in how we address the stewardship of the oceans, coasts, and Great Lakes?

Targets are chosen relative to "feel good" priorities. can we do something? Anything? Not what NEEDS to be done. It has become too fragmented and ego-based at the regulatory level. No one is on the same page anymore. We are creating more imbalance than solutoins.

What milestones and performance measures would be most useful for measuring progress toward achieving this priority objective?

What happened to private sector buy-in and cooperation? Transparency in goals and their management are nonexistant. Further, loss of some programs has made it impossible to define and develop realistic programs. It is a complete mess.

Name

Ed Kukla

Organization

Which Priority Objective would you like to provide comment on?

Ecosystem-Based Management

What near-term, mid-term, and long-term actions would most effectively help the Nation achieve this policy objective?

You are couching this all wrong. Your question insists that something MUST be done.

I am very concerned with the unintended consequences of over-reaching with onerous regulations. The boating industry, both commercial & recreational is a multi-billion dollar boost to our economy. Please don't drive this into the ground with excessive regulations that accomplish little.

What are some of the major obstacles to achieving this objective; are there opportunities this objective can further, including transformative changes in how we address the stewardship of the oceans, coasts, and Great Lakes?

The obstacle to your objectives should be common sense concern for over-reaching and getting very little benefit for much cost.

What milestones and performance measures would be most useful for measuring progress toward achieving this priority objective?

A solid study of the consequences of your actions and limits to small gains with big costs.

Stop trying too hard to spend our money and limit our uses of the water.

Name

Jean Tierney

Organization

Which Priority Objective would you like to provide comment on?

Ecosystem-Based Management

What near-term, mid-term, and long-term actions would most effectively help the Nation achieve this policy objective?

Remove all funding of NOC and disband it.

What are some of the major obstacles to achieving this objective; are there opportunities this objective can further, including transformative changes in how we address the stewardship of the oceans, coasts, and Great Lakes?

I do not see the need to waste money we do not have for this. I do not want to see the "experts" take over our waters.

What milestones and performance measures would be most useful for measuring progress toward achieving this priority objective?

I will be happy if the NOC is disbanded.

Name

gordon jensen

Organization

Which Priority Objective would you like to provide comment on?

Ecosystem-Based Management

What near-term, mid-term, and long-term actions would most effectively help the Nation achieve this policy objective?

I BELIEVE AT THIS TIME IN OUR HISTORY WITH OUR OUT OF CONTROL GOVT WE SHOULD SEEK OUT WAYS TO REDUCE SPENDING. STARTING NEW STUDY GROUPS, COMMITTIEES, DEPARTMENTS IS WRONG FOR THE COUNTRY. FOR ALL THE SUBJECTS LISTED THERE ARE ALREAADY DEPTS, BRANCHES, GROUPS TAKING CARE OF THESE CONCERNS. WE NEED LESS NOT MORE. THANK YOU

What are some of the major obstacles to achieving this objective; are there opportunities this objective can further, including transformative changes in how we address the stewardship of the oceans, coasts, and Great Lakes?

What milestones and performance measures would be most useful for measuring progress toward achieving this priority objective?

Name

Joyce Villa

Organization

individual and Boat US member

Which Priority Objective would you like to provide comment on?

Ecosystem-Based Management

What near-term, mid-term, and long-term actions would most effectively help the Nation achieve this policy objective?

Dear Ocean Council: Near term-identify a sustainable way to rebuild the Gulf of Mexico habitat that is eroding due to artificial channeling of the Mississippi. Mid-term-carry out pilot projects to test options. Long term-finance a fleet or whatever platform is necessary for ongoing redeposition. Will save people, wildlife, sea life and mitigate hurricane damage.

What are some of the major obstacles to achieving this objective; are there opportunities this objective can further, including transformative changes in how we address the stewardship of the oceans, coasts, and Great Lakes?

I suspect funding is the biggest obstacle, but given the extent of our oil producing and population concentrations along the Texas, Louisiana and Mississippi coasts, rehabilitating this area should be crucial. I am a New Yorker, so have no direct self interest here. It just seems it should be a priority.

What milestones and performance measures would be most useful for measuring progress toward achieving this priority objective?

I'll leave that to the scientists-I've seen satellite photos of land mass disappearance, so clearly, rebuilding land mass is part of the equation. But the land, estuaries etc. must also be able to support life similar to natural formations. A pile of mud just won't do it.

Name

Michael Bastoni

Organization

MassDOT

Which Priority Objective would you like to provide comment on?

Ecosystem-Based Management

What near-term, mid-term, and long-term actions would most effectively help the Nation achieve this policy objective?

If this process is anything like the development of the Massachusetts Ocean Management Plan, there will be a significant amount of data aquisition. When creating a management tool for the oceans, it MUST consider the fact that the organisms that live there regulate the health of the ocean. Marine Protected Areas create an environment where these organisms can reproduce and stabilize their numbers. With the amount of data aquisition involved in this initiative, I highly recommend that additional MPAs be established.

What are some of the major obstacles to achieving this objective; are there opportunities this objective can further, including transformative changes in how we address the stewardship of the oceans, coasts, and Great Lakes?

Sadly, I feel this is more of an initiative to allow for expedited siting of energy exploration than it is to protect and enhance our marine resources. I don't feel enough effort will go into delineating these sensitive areas of the fragile ocean ecosystems.

What milestones and performance measures would be most useful for measuring progress toward achieving this priority objective?

Allocating funding in a timely manner and gathering the data needed to define these areas. If a potential MPA is identified in an area where anticipated exploration will occur or in commercial fishing areas, the decision makers in this country will never allow it. Too nearsighted.

Name

Steve Kolian

Organization

EcoRigs Non-Profit Organization

Which Priority Objective would you like to provide comment on?

Ecosystem-Based Management

What near-term, mid-term, and long-term actions would most effectively help the Nation achieve this policy objective?

The policy objective is saving retired oil and gas platforms for sustainable fisheries, ocean energy, production of hydrogen and sequestration of green house gases. The near term action is to pass the "Rigs to Reef Act" through Congress and the Executive Branch. The Rigs to Reefs Act which was first Drafted in 2002 and reappeared in several subsequent bills and is still active today. Latest version was found in 4.Section 224 Rigs to Reefs Act of HR 6779 Security and Energy for America Act, presented in the 110th Congress. It still needs work. We do not need money we need a little ink on paper. It is widely known in the oil and gas industry that this issue must be addressed before offshore operators would transfer retired platforms. They would be willing participents if this liability issue addresed in the Rigs to Reefs Act was addressed.

What are some of the major obstacles to achieving this objective; are there opportunities this objective can further, including transformative changes in how we address the stewardship of the oceans, coasts, and Great Lakes?

The successful implementation of the new Alternate Use (AU) program will depend on a clearly defined authorization to transfer the primary liability of the retired platforms from the previous oil and gas operator to the Alternate Use, Right of Use and Easement (AU RUE) applicant. The ability to transfer the primary responsibility for the eventual removal of the platform from the former oil and gas operator to the AU RUE applicant is not present in 30 CFR 285.1018. The language can be found in the Rigs to Reefs Act.

What milestones and performance measures would be most useful for measuring progress toward achieving this priority objective?

Passage of the Rigs to Reef Act through Congress and Executive Branch.

Attachment: Attachment included in index: “Steve Kolian, Rigs to Reef Act and Federal Public Hearing on Aquaculture (17 pages).” Found on page 59 of document.

Name

Steve Kolian

Organization

EcoRigs Non-Profit Organization

Which Priority Objective would you like to provide comment on?

Ecosystem-Based Management

What near-term, mid-term, and long-term actions would most effectively help the Nation achieve this policy objective?

The Gulf of Mexico should be subdivided into three new management units which could be managed independently. The proposal to segregate the Gulf of Mexico into multiple eco-regions is essential to properly manage Louisiana fisheries. Currently, the Gulf of Mexico Fisheries Management Council (Gulf Council) manages the commercial and recreational finfish communities in the Gulf of Mexico as single geographical unit. The ecological differences, and the industries they support, between Florida and Louisiana are numerous and profound. Louisiana fisheries would benefit greatly if they were managed independently from the other Gulf States. We recommend that Louisiana fisheries be regulated separately from the rest of the Gulf federal fisheries management plans, for the reasons described below:

The estuarine and offshore fish populations of Louisiana are significantly greater than its sister Gulf of Mexico states. The coast and continental shelf off of Louisiana possesses 90% of the fish in the U.S. Gulf of Mexico (GLOBEC 2000). The Louisiana continental shelf is home to 3,600 oil and gas platforms in a region known as the fertile crescent. The populations of fish are up to two orders of magnitude greater in number per unit area offshore of Louisiana than off of our neighboring states (Darnell et al. 1983).

Because of this disparity in populations and thus potential yield, it is very difficult to construct and calibrate a single fisheries model to manage Florida, Alabama, Texas, and Louisiana. Louisiana's soils, nutrient levels, highly articulated coastline, extensive deltaic coastal wetlands, and fresh water discharge to the Gulf of Mexico create vastly different ecological conditions to those associated with other Gulf States.

The tremendous levels of nutrients discharged into Louisiana' s coastal waters promote an extraordinarily high amount of marine phytoplankton growth, which in turn, supports secondary production-including fish. No other Gulf state possesses a similar river system with any level of comparability. This significant variation makes Gulf-wide fish population analysis and considerations for equitable cross-state regulations very difficult.

Independent management of Louisiana fisheries in federal waters will be critically important in our effort to preserve and restore the Louisiana coast. Oil and freshwater diversion projects will change the salinity regime in our estuarine systems. The oil spill will affect populations of shrimp, oysters, blue crab and menhaden and displace commercial fishermen (LCA 2004). The effort to re-build and stabilize our coastline will change the salinity regimes in our bays and estuaries and will create an uncertain future for commercial fishing in state waters. Louisiana fishermen will need to look to federal waters to compensate for the loss of fishing grounds in state waters.

In Louisiana, the majority of Louisiana commercial fishermen are inshore fishermen. Approximately 2,300 commercial vessels are licensed exclusively for state waters and only 1,000 commercial vessels are licensed to fish in federal waters. The shrimp, crab, oyster and menhaden fisheries produce $250 million annually and 90% of the total value of landings on the docks of fish packers in Louisiana (NOAA Fisheries 2007). Commercial fisheries create $2.8 billion annually in economic benefits to the Louisiana economy (Southwick 1997).

Louisiana is also unique in that it has over $14 billion worth of artificial reefs in the form of oil and gas platforms. There are 3,600 platforms in federal waters and 2,000 in state waters. There are far more platforms than commercial

fishing vessels. Louisiana has the largest and most dense artificial reef system in the world. The structures could be used for fish hatcheries, endangered species propagation, coral and sponge culture, oyster depuration, artificial reefs and fish sanctuaries. The collection of oil and gas platforms currently generates $324 million in every year in recreational fishery economic impacts and creates 5,560 full time fishery jobs in the Gulf States (MMS 2006).

The use of retired platforms for sustainable fisheries could supplement the income of Louisiana commercial fishermen. They are uniquely positioned to evolve into an agrarian fishery; this change will be impossible, however, if the management of the Gulf Council fisheries is not regionalized.

This initiative will allow Louisiana to utilize her resources, move forward with sustainable fisheries initiatives, and avoid potential political problems associated with the preferences of its sister Gulf states. We hereby strongly appeal that the Executive Branch promotes the enclosed recommendation.

What are some of the major obstacles to achieving this objective; are there opportunities this objective can further, including transformative changes in how we address the stewardship of the oceans, coasts, and Great Lakes?

Inertia

What milestones and performance measures would be most useful for measuring progress toward achieving this priority objective?

Segragation of Louisiana Fisheries Management from Florida Fisheries Management.

Attachment: Attachment included in index: “Steve Kolian, Rigs to Reef Act and Federal Public Hearing on Aquaculture (17 pages).” Found on page 59 of document.

Name

Judith Vidaver

Organization

Ocean Protection Coalition

Which Priority Objective would you like to provide comment on?

Ecosystem-Based Management

What near-term, mid-term, and long-term actions would most effectively help the Nation achieve this policy objective?

Ocean Protection Coalition is composed of local residents who have been involved in protecting the Mendocino Coast from industrialization and militarization for nearly 25 years. OPC is a 501(c)3 affiliate of the Redwood Coast Watersheds Association.

The waters off the Northern California are part of one of the four most productive marine upwelling areas in the world. Because of this area's remoteness and the vigilance of its small, but active populace whose livelihoods depend on its marine resources, this region also contains some of the most pristine waters on the planet.

For nearly thirty years local residents have fended off efforts to compromise the integrity of this precious marine ecosystem. In the 1970s the Navy proposed dumping decommissioned nuclear submarines off the Mendocino coast. In the 1980s thousands of citizens united to successfully resist OCS offshore oil/gas drilling. (The sensitivity and productivity of this region has been recognized by its repeated exclusion from OCS 5- Year plans for oil/gas lease sales.) Most recently, several proposals to site wave power plants off the Northern California coast have been scrapped; one proposal resulted in litigation against the Federal Energy Regulatory Commission.

Local fisher folk have been especially good stewards of the resource they depend on, lobbying for fishing regulations to protect fisheries that had been over-harvested by foreign fleets. These fisheries are now recovering. Locals have also encouraged State and Federal agencies to provide more enforcement of regulations regarding forest practices and water quality issues. Fishers are the watchdogs of the sea.Their generations of observation makes them the first to notice and report changes in the marine environment. They need to be allowed to continue to do this important work and should be provided with advance training to better monitor the rapidly changing marine environment. As they have self-regulated to the brink of extinction, no further regulations should be instituted to inhibit their continuing viability.

Along the coasts of Mendocino, Humboldt and Del Norte Counties the State is imposing a network of Marine Protected Areas (MPAs), encompassing more than 13% of Northcoast waters and restricting fishing and other marine harvesting (No other activities were proposed for restriction). This MPA arraywill become part of the network of MPAs all along the California coast. Unique among all the other study areas, the Northcoast Study Area proposed a MPA array that was supported by every member of the Regional Stakeholder Group, all local governments and most fishers and environmental organizations. To protect these MPAs no industrialization or military activities should be allowed within them (or anywhere else in this region).

During the implementation process of the California Marine Life Protection Act, it was established that the Northcoast, and especially Mendocino County (with its population of 140,000) was more dependent of the ocean than any other area in the State.

This year, concern has risen over Naval training exercises and other activities by the Navy off the Northern California Coast. Recent reports of dolphins killed by Navy explosions have heightened those concerns.

http://news.yahoo.com/s/ap/20110326/ap_on_re_us/us_dolphin_deaths

Sonar is increasingly being implicated as a cause in marine mammal deaths, injuries and strandings. http://www.sciencedaily.com/releases/2011/03/110316153133.htm

http://news.nationalgeographic.com/news/2003/10/1008_031008_whalebends.html

Local citizens have traveled to Washington DC to alert Congress of the expansion of Naval activities in the Pacific Northwest Training Range Complex. Nearly every Congressperson contacted said they were unaware of this issue. NOC should require Congressional Hearings on this issue, especially in light of the increasing body of evidence that such activities are harming marine mammals and other marine life.

For the entire marine environment, impacts from climate change, i.e., sea-level rise, ocean acidification, species dispersal, etc., present an uncertain future for all marine ecosystems. As I write, the northern Pacific is being threatened by the intrusion of tens of thousands of tons of highly radioactive water spilling from the Fukushima nuclear plant melt-down--with unknown, but potentially catastrophic consequences.

In order to minimize these impacts and to protect this part of the Nation's ocean that locals have been safeguarding for decades, the National Ocean Council should set aside this area, excluding it from all industrialization, including OCS oil/gas drilling, wave/wind energy production, fish farming, sea-bed mining, military exercises involving sonar and detonation of explosives, as well as any other activities that could harm the resources of this most productive marine ecosystem. The last couple of years have revealed how disastrous such activities can be to the marine environment

To restore salmonid fisheries, whose numbers have declined precipitously over the past 3 decades due to unsustainable timber harvesting practices, the NOC should vigorously enforce the implementation of Total Maximum Daily Loads for all Northcoast water bodies listed as impaired under the Clean Water Act which includes every major Class I stream. Water diversions also have severely impacted the salmonid fisheries most notably on the Klamath River which killed over 60,000 spawners a few years ago, effectively eliminating commercial the salmon season until this year. Planned removal of dams on the Klamath River should be expedited. To protect the Sacramento River salmon runs, which provide the bulk of fish caught off the Northcoast, no further dams or water diversion projects such as those being considered in the Sacramento River Delta, should be constructed.

Additionally, California’ s Water Quality Control Board currently exempts agricultural pollutants from regulation.

Runoff from irrigated agriculture is identified as the largest source of pollution to Central Valley waterways and the Delta. Monitoring downstream of agricultural areas reveals that virtually all sites exceed water quality standards and almost two thirds are toxic to aquatic life. Pollution is identified as one of the principle causes of the collapse of Central Valley s pelagic and salmonid fisheries. Agricultural pollution also threatens drinking water supplies and public health and is a major source of groundwater impairment.

However, irrigated agriculture remains exempt from routine requirements to protect water quality that have long been applicable to virtually every other segment of society. The existing regulatory waiver covering discharges from irrigated lands expires in June 2011, and the Regional Board will consider a new long-term program at a hearing on April 7. Unfortunately, the Regional Board is proposing a Framework that is not protective of water quality. They propose to continue the same basic approach to regulating agriculture that has proved to be a dismal failure: i.e., ceding implementation of the program to industry advocacy groups.

Under this scheme, the Board doesn’ t know who is discharging, what pollutants are being discharged, the localized impacts to receiving waters and whether dischargers are implementing measures to reduce or eliminate pollution or if those measures are working. Consequently, the Board cannot identify any improvement in water quality or any effort to stop pollution.

The State Water Board needs to vigorously apply the Clean Water Act to this exemption that has been degrading water quality for decades. Relying on industry to police itself has never worked.

If the National Ocean Council is going to be successful in protecting the marine ecosystem, it should provide a strong enforcement arm to see that regulations are adhered to.

The ocean is the most important component in the Earth' s life-support system. The marine environment is exhibiting serious signs of stress; unless human-induced impacts are expeditiously curtailed, it may no longer be able to perform its life-sustaining services.

What are some of the major obstacles to achieving this objective; are there opportunities this objective can further, including transformative changes in how we address the stewardship of the oceans, coasts, and Great Lakes?

The corruption of politics by corporations.

The country has been bankrupted by corporations who want to de-regulate everything. So there is no money for implementation of programs, monitoring or enforcement.

The mass media is not focusing on the issue with the most potential to harm us all--environmental collapse.

The dumbing down of American citizens is not providing a citizenry capable of facing these looming threats.

The California Northcoast region can provide a model of how citizens, when educated about the issues, can protect their local life-support system.

If everyone practiced NIMBYism, we'd not be in the predicament we're in now. Ecosystem management should be practiced by the local people who are most familiar with the issues and have the most to lose when things go wrong.

What milestones and performance measures would be most useful for measuring progress toward achieving this priority objective?

Effective enforcement of existing laws & regulations. Creation of councils that truly represent local stakeholders over corporate interests.

Imposition of strong energy conservation measures instead of investment in risky ventures such a nuclear, coal or offshore wave/wind plants. Energy production should be a local effort. Solar & wind generators on every rooftop.

Name

Sylvia De Rooy

Organization

Which Priority Objective would you like to provide comment on?

Ecosystem-Based Management

What near-term, mid-term, and long-term actions would most effectively help the Nation achieve this policy objective?

Near, mid and long term we need to recognize our dependency on healthy oceans and stop taking an attitude of usury.

For many years the US Navy has been polluting the oceans with toxic substances and has harassed and killed marine mammals. The Navy claims their on-going and wide-spread training exercises are necessary for the safety of US citizenry. The amount and extent of their training is enormous and has already left a large residue of toxics on the ocean floors as well as causing many deaths and much destruction. Does that make us safer? We must start taking a long term view and start recognizing the importance of these bodies of water to human existence. Please help bring an end to the ever expanding Navy destruction.

What are some of the major obstacles to achieving this objective; are there opportunities this objective can further, including transformative changes in how we address the stewardship of the oceans, coasts, and Great Lakes?

The major obstacle is the power of money interests who profit greatly by these Navy trainings and the legislators who are beholden to these money interests.

What milestones and performance measures would be most useful for measuring progress toward achieving this priority objective?

This is a question for you to answer.

Name

Tom Raftican

Organization

The Sportfishing Conservancy

Which Priority Objective would you like to provide comment on?

Ecosystem-Based Management

What near-term, mid-term, and long-term actions would most effectively help the Nation achieve this policy objective?

The Sportfishing Conservancy Comments on Obama Ocean Policy / Ecosystem Based Management (EBM)

With millions of participants, the marine recreational fishing community represents an incredibly large, yet diverse user group. While EBM is emerging as a prime tool for comprehensive marine resource management, change from the perennial single species focus without adequate preparation may well be problematic with this user group, particularly in light of their political miring in traditional management practices.

In the context of changing ocean regimes, it is often difficult to quantify either success or failure with single species management akin to hitting a moving target on a moving playing field. Then, transition from single species to EBM further complicates management protocols as linkages and parameters each expand. Applying traditional tools alongside newly developing models across these new fields will inevitably render poorly understood conclusions, yet have major direct social and economic impacts. In light of the new playing field, successful management outcomes and compliance may rely more on stakeholder acceptance and participation in the process than on the new suite of tools. Clearly, outreach, understanding, then angler buy-in are critical to the success of this new management paradigm.

Near term: Start slow. While managers are vested, to the uninitiated stakeholder broad understanding of key relationships is central to acceptance of this change in management philosophy. Critical to this is to speak a common language (careful with acronyms!). Terminology across regions, federal, state and local lexicons all need to be cross-referenced and given consistent meaning - i.e.- a marine protected area may or may not be a marine reserve or a no-take reserve.

Mid-Term: Engage the anglers. Develop an interactive program tailored to affected stakeholders, including new models that not only lay out management options, that also provide information on why these options are appropriate and the expected results for both fish and fishers. Too often managers speak only to scientists. Engaging the angling community provides a vehicle. Sharing information, goals and outcomes with this community initiates them into the process. Ask not what your ocean does for you, but what you can do for your ocean?

Long term: Engage the country. Given global climactic change and carbon sequestration, ocean health is vital to the economic and societal health of the country not only from Maine to California, but from Kansas to Kentucky. Marine ecosystem interactions might best be demonstrated through a comparative analysis of parallel systems within terrestrial models: water in the Everglades, bees in meadows and waterfowl in wetlands. Vest the vast.

What are some of the major obstacles to achieving this objective; are there opportunities this objective can further, including transformative changes in how we address the stewardship of the oceans, coasts, and Great Lakes?

What milestones and performance measures would be most useful for measuring progress toward achieving this priority objective?

Name

Nancy Mendenhall

Organization

Alaska Cooperative Extension Service

Which Priority Objective would you like to provide comment on?

Ecosystem-Based Management

What near-term, mid-term, and long-term actions would most effectively help the Nation achieve this policy objective?

Look in depth at long-term consequences to overall ecosystem before initiating programs/policies for the ocean, recognizing that in the past we have not been rigorous enough about this and have let political and economic pressures guide us.

What are some of the major obstacles to achieving this objective; are there opportunities this objective can further, including transformative changes in how we address the stewardship of the oceans, coasts, and Great Lakes?

lack of adequate scientific information; lack of funds for adequate research; political pressure on scientists; pressures from states and their economic needs, and from industry, such as aquaculture, underwater mining, oil/gas industry, and sea transportation to move along with changes before consequences to ecosystem, including human communities, are enough understood. These are serious pressures that take commitment to withstand.

What milestones and performance measures would be most useful for measuring progress toward achieving this priority objective?

1. Set up a balanced panel of neutral (non-industry connected) scientists and lay persons to determine what information is necessary in order to make decisions about human-induced changes in the ocean. The laypersons need to include members of local and indigenous communities along the ocean dependent on its resources and good health.Industry and political (national and international) interests should not dominate.

2. Panel must make recommendations to the Council based on the information.

3. The public must be made aware of the recommendations for changes and allowed to comment.

4. No changes should take place without many layers of study, review and public comment.

As a concrete example of what to avoid: the federal government is now going ahead with allowing leasing of the US waters to aquaculture firms without full study of how these will affect the ecosystem, even though we are aware that waste, use of forage fish for feed, disease, etc are all factors in aquaculture and will affect the ecosystem. this should be postponed until steps above are taken.

4. Human communities adjacent to the seas involved must have their social and economic well-being considered. This includes the needs of Native/indigenous communities whose local economy and/or subsistence use of ocean fauna is essential to them.

As another example of what to avoid: the effects of Rationalization/ Catch Share on small fishing communities was not fully considered when making changes in federal fisheries management starting in 1995.

5. Use of media to diseminate information should recognize that the public, especially the rural public, is not yet in full access of the "web" for making comment and other more tradition means are also needed like face-to face hearings using lay language.

Name

Austin Bowden

Organization

Montana State University

Which Priority Objective would you like to provide comment on?

Ecosystem-Based Management

What near-term, mid-term, and long-term actions would most effectively help the Nation achieve this policy objective?

I believe that ecosystem-based management(EBM) is one of the most important object among those listed. With ecosystem-based management, managers are taking into consideration all aspects of the ecosystem from what is wrong with them to how management practices will effect each part of the ecosystem. It is thinking holistically. This concept of holistic thinking in management is increasingly becoming more and more popular among ranchers on land and showing beneficial results. Managers in the marine ecosystems need to adopt the same mind frame if we want to see positive results. The interaction of natural processes between ecosystems is one of the most important concepts that needs to be supported and encouraged by humans. Sylvia Earle, a marine biologist and aquanaut emphasizes this idea in her TED speech. It is understanding the inter-relationships between all organisms in an ecosystem, and the effects humans have on them that will enable us to begin to repair the marine ecosystems. Once people are able to change/shape their basic idea about management, they will be able to better mange their ecosystem. It is our use of ecosystem resources that provide us with many services. However, those services are destroying the very same ecosystems we depend on.

What are some of the major obstacles to achieving this objective; are there opportunities this objective can further, including transformative changes in how we address the stewardship of the oceans, coasts, and Great Lakes?

One of the major obstacles to this is creating a paradigm shift. Currently, management is somewhat narrow-minded. However, this is not their fault. The managers that are out there are doing their best at what they know. However, what they know is what needs to be changed. People go about problem solving by identifying a problem and finding a solution. However, multiple solutions need to be found and tested. When I say tested, I mean that the whole ecosystem needs to be taken into account when measure the effects a possible solution might have. Some may argue that this will take more time and money, but if a solution creates a problem with another part of an ecosystem, the costs will be much larger than fixing the problem before it starts. A holistic style of management must be implemented so that ecosystems are analyzed from the bottom-up.

Another problem that will arise is friction with commercial and local businesses. People will always try to catch or harvest as much as they can in the shortest amount of time possible. This applies to many industries. For example, the plastic industry is the #1 polluter of marine ecosystems, as shown in the short film 'Addicted to Plastic'. It is an improbable task to force an entire industry to stop what they are doing. Plastic companies are not going to stop producing plastic because their products are polluting the ocean. If this were the case, they already would have. For the most part, these people and businesses will not accept EBM because it will interfere with their businesses and income flow. For this reason, the government needs to interfere by putting restrictions in place. And once populations begin to come back, restrictions need to stay in place so that history does not repeat itself.

What milestones and performance measures would be most useful for measuring progress toward achieving this priority objective?

Measuring progress may be somewhat difficult at first, but once the holistic thought process and ecosystem-based management are put into place and continued, the results will be readily apparent. One way to start this process would be to require all government institutions that manage natural areas to take lessons on holistic management and Ecosystem Based Management. If not creating a requirement, incentives could be put in place to encourage better management styles. The biggest indicator that will be noticed will be when ecosystems start repairing themselves just as they did many years ago. It is because of human impact that the planets oceans and marine systems are declining at rapid rates and it is a human's responsibility to repair them for future generations. Overall, every aspect of EBM needs to be taken into account for the benefit of future generations around the world. Connections need to be made between different ecosystem processes, cumulative impacts need to be accounted for, multiple objectives need to be put into action, change needs to be embraced, and most importantly, people need to be willing to change and adapt.

Name

Michael De Luca

Organization

National Estuarine Research Reserve Association

Which Priority Objective would you like to provide comment on?

Ecosystem-Based Management

What near-term, mid-term, and long-term actions would most effectively help the Nation achieve this policy objective?

The mid and long-term actions should also follow biological boundaries. We propose that the National Ocean Policy focus near-term actions on watersheds, mid-term action on biogeographic regions, and long-term actions on regional efforts such as thse represented by the Regional Ocean Governance Associations (e.g., MARCO, GOMA. Federal agencies have many opportunities to ensure success and enable ecosystem based management. Federal agencies have the opportunity to promote ecosystem based management by requiring grant awardees to employ this technique.

What are some of the major obstacles to achieving this objective; are there opportunities this objective can further, including transformative changes in how we address the stewardship of the oceans, coasts, and Great Lakes?

The major obstacles to ecosystem based management are the differences in state and regional laws. Ecosystem based management needs to mitigate impediments created by political boundaries and agency jurisdictions. In addition, implementation of ecosystem based management should first be applied to small biological boundaries, such as watersheds, rather than human jurisdictions.

What milestones and performance measures would be most useful for measuring progress toward achieving this priority objective?

The performance measure for this task would further enforce ecosystem based management by requiring participation by multiple agencies that have jurisdiction within the project area (watersheds, biogeographic region, multi-state region). The Federal government also has tremendous opportunities to utilize place-based programs that have proven track records of success. Programs such as NOAAs National Estuarine Research Reserve System and EPA s National Estuary Programs are already positioned to implement ecosystem based management. The National Estuarine Research Reserves have many years of experience with ecosystem based management and have the partnership connections among agencies and the scientific expertise necessary to implement ecosystem based management.

