

National Ocean Council

Governance Coordinating Committee

The National Ocean Council (NOC) Governance Coordinating Committee (GCC) represents broad, diverse interests, regions, and people. Established by Executive Order 13547, *Stewardship of the Ocean, Our Coasts, and the Great Lakes* in July 2010, the GCC is an advisory group consisting of eighteen officials from State, tribal, and local governments. The GCC serves as an independent body to advise and coordinate with the NOC on inter-jurisdictional collaboration and cooperation on the National Ocean Policy and related matters. The views expressed are those of the GCC itself.

Voices for the Ocean: A Summary of GCC Policy Topics

In preparation for the October 2015 meeting, GCC members crafted policy papers to inform the eventual goal of selecting specific topics for further discussion. This is a summary of those papers and what the GCC views as the most important inter-jurisdictional ocean issues for the Nation.

The policy papers fall into four themes:

- Changing Seas;
- Data and planning;
- Resource management; and
- Communications

Within each of these themes, key points are **highlighted**. These important thoughts are suggested to help guide future ocean policy discussions.

Changing Seas: From Kotzebue, AK to Key West, FL, the **oceans are undergoing a massive transition**. The ocean absorbs about a quarter of the carbon dioxide (CO₂) released into the atmosphere from human activities. Once absorbed, the CO₂ interacts with seawater and disassociates into an acidic molecule, changing the water chemistry and lowering ocean acidity (pH), with the result of threatened marine ecosystems and coastal communities depending on ocean health.

Ocean acidification, the lowering of the ocean's pH, and hypoxia, caused by low oxygen levels in the water, are often coupled stressors¹.

Ocean temperatures are increasing and expected to continue to warm. Abnormally high sea surface temperatures were observed off the West Coast in fall 2013 and persisted through the winter season during a

GCC Membership

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State of Hawaii

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Supervisor Greg Cox
San Diego County, CA

Jennifer Hennessey
State of Washington

Joe Oatman
Nez Perce Tribe

Mayor Philip Stoddard, Ph.D.
South Miami, FL

Nick Tew, Ph.D.
State of Alabama

Governance Coordinating
Committee
c/o National Ocean Council
722 Jackson Place NW
Washington, DC 20503
OSTP-NOCGCC@ostp.eop.gov

¹ Multiple stressor considerations: ocean acidification in a deoxygenating ocean and warming climate. West Coast Ocean Acidification and Hypoxia Science Panel, Oakland, California, USA. July 2015

time when storms normally create more mixing for surface. Inland waters are also experiencing higher temperatures.

These changes can negatively impact human health, especially coastal **tribes and indigenous people** who often consume significantly more fish than non-tribal people². Increased toxins due to harmful algal blooms and pollution (e.g., mercury) can affect fish and shellfish health and make them toxic for public consumption. Threats to the food web dynamic poses major threats to native cultural resources and traditional uses.

Sea Level Rise (SLR) threatens coastal habitats that provide spawning grounds, nurseries, shelter, and food for fish, invertebrates, birds, and marine mammals. SLR also threatens modern cities across the Nation. A focus on **adaptation** is needed to prevent the loss of tidal ecosystems, prepare lands for **inundation**, and address derelict lands caused from SLR and extreme weather events. GCC members support new funding mechanisms to address these estuarine transitional zones in advance of inundation, including additional science and technology resources to monitor changing ocean conditions, and addressing these cumulative effects on the ecosystem.

Data and Planning: A great deal of **marine science** has been, is being, and will be done. Many policies have been, are being, and will be established nationally, regionally, and locally. All too often, however, these two streams remain separate. Without improving the **science-policy connection**, more science will simply add to the volume of knowledge that is being left out of policy considerations. More policies will simply add to the list of ineffective efforts to address real problems. Scientists and policy makers alike need to develop new effective and connected means of communication.

One example of an effective science-policy connection is through the recent development of regional **ocean data portals**. In the past, data on environmental, socioeconomic, and regulatory parameters were inaccessible and scattered among different providers. Now, ocean data portals in the Northeast, Mid-Atlantic and West Coast provide a new platform to integrate this data and view this information, better informing decision-makers.

The agencies, research institutions and organizations involved in the data portal have invested millions of dollars over the past 10 years—and leveraged tens of millions of dollars more—to obtain ocean use and resource data to create a tool that is now being used by Federal and State agencies, and the public, to better inform decision-making and improve understanding. However, data are only good if they are relevant, and thus there is always a shelf-life. There is an institutional need for the long-term maintenance of key data sets. There needs to be solid commitments to refresh datasets on a regular basis. In addition, there is a need to improve these data portals with better spatial analysis tools.

We cannot understand the ocean if we do not pay attention to it. There are many studies and many **monitoring programs** underway around the world, but we are almost certainly not getting as much return on our investment as we could. Many discussions have been held about ocean monitoring, leading

²[http://yosemite.epa.gov/r10/cleanup.nsf/7780249be8f251538825650f0070bd8b/e12918970debc8e488256da6005c428e/\\$file/tribal%20shellfish%20framework.pdf](http://yosemite.epa.gov/r10/cleanup.nsf/7780249be8f251538825650f0070bd8b/e12918970debc8e488256da6005c428e/$file/tribal%20shellfish%20framework.pdf)

to some advances in observation platforms, data management, and data display, but few of these discussions have been constrained by considerations of cost and policy relevance. Below are some examples key data sets that need to be expanded:

Baseline Data on fish: Migration and distribution patterns from ocean entry as juveniles to time return; ocean marine food web dynamics; abundance and age class; release or known origin of fish; hatchery marks and tags; and condition of fish.

