

Written Testimony of Ted Danson
Committee on Natural Resources
Hearing on Perspectives on the Outer Continental Shelf
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Introduction

My name is Ted Danson and I am a member of the Board of Directors of Oceana, a global ocean conservation organization based here in Washington, D.C. that works to restore and protect the world's oceans. Besides our headquarters in Washington DC, Oceana also has staff located in Alaska, California, Florida, Oregon, and Massachusetts, as well as international offices in Brussels, Belgium; Madrid, Spain; and Santiago, Chile. We have 300,000 members and supporters from all 50 states and from countries around the globe. Our mission is to protect our oceans and the fish and wildlife that depend on them.

Today, I will present testimony regarding the need to protect our oceans from the threats posed by oil and gas development on the outer continental shelf of the United States.

In the late 1980s, Occidental Petroleum proposed slant drilling off the coast of Santa Monica. I was very concerned about the impact this would have on the ocean environment so I teamed up with an environmental expert to fight it. I'm happy to report that we won. After that, to make sure our oceans would continue to be protected, we co-founded American Oceans Campaign, which worked for fifteen years to protect the oceans from oil drilling and other threats.

We later decided to expand the capacity of the American Oceans Campaign, by joining with Oceana, which is now the largest international organization focused solely on protecting the oceans.

And so today, I am here to testify against the opening up of the outer continental shelf of our oceans to oil and gas development. The same reasons that made more offshore oil drilling a bad idea when I founded the American Oceans Campaign are still valid today.

Oil and water don't mix. Our oceans give essential protein to nearly half the world's population. In the US, recreational and commercial fisheries combined supply over 2 million jobs. On top of that, coastal tourism provides 28.3 million jobs and annually generates \$54 billion in goods and services. Ecosystems are disrupted top to bottom by the short and long term effects of oil. More oil spills mean less abundant oceans. More oil spills mean fewer wonderful, pristine beaches. More oil spills mean fewer jobs.

While not intentional, spills happen. These spills range from small, steady leaks to large accidents and they occur at every stage in oil production from the oil platform to the oil tanker to the pipeline and storage tanks. Approximately 120 millions gallons of oil are discharged into the world's oceans every year from oil platforms, marine transportation,

vessel discharges and accidents. The impacts to fish and wildlife are numerous and well documented, often resulting in death.

In addition, more offshore drilling contributes to climate change by continuing our reliance on fossil fuels without creating a sustainable plan for the future. Additionally, as our oceans absorb carbon dioxide from the air, our oceans become more acidic. This ocean acidification could drastically change life as we know it. Our corals are already at risk. Additionally, the base of the food web may collapse due to the inability to create their shells in a more acidic ocean. Scientists estimate that the Southern Oceans could reach the tipping point as early as 2030. The collapse of the food web would be catastrophic for our oceans, our fisheries and everyone that depends on them for food and jobs.

Despite these risks to the oceans, it is hard to imagine why the perceived demand for expanded offshore drilling is so strong. The oil companies are asking Americans to take 100% of the risk for just a fraction of any benefits. In fact, even at peak production, the US Energy Information Administration admits that increased offshore drilling would account for less than 1% of the current energy demand in the US. It would amount to merely pennies in savings at the gas pump.

We should be thinking of our oceans as part of the solution to our nation's energy problems. Instead of offshore drilling, America needs science-based, precautionary management for our oceans. Our energy policies should fit within a consistent blueprint in which expanded conservation and improved energy efficiency are paired with facilitating renewable energy production to reduce our reliance on fossil fuels.

And so, today, I ask you to take three important steps that will steer our country in the right direction toward energy independence based on renewable and carbon-free energy sources.

First, it is critical that Congress quickly reinstate its moratoria on drilling in the Outer Continental Shelf (OCS) areas and Bristol Bay. Congress put the OCS moratorium in place in a bipartisan fashion every single year since 1982. Protection for Bristol Bay lapsed in 2004, and last year, due to the combined pressures of rising gas prices and an important election, the OCS moratorium was allowed to lapse.

