



# THE OCEAN FOUNDATION

## A Coastal and Ocean Policy for the next Administration

### INTRODUCTION:

Americans are connected to the coast and ocean. Whether or not we are among the 53% of the U.S. population who live within 50 miles of the coast, we are all dependent on our coasts and oceans for our food, health, recreation and jobs. More than 180 million people visit the shore for recreation every year and tens of thousands of jobs in fishing, recreation, and tourism depend on healthy, functioning coastal systems.<sup>1</sup>

The world's oceans and humans are inextricably linked. Oceans cover 71% of our planet and their powerful waves and water energy shape the features of the land. Our coasts and oceans provide us with many forms of recreation: fishing, diving, surfing, paddling, beach bonfires, sailing, swimming and beachcombing. For millennia, our oceans have served as the natural superhighway for trade, transportation and communication. And we are discovering they offer even more expansive mineral and energy sources than we understood even a decade or two ago.

Three-quarters of Americans embrace the fact that the health of the ocean is essential to human survival. Our oceans are a major source of food, medicine, and jobs. Fish from the ocean currently are the primary source of protein for one in six people on earth.

On the economic side, our coastal counties contribute over \$6.1 trillion, more than one half of the nation's annual gross domestic product. In 2003, ocean-related economic activity contributed more than \$119 billion to the economy and supported well over 2.2 million jobs. Annually, our ports handle more than \$700 billion in goods, and the state of California alone generates more than \$40 billion in goods and services from its "ocean economy" every year.

Our oceans also provide vital ecosystem goods and services. The oceans are home to numerous species of fish, marine mammals, and sea birds. The fragile and critical underwater habitats of the ocean support important fisheries that not only provide food but also sustain jobs and maintain a sense of culture so treasured by fishing communities around the nation. Habitats such as wetlands and coral reefs buffer the impact of storms on coastal areas, thereby protecting lives and property.

The ocean is a major influence on weather and climate. In fact it is the ocean that makes our planet habitable. Without the ocean as a heat sink, our days would be unbearably hot, and our nights would be freezing cold. The ocean naturally recycles our water and our air, constantly cleaning it for us to use over and over again 24 hours a day, seven days a week. In fact, due to evaporation, 86% of the water we drink comes from the ocean; and the ocean produces more oxygen than the rainforests. It even absorbs 48% of the carbon that we humans put into the atmosphere – something that is vital in an age of climate change.

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<sup>1</sup> Pew Oceans Commission, *Americas Living Oceans*, 2003.  
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Aside from the threat of climate change, the biggest direct threat to our oceans is overexploitation of resources – for too long we have taken more than the oceans have to give and put in more than they can take. The public has not yet caught up with these realities and 87% view pollution, and oil spills in particular, as the most challenging threats to the ocean.

The ocean touches everyone and everything. It is essential to life and human survival. We all have a strong, personal connection to the ocean – whether we realize it or not. Protecting the ocean protects our health, our economy, and our children’s future.

Together, we can make a difference.

## **A HEALTHY OCEAN FOR A HEALTHY AMERICA:**

The next President of the United States of America must be a strong supporter of coastal and ocean preservation and recognize the direct relationship between the health of our ocean and the health of our economy and people. Circumstances require that the next administration must work tirelessly to protect our nation’s coastal and ocean resources and the communities that depend upon them. We need a President who believes that by working together it is possible to bridge the gap between coastal and ocean conservation and coastal community development and prosperity. He must work in partnership with local communities to protect and create jobs that rely upon a healthy marine environment, while ensuring all Americans have access to clean, healthy beaches and marine waters.

To make sure our children can enjoy and benefit from our nation’s magnificent coastal and ocean resources, we have developed a strategic ten-point ocean plan for use by the next administration.

