

Oil and Gas in the GULF OF MEXICO

GULF RESTORATION NETWORK



TABLE OF CONTENTS

INTRODUCTION	2
TRACKING POLLUTION IN THE GULF	4
BIG STORMS AND BIG SPILLS IN 2017	5
TAYLOR OIL LEAK'S IMPACTS TO ENDANGERED TURTLES	7
RECENT DEEP LEAKS: SHELL AND LLOG	9
PROTECTING OUR COMMUNITIES	10



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Introduction:

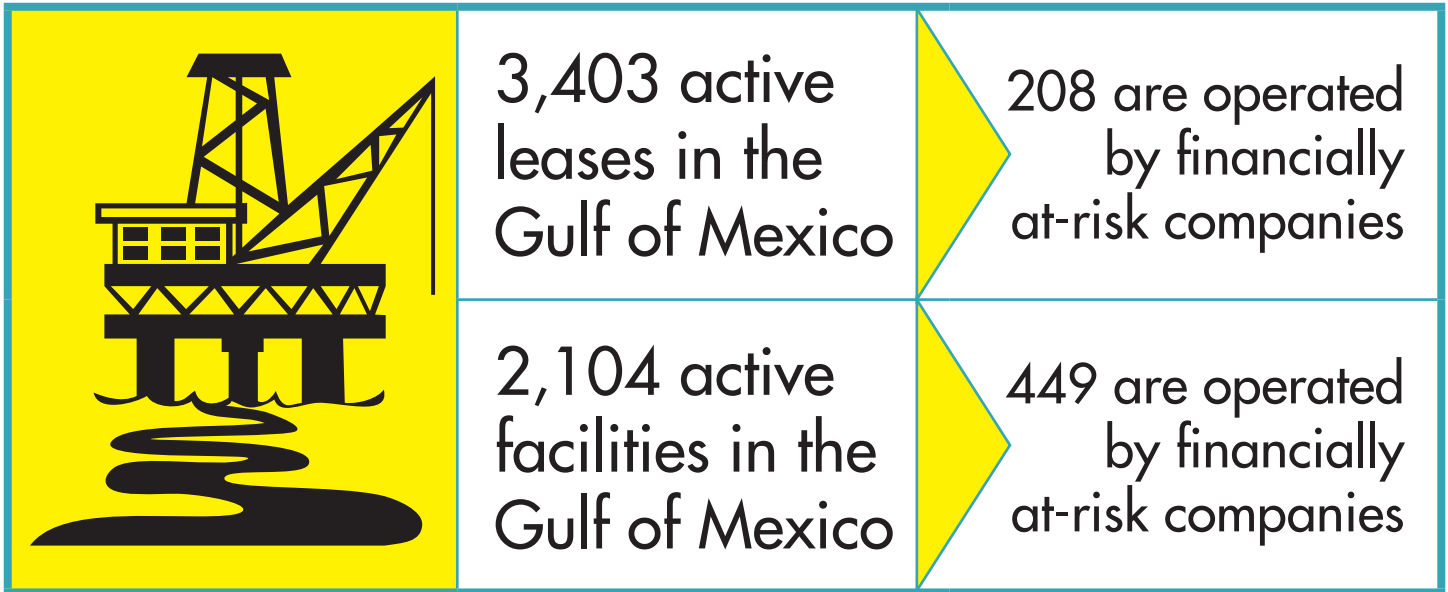
The Gulf of Mexico is a unique natural, economic and recreational treasure that is central to the culture and heritage of five states and several nations, but it is also under threat. The 2010 BP drilling disaster was a wake-up call for many – demonstrating the devastating consequences that a large scale oil catastrophe can have on this region’s coastal communities, wildlife and economy. The BP disaster was the largest ever offshore oil spill in the United States, but, sadly, oil spills and accidents were a daily reality before 2010 and continue to plague the Gulf today.

Since that disaster, GRN has been conducting regular monitoring trips via plane and sea to document both BP’s oil and the ongoing impacts of oil and gas exploration, development and production in this region. We’ve conducted over a hundred monitoring trips and reported hundreds of oil and chemical spills to state and federal authorities.

