Fact Sheet on Offshore Oil Drilling

For decades, U.S. coastlines were protected from the expansion of offshore oil drilling by a federal moratorium that enjoyed bipartisan support. Unfortunately, circumstances changed in 2008 when President George W. Bush lifted the White House moratorium and Congress followed suit by allowing a federal ban on new drilling to expire. Since then, federal leaders have made numerous proposals to expand offshore drilling to new regions.

In 2016, the Obama administration finalized a 5-Year Oil and Gas Leasing Program for 2017-2022 that protects the Atlantic, Pacific, Eastern Gulf of Mexico, and Arctic from new offshore drilling lease sales. This decision was informed by years of scientific assessment and public input, and lauded as a major victory for the ocean environment and coastal communities. However, in 2018, the Trump administration was quick to renege on the approved 5-year leasing program, and announced plans to expand offshore drilling in the Atlantic, Pacific, Gulf of Mexico, and Arctic Ocean. This drastic proposal opens over 90% of the Outer Continental Shelf to new drilling and puts our nation's coastal communities, beaches, surf breaks, and marine ecosystems at risk of a catastrophic oil spill.

The Surfrider Foundation is opposed to offshore oil drilling in new areas. Our nation's ocean, waves and beaches are vital recreational, economic and ecological treasures that will be polluted by an expansion of offshore oil drilling. Instead of advocating for transient and environmentally harmful ways to meet America's oil needs, we should seek a comprehensive and environmentally sustainable energy plan that includes energy conservation.

Offshore oil drilling and oil spills have the potential to critically impact pristine marine ecosystems and lead to the industrialization of our coastlines. While there are numerous environmental problems associated with oil drilling, there are also negative economic impacts that we simply cannot afford. This Fact Sheet is intended to outline potential impacts of offshore oil drilling, and dispel myths that have been put forth by oil drilling proponents.

Ultimately, America cannot drill our way out of an oil consumption problem. We must look toward sustainable solutions that protect our natural resources, rather than drill for fossil fuels off our coasts. It is in the best interest of our environment and economy to develop a sustainable "energy portfolio" that includes renewable sources and conservation.

Energy conservation is the most economical and environmental way to achieve energy independence from fossil fuels. Riding mass transit, increasing auto efficiency, improving building insulation, and better managing electrical use in homes/businesses, are just a few ways we can reduce our oil and energy consumption. Conservation is much cheaper and healthier than investing in further development of offshore oil reserves.

It's imperative that our nation's leaders shift away from an old mindset of relying on fossil fuels. Climate change will not wait for us to 'rebuild our energy portfolio'. Oil drilling and continued use of fossil fuels only exacerbate the impacts of climate change, and keep us trapped in a backwards frame of mind. The answers for sustainable energy are already in front of us—and offshore drilling is not part of the answer.

ENVIRONMENTAL IMPACTS

There are serious environmental impacts associated with each stage of offshore drilling. While some impacts may not be seen by the naked eye, there are a myriad of impacts that local communities and elected officials must know about before considering new oil drilling. Because the Surfrider Foundation is concerned about the environmental ramifications of drilling, we have chosen to highlight the most harmful impacts for this Fact Sheet.

- **Oil Exploration—Seismic Surveys: Seismic surveys, also referred to as 'air gun blasting', are conducted to locate and estimate the size of an offshore oil reserve. In order to conduct surveys, ships use 'airgun arrays' to emit high-decibel explosive impulses to map the seafloor. The noise from seismic surveys can damage or kill marine life. High decibels are known to reduce the presence of zooplankton, impair fish eggs and larvae, and temporarily if not permanently deafen adults and juveniles. Without the ability to hear, fish and marine mammals struggle to communicate, navigate, avoid predators, and locate prey. These disturbances can also disrupt important migratory patterns, forcing marine life away from suitable habitats meant for foraging and mating. In addition, seismic surveys have been implicated in whale beaching and stranding incidents.[1]**

