OFFSHORE DRILLING: PUTTING THE NATION’S COASTLINE AT RISK

America’s oceans sustain life, both in the water and on land. They are home to a vast array of marine life, provide a vital food source for millions of people, and support a thriving way of life for coastal communities dependent on clean and healthy waters and beaches.

The expansion of offshore drilling in U.S. waters would threaten countless marine species and harm tens of millions of Americans. As we saw in 2010 when the BP offshore drilling rig Deepwater Horizon spilled as much as 4.9 million barrels of oil into the Gulf of Mexico, catastrophic oil spills devastate coastal communities and ocean and coastal wildlife.¹ The Deepwater Horizon calamity killed 11 workers, injured 17 others, pushed critically endangered marine species toward extinction, and cost local economies billions of dollars.²
However, it’s not just huge oil spills that are harmful; the offshore oil and gas industry frequently spills smaller amounts of oil into the Gulf, risking human health and damaging the marine environment. Moreover, offshore drilling requires significant onshore infrastructure, such as pipelines and refineries, that change the character of seaside communities, hasten the loss of wetlands, and heighten the impacts of storm surge and sea level rise. Additionally, continuing to open new areas to offshore oil drilling would lock America into a future of dirty fuels. We must fight all attempts by the oil industry to open our oceans to drilling, and we must invest in the clean, renewable energy that will protect our lifegiving oceans, the communities that rely on them, and our climate.

A vast majority of Americans agree that our energy system should prioritize the development of renewable energy over traditional, dirty sources like oil, and energy markets are making that shift. In 2018, electric vehicle sales were up 82 percent over the previous year; in 2019, 10 percent of America’s electricity came from wind and solar, up from less than 2 percent fewer than 10 years ago; and electric utilities saved 28 million megawatt-hours of electricity in 2018 as compared with the previous year through new energy efficiency programs, enough to power about 2.6 million homes.

Despite this momentum away from fossil fuels, President Trump is attempting to take the country backwards. President Obama placed 98 percent of the Arctic Ocean and 31 major submarine canyons in the Atlantic (stretching from the Chesapeake Bay to the Canadian border) under permanent protection against drilling. Trump is trying to undo these protections. His Interior Department, which manages offshore drilling in federal waters, has moved to open nearly all of our oceans to drilling, proposing the most aggressive leasing program in our history. To make matters worse, the Interior Department has also rolled back the safety regulations adopted specifically to prevent another Deepwater Horizon-like oil disaster from occurring.

So far, the Trump administration’s efforts have been largely unsuccessful. A federal court has ruled that the attempted rollback of permanent protections for the Arctic Ocean and Atlantic canyons is illegal, and the protections therefore remain in effect. The administration is appealing that decision.

The effort to open the entire U.S. coastline has also been put on hold. The secretary of the interior cited the court ruling sustaining permanent protections when explaining why he had put the plan on pause. He was also reacting to a tremendous outpouring of bipartisan opposition. More than 1.3 million citizens submitted comments to oppose the Trump administration’s proposal to open our coasts to drilling; more than 380 municipalities have formally opposed drilling in their regions; every governor—Democratic and Republican—of states along the East and West Coasts has spoken out against offshore drilling; and thousands of Atlantic coast communities, businesses, and municipalities have mobilized against drilling and seismic testing.

In September 2019, the U.S. House of Representatives overwhelmingly passed two bills to ban drilling in the Pacific and Atlantic Oceans and off Florida’s Gulf Coast. However, unless those bills pass the Senate, large portions of our oceans will not have permanent protections in place and will remain vulnerable to offshore drilling. As long as this is the case, the fossil fuel industry and its allies in the Trump administration will continue to push for more drilling.

**OFFSHORE DRILLING LOCKS FOSSIL FUEL USE IN FOR DECADES**

Fossil fuels like coal, oil, and gas are the main source of the greenhouse gases driving climate change, which could wreak havoc on our natural and social systems if left unabated. We are at a tipping point, and it is crucial that we continue scaling back our reliance on fossil fuels to avert climate change’s worst effects. In this context, it would be grossly counterproductive to expand offshore drilling.