Secondly, the threats to the Arctic demand a separate and distinct planning process. The OCS moratoria do not include any of the offshore areas in Alaska except Bristol Bay, and there has been a significant expansion of oil and gas activities in the Arctic during the last eight years. The ongoing activities must be stopped, until a comprehensive conservation and energy plan for the Arctic is put in place that is based on assessment of the unique Arctic ecosystem and a precautionary, science-based approach.

Finally, clean, carbon-free ocean energy such as wind, tidal, wave and current power must be a piece of our sustainable energy future. The Natural Resources committee should hold hearings on the renewable resources that our oceans offer.

Stimulating these energy sources creates jobs. Let's work with the oceans, not against them. Let's use their abundant wind and water energy to do things that will be good for the planet, and good for America. Let's give future generations oil free beaches and oceans that are an abundant source of food, wildlife and clean energy.

These points are further discussed in the testimony below:

I. Moratoria in the OCS areas and Bristol Bay are Needed to Protect our Oceans

Our oceans and coasts are now at greater risk than at any time since the early 1980's. Since 1982, Congress has protected Outer Continental Shelf water in the "Lower-48" with a moratorium on oil and gas activities. Congress also has enacted a moratorium to protect the sensitive areas of Bristol Bay, Alaska. In addition, Executive moratoria have been issued by two Presidents. In 1990, responding to the 11 million gallon *Exxon Valdez* oil spill, President George H. W. Bush used his executive authority to place a moratorium on any leasing or pre-leasing activity in Lower-48 offshore areas, including a small portion of the Eastern Gulf of Mexico. In a separate action President Clinton limited new drilling in the rich Bristol Bay fishing grounds in Alaska until 2012. Unfortunately, Congressional protections for Bristol Bay lapsed in 2004 and President George W. Bush lifted the Executive moratorium in 2007. The broader Congressional moratorium for the Lower-48 offshore areas was allowed to expire in 2008, and the Executive moratorium was lifted by President George W. Bush that same year. Reinstating both of the Congressional moratoria, including valuable habitat areas that were previously removed, such as Bristol Bay, must be a top priority. The Executive moratoria also should be reinstated to provide an added layer of protection for our marine life and coasts.

Offshore oil and gas activities create a myriad of threats to marine life including accidents, routine spills, disposal of wastes such as drilling muds and produced water, and noise pollution. The dramatic increase in shipping activity associated with platform maintenance, and increased risks of marine mammal collisions, also imperil marine species, many of which are already threatened or endangered.

Accidents inevitably accompany all stages of offshore production. The most typical causes of accidents include equipment failure, personnel mistakes, and extreme natural impacts from seismic activity, ice movements, hurricanes, and so on.

According to the National Academy of Sciences, "No current cleanup methods remove more than a small fraction of oil spilled in marine waters, especially in the presence of broken ice." Discharges associated with oil platforms, marine transportation, vessel discharges and accidents add around 120 million gallons of oil to the world's ocean every year, about a third of all inputs combined, including natural oil seeps.

The impacts of oil on wildlife are numerous. Wildlife can become coated in or ingest oil, which will often lead to a quick death. However, oil in the environment can also result in

non-lethal impacts, such as reduced reproduction and liver damage. These impacts are a death sentence for most animals in the wild, crippling their ability to avoid predators, find food and shelter and reproduce, all of which are essential to healthy functioning populations.

Toxic compounds in oil have a similarly varied set of effects. These can include reduced reproductive success due to interruption in breeding behaviors and damage to the reproductive and immune systems. Oil's toxic constituents can also damage a long list of organs in marine animals including the eyes, mouths, skin, nasal cavities, nervous system, red blood cells, liver, lungs and stomach. It can also cause damage to turtle and fish eggs, larvae and young, all leading to varied impacts on survival and reproductive success.

Oil can also affect the habitat of marine species, for example, by contaminating breeding beaches, estuaries, coral reefs, and seagrass and mangrove communities that are important feeding, breeding and resting grounds for a variety of species.

Finally, these impacts can linger for extremely long time periods creating continuous low-level exposure to oil in the form of tarballs, slicks, or elevated levels of chemicals that can cause cancer, developmental and reproductive impairments.

