



# MARINE MAMMAL COMMISSION

17 October 2009

Michael Weiss  
Council on Environmental Quality  
722 Jackson Place NW  
Washington, DC 20502

Dear Mr. Weiss:

The Marine Mammal Commission, in consultation with its Committee of Scientific Advisors on Marine Mammals, has reviewed the Interim Report of the Interagency Ocean Policy Task Force (report) announced in the Federal Register on 23 September 2009 (74 Fed. Reg. 48521). The Commission gratefully acknowledges the Council on Environmental Quality, interagency task force, and all supporting staff for their hard and thoughtful work on this report.

The Commission expects that no single document will have more influence on the direction of our country's ocean use, science, management, and conservation in the coming decade. Among other things, the report—

- identifies many challenges facing ocean science, management, governance, and conservation;
- promotes progressive, up-to-date principles for addressing those challenges;
- stresses an ecosystem-based approach, including restoration where damage already has been done;
- seeks to facilitate ocean resiliency and adaptation;
- supports ocean zoning to manage multiple uses of marine resources;
- links management of oceans to human activities at sea and on land, reaching even into our nation's heartland;
- emphasizes the value of science in decision-making;
- calls for adequate funding for ocean science, management, and conservation;
- fosters integration of and coordination among governance bodies from local to international levels;
- appeals for high level government involvement in and commitment to ocean research and management;
- refines the existing federal ocean governance structure to promote such integration, coordination, and high level involvement; and
- encourages the United States to ratify the Law of the Sea Convention.

That being said, the Marine Mammal Commission believes that the report and ensuing ocean policy must be further strengthened. The Commission urges the Council on Environmental Quality and interagency task force to be more forthcoming with regard to the challenges that lie ahead if we are to use the world's oceans in a truly sustainable fashion. Doing so will require a stronger commitment to our vision and goals, a harder look at our social customs and the prevailing economic paradigm, and a greater willingness to adapt our lives and life styles to ensure that we pass to future generations a world undiminished in its complexity, beauty, and wonder. Now is the time

for frank appraisal and bold, determined leadership. To that end, the Marine Mammal Commission urges the Council on Environmental Quality, the interagency task force, and the Obama Administration to—

- raise the priority given to ocean research, management, use, and conservation to ensure that such matters are not neglected in the face of other, conflicting crises;
- define ecosystem-based management in such a way as to continue to protect single species but also promote a stronger ecological basis for management decisions;
- recognize and respect the limits of natural marine ecosystems to perturbation by human activities;
- implement ocean zoning to enhance ocean conservation, not facilitate its exploitation;
- seek a stronger commitment to comprehensive and robust systems for ocean observation;
- draw a stronger connection between ocean conservation and the manner in which it will be affected by continued human population growth;
- strengthen its call for international cooperation on ocean conservation;
- forthrightly anticipate and analyze where existing trends and projections will take us if we maintain the current course, and then use that information to recommend the essential new direction for ocean policy;
- call on those whose activities pose risks to marine ecosystems to assume a larger responsibility for meeting the costs of essential research; and
- (a) review the structure and function of the previous framework under the Ocean Action Plan to determine if it was effective and why or why not, (b) describe how those involved in the new framework will assess their effectiveness, and (c) describe how the new framework will influence the direction of our society and move it toward the goal of healthy, sustainable marine ecosystems.

## **RATIONALE**

The Commission offers the following rationale for its comments.

### **Priorities**

The issue at the center of ocean research, management, use, and conservation is not whether we value clean, healthy oceans and ecosystems. Few, if any, would suggest that we do not. The issues are (1) whether we fully recognize the importance of ocean ecosystems to life on earth and are willing to take the steps necessary to ensure that ocean-related concerns are not overridden by the social and economic crises that now mark our daily lives, and (2) whether we fully appreciate that failure to do so will have great consequences not only for the health of marine ecosystems, but also for the health of our social and economic systems. We now seem live in a time of multiple crises, but such may be the rule rather than the exception. Economic recession has been a dominant concern in the past year and has demanded strong attention, often overwhelming consideration of other “priorities.” But history indicates that, since the Great Depression, the United States has experienced a recession every six years (on average). The wars in Iraq and Afghanistan have incurred great costs in blood and treasury, but these, too, are not exceptional in the sense that, since World War I the United States has been involved in a major conflict every 15 years. The challenge, then, is to re-examine our priorities to ensure that concerns about the ecology and health of our oceans ecology are not shelved until a more convenient time, a time when we are not engaged in other

crises. To that end, the Commission urges the Council on Environmental Quality and interagency task force to raise the priority given to ocean research, management, use, and conservation to ensure that such matters are not neglected in the face of other, conflicting crises.