Despite some safety reforms in the wake of the BP disaster, GRN’s monitoring work and government data make it clear that oil and gas spills and accidents continue to plague this region.

This report highlights a new tool that GRN is launching to better document the incidents we discover during our monitoring trips, shares examples of some of the most egregious oil and gas spills last year, and recommends reforms.

RISKY BUSINESS IN THE GULF



Financially at-risk companies operating offshore facilities or leases in the Gulf of Mexico. Source: *Safety in the New Offshore World*, Lars Herbst. BSEE, 2017.



1

330,000
gallons of oil
are spilled in
Louisiana
every year
on average

2

On average, there is
1 FIRE
EVERY 3 DAYS
offshore

3

EVERY YEAR
in the
GULF

2,100
oil & chemical
SPILLS
reported to the
Coast Guard

4

20 BLOW
OUTS
PER 1000
new wells in 2016
ALL TIME HIGH

5

3 WORKERS
die
each year
on average

6

TAYLOR
ENERGY
OIL WELLS
LEAKING FOR
14 YRS

Our coast deserves better! Join the fight for a #HealthyGulf, donate today!

www.healthygulf.org/Watchdog

Tracking Pollution in the Gulf



GRN is launching a new tool - "Gulf Watchdog" - to share the pollution incidents we discover with the public, decision makers and the media. After each monitoring trip, we'll update the "Gulf Watchdog" with pictures of any new spills and accidents, and details on the location of the incident, the likely responsible party and any other information we uncover.

In conjunction with this new tool, we're also taking a look back on GRN's monitoring efforts in 2017. From a historically active hurricane season to one of the largest Gulf oil spills since the BP disaster, 2017 was a tough year for our coastal communities and environment. GRN has been on the front lines of many of these incidents, working to document the impacts and hold polluting companies accountable.

GRN's 2017 MONITORING



18 monitoring trips conducted by land, sea and air, with 13 organizational partners



27 pollution reports filed with the Coast Guard National Response Center



9 other reports filed to State agencies on water pollution, wetland fills and air pollution events



At least 4 reports have resulted in confirmed fines, restoration of bayous, the cessation of Cypress logging, or clean up of oiled marshes

To check out our documented reports from 2017, visit:

www.healthygulf.org/GulfWatchdog

BIG STORMS AND BIG SPILLS IN 2017

In an era of epic storms, Hurricane Harvey soaks our memories--big enough to strike the entire Texas and Southwest Louisiana Coast, first as a storm surge in Corpus, Rockport, and Port Aransas, Texas, then as a biblical deluge over Houston, which shed over 40 inches of water as far west as Lake Charles, Louisiana. Rivers like the Neches in Texas and the Mermentau in Louisiana recorded historic crests as that Gulf rain pumped trillions of gallons of freshwater back where it came from, into the Gulf of Mexico, impacting saltwater corals hundreds of miles offshore. ⁷

**FLOOD WATER
IS
NOT
JUST WATER**

GRN, thanks to unflappable pilots at Southwings, as well as volunteer Airlift pilots, flew five missions over two weekends, with our partners at Atchafalaya Basinkeeper, GreenARMY, Sierra Club, and Texas Environmental Justice Advocacy Services-- recording the flood and observing and filing reports on 8 pollution incidents.

It was very clear that flood water is not just water. Unkempt hazardous facilities are placed next to the most socially vulnerable communities, and pollute the water as people are forced to evacuate through the flood. Agencies and observers are strained past the breaking point. Pollution response is placed second to immediate rescue effort, and so most pollution events, even those recorded by GRN, are not reported.