### **1. DECREASE COASTAL AND OCEAN POLLUTION**

Whether they enter the ocean by raining out of the atmosphere, by running off the land in streams and rivers, or by coming directly from industrial or municipal sources, large amounts of pollutants generated by modern society end up in the sea. Once in the ocean, they often remain. Although some pollutants may be diluted, dispersed, or broken down, other pollutants bioaccumulate in marine organisms so that animals at the top of the food web contain a much higher concentration of toxic substances than those at the bottom. Because humans often eat the large predatory fish that make up the top level of the marine food web, people are also vulnerable to ingesting bioaccumulated pollutants.<sup>2</sup>

#### **1.1 Oil spills**

Polling shows that oil spills remain one of the greatest (perceived) threats to the health of our nations oceans. In some of our nation’s coastal areas this perception is true. Oil spill prevention is many more times more effective than trying to clean up and remediate spills that occur. As a nation, we must adopt policies that will significantly enhance our nation’s ability to prevent oil spills. As evidenced in late 2007 in San Francisco Bay, we need to revisit the strength and speed with which we monitor, prevent, respond to, and mitigate oil and other hazardous substance spills. Oil specifically destroys the functionality of the gills, scales, feathers and fur of animals. The harm also extends to recreational and food resources.

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<sup>2</sup> Desonie, Dana *Oceans: How We Use the Seas* (Chelsea House, 2008) at pages 91-2.  
The Ocean Foundation

*The next President will:*

- *Direct the Coast Guard to more proactively address, through regulation, the root causes of oil spills, such as organizational and management failures regarding crew training, equipment maintenance, fuel transfers, and crew size, crew fatigue, and language requirements;*
- *Work to remove preemption of state regulations geared toward oil spill prevention;*
- *Proactively engage with international treaty organizations to aggressively pursue changes to the worldwide vessel fleet needed to better protect our nation's waters;*
- *Embrace state and maritime punitive damages awards against companies that recklessly cause oil spills, either directly or through their employees;*
- *Work with Congress to adopt a spill assessment and response model akin to our nation's fire departments, rather than the current, often sluggish, model of industry funded and managed assessment and response;*
- *Call for thorough examination and reform to the federal oil spill response process to ensure adequate coordination among federal, state, and local agencies, adequate capacity and preparation by the Coast Guard and other entities, clarity of laws and regulations governing oil spill response, and adequate resources to ensure appropriate implementation.*

## **1.2 Reduce air pollution and spill potential from shipping**

Shipping is a significant source of global air pollution and represents nearly 4.5% of all global emissions of CO<sub>2</sub>. Due to increasing size of ships there is an increasing potential for fuel and cargo spills in maritime accidents. While U.S. ports are generally supportive, the Clean Air Act does not yet cover shipping; and we need better enforcement of port compliance on a daily basis.

*The next President will:*

- *Work to develop strategies to phase in marine diesel (and other cleaner fuel options), and phase out Bunker C as fuel for shipping and cruise lines in U.S. ports;*
- *Develop recommendations to reduce emissions while at port, including electrification and also better enforcement against bilge cleaning and other discharges;*
- *Work to establish limits on ship emissions of nitrogen dioxide, sulfur dioxide, and ozone-depleting chemicals, bringing the U.S. into compliance with the international shipping treaty MARPOL Annex VI.*

## **1.3 Reduce plastics in the ocean**

Over 60% of marine debris in the world is comprised of plastic materials, and most of it arrives in the ocean via storm drains. Unfortunately, plastics do not biodegrade. In 2006, intact World War 2 era debris were found during a debris cleanup in the Pacific Ocean. Sea turtles think that plastic bags are jellyfish and eat them. Plastics are even washing up on the beach in remote locations such as the Northwest Hawaiian Islands National Monument. And, even when plastics break down in the water, the little plastic particles are mistaken for microscopic food (phytoplankton). Each year, an estimated 100,000 marine mammals and one million seabirds die from ingesting plastics or becoming entangled.