### **Ecosystem-based management, sustainability, balance, and zoning**

This report, like many others, makes a strong call for ecosystem-based management. However, the concept behind such management is neither well defined nor understood. Ecosystems are biological communities of interacting organisms adapted to and living within the limitations of their abiotic environments. They are characterized by their biological diversity (i.e., species composition weighted by some measure of presence) and the ecological processes linking species to each other and their habitat. To date, the statutory bases for management of ecosystems (e.g., Marine Mammal Protection Act, Endangered Species Act) have relied on species as the fundamental units to conserve, regarding their health as essential to ecosystem health. At least from ecologists, the growing demand for ecosystem-based management has not been intended as a call to abandon the single-species approach, but rather to expand it by recognizing that human effects on single species reverberate through ecosystems because of ecological linkages. Consistent with this approach, the Commission urges the Council on Environmental Quality and the interagency task force to define ecosystem-based management in such a way as to continue to protect single species but also promote a stronger ecological basis for management decisions.

In part, the interim report emphasizes ecosystem-based management to balance multiple ocean uses. By itself, the act of balancing multiple uses is not sufficient to protect ecosystems. Managers also must have the will to constrain those uses and their cumulative effects to protect the biodiversity and ecological character of the ecosystem. Doing so wisely and fairly requires a strong foundation of natural history and ecology. If management simply attempts to continually rebalance multiple competing demands, then the oceans are destined to further decay as demands continue to increase. We must conserve marine ecosystems on their terms, not ours. Their resilience—and their ability to adapt—is limited and those limits cannot be overlooked, no matter how great the demand. To that end, the Commission urges the Council on Environmental Quality and the interagency task force to recognize and respect the limits of natural marine ecosystems to perturbation by human activities.

Ocean zoning is a deserving idea that has been discussed and, in some cases implemented, for decades. However, simply establishing ocean zones does not ensure ocean conservation. Remarkably, we have many marine protected areas and even sanctuaries that impose virtually no constraints on human activities—these are paper sanctuaries and, as such, they do not protect marine ecosystems. The true challenge here is to protect marine areas with measures that have teeth—that actually mean something, that ensure protection irrespective of human demands. Given the dynamic nature of oceans and the propensity for species to range widely, such zones must provide strong protection, and they must correspond in scale to those things we are trying to protect. To ensure appropriate scaling, such zoning should be based on ecosystem dynamics. And, just as important, dividing the oceans into zones should not be used as a utilitarian justification for relaxing management standards in areas somehow deemed less important. For these reasons, the Commission urges the Council on Environmental Quality and the interagency task force to implement ocean zoning to enhance ocean conservation, not facilitate its exploitation.

## **Ocean observation**

Ocean observation and assessment must underlie any real commitment to sustainable ocean use, management, and conservation. Although the United States has programs and gifted scientists involved in many aspects of ocean assessment, one could make a strong argument that, with regard to assessment and monitoring, our ocean science endeavor is failing on a number of vital fronts. In the United States and globally, we have been discussing ocean observation systems for many years, but we still lack a clear direction and the resources and infrastructure to implement such systems. Marine mammals provide a case in point. For these species, scientists can provide up-to-date and reasonably precise estimates for about half of those targeted. As a group of species, highly valued by our society, they have been largely neglected throughout vast regions over which the United States asserts authority—in the Arctic, the central Pacific, and the Gulf of Mexico. And marine mammals are but an example.

At a time when human activities likely are causing profound and even catastrophic changes in marine ecosystems, our powers of observation and assessment fall well short of even documenting such changes, crippling our ability to understand and, if possible, address them. All of our discussions, meetings, papers, and policies will mean nothing if we do not link our ambitions and aspirations to the natural world by gathering the information needed both to guide our ocean management decisions and assess our effectiveness. The Commission therefore urges the Council on Environmental Quality and interagency task force to seek a stronger commitment to comprehensive and robust systems for ocean observation.