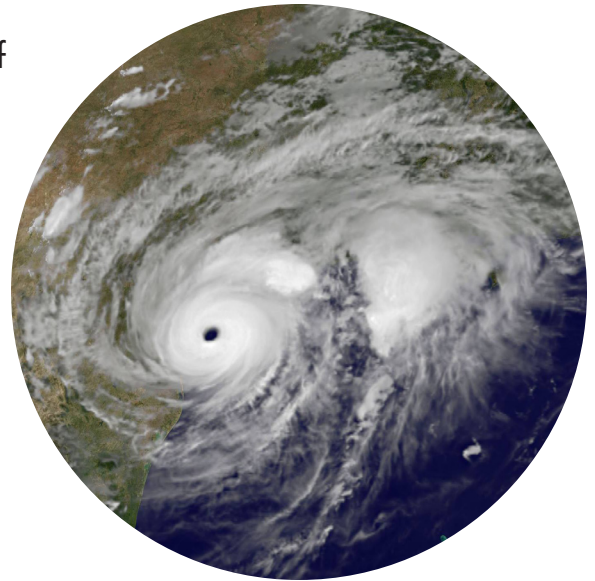
Exxon Beaumont's lower refinery, flooded, flaring, and oil.
NRC Report 1189330.



The civic scientists at HARC have produced story maps⁸ of Harvey's wake of destruction: in that report they aggregate only 36 reports of spills in Harris County, and 6 reports in Galveston County. These numbers, which are focused only on industrial and municipal facilities, don't include numerous oil spills from cars and garages, and likely significantly underrepresented the total pollution incidents. There is a dire need for more reporting on pollution during disasters.

Because there is often no accounting for spills of oil or wastewater, when GRN reported Exxon Beaumont's flood of oil into the Neches, we were informed that Exxon was not liable, because the metallic oil in the Neches River was coming from too many other sources, and pooling along the banks. There are simply not enough working responders to hold companies accountable for damages. The Gulf must hire up to build capacity to protect our waters from the storms that come in the future.

Some of the most egregious pollution events we documents included a large plume coming from Gulf Coast Waste Disposal into the Texas City Industrial Canal, and sheen-coated waters flowing through Exxon Beaumont's 'lower refinery' --the part of the refinery in the bend of the Neches River.



Right: Hurricane Harvey bears down on Texas and Louisiana. Photo Credit: NASA/NOAA.

Gulf Coast Waste Disposal plume in Texas City. NRC Report 1189818.



TAYLOR OIL LEAK'S IMPACTS TO ENDANGERED TURTLES

In 2017, the Taylor leak off the coast of Louisiana reached its 13th year. There's enough oil left in the play that the leak could still be killing fishes and soiling sargassum seaweed 100 years from now.

2017 also saw the Bureau of Safety and Environmental Enforcement (BSEE), the main agency overseeing offshore safety, act to examine the environmental impacts of the Taylor leak for the first time. Taylor Energy claims that the government is incorrect, and that all oil from their 13 year old leak is "residual." But every time Gulf Restoration Network and other members of the Gulf Monitoring Consortium fly to this location, we see the rainbow sheen spread for miles from this unique spot. Recent ROV surveys by BSEE confirmed two undersea plumes--far more oil being released than a residual release. Our partners at Skytruth have provided an invaluable service in tracking the rate of monitoring, and the size of the sheen over time; they estimate that Taylor has already spilled between a half a million and a million and a half gallons into Gulf waters.⁹

If it costs them money, the oil industry can be allergic to the truth; denial of basic science costs the Gulf Coast jobs, our economy, and our safety and welfare.

We also documented oiling of sargassum – a kind of algal seaweed which is important habitat for endangered sea turtles. In 2017, GRN documented oiling of sargassum near the site of the Taylor Energy leak. Oiled sargassum represents exposure to many juvenile fishes and the small turtles that use the seaweed as a resting area as the seaweed drifts east and south along the Florida coast. Oil in the water and on the sargassum can reduce the oxygen in the water or change its temperature, stressing the small creatures that cling to it as a life raft. The chronic exposure to oil at the surface of the water can harm air-breathing creatures like turtles.

Our most recent Southwings flyover of the Source on October 13, 2017 documented the point source--evidence that this is a leak, and not "residual." NRC Report 1193203.