Besides accidents, daily offshore drilling operations also create other forms of pollution that affect marine and other wildlife. Offshore rigs can dump tons of drilling fluids, metal cuttings, including toxic metals (lead, chromium and mercury) and carcinogens (such as benzene, xylene and toluene and especially polycyclic aromatic hydrocarbons) into the ocean. Drilling muds are used to lubricate and cool the drill bit and pipe. One drilling platform normally drills between seventy and one-hundred wells and discharges more than 90,000 metric tons of drilling fluids and metal cuttings into the ocean. One well can potentially affect an area of 1000 meters when it comes to the discharge of these materials. Some studies suggest that drilling-related chemicals can stunt fish growth and affect breeding patterns. For example, cod exposed to this waste water had smaller eggs and delayed spawning time.

Produced water, fluid trapped underground and brought up with the oil and gas is another type of pollution that comes from drilling. Produced waters have high salinity and oil content, so discharges sink to the seafloor where they poison the rich communities of plants and animals that often reside there.

Factors other than pollutants can affect marine wildlife as well. For example, the firing of air guns during oil exploration sends such a strong shock across the seabed that it is believed to be capable of causing marine mammal strandings and increased whale mortality, decreased fish catch and damage to the hearing capacity of various marine species. For example, endangered grey whales were scared away from their only feeding grounds by unusually high noise levels at an oil and gas construction site near Sakhalin Island. Offshore oil rigs may also attract seabirds at night due to their lighting, flaring and aggregation of fish species, all of which can result in bird mortality.

Air pollution from offshore oil rigs also poses a health threat to people who live in proximity to offshore oil platforms. The Living Oceans Society reports that a single offshore operation emits as much air pollution as 7,000 cars driving fifty miles per day. Various types of toxic air pollutants are emitted in the process of flaring. This process releases more than 250 different contaminants into the atmosphere, many of which are known to cause health problems such as lung and heart disorders, cancers, asthma, and reproductive problems. These pollutants can affect people and animals living within 300 kilometers from the drilling platform.

The harm posed by oil and gas activities in the Outer Continental Shelf is too large to ignore. As a result, it is incumbent upon the Congress to reinstate the OCS moratoria as soon as possible.

A. Oil Production will worsen Climate Change.

As described in detail above, the harm posed by oil and gas activities in the Outer Continental Shelf provides as good a reason to place a moratorium on such activities today as it has provided everyday since 1982. However, the worsening threat of climate change imposes a new urgency. We now realize that the release of carbon dioxide and other greenhouse gases that results from the use of oil is creating even more harm to society than was previously understood. Indeed, the need to curtail releases of greenhouse gasses adds another layer to the already strong argument for preventing the expansion of oil and gas production on the Outer Continental Shelf by renewing the moratorium.

If left unchecked, human-caused emissions of greenhouse gases will have dramatic effects on the oceans and the planet as a whole. These impacts are already being felt in the Arctic, which is warming twice as fast as the rest of the planet. The loss and thinning of sea ice has made hunting and travel increasingly dangerous for indigenous peoples, and threatens the long-term survival of walrus, polar bears, ice seals and other ice-dependent animals as their essential habitat melts away. As these changes affect the Arctic, they will begin to affect all of us. Loss of sea ice and other changes in the Arctic may, in fact, amplify climate change on a worldwide scale and lead us closer to a tipping point, or a point of no return.

Climate change is also causing our oceans to acidify. Since the industrial revolution, the oceans have absorbed almost 450 billion metric tons of carbon dioxide from the atmosphere, or about one-third of all anthropogenic carbon emissions. The oceans continue to absorb approximately 30 million metric tons of carbon dioxide every day. At the same time, 80% of the heat that is added to the atmosphere is absorbed by the oceans. Without the oceans, global warming would be far worse than it already is. But this service is, at the same time, making our oceans sick. The increased acidity is expected to take its toll on corals and other species that make their shells and skeletons from calcium carbonate. In fact, the Intergovernmental Panel on Climate Change (IPCC) predicts that, under a business-as-usual scenario, we will likely have a mass extinction of corals by the

middle of this century. Impacts on marine life may be much more imminent in waters with lower carbonate availability such as those of the Arctic.