*The next President will:*

- *Work with Congress to adopt legislation to reduce packaging and related waste, as well as single-use disposable products;*
- *Develop a national plan to phase out the use of plastic shopping bags and encourage reusable bags, as China, Ireland and some U.S. cities and individual corporate campaigns have already done.*

## 1.4 Dead zones

Agriculture run-off, yard fertilizer and other forms of non-point and point source nutrient pollution are the cause of dead zones. Dead zones can basically be described as too many nutrients in the water which causes too much algae growth. This, in turn, zeros out the oxygen in the water column and everything nearby that can't move dies. Runoff includes untreated, and under treated sewage – which can bring pathogens as well. Finally, our water treatment facilities are not designed to address many components of household wastewater that include anti-bacterial agents designed to indiscriminately kill bacteria.

*The next President will:*

- *Work with Congress to adopt comprehensive legislation to reduce the runoff of excess nutrients into water bodies.*

## 1.5 Overdosing our oceans

We also note a related problem of medicines (particularly antibiotics and hormone therapies) ending up in the water stream and going to sea to cause havoc in marine life. We need to research ways in which we can keep these and other harmful chemicals from entering the marine food web.

*The next President will:*

- *Call for better coordination and funding of federal nonpoint source pollution programs, including alignment with agricultural policies and programs to reduce the significant amount of pollution that comes from agricultural sources;*
- *Ensure that chronic point sources of pollution continue to be addressed, including septic systems, sewer overflows, wastewater treatment facilities, industrial and animal feeding operations;*
- *Encourage implementation of incentives to reward good practices and improved monitoring to ensure compliance.*

## 2. CLEAN AND HEALTHY COASTS AND BEACHES

As Americans, we love our coasts and oceans as places to live, work, and play. The problem is, we are loving our oceans and coasts to death. The nation is experiencing dramatic increases in population along our coastlines. This ever-growing development is compromising the health of coastal and marine ecosystems by increasing the amount of pollution and also by altering or destroying natural areas that are critically important as nursery areas for wildlife and that act as buffers to protect us from coastal storms. As a result, our capability to manage our coastal areas, while critical, is inadequate and in great need of updating.

*The next President will support:*

- *The timely reauthorization of the National Marine Sanctuaries Act to strengthen and update the nation's legislation dedicated to managing and protecting natural and cultural submerged resources in the ocean and Great Lakes. The NMSA is the only legislation that permanently sets aside such areas for protection and management for current and future generations.*
- *Reauthorization and strengthening of the Coastal Zone Management Act to provide an improved, updated, and integrated approach to coastal management that promotes new methods and empowers coastal states and communities to make decisions about activities that take place in coastal areas;*

- *Adequate funding and full implementation of 2000 Beaches Environmental Assessment and Coastal Health (BEACH) Act.*

### **3. IMPROVE THE HEALTH OF OUR NATION'S FISHERIES**

Seafood is the last wild animal that we humans hunt at scale – and big fish are the only carnivores we (Americans) still consume. Depletion of our fish stocks continues, and marine fishery management has an uneven, and often poor, record. Scientific advice has been ignored too often at the expense of fisheries and the long-term sustainability of the fishing industry. Our fisheries management regime must be improved if we are to sustain healthy fisheries stocks and also possess an economically viable U.S. fishing industry. Stronger advocacy and support for international fisheries conservation is also an ongoing need, in particular to promote measures to end destructive fishing practices such as high seas bottom trawling. U.S. leadership is also needed to address declines in vulnerable and declining species of fish, sharks, whales, turtles, coral reefs, and other living marine resources.

*The next President will work with Congress to:*

- *Improve fisheries management in order to sustain healthy fisheries stocks and sustain a strong U.S. fishing industry;*
- *Develop national policies that address declines in vulnerable and declining species.*

#### **3.1 Overfishing**

The Magnuson-Stevens Fishery Conservation and Management Act is the primary federal statute governing how we manage our nation's fisheries and plays a vital role in our nation's ability to control overfishing, rebuild depleted fish populations and achieve sustainable fisheries management. While important reforms were incorporated into Congress's recent reauthorization of the Magnuson-Stevens Fishery Management and Conservation Act, implementation of the Act has been slow and funding inadequate.