## **Lessons from climate change**

Climate change is the centerpiece of the Administration's environmental agenda. Five properties of climate change have enormous implications for the world's oceans and should be reflected in this document.

The first property has been the most difficult for us to accept: we, the human species, are its driving force. Other physical factors, well beyond our control, certainly contribute to climate variability and change, but this present period of change is mostly our doing. As just noted, we must study the oceans to understand the changes that we are causing. But just as clearly, we must study, understand, and adjust our own culture and socio-economic behavior if we are to live within the limits of the earth-ocean-atmospheric system that we depend on. The number of humans on earth will increase to between 9 and 10 billion by 2050, the time the youngest staff working on this policy document are finishing their careers. Projections for the United States indicate that we will add about 130 million people during that same period, requiring the creation of 55 to 60 million new jobs and increasing demand for natural resources by 40 to 50 percent. Less than a year ago, the National Intelligence Council warned that well before then, by 2025, "[u]nprecedented economic growth, coupled with 1.5 billion more people, will put pressure on resources—particularly energy, food, and water—raising the specter of scarcities emerging as demand outstrips supply" and "[t]he potential for conflict will increase." Our current course of unending demographic and economic growth and consumption is simply not sustainable. To suggest otherwise is disingenuous, and it undermines not only ocean conservation, but also the opportunities and options of future human generations.

The Commission therefore urges the interagency task force and Council on Environmental Quality to draw a stronger connection between ocean conservation and the manner in which it will be affected by continued human population growth. Until we are willing to take a hard look at ourselves and engage in a conversation about human population numbers and resource consumption, we can lay no claim to a sustainable path. Instead, we risk being marked as a generation that indulged itself on the earth's bounty and then passed that earth, in a greatly diminished state, to the next generation. Strong as it is, the report fails in this critical regard. It does not require us to take a hard look at ourselves as the dominant species on the planet. We must redefine our ambitions from affluence based on a false expectation of endless material growth to achievement of a prosperity that can endure indefinitely in a world of finite resources. Only then can we expect to pass to future generations an ocean environment that will sustain them in mind, body, and spirit. Bold leadership will be required to do so, and the Marine Mammal Commission calls on the interagency task force, the Council on Environmental Quality, and the Obama Administration to provide such leadership.

The second property of climate change is that the causes and consequences vary over the surface of the earth, but they are and will continue to be generally ubiquitous. Although much of the discussion regarding climate change has focused on the Arctic, the Antarctic will be similarly affected. So, too, will tropical and temperate regions. Polar amplification may exacerbate the effects at high latitudes, but sea level rise, acidification, increasing temperatures, and increasing storms will have profound effects on low latitude systems as well. The report lists international cooperation and leadership as its seventh principle, but it conveys no major change in the manner in which we do business other than ratifying the Law of the Sea Convention. The Commission believes such ratification would be beneficial and is necessary, but not sufficient. U.S. ocean policy should give stronger direction to our international activities, to such things as establishing cooperative management regimes to address shared problems and contributing to the scientific capacity of all nations by freely exchanging data and information. In many respects, the oceans are the earth's circulatory system, transferring resources, nutrients, and energy over its surface. They are a global commons, dynamic in nature and oblivious to international boundaries. Until nations act in concert, none can be successful at ocean conservation. The Commission urges the Council on Environmental Quality and interagency task force to strengthen its call for international cooperation on ocean conservation.

The third key property of climate change is the time lag between cause and consequence. Our present activities, whether on land or at sea, will have effects that persist for decades or perhaps centuries. This tremendous lag should force us to look into the future, as that is what is at stake here—not just our well-being, but that of many future generations. Policy statements, recovery plans, and the like that deal only with the here and now will be out of date almost immediately. The policy in this report will quickly lose its relevance if we fail to heed known trends and future projections and thereby provide a more realistic context for policy directions. Our nation and the global community face burgeoning crises if we choose to ignore the many signs of declining ocean health. Harmful algal blooms and dead zones, the rapid decline and deterioration of coral reefs, overfishing, contaminants, acidification, increasing noise, and degradation of coastal habitat all are ill-managed threats that, as yet, we have not brought under control. If the oceans were a forest ablaze, we could only report that in many respects, the blaze is raging out of control and almost certainly about to worsen. To ensure informed decision-making commensurate with the serious challenges we face, the Commission urges the Council on Environmental Quality and interagency

task force to forthrightly anticipate and analyze where existing trends and projections will take us if we maintain the current course, and then use that information to recommend the essential new direction for ocean policy.

