

## LIFE ON THE EDGE: THE INDUSTRIALIZATION OF OUR OCEANS

*Richard Charter, Defenders of Wildlife  
Co-Chair, National Outer Continental Shelf Coalition*

Keywords: carbon, oceans, energy, drilling, hydrates, fisheries, coastal planning, wave, wind, offshore, oil

### INTRODUCTION

In an increasingly urgent quest for fuel, food, and minerals, our nation has arrived at the margins of the North American continent and now appears to be inevitably headed offshore. We are now turning to exploitation of the ocean in new ways - searching for the raw materials of an industrial society - looking relentlessly for protein to feed humans and pen-reared finfish, trying to find more oil and natural gas to power our machinery, digging up metals with which to build still more machines, while desperately seeking a place to dump our industrial waste and to find a repository in which to hide excess carbon byproducts to halt the dangerous warming of our global climate. As policymakers and coastal planners, we now face a pressing need to explore constructive solutions to the questions raised by a constellation of unique new projects aimed at exploiting our coastal waters.

### BACKGROUND

Delicate and already-stressed marine ecosystems are directly in the crosshairs of new industrial proposals that seemingly proliferate along our coasts each week. We must now plan for maintaining a living ocean amidst these myriad and escalating challenges, to ensure that life survives on planet earth.

The questions we face are not only about our oceans, but also about the atmosphere itself, since about 20% of earth's atmosphere is oxygen, and our oceans produce nearly one-third of that total. The biological machinery for making this oxygen is phytoplankton, living in shallow ocean waters. These microscopic creatures photosynthesize in much the same way as terrestrial plants, absorbing carbon dioxide and expelling oxygen as a byproduct. We have passed the point where we can ignore non-point polluted runoff to the ocean, municipal and industrial discharges into our nearshore waters, and the routine dumping of toxic offshore drilling wastes laden with heavy metals and hydrocarbons, all of which threaten the very mechanisms that make our vital oxygen in the sea. Coral reefs are dying around the globe of uncertain causes, even as low-lying island nations and Arctic villages are already falling prey to sea level rise, precipitated by global warming caused by the burning of fossil fuels. Acidification of the ocean itself presents a host of new questions affecting every aspect of marine management and coastal planning.

### MANAGEMENT IMPLICATIONS

The stakes in this equation could not be higher. Ultimately, the dilemma of whether or not our oceans can survive will also be a question of whether or not human life survives.

As a self-determining species, we need to get better at planning for a sustainable ocean, a stable atmosphere, and a survivable climate regime. We have many of the tools necessary to better manage our marine environment already at hand. We possess sound science, and with it, a growing understanding of the important relationships between our ocean habitats and the living marine resources and coastal economies that depend upon them. The US Congress, only this year, has “discovered” elemental carbon. This year, for the first time, even the White House has uttered the words “global warming”. Will our politicians finally begin to listen to the compelling messages contained in the substrate of science, or sweep the emergent warning signs under the rug as inconvenient, impractical, and irrelevant? As a society, we have a desperate need to reliably connect the dots that will lead us back to a living earth and ocean.

### OCEAN ZONING

Offshore industrial proposals need to be considered in the context of long-proven ocean zoning and comprehensive coastal zone management strategies, especially within the US Exclusive Economic Zone (EEZ) and on the US Outer Continental Shelf (OCS). We must make a reasonable determination as to who should be in charge of decisions in these waters, what role science must play in these decisions, and how society can best balance its runaway demand for energy, food, and raw materials with the overarching goal of long-range sustainable management of this fragile ocean realm. Our efforts to initiate offshore oil and gas facilities, coastal and offshore Liquefied Natural Gas (LNG) ports, offshore wind and wave energy installations, salt water hydroelectric infrastructure, seafloor mining of methane hydrates for natural gas, and offshore finfish aquaculture - in the context of the maintenance of sustainable native fish stocks - will all reach key decision points in the coming decade

US National Marine Sanctuaries now play only a limited role in providing “not-really-wilderness” status for some of our most sensitive coastal waters. Can our Sanctuaries do more? Society’s need for new truly-protected marine waters is being pushed off into some distant future in most regions, but true “marine protected areas” will clearly need to play a critical role in upcoming ocean management decisions.

Offshore industrial facilities will ultimately need to be accommodated, and unless intelligent siting parameters are rationally applied, each individual proposed project inevitably faces counteractive regional political backlash playing out against growing lobbying pressure from profit-motivated special interests. As our new technological exploitation of the ocean advances, we would be well advised to determine what mitigation measures for each technical category will hold the best promise for keeping our oceans safe from long-term harm. Where we cannot avoid cumulative adverse impacts from new technologies, we have a responsibility to mitigate the unavoidable impacts as thoroughly as possible. In every challenge there is an opportunity, and the opportunity here represents a new frontier in our management approach for our oceans. We currently lack a central vision for the new era of ocean governance, and are short on dedicated funding to bring it to fruition, but these needs can also be brought into reality.

Two prestigious national commissions, the Pew Oceans Commission and the President's Commission on Ocean Policy, have both issued detailed reports that delineate the mission before us. Both reports chronicle the status of our oceans as being ecosystems in trouble, and lay out detailed roadmaps for improved ocean governance. We ignore the conclusions of these reports at our collective peril, and would be wise to heed their bipartisan clarion call.

Society now faces, quite literally, an open question regarding the survival or destruction of our ocean environment. We are called to take a hard look at what we, as coastal planners and policymakers, can do to ensure that our oceans survive in the midst of a decade of profound policy change, new international tensions, and growing pressures to extract increasing levels of renewable and nonrenewable resources from the marine environment. Growing corporate influence on our policies as a nation does not bode well for a sustainable outcome. We are now embarking upon an exploration and exploitation of the future of the ocean. Our generation will be the determinants of the fate of "Life on the Edge". We might as well approach this new era in an orderly fashion, and diligently apply what we have learned from our decades of using traditional coastal management skillsets to now work in concert toward a positive future for our Blue Planet.

---

Richard Charter  
Defenders of Wildlife  
Co-Chair, National OCS Coalition  
Box 583, Bodega Bay, CA 94923  
Phone: 707 875-2345, 707 875-3482  
Email: [waterway@monitor.net](mailto:waterway@monitor.net)