*The next President will support:*

- *Expedited implementation of the Magnuson Stevens Fishery Management and Conservation Act and adequate funding to carry out its reforms.*

#### **3.2 Bycatch**

Bycatch is a word used to define the part of a fishing boat's catch that is not what was intended to be caught and thus is thrown back. In some cases, it is fish that are too young to be eaten or the kind that no one wants to eat. In other cases, it is corals and other parts of the sea floor that are ripped up and brought to the surface by bottom trawling nets. In other cases, it is the accidental catch of sea birds, marine mammals, and sea turtles (in addition to unwanted species of fish) because the fishing gear used does not discriminate—it is not designed specifically to catch only one or two kinds of fish. In short, bycatch is anything that is not wanted and often winds up being wasted. In the case of one of the most popular consumer species - shrimp, bycatch can reach 9 pounds for every pound of shrimp that is caught.

*The next President will support:*

- *Working with the fishing industry and fishing communities to reduce bycatch while maintaining healthy fishing-based economies;*

- *Increased U.S. commitment to international fisheries conservation, including ending destructive fishing practices and protecting vulnerable and declining species;*
- *Continue U.S. leadership in international trade negotiations through the World Trade Organization to eliminate subsidies provided to foreign fishing fleets.*

### **3.3 Aquaculture**

The aquaculture industry is of growing importance—fish from the ocean are a primary food source for one in six people on Earth. While a viable method for producing a consistent source of food and income, there are environmental, social, and economic concerns that must be addressed; ranging from interference with native ecosystems to food safety concerns. Humanity has been practicing aquaculture for millennia. For most of history, land-based aquaculture has been a sustainable, consistent source of food and income. The industrialization of aquaculture increased the economic efficiency and short-term profit of production, at the cost of environmental, social, and economic sustainability. The continued growth of the aquaculture industry requires the immediate consideration and reduction of these effects to ensure the environmental, social, and economic sustainability of the industry.

*The next President will support:*

- *Responsible implementation of aquaculture legislation that ensures the environmental, social, and economic health and viability of the industry.*

### **3.4 Offshore aquaculture**

Commentators have criticized legislative proposals for the licensing of aquaculture facilities in U.S. federal waters (offshore aquaculture). The Bush administration introduced bills seeking to create a regulatory framework to enable offshore aquaculture permitting in federal waters.<sup>3</sup> These bills omit or minimize the importance of environmental assessment requirements, instead focusing on economic development, without regard to the concerns of commercial fishermen, local health officials and conservationists. It would seem that the laws applied to other types of animal feedlots should also be applied to aquaculture.

*The next President will:*

- *Work to discourage the expansion of open ocean aquaculture of luxury carnivores (such as bluefin tuna) that use fish meal made from fish species on which the poor in other nations depend for food (e.g. anchovies in Peru);*
- *Consider deferring issuance of offshore aquaculture permits until an adequate study of unintended consequences is complete.*

## **4. PROTECT CORAL REEF ECOSYSTEMS**

Coral reefs are beautiful, but they are also critically important for habitat and the productivity of the ocean, hence they are key to the economies of many nations and the livelihoods of many U.S. communities. From the coral reef we obtain food, pharmaceuticals and significant recreational revenues. Coral reefs also offer considerable protection to our coastline from storms.

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<sup>3</sup> See NOAA, The National Offshore Aquaculture Act of 2007 (2007).  
The Ocean Foundation

*The next President will:*

- *Support passage of the Coral Reef Conservation Act Reauthorization;*
- *Support the establishment of marine reserves for coral reef habitat protection.*

## **5. PROTECT OTHER IMPORTANT MARINE SPECIES**

U.S. leadership is also needed to address declines in vulnerable and declining species of sharks, salmon, whales, turtles, and other living marine resources. Once universal, marine mammals and sea turtles are now in serious decline. Yet, what is arguably one of our most well drafted environmental laws, the Marine Mammal Protection Act, is constantly under attack.