The fourth property of climate change is a corollary of the third. Because many effects will not be realized until sometime in the future, societies and their leaders will be required to make decisions on the basis of incomplete knowledge. This idea is not new, as we have whole insurance industries built around our willingness to anticipate and prepare for future risks in the absence of clear evidence that those risks will occur. Waiting for incontrovertible evidence of an unpleasant event is not acceptable to us as individuals, and it should not be so for us as societies. The report states that, in the face of uncertainty, decisions affecting the oceans will be guided by a precautionary approach. The Marine Mammal Commission strongly endorses that statement. However, invoking a precautionary approach in the face of uncertainty can be controversial and difficult. Clearly, the best way to avoid such uncertainty is to collect better information. However, information comes at a cost. Rather than placing that burden solely on tax payers, the Marine Mammal Commission urges the Council on Environmental Quality and interagency task force to call on those whose activities pose risks to marine ecosystems to assume a larger responsibility for meeting the costs of essential research.

The fifth property of climate change is that it illustrates how virtually all aspects of our lives, whether on land or at sea, are linked. Climate change is being driven by the generation and use of energy for purposes that range from fueling industries and agriculture to heating our homes, from transporting goods and people to powering the electronic media that dominate so much of what we see and hear. As we noted above, we cannot shift from one crisis to another and fail to recognize all those links. Just as firefighters cannot ignore the woods and winds that fuel a blazing forest, we cannot ignore the forces that drive ocean decline. Nor can we put conservation of the world's oceans on hold until convenient, until the wheels of economic production and consumption are greased and churning at full speed. Clearly, we must repair the world's economy, but that process must include measures consistent with strong ocean conservation. This document calls for alignment of ocean conservation with other major national concerns, but we believe that call should be stronger to ensure that it is heard throughout the Administration, not just in the primary ocean agencies. And the difficulty of achieving such alignment should not be under-estimated; it should not be portrayed as painless and straightforward because it will require more than just the tweaking of existing arrangements.

### **Policy Coordinating Framework**

The report describes a new policy coordinating framework and recommends that the entities within this framework have strong authorities and responsibilities. The Commission agrees that a stronger framework is needed. That being said, the answers to three key questions will determine whether this framework will affect conservation and management of marine ecosystems. The first is whether agencies take the framework seriously, engaging their highest-level officers and bending their own agency directions and budgets to ensure Administration-wide coordination and integration. A review of the structure and function of the previous Administration's efforts under its Ocean Action Plan would be useful to clarify the extent to which agencies truly engaged and, if not, why not.

The second question is whether the framework is sufficient to ensure that agencies meet statutory and regulatory requirements. In the United States, we have extensive statutory, regulatory, and policy requirements that are not implemented. Lack of funding is likely a common problem here, but it may not be the only problem. In the end, the failure to implement such requirements has become common, if not acceptable. How will this framework ensure that requirements are actually met?

The third question, closely related, is how the activities or processes undertaken within this framework will be translated into social change that will address and control major risk factors, educate our society to the need for stronger measures to protect our oceans, and integrate those measures into activities related to the economy, energy acquisition, food production, and national security. The report indicates that it will require benchmarks or indicators for that purpose, and the Commission strongly supports the development of such measures. Without them, we can debate the efficacy of ocean conservation and management, but otherwise are left with anecdotes, subjective impressions, and ideology rather than the objective meaningful data and information needed to ensure agencies are accountable.

To strengthen the proposed new framework, and to provide stronger assurances that it will live up to expectations, the Marine Mammal Commission urges the Council on Environmental Quality and the interagency task force to (a) review the structure and function of the previous framework under the Ocean Action Plan to determine if it was effective and why or why not, (b) describe how those involved in the new framework will assess their effectiveness, and (c) describe how the new framework will influence the direction of our society and move it toward the goal of healthy, sustainable marine ecosystems.

Again, we very gratefully acknowledge the hard and thoughtful work on this report by the Council on Environmental Quality, interagency task force, and associated staff. We hope that you will find the preceding comments helpful as you continue this important endeavor. Please contact us if you have questions about our comments or if we can be of assistance in any way.

Sincerely,



Timothy J. Ragen, Ph.D.  
Executive Director