Every time we sink a new drill into the ocean floor, it locks in decades of future fossil fuel use. Offshore drilling operations are expensive to set up, and it can take a decade or more to bring oil to market, let alone to recoup costs. As a result, companies will seek to squeeze every last drop of oil and gas out of their offshore wells, well beyond the time by which climate scientists say we must end our dependence on fossil fuels.
THE DIRTY AND DANGEROUS REALITY OF OCEAN DRILLING

We need only look at the Gulf of Mexico to understand just how dangerous oil drilling is for our oceans and communities. On April 20, 2010, BP’s Deepwater Horizon drilling rig exploded in the Gulf of Mexico, killing 11 workers, injuring 17 others, and yielding one of the worst ecological disasters in America’s history. The ecological, economic, and public health fallout of this catastrophe was immense, and the harm will last for generations.24

- Trillions of larval fish and invertebrates were killed in estuarine, offshore surface, and deep oceanic waters. These larval deaths resulted in the loss of millions to billions of fish that would have otherwise reached at least a year old.24
- The oil spill killed up to 8.3 billion oysters, representing 508 million pounds of fresh oyster meat and contributing to a 50 percent drop in Louisiana’s oyster harvest in the following two years.25 Low oyster densities and the loss of oyster habitat have jeopardized the Gulf oyster population, which is not expected to recover without substantial restoration.26

Economic Impacts

- The economic impact of the disaster on the commercial fishing revenues and recreational fishing expenditures from 2010 to 2020 included estimated losses of more than 25,000 jobs, $2.3 billion in industry output, $1.2 billion in total value added or gross regional product, $160 million in state and local tax revenues, and $160 million in federal tax revenues.27
- Cumulatively, the disaster wiped out more than 16 million user days of outdoor recreation such as boating, fishing, and beachgoing.28
- BP paid almost $65 billion to address the cleanup, damages, penalties, and environmental restoration required as a result of the Deepwater Horizon disaster.29

Ecological Impacts

- The oil spill contaminated more than 1,300 miles of coastline, at least 3,200 square miles of the deep ocean floor, and as much as 92,500 square miles of surface water.18 In addition, models estimated that, below the surface, there was a significantly larger area subject to toxic levels of invisible oil contamination.19 Some 22,000 tons of oil washed up on the shores of the Gulf Coast mixing with sand into clumps that will take at least 30 years to degrade.20
- Tens of thousands of whales were exposed to oil from the BP disaster. Endangered sperm whales suffered a 7 percent decline in population, and the Gulf of Mexico whale population was diminished by 22 percent. The Gulf of Mexico whale population consists of less than 50 individuals and its recovery is highly uncertain.21
- Bottlenose dolphins in the northern Gulf of Mexico—which have formed into longstanding communities, or “stocks,” that tend to remain in their own bays or estuaries—also suffered greatly due to Deepwater Horizon.22 Dolphins in Barataria Bay, an area heavily affected by the spill, saw their population decline by half; they were five times more likely to have moderate to severe lung disease than those in unaffected areas, and five years after the spill, only 20 percent of pregnancies within the Barataria Bay community led to a successful birth, compared to 83 percent in unaffected populations.23

HUMAN HEALTH IMPACTS

- People involved in oil cleanup suffered from diminished blood, liver, lung, and heart function, with prolonged or even worsening symptoms seven years after the disaster.30
- Workers exposed to the chemical dispersants used to help clean up the oil suffered from coughing, wheezing, skin irritations, and burning eyes, sometimes for years afterward.31
Those who worked on spill cleanup for more than six months had an increased risk of a nonfatal heart attack.\textsuperscript{32} Deepwater Horizon was a source of trauma for Gulf area residents. Exposure to the disaster was significantly associated with illness anxiety (“excessive concern or worry about having or getting a serious illness”), and fishing and seafood industry workers at the time were more likely than other Gulf state residents to show signs of depression.\textsuperscript{33}

**The Risk Of Another Disaster Is Real**

A decade later, the harms of the 2010 Deepwater Horizon oil disaster continue to be felt by marine life and coastal communities, yet important safety reforms to prevent a similar disaster have never been enacted—and the Trump administration has even rolled back those few measures that were adopted in the wake of the blowout.\textsuperscript{34} Furthermore, safety experts assert that the technology to drill deeper and in harsher ocean conditions has vastly outpaced the safety advances needed to minimize the risk of catastrophic oil spills.\textsuperscript{35} And cleanup operations are rarely capable of recovering or treating more than a small portion of the oil spilled.\textsuperscript{36}

The harm of offshore drilling is not limited to catastrophes like the *Deepwater Horizon*. In the seven years after that rig exploded, the industry experienced more than 4,000 explosions, fires, collisions, and related incidents, including 34 oil spills of more than 2,000 gallons each.\textsuperscript{37}