- **Drilling and Processing Oil: The process of drilling releases thousands of gallons of polluted water, known as "drilling muds". These muds contain toxins like benzene, zinc, arsenic, radioactive materials, and other contaminants used to lubricate drill bits and maintain pressure. Unfortunately, discharges are unregulated.[2] High concentrations of metals have been found around drilling platforms in the Gulf of Mexico.[3] A recent study by PEW Charitable Trust concluded that a single oil well discharges around 1,500 – 2,000 tons of waste material. Contaminants from oil drilling accumulate on the sea floor; smother organisms and cause malformations, genetic damage, and mortality in fish embryos.[4]**

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[1] NRDC. 2017. "Protecting Our Ocean and Coastal Economies: Avoid Unnecessary Risks from Offshore Drilling". http://www.nrdc.org/oceans/offshore/files/offshore.pdf

[2] Patin, S. (Translations by Cascio, E.) 1999. "Waste discharges during the offshore oil and gas activity". http://www.offshore-environment.com/discharges.html

[3] MMS. 2001. "Gulf of Mexico OCS Oil and Gas Lease Sale 181", Final Environmental Impact Statement. https://www.boem.gov/BOEM-Newsroom/Library/Publications/2008/2008-011.aspx

[4] "Offshore Drilling and Ocean Impacts" www.pewglobalwarming.org/resources/OCS_oceans_factsheet.pdf

Air pollution is yet another major problem associated with drilling and processing. Over its operational lifespan, a single rig can pollute the equivalent of 7,000 cars driving 50 miles per day.[5] Air pollution is also a problem at oil refineries. For the state of California alone, refinery emissions of greenhouse gases account for about 40% of industrial emissions and almost 10% of the state's greenhouse gases.[6] Additionally, the drilling and construction of oil pipelines used to transport extracted oil back to shore disturb fragile seafloor habitats, wetlands, and beaches.

- **Oil Spills: As demonstrated by the Deepwater Horizon disaster in 2010, oil spills have the potential to damage entire ecosystems. BP's Deepwater Horizon oil spill released approximately 200 million gallons of oil into the Gulf of Mexico, fouling beaches and coastal wetlands from Louisiana to Florida; killing birds, fish, and marine mammals; and devastating the recreation and fishing-based coastal economies of the Gulf States. Oil spills can also take numerous years to clean up. Nearly 20 years after the Exxon Valdez spill, more than 26,000 gallons of oil still remain in shoreline soils.[7] Sadly, oil spills take place on a relatively consistent basis. Each year, about 880,000 gallons of oil are sent to the ocean from U.S. drilling operations.[8]**

[5] "Dirty Business" USPIRG http://uspirg.org/uspirg.asp?id2=24551
[6] "Oil Refineries Fail to Report Harmful Emissions" http://oversight.house.gov/documents/20040827114147-65907.pdf
[7] MacAskill, E. 2007. "18 years on, Exxon Valdez oil still pours" *The Guardian.* http://www.guardian.co.uk/business/2007/feb/02/oil.pollution
[8] "Minerals Management Service 2006. OCS Leasing Program: 2007-2012. Draft Environmental Impact Statement http://www.mms.gov/5-year/2007-2012_DEIS.htm

From 1995 to 2010, the U.S. Mineral Management Service recorded 183 spills in the Gulf of Mexico and the Pacific Ocean (including spills of toxic chemicals related to drilling).[9] Since 1969, there have been at least 44 large oil spills (over 10,000 barrels of oil each) in our nation's marine waterways.[10] The U.S. Department of the Interior estimated that every three to four years, a spill of at least 10,000 barrels is expected to occur.[11] Natural disasters can also prompt spills. For instance, when Hurricane Katrina whipped through the Gulf of Mexico, she destroyed over 100 platforms and caused the largest oil spill in the U.S. since the Exxon Valdez.[12]

- **Onshore Environmental Impacts: Oil production requires massive onshore infrastructure for transportation, storage, processing, and delivery. As such, local communities can experience onshore environmental problems because of offshore drilling. To transport oil to processing plants, pipelines and roads are often built through coastal wetlands and beaches, causing severe rates in the loss of habitat functionality and acreage.[13] Local communities are directly impacted by the reduction in habitat functionality, as it results in the loss of "ecosystem services," including protection from shore break and sea level rise, water purification, shoreline stabilization, and habitat for coastal and marine wildlife that may be crucial for industries reliant on tourism and recreation.[14] As such, the oil industry externalizes the costs of air, water and land pollution at the expense of our environment and coastal economies.**