Name

Peter Saundry

Organization

National Council for Science and the Environment

Which Priority Objective would you like to provide comment on?

Ecosystem-Based Management

What near-term, mid-term, and long-term actions would most effectively help the Nation achieve this policy objective?

A. Elevate the understanding and influence of ecosystem services by:

i. Supporting, directly and through Regional Planning Bodies, pilot studies to test the usefulness of information about ecosystem service values, ecosystem attributes, and human well-being in coastal and marine spatial planning and restoration strategies.

ii. Developing guidance describing the conditions, including multiple ecosystem services and multiple objectives, that would change the nature and outcome of decisions.

iii. Making explicit the governance principles (e.g., define rights, public trusts) for applying ecosystem services in coastal and marine spatial planning and other decision contexts.

iv. Conducting quantitative, spatially explicit assessments of ecosystem service values, ecosystem attributes, and human well-being.

v. Identifying a science advisory structure to include information about ecosystem service values, ecosystem attributes, and human well-being in coastal and marine spatial planning and other decision contexts.

vi. Using management and policy scenarios including baseline and future conditions for proactive decision-making.

What are some of the major obstacles to achieving this objective; are there opportunities this objective can further, including transformative changes in how we address the stewardship of the oceans, coasts, and Great Lakes?

What milestones and performance measures would be most useful for measuring progress toward achieving this priority objective?

Attachment: Attachment included in index: “National Council for Science and the Environment’s 11th National Conference on Science, Policy and the Environment: Our Changing Oceans (2 pages).” Found on page 29 of document.

Name

Rachael Petro

Organization

Alaska State Chamber of Commerce

Which Priority Objective would you like to provide comment on?

Ecosystem-Based Management

What near-term, mid-term, and long-term actions would most effectively help the Nation achieve this policy objective?

On behalf of the Alaska State Chamber of Commerce (Alaska Chamber) I am writing to express our concerns regarding the development of strategic action plans for a national policy on the stewardship of the ocean, our coast, and the Great Lakes. Specifically, Alaska Chamber members predict negative impacts on the Alaska economy with little or no environmental benefit accruing.

The 400-plus members of the Alaska State Chamber of Commerce represent a broad base of Alaska business, from tourism, oil and gas, mining, timber, fisheries, banking, telecommunication, and retail industries as well as Alaska Native Corporations, local chambers of commerce, and individuals.

As residents of the State of Alaska we are the stakeholders in the nation's Arctic future.

A Strategic Action Plan for changing conditions in the Arctic must take into consideration the needs and desires of those who live in Alaska. Any plans should focus on helping, not harming, American communities. With over 45,000 miles of coastland, Alaskans stake in ocean policy is unmatched and any ocean policy has the potential to greatly impact Alaskans.

Please consider the following comments when addressing the nine objectives described by the National Ocean Council.

Objective 1: Ecosystem-Based Management

The science used to develop the foundation for this principal must be the best available science and must include industry-developed science. The science for Alaska' s Arctic, for example, has been primarily underwritten by oil and gas developers over the past 50 years. A one-size-fits-all approach for the nation' s waters will not work.

What are some of the major obstacles to achieving this objective; are there opportunities this objective can further, including transformative changes in how we address the stewardship of the oceans, coasts, and Great Lakes?

What milestones and performance measures would be most useful for measuring progress toward achieving this priority objective?

Name

Lisa Saperstein

Organization

Vermont Law School

Which Priority Objective would you like to provide comment on?

Ecosystem-Based Management

What near-term, mid-term, and long-term actions would most effectively help the Nation achieve this policy objective?

What are some of the major obstacles to achieving this objective; are there opportunities this objective can further, including transformative changes in how we address the stewardship of the oceans, coasts, and Great Lakes?

One of the obstacles that EBM will likely face is the reconfiguration or irreversible collapse of ecosystems and their geographical placement, due to climate change. What is deemed a suitable site for an offshore wind project in 2012 based on spatial planning and policy at the outset, likely will not be the case by 2050 or 2100. The NOC would benefit from utilizing adaptive management in the realization of its objectives, because it would provide flexibility for changing circumstances. Increasing ecosystem resilience, as part of adaptive management, increases its capacity to withstand respective uses and enables the NOC to more effectively meet the diverse interests of stakeholders, especially offshore energy interests, which are often seen as adverse to environmental concerns.

At the Ocean Law Conference on MSP at VLS, 4/1/2011, Eileen Sobeck, Deputy Assistant Secretary for Fish and Wildlife and Parks in the Department of Interior, emphasized the need for sound science at the landscape level, flexible management, and the need for a landscape conservation cooperative model . Adaptive management is one such sound science-based approach that seeks to prepare communities for catastrophic natural events by predicting how resource use and other anthropogenic actions will affect communities. This is done through constructing extremely advanced, precise models with many parameters, then, using percentages to define the likelihood of many scenarios, and finally, planning for those scenarios. Best practices indicate that activities that increase ecosystem resilience reduce the risk of long-term, adverse environmental impacts.

Consistent with supporting a healthy interface between the land and sea environments and protecting human health, rolling easements are one example of an adaptive management approach that would promote ecosystem resiliency. Rolling easements, as opposed to armoring, would allow beach ecosystems to migrate inland with sea level rise and erosion. They also have a precautionary function in that wetlands and mangroves that serve as buffers to sea level rise and filter pollution originating either upland or at sea, are able to maintain their structural integrity. Rolling easements would also preserve recreational use. To get a sense of public support for rolling easements and their potential, the NOC could survey the public to see what they would be willing to expend to retain recreational areas and survey coastal landowners to see what they would be willing to pay to defend their property.

1. Kareiva, Peter. 2008 Adaptation Options for Climate-Sensitive Ecosystems and Resources. The Nature Conservancy.

2. Id. at

3. Id. at 9-16

What milestones and performance measures would be most useful for measuring progress toward achieving this priority objective?

Name

William Nuckols

Organization

W.H. Nuckols Consulting

Which Priority Objective would you like to provide comment on?

Ecosystem-Based Management

What near-term, mid-term, and long-term actions would most effectively help the Nation achieve this policy objective?

A soft sell on ecosystem-based management decisions that encourages board thinking, but ultimately leaves all of the decision making processes that encourage, and at times seemingly require, decisions whose outcomes are antithetical to true based management must either cease, or we should adopt short to mid-term goals which recognize the high bar that true ecosystem based management sets, and instead aim to head in the direction of ecosystem based management by first requiring decision making at a leadership level to include a multi-sector and/or multi-species based approach.

What are some of the major obstacles to achieving this objective; are there opportunities this objective can further, including transformative changes in how we address the stewardship of the oceans, coasts, and Great Lakes?

The ocean resource management community continues to be significantly impaired by a lack of knowledge of how ecosystems actually function, and without a robust understanding Ecosystem-Based Management is as much a buzzword as a public policy. We've been down similar roads before. Watershed management was the rave a decade ago, but we failed to include everything in the watersheds, leaving out key management decisions if those decisions meant the inclusion of things we either poorly understood or those land-based activities which appeared more politically influential than the water parts of the watersheds. Then we moved into what was supposed to be ecosystem based management of our fisheries. A combination of a lack of robust scientific understanding of how fisheries complexes work, and special interests in certain sectors of fisheries, meant that ecosystem based management in fisheries remains largely unachieved.

Those challenges noted, given the seeming lack of interest in funding our coastal and ocean ecosystems in any significant way, perhaps a more pragmatic approach would be the most appropriate path at this juncture. This could mean, in part, taking a geographically wide and multi-sector approach to decision making when true ecosystem based management isn't viable in the short run.

What milestones and performance measures would be most useful for measuring progress toward achieving this priority objective?

The clearest indication of headway toward this goal is a periodic review to determine what management decisions and funding decisions, including the planning for current and out year agency budgets, are being made based on a species specific or single sector criteria. Once a reference baseline is determined, a measured goal to reduce those areas which fail to take an ecosystem approach could be established. A metered way forward is likely required, rather than expecting an overnight paradigm shift, as in many cases it will be discovered that better decision making that includes ecosystem wide considerations have increased up-front costs costs which will be hard to fund given the current budget climate where short term political goals are fashionable and increased short term funding increases as a part of a long term cost savings plan are difficult at best, and border on impossible in some areas.

Index:

Attachments to Comments

And Letters Received

Pertaining to Ecosystem-Based Management

Comments for the National Ocean Policy Strategic Action Plans from the National Council for Science and the Environment's 11th National Conference on Science, Policy and the Environment: Our Changing Oceans

For three days in January 2011, the National Council for Science and the Environment (NCSE) convened 1,250 leaders in ocean science, policy, management and education, conservation and business to explore issues affecting the world's changing oceans. Their objectives were to advance science based decision-making on oceans by:

1. sharing the most current state of the science;
2. linking science to policy and other decisions;
3. communicating key messages and reframing issues;
4. developing targeted and actionable recommendations; and,
5. catalyzing long-term collaborations

Meeting participants put forth a spectrum of ideas on specific challenges facing the world's oceans. Here we present those recommendations that are germane to the National Ocean Policy process, mapped onto the nine Priority Objectives from the Final Recommendations of the Interagency Ocean Policy Task Force. Recommendations that were not targeted for the National Ocean Policy Strategic Action Plans (e.g., recommendations directed at Congress or the private sector) are not included here.

Because there is considerable overlap among these priority areas, some recommendations are included in more than one area, but we also encourage those working on individual priorities to view recommendations in related areas (for example, ecosystem-based management is very much connected with marine and spatial planning).

Because of the nature of the conference, there is considerable diversity in the types of ideas put forth - research, policy, education and outreach; regional, national and international; single agency, multi-agency and public-private partnerships. There is also considerable diversity in the budgetary implications of the recommendations. We recognize that the current budgetary situation places considerable constraints on the NOC process; constraints that may limit that ability of the government to implement some excellent ideas contained in this document. We ask you to be a forward looking as possible in considering the recommendations included here and "do your best."

In addition to the nine priority areas, we encourage the National Ocean Council to develop sets of cross-cutting recommendations in the areas of education (including public education, and pre-professional STEM and workforce education as well as attention to diversity of those knowledgeable about the oceans) and science (inventory and monitoring, observations, and fundamental and applied research). We are concerned that without such cross-cuts, the need for a comprehensive and integrated approach to ocean and coastal education and research, is not likely to be addressed.

We also encourage cross-cutting looks at particular issues such as the importance of oceans for human health and well-being and energy – both traditional (oil and gas) and alternative (wind and waves).

These recommendations are presented in spirit of constructive suggestions from the conference participants. Not all of the conference participants endorse all of the recommendations, and no recommendation should be interpreted as official input from the organizations where conference participants work. For additional information about the conference please go to www.OurChangingOceans.org.

We hope that you find this input helpful. We would be pleased to meet with the members of the National Ocean Council and your various teams and to assist in other ways.

Best wishes and success with your important work.

Margaret Leinen
Conference Chair

Peter Saundry
Executive Director

Priority Area 1. Ecosystem-Based Management

Adopt ecosystem-based management as a foundational principle for the comprehensive management of the ocean, our coasts, and the Great Lakes.

A. Elevate the understanding and influence of ecosystem services by:

   i. Supporting, directly and through Regional Planning Bodies, pilot studies to test the usefulness of information about ecosystem service values, ecosystem attributes, and human well-being in coastal and marine spatial planning and restoration strategies.

   ii. Developing guidance describing the conditions, including multiple ecosystem services and multiple objectives, that would change the nature and outcome of decisions.

   iii. Making explicit the governance principles (e.g., define rights, public trusts) for applying ecosystem services in coastal and marine spatial planning and other decision contexts.

   iv. Conducting quantitative, spatially explicit assessments of ecosystem service values, ecosystem attributes, and human well-being.

   v. Identifying a science advisory structure to include information about ecosystem service values, ecosystem attributes, and human well-being in coastal and marine spatial planning and other decision contexts.

   vi. Using management and policy scenarios including baseline and future conditions for proactive decision-making.

Objective 1: Ecosystem-Based Management: Adopt ecosystem-based management as a foundational principle for the comprehensive management of the ocean, our coasts, and the Great Lakes.

- *Linking Community Efforts*: Link existing community and monitoring initiatives to avoid duplication and redundancy.
- *Federal Support*: Provide strong technical and financial support to existing regional and state management programs.
- *Existing Policies and Practices*: Incorporate EBM into existing policies, management plans, mapping, permitting, and planning.

The WCGA encourages community-based efforts and decision making that incorporate principles and best practices and consider broader ecosystem and socioeconomic factors. Ecosystem-based management (EBM) is an integrated approach that considers cumulative impacts of different sectors on the ecosystem, including humans. The WCGA has recognized integrated ecosystem assessments as a tool that will provide synthesis of a range of social, economic, and natural science data and information that will be critical in achieving EBM. Clearly articulating the goals, priorities, and the benefits of EBM with improved monitoring and data assessment will allow existing efforts and partnerships to implement effective adaptive management that brings together key stakeholders and authorities to ensure consideration of the entire ecosystem.

The West Coast EBM Network is a partnership of six community-based initiatives focused on successfully implementing EBM along the coasts of Washington, Oregon and California. The WCGA will continue to support linking existing locally driven initiatives to the West Coast EBM Network to share lessons, combine and leverage resources, and empower community-level action and involvement without duplicating efforts and redundancy. Similarly, linking the national Integrated Ocean Observing Systems and other monitoring and data networks with decision support tools will allow for more science-based decision making and adaptive management as we receive new information.

The NOP should continue to endorse and build upon the work of the ROPs and state programs, such as the Coastal Zone Management (CZM) Programs, as a reflection of a long-term commitment to EBM as a priority for policy and management to protect our marine and coastal resources. The federal government needs to continue to provide strong technical and financial support to existing regional and state management programs, which can help implement EBM on the ground. To ensure coordination and broader ecosystem considerations, a formal body can be convened to continue incorporating a wider ecosystem approach into existing policies, management plans, habitat mapping, and project permitting and planning.

ENVIRONMENTAL LAW • INSTITUTE®
OCEAN PROGRAM

ECOSYSTEM-BASED MANAGEMENT
STRATEGIC ACTION PLAN COMMENT
April 29, 2011

FIVE KEY ACTIONS FOR THE EBM ACTION PLAN

The Environmental Law Institute (ELI)[1] submits this comment to highlight key opportunities for meeting federal agencies' statutory and regulatory obligations during federal permitting and decision-making, by building on the national ocean policy, stewardship principles, ecosystem-based management priority objective, and accompanying information established in response to Executive Order 13547, "Stewardship of the Ocean, Our Coasts, and the Great Lakes."[2]

Specifically, ELI recommends an Ecosystem-Based Management Strategic Action Plan (EBM SAP) that links ecosystem-based management (EBM) approaches[3] with environmental impact assessments conducted under the National Environmental Policy Act (NEPA) and other laws and policies that call for environmental analysis and decision-making.

Table 1. Summary of Actions to include in the Ecosystem-Based Management SAP

Action 1. Adopt the ocean EBM definition advanced by the Scientific Consensus Statement on Marine Ecosystem-Based Management.

Action 2. Develop methods and agency guidance to enable the integration of EBM approaches with NEPA analysis.

Action 3. Encourage regional ocean governance bodies (and *require* regional planning bodies under the coastal and marine spatial planning framework) to establish plans that contain concrete goals and measurable objectives that can be used to inform project-level NEPA analysis.

Action 4. Establish methods and guidance to enable adaptive management.

Action 5. Ensure that the EBM SAP is appropriately integrated with other SAPs developed pursuant to the Interagency Ocean Policy Task Force's recommendations and National Ocean Council mandate.

---

[1] ELI's comment is based on several years of research focused on law and policy mechanisms to implement ecosystem-based management for the oceans, including coastal and marine spatial planning. For more information, *see* ENVIRONMENTAL LAW INSTITUTE (ELI) AND CENTER FOR OCEAN SOLUTIONS, COASTAL AND MARINE SPATIAL PLANNING: LEGAL CONSIDERATIONS (2010); ELI, MARINE SPATIAL PLANNING IN U.S. WATERS: AN ASSESSMENT AND ANALYSIS OF EXISTING LEGAL MECHANISMS, ANTICIPATED BARRIERS, AND FUTURE OPPORTUNITIES (2009) (included here as an appendix); ELI, OCEAN AND COASTAL ECOSYSTEM-BASED MANAGEMENT: IMPLEMENTATION HANDBOOK (2009); ELI, EXPANDING THE USE OF ECOSYSTEM-BASED MANAGEMENT IN THE COASTAL ZONE MANAGEMENT ACT (2009). Additional information and reports are available at http://www.eli.org/Program_Areas/ocean_projects.cfm.

[2] Executive Order 13547, *Stewardship of the Ocean, Our Coasts, and the Great Lakes* (July 19, 2010).

[3] EBM approaches include state and regional ocean governance programs as well as coastal and marine spatial planning (CMSP). For further recommendations on CMSP, see ELI's CMSP SAP comment.

According to Executive Order 13547 (Ocean Policy EO), it is now the national policy to "protect, maintain, and restore the health and biological diversity of ocean, coastal, and Great Lakes ecosystems and resources."[4] To achieve this national ocean policy, President Obama has established a new National Ocean Council (NOC) and mandated all federal agencies to:

- implement the national ocean policy, the stewardship principles, and the national priority objectives;
- participate in the coastal and marine spatial planning (CMSP) process; and
- comply with certified coastal and marine spatial plans

"… to the fullest extent consistent with applicable law."[5] This includes following the detailed final recommendations developed by the precursor Interagency Ocean Policy Task Force (Task Force), which the Ocean Policy EO incorporates by reference.[6]

The NOC is developing nine Strategic Action Plans (SAPs) to support implementation of the nine national priority objectives identified in the Ocean Policy EO. Each SAP should "identify specific and measurable near-term, mid-term, and long-term actions, with appropriate milestones, performance measures, and outcomes to meet each [national priority] objective."[7]

This comment focuses on SAP development for the Ecosystem-Based Management national priority objective. To achieve this national priority objective, the Task Force recommends development of an SAP that: "[a]dopt[s] ecosystem-based management as a foundational principle for the comprehensive management of the ocean, our coasts, and the Great Lakes."[8] Among other required elements, the Task Force calls for this EBM SAP to address:

- "'Best Practices' for developing and implementing EBM systems;
- Identification and prioritization of geographic areas of special sensitivity or in greatest need for ecosystem-based management;
- Establishment of a process for working with States, tribal and local authorities and regional governance structures to apply the most successful approaches in these areas of the greatest need; and
- Measures to ensure that decisions about ocean, coastal, and Great Lakes activities, uses, and goals are made based on the best available science and incorporate principles of ecosystem-based management."[9]

Ecosystem-based management has been advanced as an important tool for minimizing the cumulative impacts of ocean and coastal uses and activities over time, across the ecosystem, and within and across management sectors. Unlike traditional management approaches that consider the ocean activities on a sector-by-sector or issue-by-issue basis, EBM recognizes that activities and ecosystems are interconnected: the management of one sector, resource, or issue can affect management of another. At its core, EBM considers the **cumulative impacts** of human uses and takes a place-based, holistic, and proactive approach to manage human uses and activities.[10]

[4] Executive Order 13547, *Stewardship of the Ocean, Our Coasts, and the Great Lakes* (July 19, 2010) § 2.
[5] *Id.* § 6.
[6] *Id.* § 1.
[7] *Id.* at 7.
[8] Interagency Ocean Policy Task Force, *Final Recommendations of the Interagency Ocean Policy Task Force* at 32 (July 19, 2010).
[9] *Id*. at 32.
[10] In this context, "cumulative impacts" refers to the net effect of all human activities – a broader definition than the typical legal definition, which considers cumulative impacts that are alone insignificant but together result in a significant impact.

This comment provides recommendations to the NOC for preparing an ecosystem-based management SAP that ensures that ocean and coastal decision-making will be based on the best available science, minimizes cumulative impacts, and preserves important ecosystem services.

EBM SAP ACTION 1. Adopt the ocean EBM definition advanced by the Scientific Consensus Statement on Marine Ecosystem-Based Management.

Created by consensus of more than 200 experts, this definition appropriately highlights the importance of marine EBM as a tool for managing human impacts, protecting ocean and coastal ecosystems, economies, and communities, and maintaining critical ecosystem services.

The Task Force's Final Recommendations state that the NOC will adopt a definition for ecosystem-based management as it develops the EBM SAP.[11] **We strongly recommend that the NOC adopt the definition for EBM advanced by the *Scientific Consensus Statement on Marine Ecosystem-Based Management*.**[12] This definition reflects the consensus of over 200 U.S. scientists and policy experts on the meaning of marine ecosystem-based management, and appropriately highlights the importance of marine EBM as a tool for managing human impacts, protecting ocean and coastal ecosystems, economies, and communities, and maintaining critical ecosystem services.

EBM SAP ACTION 2. Develop methods and agency guidance to enable the integration of EBM approaches with NEPA analysis.

This action will help to increase understanding of ecosystem processes and human use impacts, better predict potential cumulative impacts, and support and inform management and decision-making at the project and regional levels.

In developing the EBM SAP, the NOC has an opportunity to develop a comprehensive management approach that builds from and integrates with the current system of laws and policies, rather than create a new layer of government bureaucracy. A critical component of EBM is identifying the many human impacts on oceans and coasts, understanding their effects on the environment, and managing these impacts so that key ecosystem services are preserved. In order to best address cumulative impacts and develop an effective EBM framework, **the NOC should appropriately integrate EBM approaches with various decision-making and implementation activities, to ensure that decisions about ocean and**

[11] Interagency Ocean Policy Task Force, *Final Recommendations of the Interagency Ocean Policy Task Force*, C-III (July 19, 2010).
[12] This definition states: "Ecosystem-based management is an integrated approach to management that considers the entire ecosystem, including humans. The goal of ecosystem-based management is to maintain an ecosystem in a healthy, productive and resilient condition so that it can provide the services humans want and need. Ecosystem-based management differs from current approaches that usually focus on a single species, sector, activity or concern; it considers the cumulative impacts of different sectors."Communication Partnership for Science and the Sea (COMPASS), *Scientific Consensus Statement on Marine Ecosystem-Based Management* (March 21, 2005). The Scientific Consensus Statement may be found at the following link: http://www.compassonline.org/science/EBM_CMSP/EBMconsensus.

coastal uses, activities, and goals "are made based on best available science and incorporate principles of ecosystem-based management."[13]

Specifically, the **National Environmental Policy Act** is designed to evaluate the direct, indirect, and cumulative impacts of proposed activities in combination with all other past, present and reasonably foreseeable future activities that affect an ecosystem. Specifically, NEPA requires federal agencies to consider the potential environmental impacts of proposed federal (including federally-approved) actions, and to evaluate feasible alternatives. NEPA review may be required for programmatic actions, such as the adoption of a new national program or formal plan, or for more focused project-level actions.[14] If an agency determines that a proposed action will have a significant effect on the environment, NEPA then requires it to detail the expected impacts, alternatives, negative environmental effects that cannot be avoided, and the relationship between short-term uses and long-term sustainability in an environmental impact statement (EIS).[15]

By implementing an EBM approach that is integrated with environmental impact assessments under NEPA and other environmental analysis and decision-making laws and policies,[16] the NOC can help ensure that cumulative impacts are effectively addressed and minimized and that EBM is not simply another layer in an already complex system. An approach that integrates EBM with sector- and issue-specific environmental analysis and decision-making could lead to greater regulatory certainty, improve the effectiveness of ocean management, and decrease the burden on project proponents to conduct the large-scale and costly cumulative impact analyses.

We focus here on NEPA because this law provides significant but unrealized opportunities to integrate regional ocean plans and objectives into decision-making and to better manage cumulative impacts at the project- or action-specific level. **The advantage of integrating EBM programs with NEPA is that the NEPA process is:**

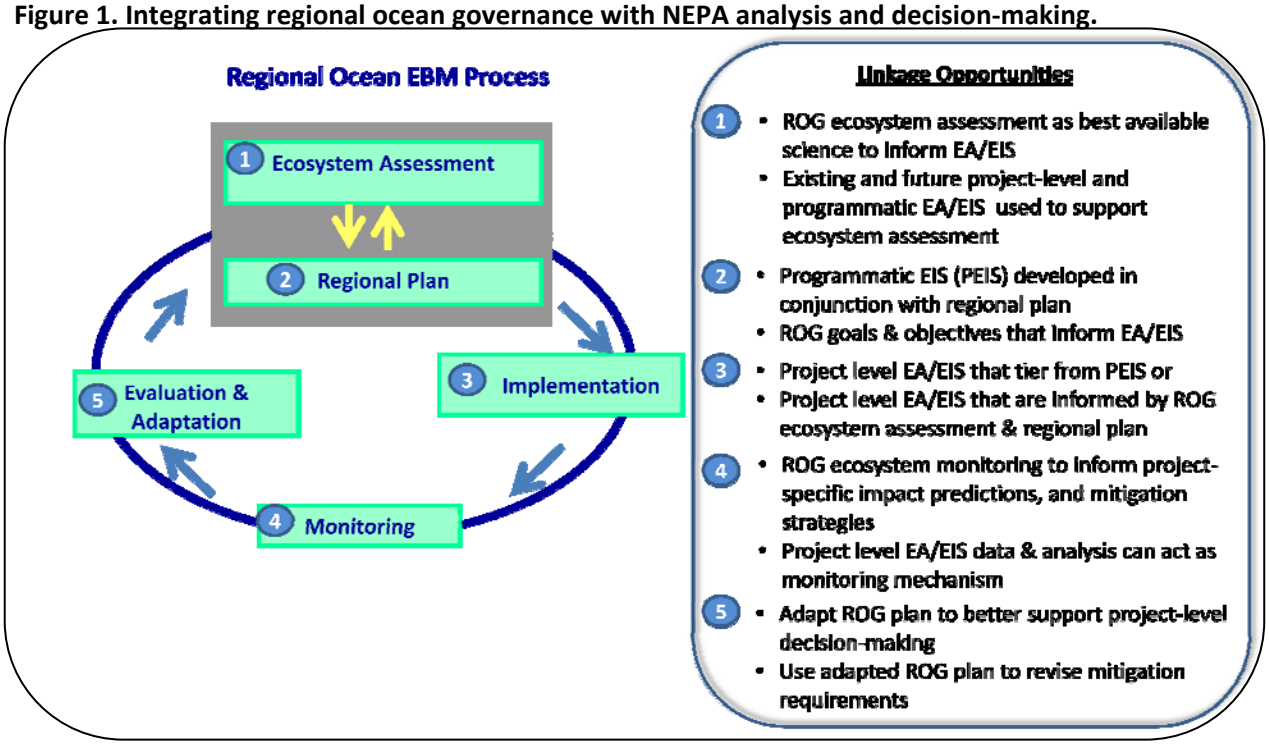
- **Forward-looking** and encompasses the goal of sustainable development;[17]
- The **first regulatory hurdle** in the development pathway for many projects;
- The point at which **analysis of cumulative impacts** occurs on a project level;
- In some cases, includes **mitigation requirements** to reduce significant impacts;
- The primary mechanism available to assess potential **ecosystem impacts** and conduct **baseline environmental analyses**;
- **Cross-cutting** in analysis, but linked to sector-specific decision-making;
- An existing process with large amounts of federal, state, and private **funding** used to implement it;

Further, a modern approach to environmental impact assessment could directly support and inform regional ocean governance (ROG). Done properly, this integrated approach could potentially ease the regulatory burden placed on ocean users.

[13] *Id*. at 32.
[14] 40 C.F.R. § 1508.18.
[15] 42 U.S.C. § 4332(c).
[16] Although this comment focuses on NEPA, the EBM SAP also should be designed to encourage federal agencies to link EBM with the suite of other mechanisms that may be used to implement regional EBM, including agency consultation, environmental permitting, enforcement, preservation, education, research, and outreach.
[17] For example, it requires analysis of today's actions based on cumulative impacts of reasonably foreseeable future actions, among others.

To create a truly integrated system of regional ocean EBM, and not simply a regional layer on top of an existing sector-based management system, environmental assessment under NEPA should build from, align with, and inform regional ocean EBM. Figure 1 shows how this could be done. This approach could be applied to existing state and regional program processes (e.g., the Gulf of Mexico Alliance or the California Ocean Protection Council) as well as the newly created regional planning bodies established to implement coastal and marine spatial planning.

Figure 1. Integrating regional ocean governance with NEPA analysis and decision-making.



There are several opportunities throughout the regional ocean governance process where EBM and NEPA can be integrated. Each step of an EBM process can support and influence environmental impact assessment processes, and vice versa.

In particular, regional EBM assessments and plans could supply valuable baseline data and information to predict the direct, indirect, and cumulative impacts of specific proposed projects or actions under NEPA, ideally improving the accuracy of those predictions. Improved baseline information established in the EBM process also could reveal gaps in existing information, highlighting where further analysis, focused monitoring, mitigation, and the precautionary approach are most needed for a particular project-level NEPA analysis. Information collected at each stage of EBM planning and implementation could support and influence a NEPA assessment of the significance and magnitude of impacts of a proposed project. In addition, EBM monitoring at the ecosystem scale could frame and supplement project-level NEPA monitoring plans, by identifying issues of particular concern, gaps in existing monitoring, and the broader impacts of more localized events. Project-level NEPA analysis could utilize regional objectives as a basis for evaluating the significance of impacts, mitigation requirements and other decisions. Finally, information from project-level NEPA analysis can support and influence other activities undertaken to implement regional EBM.

This approach works within the context of CMSP—one of the primary tools for EBM—as is also discussed in ELI's comment on the CMSP SAP.

EBM SAP ACTION 3. Encourage regional ocean governance bodies (and *require* regional planning bodies under the coastal and marine spatial planning framework) to establish plans that contain concrete goals and measurable objectives that can be used to inform project-level NEPA analysis.

As programs and plans are adapted and new programs emerge, goals and objectives should be designed with an eye toward informing decision-making at the sector- and issue-specific levels.