*The next President will:*

- *Defend the Marine Mammal Protection Act;*
- *Work to restore and maintain U.S. leadership in regard to the International Whaling Commission moratorium on whaling;*
- *Support full funding of federal salmon recovery plans under the Endangered Species Act.*

## **6. MARINE ECOSYSTEM RESTORATION**

We need to promote programs that restore coastal wetlands, mangrove forests and seagrass beds to take up carbon and provide critical nursery areas for marine species. These natural systems also provide added flood control/storm surge protection as well as filtration of pollutants from land-based sources.

Our oceans are poorly understood and in many ways little is known. While the ocean supports the greatest diversity of life and ecosystems on our planet, it is largely unexplored. In fact, less than five percent of the world's ocean bottom has been studied and explored. To enable us to respond to the pressing (and growing) list of issues challenging the health of our oceans, it is imperative that we have an enhanced understanding of ocean and coastal processes and the interconnections among land, ocean, and atmosphere, along with the impact of human activities on these processes.

*The next President will work with Congress to:*

- *Pass pending legislation that addresses ocean acidification research, ocean exploration, ocean mapping, oceans and human health and to implement the Integrated Ocean Observing System;*
- *Fund and implement that national Ocean Research Priorities Plan and Implementation Strategy.*

## **7. ADDRESS LINKS BETWEEN OCEANS AND CLIMATE CHANGE**

Human induced climate change threatens coastal and marine ecosystems through sea-level rise, acidification, and changes in weather patterns and water temperatures. These changes will also seriously alter coastal development, the reliability of ocean shipping, coastal recreation and marine activities such as oil platforms and aquaculture, thus adding economic risks.

Oceans and climate are inextricably linked and oceans play a fundamental role in mitigating climate change by serving as a major heat and carbon sink. Oceans also bear the brunt of climate change, as evidenced by growing acidification, sea level rise, and changes in temperature and currents, all of which in turn impact the health of marine species, ecosystems, and our coastal communities. As

concerns about climate change increases, the interrelationship between oceans and climate change must be recognized, understood, and incorporated into climate change policies.

*The next President will work to ensure that oceans are an important part of the national climate change policy debate and that solutions for addressing climate change take the role of oceans into account. Specific strategies include:*

- *Create a Climate Change Response Office to support and implement basic and applied research, monitoring and analysis, modeling and forecasting, and ocean observations and to translate data collected into useful information that can inform management decisions;*
- *Support and encourage states and regions in implementing strategies to better understand, adapt to, and mitigate climate change impacts on oceans and coastal areas;*
- *Expand adoption of renewable energy sources;*
- *Expand adoption of energy efficient technology;*
- *Protect wetlands, coral reefs, mangroves, and seagrass beds that absorb storm surges and carbon emissions;*
- *Improve early mechanisms for warning of catastrophic weather events.*

## **8. OCEANS AND ENERGY**

It is hoped that the effects of climate change on oceans can be mitigated by the rapid deployment of renewable energy sources (such as tidal energy, wave energy, wind energy, and Ocean Thermal Energy Conversion). However, there can be a conflict between proposals to site alternative energy projects such as wind farms in the oceans or use of wave energy and efforts to prevent putting any structures in the oceans so that we continue to protect local marine ecosystems and the species that depend on them.

*The next President will:*

- *Support efforts to design a conflict resolution framework for siting alternative energy proposals and ensuring that carbon-based energy facilities are designed and located to minimize immediate effects on the marine ecosystem and calamitous effects in hurricane zones such as the Gulf of Mexico.*

## **9. NOISE POLLUTION**

Sound from ships, seismic surveys to locate offshore oil deposits, sonar and depth finders, oil drilling, underwater explosions, and other human activities can travel hundreds and even thousands of miles underwater. This underwater noise pollution in our oceans is increasing and can cause significant temporary disturbance and permanent hearing impairment, and in some extreme circumstances death for fish, marine mammals and other creatures. Some noise pollution is chronic such as shipping noise, while some is episodic such as seismic exploration and the use of active sonar systems by the Navy. There may be opportunities to declassify quiet ship technology and develop a new market for U.S. manufacturers. And we may be able to increase passive sonar use, and limit seismic exploration and the use of active sonar systems.