[9] "Offshore oil drilling Incidents" http://www.mms.gov/incidents/spills1996-2008.htm#1996-1999
[10] NOAA Office of Response and Restoration. 2017. "Largest Oil Spills Affecting U.S. Waters Since 1969. https://response.restoration.noaa.gov/oil-and-chemical-spills/oil-spills/largest-oil-spills-affecting-us-waters-1969.html
[11] Connors, J. 2009. "False Hopes". *treehugger*. http://www.treehugger.com/files/2009/02/offshore-drilling-oil-false-hope.php
[12] Sever, M. 2006. "After Katrina". *GEOTIMES.* http://www.geotimes.org/feb06/feature_oilspill.html
[13] Bosch, D.F. 2005. "The Aweful Price of Coastal Ruin". *The Baltimore Sun*. http://articles.baltimoresun.com/2005-09-01/news/0509010037_1_wetland-loss-mississippi-river-dredged
[14] Washington State Department of Ecology. N.D. "Functions and Values of Wetlands". *Access Washington.* http://www.ecy.wa.gov/programs/sea/wetlands/functions.html

ECONOMIC IMPLICATIONS

Before scrutinizing 'oil drilling myths,' it's important to examine economic arguments that prove our coastal communities are the mainstay of the U.S. economy and will undoubtedly suffer if new drilling occurs. The potential of catastrophic oil spills, continued contribution to climate change, and the eyesore of an industrialized coastline, could do significant harm to coastal communities and surrounding regions.

The National Ocean Economics Program reports on the importance of economic contributions from coastal states, which are estimated to provide over 80% of the nation's GDP and employment, with almost of half of the Nation's GDP coming from coastal counties alone. Additionally, the ocean economy's[15] tourism and recreation industry singlehandedly provides the largest amount of jobs (71%) to the U.S. economy. In fact, ocean tourism and recreation provides 12 times the amount of jobs to the U.S. economy, compared to offshore oil production.[16] In the event of a spill, the tourism and recreation industry are likely to experience severe economic damages, forcing economic constraints and job losses on the majority of coastal populations.

Value Added by Coastal/Ocean Tourism and Recreation Related Industries (US Dollars, Billions)		
State	**Coastal Leisure & Hospitality[17]**	**Ocean Recreation & Tourism[18]**
California	**$98.8**	**$18.4**
Florida	**$57.0**	**$17.4**
New York	**$57.5**	**$18.4**
New Jersey	**$17.8**	**$3.2**
Washington	**$15.8**	**$3.5**

Table 1. Value Added by Coastal/Ocean Tourism and Recreation Related Industries. Annual GDP contribution (in $US billion) of the coastal economy's leisure and hospitality industry, and the ocean economy's recreation and tourism industry.

In addition to tourism and recreation being impacted by drilling, fishing industries could also be disrupted and uprooted. Seismic surveys, oil rig construction, spill risk, and

[15] The report defines "ocean economy" as: ocean resources that have a direct or indirect input of goods and services to an economic activity.
[16] Kildow, J.T., Colgan, C.S., Johnston, P., Scorse, J.D., Farnum, M.G. 2016. "State of the US Ocean and Coastal Economies – 2016 Update" National Ocean Economics Program. Middlebury Institute of International Studies at Monterey *Center for the Blue Economy*. http://www.oceaneconomics.org/Download/
[17] 2015 CoastalEconomy. 2017. National Ocean Economics Program. http://www.oceaneconomics.org/Market/coastal/
[18] Ibid, 2016.

decommissioning activities may displace fishermen. The fishing industry is another pillar of our U.S. economy that we cannot afford to put in jeopardy.