Ecosystem goals and objectives are important elements of regional planning that commonly articulate the desired future state of resources of the ecosystem. Concrete goals and measurable objectives are critical for accountability in an EBM program and help ensure that regional EBM goals are being met. In addition, concrete goals and measurable objectives can inform the regulatory process and other activities, including preservation, restoration, mitigation, and enforcement.

In the long term, as new EBM programs emerge, goals and objectives should be designed with an eye toward informing decision-making at the sector- and issue-specific levels. In order to best inform decision-making during environmental permitting and decision-making, regional goals and objectives should be concrete, quantitative, and measurable.

The EBM SAP should specifically encourage federal agencies and regional bodies to build from existing programs or develop new plans that contain concrete goals and measurable objectives that can be used to inform environmental impact assessments under NEPA. Managers and practitioners could use regional goals and objectives in the NEPA process to:

- provide information related to regional and state priorities that can be used to identify potential cumulative impact issues;
- serve as politically established limits on environmental impacts, which could signal the point at which impacts are considered "significant" and have reached unacceptable levels under the environmental impact assessment process; and
- support the agency's decisions related to mitigation, monitoring, and adaptive management.

By integrating regional goals and objectives into decisions under NEPA, managers can help ensure that ecosystem objectives are realized.

Box 1. A Hypothetical Example: Harmful Algal Blooms

Assume nutrient loading from land-based sources were leading to harmful algal blooms in a region. The regional plan might have a goal of eliminating such human-caused blooms, with a measurable objective of limiting nutrient discharges to a specific amount. The plan could also indicate priority activities that should be allowed to continue discharging at some rate. This plan could inform project-level environmental impact analysis in several ways. First, the goal to eliminate harmful algal blooms would be an indication to agencies that activities that lead to nutrient loading may alone or in combination significantly impact the environment. Second, the agency conducting the analysis would have an indication of the target above which the cumulative nutrient loads would be excessive and therefore significant. Finally, this knowledge could lead project proponents or agencies to develop appropriate mitigation measures or conditional permits to avoid exacerbating the problem.

In addition, as a near-term action, the NOC should encourage managers and regulators to identify and integrate concrete goals and measurable objectives contained in *existing* regional EBM plans into their environmental decision-making. Sustainability goals and objectives are included in many of the existing regional and state ocean governance plans. These include goals and objectives developed under the West Coast Governors Agreement, the California Ocean Protection Council's Strategic Plan, and for coastal and marine spatial planning in Massachusetts. These regional goals and objectives can, and should, be used to support and inform environmental decisions and actions.

Box 2. Existing Regional Goals and Objectives – The West Coast Governors Agreement Action Plan

In May 2008, California, Oregon, and Washington released an Action Plan to guide implementation of the West Coast Governors Agreement on Ocean Health. The West Coast Governors Agreement Action Plan establishes seven action priorities to protect West Coast ocean and coastal ecosystems and economies. One of the seven priority areas is to protect and restore ocean and coastal habitats to advance a vision where: "Estuarine, marine, and coastal habitats are ecologically healthy and allow for public enjoyment and sustainable use."[18] This vision is supported by three goals, which are: (1) to identify key West Coast habitats for protection and restoration; (2) to restore habitats and function of West Coast estuaries; and (3) to eradicate the invasive *Spartina* cordgrass coast-wide.[19]

Each of these three goals is connected to action objectives. For example, one objective is to "[d]ocument, describe, and map marine and estuarine ecological communities throughout West Coast waters, characterize existing human uses of those area, and establish measures to ensure effective habitat protection."[20] Another is to "[r]estore estuarine habitats, including coastal wetlands, to achieve a net increase in habitat and their function by at least 10% over the next 10 years."

Although the Action Plan does not directly link coast-wide visions, goals, and objectives with project-level implementation, the specificity of the objectives could assist decision-makers in making project-level decisions by supporting or suggesting project conditions, necessary mitigation, or focused monitoring. For example, if the goal of achieving a 10% net increase in habitat and function is taken into account, the agency could require a project proponent to mitigate environmental impacts on habitat connectivity, habitat value as spawning habitat, or vegetation coverage. This policy goal could also lead the agency to prioritize cumulative impacts on those resources and functions when those impacts are scoped during the environmental review process.

EBM SAP ACTION 4. Establish methods and guidance to enable adaptive management.

Adaptive management should ensure that lessons learned during project-level permitting and decision-making will feed back into and inform evolution of the EBM approach.

Effective EBM, including coastal and marine spatial planning, should include adaptive management as a key element in order to adapt regional ocean plans as knowledge, conditions, and circumstances

[18] Office of the Governors of Washington, Oregon & California, *Final Action Plan for the West Coast Governors' Agreement on Ocean Health* (May 2008) at 60-61.
[19] *Id*. at 44.
[20] *Id*. at 49.

change. Adaptive management allows managers to "routinely assess management actions to allow for better informed and improved future decisions."[21] With an adaptive approach, data gaps can be filled and information can be consistently collected, analyzed, and integrated to support management decisions.

The EBM SAP should include adaptive management as a key element in developing and implementing an EBM system. An adaptive EBM system should incorporate monitoring to: (1) ensure compliance with the EBM plan; and (2) assess the status and condition of resources and the ecosystem to assess progress towards achieving regional goals and objectives. It should also be flexible enough to allow amendments to the plan if monitoring reveals that that the objectives of the plan are not being met, and to respond to new policies, technologies, conditions and understanding.

In the long term, existing and emerging adaptive EBM approaches should integrate with project-level permitting and decision-making, so that these processes feed into and inform evolution of the EBM approach. Information collected during project-level permitting and decision-making can supply a level of detail that an ecosystem assessment cannot, and can provide focused information related to the actual impacts of projects or actions within a geographic region that can be used to inform broader scale management decisions.

Linking project-level data and information with a regional EBM approach will require improved methods for sharing, managing and storing data and information, and potentially new mandates for considering information gathered at the project level. Ideally, this information would be stored in a common, central database that would be available to the public, managers, and practitioners. The information would also be scalable and searchable by geographic area to inform evolution of the EBM plan.

EBM SAP ACTION 5. Ensure that the EBM SAP is appropriately integrated with other SAPs developed pursuant to the Interagency Ocean Policy Task Force's recommendations and National Ocean Council mandate.

Since CMSP is a major tool for EBM implementation, it will be especially important to link the EBM SAP with the development and implementation of coastal and marine spatial planning.

In addition to the EBM SAP, the NOC is developing strategic action plans for eight other priority objectives. These are: (1) Coastal and Marine Spatial Planning; (2) Inform Decisions and Improve Understanding; (3) Coordinate and Support; (4) Resiliency and Adaptation to Climate Change and Ocean Acidification; (5) Regional Ecosystem Protection and Restoration; (6) Water Quality and Sustainable Practices on Land; (7) Changing Conditions in the Arctic; and (8) Ocean, Coastal, and Great Lakes Observations, Mapping, and Infrastructure. As a "foundational principle," the concepts, objectives, and actions taken to effectively implement EBM may inform, influence, or affect implementation of the other national priority objectives. The NOC should, accordingly, ensure that all strategic action plans are appropriately aligned and integrated.

[21] Interagency Ocean Policy Task Force, *supra*, note 11.

1. Ecosystem-Based Management: Adopt ecosystem-based management as a foundational principle for the comprehensive management of the ocean, our coasts, and the Great Lakes.

1. What near-term, mid-term, and long-term actions would most effectively help the Nation achieve this policy objective?

In the near-term, education and outreach efforts are needed to present specific examples of how ecosystems-based management (EBM) works in practice and help promote adoption of EBM and the related techniques of coastal and marine spatial planning (CMSP) and adaptive management. Making case studies at local, state, and regional levels available via the Internet and other communication channels would help this effort. Efforts should also focus on refining EBM techniques, establishing baseline values of EBM measurements, and introduction of EBM, CMSP, and adaptive management approaches into decision making processes at each level of government. In the mid-term changes in legislation will be required to replace measures focusing on single species resource management or other obsolete concepts with use of EBM, CMSP, and adaptive management. EBM applications should include decision support for zoning changes and other adaptive measures taken to deal with sea level rise, ocean acidification, and other projected changes from climate change forecasts. Long-term actions would be related to refinements in EBM as it has been implemented.

2. What are some of the major obstacles to achieving this objective; are there opportunities this objective can further, including transformative changes in how we address the stewardship of the oceans, coasts, and Great Lakes?

One of the major obstacles to adopting ecosystem-based management is a lack of clarity as to what EBM means and how it should work. We offer the following views on these obstacles.

President Obama's Executive Order establishing the National Ocean Policy lays out a clear philosophy and methodological approach to an integrated restoration and maintenance of the health of America's coastal ocean. The main tenets of this approach are management that...

a- is adaptive

This means that the efficacy of current policy is regularly assessed in a scientific fashion, and the results used to apply course corrections by updating regulations, operating procedures, monitoring and analytical methods, and zoning plans themselves.

b- is ecosystem-based

This means that innovative science is applied to view human activities in terms of their full effects on the ecosystem, both now and in the future, and not just on immediate impacts of, for example, fishing on one species isolated from the system that nurtures it. The science of marine EBM needs to advance to the point where there are widely-accepted management models that share the important attributes of the models currently used for fisheries: i.e., they capture key biological processes, can be tracked economically using specific parameters called indicators, and are understood sufficiently well that there are known reference points for management to hinge upon. EBM also requires that coastal marine resources be considered as part of a coastal ecosystem in its entirety, consisting of the coastal ocean, the adjacent watersheds, and the embedded human infrastructure, society, and economy.

c- makes full use of Coastal and Marine Spatial Planning (CMSP)

To build a truly adaptive, ecosystem-based science with which to guide ocean policy, we must make advances in our ability to create a computational model of the linked ecology and economics of coastal ecosystems and their associated economies. This capacity is sometimes referred to, in shorthand, as CMSP, but the current conception of CMSP is only an initial step toward the required technology. The idea of a whole-system model of both ecology and economics may sound complicated, but it is not far-fetched, and the elemental foundations of this science have already been laid. These are: graphic information systems, models for the spatial distribution of ecosystem service delivery, and spatially explicit models for ecosystem service dynamics over time. The EPA is already experimenting with spatially explicit dynamic models of ecosystem service trade-offs. The ultimate goal is an ecological economic counterpart to weather forecasting, but there is no need to wait for a future generation of computational models. Along the way in its evolution, each level of sophistication can be used to generate, assess, and guide robust ocean policy for any given place and region of the country.

d- centers on trade-offs

The value of CMSP lies largely in its ability to clarify ecological and economic trade-offs: that is, the cost-benefit of any set of resource policy decisions as compared to plausible alternative policy scenarios. The greatest strength of CMSP is that it requires the clarification of these trade-offs, and the development of policy that directly addresses them.

e- considers our limited knowledge base and approaches decision-making with caution and humility

The best that science can do is to tell us how well our policies are doing, and how possible policy alternatives might serve us to our benefit or our cost. The predictions that are within the realm of science within the foreseeable future have the virtues of generalization, and realism, but will always fall short in terms of their precision, most likely as well as in their accuracy. The best that policy can achieve in dealing with a complex ecosystem like the coastal ocean or any of its resources, is to favor outcomes

that bring the most good and avoid those that cause the most harm. Furthermore, the most powerful scientific tool available is the experiment. Adaptive, ecosystem-based coastal and marine management supported by spatial planning tools, will be at its best when ocean zoning is treated as an ecological experiment. Doing so requires that the benefits and costs of each representative of every type of management unit is closely and carefully tracked, and its performance compared to other kinds of ocean zones.

3. What milestones and performance measures would be most useful for measuring progress toward achieving this priority objective?

Most, perhaps all, of the Regional Planning Bodies have adopted action plans with goals and timetables. At each level of implementation of EBM, there should be accompanying milestones and performance measures, as this is part of adaptive management, and would likely be required by funding agencies be they private or public.

Coastal States Organization
444 N Capitol St NW, Suite 322
Washington, DC 20001
202-508-3860
www.coastalstates.org

April 28, 2011

Ms. Nancy Sutley, Dr. John Holdren and Members
National Ocean Council
c/o Council on Environmental Quality
722 Jackson Place NW
Washington, DC 20503

Re: CSO Recommendations on *Objective 1: Ecosystem-Based Management*

On behalf of the Coastal States Organization (CSO), we offer the following recommendations to the National Ocean Council (NOC) for use in developing a Strategic Action Plan for *Objective 1: Ecosystem-Based Management.*

Since 1970, CSO has represented the interests of the Governors of the nation's thirty-five coastal states and territories, including the Great Lakes states, on issues relating to the sound management and development of coastal and ocean resources. CSO applauds the *Final Recommendations of the Interagency Ocean Policy Task Force* as it represents the evolution of the nation's management of ocean and coastal resources in a balanced approach and the Strategic Action Plan efforts. With respect to Objective 1, CSO's recommendations are focused on mechanisms to support ecosystem-based management efforts on the ground in the coastal states and communities, monitoring, assessment and data collection, and effective collaboration at the national level to facilitate these efforts.

The legal authorities and management programs of coastal states are fundamental to achieving national objectives to protect and restore America's coastal and marine ecosystems. State and local decisions can affect ecosystems in the most immediate of ways through development, restoration, or protection activities "on the ground." In the marine environment, states make decisions about uses within state ocean waters, which represent a narrow slice of the larger marine environment but often play a key role in offshore siting decisions and resolving use conflicts. In coastal watersheds, states and local governments make decisions about development that can result in new roads, loss or alteration of wetlands, channelized streams, clearing of forests and woodlands, increased use of pesticides and herbicides, impervious rooftops and parking lots, and more. Each decision may be for a small or limited development, but the cumulative effect may be corrosive to long term ecosystem health across large coastal and marine areas.

While there are a number of definitions of "ecosystem based management," CSO generally views that concept from the perspective of integrated coastal zone management so that land use and other permitting and management decisions preserve desired ecosystem functions. Thus, states strive to build and maintain capacity and funding to support:

- Scientific understanding of current conditions, stressors, and thresholds;
- A public process within which to make decisions that incorporate ecosystem values;
- The design and implementation of regulations based on sound science;
- Programs to monitor effectiveness through indicators; and,
- Translation and communication of the above to a variety of audiences.

Objective 1 calls for the adoption of ecosystem-based management as a foundational principle for the comprehensive management of the ocean, our coasts, and the Great Lakes. CSO recommends the following priority actions be incorporated into the Strategic Action Plan to ensure a strong planning process and to contribute to the success of the overall effort of implementing integrated ecosystem protection and restoration strategies in the regions.

1. **Support and strengthen the coastal management programs and estuarine research reserve programs of coastal states and territories under the national Coastal Zone Management Act as essential mechanisms to implement ecosystem based management.**
2. **Emphasize ecosystem-based management as a national priority in the Coastal Zone Management Act and other foundational legislation.**
3. **Align federal funding and technical resources to support ecosystem priorities in state and federal programs.**

****

1. **Support and strengthen the coastal management programs and estuarine research reserve programs of coastal states and territories under the national Coastal Zone Management Act as essential mechanisms to implement ecosystem based management.**

The national Coastal Zone Management Act (CZMA) has been an effective means of helping and encouraging coastal states to improve state and local decisions that can affect ecosystems and promote restoration and protection of ecosystem services and functions. The CZMA helps to build program capacity at the state level and emphasizes a partnership between the states and the federal government on coastal and ocean issues. The National Estuarine Research Reserves established under the CZMA have great potential for serving both federal and state efforts to implement ecosystem-based approaches to coastal management. Any national strategy to protect and restore coastal and marine ecosystems must include local and state governments and should rely on the existing programmatic and statutory frameworks within state programs authorized under the CMZA and provide tools and resources in order to build a foundation for effective ecosystem-based management.

While regional ecosystem assessments will be valuable in (1) establishing a broader context for ecological and social conditions, 2) achieving economies of scale in collecting certain kinds of

data, and 3) bringing together key regional stakeholders and data providers, it will be essential to enhance the capacities of states and territories to develop and use ecosystem assessments at the state and local scale where site-specific decisions are critical to maintaining and restoring ecosystem functions. It is for these reasons that CSO has proposed to modernize the Coastal Zone Management Act to strengthen the ability of states to focus on protecting coastal ecosystems.[1] CSO recommends the following actions.

Near Term Actions :

- Enact and support (through funding and human resources) a modernized CZMA that has clear policy and program directives for coastal states, federal agencies, and other partners to protect, restore, and manage coastal, estuarine, and marine ecosystems, habitats and unique resources in order to ensure their integrity, productivity, diversity and functional health at all geographic scales.
- Take advantage of existing national and state coastal protected areas and monitoring sites, such as those in the National Estuarine Research Reserve system or National Estuary Programs, to create a national Coastal Ecosystem Monitoring and Assessment Network.

Mid-term actions:

- Strengthen technical and financial support needed by state coastal management programs to create and carry out ecosystem-based management initiatives that would integrate local, state, and federal efforts.
- Expand the number of sites within the National Estuarine Research Reserve System to add ecosystem monitoring and assessment sites to the national system.
- Strengthen the ability of state coastal management programs and National Estuarine Research Reserves to provide training for and technical assistance to local decision-makers about ecosystem-based management.
- Provide support to enable coastal state management programs to partner regionally to develop and implement ecosystem-based management through bi-state or multi-state Special Area Management Plans.
- Build technical and program capacity within state coastal management programs to support science-based ecosystem-based management at the state and local level.

Major obstacles:

- General lack of understanding and/or appreciation of coastal and marine ecosystems and the importance of monitoring those ecosystems by federal, state and local decision-makers who are typically not scientists.
- Lack of funding for all aspects of monitoring and assessment and for strengthening state and local efforts to embrace ecosystem-based management.

Milestones/Performance measures:

- By 2020, all regions have a network of marine, estuarine, and other coastal sentinel sites.

[1] View the CSO Coastal Management Bill at www.coastalstates.org.

2. Emphasize ecosystem-based management as a national priority in the Coastal Zone Management Act and other foundational legislation.

The CZMA and other key federal legislation, such as the Rivers and Harbors Act of 1899 and the Clean Water Act, should be amended and modernized to incorporate ecosystem-based management as an operational principle. An effective Strategic Action Plan will reflect that ecosystem based management requires the use of scientific information to support decisions and investments in the infrastructure needed to acquire, assess, and deliver this information. Many models and mechanisms to achieve these goals are present in the nation's ocean and coastal communities. To achieve this objective, CSO recommends the following.

Near-Term Actions:

- Create a national Coastal Ecosystem Monitoring and Assessment Network comprised of existing national and state protected areas and scientific capacity the National Estuarine Research Reserve System, the National Marine Sanctuary Program, the National Estuary Programs, and other existing place-based state and federal programs. Promote the use of new information and communication technologies to support this network.
- Encourage states and local governments to designate sites for coastal ecosystem monitoring, similar to the National Estuarine Research Reserve System sentinel sites, and explicitly encourage citizens to assist in monitoring activities.
- Complete biogeographic assessments of ocean and coastal environments and ecosystems for each of the principal U.S. ocean planning regions and any major subregions. Provide ecosystem assessment products tailored to each of the states within the region to support state planning efforts. Within this framework, support and build capacity for nested, state-scale (and subregional) coastal ecosystem assessments at a higher "resolution" to directly inform state and local policies and decisions.
- Create a national Coastal Ecosystem Index of key ecosystem features, characteristics, or conditions to be measured in all regions as indicators of overall ecosystem condition. Identify needed regional, state, or local indicators as well. The 2008 report from The Heinz Center on the *State of the Nation's Ecosystems* may serve as a starting point for developing this Index.
- Ensure that scientific data, information, and actionable information products from federal agency research and monitoring are produced and made available for local, state and regional planning management. Where possible, promote or require collaborative research approaches, from the initial proposal development phase through the development of final reports and products, among researchers and the appropriate resource managers at the state and local scale (for example, the National Estuarine Research Reserve Science Collaborative process). Employ existing state-level partners, such as the Coastal Zone Management Program, the National Estuarine Research Reserves Program coastal training program and the National Sea Grant Program, in a well-coordinated manner to develop and disseminate information products to states and coastal communities.

Long-term actions:

- Implement monitoring and assessment activities at sites nationwide. Emphasize community-based programs that partner with federal, state, and academic scientists. Build on existing state-federal models such as the National Estuarine Research Reserve System Wide Monitoring Program and sentinel site initiatives.

- Enable each state coastal management program to build the technical capacity to develop decision-support tools and information products necessary to utilize the data from the national coastal ecosystem monitoring network to support local and state planning and management decisions and cumulative impacts analysis.
- Link national Integrated Ocean Observing System, NERRS System Wide Monitoring Program and other related efforts to the Coastal Ecosystem Monitoring and Assessment Network.

Major obstacles:
- "Stove-piped" federal and academic monitoring and assessment programs that are not well-coordinated, partially duplicative, and do not effectively share data, information, and program capacities.

Milestones/Performance measures:
By 2015, all regions have up-to-date ecoregional assessments.

3. Align federal funding and technical resources to support ecosystem priorities in state and federal programs.

An essential element of implementing ecosystem-based management will be the alignment of federal funds and resources. To do so, the Strategic Action Plan must ensure that federal agency programs and management activities for coastal ecosystems are coordinated, and where possible, integrated with each other and with state resource management priorities and regional ocean partnership goals. To help achieve this objective, CSO recommends the following.

Near-Term Actions:
- Establish a process through the NOC to coordinate and align ecosystem-based programs of various federal agencies.
- Establish regional portals online to connect the goals of the states, ROPs and federal agencies.
- Coordinate regional meetings, or tie into existing regional efforts, to connect local, state, and tribal entities with the appropriate federal agencies and on-the-ground programs for access to the most relevant information.

Major obstacles:
- Lack of integration, coordination, and consistent, shared policy objectives among federal agencies with regulatory, resources management, and energy policy responsibilities in the ocean environment.
- Suspicion and hostility among some stakeholders, members of the general public, and public officials to more government, or the perception of more government, in the marine environment and resulting suspicion, lack of trust and reluctance to participate.
- Misalignment among political and ecosystem boundaries at a variety of scales.

Strengthening, modernizing, and emphasizing the capabilities in the CZMA and the National Coastal Management Program to promote and support ecosystem-based management would transform the ability of the nation to affect the protection and restoration of coastal and ocean

ecosystems and ensure well-sited and environmentally sound development and sustainable use. Milestones and performance measures will play an important role in providing credibility to the implementation of this objective; CSO looks forward to working with the National Ocean Council and its agencies to develop appropriate milestones and performance measures.

The states and territories strongly support the NOC in its work to implement the Ecosystem-Based Management objective. CSO appreciates the opportunity to comment and work with the National Ocean Council on this Action Plan.

Sincerely,

Braxton Davis
Chair
Coastal States Organization

Kristen M. Fletcher
Executive Director
Coastal States Organization

March 18, 2011

Chairwoman Nancy Sutley
Council on Environmental Quality, Executive Office of the President

Director John Holdren
Office of Science and Technology Policy, Executive Office of the President

Re: Recommendations for the Ecosystem-Based Management and Coastal and Marine Spatial Planning Strategic Action Plans

Dear Chairwoman Sutley and Director Holdren:

We are scientists from diverse backgrounds and academic institutions who commend you for your leadership in implementing our nation's new National Ocean Policy (NOP). Our comments outline a series of recommendations for inclusion of ecosystem service concepts and approaches in the Ecosystem-Based Management (EBM) and Coastal and Marine Spatial Planning (CMSP) Strategic Action Plans.

We agree that EBM is *the* "foundational principle for comprehensive management of the ocean, our coasts, and the Great Lakes." At its core, EBM is about the need to maintain and restore ecosystems so that they can provide the full range of ecosystem services that humans want and need, both now and in the future.

- *If incorporated in EBM, the notion of ecosystem services – the benefits people receive from nature – can transform the way we approach and implement stewardship of these vital ecosystems.*

We also support the notion that CMSP is a practical and concrete path to implementing EBM. By identifying areas suitable for current and proposed activities, CMSP engenders a more rational way of making decisions that accounts for the full range of benefits, values, and uses within a given area.

- *Ecosystem services provide a common language for expressing those values and objectives. This framework can equip decision makers to look at how the goals of one agency or sector intersect with those of others and inform choices among alternatives.*

In short, **ecosystem services will enable those implementing the NOP to find common ground across agencies and sectors, reveal hidden costs, assess tradeoffs, reduce conflict and improve the outcomes of EBM and CMSP.** We provide more detail for each of these benefits below.

(1) Ecosystem services facilitate alignment of goals across agencies and sectors.

One of the greatest challenges for implementation of the National Ocean Policy will be determining how diverse institutions (local entities, state and federal agencies) with varied mandates can more effectively work together. The science of ecosystem services provides common terminology around

which agencies can engage and articulate shared goals. Services include things that are already part of decision-making, such as fishery production, wave energy, and coastal recreation. Other key services are largely outside or absent from current decision-making, such as protection from erosion caused by coastal storms and sea level rise, cultural experiences, and stunning views.

Applying an ecosystem services framework can help diverse agencies articulate and consolidate their shared goals. Each agency is currently managing one or more ecosystem services; understanding how services are produced, delivered, and interact will help agencies set goals transparently and cooperatively.

Ecosystem services are traditionally lumped into broad categories and measured in different ways. Lack of precision and established metrics impede effective goal setting, measurement of success, and cross-agency comparisons. A novel 3-step framework for measuring ecosystem services can help. It provides managers and scientists the tools to assess and track:

1) The condition of the ecosystem (*supply* metrics)
2) The amount of ocean resources actually used or enjoyed by people (*service* metrics)
3) People's preference for that level of service (*value* metrics)

For the first time, this framework enables scientists to consistently measure services, assists policy makers in defining goals, and equips managers with tools to track progress towards these goals. Ecosystem services science can provide a standard, transparent platform from which all agencies can work.

We know that this approach works because it has already been tried successfully. Some examples in the U.S. include:

- In Puget Sound, Washington, the Puget Sound Partnership has articulated goals for restoring the Sound that link ecosystem and human wellbeing. Ecosystem services have proven to be a useful framework for finding common ground among diverse stakeholders and assessing tradeoffs among management strategies.
- In Morro Bay, California, ecosystem services played an important role in management by providing a rallying point for diverse interests and facilitating planning at the ecosystem scale.
- Ecosystem services lie at the heart of coastal and ocean planning under the Massachusetts Ocean Act.

(2) Ecosystem services reveal hidden costs of our decisions.

Too often, we discover what we have lost only after it is gone. Our coasts and oceans contain many types of wealth, and these national assets are being unknowingly depreciated. As the full set of benefits to people from nature are made explicit by ecosystem services, this approach gives us a standardized, common-currency way of accounting for human uses, impacts, and values associated with the ocean's natural resources. We already attach dollar values to many of these services, such as food from fisheries or natural products such as pharmaceuticals. However, many services are not commonly assigned value (economic or otherwise) nor are they currently accounted for in decision-making. They are off the ledgers of the public and policymakers, taken for granted, and yet nonetheless prized once made scarce. Many of these undervalued resources can easily become overexploited resources. Examples include carbon storage, protection of shorelines from inundation and erosion provided by coastal habitats, cultural heritage, breathtaking views, and spiritual

benefits. Explicitly accounting for these benefits would reveal hidden costs to many current practices and decisions and would yield better, more readily accepted, and more enduring decisions.

Ecosystem service frameworks help account for the full set of benefits we receive from the ocean and coasts. Measures of social value, aesthetic and cultural significance are quickly gaining support as alternative currencies to dollars. More complete information leads to greater equity; decisions no longer benefit a few, at the cost to many. This can reduce unnecessary conflict, as tradeoffs are made explicitly, in the light of day, rather than as hidden implications.

We must be more effective in recognizing and attaching values to the things we care so much about. We can do this because the concept of ecosystem services now provides us with the necessary tools. For example, the Natural Capital Project[1] provides science capacity to West Coast Aquatic (Vancouver Island, British Columbia) as they craft a marine spatial plan that balances the diverse interests of their stakeholders. By modeling and mapping multiple ecosystem services and the many values that people hold for them (in dollars and other currencies), the Natural Capital Project is giving stakeholders the capacity to weigh concerns about a new ocean use (wave energy) against existing ones.

(3) Ecosystem services provide a means to transparently assess tradeoffs among goals.

Managers make decisions regarding tradeoffs everyday, but often these decisions are not explicit. The common currency of ecosystem services allows people to assess and quantify tradeoffs among the many values and uses of oceans. Thus, services can inform choices among alternatives, increase transparency and accountability in decision-making, and encourage conversation among people who hold disparate values. Explicit assessment of tradeoffs can reduce unwarranted conflict, reduce surprises, and lead to outcomes that benefit more people (finding the win-win's).

Tradeoffs may exist among services or among different locations, resources, sectors, or timeframes (short vs. long-term benefits). Clearly identifying and quantifying tradeoffs helps make clear which sectors likely benefit under different management scenarios. Planners must assess where strong tradeoffs are likely to occur, and seek options where better solutions that reduce or eliminate tradeoffs may be available.

Many methods and models exist for assessing tradeoffs and evaluating alternatives. Although there is need for guidance on how best to use or refine these approaches, the expertise to forecast the consequences of different planning options is already in hand. For example, new analyses in Massachusetts assessed potential tradeoffs among multiple fisheries, wind energy, conservation, and whale watching.[2] The analyses show how different arrangements of wind farm installations benefit or negatively impact the other uses. Best of all, they allow one to quantitatively measure the value added of doing CMSP as compared to sectoral management that ignores the tradeoffs among these different uses.

---

[1] The Natural Capital Project is a partnership among Stanford University's Woods Institute for the Environment, University of Minnesota's Institute on the Environment, The Nature Conservancy, and World Wildlife Fund (www.naturalcapitalproject.org)

[2] White, C., B. Halpern, and C.V. Kappel. Unpublished data.

We appreciate the opportunity to share these initial comments with you. With the upcoming chance to comment on the draft Strategic Action Plans, we look forward to providing more specific assistance to connect the latest science of ecosystem services to the Council's developing plans to implement EBM and CMSP.