Aside from human error and technology failures, storms can cause structural damage that leads to devastating spills. During Hurricanes Katrina and Rita, 540 individual spills released 11 million gallons of oil—the same amount released by the *Exxon Valdez* in 1989.\textsuperscript{38} Hurricane Ivan critically damaged wells owned by Taylor Energy in the Gulf of Mexico in 2004, causing them to release oil for roughly 15 years. Taylor reported its wells were leaking just two gallons of crude oil per day; independent estimates put the volume at 2,000 times that amount.\textsuperscript{39}

Yet, despite these facts, federal oversight of these inherently dangerous industrial operations at sea remains ineffective at best. Moreover, in the event of a spill, a company’s strict liability limit for economic and environmental damage is a staggeringly low $138 million, with taxpayers on the hook for all additional expenses unless the responsible party acted with negligence or willful misconduct.\textsuperscript{40}

**AREAS UNDER THREAT**

**Atlantic Ocean**

Opening the Atlantic to oil and gas exploration and development would threaten vital segments of the U.S. economy and the livelihoods of the 70 million people who live along the East Coast.\textsuperscript{41} From Maine’s vibrant harbors to Florida’s beautiful beaches, coastal communities rely on the Atlantic Ocean for food, jobs, and recreation. Oil spills could ruin beaches, contaminate waters, and harm important ecosystems and habitats critical to regional economies.

The Atlantic Ocean contributed more than $94 billion to the U.S. gross domestic product (GDP) in 2016.\textsuperscript{42} Of that, 65 percent came from tourism, recreation, and fishing and seafood industries. Together these industries employ roughly 1.1 million people, supporting 80 percent of all Atlantic Ocean–based jobs.\textsuperscript{43}

A feather star crinoid in the Northeast Canyons and Seamounts Marine National Monument.

© NOAA/Okeanos Explorer Program
Though some Atlantic areas are protected, including 31 submarine canyons and the Northeast Canyons and Seamounts Marine National Monument, oil and gas exploration and development could still occur along huge swaths of the Atlantic coast and have devastating impacts. If a spill of Deepwater Horizon’s magnitude took place off the Atlantic coast of Florida, oil could reach shores as far north as North Carolina’s Outer Banks.44

Oil and gas exploration, a precursor to drilling, is also independently harmful to marine life and those that rely on it. One technique that industry wants to apply in the Atlantic requires ships to tow multiple air gun arrays that fire intense blasts of compressed air into the water every 10 to 12 seconds, 24 hours a day, for months on end. These seismic blasts rank just behind military explosives as the loudest source of noise in the ocean. They disrupt and displace marine life like whales, which rely on sound to mate and find food. There are currently permits pending to allow seismic blasting in the waters off our mid-Atlantic and southern states, which would jeopardize the survival of the endangered North Atlantic right whale.45 Blasting can also impair the health of fish and shellfish, including species of commercial importance like squid, lobster, and scallops.46

Arctic Ocean: Beaufort and Chukchi Seas

The Arctic Ocean is a crown jewel in America’s national heritage, our last essentially pristine ocean. Its western half, the Chukchi Sea, is a particularly rich feeding ground for walrus, polar bears, beluga whales, and seals. To the east, the Beaufort Sea and its coastline are the number one denning site for female polar bears in the United States. Endangered bowhead whales and other whale species migrate through the area. The Arctic is already facing severe threats from climate change, and introducing massive industrial activity into the region would only compound the problem and further endanger all of these animals.

The only safe Arctic Ocean drilling is no drilling at all. The Arctic is a rugged and forbidding environment. The ocean is covered in ice much of the year, shrouded in fog and darkness, and the nearest base of the Coast Guard, which leads offshore oil spill response, is on the other side of the giant peninsula that is Alaska, 1,000 miles away. No matter how prepared an oil company claims to be, no one can master these punishing conditions. Shell Oil ceased exploration in 2015 after its seven-year, $7 billion campaign to drill in the Arctic produced little more than one well not worth pursuing, a totaled drill rig, and massive public opposition.47

Pacific Ocean

The Pacific coast is among the most biologically productive and diverse regions in the world.48 A vast range of habitats, including kelp forests, eelgrass, estuarine nurseries, wetlands, rocky reefs and pinnacles, intricate hydrocorals, diverse sponges, sandy beaches, steep canyons, and the margins of coastal islands support a remarkable variety of ocean life, including hundreds of species of fish, dozens of species of birds, and numerous marine mammals like whales (including blue, fin, and gray), sea lions, and seals.49

To preserve the West Coast’s world-class marine ecosystems, the federal government has protected some of the region’s invaluable marine treasures from drilling in response to outcry by tribes, local communities, and local and state elected officials.50 In fact, California is home to the United States’ largest and most comprehensive network of federally protected National Marine Sanctuaries, as well as a network of state marine protected areas extending from Mexico to Oregon.