How ocean environmental forcing mechanisms and changes affect distribution: Information on how ocean affects fish (e.g., chinook salmon) abundance and survival in the ocean (variation in marine mortality, El Nino/La Nina events Pacific decadal oscillation, ocean and wind currents, sea/land temperatures, etc.).

Resource Management: In 2016, the Northeast and Mid-Atlantic Regional Planning Bodies (RPBs) will publish the first-ever **ocean plans** in the United States. The plans are the result of a huge time investment from Federal, State and tribal entities as well as from stakeholders who have provided key information and, through their comments, have helped to orchestrate the overall direction of the plan. The financial resources needed to stand up and staff the RPB, as well as carry out the necessary data development and analysis efforts and stakeholder engagement, has been funded both by agencies, primarily National Oceanic and Atmospheric Administration, and foundations. The RPB budget leveraged a significant amount of State and Federal funding through agency in-kind support, existing federally-funded marine survey and scientific work, and inter-agency coordination. GCC membership represents a cross section of State, and local jurisdictions and, thus, the various problem areas associated with the advancement of ocean planning programs at these levels should be revealed in deliberations, thereby providing a somewhat robust elucidation of obstacles to success.

Resource management both within in the RPBs and outside the process needs to help build resilient communities and habitat. Characterization of **offshore sediment resources**, especially sand, for onshore applications is becoming more important as the need to restore and maintain beaches and other near shore ecosystems and habitats accelerates. A sustainable, coordinated program to more comprehensively map and characterize offshore sand resources should be developed and implemented.

Development of Outer Continental Shelf and State waters oil and natural gas resources, as well as development of other **offshore energy resources**, such as wind, wave, and current energy, is critically important to our national and local economies and to national security. Therefore, it is very important for the Nation and States to have appropriate and reasonable policy and regulatory regimes that lead to prudent and appropriate exploration, development, and production of offshore energy resources, but that also incorporates adequate safeguards to protect against negative impacts from either routine activities or catastrophic events on other ocean and coastal resources, services, and uses, and coastal communities and citizens.

Adaptive management is a structured, iterative process of robust decision making with an aim to reduce uncertainty over time through system monitoring. Through this process, decision making

simultaneously meets one or more resource management objectives and, either passively or actively, accrues information needed to improve future management. Because adaptive management is based on a learning process, it improves long-run management outcomes. In social-ecological systems, resource sustainability requires full engagement of local communities, stakeholders, and inter-governmental cooperation. Adaptive management allows and encourages cooperation among the various partners to achieve specific goals and objectives.

Evidence from around the globe clearly shows that effectively managed **reef ecosystems** are more resilient to both human and natural disturbances than those that are not managed. Protecting selected segments of the reef system through a network of managed areas (including Marine Protected Areas), along with wise land management in adjacent watersheds, will decrease stress on fish, coral, and the entire reef community, allowing a level of ecosystem resilience to better withstand chemical and heating changes that are occurring throughout the ocean due to climate change.

Pre-application consultation is an informal information-gathering and consultation process between a project proponent and the regulatory agencies that occurs before formal regulatory action begins. Pre-application consultations clarify applicable authorities and required information, identify potentially significant impacts to jurisdictional resources and existing human activities, identify what data are available and what are missing and needed, identify potentially affected stakeholders to be consulted, and provide an opportunity to modify the action in response to agency concerns.

Communications: As a maritime nation, rich in heritage past and present, a coordinated **national campaign for ocean health** is needed to address ocean conditions that focus on the plight of the ocean, from marine debris to fisheries collapses to ocean acidification to human-use conflicts. The waters of the Gulf of Maine are warming faster than 99 percent of the world's largest bodies of saltwater³ and until people accept that the ocean is changing, efforts to improve ocean health and advance appropriate policies will be so slow, that they will be nearly ineffectual. It is time for the NOC to coordinate and challenge their respective agencies to move beyond the public's perception of providing content for schools and aquaria (which is beneficial and should continue) and create a national campaign for ocean health using all media tools available. It is important to recognize that while the National Ocean Policy has specific goals and objectives, so do the states. From the Puget Sound Action Agenda in Washington to the Marine Life Protection Act in California to the Coastal and Ocean Acidification Commission in Maine, states are advancing fundamental ocean policies. It will be critical for the NOC to acknowledge these **State initiatives**, and develop priorities that complement or directly support state priorities.

Next Steps: Following the October 2015 meeting, GCC members unanimously agreed to develop plain language, non-partisan transition papers around the theme "Sea Change" that address the care of the ocean while providing recommendations on the most important ocean issues affecting communities, including climate adaptation and ocean acidification, temperature, and hypoxia.

³ <http://www.buildingclimatesolutions.org/topics/view/523383680cf2ea76e535e6f0/>