Sincerely,

Karen McLeod
COMPASS / Oregon State University

Roelof Boumans
University of Vermont

Mark Carr
University of California, Santa Cruz

Larry Crowder
Duke University

Steve Gaines
University of California, Santa Barbara

Anne Guerry
Stanford University

Sally Hacker
Oregon State University

Ben Halpern
University of California, Santa Barbara

Michael Harte
Oregon State University

Lew Incze
University of Maine

Les Kaufman
Boston University

Heather Leslie
Brown University

Mary Ruckelshaus
Stanford University

Leila Sievanen
Brown University

Brian Silliman
University of Florida

Heather Tallis
Stanford University

For More Information

Barbier, E., S.D. Hacker, C. Kennedy, E. Koch, B. Silliman, and A.D. Stier. *In press*. The value of estuarine and coastal ecosystem services. *Ecological Monographs*.

Ehler, C. and F. Douvere. 2009. Marine spatial planning: a step-by-step approach toward ecosystem-based management. Intergovernmental Oceanographic Commission and Man and the Biosphere Programme. IOC Manual and Guides No 53, ICAM Dossier No 6. Paris, UNESCO.

Granek, E.F., S. Polasky, C.V. Kappel, D.J. Reed, D.J. Stoms, E.W. Koch, and 11 others. 2010. Ecosystem services as a common language for coastal ecosystem-based management. *Conservation Biology* 24: 207-216.

Kareiva, P., H. Tallis, T. Ricketts, G. Daily, S. Polasky. 2011. Natural Capital. Theory and Practice of Mapping Ecosystem Services. Oxford University Press, Oxford, UK.

McLeod, K.L. and H. Leslie. 2009. Ecosystem-Based Management for the Oceans. Island Press: Washington D.C.

McLeod, K.L., J. Lubchenco, S.R. Palumbi, S.R. and A.A. Rosenberg. 2005. Scientific consensus statement on marine ecosystem-based management. Signed by over 220 academic scientists and policy experts with relevant expertise and published by the Communication Partnership for Science and the Sea. (http://www.compassonline.org/science/EBM_CMSP/EBMconsensus)

Tallis, H., S.E. Lester, M. Ruckelshaus, M. Plummer, K. McLeod, A. Guerry, and 17 others. *In press*. New metrics for managing and sustaining the ocean's bounty. *Marine Policy*.

UNEP (United Nations Environment Programme). 2006. Marine and coastal ecosystems and human wellbeing: A synthesis report based on the findings of the Millennium Ecosystem Assessment. UNEP, Nairobi, Kenya.

January 24, 2011

Chairwoman Nancy Sutley
Council on Environmental Quality
722 Jackson Place NW
Washington, DC 20506

Director John Holdren
Office of Science and Technology Policy
725 17th Street NW
Washington, DC 20502

Re: Recommendations for the Ecosystem-Based Management Strategic Action Plan

Dear Chairwoman Sutley and Director Holdren:

On behalf of the undersigned groups and the millions of members we represent, we thank you for your dedicated and thoughtful work as members of the Interagency Ocean Policy Task Force (Task Force). Our organizations believe that the July 19 Executive Order is nothing short of a sea change in how we as a nation protect and manage the national treasures that are our oceans. We are grateful to you for your tireless efforts to ensure the birth of this new national ocean policy. We look forward to working with you to achieve the vision of ocean stewardship that your final report and the executive order contain.

As such, we would like to offer our recommendations for inclusion in the Ecosystem-Based Management (EBM) Strategic Action Plan. Our comments address the need to define EBM and the components of ecosystem health using scientifically appropriate definitions, and urge the National Ocean Council (NOC) to advance EBM by establishing efforts to identify and protect important ecological areas and processes.

Explicitly state that ecosystem-based management is founded on the need to protect and restore ecosystems so that they can provide the services humans want and need.

We agree with you that EBM must be a "foundational principle for the comprehensive management of the ocean, our coasts, and the Great Lakes."[1] We also agree that it is essential that the NOC clarify the definition of EBM, as it guides the actions undertaken by the national ocean policy. The *Final Recommendations of the Interagency Ocean Policy Task Force* (*Final Recommendations*) note that "How ecosystem-based management will be defined and implemented would be further addressed by the NOC as it develops a strategic action plan for this priority objective."[2] We urge you to state in your strategic action plan that EBM is – at its core – about protecting, maintaining, and restoring the natural ecosystems and resources needed to provide the services humans want and need. In brief, without ensuring healthy, functioning, and resilient marine and estuarine ecosystems, we will be unable to meet the ocean needs of present and future generations.

[1] *Final Recommendations of the Interagency Ocean Policy Task Force*, p. 6.
[2] *Ibid*, p. C-III.

Our organizations strongly urge the NOC to adopt the definition of EBM found in the *Scientific Consensus Statement on Marine Ecosystem-Based Management* which was signed on to by more than 220 scientists and policy experts.[3] This definition was developed in response to two national commissions – the congressionally-established U.S. Commission on Ocean Policy and the independent Pew Oceans Commission of scientists and leaders from fisheries, business, and government – that described the pressing need for better ocean management and protection, identifying EBM as the necessary approach to address current and future challenges. The *Scientific Consensus Statement on Marine Ecosystem-Based Management* defines EBM as:

> "…an integrated approach to management that considers the entire ecosystem, including humans. *The goal of ecosystem-based management is to maintain an ecosystem in a healthy, productive and resilient condition so that it can provide the services humans want and need.* Ecosystem-based management differs from current approaches that usually focus on a single species, sector, activity or concern; it considers the cumulative impacts of different sectors. Specifically, ecosystem-based management: emphasizes the protection of ecosystem structure, functioning, and key processes; is place-based in focusing on a specific ecosystem and the range of activities affecting it; explicitly accounts for the interconnectedness within systems, recognizing the importance of interactions between many target species or key services and other non-target species; acknowledges interconnectedness among systems, such as between air, land and sea; and integrates ecological, social, economic, and institutional perspectives, recognizing their strong interdependences." *[Emphasis added.]*

While social and economic perspectives are necessarily incorporated, it is clear from this definition that the health of the ecosystem underlies achievement of the social and economic goals. The *Final Recommendations* recognizes this as well, noting that the services to humanity provided by the oceans are dependent upon healthy and resilient systems.[4]

Define marine ecosystem health.

Our groups recommend incorporating the following definition of marine and estuarine ecosystem health into the plan for EBM:

> Marine ecosystem health means the ability of an ecosystem in ocean and coastal waters to support and maintain patterns, important processes, and productive, sustainable, and resilient communities of organisms, having a species composition, diversity, and functional organization resulting from the natural habitat of the region, such that it is capable of supporting a variety of activities and providing a complete range of ecological benefits. Such an ecosystem would be characterized by a variety of factors, including –

[3] McLeod, K.L., J. Lubchenco, S.R. Palumbi, and A.A. Rosenberg. 2005. *Scientific Consensus Statement on Marine Ecosystem-Based Management*, http://compassonline.org/?q+EBM. Please note that additional information on EBM can be found in *The Sidney Consensus: Marine Ecosystem-based Management Principles*, http://pacmara.org/the-sidney-consensus. This document was developed at a recent Pacific Marine Analysis and Research Association workshop on EBM attended by scientists and representatives from government, tribes, industry, and non-profit organizations.

[4] *Final Recommendations of the Interagency Ocean Policy Task Force*, p. 11.

A. a complete diversity of native species and habitat wherein each native species is able to maintain an abundance, population structure, and distribution supporting its ecological and evolutionary functions, patterns, and processes; and

B. a physical, chemical, geological, and microbial environment that is necessary to achieve such diversity.[5]

Additionally, the strategic action plan should note that many of the national ocean policy principles outlined in the *Final Recommendations* are important to ensuring EBM, including the need to use the precautionary approach to account for uncertainty, the need to account for cumulative impacts, and the requirement to base decisions on the best available scientific knowledge.[6]

Advance ecosystem-based management by actively seeking to identify and protect important ecological areas and processes.

The EBM Strategic Action Plan should call for the development of regional ecosystem assessments, developed by the National Oceanic and Atmospheric Administration (NOAA) with expert scientific advice and in consultation with other federal and state agencies, as appropriate. These assessments should be specific enough to inform coastal and marine spatial planning activities and broad enough to identify conditions that could be addressed by other EBM actions for each ecological region. Additionally, firm quality criteria should be set for accepting datasets for analysis.[7]

Each ecological assessment should analyze existing data on ecological, environmental, and oceanographic conditions and should include:

- a description of the ecosystem's structure and composition, including the identification and characterization of species, habitats, and ecological processes that best represent the area;
- a comprehensive survey of species (including their populations, distributions, and seasonal variability) occupying each marine habitat;
- an analysis of the ecosystem's present health (including the status of habitats, species, and natural processes);
- identification and characterization of important ecological areas (IEAs)[8];
- identification of existing, emerging, and cumulative threats to ecosystem health, including vulnerabilities to human uses and environmental changes;
- a description of the important ecological attributes of the ecosystem (such as habitat diversity, quality, redundancy, and the health and distribution of keystone species, foundation species, and top predators), and identification of the conditions, including indicators and

[5] Definition taken from H.R. 3534, the Consolidated Land, Energy, and Aquatic Resources Act of 2010, Section 2 (8).

[6] *Final Recommendations of the Interagency Ocean Policy Task Force*, pp. 15-18.

[7] Strong criteria for data quality, collection, and management can be found in *The Nature Conservancy's Workshop Report on Best Practices for Marine Spatial Planning* (Beck et al. 2009).

[8] Our organizations were pleased to see stated in the *Final Recommendations* that "CMSP is intended to improve ecosystem health and services by planning human uses in concert with the conservation of important ecological areas, such as areas of high productivity and diversity; areas and key species that are critical to ecosystem function and resiliency; areas of spawning, breeding, and feeding; areas of rare or functionally vulnerable marine resources; and migratory corridors" (p. 44). One process for identifying and protecting IEAs can be found in Oceana's August 23, 2010 *Important Ecological Areas in the Ocean: A Comprehensive Ecosystem Protection Approach to the Spatial Management of Marine Resources*.

quantitative targets, that need to be maintained or restored to ensure the overall health of the ecosystem;
- a description of important ecological linkages between contiguous ecoregions (including ecoregions that may lie within other MSP planning regions)[9]; and
- identification of major data gaps and areas of uncertainty, and recommendations for opportunities to help fill those gaps.

A key part of achieving EBM will be the protection of the Important Ecological Areas (IEA) identified by the ecological assessments. Once IEAs are identified, the EBM Strategic Action Plan should call for protection of these special places, possibly through creation of a network of ocean heritage areas. This network should be developed with input from leading scientists and the public and could be established through appropriate legal mechanisms, including the National Marine Sanctuaries Act, the Magnuson-Stevens Act and the Antiquities Act. The network would serve to preserve unique and sensitive ocean habitats, such as the canyons and seamounts for the Atlantic seaboard, thus ensuring a representative sample of habitats, as well as unique areas, are protected from damaging activities. Establishing IEAs as marine reserves or as a network of reserves will help sustain ocean life and the recreational, cultural, and economic uses that depend on healthy marine resources.[10]

Articulate in the EBM Strategic Action Plan the key steps agencies will take to advance EBM.

The EBM Strategic Action Plan should also identify specific and measurable near-term, mid-term, and long-term actions, with appropriate milestones, performance measures, and outcomes that each agency will take to better integrate EBM into their decisions. For example, actions should be taken to:

- Integrate EBM into fishery management by (1) utilizing ecosystem approaches in the fishery stock assessment process, including explicit consideration of food web interactions; (2) ensuring that the setting of catch levels, including optimum yields, and bycatch minimization incorporates predator-prey relationships, food web interactions, community structure, variability and uncertainty associated with ecosystems, and other ecological factors; and (3) ensuring that a fisheries ecosystem plan (FEP) is developed for each marine ecosystem and that FEPs are meaningfully integrated into fishery management decisions, for example by minimizing adverse effects of fishing on essential fish habitat. Guidelines and technical guidance should be developed with respect to how to incorporate ecological considerations into catch level setting, bycatch minimization, and FEP development.

[9] One document that may be helpful in developing the assessment is the *North Central Coast Marine Protected Areas Monitoring Plan,* specifically the sections that discuss developing an ecosystems approach and assessing ecosystem conditions and trends; the document can be found at http://www.calost.org/North_Central.html. The document was developed by the California Ocean Science Trust with the California Department of Fish and Game and thorough consultation with stakeholders and scientists.

[10] More information about the value and design considerations of marine reserves can be found in the 2007 Partnership for Interdisciplinary Studies of Coastal Oceans report, *The Science of Marine Reserves*, http://www.piscoweb.org/outreach/pubs/reserves. Please note that marine reserves provide varying levels of protection, based on their design.

- Require the Department of Agriculture, the Environmental Protection Agency, and NOAA to coordinate their strategies for controlling pollution, protecting important natural habitat, and preventing overfishing so that fishery populations can be restored to health through a cohesive strategy that considers all of the various stressors species face.

- Ensure that coastal and marine spatial plans developed pursuant to the EO of July 19, 2010 explicitly incorporate EBM goals and performance measures.

We appreciate the opportunity to share these recommendations with you and welcome the chance to discuss them in more detail. Thank you for all of the effort you and your agencies have invested in this process. We look forward to continuing to work with you to improve the health of our ecologically and economically valuable oceans.

Sincerely,

Sarah Chasis
Director, Oceans Initiative
Natural Resources Defense Council

Beth Lowell
Federal Policy Director
Oceana

Roberta Elias
Senior Program Officer
World Wildlife Fund

William Chandler
Vice President for Government Affairs
Marine Conservation Biology Institute

Chris Lyons
Director of Government Relations
Restore America's Estuaries

Sean Cosgrove
Marine Campaign Director
Conservation Law Foundation

Phil Kline
Senior Ocean Campaigner
Greenpeace, USA

Federal Public Hearing
Aquaculture Act
Testimony

Use of Retired Platforms for Sustainable Fisheries/Aquaculture in the Gulf of Mexico

Comments by

Steve Kolian

EcoRigs

EcoRigs Non-Profit Corporation
6765 Corporate Boulevard Suite 1207
Baton Rouge, Louisiana 70809
225-910-0304
stevekolian@hotmail.com

April 22, 2010

Introduction

The Gulf of Mexico is home to 4,000 offshore oil and gas platforms. Thousands of structures have already been removed and most of the remaining platforms are scheduled for removal by 2025. They create one of the most prolific ecosystems on the planet were 10,000-30,000 adult fish and millions of invertebrates inhabit an area about half the size of a football field. The fish biomass at offshore platforms is ten times greater, per unit area, than the fish biomass at protected coral reef sanctuaries (Wilson et. al 2003).

Retired structures, if not removed, could be permanently plugged and used to create sustainable fishing[1] zones and fish sanctuaries. The sustainable fishing zones could employ a number of fisheries applications such as fish hatcheries, culture of marine invertebrates, harvest of ornamental fish, oyster depuration; algae farms; recreational fishing and diving; culture of pharmaceutically valuable organisms; and many more.

The retired structures could provide an economic second life to the coastal communities and employ 27,000 citizens (Kolian and Sammarco 2005 & 2006). Oil and gas platforms are one of the most effective artificial reefs in the world. Artificial reefs are expensive to build and install (Reef Ball 2006, Takafumi, 2003). They are exceptional artificial reefs because they are ten times larger and stronger than conventional artificial reefs (Reggio 1998, Kolian and Sammarco 2005).

More importantly, the pilings and transoms create a complex three dimensional profile that stretches through the entire water column from the sea floor through the splash zone. There's another segment, the deck, which extends 50 to 60 feet above the surface. Most artificial reefs only occupy 10% to 40% of the water column. At offshore platforms, shallow water fish, mid water fish and deep water fish can all be found at the same place.

Sustainable Fishing Zones and Fish Sanctuaries

[1] NOAA's definition of aquaculture encompasses a wide range of activities, in this text, the definition of sustainable fisheries is synonymous to aquaculture in that sustainable includes activities such as stock and habitat enhancement, culture of pharmaceutically valuable organisms, sustainable fishing programs for recreational fishermen, etc.

It is important that all stakeholders are able to utilize sustainable fisheries/aquaculture policy. Federal policy should insure that all user groups participate, including commercial and recreational fishermen, recreational divers, environmental non-governmental agencies (NGOs), marine scientists, fish processors and marine aquaculturists.

Platforms could be used for both sustainable fisheries and fish sanctuaries. In summary, the plan would utilize retired platforms (20 for example) to build a sustainable fishery zone to be used by recreational and commercial fishermen, spear fishermen, marine aquaculture, fish processors and fisheries managers.

Secondly, use platforms to build an equally large (20) marine sanctuary that could be used by environmental NGOs, marine scientist, recreational divers and environmental tourist. There are enough platforms for all stakeholder groups, presently, there are over 750 platforms idle and awaiting removal (see Figure 2). The idea is to build a fish sanctuary to create an ecological balance. In one area the fish are harvested and the other area, the fish are produced.

Sustainable fisheries

The decommissioned structures could be used as artificial reefs or left standing to provide a number of services. The scene presented in Figure 3 depicts the utilization of standing platforms for fish hatcheries and nutrition, power, maintenance and supplies, fish unloading and transport to shore, and invertebrate culture. Crab, lobster, scallops, sponge and other cryptic and attaching invertebrates could be raised on the submerged structures. Oyster depuration, fish hatcheries and stock enhancement, culture of ornamental fish are among a few of the potential sustainable fishing applications (Kolian and Sammarco 2005).

Marine Sanctuaries

Marine Sanctuaries can be designed to provide a refuge for exploited species and improve ecosystem health by protecting biodiversity and habitats. The benefits to be derived from a sanctuary are made possible by two key bio-physical processes: 'spillover'—the export of adults and juveniles of target species to the fishery and 'larval export'. the distribution of the target species into settlement areas, from where they will eventually recruit into the fishery. The third key benefit that we expect to be derived from fisheries sanctuaries is 'enhanced fisheries stability'. Sanctuaries provide the basis for a more precautionary and 'bet-hedging' management strategy for fisheries, and this would reduce variability associated with the interaction of fishing and environmental dynamics (Ward et al., 2001).

Existing Platforms

Currently, there are 3,959 fixed oil and gas platforms in the Gulf of Mexico. Most offshore petroleum wells are productive for 15 years (Pulsipher et. al. 2001). Due to the depletion of petroleum fields, by 2025, the Gulf of Mexico will lose the majority of the structures in water depths less than 600 feet. There is an estimated 4,465 acres of coral reef habitat currently existing in the Gulf of Mexico attached to the oil and gas platforms. The total volume of the underwater portion of the existing platforms is 127,712,369m^3. Today's cost to replace an equivalent number of artificial reefs at \$140/m^3 each is \$17.9 billion (see Figure 1).

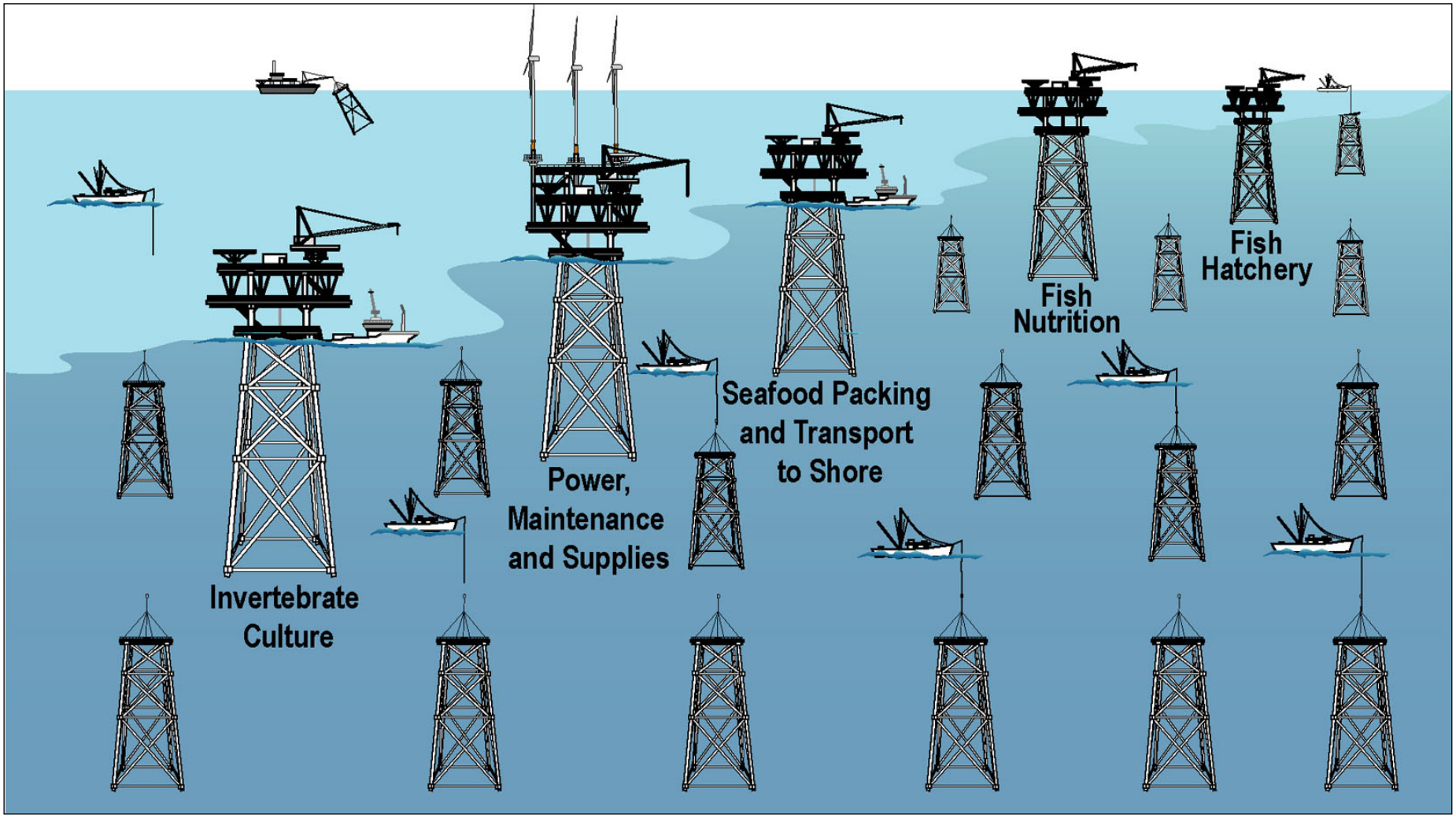


Figure 3. The sustainable fisheries zone is a plan to incorporate the scores of offshore platforms scheduled to be removed (744 idle platforms) into a large sustainable fisheries system that can be utilized by commercial and recreational fishermen.

Platforms Removed

The platform owners, following federal platform removal regulations, have, to date, removed 1,736 fixed platforms (see Figure 3) resulting in the destruction of an estimated 2,098 acres of coral reef habitat. The total volume of the underwater portion of the platforms already removed is 52,398,731m^3 and it is unknown how many federally protected species were lost in the removals.

Idle Platforms Currently Scheduled for Removal

Currently, 744 offshore platforms are idle and no longer in production and are awaiting removal (see Figure 2). These platforms contain an estimated 890 acres of coral reef habitat. The total volume of the underwater portion of the platforms scheduled for removal is 24,401,169m^3. Today's cost to replace an equivalent number of artificial reefs at \$140/m^3 each is \$3.4 billion.

Marine Organisms Presently Inhabiting Offshore Platforms

The long-term, unexpected, effect of oil and gas production has been to create habitat for federally managed marine species, such as:

- Loggerhead, hawksbilland green sea turtles;
- Scleractinian corals, gorgonians, black coral, sponges and hydrozoans, etc.;
- Snapper, grouper, jacks, etc.;
- Crustaceans such as lobsters, stone crabs, etc.

Please go to www.ecorigs.org to view photography of the marine life inhabiting the offshore oil and gas platforms.

Economic Significance of Offshore Oil and Gas Infrastructure

The platforms are used extensively by fisherman and divers, and they currently generate \$324 million annually in economic impact and create 5,560 full-time jobs in the marine sport fishing and diving industries (Hiett and Milon 2002). If the retired platforms were properly managed to

maximize their potential for sustainable fisheries, the new industry could directly employ 27,000 citizens in our coastal communities (Kolian and Sammarco 2006).

Two independent socio-economic studies on the impact of artificial reefs in Florida and a third in Mississippi indicate the substantial economic impact that artificial reef programs can have on coastal communities.

Table 1. Summary of the socio-economic impact (revenue and employment) from the introduction of artificial reef programs in Gulf of Mexico.

Area	Annual Economic Impact	Job Creation	Source
Southeast Florida	$2.4 billion	26,800	Johns et al., 2001
Northwest Florida	$415 million	8,100	Bell et al., 1998
Mississippi	$78 million	No data	Southwick 1998
Offshore platforms	$324 million	5,560	Hiett and Milon 2002

The 3,959 offshore oil and gas platforms across the northern Gulf of Mexico represent $17.9 billion worth of highly productive artificial reefs in the form of oil and gas platforms. They constitute the largest collection of artificial reefs in the world; however, the majority of them will be destroyed in the next 10-15 years.

Other Recommendations and Observations

1. Regionalize Louisiana Aquaculture Management Plan

Currently, the federal government (Gulf Council) manages the commercial and recreational finfish communities in the Gulf of Mexico as a single geographical unit. We recommend that the Federal aquaculture managers tailor management for Louisiana individually and not manage the same way as it would for other sister states such as Florida.

The cultural and ecological differences and the industries they support, between Florida and Louisiana are numerous and profound. We recommend that the federal aquaculture management plans be developed separately for Louisiana for the reasons described below:

The estuarine and offshore fish populations of Louisiana are significantly greater than its sister Gulf of Mexico states. The coast and continental shelf off of Louisiana possesses 90% of the

fish in the U.S. Gulf of Mexico (GLOBEC 2000). The Louisiana continental shelf is home to 3,600 oil and gas platforms in a region known as the “fertile crescent”. The populations of fish are up to two orders of magnitude greater in number per unit area offshore of Louisiana than off of our neighboring states (Darnell et al. 1983).

Because of this disparity in populations and thus potential yield, it is very difficult to construct and calibrate a single fisheries model to manage Florida and Louisiana. Louisiana’s soils, nutrient levels, highly angular coastline, extensive deltaic coastal wetlands and fresh water discharge to the Gulf of Mexico create vastly different ecological conditions to those associated with other Gulf states.

The tremendous levels of nutrients discharged into Louisiana’s coastal waters promote an extraordinarily high amount of marine phytoplankton growth, which in turn, supports secondary production, including menhaden. The Louisiana menhaden harvest is magnitudes greater than any other Gulf state. No other Gulf state possesses a similar river system with any level of comparability.

Independent management of Louisiana fisheries in federal waters will be critically important in our effort to preserve and restore the Louisiana coast. Freshwater diversion projects will change the salinity regime in our estuarine systems. Salinity reduction will affect populations of shrimp, oysters, blue crab and menhaden and displace commercial fishermen. The effort to rebuild and stabilize our coastline will create an uncertain future for commercial fishing in state waters. Louisiana fishermen will need to look to federal waters to compensate for the loss of fishing grounds in state waters.

Louisiana is also unique in that it has over $17 billion worth of artificial reefs in the form of oil and gas platforms. There are 3,600 platforms in federal waters and 2,000 in state waters. There are far more platforms than commercial fishing vessels. The use of retired platforms for sustainable fisheries could supplement the income of Louisiana commercial fishermen. They are uniquely positioned to evolve into an agrarian fishery. This change will be extremely difficult, however, if the management of aquaculture and sustainable fisheries is not regionalized.

2. No Competition Between Commercial Fishermen and Sustainable Fishermen

Conflicts between the commercial fishermen and the marine aquaculture industry occur when aquaculture products drive down the price of commercially harvested seafood products. Sustainable fisheries offshore of Louisiana would only compete with a very small percentage (<5%) of the existing commercial harvest. The seafood products harvested by commercial fishermen in Louisiana are composed (91%) of the four basic species: shrimp, crab, oysters and menhaden (NOAA 2009). The shrimp, crab, oyster and menhaden fisheries produce $250 million annually and 91% of the total value of landings on the docks of fish packers in Louisiana (NOAA 2009). Commercial fisheries create $2.8 billion annually in economic benefits to the Louisiana economy (Southwick 1997).

Shrimp, crab, oysters and menhaden would not be harvested at offshore sustainable fish zones. The sustainable fishery organisms include algae, sponge, live rock, ornamental fish, food fish and organisms raised for their pharmacological properties. However, sustainable fishing zones could provide income to Louisiana fishermen by purchasing menhaden and shrimp trawl by-catch to feed fish in the sustainable fisheries aquaculture zone.

In addition, research has shown that populations of V. vulnifi cus in oysters can be significantly reduced by running (relaying) them to an offshore platform and suspending them in deep water for certain periods of time (Motes and DePaola 1996). Exposure of the oysters to cooler waters beneath the thermocline (>50 feet depth) that are naturally free of this bacterium allow the oysters to purge themselves over a 16-day period (Supan 2004). Oysters could be effectively relayed by containers (Supan 1991; Supan and Cake 1989), a method already approved by the National Shellfish Sanitation Program (NSSP) (NSSP 2003).

Conflicts sometimes occur when commercial fishermen and aquaculture ventures compete for the same territory. Sustainable fishery systems require deep water (greater than 100 ft) and will operate far from shore in federal waters, offshore of traditional shrimp, blue crab, oyster and menhaden fishing grounds (less than 60 ft). In contrast to other Gulf States that have two or three times as many federally licensed vessels, Louisiana only has 1,000 commercial vessels licensed to fish in federal waters. There are about 2,300 vessels licensed exclusively for state waters. There will be some displacement of fishing grounds in our effort to restore our coastline, and it could alleviate coastal user conflicts if these fishermen could fish/farm in Louisiana federal waters.