These changes are a direct result of our dependence on fossil fuels for energy. Thus, we must reduce our emissions of greenhouse gases and, to do so, we must move away from fossil fuels, such as oil, and instead toward conservation, energy efficiency and alternative energy. As evidenced by the effects already occurring in the Arctic and elsewhere, there is an urgent need for action now.

While we must begin this process now, reducing emissions of greenhouse gases will take time. The concentration of greenhouse gases in the atmosphere is increasing steadily as our emissions increase. We must first slow emissions of greenhouse gases and then take action to reduce their concentration in the atmosphere.

Expanding oil and gas production on the Outer Continental Shelf will only exacerbate the already damaging effects of climate change on our oceans.

B. Offshore Drilling Provides No Real Relief from High Gasoline Prices and Will Not Create Energy Independence.

The U.S. Energy Information Agency has found that at peak production in 2025 increased drilling offshore would produce 220,000 barrels a day, which would account for less than 1 percent of current energy demand in the United States. As the recent drop in oil prices demonstrates, global demand for oil drives the global price and since the market for oil is truly global—oil from the United States is sold all over the world and increased demand from countries like China and India will have a greater effect on the price of oil than the availability of oil from the OCS.

II. A Separate Planning Process is Necessary for the Arctic, Which is Particularly at Risk from Industrialization.

The Arctic is among the most beautiful and forbidding places on Earth. Life there swings between twenty-four hour daylight in the summer, and the long, dark, and cold months of the winter. The U.S. Arctic is home to tens of thousands of people and some of the world's most iconic wildlife species. Protected by sea ice, an unforgiving climate, and geographic remoteness, the ecosystems of the Arctic Ocean have been, until recently, among the Earth's least-disturbed. However, climate change is affecting the Arctic, which is warming nearly twice as fast as the rest of the world. This is forcing pronounced alterations of the Arctic environment that affect Arctic ecosystems and have worldwide implications.

Climate changes and, in particular, the decline of sea ice, in the Arctic are creating the potential for industrial activities, including oil and gas development. While historically, there has been little oil and gas activity in the U.S. Arctic waters, the situation has begun to change. Until recently, there were no leases owned in the Chukchi Sea, and the limited activities in the Beaufort Sea have been focused on the nearshore areas close to existing

infrastructure. We are now seeing a dramatic expansion of activities in the U.S. Arctic waters, and nearly 80 million acres of ocean are currently available for oil and gas leasing.

These areas are not covered by the Congressional or Executive moratoria discussed above, and leasing or exploration activities have begun in some places. These activities pose particular threats to Arctic marine ecosystems and the people who use and depend on them. Wells, pipelines and vessels create a substantial risk of an oil spill. No reliable method exists to clean up an oil spill in icy Arctic conditions, and such a spill would have catastrophic effects on important habitat for polar bears, other marine mammals, fish and recreational, spiritual and subsistence uses. In addition, the drill rigs, icebreakers, and seismic vessels necessary for oil and gas activities create substantial noise, which can cause marine mammals, such as bowhead whales, to stray far from their normal migration routes and feeding grounds, impact the animals' hearing and potentially cause other problems such as increased collisions with oil platform support vessels. The negative effects incurred by the bowhead whales from these activities are acutely felt by the Native communities that depend upon them.

Many of the adverse effects of oil development described above may cause particular harm in Arctic ecosystems already stressed by climate change. For example, the toxic muds and fluids that are often discharged into the oceans from rigs threaten already stressed populations of Arctic marine species and the greenhouse gases, black carbon soot and other pollutants released from rigs and vessels into the air, accelerate Arctic warming and ice loss compounding ecological stresses on these species.

In addition, decisions have been made in the absence of adequate scientific information. Particularly in light of the rapidly changing climate, much more information is needed about the sensitive Arctic ecosystems before prudent development should be allowed to proceed.

Because the previous moratoria did not include most of the offshore areas in Alaska, a separate and distinct planning process must be undertaken, ongoing activities stopped, and a comprehensive conservation and energy plan developed. The development of this plan would begin with a comprehensive scientific assessment of the health, biodiversity, and functioning of Arctic ecosystems, including the benefits and consequences of carrying out specific industrial activities. A science-based precautionary approach should be used to determine if those activities should be conducted and, if so, when, where and how.