Fishing Generated Income Impacts in 2010 [19] (US Dollars, Millions)		
Region	**Recreational Fishing**	**Commercial Fishing**
North Atlantic	$574	$2,968
Mid-Atlantic	$1,260	$3,560
South Atlantic	$1,786	$3,235
Pacific NW	$757	$6,633
Pacific	$2,947	$3,911

Table 2. Fishing Generated Income Impacts in 2010. Annual income impacts (in $US million) of the recreational and fishing industry by US region.

FACTS VS. FICTION

Secretary of the Interior Ryan Zinke recently said, "The Gulf is a vital part of [the Trump Administration's] strategy to spur economic opportunities for industry, states and local communities, to create jobs and homegrown energy and to reduce our dependence on foreign oil."[20] Let's use this statement as a basis to start identifying and remedying the myths of the offshore oil and gas industry:

MYTH: Offshore drilling will "spur economic opportunities for industry, states, and local communities to create jobs".

Reality: As we determined above, offshore oil and gas development could actually harm industries that provide more jobs to local economies. This is most notable in the Gulf of Mexico. For every Gulf state besides Texas, tourism, recreation and living resources (fishing) together provide the largest employment contributions.[21] The economic opportunities and jobs created by industries that depend on a healthy coastal environment are greater than those developed through offshore oil and gas development.

[19] "2013 OceanEconomy". 2017. National Ocean Economics Program. http://www.oceaneconomics.org/Market/ocean/oceanEcon.asp

[20] Fears, D. 2017. "Trump's new Gulf of Mexico oil and gas drilling proposal looks a lot like Obamas. *The Washington Post*. https://www.washingtonpost.com/news/energy-environment/wp/2017/03/06/trumps-new-gulf-oil-and-gas-drilling-proposal-looks-a-lot-like-obamas/?utm_term=.d300fd927672

[21] "2013 OceanEconomy". 2017. National Ocean Economics Program. http://www.oceaneconomics.org/Market/ocean/oceanEcon.asp

	Sectors Most Likely to be Negatively Affected by Oil and Gas Development in Gulf of Mexico[22]			
	Living Resources (Thousand $)	Tourism & Recreation (Thousand $)	Combined % of Ocean GDP	Combined % of Ocean Jobs
Florida	$126,534	$8,007,879	66%	92%
Alabama	$200,504	$585,769	29%	63%
Texas	$241,445	$1,671,321	1%	23%
Louisiana	$463,370	$2,006,390	11%	45%
Mississippi	$392,543	$401,846	36%	52%
All of Gulf	$1,587,095	$12,663,982	8%	53%

Table 3. Annual percent of total ocean economy GDP contributions and job opportunities of U.S. Gulf states in 2013, from sectors that are most likely to be harmed from offshore oil and gas development. Industries include living resources (fishing and aquaculture) and tourism and recreation.

Additionally, a 2015 economic analysis found that the development of offshore wind instead of offshore oil and gas would provide more jobs (an estimated 91,000 more jobs) and produce twice the energy.[23] Offshore oil and gas development does not significantly contribute to job growth, and alternative offshore energy developments might actually provide more benefits to "industry, states, and local communities" through greater employment opportunities and energy production.

MYTH: Expanding offshore drilling will "reduce our dependence on foreign oil".

Reality: A Congressional report from 2003 indicates that increasing offshore production would not reduce U.S. reliance on foreign oil.[24] Many people are surprised to find out that the U.S. receives approximately 45% of its oil from North America. In fact Canada and Mexico are two of the largest oil suppliers for the U.S.[25]

The U.S. is currently experiencing its lowest dependence on oil in a long time, as net imports are at a 30-year low.[26] If we focus on reducing our consumption and investing in renewable

[22] "2013 OceanEconomy". 2017. National Ocean Economics Program. http://www.oceaneconomics.org/Market/ocean/oceanEcon.asp
[23] Menaquale, A. 2015. "Offshore Energy by the Numbers: An Economic Analysis of Offshore Drilling and Wind Energy in the Atlantic". *Oceana*. http://oceana.org/sites/default/files/offshore_energy_by_the_numbers_report_final.pdf
[24] Congressional Report: https://www.policyarchive.org/bitstream/handle/10207/1478/RL31521_20030314.pdf?sequence=1
[25] U.S. Energy Information Administration. 2016. "Oil: Crude and Petroleum Products Explained, Oil Imports and Exports". *Independent Statistics and Analysis*. http://tonto.eia.doe.gov/energyexplained/index.cfm?page=oil_imports
[26] Patton, M. 2016. "U.S. Dependence on Oil Hits 30 Year Low". *Forbes Contributor*. https://www.forbes.com/sites/mikepatton/2016/04/20/u-s-dependence-on-foreign-oil-hits-30-year-low/#321e9734ff3

storage capacity, instead of increasing national oil production, we can reduce this dependence even more.