3. Use of Wild Fish to Feed Fish

There is concern that with the expansion of sustainable fisheries, increasing amounts of baitfish will be caught for use in feeds. The net result, some people argue, is that we will not be producing more protein by farming, but in fact less, due to the need to harvest more wild fish for fishmeal (Grace, 2004). These concerns are warranted in coastal areas in Florida and other parts of the nation where coastal watersheds and estuaries have been compromised by seaside high-rises and beach front retirement communities. The case is different in Louisiana. Despite the tremendous coastal loss of land, the marsh edge is still intact. The ocean/coast interface remains jagged and uninhabitable and is still providing nursery habitat even though the land is lost to the sea.

One undeniable aspect of the Louisiana sustainable fisheries picture is the abundance of wild menhaden stocks from which one billion pounds (NOAA 2009) are landed in-state. The majority of these fishes go into the raw product stream which generates the largest quantity of dry fishmeal in the country. The sustainability of the menhaden populations in the Gulf of Mexico is closely monitored by both government and industry. The harvest pressure on Gulf of Mexico menhaden is regulated to maintain a relatively consistent yield in recent history (NOAA 2009).

In turn, this Louisiana-produced fishmeal is marketed globally, at considerable transport cost. The menhaden fishmeal finds its way into nearly all of the world's aquaculture fish species at cost which are found to be economically feasible. However, it is accepted that the fishmeal component of prepared fish food is the most costly and essential ingredient in the diet. If one is to consider the individual overhead cost to the menhaden processor for rendering each pound of fishmeal from the initial raw product, the two items of transport (seaside and land) and fuel (for the dehydrating of the whole fish), would emerge as primary costs. Therefore, utilizing wild caught fish to feed fish in sustainable fishing zones in Louisiana would make sense where as it would not in Florida or other places around the country.

Many fish and crabs (by-catch) are caught in the pursuit of shrimp and these organisms usually do not survive the stress of capture and are discarded back dead into the water. Chesney (2000) estimated that the total discard dead by-catch produced by Louisiana shrimpers in 1996 totaled 82,500,000 kg (181,912,500 lbs); and Adkins (1993) estimated that the total for 1993 was 108,600,000 kg (239,463,000 lbs).

The amount of fish thrown away every year is greater than the total harvest of any other State in the Gulf of Mexico. As an alternative to discarding dead by-catch produce, ground fishermen could potentially unload the catch at offshore sustainable fisheries zones. The trawlers could sort and essentially keep everything deemed appropriate for human consumption; these goods could then be sent to the market, while the remains may be utilized as feed for fish in the sustainable fisheries zone. In other words, no by-catch, means nothing is wasted.

Conclusion

These recommendations will allow Louisiana to utilize her resources, move forward with sustainable fisheries initiatives, and avoid potential political problems associated with the preferences of its sister Gulf States. We hereby, strongly request that NOAA adopt the enclosed recommendations. Please go to www.ecorigs.org to learn about platform biological communities and alternate uses of retired platforms.

References

Bell, F.W., M.A. Bonn, and V.R. Leeworthy 1998. Economic impact and importance of artificial reefs in northwest Florida. Office of Fisheries Management and Assistance Service, Florida Department of Environmental Administration, Report, Contract Number MR-235.

Darnell,R.E., Defenbaugh, R.E., and Moore, D. 1983. Northwestern Gulf shelf bio-atlas; a study of the distribution of demersal fishes andpenaeid shrimp of soft bottoms of the continental shelf from the Rio Grande to the Mississippi River Delta. Open File Report No. 82-04. Meterie, LA: Minerals Management Service, Gulf of Mexico OCS Regional Office.

GLOBEC. 2000. GLOBEC in the Gulf of Mexico: Large rivers and marine populations. Report of a US GLOBEC Workshop, January 13-15, 1999. LUMCON Report 19, January 2000.

Grace Mariculture Project. 2004. Hubb's Sea World Grace Mariculture Project. www.gracemariculturepro ject.org/, Dec. 2004.

Hiett, R. L. and J. W. Milon. 2002. Economic Impact of Recreational Fishing and Diving Associated with Offshore Oil and Gas Structures in the Gulf of Mexico: Final Report . OCS Study MMS 2002-010 . U.S. Dept. of the Interior, Minerals Management Service, Gulf of Mexico OCS Region, New Orleans, LA. 98 pp.

James Spurgeon (1999). The Socio-Economic Costs and Benefits of Coastal Habitat Rehabilitation and Creation. Marine Pollution Bulletin, Volume 37, Issues 8-12, December 1999, Pages 373-382.

Johns, G., V. Leeworthy, F. Bell, and M. Bonn. 2001. Socioeconomic study of reefs in southeast Florida: Final report, Oct. 19, 2001, for Broward County, Palm Beach County, Miami-Dade County, and Monroe County. Florida Dept. Fish and Wildlife Conservation Commission, National Oceanic and Atmospheric Administration, Wash., D.C.; Hazen and Sawyer (editors), Hollywood, FL, in assn. w. FL State University and NOAA, 2001.

Keenan, S.F. and M.C. Benfield. 2003. Importance of zooplankton in the diets of Blue Runner (*Caranx crysos*) near offshore petroleum platforms in the Northern Gulf of Mexico. Prepared by the Coastal Fisheries Institute, Louisiana State University. U.S. Dept. of the Interior, Minerals Management Service, Gulf of Mexico OCS Region, New Orleans, LA. OCS Study MMS 2003-029. 129 pp.

Kolian, S. and P.W. Sammarco. 2005. Mariculture and Other Uses for Offshore Oil and Gas Platforms: Rationale for Retaining Infrastructure. Technical Report, Eco-Rigs of Eco-Endurance Center, Baton Rouge, LA.

Kolian, S. and P.W. Sammarco. 2006. Job Creation and Marine Aquaculture. Technical Report No. 2, Eco-Rigs of Eco-Endurance Center, Baton Rouge, LA. Web address: http://www.ecorigs.org/JobCreationEcoRigsWebsite_6_1_06.pdf

MMS 2009, Minerals Management Service (MMS) 2009. Gulf of Mexico OCS Region. Platform/Rig Information and Data. Data Last Accessed: November 2009. http://www.gomr.mms.gov/homepg/pubinfo/freeasci/platform/freeplat.html

Motes, M.L. and A. DePaola. 1996. Offshore suspension relaying to reduce levels of Vibrio vulnificus in oysters (Crassostrea virginica). Appl. Envtl. Microbiol. 62: 3875-3877.

National Shellfi sh Sanitation Program (NSSP). 2003. Updated NSSP Guide for the Control of Molluscan Shellfish, Model Ordinance Section II, Chapter 4 and Guidance Documents. See www.issc.org/On-Line_docs/onlinedocs.htm.

NOAA Fisheries Office of Science and Technology (2010) Website "Personal communication from the National Marine Fisheries Service, Fisheries Statistics Division, Silver Spring, MD" http://www.st.nmfs.gov/st1/index.html

Pulsipher, A.G., O.O. Iledare, D.V. Mesyanzhinov, A. Dupont, and Q.L. Zhu. 2001. Forecasting the number of offshore platforms on the Gulf of Mexico OCS to the year 2023. Prepared by the center for Energy Studies, Louisiana State University, Baton Rouge, LA. OCS Study MMS 2001-013. U.S. Department of Interior, Minerals Management Service, Gulf of Mexico OCS Region, New Orleans, LA. 52 pp.

Reef Ball Foundation (RB) 2008. Website: Last Accessed, 12/5/08. http://www.reefball.org/index.html.

Reggio, V.C., comp. 1989 Petroleum structures as artificial reefs: a compendium. Fourth International Conference on Artificial Habitats for Fisheries, Rigs to Reefs Special Session, November 4, 1987, Miami, Fla. OCS Study/MMS 89-0021

Southwick Assocs. 1998. Statewide economic contributions from diving and recreational fishing activities on Mississippi's artificial reefs. Southwick Assocs., Fernando Beach, FL, 42 pp.

Southwick, R. 1997. The economic benefits of fisheries, wildlife and boating resources in the State of Louisiana. Louisiana Department of Wildlife and Fisheries, Baton Rouge, LA, (internal report).

Stanley, D., Wilson, C. 2000. Variation in the density and species composition of fishes associated with three petroleum platforms using dual beam hydroacoustics. Fisheries Research 47 (2000) 161-172.

Supan, J. 1991. Container relaying: An alternative to depuration and relaying. In, W.S. Otwell, G.E. Rodrick, and R.E. Martin (eds), Molluscan Shellfish Depuration, CRC Press, Boca Raton, FL, pp. 205-215.

Supan, J.E. and E.W. Cake, Jr. 1982. Containerized-relaying of polluted oysters (*Crassostrea virginica* Gmelin) in Mississippi Sound using suspension, rack, and onbottom- longline techniques. J. Shellfish Res. 2: 141-151.

Takafumi, N. 2003 Per.comm. size and cost of Japanese artificial reefs in the Artificial Fish Reef Project Kyoei Sangyo Ltd Matsuoka, Taira *vulnificus* in oysters (*Crassostrea virginica*). Appl. Envtl. Microbiol. 62: 3875-3877.

Ward T. J., D. Heinemann and N. Evans (2001) The Role of Marine Reserves as Fisheries Management Tools: a review of concepts, evidence and international experience. Bureau of Rural Sciences, Canberra, Australia. 192pp.

Wilson, C.A., A. Pierce, and M.W. Miller. 2003. Rigs and Reefs: a Comparison of the Fish Communities at Two Artificial Reefs, a Production Platform, and a Natural Reef in the Northern Gulf of Mexico. Prepared by the Coastal Fisheries Institute, School of the Coast and Environment. Louisiana State University. U.S. Dept. of the Interior, Minerals Mgmt. Service, Gulf of Mexico OCS Region, New Orleans, LA. OCS Study MMS 2003-009. 95 pp.

SEC. 19. AUTHORITY TO USE DECOMMISSIONED OFFSHORE OIL AND GAS PLATFORMS AND OTHER FACILITIES FOR ARTIFICIAL REEF, SCIENTIFIC RESEARCH, OR OTHER USES.

(a) SHORT TITLE.—This section may be cited as the ''Rigs to Reefs Act of 2006''.

(b) IN GENERAL.—The Outer Continental Shelf Lands Act (43 U.S.C. 1301 et seq.) is amended by inserting after section 9 the following:

''SEC. 10. USE OF DECOMMISSIONED OFFSHORE OIL AND GAS PLATFORMS AND OTHER FACILITIES FOR ARTIFICIAL REEF, SCIENTIFIC RESEARCH, OR OTHER USES.

''(a) IN GENERAL.—The Secretary shall issue regulations under which the Secretary may authorize use of an offshore oil and gas platform or other facility that is decommissioned from service for oil and gas purposes for an artificial reef, scientific research, or any other use authorized under section 8(p) or any other applicable Federal law.

''(b) TRANSFER REQUIREMENTS.—The Secretary shall not allow the transfer of a decommissioned offshore oil and gas platform or other facility to another person unless the Secretary is satisfied that the transferee is sufficiently bonded, endowed, or otherwise financially able to fulfill its obligations, including but not limited to—

''(1) ongoing maintenance of the platform or other facility;

''(2) any liability obligations that might arise;

''(3) removal of the platform or other facility if determined necessary by the Secretary; and

''(4) any other requirements and obligations that the Secretary may deem appropriate by regulation.

''(c) PLUGGING AND ABANDONMENT.—The Secretary shall ensure that plugging and abandonment of wells is accomplished at an appropriate time.

''(d) POTENTIAL TO PETITION TO OPT-OUT OF REGULATIONS.—An Adjacent State acting through a resolution of its legislature, with concurrence of its Governor, may preliminarily petition to opt-out of the application of regulations promulgated under this section to platforms and other facilities located in the area of its Adjacent Zone within 12 miles of the coastline. Upon receipt of the preliminary petition, the Secretary shall complete an environmental assessment that documents the anticipated environmental effects of approving the petition. The Secretary shall provide the environmental assessment to the State, which then has the choice of no action or confirming its petition by further action of its legislature, with the concurrence of its Governor. The Secretary is authorized to

except such area from the application of such regulations, and shall approve any confirmed petition.

''(e) LIMITATION ON LIABILITY.—A person that had used an offshore oil and gas platform or other facility for oil and gas purposes and that no longer has any ownership or control of the platform or other facility shall not be liable under Federal law for any costs or damages arising from such platform or other facility after the date the platform or other facility is used for any purpose under subsection (a), unless such costs or damages arise from—

''(1) use of the platform or other facility by the person for development or production of oil or gas; or

''(2) another act or omission of the person.

''(f) OTHER LEASING AND USE NOT AFFECTED.—This section, and the use of any offshore oil and gas platform or other facility for any purpose under subsection (a), shall not affect—

''(1) the authority of the Secretary to lease any area under this Act; or

''(2) any activity otherwise authorized under this Act.''.

(c) DEADLINE FOR REGULATIONS.—The Secretary of the Interior shall issue regulations under subsection (b)

by not later than 180 days after the date of the enactment of this Act.

(d) STUDY AND REPORT ON EFFECTS OF REMOVAL OF PLATFORMS.—Not later than one year after the date of enactment of this Act, the Secretary of the Interior, in consultation with other Federal agencies as the Secretary deems advisable, shall study and report to the Congress regarding how the removal of offshore oil and gas platforms and other facilities from the outer Continental Shelf would affect existing fish stocks and coral populations.

SEC. 20. REPEAL OF REQUIREMENT TO CONDUCT COMPREHENSIVE INVENTORY OF OCS OIL AND NATURAL GAS RESOURCES.

The Energy Policy Act of 2005 (Public Law 109–58) is amended—

(1) by repealing section 357 (119 Stat. 720; 42 U.S.C. 15912); and

(2) in the table of contents in section 1(b), by striking the item relating to such section 357.

SEC. 21. MINING AND PETROLEUM SCHOOLS.

(a) MAINTENANCE AND RESTORATION OF EXISTING AND HISTORIC PETROLEUM AND MINING ENGINEERING PROGRAMS.—Public Law 98–409 (30 U.S.C. 1221 et seq.) is amended to read as follows:

Index:

Attachments to Comments

And Letters Received

Pertaining to Ecosystem-Based Management and Other Strategic Action Plans

April 29, 2011

Ms. Nancy Sutley, Council Chair
National Ocean Council
White House Council on Environmental Quality

Dear Chair Sutley,

On behalf of the Northeast Regional Ocean Council (NROC), the Northeast Regional Association of Coastal and Ocean Observation Systems (NERACOOS), and the Gulf of Maine Council on the Marine Environment (GOMC), we are pleased to provide comments on the National Ocean Council Strategic Action Plans. We applaud the Council for their work to forward the development of Strategic Action Plans for the nine priority objectives, following the guidance provided by the Interagency Ocean Policy Task Force in the July 2010 document *Final Recommendations of the Interagency Ocean Policy Task Force*.

Woven through our comments on the priorities and actions is a need to address clarity and understanding of issues. This includes support for the collection of data for scientists, development of tools for decision makers, and the need to engage stakeholders. An improved understanding of our appropriate management, science or engagement roles in advancing these priorities and actions will greatly enhance our ability to succeed.

NROC, NERACOOS, and GOMC members are available to provide additional information based on our state and regional experiences and expertise.

Respectfully,

Ted Diers, State Chair
Northeast Regional Ocean Council

J. Ru. Morrison, Ph.D., Executive Director
Northeast Regional Association of Coastal & Ocean Observing Systems

Kathleen Leyden, Chair
Gulf of Maine Council of the Marine Environment

The following are combined comments from the Northeast Regional Council on the Ocean (NROC), Northeast Regional Association of Coastal and Ocean Observation Systems (NERACOOS), and Gulf of Maine Council (GOMC) on the National Ocean Council's Strategic Action Plans.

Issue Area - Ecosystem-Based Management

Objective: Adopt ecosystem-based management as a foundational principle for the comprehensive management of the ocean, our coasts, and the Great Lakes.

Actions that would most effectively help the Nation achieve this national priority objectives associated with this issue area:

- Near-term:
    - Identify and engage the right social and natural scientists to uncover the most relevant data and latest thinking about ecosystem services science and resilience science
    - Develop an assessment of social science data gaps and needs – in addition to economics
- Mid-term:
    - Create a suite of decision-support tools for State managers to assess trade-offs and cumulative impacts
    - Provide tools to visualize user conflict scenarios – such as, tools with a gaming interface
    - Develop a suite of ecosystem indicators that can be used in a variety of planning contexts (current work of NCEAS working group, OHI, CI and others)
- Long-term:
    - Use resilience science as a conceptual framework for management and governance approaches
    - Develop evaluative tools to improve messaging of policy and management goals (i.e. how does audience hear the information given and what do they do with it once they hear it, etc)
    - Improve connection between regional partnerships and indicator and monitoring programs, to enable indicator measurement of ecosystem health (social and natural) at various scales

Major obstacles to achieving this objective **and opportunities** this objective can further, including transformative changes in how we address the stewardship of the oceans, coasts, and Great Lakes:

- Obstacles:
    - Complexity of EBM will hamper stakeholders' capabilities to understand approach in concept and apply the approach to their management strategies
    - Lack of social science on stakeholder perceptions, attitudes and behavior – beyond economics (e.g. psychology, sociology, communication, etc).
- Opportunities:

- Jane Lubchenco's recent lecture at Clark University and small-group discussions centered around the dire need to engage social scientists, perhaps starting with a relationship between NOAA and Clark
- Marine InVest as a tool to analyze trade-offs
- The extent to which regional governance partnerships can engage fisheries managers in discussions could lead to more integration and perhaps in the long-term additional policy measures toward resilient fisheries.

Milestones and performance measures that would be useful for measuring progress toward achieving this priority objective:

Milestones	**Performance measures**
All New England States are integrating EBM components into their management strategies and policy directives	This could include many different aspects of EBM or a select few – perhaps the region needs to decide whether there are particular aspects about the EBM approach that are of higher priority than others for States to embrace
The Regional partnership has strong relationships with key social scientists that cover a variety of disciplines	# of social scientists engaged in regional meetings
Regional CMSP plans are adaptive	Performance indicators written into the Plan and discussed in the planning process

Issue Area - Inform Decisions and Improve Understanding

Objective: Increase knowledge to continually inform and improve management and policy decisions and the capacity to respond to change and challenges. Better educate the public through formal and informal programs about the ocean, our coasts, and the Great Lakes.

Actions that would most effectively help the Nation achieve this national priority objectives associated with this issue area:

- Near-term:
  - Develop a nationally consistent framework to capture regional priority issues and information needs through engaging with the Regional Ocean Partnerships such as NROC.
  - Use the annual regional gap analysis that each IOOS region is required to perform as part of the ICOOS Act (2009) as a basis for identifying additional information capacity needed. This regional process, based on the input from the variety of regional

scientific and technical experts, managers, and other users would provide the detail needed to ensure that the national plan(s) addresses the scale and diversity of the nation's ecosystems.
    - Continue the development of a National Information Management System that ensures that diverse types and sources of information can be effectively and efficiently brought together. This needs to include geospatial, historical and real-time information and build on national efforts to develop standards. Regional scale implementation of information systems is the appropriate scale for connection to a number of management needs.
- Mid-term:
    - Empower regional educational collaboration through such organizations as the Northeast Ocean Sciences Education Collaborative (www.neosec.org).
    - Adopt the Ocean Literacy Principles to provide a consistent framework for engaging the public in the importance of the oceans.
    - Use distance learning techniques to bring the oceans to the country's interior and underserved populations.
- Long-term:
    - Provide sufficient funds to allow collection and delivery of regional scale ocean information to address priority needs.

Major obstacles to achieving this objective **and opportunities** this objective can further, including transformative changes in how we address the stewardship of the oceans, coasts, and Great Lakes:

- Obstacles:
    - Lack of communication and cooperation between and within agencies.
    - Lack of sufficient investment at appropriate scale to indentify and fill information gaps.
    - Fragmentation of efforts to provide ocean and coastal information and inform the public on the importance of the oceans
- Opportunities:
    - Regional Ocean Partnerships provide a unique opportunity to identify information needs and the necessary communication between interested parties to fulfill these needs.

Milestones and performance measures that would be useful for measuring progress toward achieving this priority objective:

Milestones	**Performance measures**
Nationally consistent synthesis of regional scale information needs assessments	Gaps analysis by IOOS regional associations
Regional Observing Systems operating a specified base capacity	50% of regional information needs delivered

Issue Area - Resiliency and Adaptation to Climate Change and Ocean Acidification

Objective: Strengthen resiliency of coastal communities and marine and Great Lakes environments and their abilities to adapt to climate change impacts and ocean acidification.

Actions that would most effectively help the Nation achieve this national priority objectives associated with this issue area:

- Near-term:
    - Follow the recommendations of the Ocean Acidification Strategy of the National Research Council and the ORRAP Ocean Acidification Task Force regarding research and monitoring needs. The council should develop a schedule for implementation of their recommendations.
    - Where possible existing observing assets operated by the IOOS Regional Associations should be used to deploy additional pH/pCO2 sensors across a representative diversity of coastal and estuarine locations, especially in areas of marine resource vulnerability (e.g., coral reefs, shellfish beds, etc.). This should build upon efforts such as those of NOAA's Pacific Marine Environmental Laboratory and regional ocean acidification plans.
    - Compile information at the scale not larger than a state to identify the known changes resulting from climate changes as a means to educate the public and decrease the number of skeptics.
- Mid-term:
    - Refine regional and subregional forecasts for key climate change parameters such as precipitation, sea level rise, and temperature for the use of use of different forecasts by states creates confusion for planners at all levels of government. Develop a standardized methodology for surge forecasting. In the Northeast, the U.S. Army Corps of Engineers should update the tidal flood profiles.
    - NOAA/USGS should continue to provide states with data and products to hindcast and forecast rates of shoreline change (e.g., 5-year interval for generation of new mean high water shorelines).
    - Develop more accurate models for flooding from storm surge.
    - Continue to develop federal assessments of coastal vulnerabilities for all regions of the nation (e.g., the U.S. DOT transportation assessments) to identify storm and inundation vulnerabilities that are critical to regional economies.
    - Conduct of investigations to identify offshore sand reservoirs that can be used for beach nourishment.
    - Provide technical and data support for each state to identify priorities that are vulnerable sea level rise/coastal storms and identify those that are regional priorities.
    - Provide adequate funding to the U.S. Army Corps of Engineers to support the survey of coastal erosion and flood control structures. NOAA/US Corps of Engineers/USGS develop models to identify how the level of protection changes with sea level rise.
- Long-term:

- Provide adequate levels of funding to allow the IOOS regional associations to implement coastal hazard observing priorities.
- Support each state in the formulation of a state adaptation plan.

Major obstacles to achieving this objective:

- Obstacles:
  - Federal and state governments support post disaster response and planning but not pre-disaster planning that is need for adaptation planning.
  - New England is a home rule region but adaptation planning requires all levels of government to work together.
  - Adaptation planning requires the conduct of expensive coastal process studies to evaluate the potential impact of potential flood and erosion control solutions.

Milestones and performance measures that would be useful for measuring progress toward achieving this priority objective:

Milestones	**Performance measures**
Data, tools and observations	# of data, tools and observations developed/implemented
	# of state fact sheets about climate changes
	# of ocean acidification recommendations implemented
Vulnerability Assessments	# of state assessments
Adaptation Plans	# of state plans
	# of regional plans
	# FEMA certified communities

Issue Area: Water Quality and Sustainable Practices on Land

Objective: Enhance water quality in the ocean, along our coasts, and in the Great Lakes by promoting and implementing sustainable practices on land.

Actions that would most effectively help the Nation achieve this national priority objectives associated with this issue area:

- Near-term:
  - Reduce of NOx gases in the atmosphere which contribute to eutrophication of estuaries, embayments and near shore waters.
  - Fund stormwater retrofits of outdated systems in coastal areas. Increase funding for CWA Section 319 and CZARA 6217 funding for state programs.
  - Develop and provide consistent funding for integrated coastal monitoring networks in near shore waters under the frameworks of the National Water Quality

Monitoring Council and the Integrated Ocean Observing System that focus on locally important issues.

- Mid-term:
  - Improve outreach and education about sustainable land use practices via national campaigns.
  - Strengthen state Coastal Zone Management Act programs' ability to work on watershed-wide water quality issues.
- Long-term:
  - Align federal policy and funding to focus on sustainable development practices, limiting sprawl and decreasing the impacts of transportation-related pollution.
  - Develop more cost effective water quality treatment processes, especially focused on distributed, low-maintenance systems

Major obstacles to achieving this objective **and opportunities** this objective can further, including transformative changes in how we address the stewardship of the oceans, coasts, and Great Lakes:

- Obstacles:
  - Decreased funding for addressing non-point source related pollution, both CZMA Section 6217 and CWA Section 319 have been reduced.
  - Public perceptions about the importance of water quality given competing social and economic problems.
- Opportunities:
  - Ability to build on existing programs such as EPA's work on nutrient pollution, MS4 permits and other NPDES activities
  - Trend towards increased coordination on data sharing and management at all levels of government and academia.

Milestones and performance measures that would be useful for measuring progress toward achieving this priority objective:

Milestones	**Performance measures**
Decreased eutrophication in estuaries, embayments and near shore waters.	Impaired waters
	BMPs installed
Public is aware of importance of water quality	Increased incorporation of BMPs in local and state regulations; increased use of BMPs by homeowners and developers
	Public perception surveys
	Academic research on social and economic costs of impaired water quality.
Decreased trend in the amount of imperviousness in coastal	Mapping of impervious surfaces by coastal watershed

watersheds.	Increased use of infiltration and treatment technologies

Issue Area: Ocean, Coastal, and Great Lakes Observations, Mapping and Infrastructure

Objective: Strengthen and integrate Federal and non-Federal ocean observing systems, sensors, data collection platforms, data management, and mapping capabilities into a national system and integrate that system into international observation efforts.

General comment: The goal of this issue area to "*Strengthen and integrate Federal and non-Federal ocean observing systems, sensors, data collection platforms, data management, and mapping capabilities into a national system and integrate that system into international observation effort"* is essentially a reiteration of the purposes and intent of the Integrated Coastal Ocean Observing System Act (ICOOS) of 2009. The ICOOS act codified the United States Integrated Ocean Observing System (IOOS) as a partnership of Federal agencies (with a lead at the National Oceanic and Atmospheric Administration) and Regional Associations (RAs) to integrate Federal and non-Federal systems. IOOS provides a stakeholder driven end-to-end mechanism to supply key ocean, coastal, and Great Lakes information to meet regional and national needs including the areas of special interest. NROC, NERACOOS and GOMC have Memoranda Of Understanding to work collaboratively to address regional needs.

Actions that would most effectively help the Nation achieve this national priority objectives associated with this issue area:

- Near-term:
    - Endorse the full implementation of IOOS as the mechanism for achieving this goal. The NOC should work closely with the Integrated Ocean Observing Committee (IOOC), established as part of the ICOOS Act, to ensure that the IOOS program priorities align with the NOC priorities and that the limited resources are allocated in the most productive and effective manner.
    - Develop a National and Regional Observation Plans. The need for observations has long been recognized; but the nation still lacks a cohesive plan that describes what observations are needed. The NOC should engage the IOOC, the IOOS Program Office, and the IOOS RAs to develop a national plan from individual regional plans for observations, modeling, mapping, and data management to fulfill user needs. This effort is already underway as part of the implementation of the ICOOS Act.
    - Build off the IOOS Data Management and Communication (DMAC) and modeling systems *"for the timely integration and dissemination of data and information products".*
- Mid-term:
    - Commitment to achieve necessary capacity to inform areas of special interest.
    - Alignment of federal activities into a single coordinated integrated ocean observing system, one federated system to inform multiple needs and mandates.
- Long-term:

- Continual evaluation of system capacity and functionality to allow adaptation to novel issues, concerns and technologies.

Major obstacles to achieving this objective **and opportunities** this objective can further, including transformative changes in how we address the stewardship of the oceans, coasts, and Great Lakes:

- Obstacles:
  - A lack of understanding of and engagement with the IOOS program at the national level.
  - Lack of resources for implementation of a truly effective system.
- Opportunities:
  - A national stakeholder and issue driven program with both regional and national level implementation (IOOS) exists to achieve this goal.

Milestones and performance measures that would be useful for measuring progress toward achieving this priority objective:

Milestones	**Performance measures**
National and Regional Observations Plans	National and Regional Capacity Assessments (Gaps Analysis)
Data Management Integration	Efficiency of integrating disparate data sets.

food&waterwatch
Food & Water Watch • 1616 P St. NW, Suite 300 • Washington, DC 20036
www.foodandwaterwatch.org • T: +1.202.683.2500 • F: +1.202.683.2501

April 29, 2011

Ms. Nancy Sutley, Dr. John Holdren, and Members
National Ocean Council
Council on Environmental Quality
722 Jackson Place, NW
Washington, DC 20503

Dear National Ocean Council Members:

On behalf of Food & Water Watch (FWW),[i] please accept this letter as formal comments on the Strategic Action Plans (SAPs) of the National Priority Objectives (Objectives) for implementing the Final Recommendations of the Interagency Ocean Policy Task Force. We appreciate the National Ocean Council's efforts in overcoming ad-hoc, fragmented oceans management and planning for long-term, holistic approach to oceans policy.

As a consumer organization, FWW is very interested in U.S. ocean policy as it relates to the product consumers ultimately receive. People tell us regularly that they are paying more attention to the fish they eat, how it is produced or caught, and whether it is well managed. We appreciate the opportunity to comment on these matters, and will address four of the nine objectives, reminding the Council that we have also previously submitted comments on the Policy as a whole.

Objective One: Ecosystem-Based Management

When considering fisheries, ecosystem-based management often refers to the consideration of all wild stocks and how they interact with each other and the marine environment. FWW supports the Council's efforts to break free of the narrow focus of single-species management, as successful fisheries management can only arise from consideration of big picture, ecosystem-level relationships. We seek to expand the Council's understanding on how failure to consider other industrial activities that impact fisheries, such as offshore aquaculture, can prevent successful management of a marine ecosystem's wild fish stocks.