The West Coast states’ fishermen, businesses, and marine ecosystems have benefited from this commitment to ocean protection over fossil fuel extraction, and ocean-based tourism and recreation contribute a significant amount to state economies along the West Coast.51 In 2016 the ocean provided $62.1 billion in economic benefits to Washington, Oregon, and California.52 The coastal tourism and recreation sector alone contributed $29.4 billion—over 47 percent of the Pacific states’ ocean GDP—and provided 535,852 jobs in 2016.52 The West Coast fishing industries contributed almost $3 billion to the nation’s GDP and supported 21,652 fishing jobs in 2016.54
Gulf of Mexico

The Gulf of Mexico has already suffered greatly from offshore drilling, with frequent and sometimes catastrophic oil spills, rapid erosion of coastal wetlands, a concentration of carcinogenic petrochemical plants onshore, a volatile and disappointing source of income for state governments, and other impacts causing persistent harm to its ecosystems and economy. That’s especially true of the Western and Central Gulf, the epicenter of America’s offshore drilling. Frontline communities in Louisiana, Alabama, and Mississippi have already sacrificed enough, and they’re calling for a just transition to an economy that builds towards a clean, healthy future.

The Eastern Gulf of Mexico is protected against new drilling through 2022. It supports an incredibly robust ocean economy that depends to a large degree on a vibrant marine ecosystem. In Florida, economic sectors reliant on a healthy Gulf, like fishing, tourism, and ocean recreation, contributed $14 billion to the GDP in 2016. They provided $6.7 billion in wages to workers holding the 268,867 jobs sustained by Florida’s world-class beaches and waters.

Atop the Gulf of Mexico’s rich food chain are several iconic populations of marine mammals whose health and survival would be threatened by offshore drilling, including the bottlenose dolphin and the Gulf of Mexico whale. By the most recent estimates, there are fewer than 50 of these whales still alive, making it one of the most endangered species on the planet. Offshore drilling and noise from seismic air gun blasting pose high threats to its survival, having already pushed the scarce whales into an extremely limited habitat.

The Gulf is home to many other threatened and endangered species, including the Gulf sturgeon, smalltooth sawfish, and several coral species. Sea turtles in the Gulf were once so numerous, that locals used to say, “you could walk across water like Jesus by stepping on their backs.” But their populations there have dropped precipitously—all five turtle species with habitats in the Gulf are listed as endangered under the Endangered Species Act. Other local species are widely fished commercially and recreationally, among them red snapper, tarpon, pink and white shrimp, and eastern oysters. These species and those that depend on them—including humans—need protection from offshore drilling.

RECOMMENDATIONS

Protect our coasts from offshore drilling: The Intergovernmental Panel on Climate Change, the world’s authoritative scientific review body on the subject, warned that if the world is to limit global warming to 2 degrees Celsius—the ceiling for avoiding the worst consequences—all unproven reserves of oil, gas, and coal (such as the undiscovered oil and gas reserves under the Atlantic, Arctic, and Pacific Oceans and the Gulf of Mexico) must be left undeveloped. We need to end our reliance on oil and gas—and the hazard and harm of offshore drilling—as soon as possible. As we do that, we must ensure a just transition for workers and local communities and the best practicable remediation of the industry’s environmental damages.
Focus on energy efficiency: Improving energy efficiency is the cheapest, cleanest, and quickest way to reduce our dependence on fossil fuels. The Obama EPA issued clean car and fuel efficiency standards in 2012 that the Trump administration has since rolled back. The Trump administration’s own analysis indicated that this rollback will cost 60,000 jobs in the auto industry and increase cumulative fuel consumption by 73 billion gallons over the lifetime of cars built between 2022 and 2029. The resultant additional carbon pollution will be equivalent to the emissions of more than 200 coal plants in a year. Moreover, by increasing our reliance on oil, Trump is reducing the nation’s energy security, increasing the influence foreign powers have over the availability and affordability of our energy sources. Instead, we must focus on improving energy efficiency. For the power sector, 26 states have already adopted energy efficiency resource standards, which establish binding targets for savings of electricity, natural gas, or both.