III. We Must Shift Toward a Future in which We Rely Upon Affordable, Carbon-Free, Renewable Energy and End Our Dependence on Oil—Entirely!

We must shift toward a future in which we rely upon affordable, carbon-free, renewable energy; one in which our oceans and the environment are healthy, and one that ensures our freedom from oil dependency. Part of this effort must include an emphasis on

development of carbon-free technologies, including wind and solar power in conjunction with improved energy efficiency.

Halting the expansion of offshore drilling on the Outer Continental Shelf, and developing a comprehensive plan for all activities in the Arctic are important first steps in developing a comprehensive conservation and clean energy plan. In order to address a rapidly changing climate we must reduce our dependence on fossil fuels and shift to a future with affordable, renewable energy, a healthy environment, and freedom from the control of oil companies. Thus, we must begin to build a more sustainable foundation for the future based on renewable energy enabled by improved conservation and energy efficiency.

While we will not be able to stop oil use all at once, there are many conservation measures that could be put in place immediately to reduce our energy needs. For example, raising fuel efficiency standards just for light-duty vehicles could save 18.4 billion barrels of oil by 2030. Relatively small efforts such as properly maintaining vehicles and commuting one day less each week could result in substantial savings for families and reduce our oil consumption dramatically. If just 10% of U.S. passenger car travel were shifted to mass transit, 75 million tons less carbon dioxide would be emitted each year. Similarly, minor adjustments in our thermostats could reduce our greenhouse gas emissions by 35 million tons each year. Numerous other conservation measures, from improving the energy efficiency of newly constructed homes and other buildings to avoiding unnecessary short-distance travel could reduce U.S. emissions of greenhouse gases by 20% or more.

The United States Department of Energy has projected that we can generate 20% of electricity demand from renewables by 2030. Offshore wind could provide 20% of this amount. Supplying even 5 percent of the country's electricity with wind power by 2020 would add \$60 billion in capital investment in rural America, provide \$1.2 billion in new income for farmers and rural landowners, and create 80,000 new jobs. This effort has started, as the United States added enough wind power in 2007 alone to provide electricity to more than a million homes.

IV. Oceana urges Congress to reinstate the moratorium on offshore drilling, begin the development of a comprehensive conservation and energy plan for the Arctic, and move us towards a clean, carbon-free, renewable energy future.

These issues—oil, climate change, energy, and the ocean environment—are inextricably linked and must be addressed together. For example, reducing greenhouse gas emissions is necessary to protect our oceans; moving toward renewable energy sources is necessary to reduce greenhouse gas emissions; and we have an opportunity right now to make an unprecedented investment in the solution: renewable energy.

On behalf of Oceana, I urge the United States Congress to act swiftly to set up a rational policy to protect our oceans, coasts--and planet--from the impacts of offshore oil and gas

drilling. Specifically, in the first 100 days Congress should take the following essential steps to set America on course toward a new energy economy:

- Reinststate the moratorium on offshore drilling in U.S waters on the Outer Continental Shelf including sensitive ecosystems such as Bristol Bay, Alaska.
- Begin the development of a comprehensive conservation and energy plan for the Arctic that provides a bridge from oil to renewable energy and conservation. The plan should include a comprehensive scientific assessment of the health, biodiversity and functioning of Arctic ecosystems, as well as the benefits and consequences of specific industrial activities. Ongoing activities must be stopped, and a precautionary, science-based approach must be applied to all oil and gas leasing, exploration and development activities in Arctic waters to determine if those activities should be conducted and if so, when, where and how.
- Adopt legislation that provides for clean, carbon-free, renewable sources of energy, including ocean energy such as wind, tidal, wave and current power must be a piece of our sustainable energy future. The Natural Resources committee should hold hearings on the renewable resources that our oceans offer. Stimulating these energy sources creates jobs.

The challenge to provide affordable energy and a healthy environment is monumental, but there still is time for leadership and personal responsibility to turn the tide. We can and must think comprehensively and creatively about our oceans, energy, climate change, and the broader environment. U.S. leadership in this area will not only help stem the changes in our climate, it will help create a new energy economy that will benefit Americans and that can be exported to other nations, making the United States a leader and exporter of clean energy technology.