The Dangers of Offshore Aquaculture

Ocean finfish farming can be problematic for both the environment and the economy. The waste – fecal matter, uneaten food, and any chemicals or drugs used in the operation – flows directly into the ocean, and the ecological equilibrium of the seafloor or surrounding area could be permanently damaged.[ii] Fish often escape from ocean cages, and once in the wild, they can interbreed with or outcompete wild fish, leading to decreased genetic viability and potential population collapses. Even before fish escape, they can spread diseases and

parasites to nearby wild fish. For example, sea lice have been well documented to be problematic around salmon farms.[iii]

Ocean fish farming could actually increase pressure on wild fish, because the most commonly farmed fish are carnivorous – they often need to eat other fish. Thus, the feed given to captive fish often uses large quantities of fishmeal and fish oil.[iv] Already, fish farms use a significant portion of the world supply of fishmeal and fish oil from our oceans, such as sardines, herring, and menhaden.[v] Removing these fish from the ocean to feed farmed fish reduces the availability of food for whales and other ocean mammals, and for larger predatory fish and sea birds. Notably, these smaller fish are also food for many low-income coastal communities worldwide. Reducing stock availability may deprive already food insecure people of a primary protein source.

Using soy to replace fishmeal has been suggested as a more sustainable option, but this alternative is not without concerns. The implications of adding a terrestrial plant – high in estrogen-mimicking compounds, which has been known to harm the reproductive capabilities of fresh water fish[vi] – to the oceans over the long term have not been fully researched. Moreover, fish fed diets high in soy produce more excrement,[vii] thus adding extra waste to the marine environment.

Ecosystem based management requires taking into account impacts on human communities as well as the health of ocean resources. Unfortunately, fish farming can also harm commercial and recreational fishermen, as well as the coastal communities where they live. Worse than failing to fulfill the promise to provide new jobs, U.S. ocean fish farms are likely to outcompete and ultimately replace traditional fishing occupations, causing widespread job losses. This happens due to simple market forces: industrial farming can regularly produce tons of fish. Flooding the market with these fish can cause prices to drop. Also, companies can usually charge less for farmed fish, because artificially subsidized mass production is less costly and less time intensive

Environmental concerns with ocean fish farming:

- The only published study of offshore aquaculture in the United States found that aquaculture cages, even in deep ocean waters (35 meters deep, with bottom currents estimated to be no stronger than 50 cm/s), had "grossly polluted" the sea floor and "severely depressed" marine life at some sampling sites very close to the fish cages and that, over the course of 23 months, these effects had spread to sites up to 80 meters away.[1]

- Extensive research shows that the escape of farmed fish into the wild can result in competition for food and space, and cause predation on native species.[2]

- A study in 2007 of sea bass and gilthead sea bream operations in the Mediterranean Sea found significant sedimentation of feces and uneaten feed underneath fish farms placed at depths of about 50 to 90 feet with swift currents.[3]

[1] Lee, Han W. et al., Temporal Changes in the Polychaete Infaunal Community Surrounding a Hawaiian Mariculture Operation." *Marine Ecology Progress Series*, Vol. 307, 175–185 (January 2006).
[2] Marine Aquaculture Task Force, "Sustainable Marine Aquaculture: Fulfilling the Promise; Managing the Risks." January 2007. One species with two biologies: Atlantic salmon (Salmo salar) in the wild and in aquaculture. Canadian Journal of Fisheries and Aquatic Sciences 55(Suppl. 1):131–144).
[3] Holmer, M. et al. "Sedimentation of organic matter from fish farms in oligotrophic Mediterranean assessed through bulk and stable isotope (δ13C and δ15N) analyses." *Aquaculture,* 262: 268-280, 2007.

than traditional fishing. Usually, fishermen cannot compete with lower fish prices, especially now with sky-high rates for the fuel necessary to run fishing boats.

As the number of fishermen dwindles, other local businesses will also suffer, risking more job loss and hurting economies of coastal communities. Even industrial enthusiasts have openly stated that offshore aquaculture will neither lead to a net increase in employment, nor domestically available seafood. (Current trade patterns and international imbalances in seafood import standards mean that 70% of U.S. seafood is exported to countries that are willing to pay for higher health, safety, environmental and labor standards.)

Incorporating the Council's Call for Ecosystem Based Management Offers a Solution

A holistic, more eco-system based approach to fisheries management requires revisiting the Administration's current emphasis on ocean fish farming as the main way to increase US finfish production. Ocean fish farming – potentially injurious on so many levels - should not be allowed to expand in U.S. waters, especially after so much time has been put into developing a sustainable long-term approach to oceans management. Rather than creating a federal policy to regulate offshore aquaculture or to permit or "zone" its development, this Task Force should direct the NOC *not* to pursue ocean aquaculture in U.S. waters, and instead develop a strategic action plan to prevent such harm.

While there is a need to supplement wild-caught domestic fish to meet consumer demand for seafood, there are many forms of aquaculture that could fill this niche, and some are better than others for producing a cleaner, greener, and safer product. Rope-grown farmed shellfish, like mussels, is a good example.[viii] Another form of more sustainable aquaculture is land-based Recirculating Aquaculture Systems (RAS), closed-loop facilities that retain and treat the water within the system.

Objective Two: Coastal and Marine Spatial Planning (CMSP)

If done well, CMSP can offer beneficial, common-sense results, such as the example of the Stellwagen Bank National Marine Sanctuary, on p. 45 of the National Ocean Policy document. However, there is great concern that CMSP will be used to zone exclusive access to benefit a lucky few businesses, to the detriment of our natural resources and the public.

Exercise Caution in Protecting "New Investments"

FWW is concerned that the goal to protect "new investments" could dominate the others. This goal (p. 48) reads: "Increase certainty and predictability in planning for and implementing new investments for ocean, coastal, and Great Lakes uses." On the very same page, offshore aquaculture is referred to as an "emerging use." We are concerned that shortcuts might be taken to streamline zoning of certain areas of

the ocean for offshore aquaculture – and that because they have been zoned as such, that environmental impact assessment requirements might be reduced or expedited, and public input therefore inappropriately limited or eliminated.

While it is true that CMS Plans do not substitute for "existing legal obligations," it would be problematic if a fast-tracked permitting process for offshore aquaculture, for example, were to be interpreted as having met such obligations.

Stakeholders and Opting Out

FWW applauds the Task Force for recognizing the importance of public and stakeholder engagement, even in the early stages of a CMS Plan (phase I). Part of ensuring "substantial opportunity for public participation" means that the opinions and experience of people from the region will be seriously considered in addition to local agencies. On p. 63 it appears that regional fishery management councils (RFMCs) will be consulted as part of the CMSP process. While this makes sense, it is imperative that agency officials do not equate consultation with RFMCs as having sufficient regional public input. RMFCs are composed of members who have been chosen in part based on their profession and have an incentive to protect their industries. Oftentimes, the concerns of fishermen, coastal businesses, waterfront communities, consumers and conservationists from their region are not given full consideration. Additional stakeholder processes should be put in place during CMS program development.

Because there is no ability to opt-out of a CMS Plan, FWW is very concerned that local groups, regions, or states might potentially become subject to CMS Plans that they do not support. On p. 60, the Task Force states: "In the event that a particular State or tribe opts not to participate in the development or implementation of a CMS Plan, the development or implementation of the CMS Plan would continue." This seems very problematic. For example, if the question for the numerous agencies is where to site sea cages for use in offshore aquaculture in order to best avoid shipping lanes and essential fish habitat, it is inappropriate to only ask the public where to locate the cages when the public opposes the operation altogether. Rather, the question should be whether or not to move forward with ocean aquaculture before asking where to site it.

FWW believes that an opt-out provision would be beneficial. If a proposed CMS Plan is not in the public interest, it should not go forward. The Task Force must consider what criteria should be used to determine whether a CMS Plan is in the public interest for a given region, and how that region can opt-out of a plan.

Objective Four: Coordinate and Support

The following suggestions in this section will focus primarily on the regional management of the ocean, particularly ensuring that the voices of those in coastal

communities are given equal or greater weight than economically driven industry voices.

Council Reform and Comprehensive Management

Interagency coordination has often been a disjointed and closed-door process in the past due to lack of coordination between agencies and the council decision-making process. The second issue is the closed-door nature of fisheries management decision-making, which should be more transparent.

In order to address the lack of agency coordination, the new ocean governance agency should be separate from the Department of Commerce. As long as fisheries management remains under Commerce, it will remain difficult to manage fish in a manner that does not place too large of an emphasis on economic gain, rather than sustainable use of shared public trust resources. Language in the Magnuson-Stevens Act suggesting decision-makers should consider all factors is currently insufficient to address this issue.

The new agency should focus on the bigger picture, and allocate its resources to dealing with problem areas instead of continuing with a reactive approach that responds to a particular fish stock on the verge of collapse. The agency must work on a holistic, ecosystem-based approach to marine resources management.

In 2002, a Stanford University study found four reasons why the councils are not able to effectively regulate coastal fisheries:

> *1. The councils decide both how many fish can be caught and who can catch them. Because larger catches are easier to divide up among competing fishery interests, the councils' responsibility to allocate catches encourages them to set lax fishery limits undermining conservation.*
>
> *2. More than 80 percent of the citizens who are appointed to the councils by the Secretary of Commerce represent the fishing industry. Homogeneous groups are less likely to produce well-considered decisions than groups with diverse membership.*
>
> *3. The large number of council members drawn from industry results in ubiquitous conflicts of interest. Yet the conflict of interest rules that apply to the councils are very weak compared to those that apply to other government decision-makers.*
>
> *4. Despite its legal responsibility to carefully oversee the councils, NMFS gives the councils significant leeway in decision-making.*[ix]

To these, we add that council appointees are finalized by the very entities they advise (NMFS, NOAA, and the Department of Commerce). This means that "loading" the councils – to ensure recommendations in line with administration priorities, whether the public supports these priorities or not – is happening more and more. This is very troubling. Administration appointees should not interfere with the appointment of council members without a publicly stated and justifiable cause. For example, last year, Rita Merritt was removed from the South Atlantic Fishery Management Council, against the will of Governor Perdue of North Carolina and that of many fishermen in the region. While there was no stated reason for this change on the Council, many have speculated it was due to Merritt's resistance to the Administration's interest in pushing for catch shares.

The intent behind the Council system is to have people most familiar with the regional fisheries participate in management and to represent those in the region. Unfortunately, this system is broken. The council appointment process should be revised to both expand participation (with various interests represented), and to promote a more public approach to appointments.

The new agency should also address issues that have arisen with Interdisciplinary Planning Teams (IPTs), which have functioned in a way that avoids regional public input. Formed several years ago by the RFMCs and NMFS, these advisory bodies are composed of council members, NMFS and other agency personnel, and occasionally experts called in for consultation. The IPTs meet regularly to discuss developing council plans, outside of public venues and without public notice (meaning that there has been no publication in the Federal Register of these meetings). The IPTs have made changes to plans without public input and present these changes at council meetings for approval.

This is not how the council process was intended to function - nor is it in keeping with the key principle that oceans resources are public assets. While we appreciate the greater interest and coordination on council plans, IPTs hinder the transparency of the process. In the interest of a more collaborative and public approach to fisheries management, we urge that IPTs either be discontinued *or* that they be fully open to the public and announced in the Federal Register like council meetings.

Stakeholder input through public comment sessions should be given more weight in the decision making process. As it currently stands, councils do a poor job of advertising public comment periods. As mentioned above, they are not even a part of IPT meetings. This discourages public participation in fisheries management. In our own experience with public comment sessions at council meetings, oftentimes certain groups are given more time than others to comment, and those left to comment last receive the least amount of time and attention. This is inappropriate. Equal time should be allotted to all participants.

In addition to clear notice of *when* the public may comment at meetings, councils should consider the comments made in a more meaningful way. For instance, councils often listen to hours of public comments, and then fail to address any of the issues raised during the subsequent discussion. In sum, public participation should be more than just a requisite farce – and in addition to allowing more opportunities for public comment and giving widespread notice of when public comment periods are scheduled, public input should be considered carefully in decision-making.

The Governance Coordinating Committee

In addition to issues with RFMC reform, we desire to highlight the role of the Governance Coordinating Committee. It is critical that the "eighteen members from States, federally-recognized tribes, and local governments" truly represent the interests of the people from those areas. To that end, we are concerned that these "members would be chosen by the NOC." Giving the federal officials the power to choose who they want to work with at the state, local, and tribal level might lead to the selection of those who already share a similar interest in a given management plan or CMSP, rather than necessarily representing the interests of the people. This might inadvertently leave out important concerns of the people from that region and inappropriately limit the amount of information and experience in designing the program.

The Ocean Research and Resources Advisory Panel (ORRAP)

In a similar vein, the role of ORRAP is highly problematic. The Secretary of Defense chooses ORRAP members, and it is unclear why the Department of Defense should exclusively determine who makes up this advisory panel intended for more holistic ocean management. The public should have a more active role in nominating and confirming the members of this group, to avoid security and industry interests dominating the thinking and outcomes. It is furthermore difficult to see how ORRAP "would provide independent advice and guidance to the NOC," particularly when some members are explicitly from "ocean industries" (p. 27).

The expansion of ORRAP is also perplexing – "membership would be reviewed to determine whether to include additional representatives to broaden the level of expertise in support of the goals of the National Policy." Members from a wide array of interests must be included for this body to be valuable, and the NOC should reconsider and redesign this body so that the public has a prominent role in the representation. It remains unclear which goals would require "additional representatives." The NOC should furthermore disallow the Secretary of Defense to serve as the controlling entity.

Objective Seven: Water Quality and Sustainable Practices on Land

Adoption of Recirculating Aquaculture Systems to Curb Pollution

There are many forms of aquaculture, including open-water and recirculating aquaculture. Open-water aquaculture, as discussed above, allows fecal waste, chemicals, antibiotics and excess feed to flow freely into rivers, bays and oceans. This unfiltered discharge does not occur in land-based recirculating aquaculture systems (RAS). The NOC should emphasize RAS to increase aquaculture production in the US over environmentally harmful forms of aquaculture, such as open-water.

Smart and Responsible Land Use to Protect the Marine Environment

While addressing the issue of water quality and sustainable practices on land will be a multi-faceted approach, FWW believes that any meaningful approach to both fish farming and production of vegetables, one that fully internalizes the true costs of production, will involve land-based aquaponics. We can spare the ocean the pollution from unsustainable ocean fish farming and chemically-intensive agricultural operations and Concentrated Animal Feeding Operations by adopting a safer alternative to aquaculture and agriculture on land.

A national policy supporting RAS would enable this industry to grow faster than it has on its own. Since the policy of NOAA has been to support ocean fish farming, the industry has received millions of dollars in grant money, but existing ocean fish farms at academic institutions and state waters have yet to prove that they can be ecologically sustainable or economically feasible. If these grants could be directed toward RAS, such as in S. 3417, The Research in Aquaculture Opportunity and Responsibility Act (2010), they would fund development of a more feasible and environmentally friendly industry, which could provide fresh local seafood across the country. NOAA and the U.S. Department of Agriculture should manage RAS under a coordinated program.

Thank you for considering our comments, and please feel free to contact any of us who are part of the Fish Program at Food & Water Watch.

Sincerely,

Food & Water Watch Fish Program

Marianne Cufone, Director
James Mitchell, Policy and Legislative Coordinator
Christina Lizzi, Policy Analyst
Eileen Flynn, Writer & Researcher
Meredith McCarthy, Researcher

[i] Food & Water Watch (FWW) is a nonprofit consumer advocacy organization headquartered in Washington, DC that runs cutting-edge campaigns to help ensure clean water and safe food. We work

with various community outreach groups around the world to create an economically and environmentally viable future. We advocate for safe, wholesome food produced in a humane and sustainable manner, and public rather than private control of water resources, including oceans, rivers and groundwater. The FWW Fish Program promotes clean, green, safe seafood for consumers, while helping to protect the environment and support the long term well-being of coastal communities.

[ii] Alston, D.E. et al. "Environmental and Social Impacts of Sustainable Offshore Cage Culture Production in Puerto Rican Waters." University of Puerto Rico - University of Miami, unpublished, 2005.

[iii] Krkosek, M, Ford, J.S., Myers, R, A., Lewis, M.A. "Parasites from Farm Salmon Declining Wild Salmon Populations in Relation to Parasites from Farm Salmon," *Science* 318, 2007 at 1772.

[iv] Naylor, Rosamond L. et al. "Effect of aquaculture on world fish supplies," *Nature* Vol. 405, 2007 at 1017– 1024.

[v] Tacon, Albert et al. "Use of Fishery Resources as Feed Inputs to Aquaculture Development: Trends and Policy Implications." FAO Fisheries Circular No. 1018, Food and Agriculture Organization of the United Nations, Rome, 2006.

[vi] Kidd, Karen. "Effects of Synthetic Estrogen on Aquatic Population: A Whole Ecosystem Study," Freshwater Institute, Fisheries and Oceans Canada.

[vii] Naylor, Rosamond L. et al. "Feeding aquaculture in an era of finite resources." *Proceedings of the National Academy of Sciences*, vol. 106, iss. 36, September 8, 2009 at 15106.

[viii] "FAQs." American Mussel Harvesters, Inc. North Kingston, RI available at: www.americanmussel.com/faqs.html.

[ix] Eagle, Josh et al. *Taking Stock of the Regional Fishery Management Councils.* Pew Science Series on Conservation and the Environment. Island Press. 2003, at 5.

SPO Maine State Planning Office
Executive Department

PAUL R. LEPAGE
Governor

DARRYL BROWN
Director

April 29, 2011

Nancy Sutley, Chair
Council on Environmental Quality
The White House
1600 Pennsylvania Avenue, NW
Washington, DC 20500

FILED ELECTRONICALLY

RE: National Ocean Council; Comments on the strategic plans to address national objectives

Dear Ms. Sutley:

We are writing in response to the January 24, 2011, Federal Register notice published by the Office of Science and Technology Policy.[1] The notice solicits comments for consideration by the National Ocean Council (NOC) in developing proposed strategic action plans for the nine priority objectives which are identified in final recommendations of the CEQ-led Interagency Ocean Policy Task Force (Task Force) and incorporated by reference in Executive Order 13547. The State of Maine has grave, fundamental concerns about the establishment of such a far-reaching policy, and its associated initiatives, that are completely outside the legislative process and in a manner that not only bypasses, but completely excludes, current statutorily established decision making bodies.

Overview:

Maine has a strong and enduring interest in protecting and enhancing the biological productivity of the ocean environment and opportunities for related beneficial human uses, such as commercial fishing, and both exercises its constitutional rights and participates in statutorily mandated regional resource management bodies whose authority has been established by statute and supersede those of the National Ocean Policy (NOP). Ensuring compatibility and minimizing potential conflicts among fishing and other valuable, traditional ocean uses and promising, emerging uses of the marine environment, such as deep-water offshore wind energy production, needs to be among the primary objectives of coastal and marine spatial planning and needs to be conducted under the aegis of those states and statutorily mandated regional resource management bodies. Accordingly, we urge the NOC to ensure that its strategic action plans

[1] The Maine State Planning Office (SPO) developed these comments in consultation with the Office of the Governor, Maine Departments of Marine Resources, Environmental Protection, and Conservation. SPO's duties include administration of the State's networked coastal zone management program.

answer to and serve these core interests and authorities, which are vitally important not only to Maine but to the nation as a whole.

Coastal and marine spatial planning (CMSP) is a central and defining feature of the NOP and a principal engine of change that may drive action and progress in meeting a number of the Policy's objectives. We recognize that CMSP has the potential to serve the above-noted, overarching public policy goals and to facilitate optimal use of the marine environment. Realization of that potential is, however, contingent on a number of factors, chief among them assurance that:

- Coastal marine spatial plans are conceived as dynamic, information-oriented tools to be employed by public and private decision-making bodies established by statute, operating under the constitutional authority of states, tribal or other authority, as opposed to static, prescriptive zoning plans that may both unduly hamper existing uses and discourage investment and innovation related to emerging uses;

- There is adequate representation of fisheries managers and the interests of the fishing industry and other existing users and stakeholders of the marine environment, including seats at the decision-making table for representative of states and of statutorily mandated regional resource management bodies such as the New England Fisheries Management Council (NEFMC) as well as interstate management bodies such as the Atlantic States Marine Fisheries Commission (ASMFC), at all planning and decision-making stages;

- Expectations regarding state contribution to CMSP efforts, including the nature and extent of state agencies' participation, are commensurate with resources available for plan development, implementation, and on-going improvement of information resources;

- Maine's interests are considered on par with those of other more densely populated and more developed states in its Northeast planning region; and

- The unique resources and environmental conditions of Maine’s coastal waters, which are generally subject to a lower degree of upland development-related influences than those of other Northeast states and not currently significantly exploited for commercial interests, are taken into consideration when evaluating and accurately reflected in developing policy options that may affect uses of or in its coastal waters.

The following comments highlight specific issues or concerns regarding several SAP objectives and are divided into recommended short, medium, and long-term actions.

Objective 1: "Ecosystem-Based Management: Adopt ecosystem-based management as a foundational principle for the comprehensive management of the ocean, our coasts, and the Great Lakes"

Short term:

- Clarify EBM definition. To ensure a shared understanding and facilitate comparison and assessment of relevant initiatives, the NOC should clearly define "ecosystem-based management" (EBM) as used in its strategic plans and related activities. This definition should be well-adapted to CZMA-based coastal planning and management; and consequently should specify that EBM is an approach and tool for use by managers of statutorily mandated resource management bodies to use in the exercise of their responsibilities and authorities The NOC's plan should recognize that such an approach necessitates and identifies sources for additional federal funding support, through the CZMA or otherwise, to ensure state-level capacity for:

    - scientific research to improve understanding of current environmental conditions, stressors, and impact thresholds;

    - a robust public process conducted under statutorily mandated regional resource management bodies to develop ecosystem values;

    - design and implementation of regulations based on sound science;

    - programs that monitor effectiveness and the ability to develop and populate indicator programs; and

    - translation of all of the above into outreach and education materials for a variety of audiences.

- Ensure NOC and fisheries-related EBM efforts are complementary. Fisheries management councils established under the Magnuson-Stevens Fisheries Conservation and Management Act (MSFCMA) have been leaders in the field of ecosystem based management and their work, and related focus on fisheries habitat issues, continues to evolve. NOC staff has reportedly advised that it is researching whether under the Federal Advisory Committee Act (FACA), MSFCMA councils, which are not executive branch agencies directly subject to the terms of Executive Order 13547, may participate on the Regional Planning Bodies (RPB) charged with developing CMSPs. Although NMFS, with whom the councils work closely, is on the NOC, statutorily mandated regional resource management bodies do not have a seat at the NOC. It is essential to include the statutorily mandated regional resource management bodies at the decision-making table, in particular at the NOC in addition to the RPB, and we object to the use of the Executive Order in an attempt to supersede or conflict with their legislative authority. The NOC's deliberations must include well-informed representation of fishing interests at all planning and *decision-making stages*. See also related comment regarding objective 2 (coastal and marine spatial planning).

- **Ensure eco-regional assessment serves states' needs**. The NOC should ensure opportunity for coastal states' active involvement in the design and implementation of eco-regional assessments. To optimize the assessments' utility for state coastal managers, the data used needs to be sufficiently detailed to capture the specific environmental conditions in states in a region. For example, use of the National Coastal Condition Assessment, which employs probabilistic (random) sampling, would be problematic. Many states, including Maine, have repeatedly objected to this approach; it enables generalized condition assessments that facilitate comparison of one state to another but it is of limited use in addressing specific, in-state problems that require coastal states' time, attention, and funds.

Medium term:

- Remove obstacles to federal agencies' consideration of state-produced data. The NOC should identify obstacles to and develop recommendations for changes in law and policy as needed to facilitate federal agencies' use of state-produced environmental data. Maine DEP, for example, notes that it has had difficulty sharing data with EPA even though it considers the state information superior to that used by EPA.

- Ensure well-coordinated monitoring efforts. Assurance of effective monitoring of ocean and coastal resources and key environmental conditions needs to be a centerpiece among NOC's strategies. At present, existing monitoring efforts are not effectively networked and integrated. The NOC, with assistance from the National Research Council, should:

    - inventory existing ocean and coastal resources-related monitoring efforts, particularly those supported with federal funds;

    - review past attempts to establish pertinent national or regional monitoring networks as a source of "lessons learned" and identify and present to state, federal and other statutorily mandated resource management bodies opportunities for coordination among related efforts and for consolidation of closely-related and potentially redundant efforts to optimize use of available funding; and

    - develop means to facilitate consistency and public availability of monitoring data collected, developed, or managed with federal funding support.

- Address data gaps. Notable gaps exist in key data about the marine environment and related human uses. The NOC's EBM strategy should include development of a well-concerted federal effort to ensure availability of improved and on-going collection, assessment, and management of offshore data needed to support decision making by both private interests and statutorily mandated regional resource management bodies. For example, seafloor mapping of OCS areas off Maine is sparse. This information is useful in defining ecosystems and identifying suitability for economic opportunities, such as commercial fishing and ocean energy development. In developing this strategy, the NOC should identify key data gaps, inventory current federal programs that support collection

of ocean and coastal data, and identify steps to ensure that federal agencies implement these programs in a manner well coordinated with state and statutorily mandated regional resource management bodies and that optimizes use of available federal resources in filling these data gaps.

Long term:

- Develop in conjunction with statutorily mandated regional resource management bodies and states an on-going federal program to support data collection, assessment, and management. Effective coastal and marine spatial planning will require consideration of and ease of access to the best available data. This necessitates updating and on-going management of information resources. The NOC should develop CZMA-based or other federal programs that provide opportunity for a stable, on-going source of federal funds to help support data collection, assessment, and management and other activities at the state and regional levels that are necessary to ensure the utility and continued refinement of coastal and marine spatial plans.

Objective 2: "Coastal and Marine Spatial Planning [CMSP]: Implement comprehensive, integrated, ecosystem-based coastal and marine spatial planning and management in the United States."

Short term:

- Ensure representation of fisheries management-related interests in decision making. Commercial fishing is among the predominant uses of the marine environment and has long provided significant sustainable economic benefits to Maine and the nation as a whole. The MSFCMA provides a statutorily established, science-based framework for management of fishing activities throughout the EEZ by industry, the public, as well as coastal states, which, in turn, manage fishing under constitutional authority in their territorial waters. It is essential that the NOC ensure that CMSP is undertaken with full respect for and recognition of MSFCMA-related, interstate, and state fisheries management decisions, authorities, and responsibilities. As noted above, the NOC's staff has reportedly advised that it is researching whether FACA precludes direct representation of MSFCMA councils on the RPBs established by the NOP. . We find exclusion of the councils from a central role in NOC-related planning and decision making, particularly the NOC itself, unacceptable. In addition, Maine is a member of the ASMFC, which serves as a deliberative body, coordinating the conservation and management of the states shared near shore fishery resources – including lobsters, shrimp and herring – for sustainable use. We strongly urge Presidential amendment of the NOP and associated provisions of regulation, if and as necessary, to ensure full, decision making representation by such statutorily established bodies.

- Avoid unfunded mandates or expectations. At this point, the federal government has provided no additional funds for coastal states, federal agencies, or statutorily mandated regional resource management bodies, to support their involvement in CMSP efforts

under Executive Order 13547. Under these circumstances, we strongly object to any move by the NOC to establish objectives or expectations regarding state participation in development and implementation of CMSP that are not matched with an identified source of federal support. CMSP should not become or be seen as a new unfunded federal mandate or a source of unrealistic public expectations.

- Planning areas. The geographic scope of the planning area on which the regional planning bodies will focus needs to be shaped by and commensurate with the available resources. It may be unworkable and unrealistic in one or more regions to develop a CMSP that includes all marine waters, from estuaries to the limits of the EEZ. We suggest that each region rightfully defer to the relevant statutorily mandated regional resource management bodies and states in defining planning areas to allow its work to reflect regionally specific social, political, and ecological considerations. This flexible approach would reflect and support region-specific issues and make the CMSP effort more efficient and more effective by building on existing efforts and institutions.

- Recognition of sub-regional differences and state autonomy. Provisions for development and implementation of regional CMSPs should ensure that each state retains its autonomy and a co-equal role among states in its region. While Maine has worked well and values its collaboration with neighboring coastal states through NROC and other regional efforts, a number of significant differences exist between Maine's coastal character, the substantially greater length of our coastline, the diverse environmental and ecological conditions, and the greater proportion of our economies being marine resource base, and those of southern New England. A uniform, regional approach to a variety of issues may not be appropriate. The Federal Consistency provision in the CZMA requires that Federal actions that may have reasonably foreseeable effects on any coastal use or resource, either directly or indirectly, be consistent with the enforceable policies of National Oceanic and Atmospheric Administration (NOAA) approved state coastal management programs. CZMA consistency determinations must be submitted to the state for review to address federal actions that may occur both in and beyond the coastal zone, such as energy projects, which have the potential to impact coastal uses or resources, such as Maine's commercial fisheries. Adhering to the CZMA Federal Consistency provision will help to avoid or reduce long term use-conflicts, as it will allow for each state to be consulted, allowing for sub-regional differences to be addressed including through existing, statutorily mandated regional resource management bodies before activities take place, thus ensuring the success of proposed activities in coastal waters.

- Support necessary stakeholder engagement. The NOC's strategic plan should emphasize the importance of, encourage, and identify additional federal resources to help support the well-informed engagement of statutorily mandated regional resource management bodies, marine harvesters and other public stakeholders in the CMSP process.