Invest in renewable energy, including offshore renewables: Renewable energy is the future, and the solar and wind industries are growing quickly. Clean energy sources not only displace the burning of fossil fuels, which spews toxic and climate-changing pollutants into our air and water, but can also create millions of jobs. For now, states and private companies are leading the transition to renewable energy. Twenty-nine states and the District of Columbia have adopted renewable portfolio standards, which specify the percentage of retail electricity sales that must come from renewable sources. As a result, the Bureau of Labor Statistics projects that solar installer and wind technician will be the fastest-growing jobs in the country over the next decade. Carefully sited, constructed, and operated offshore wind farms will have a lower local environmental impact than offshore drilling; offshore wind could provide up to 30,000 megawatts of power by 2030, supporting up to 83,000 jobs.

Improve offshore drilling safety: Oil spills are unavoidable if we continue to drill offshore, but, until we stop, the risk can and must be mitigated. During the Deepwater Horizon disaster, the final technological failsafe against catastrophic offshore oil well blowouts—a piece of equipment on BP’s platform—malfunctioned. Afterward, the Obama administration issued regulations to prevent another such failure, but the Trump administration has since curtailed those protections. Those safeguards should be reinstated and strengthened. Congress should also act to implement the recommendations of the bipartisan National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling.

Workers at an offshore wind farm in Germany.
8. Ibid.
13. Ibid.
18. Ibid.
22. Deepwater Horizon Natural Resource Damage Assessment Trustees, “Deepwater Horizon Oil Spill.”
23. Ibid.
25. Deepwater Horizon Natural Resource Damage Assessment Trustees, “Deepwater Horizon Oil Spill.”
26. Christa Court et al., “Effects of the Deepwater Horizon Oil Spill on Human Communities.”
Alison Chase, “America’s Atlantic Ocean Economy—Too Important to Jeopardize,” NRDC, August 2019,

Jennifer Dlouhy, “Shell Abandons Arctic Oil Quest After $7 Billion Bid Yields ‘Disappointing’ Results,” FuelFix, September 28, 2015,


NOEP, “Market Data: Ocean Economy Data” (Washington, Oregon, and California/2016/All Ocean Sectors)

Ruth Elkund et al., “Oil Spills and Human Health: Contributions of the Gulf of Mexico Research Initiative,” Environmental Health, article 69 (August 2018), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5932154/.


NRDC, “Environmental Groups Sue.”


Bureau of Ocean Energy Management (hereinafter BOEM), “BOEM Adjusts Limit of Liability for Oil Spills in Federal Waters From Offshore Facilities,” U.S. Department of the Interior, January 17, 2018, https://www.boem.gov/newsroom/boem-adjusts-limit-liability-oil-spills-federal-waters-offshore-facilities, Oil Pollution Act 90 1004(a)(3), 33 U.S.C. § 2704(a)(3). A liability cap on damages of $75 million is set by statute for offshore facilities and may be adjusted only to address significant increases in the Consumer Price Index (CPI). The Department of the Interior (DOI) increased the limit to $137.6 million in 2018 based on the CPI. According to DOI, this represents the maximum increase that may be implemented absent new legislation.


National Ocean Economics Program (hereinafter NOEP), “Market Data: Ocean Economy Data,” (Northeast Region, Mid-Atlantic Region, and Southeast Region/2016/All Ocean Sectors) http://www.oceanscapes.org/Ocean%20Economy%20Assessment.html (accessed March 2020). Ocean Economy Data include only ocean-related activities and industries compiled from the databases of the Bureau of Labor Statistics and the Bureau of Economic Analysis. Data presented by NOEP from 2005 onward have been generated by NOAA’s Office of Coastal Management. The contribution of the ocean economy to state GDP considers the following sectors: construction, living resources (i.e., fishing and seafood industries), minerals, ship and boat building, tourism and recreation, and transportation. NOEP uses employer-reported data and does not capture self-employment; thus actual employment numbers are greater than those presented here. For additional information on self-employed workers, see https://coast.noaa.gov/digitalcoast/data/enow-nes.html (note that data regions may differ across platforms).


Tony Bartelme and J. Emory Parker, “If Oil Spilled Off SC’s Coast, a Huge Current Would Make It ‘Impossible to Control,’” Post and Courier (Charleston, S.C.), September 5, 2019, https://www.postandcourier.com/news/special-reports/if-oil-spilled-off-sc-s-coast-a-huge-current/article_9e1e534c-9fce-11e8-887d-63b602df3df7.html. A simulated spill off the coast of Florida, just south of Jacksonville, is illustrated in the first video embedded in the article; the video can also be found on YouTube, https://www.youtube.com/watch?v=pae9cCz7r3Q.


Ibid.


60 Ibid.


66 Ibid.