The United States is the world's largest consumer of oil, churning through 18.7 million barrels a day.[27] By contrast, the United States only produces 9.1 million barrels a day.[28] According to the Director of the Center for Energy and Environmental Studies at Boston University, under the most optimistic scenario, the U.S. would only produce an additional two to four million barrels a day, still leaving the U.S. with an import deficit. Even with new drilling, the U.S. would still need to import 40% of its daily oil consumption.[29]

The U.S. needs a comprehensive energy plan that doesn't contradict itself. While the U.S. imports a large amount of oil, we are also exporting our own oil. Believe it or not, the U.S. exports almost 2 million barrels of oil a day. Why should we drill if the U.S. is exporting oil? U.S. oil exports have steadily increased over the past 30 years and the trend doesn't appear to be changing anytime soon.[30]

MYTH: Expanding offshore drilling will "spur…homegrown energy"

Reality: The current level of U.S. oil production has nothing to do with the lack of access to offshore oil and gas reserves. In fact, hundreds of U.S. oil developers have gone bankrupt due to the low prices of oil and the high costs of drilling.[31] Opening up additional offshore reserves will not ensure that oil prices will increase, and thus may not provide any additional production of "homegrown" energy. This means we already have oil and gas infrastructure that's not producing due to market influences – WHY threaten our coastlines and local economies to support a weak market when we have better alternatives?

MYTH: Offshore drilling will ensure our nation's long-tem energy needs.

Reality: Even under the best-case scenario, America's offshore oil reserves in the Atlantic and Pacific would provide us only 920 days, or 18 months supply of oil at our current rate of

[27] Central Intelligence Agency. 2015. "Country Comparison to the World". *The World Factbook.* https://www.cia.gov/library/publications/the-world-factbook/fields/2241.html
[28] Ibid, 2015.
[29] Wangsness, L. 2008. "New offshore drilling not a quick fix." *The Boston Globe*. http://www.boston.com/news/nation/articles/2008/06/20/new_offshore_drilling_not_a_quick_fix_analysts_say/
[30] U.S. Energy Information Administration. 2016. "Oil: Crude and Petroleum Products Explained, Oil Imports and Exports". *Independent Statistics and Analysis*. http://tonto.eia.doe.gov/energyexplained/index.cfm?page=oil_imports
[31] Haynes and Boone, LLP. 2017. "Oil Patch Bankruptcy Monitor". http://www.haynesboone.com/~/media/files/energy_bankruptcy_reports/2017/2017_oil_patch_monitor_20170220.ashx

consumption.[32] A recent study shows new drilling will not help long-term energy needs. Here's an analysis for each region:[33]

- The North and Mid-Atlantic contain a small amount of oil. At recent prices and usage, the region contains about 2.3 billion barrels of oil, which would supply the nation with oil for about 117 days.

- The South Atlantic contains an even smaller amount of oil. At recent prices, the area is estimated to contain approximately 0.31 billion barrels of oil which would supply the nation with oil for about 15 days.

- In California, at recent prices and usage, the oil available off California's coastline would supply the nation with approximately 13 months of oil.

- In the Pacific Northwest, Washington and Oregon only have a miniscule amount of oil and would supply the nation with 15 days of oil.

MYTH: Advances in drilling technology make offshore drilling "safer".