- Adopt result-oriented performance measures. CMSP is a process tool; even an excellent plan is not, in and of itself, a sufficient outcome. The NOC should, in consultation with statutorily mandated regional resource management bodies, adopt concrete, action-oriented performance measures, such as reduction of permitting time in pre-planned

areas, renewable ocean energy generation capacity approved for siting, or other measures that by their nature demonstrate efficient, technically-sound, and well-coordinated governmental decision-making that fosters and avoids and minimizes conflict among beneficial uses of our shared marine environment.

- BOEMRE and CMSP. Working to address national renewable energy policy goals, the Bureau of Ocean Energy Management, Regulation, and Enforcement (BOEMRE) is moving forward in cooperation with coastal states to identify OCS areas that may be well-suited to offshore wind energy development. While we do not suggest that BOEMRE in any way slow the progress of its work to facilitate well-sited renewable offshore energy development, the NOC should clarify the relationship between BOEMRE's on-going efforts, including its work with state task forces, and regional planning bodies' efforts to develop CMSPs, with particular attention to how these efforts will be integrated. An agreement between the NOAA and BOEMRE establishing a framework to facilitate coordination on OCS renewable energy development is needed to assist in these goals.

Medium term:

- Concurrent review of the federal governance framework. The NOC should undertake a concerted, interagency federal effort, in conjunction with statutorily mandated regional resource management bodies, to identify and develop recommendations for statutory and regulatory changes to address inefficiencies, conflicts, and other potential obstacles to streamlined, well-coordinated federal decision making regarding renewable ocean energy and other development activities in the marine environment. Proactive preparation of this analysis is necessary for to regional planning bodies in developing realistic CMSPs. Needed improvements in the federal governance framework would facilitate their implementation and effectiveness.

Objective 4: "Coordinate and Support: Better coordinate and support Federal, State, tribal, local, and regional management of the ocean, our coasts, and the Great Lakes. Improve coordination and integration across the Federal Government and, as appropriate, engage with the international community."

Short term:

- Ensure interagency coordination and collaboration. Effective coordination and assurance of collaboration among federal agencies, states and statutorily mandated regional resource management bodies, and others participating in the CMSP, and all other NOC strategies, is a prerequisite for success. Without the presence at the decision making table - not just advisory boards - for states and statutorily established resource management bodies, this process will fail. Further, the NOC should emphasize the importance of and identify specific tools to authorize and facilitate a coordinated and integrated effort at both the field office and headquarters levels among federal agencies states statutorily mandated regional resource management bodies.

Medium term:

- Optimizing the utility of the NEPA process. The NEPA process offers opportunity for environmental review that supports decision-making by a variety of agencies, states and statutorily mandated regional resource management bodies. An agency's participation in the NEPA process as a cooperating agency (when it is not the lead agency for NEPA review) may ensure that issues are addressed as necessary to support and help streamline its own environmental review, leasing, or permitting decision. The NOC should explore and develop standardized practices for federal agencies' participation as cooperating agencies that are designed to streamline the overall federal environment review, leasing, and permitting process, and for comprehensive, transparent communication between federal agencies, states, statutorily mandated regional resource management bodies and other bodies. Such practices may include a schedule for early identification of all environmental approvals needed for the activity subject to NEPA review and agencies' related information needs, coordination or consolidation of agency review procedures, and development of a detailed schedule for completion of all requisite reviews. The National Marine Fisheries Service (NMFS), for example, has developed spatial planning concepts through the identification of Essential Fish Habitat (EFH). The EFH designations are currently in the final stages of approval at the NEFMC, but they will not be implemented before BOEMRE's offshore wind site identification. Nonetheless, the NEPA review process will rightly allow for the final EFH designations to be submitted as part of a "body of knowledge" in the final site selections for offshore wind, thus providing for a more informed decision making process as well as potentially reducing user-conflicts in the long run.

Objective 5: "Resiliency and Adaptation to Climate Change and Ocean Acidification: Strengthen resiliency of coastal communities and marine and Great Lakes environments and their abilities to adapt to climate change impacts and ocean acidification."

Short term:

- Support planning and action at all governmental levels. Coastal states are likely to address climate change adaptation issues in a variety of ways through statutorily mandated regional resource management bodies and other instruments at the regional, state, county, and local levels. Therefore, the NOC's strategic plan should recommend provision of available federal funding support for voluntary climate change adaptation-related planning and action at each of these jurisdictional levels as appropriate to meet coastal states' differing needs and approaches. In addition, in developing the plan, the NOC should inventory and ensure coordination among potential federal funding sources, particularly in light of prospects for reduced federal support for state efforts in this area as reflected in the current year federal budget's proposed elimination of EPA funding.

Medium term:

- Identify additional sources of funding. Climate change is driven by forces beyond the control of state, county, and local governments. If addressed ineffectually, its

consequences would manifest locally as loss or degradation of coastal infrastructure. As a whole, such loss and degradation would have significant adverse effects on our nation's economy and quality of life. The NOC should identify and call for provision of additional federal funds that may be used to ensure a well-coordinated and effective national response to this issue though implementation of its strategic plan.

- **Strengthen authorization in CZMA for climate change-related activities**. The NOC should recommend that as reauthorized the CZMA more clearly support provision of funding for voluntary development and implementation of coastal adaptation plans that recognize the individual needs of each state while building into a proactive national strategy. As noted above, such plans may be undertaken at the county or local level.

Objective 9: "Ocean, Coastal, and Great Lakes Observations, Mapping, and Infrastructure: Strengthen and integrate Federal and non-Federal ocean observing systems, sensors, data collection platforms, data management, and mapping capabilities into a national system and integrate that system into international observation efforts."

- Augment support for federal OCS-focused ocean observing, data collection, and management. Coastal states' ocean observing and related data collection and management efforts focus primarily on nearshore, state coastal waters. At current funding levels, the Integrated Ocean Observing System is not equipped to meet coastal managers' information needs, particularly as related to OCS areas. The NOC strategy should call for identification of coastal managers' current and projected OCS-oriented data and information needs and existing federal resources available to address those needs, and steps to address current or projected gaps in key information.

Thank you for the opportunity to comment, and your agency's on-going efforts to engage coastal states and other stakeholders in the development of these strategic plans. We appreciate the opportunities for and evident attention to comments and suggestions provided by Maine and other coastal states to date on related matters and look forward to continued constructive engagement on issues of concern to our state as this planning process moves forward.

Sincerely,

Darryl Brown
Director, Maine State Planning Office

cc: Carlisle McLean, Office of Maine Governor Paul LePage
Norman Olsen, Commissioner, Maine Department of Marine Resources
Patricia Aho, Deputy Commissioner Maine Department of Environmental Protection
Bill Beardsley, Commissioner, Maine Department of Conservation

Congress of the United States
Washington, DC 20515

April 29, 2011

Chairwoman Nancy Sutley
National Ocean Council
Council on Environmental Quality
722 Jackson Place, NW.
Washington, DC 20503

Director John Holdren
National Ocean Council
Office of Science and Technology Policy
725 17th Street NW
Washington, DC 20502

Dear Chairwoman Sutley and Director Holdren,

We are writing to comment on the development of Strategic Action Plans for the nine priority objectives identified in the National Policy for the Stewardship of the Ocean, our Coasts, and the Great Lakes, established under Executive Order 13547.

The United States has exclusive environmental and economic jurisdiction over approximately 4.5 million square miles of ocean, which supports 2.3 million jobs and generates more than $138 billion annually. It has also been projected that nearly 75 percent of the U.S. population will live in coastal counties by 2025. Given the heavy burden that we continue to place on our oceans and coasts, we commend the National Ocean Council for addressing some of the most pressing challenges to ensure healthy oceans for present and future generations.

We offer comments on the nine priority objectives, the development of strategic action plans for said objectives, and examples of opportunities, obstacles, and ways to gauge progress, as follows:

Ecosystem-Based Management

This management approach affords the opportunity to preserve and restore ecosystems to ensure that the necessary services they provide will be available now and well into the future. Ecosystem-based management should work to reveal the benefits, including recreational and aesthetic uses, as well as the hidden costs of current and future uses to ensure comprehensive management of our oceans. We cannot afford to overexploit our ocean and coastal resources and to lose ecosystem services that incur costs to society. These services, such as carbon storage or shoreline protection from wetlands, meet critical needs for humans and should be incorporated into management decisions. For example, in Washington and California, the Puget Sound Partnership and Morro Bay Ecosystem-Based Management Program, respectively, assessed tradeoffs between stakeholders and management strategies by linking ecosystem and human health through an ecosystem services based framework. In Massachusetts, the Ocean Act is structured around ecosystem services balancing the compatibility of current ocean uses and

future needs. We encourage you to learn from these programs as you develop this Strategic Action Plan.

Coastal and Marine Spatial Planning

Effective and transparent communication regarding the use of our ocean and coastal areas is vital to coordinating and initiating coastal and marine spatial planning activities without jeopardizing existing or future marine activities. Federal, State, Territorial, Tribal, regional, and local entities must communicate efficiently with each other and the public as our reliance on ocean resources increases, and the National Ocean Policy must serve to coordinate these efforts. The Strategic Action Plan should provide specific guidance for the Regional Planning Bodies on public and stakeholder participation, including defined expectations, establishment of public advisory committees, and ongoing evaluations of the effectiveness of public and stakeholder engagement.

The Massachusetts Ocean Act, for example, established an Ocean Advisory Commission, consisting of State legislators, agency representatives, and stakeholders, and a Science Advisory Council, coordinating six agency work groups, to acquire and analyze existing data and information regarding habitat; fisheries; transportation, navigation, and infrastructure; sediment; recreation and cultural services; and renewable energy. Using this information, the State of Massachusetts was able to request a refinement of the area considered for offshore wind energy development to take into account certain areas identified as important to the fishing industry. These planning efforts were able to reduce conflict and provide certainty for the development of new off-shore energy technologies and for Massachusetts' iconic and vibrant fishing industry. Furthermore, the ability to coordinate and streamline the permitting process for such projects leads to substantial ecological, social, and economic benefits. Only through an open and transparent process will we be able to effectively address these and other pressing ocean issues, like climate change, ocean acidification, and water quality. Additionally, as the National Ocean Policy implementation process continues, it is imperative that the National Ocean Council and the involved agencies highlight examples of successful coastal and marine spatial planning efforts. There is an abundance of misinformation regarding the intention and purpose of coastal and marine spatial planning, and education is key to accomplishing the end goals.

Inform Decisions and Improve Understanding

Adaptive management requires increasing knowledge to continually improve management decisions to ensure the common goals of healthy and productive oceans alongside vibrant coastal communities. The National Estuarine Research Reserve System, including Padilla Bay, Elkhorn Slough, Narragansett Bay, and Waquoit Bay, provide excellent examples of integrating research and education to help communities develop strategies to address coastal resource issues. Specifically, the Narragansett Bay National Estuarine Research Reserve collaborates with partners to conduct coastal and estuarine research and monitoring throughout the Narragansett Bay and makes this data and related education programs and activities available to Rhode Island schools, colleges, and universities to increase public awareness and understanding of the importance of this estuary.

Similarly, the National Estuary Program takes a collaborative, community-wide approach to protecting and restoring watershed and estuary resources. The Morro Bay National Estuary Program in California has partnered with landowners and conservation groups over a period of seven years to develop site-specific best management practices for their properties. Dedicated community members generate valuable long-term water quality data as part of the volunteer monitoring program and work with program staff and scientists at local universities and agencies to improve our understanding of the complex health of the estuary. The estuary program's education efforts range from field trips and presentations to the development of a free, public-friendly estuary center in Morro Bay. When developing this Strategic Action Plan, we encourage the council to support the development of ocean and environmental education and outreach programs, including citizen science-based research projects. Educating the public on these issues will encourage public participation in the policy decision-making process and will ultimately lead to better policy and more effective implementation.

Coordinate and Support

During these fiscally austere times, it is particularly critical that we reduce duplication and increase efficiency in governmental operations. It is imperative that this effort moves forward from the ground up relying on existing local, regional, Tribal, Territorial, and State programs and entities through a transparent process, which facilitates the direct involvement of stakeholders. Coordinating efforts in permitting processes, as an example, will provide greater clarity for permittees and will reduce time and costs for all stakeholders. The National Ocean Policy must help to coordinate these efforts without adding additional layers of management.

Regional Ecosystem Protection and Restoration

Regional ecosystem protection and restoration should be developed within a comprehensive process for defining, identifying, and evaluating areas of ecological importance. For example, through the Marine Life Protection Act, California is in the process of re-designing the state's system of Marine Protected Areas using information from regional stakeholders in the planning process. Three of the five designated regions have been completed with a process involving the public in a variety of ways including direct communication with regional stakeholder group members, attendance at workshops and public meetings, and providing input on public documents and proposals as they are developed.

Ocean, Coastal, and Great Lakes Observations, Mapping, and Infrastructure

The integration of Federal and non-Federal ocean observing systems, sensors, data collection platforms, data management, and mapping capabilities will provide authoritative, timely, and interoperable data, products, and services to address multiple needs, including for maritime safety, natural hazards mitigation, and environmental protection. This Strategic Action Plan should identify data gaps within these observing systems and additional resources to fill these gaps, expand observations, and outline a system where data is readily accessible to all stakeholders.

We appreciate the opportunity to comment on these Strategic Action Plans and to share examples from our States, which demonstrate existing and effective actions to help the Nation

achieve these policy objectives and ensure the balanced use of our oceans, coasts, and Great Lakes. We look forward to working with you as this process moves forward.

Sincerely,

EDWARD J. MARKEY

LOIS CAPPS

SAM FARR

BARNEY FRANK

HOWARD L. BERMAN

RAUL M. GRIJALVA

JAMES P. MORAN

JOHN W. OLVER

CHELLIE PINGREE

RUSH D. HOLT

MAURICE D. HINCHEY

LYNN WOOLSEY

MADELEINE BORDALLO

MIKE HONDA

BARBARA LEE

EARL BLUMENAUER

ANNA ESHOO

ENI FALEOMAVAEGA

ALCEE HASTINGS

DONNA CHRISTENSEN

DALE KILDEE

JIM LANGEVIN

LLOYD DOGGETT

COLLEEN HANABUSA

GREGORIO SABLAN

Clean Ocean Action

www.CleanOceanAction.org

18 Hartshorne Drive, Suite 2
Highlands, NJ 07732

Telephone: 732-872-0111
Fax: 732-872-8041
Info@CleanOceanAction.org

Ocean Advocacy Since 1984

April 29, 2011

Chairwoman Nancy Sutley
Council on Environmental Quality
Executive Office of the President

Director John Holdren
Office of Science and Technology Policy
Executive Office of the President

Re: Comments on Strategic Action Plans for the Priority Objectives for the National Ocean Council

Dear Chairwoman Sutley and Director Holdren;

The National Ocean Council (NOC) announced its intent to prepare strategic action plans for nine priority objectives for National Ocean Policy goal implementation and solicited comments from the public on January 24, 2011. *See* 76 F.R. 4139. These public comments should, according to the announcement, inform the preparation of the strategic action plans. Clean Ocean Action has prepared the following comments in response to that request.

Clean Ocean Action (COA) is a regional, broad-based coalition of 125 conservation, environmental, fishing, boating, diving, student, surfing, women's, business, service, and community groups with a mission to improve the degraded water quality of the marine waters of the New Jersey/New York coast. For over 25 years, COA has been actively engaged in ocean management to ensure a vibrant, diverse, economically robust ecosystem. From successfully closing eight ocean dumpsites and thwarting offshore drilling and exploration to promoting clean beaches, citizens have worked hard to ensure a clean ocean economy. Clean Ocean Action has, in addition to this letter, signed onto two other comments for this notice, one general comment and one comment on strategy item five.

Framework

In the announcement requesting comments for the strategic action plan development phase of the National Ocean Policy Framework, the NOC requested that for each of nine priority areas, we (broadly) answer these questions:

- What near-term, mid-term, and long-term actions would most effectively help the Nation achieve this policy objective?
- What are some of the major obstacles to achieving this objective; are there opportunities this objective can further, including transformative changes in how we address the stewardship of the oceans, coasts, and Great Lakes?
- What milestones and performance measures would be most useful for measuring progress toward achieving this priority objective?

Data and Mapping

Priority areas:
(3) Inform Decisions and Improve Understanding
(9) Ocean, Coastal, and Great Lakes Observations, Mapping, and Infrastructure

One Action that needs to be taken immediately is an across-the-board expansion of data collection– we simply do not know enough about many parts and aspects of the ocean environment, and we don't know enough about the industries that are operating within this environment. This broad data collection initiative should be done in an environmentally-unobtrusive manner. Furthermore, ecosystem and socioeconomic data should not be used to inform only a select few researchers or institutions, but should be available to all agencies and institutions and should be publically accessible.

The NOC should undertake an assessment of the state of the science in each "area" of the ocean and attempt to coordinate research to systematically fill gaps in knowledge, eliminate redundant research projects, and encourage more ecosystem-wide studies. Part of this initiative should be to develop, again for each marine area, one clearinghouse of coastal and ocean knowledge where methodologies, research projects, and data can all be accessed by any interested individual. Regional monitoring programs that have long-term funding are needed – especially for areas such as the Mid-Atlantic Bight which currently lacks a comprehensive regional program.

Obstacles to sharing data and informing decisions are plentiful, but not unresolvable. First, data collected by one agency or institution (the EPA, for example), may be in a form that doesn't comport with the needs of local decision-makers or state agencies. Second, collection methods that one agency uses may not be, by regulation, guidance, or policy, "admitted" by other agencies. Third, priorities in data collection vary by program and geographic location. Fourth, different research methods and tools may be used by different researchers. Fifth, technological and methodological innovation can result in differences within the same type of data collected over time – in other words, trends and time series might not mean that situations are changing, just that we've learned how to better measure a variable.

These challenges, and more, can be addressed through data collection standardization. If all agencies at all levels of government are working from the same methods documents and datasheets, we will improve our collective understanding of the state of our marine ecosystems. However, the process of data standardization needs to integrate some flexibility in order to avoid stifling innovation in scientific research.

Another impediment to informing decisions and improving mapping, infrastructure, and ecosystem understanding is the disconnect between the lay-public and expert scientists. Politics and communication play an important role in the implementation of the National Ocean Policy; if the public cannot understand why they need to protect these ecosystems, regional ocean managers will face an uphill battle in trying to convince people otherwise.

Many aspects of the National Ocean Policy itself (including associated frameworks, regulations, and policies) are not written in an easily-understandable form for public education. The NOC should try to distill and re-frame its mission and the steps it will be taking into a message easily transmitted to the public. Regulations and policies developed as a result of this process should also be communicated in "plain" English.

Coordination and the Decision-Making Processes

Priority areas:
(1) Ecosystem-Based Management (EBM)
(2) Coastal and Marine Spatial Planning (CMSP)

Actions that immediately need to be taken include data collection and information dissemination. EBM and CMSP implementation will (and should) rely heavily on baseline studies, pilot programs, and cumulative impact analyses. No decisions should be made to approve new uses of the coastal and ocean zone (including Outer Continental Shelf energy production, exploration, or siting), or to affect existing uses, without these pre-planning studies and research projects. The NOC should also advocate for legislation and regulations to prohibit programs from allowing ecological harm to the ocean – all too often discretion is given, under the guise of flexibility, to damage resources.

Aside from data collection and research studies, the NOC should also take immediate steps to require that EBM principles and policies are implemented across the nation in land use, environmental, and energy decisions. Decisions are now being made, daily, which should take EBM and scientific knowledge into account but do not. From stormwater permits to development plans and mitigation banks, incorporating understanding of ecosystems is critical to prevent and minimize impacts from actions taken.

While a top-down approach to managing the ocean and coastal zone (which is much of what the NOC will be doing) is needed, so too is a bottom-up approach. Requiring regular, sustained inclusion of the interested public at all stages of the process leads to stronger, more resilient plans and policies by identifying conflicts, providing knowledge about issues/problems present at all scales (national, regional and local) and allowing for the development of common solutions that lead to public support and ownership of policies, programs and activities. Getting the public to *"buy in"* to a policy developed from the top down is often not successful. Instead, the best public policies start from the grass-roots up. The interested public must *"be in"* on policy development early at the most local level, often and sustained, including regular and continuous communication and dialogue. Ultimately, determinations regarding appropriate ocean uses, allocation of space and resources, and protection of those resources will be based on societal choice. Public support for the preservation and protection of environmental resources is based on their understanding of environmental issues and their active role in developing management solutions. Therefore, the development and implementation of a National Policy must continue to include an explicit requirement for robust and ongoing public participation.

Obstacles may arise in implementing EBM and CMSP where the NOC tries to make ocean maps and use-plans without a truly comprehensive understanding of the ecosystem, where local managers make decisions that do not comport with the needs of the ecosystem, where state-by-state goals and uses are not aligned, and where there is not public support for the "hard" decisions that will need to be made. To overcome these obstacles, science and communication are key – especially where there are social and economic pressures that conflict with ecosystem needs or where there are overlapping and contradictory governance systems.

Implementing a National Ocean Policy

Priority areas:
(5) Resiliency and Adaptation to Climate Change and Ocean Acidification
(6) Regional Ecosystem Protection and Restoration
(7) Water Quality and Sustainable Practices on Land

Action that needs to be taken by the NOC include empowering localities to make politically challenging decisions on coastal watershed uses and plans and developing toolkits and funding sources to enable coastal managers to encourage that these tough decisions are environmentally protective. Adaptation, resiliency, and sustainable practices, for ocean and coastal ecosystem management, tend to require local efforts more than national efforts. One major problem that towns and counties run into when, for example, they try to preserve wetlands, limit development in flood zones, de-harden coastlines, track pollution and sewage sources, or fix and upgrade water and wastewater infrastructure, is a lack of financial and technical support. Citizens need to be informed that adaption will mean accepting the loss of land due to sea level in certain areas. Data standardization, public disclosure, and inter-agency collaboration and coordination can all be conditions to financial and technical NOC support for these local programs – doing so would tie local actions to the NOC's national strategy and allow all stakeholders to play a part in protecting, restoring, and adapting coastal ecosystems.

Obstacles for each of these priority areas (resilient coasts, ecosystems, and water quality) arise because most of these require local and state-level agencies expand their permitting, enforcing, monitoring, and regulating departments and may also require regulatory changes. The NOC can (and should) develop model programs and guidance for local and regional regulators, but many of the changes needed under these program areas can only be accomplished by local action. Local action, in turn, requires a renewed nation-wide investment in environmental programs – something the NOC must make a priority.

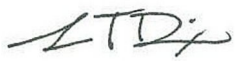
Conclusions

In general, regarding the NOC strategy for implementing the National Ocean Policy, Clean Ocean Action opposes regional governance systems that lack a public connection, accountability, and meaningful involvement in decision-making. Most of the decisions that will be required by the NOC's plans depend on public support, so the NOC needs to ensure there is public accountability and involvement in actual, implementation and regulatory decisions – not just for purposes like this comment solicitation (public comment on strategy development). Along this vein, citizens, states, and regions have already begun ocean policy changes – and the NOC should inventory, analyze, and work within the goals these planners and managers have set for their own ecosystems.

As the NOC moves to develop strategies for National Ocean Policy implementation, priority should be given to (1) building a robust system of data standardization and dissemination, and (2) funding regional clearinghouses of information and policy discussion. The NOC should refrain from making conclusions as to coast-wide "use" maps or CMSP systems until baseline studies and ecological performance indices can be developed. Finally, because most of the changes called for in the National Ocean Policy will rely on local support and local change, the NOC should work, at state and federal levels, to secure more funding and support for local environmental programs – from enforcement to planning and research.

Sincerely,

Cindy Zipf
Executive Director



Sean Dixon
Coastal Policy Attorney

Heather Saffert, Ph.D.
Staff Scientist

Hoh Indian Tribe
2464 Lower Hoh Road
Forks WA 98331

Makah Tribe
P.O Box 115
Neah Bay, WA 98357

Quileute Tribe
P.O. Box 279
LaPush, WA 98350

Quinault Indian Nation
P.O. Box 189
Taholah, WA 98587

April 29, 2011

National Ocean Council
722 Jackson Place, NW.
Washington, DC 20503.

Re: Comments on the National Ocean Council's Nine Strategic Action Plans

National Ocean Council Representatives:

The Coastal Treaty Tribes (CTT's), Hoh, Makah, and Quileute Tribes and the Quinault Indian Nation, of the Olympic Coast submit for your consideration comments and recommendations regarding the development of the National Ocean Council's Nine Strategic Action Plans.

We have individually and collectively been consistent in our messages that ocean management in the Pacific Northwest must be inclusive of the four coastal treaty tribes. Our concerns extend to all Nine Priority Objectives as not only does our usual and accustomed fishing grounds in marine waters, but our reservations and communities border the open ocean as well.We have been stewards of our land and waters since time immemorial. Preserving our fish and wildlife resources, as well as access to them, is essential to our economic, cultural, and spiritual well being.

Our legal standing and management status regarding ocean resources and governance is unique. Each of our tribes' has treaty secured hunting and fishing rights with the United States. These treaties retained rights to protect our way of life and reserved rights of hunting, fishing and gathering and are inclusive of our rights to manage and utilize marine resources in perpetuity. We are co-owners with the United States of these marine resources, and our co-management authority is legally recognized to include both state and federal waters. The development of a National Ocean Policy and Strategic Actions Plans must acknowledge and accommodate tribal values and activities with our usual and accustomed areas.

We are encouraged that the inaugural meeting of the Governance Coordinating Committee included identification of the tribes along with the state and federal representatives as co-leads in the Regional Planning bodies. We strongly urge the National Ocean Council to ensure (through communication and funding venues) that tribal participation is a high priority in the development and implementation of the National Ocean Policy. We expect that the Regional Planning Body for the West Coast will be created in keeping with the expressed intent of Executive Order 13547. Furthermore, it is our expectation that our

tribal governments will each have designated seats at the table given our status as sovereigns with treaty resources and management authority in ocean waters.

Specific and dedicated funding will be needed for the CTT's to engage at all levels of the National Ocean Policy. As sovereigns, the CTT's will need to be fully engaged due to their role as managers of the marine resources in order for the Nine Priority Objectives to successfully move forward. Dedicated funding for the CTT's will be especially important within the areas of CMSP, mapping and infrastructure, and resiliency and adaptation to climate change and ocean acidification. Funding is needed for education as well, both to get tribal knowledge out to educators, managers, scientists, and policy experts and to bring education opportunities to tribal communities.

The CTT submit the following for your consideration as the NOC develops the Nine Strategic Action Plans):

Coordinate and Support:

- Proper consultation with tribes is vital to the success of implementing the Action Plan and the National Ocean Policy in the northwest as tribal Usual and Accustomed Areas (U & A's) occupy the marine waters north of Point Chehalis to the U.S. Canadian border. We strongly suggest that this action plan will benefit from establishing a formal policy and protocol for consultation and consideration of the tribes at the NOC level. A couple of examples are:

    1. Coordination and Consultation Policy Plan of Action developed by the Environmental Protection Agency http://www.epa.gov/indian/consultation/index.htm or:
    2. Work done by National Marine Fisheries Service, Alaska Region at http://www.fakr.noaa.gov/tc/

- All of the action plans need to have a common theme that is in support of the United States governments' responsibility to uphold the treaties established between the federal government and the Coastal Treaty Tribes.

Ecosystem-Based Management:

- As stewards of ocean resources for thousands of years, the mainstream shift of marine resource management from single species to ecosystem-based is not a new principle in the management strategies of the coastal tribes. However, in order for Ecosystem-based management to become a fully integrated part of the National Ocean Policy there will need to be the establishment of the following:
    1. Creation of secure financial resources;
    2. The development of standards for data acquisition and processing
    3. Protocols for data and report availability

- In addition, we encourage the NOC to work with the regional fishery management councils and appropriate management authorities to ensure coordination with their existing efforts.

Ocean, Coastal, and Great Lakes Observations, Mapping, and Infrastructure:

- This will need to include a strong research component that identifies gaps in data that hinder or limit resource management decisions. With shifts in climate already a reality, it is critical to include a long term monitoring element that will establish both baseline conditions of ocean ecosystems as well as documenting the changes over time. Finally there are numerous assessments and inventories that in the short term can assist in guiding management decisions. Some examples of short term programs are:

1. Complete a data GAP analysis to identify the data needed to bring coastal waters off of Washington to an equal level of available data in Oregon and California coasts.
2. Conduct habitat and coastal current mapping.
3. Develop and complete stock assessments that forward understanding of important stocks at a regional scales.

Coastal and Marine Spatial Planning:

- The Regional Planning Bodies for the West Coast Region must include seats for tribal representatives as the CTT will be directly affected by CMSP. In short, planning for implementation of NOP or CMSP cannot occur off the Olympic Peninsula without each of the 4 coastal sovereign tribes being part of the discussion and planning.
- Currently, it appears that the NOC views the West Coast Governors Agreement on Ocean Health (WCGAOH) as the potential entity for the regional ocean partnership for the west coast region. This is not acceptable because WCGAOH does not satisfy the terms of a ROP as described by the NOC and most importantly, because the tribes are not part of the WCGAOH.
- As with the west coast states the CTT will require dedicated funding for the duration of the planning effort for coastal and marine spatial planning. Expecting the tribes to access funding through a competitive grant process wrongly puts the needs of tribal ocean policy and management as sovereigns in competition with stakeholders who already have a voice through their state elected officials.

Resiliency and Adaptation to Climate Change and Ocean Acidification:

- Tribes and coastal communities are experiencing climate change now, not only are resources affected by climate change but also the characteristics of the regions culture as well. Tribes can offer a unique perspective to how the NOC addresses Climate Change within the National Ocean Policy for our region.
- The effects of ocean acidification on the exercise of treaty rights to harvest marine resources both commercially and for subsistence are largely unknown. Tribal communities rely on these resources for our cultural and economic wellbeing. The potential changes or impacts as a result ocean acidification is beyond comprehension.