*The next President will:*

- *Call for the U.S. Navy to abide by multiple court decisions and limit where and how training exercises using active sonar occur;*

- *Review opportunities to declassify quiet ship technology and research associated market opportunities.*

## **10. OCEAN GOVERNANCE**

A healthy ocean requires recognition of the importance of our oceans, coasts, and Great Lakes to the economic and ecological well being of our nation, and a commitment to a coordinated and comprehensive national approach for ocean and atmospheric research, conservation, management, education, monitoring, and assessment. A national ocean policy would serve to unify and guide the decision-making and actions of a multitude of federal agencies with ocean management responsibilities and to bring greater coherency to the numerous federal ocean laws by establishing a common goal. Such a policy would also greatly enhance the ability of states to work together to address common concerns off their shores. A national ocean policy is also important in the face of an unprecedented number of proposed activities in the ocean—activities such as aquaculture, wind and wave energy facilities, and liquefied natural gas terminals. To manage these new uses alongside existing commercial and recreational uses, while also protecting and preserving ocean life, requires a common vision and a coordinated and comprehensive management approach to offshore activities.

Much of the progress in addressing the problems facing our oceans is happening at the state and regional level, with innovative ocean management and governance mechanisms developing in individual states such as Washington State, California, New York, and Massachusetts. In regions such as the Great Lakes, West Coast, and Gulf Coast, states are collaborating in multi-state initiatives that enable them to more effectively identify regional issues and priorities and improve responses to regional ecosystem needs, uses and services. The efforts by regions and states in developing and implementing ocean governance mechanisms require committed and sustained participation and support to ensure long-term success. In addition, a purposeful and coordinated federal role is needed to facilitate and support these activities. This federal role must support regional approaches and collaborations and enable coordinated and integrated management approaches that involve federal, state, tribal, local governments, as well as the private sector, nongovernmental organizations, and academic institutions.

*The next President will work with Congress to reform ocean governance by adopting:*

- *A national ocean policy;*
- *A stronger, codified lead ocean agency: the National Oceanic and Atmospheric Administration;*
- *A permanent interagency coordinating structure in the White House, supported by an Office of Ocean Policy and chaired by an Assistant to the President to oversee implementation of the national ocean policy;*
- *Coordinated and comprehensive management of offshore activities;*
- *A framework to help states initiate and coordinate efforts at the regional level.*

### **10.1 Join the Law of the Sea Convention:**

The Law of the Sea Convention is a comprehensive and progressive international accord supported by more than 150 nations, including virtually every industrialized nation except the United States. Accession to the convention would protect national security interests, secure sovereign rights over extensive marine areas, promote international commerce, and further the conservation of marine resources. The convention enjoys strong bipartisan support, as evidenced by a strong statement of support from President Bush, approval by the Senate Committee on Foreign Relations, and active support from a diverse public coalition that includes military, industry, international, and environmental interests. As a nation with one of the world's largest exclusive economic zones, our interests are intertwined with every other nation that shares jurisdiction over the world's oceans. Lack of participation in the Law of the Sea Convention is significantly compromising our national economic, security, and conservation efforts.

*The next President will:*

- *Work closely with the Senate to approve U.S. participation in the Law of the Sea Convention.*

## **10.2 Support ocean science and research:**

Ocean dependent industries are one of the engines of economic growth in America, generating an economic impact of \$138 billion for the United States every year. However, despite the role oceans and coasts play in supporting our economic well-being, they remain poorly understood and underappreciated. We have the opportunity to make oceans a priority, and as a result, reverse chronic underinvestment that has left much of our ocean-related infrastructure in disrepair, our management programs struggling to fulfill their responsibilities, and ocean scientists struggling to compete for ever smaller amounts of the federal research budget.

*The next President will work with Congress to:*

- *Increase core funding for ocean science and research, management, and infrastructure;*
- *Establish a permanent ocean trust fund to provide a dedicated source of funding to state and federal programs.*