Reality: New technology is far from safe, as proven by numerous recent spills, including the

[32] http://www.mcclatchydc.com/227/story/44169.html
[33] Gravitz, M., Cosgrove, C., and Kirby, M. 2009. "Oceans Under the Guns: Living Seas or Drilling Seas?". *Environment America Research and Policy Center*. http://cdn.publicinterestnetwork.org/assets/2a7615c1164506ae0faae02ee7ffbfa0/Oceans-Under-the-Gun-Thurs-AM-version.pdf

latest spill off the coast of Australia. Using "state of the art" technology, flaunted by oil companies, an oil rig blew out spilling at least 400 barrels of oil per day (estimate by oil company) and could have been as much as 2,000 barrels a day (estimate by Australia Department of Resources, Energy and Tourism). That spill covered thousands of square miles of ocean and was unable to be stopped for over two months.[34]

There are claims by oil drilling proponents that "subsea drilling" can be done safely and 'kept out of sight.' However, an investigative report exposed the truth that subsea drilling installations are almost entirely used in depths greater than 5,000 feet.[35] Waters in both the Atlantic and Pacific only run a few hundred feet deep. For example, in certain areas of the Pacific along the continental shelf, it's estimated waters are approximately 650 feet.[36] Most waters off the coast of Florida run no deeper than 100 feet.[37]

Finally, in the wake of storms with unprecedented strength, how can we be so sure that new rigs will be able to withstand winds and storm surge associated with another Hurricane Irma-like storm, or worse? We already know that current platforms are not safe in the face of powerful storms. This was illustrated in the Gulf of Mexico when both Hurricane Katrina and Hurricane Rita damaged a combined total of 113 platforms, 457 pipelines, and spilled roughly 750,000 gallons of oil.[38]

MYTH: Economic benefits of offshore drilling "outweigh the risks."

Reality: In most instances, risk assessments of offshore drilling fail to take into consideration the economic risk to our beaches and coastlines. As discussed above, our coastlines are single-handedly the biggest revenue generators for our economy. Our nation's ocean, waves and beaches are vital recreational, economic and ecological treasures that will be polluted by an increase in offshore oil drilling. Why bother with such risk? Images of oiled marine life and vast amounts of oil covering the ocean have been permanently etched into our hearts and minds over the years. America needs to conserve energy, protect our natural resources and look for innovative ways to build a sustainable 'energy portfolio'. Offshore oil drilling is not the answer.

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[34] "Oil leaking five times faster than thought". ABC News, Oct 22, 2009. http://www.webcitation.org/5l3RU9Sv0
[35] Wallace, J. 2009. "Faulty Promises in bid to drill off Florida?" *Herald Tribune*. http://www.heraldtribune.com/article/20091129/ARTICLE/911299998?Title=Faulty-promises-in-bid-to-drill-off-Florida-
[36] Sanctuary Integrated Monitoring Network. N.D. "Continental Shelf". National Marine Sanctuaries, National Ocean Service, National Oceanic and Atmospheric Administration. U.S. Department of Commerce. http://www.sanctuarysimon.org/regional_sections/shelf/overview.php?sec=cs
[37] Wallace, J. 2009. "Faulty promises in bid to drill off Florida?". *Herald Tribune*. http://www.heraldtribune.com/article/20091129/ARTICLE/911299998?Title=Faulty-promises-in-bid-to-drill-off-Florida-
[38] Sturgis, S. 2015. "The Katrina oil spill disaster: a harbinger for the Atlantic Coast?". *Facing South*. https://www.facingsouth.org/2015/08/the-katrina-oil-spill-disaster-a-harbinger-for-the.html

2. RAISE AWARENESS

Social Media Guidelines, Graphics, and Sample Language

Working together we can raise awareness for urgent messages. Our goal is to leverage simple and consistent messaging and imagery across all national, regional, and local social media channels, so that we amplify our message as much as possible.

REPURPOSE POSTS FROM @SURFRIDER NATIONAL CHANNELS

As soon as important developments occur, messaging and call-to-actions (if applicable) will be shared through the national channels (Twitter, Instagram and Facebook) linked below. We welcome you to "share" our posts on Facebook and retweet our posts on Twitter. On Instagram, you can screenshot our posts OR you can use an iPhone or Android App like Repost or InstaRepost. Here are direct links to our national social media accounts:

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