Regional Ecosystem Protection and Restoration:

- The large size of each of the regions indentified by NOC must be taken into consideration. As we stated in earlier correspondence: the "West Coast Region" may be too large; we must remember that the "large California current ecosystem" is the result of multiple smaller systems that function with some independence.
- Dedicated financial support for understanding the chemical and biological relevance of these sub-systems would help ensure that conservation and restoration efforts are effectively distributed. Effective distribution must be based on sound science so that areas of low population and high need do not lose out to areas of high population.

Inform Decisions and Improve Understanding:

- While not always considered, local knowledge such as that preserved in Tribal cultures can provide information that is not available elsewhere, to inform management decisions

The CTT would like to reiterate their support for the National Ocean Council and its critical role in implementing the National Ocean Policy. Thank you for this opportunity to comment and we look forward to working with the Council as you draft the Strategic Action Plans.

Sincerely,

Coastal Treaty Tribes of the Olympic Coast

Hoh Indian Tribe

David Hudson

David Hudson

Makah Tribe

Micah McCarty

Quileute Tribe

Lonnie Foster

Lonnie Foster

Quinault Indian Nation

Ed Johnstone

Ed Johnstone

COMMENTS SUBMITTED TO THE NATIONAL OCEAN COUNCIL ON STRATEGIES FOR IMPLEMENTING THE PRIORITY OBJECTIVES OF THE NATIONAL OCEAN POLICY
April 29, 2011

Dear Council Members:

The undersigned include fishermen, representatives of coastal fishing communities, scientists, environmental organizations, farmers, farming community organizations, seafood distributors, and food sovereignty organizations. We appreciate the opportunity to make recommendations regarding some of the nine priority objectives of the National Ocean Policy in addressing some of the most pressing challenges facing the ocean, our coasts, the Great Lakes and the food we get from these waters.

Objectives 1 & 2 & 6

Ecosystem-Based Management (EBM): *Adopt ecosystem-based management as a foundational principle for the comprehensive management of the ocean, our coasts, and the Great Lakes.*
Coastal and Marine Spatial Planning (CMSP): *Implement comprehensive, integrated, ecosystem-based coastal and marine spatial planning and management in the United States.*
Regional Ecosystem Protection and Restoration: *Establish and implement an integrated ecosystem protection and restoration strategy that is science-based and aligns conservation and restoration goals at the Federal, State, Tribal, local, and regional levels.*

Ecosystem Based Management and Coastal and Marine Spatial Planning are fundamentally linked and should not be considered separately from each other. Similarly, ecosystem protection and restoration are not separate decisions but fully integrated with EBM and CMSP. That different governmental bodies are responsible for their implementation should not prevent or impede the planning, restoration and management plans from being integrated.

RECOMMENDED ACTIONS
Near-term:

- EBM that includes humans as an integral part of ecosystems should be adopted in principal by all federal agencies whose activities affect marine, estuarine, and Great Lakes environments including management agencies and programs, e.g. among others: National Marine Fisheries Service (NMFS), NOAA Office of Ocean and Coastal Resources Management and the Coastal Zone Management program it administers through states, National Marine Sanctuary programs, Bureau of Ocean Energy Management, Regulations, and Enforcement (BOEMRE), Department of Agriculture, and Environmental Protection Agency, Army Corps of Engineers and Forest Service.
- Relative to CMSP, regional oversight structures and operational menus for more local implementation should be developed. The structure should incorporate governmental, tribal, community, and non-governmental

participants concerned with public welfare, including all those along the seafood production food chain from fishermen to processors to consumers, and those representing environmental, human health and sociological interests that function at a variety of scales.

- Guidelines and structures should be developed for establishing truly collaborative decision-making and adaptive management that gives weight to: restoring and maintaining diverse and resilient ecosystems; sustaining healthy living resources; and revitalizing coastal communities closely linked to those marine and Great Lakes resources and ecosystem services through such activities as fishing).
- The National Ocean Council should review existing legislation governing the management of marine and Great Lakes ecosystems and resources and alert Congress if changes are needed to accommodate full implementation of collaborative and adaptive EBM and CMSP at various ecosystem scales.
- The importance of living marine and aquatic resources to local, regional, and national food sovereignty should be recognized and given weight in the CMSP and EBM decision-making processes.
- The roles and responsibilities of the existing regional bodies important to implementing EBM, such as Fisheries Management Councils (which has management powers) and the International Joint Commission (US and Canada Great Lakes advisory body), should be integrated into NOP stategies.

Long-term:

- EBM, including Ecosystem Based Fisheries Management, should be fully implemented in management plans that are integrated on multiple scales consistent with ecosystem processes and integrate local participatory governance with regional oversight.
- EBM must be scientifically based and promote the long-term health and diversity of ecosystems, living resources, and ecosystem services. As a subset of this, Ecosystem Based Fisheries Management, must include fishermen as part of the ecosystem.
- EBM should be spatially based and coordinated with CMSP based on collaborative bottom-up decision-making and adaptive management that integrates ecological, sociological, and economic objectives.
- CMSP should begin with collaborative visioning processes with outcomes incorporating socio-economic elements on spatial scales that are well matched to the ecosystem, consistent with the goals of EBM. The outcomes of visioning should guide future decision-making and establish measuring posts for assessing progress.
- Food sovereignty should be incorporated into the vision guiding CMSP, so that in planning for activities in the marine and Great Lakes environment, fisheries and local and regional markets and food systems are supported and protected.
- Restoration of critical habitats and ecosystem diversity, including fisheries diversity, should be integral to CMSP.
- Monitoring should be keyed to vision milestones and spatial planning should

be adaptive to the results of monitoring, to unexpected changes, and to the evaluation of progress toward the guiding vision.

- The incorporation of local knowledge into CMSP is critical and should be part of planning and woven into the monitoring programs. Collaboration among scientists, users, local communities, and managers is critical to doing this effectively.

IDENTIFYING CHALLENGES

Obstacles and Opportunities:

Adaptive management. None of this is easy and it requires repeated exchange of information and discussion of adaptive measures. Ecosystems are complex so management that truly addresses the ecosystem is also complex. That is why the adaptive aspect is so important and should be addressed more seriously in the National Ocean Policy. Many monitoring and research programs would have to be revamped and augmented to enable adaptive management. Data for different types of management (e.g. fisheries, water quality, aquaculture, energy exploitation) would have to be detailed and coordinated at multiple scales. Monitoring must at the same time be individualized to capture critical scales of ecosystem variables and be common enough to be used in combination with other monitoring programs. This difficult coordination of data collection could be aided by effective and well funded regional plans.

Existing models. Agencies such as National Marine Fisheries Service (NMFS), have been actively discussing and developing scientific protocols for ecosystem-based fisheries management and EBM in general. While the need to include fishermen in these EBFM management plans persist, there is still not a good model for how this can be most effectively done. Recommendations from fishing communities for area-based management are promising but have yet to be accepted by regional management. In other EBM efforts on land, some agencies have model collaborative processes that include community participation in planning and have had some notable successes on local scales. We believe these processes can be translated for the ocean and Great Lakes.

Relevant programs. Existing collaborative research programs take advantage of smaller vessels and their operators, both scientists and fishermen who are knowledgeable about marine ecosystems. These could be improved with more participation and compensation, better coordination, and better use of the information in management decisions and adaptive management. This smaller scale research has been undervalued in the past. Ironically it is generally far less expensive to acquire abundant information this way and it reveals important ecosystem patchiness. It also offers more rapid assessment of data to enable adaptive management in real time.

Multi-scale management. Long-term management decisions should meld fine scale with regional scale information; and management structures should reflect multiple scales of ecosystems. This presents challenges to simplified management that

averages over large areas and considers species separately from each other.

Transformations:

The issue of scale in fisheries. We strongly recommend a major transformation in scales of monitoring and management, particularly in fisheries management:

- *From* top-down, broad brush management that encourages fishermen to pursue fish over distances that require larger boats; *to* bottom-up, spatial and community-based management that encourages cooperation and stewardship among groups of fishermen
- *From* scale blind management of fishing operations; *to* scale sensitive management consistent with ecosystem processes and distributions. At a minimum this would divide management of inshore fleets from management of offshore, larger boat fleets, and would match fishing scales and diversity to scales and diversity in ecosystems.

The issue of scale in general. For all uses of marine and Great Lakes environments, it is important that scales of monitoring and management as well as scales of activities themselves match ecosystems and ecosystem processes.

Bottom-up decision making. We recommend transforming decision-making processes from strictly top down regulation and management in which stakeholder comments and advice are heard but rarely incorporated; to bottom-up collaborative processes in which agreement, consistent with regulatory requirements, is reached by all participants from individual stakeholders to government officials. By nature the bottom up processes tend to be more local and thus more diverse but better adapted to specific ecosystem traits. Polarized controversy is often avoided.

Application of the Public Trust Doctrine. All private industry operating in marine and Great Lakes waters, which are public, must be open to scrutiny by the public and allowed to operate only if and under conditions agreed through collaboration with the public.

We encourage the recognition and incorporation of fisheries diversity and food sovereignty objectives into CMSP. The provision of healthful and diverse local sea-foods from healthy ecosystems is critical to the welfare of coastal communities and regions depending on them. We believe:

- Fisheries should maintain diversity in the fleet and in the ecosystem.
- Ecosystems should be protected from degradation by all causes so they may continue to support diverse fisheries.
- Fisheries should be executed by coastal communities and operated according to strict codes of stewardship.
- Seafood markets should prioritize local consumption of seafood and minimize exports.
- Fair and equitable distribution of fishing rights and fair compensation for fishermen should be objectives.

- The farming of seafood should be consistent with ecosystem objectives, maintenance of wild species and populations, diverse food production, aversion to non-native species, and prohibition of manufactured species (i.e. genetically engineered).

IMPORTANT PERFORMANCE MEASURES

It is essential that monitoring be directly relevant to the goals and objectives of management and policy decisions and tied to visioning processes.

- There must be a way of gauging management effectiveness and trade-offs between uses and ecosystem services so that adaptive management can be implemented. Outcomes of initial visioning will give end-points toward which progress can be measured by monitoring key indicators.
- Performance measures should be determined at the beginning when management decisions are first implemented.
- The US needs integrated, ecological-economic visualization, analysis, and forecasting in the coastal zone.

Objectives 5 & 7

Resiliency and Adaptation to Climate Change and Ocean Acidification*: Strengthen resiliency of coastal communities and marine and Great Lakes environments and their abilities to adapt to climate change impacts and ocean acidification.*

Water Quality and Sustainable Practices on Land: *Enhance water quality in the ocean, along our coasts, and in the Great Lakes by promoting and implementing sustainable practices on land.*

Both these objectives address impacts on marine and Great Lakes ecosystems from land-based activities – impacts that can fundamentally alter ecosystems, including their diversity of species, their resiliency, and their ability to provide ecosystem services. Climate Change and Ocean Acidification are caused on global scales but they affect ecosystems on all scales. Land based source of water pollution are caused by direct emissions or runoff and have impacts in local marine and Great Lakes ecosystems or may be carried by air and water currents to create impacts in remote locations. We recommend:

- Any national level planning should include measures to minimize and prevent land-based sources of negative impacts on marine and Great Lakes ecosystems; and they should coordinate with local plans to do the same.
- Synergistic and cumulative impacts of these effects from land plus those of at-sea activities must be taken into account and monitored in conjunction with CMS Planning.
- Strong, swift and effective regulations and measures to continuously reduce US generated causes of climate change and ocean acidification are essential.
- Similarly, improved enforcement of water and air quality laws and standards is needed.
- The objectives of coastal and port community plans to mitigate land-based sources of impacts to marine and Great Lakes ecosystems should be supported by national actions and monetary and technical support.

Objectives 3 & 9

Inform Decisions and Improve Understanding*: Increase knowledge to continually inform and improve management and policy decisions and the capacity to respond to change and challenges. Better educate the public through formal and informal programs about the ocean, our coasts, and the Great Lakes.*

Ocean, Coastal, and Great Lakes Observations, Mapping, and Infrastructure: *Strengthen and integrate Federal and non-Federal ocean observing systems, sensors, data collection platforms, data management, and mapping capabilities into a national system and integrate that system into international observation efforts.*

Some monitoring and research needs have already been mentioned in conjunction with regional and smaller scale management. We support as well the development and improvement of national research and monitoring systems that would provide a basis for overlaying and integrating finer scale research and monitoring significant to local and regional decisions but comparable across large marine and Great Lakes ecosystems for the purpose of national coordination.

We encourage basic research on ecosystem functions, interactions among species, effects of changing marine and Great Lakes environments, the human role in ecosystems, important scales of ecological processes, and other areas where more knowledge would enhance the effectiveness of ecosystem based management. It would enable identification of key indicators for measuring progress in achieving goals.

We encourage the incorporation of sociological research that sheds light on and enables measurement of the social and economic impacts caused by management actions as well as such impacts caused by human-induced changes in ecosystems. The relatively new science of ecological-economic visualization, analysis, and forecasting in the coastal zone is not widely known or acknowledged. We encourage the recognition and funding of this important line of research.

Sharing information with the public is critical to successful collaborative management. The development of user-friendly templates should be a priority for regional ocean councils. It is critical that the public be informed at the initial stages of producing management plans (both EBM and CMSP), and that they receive information and data used throughout the adaptive management process.

Summary

We offer the following summary of key strategies we have recommended and explained above:

- Collaborative management at local scales;
- Adaptive management and monitoring;
- Visioning processes at various levels of management;

- Accounting for humans as part of the ecosystem;
- Monitoring to measure achievement of objectives;
- Scale-sensitive matching of activities with ecosystem processes in ocean, coastal, and Great Lakes environments;
- Multi-scale spatially based management;
- Protection of food sovereignty and marine-based food systems;
- Bottom up decision-making;
- Management for the public good and with public oversight;
- Protection of food sovereignty in context of CMSP;
- Pollution prevention;
- Ecological-economic visualization, analysis, and forecasting;
- Integration of local knowledge with sound science; and
- Sharing of knowledge and data effectively with public in a timely manner.

Yours truly,

Boyce Thorne Miller (contact boyce@namanet.org)
Science and Policy Coordinator
Northwest Atlantic Marine Alliance
Gloucester, Massachusetts

Robin Alden
Executive Director
Penobscot East Resource Center
Stonington, Maine

Gary G. Allen
Executive Director
Gary G Allen Center for Chesapeake Communities
Annapolis, Maryland

Patrician Anderson
President
Granite State Fish
Hampton, New Hampshire

Barbara S. Arter
Executive Director
Friends of Blue Hill Bay
Blue Hill, Maine

Nikhil Aziz, Ph.D.
Executive Director
Grassroots International
Boston, Massachusetts

Jim Bates
Former Congressman
Truth in Labeling Coalition
San Diego, California

Judy Braiman
President
Empire State Consumer Project, Inc.
Rochester, New York

Jennifer F. Brewer
Assistant Professor, Department of Geography
Assistant Scientist, Institute for Coastal Science and Policy
East Carolina University
Greenville, North Carolina

Lynda Brushett, PhD
Cooperative Development Specialist
Cooperative Development Institute
Portsmouth, New Hampshire

Ben Burkett
Mississippi Association of Co-operatives/Federation of Southern Co-operatives
Jackson, Mississippi

Kathleen Burns
Director
Sciencecorps
Lexington, Massachusetts

Jim Chambers
Founder/Owner
Prime Seafood, LLC
Kensington, Maryland

Marianne Cufone
Director, Fish Program
Food & Water Watch
Washington, DC

Kathleen A. Curtis, LPN
Policy Director
Clean New York
Albany, New York

Aaron Dority
Sector Manager
Northeast Coastal Communities Sector
Stonington, Maine

Don Eley
President Friends of Blue Hill Bay
Blue Hill, Maine

Noemi Giszpenc
Executive Director
Cooperative Development Services
Shelburne Falls, Massachusetts

William F. "Zeke" Grader
Executive Director
Pacific Coast Federation of Fishermen's Association
San Francisco, California

Jaydee Hanson
Senior Policy Analyst
Center for Food Safety
Washington, DC

John Hocevar
Ocean Campaign Director
Greenpeace
Washington, DC

Ted Hoskins
Blue Hill, Maine

James Houghton
Downeast Foodshed
Bar Harbor Maine

Anne Mosness
Fisher's Choice Wild Salmon
Bellingham, Washington

Heidi Nutters
San Francisco, California

Joann Lo
Food Chain Workers Alliance
Los Angeles, California

Kathy Ozer
National Family Farm Coalition
Washington, DC

Pietro Parravano
President
Institute for Fisheries Resources
Half Moon Bay, California

Alfredo Quarto
Executive Director
Mangrove Action Project
Port Angeles, Washington

Tristan Quinn-Thibodeau
Outreach and Partnerships Coordinator
Global Movements Program
WhyHunger
New York, New York

Sara Randall
School of Policy and International Affairs
School of Marine Science Graduate Assistant
University of Maine

Judith Robinson
Associate Director
Environmental Health Fund
Jamaica Plain/Boston, Massachusetts

Angela Sanfilippo
President
Gloucester Fishermen's Wives' Association
Gloucester, Massachuestts

Ted Schettler
Science Director
Science and Environmental Health Network
Ames, Iowa

Ellen Parry Tyler
2011 Candidate
Agriculture, Food & Environment
Friedman School of Nutrition Science and Policy
Tufts University

Boston, Massachusetts

Adriana Voss-Andreae, MD PhD
Portland, Oregon
Daniel Wallace
2012 Muskie School of Public Service
University of Southern Maine
Portland, Maine

Barbara Warren
Executive Director
Citizens' Environmental Coalition
Albany, New York

Diane Wilson
Calhoun County Resource Watch
Seadrift, Texas

Brian Makokha
Vermont Law School Student
bmakokha@vermontlaw.edu

Strategic Action Plan Comment for National Ocean Council on Priority Objective #1: Ecosystem-Based Management and Objective #2: Coastal and Marine Spatial Planning

Based on attending CMSP Conference
at Vermont Law School on April 1, 2011

Coastal and Marine Spatial Planning:
The Intersection between Energy, CMSP and Our Future Needs

Objective 1: Ecosystem- Based management: Adopt ecosystem- based management as a foundational principle for the comprehensive management of the ocean, out coasts, and the Great Lakes.

- What near-term, mid-term, and long-term actions would most effectively help the Nation achieve this policy objective?

We should strive to identify the important ecological areas that will need protection and demonstrate to the communities the benefits of this management system. The ecological areas identified should be subjected to regular reviews and adjusted to reflect any changes that have taken place since ecosystems are dynamic. Benchmarks should also be set to gauge whether the program is achieving its intended goals. We should create a one time compensatory mechanism for communities who might have to give up some of their traditional rights to these areas.

- What are some of the major obstacles to achieving this objective; are there opportunities this objective can further, including transformative changes in how we address the stewardship of the oceans, coasts, and Great Lakes?

A major obstacle might be sourcing the funds to conduct detailed studies that are necessary to identify these ecosystems. Some of these ecosystems straddle international boundaries and this may call for negotiations of treaties which might prove difficult. This might call for acceding to the Law of the Sea convention. This objective can help protect areas that fall out of marine reserves or parks.

- What milestones and performance measures would be most useful for measuring progress toward achieving this priority objective?

A significant performance measure would be to quantify the economic benefits the local communities have inured after adopting the system. Another significant milestone would be the level human use that has been incorporated in the program. This endears the plan more to the public.

Objective 2: Coastal and Marine Spatial Planning: Implement comprehensive, integrated, ecosystem- based coastal and marine spatial planning and management in the U.S.

- What near-term, mid-term, and long-term actions would most effectively help the Nation achieve this policy objective?

In the short term the CMSP should not supersede any existing statutes. States should be given a greater role in developing this policy since they can tailor it to meet their unique local conditions. Marine mapping should be carried out frequently to assist in effective planning and decision making. Tribal participation should also be encouraged in the process. There should also be continuing education to sensitize the general public on the benefits of this system and how it affects them.

- What are some of the major obstacles to achieving this objective; are there opportunities this objective can further, including transformative changes in how we address the stewardship of the oceans, coasts, and Great Lakes?

A planning process is intangible so it is difficult to understand for some people. Funding to get the process started might prove to be a challenge. Without a scientific basis it might be difficult to justify CMSP. Without political support it will be difficult for CMSP to be implemented. There will be some resistance to CMSP form industry. To incorporate them in the process we should use standards that industry has helped to develop. There are a multiplicity of policies and every agency has its approach to things.

- What milestones and performance measures would be most useful for measuring progress toward achieving this priority objective?

A reduction in litigation of federal off-shore leasing activities will be a good performance measure of the objective.

SAVE OUR SOUND
alliance to protect nantucket sound

April 26, 2011

Ted Wackler
Deputy Chief of Staff, OSTP
National Ocean Council
722 Jackson Place, NW
Washington, DC 20503

Re: Comments on the National Ocean Council's Development of Strategic Action Plans to Implement Priority Objectives for the Protection of the Ocean, our Coasts, and the Great Lakes

Dear Mr. Wackler:

The Alliance to Protect Nantucket Sound (Alliance) submits these comments in response to the National Ocean Council's request for comments on the *Development of Strategic Action Plans for the National Policy for the Stewardship of the Ocean, Our Coasts, and the Great Lakes*. 76 Fed. Reg. 4,139 (Jan. 24, 2011).

The Alliance is a nonprofit environmental organization dedicated to the long-term preservation of Nantucket Sound, the unique body of water between Cape Cod, Nantucket, and Martha's Vineyard. Nantucket Sound is one of the most valuable marine ecosystems in the country and is a significant marine habitat for a wide range of ecologically and economically important species. It is the economic engine of the Cape and Islands, through which over 3 million ferry passengers travel and over which more than 400,000 airplanes fly every year. The Sound is the source of livelihood for local fishermen, an inspiration for artists and authors, and a source of solace and recreation for the millions who flock to its shores. Nantucket Sound has long supported its fishing community and the Native American tribes that in turn have helped define the historic and cultural landscape and rich maritime heritage of the area. Protecting this heritage is our key concern.

Since our inception nearly a decade ago, the Alliance has consistently called for the creation and implementation of a national ocean policy based on the foundation of coastal and marine spatial planning (CMSP) in order to balance the protection of coastal resources with competing development interests. The Alliance believes that this process, now being undertaken by the National Ocean Council (Council), should be completed prior to the approval of significant coastal offshore development activities. In doing so, the Council will be able to prevent such ill-advised siting decisions as the Cape Wind offshore wind energy project proposed for construction in the middle of Nantucket Sound.

The Alliance Supports the Use of Ecosystem-Based Management

Objective 1 calls for the use of ecosystem-based management (EBM) as a principle of the National Ocean Policy (NOP). The Alliance strongly supports this. EBM should be used to determine whether

4 Barnstable Road, Hyannis, Massachusetts 02601
▫ 508-775-9767 ▫ Fax: 508-775-9725

www.saveoursound.org

a 501 (c)(3) tax-exempt organization

particular areas are suitable for development, or whether alternatives should be sought in order to avoid environmental damage. The final NOP should adopt a series of regionally-based measures, including environmental, cultural, and socioeconomic considerations, in measuring the potential impact of any proposed activities against the particular area in question.

Under the principle of EBM, Nantucket Sound should be protected in order to preserve the unique environmental and biological features and characteristics that led to its 1971 designation as a Cape and Islands Ocean Sanctuary, 1980 nomination for designation as a National Marine Sanctuary, 1983 determination that the Sound was worthy of such designation, and most recently, the 2010 ruling that Nantucket Sound was eligible for listing on the National Register of Historic Places. No large-scale projects, such as the Cape Wind project and its related infrastructure, should be allowed to degrade these qualities. In fact, the Advisory Council for Historic Preservation recommended to the Department of Interior to deny or relocate the Cape Wind project because it would cause pervasive and permanent damage to the Sound.

The Alliance Strongly Urges the Completion of Coastal and Marine Spatial Planning Prior to the Authorization of any Coastal or Offshore Activities or Projects

Objective 2 calls for the use of CMSP as a foundational principle of the NOP. As discussed above, the Alliance has consistently advocated the adoption of CMSP as a principle for the management and protection of offshore and coastal resources.

In the short term, the CMSP process must 1) encompass all coastal and ocean resources and uses, and 2) must be completed prior to permitting any specific projects. This is especially important when, as in the case of Cape Wind, the project is both a new type of development whose impacts have not been clearly demonstrated in similar projects, and is also a dramatic move away from any previous use of the area. Requiring a moratorium on all proposed projects until ocean zoning is in place promotes the advantages of responsible planning and protecting environmentally sensitive areas such as Nantucket Sound. This moratorium would also avoid future controversy and lengthy delays such as the one surrounding the Cape Wind project. Allowing pending offshore projects to move forward without first completing CMSP could result in projects being sited in areas with significant negative impacts on the environment that should have been deemed off limits to development.

In the long-term, the Council should incorporate the use of consensus-based management, transparency, and public participation, all concepts touted by this Administration, to develop regional CMSP initiatives and determine what uses are best suited for particular areas.

The Alliance Supports Coordination with Local Communities

Several of the objectives call for increased coordination and information-sharing with state, tribal, and local authorities. This is particularly critical for Nantucket Sound, a single ecosystem spanning both federal and state waters. Because Massachusetts and the federal government are both undertaking CMSP efforts, these plans must be coordinated if either is going to be successful. The state plan does not have jurisdiction over the federal waters in the center of Nantucket Sound; these waters must be included in the national plan and coordinated to be complimentary with the state-level plans and protections.

In addition, local communities must be integrated into the planning process. In Nantucket Sound, a strong voice must be given to the local tribes, towns, and regional land use planning agencies, such as the Cape Cod and Martha's Vineyard Commissions.

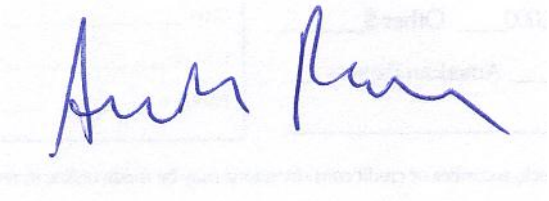
Construction of Cape Wind Must be Stayed

As discussed above, the approval and construction of projects such as the Cape Wind facility must be stayed pending completion of the NOP, especially with respect to the development and implementation of the regional CMSP process. The Alliance is concerned that the Department of the Interior and Bureau of Ocean Energy Management, Regulation and Enforcement, in spite of their participation on the Council, have continued to move forward with the approvals for the Cape Wind project, issuing a lease in October 2010, and releasing an Environmental Assessment, Finding of No Significant Impact, and Record of Decision on the Construction and Operation Plan on April 22, 2011.

If this project is allowed to proceed, it will be a premature decision without the benefits of the completed and comprehensive analysis to be provided by the NOP. In addition, the project will, without a doubt, conflict with the final NOP, which must recognize the unique characteristics and appropriate existing uses of Nantucket Sound and affirm the Alliance's call for protection of this great resource. Allowing the project to continue before the completion of the NOP will undermine the Council's efforts, compromise the integrity of the CMSP process, and forever negatively alter Nantucket Sound and its important environmental and cultural resources.

The Alliance appreciates the opportunity to comment on the development of these strategic action plans, and looks forward to continued means of participation as the Council moves forward with the development of the NOP.

Very truly yours,



Audra Parker
President & CEO
Alliance to Protect Nantucket Sound

4 Barnstable Road, Hyannis, Massachusetts 02601
▫ 508-775-9767 ▫ Fax: 508-775-9725

www.saveoursound.org

a 501 (c)(3) tax-exempt organization

CITY OF FORT BRAGG

Incorporated August 5, 1889
416 N. Franklin St.
Fort Bragg, CA 95437
Phone: (707) 961-2823
Fax: (707) 961-2802
http://city.fortbragg.com

April 25, 2011

National Ocean Council
722 Jackson Place, NW
Washington, DC 20503

Subject: Comments from Fort Bragg City Council on Strategic Action Plans

Fort Bragg is a coastal city in northern California that is located midway between San Francisco and the Oregon border. Our City has a port, Noyo Harbor, that shelters commercial and sport fish fishing boats, whale watch tour boats and recreational boats. Commercial and recreational uses of the ocean are an important component of our local and regional economy. Recreational use of the ocean is important to our citizens. The ecological health of the ocean is important to all of us.

The North Coast region of California has recently engaged in extensive public discussion of ocean issues during the California Marine Life Protection Act implementation process to establish marine reserves in this region. The following comments on the National Ocean Council's Strategic Action Plans are informed by that discussion:

1. **Ecosystem-Based Management:**
   The tribal communities, fisherman and other ocean users of the North Coast of California stand ready to participate in management of our ocean resources. Please include co-management by these groups in your management strategy.

2. **Coastal and Marine Spatial Planning (CMSP):**
   Much of the ocean resource is currently utilized. Please take full account of existing uses as a baseline for CMSP. The tribal and non-tribal local jurisdictions of the North Coast have experience with planning and vast knowledge of existing uses. Please consult our local jurisdictions early in the CMSP process. Local and tribal jurisdictions should be represented on the Regional CMSP recommending group.

3. **Inform Decisions and Improve Understanding; and 4. Coordinate and Support:** The tribal and non-tribal local jurisdictions of the North Coast have vast experience and knowledge of our Ocean resource. Please consult our local jurisdictions. Local and tribal jurisdictions should be represented on any Regional recommending group.

5. **Resiliency and Adaptation to Climate Change and Ocean Acidification; 6. Regional Ecosystem Protection and Restoration; 7. Water Quality and Sustainable Practices on Land; and 8. Changing Conditions in the Arctic:** We agree with the above four items as objectives, but have no specific comments. We stand ready to cooperate on these goals as they apply to our City.

9. **Ocean, Coastal, and Great Lakes Observations, Mapping, and Infrastructure:** Much more information and mapping is needed to characterize the ocean resource in the North Coast area of California sufficiently to establish good policy. Please do all that you can to direct resources to our area for further mapping and scientific study. Further knowledge is a pre-condition to the establishment of good policy for our ocean resource.

Sincerely,

Dave Turner
Mayor

Meg Courtney
Vice Mayor

Dan Gjerde
Councilmember

Doug Hammerstrom
Councilmember

Jere Melo
Councilmember