Although this type of harm has been established by federal authorities, specific response surveys must be designed to document the health of Gulf sea turtles and their rate of exposure. Until recently, Taylor was in denial that there were any environmental impacts of its 13-year leak. Given the political favor shown the Taylor Energy company,¹⁰ the burden of proof for its harm to endangered species will be much higher than for a company with tremendous public attention to its practices, like BP in 2010. It is urgent that advocates assist agencies and document any and all impacts to wildlife at this moment.

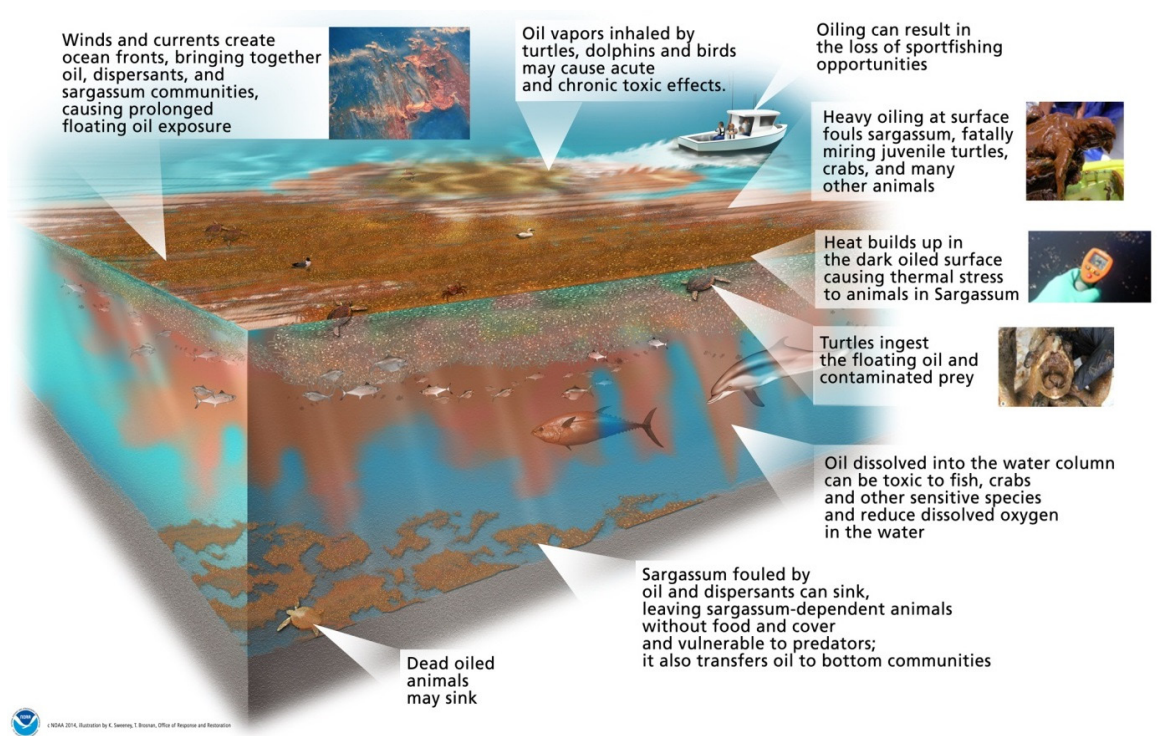
Left: A young hawksbill sea turtle swimming in pelagic Sargassum. Photo Credit: Florida Fish and Wildlife.



Right: Kemp's Ridley Sea Turtle. Photo Credit: US Environmental Protection Agency.



Illustration of the potential impacts of an oil spill on sargassum and associated marine life in the water column. NOAA.



RECENT DEEP LEAKS: SHELL AND LLOG

In 2017, the Gulf saw the largest oil spill since BP. LLOG had a pipeline leak of 7,950 to 9,350 barrels, or up to 392,700 gallons, from the seafloor. This leak was the second of its kind in two years, with Shell having a similar leak in 2016. We still know very little about LLOG's 'fractured jumper' pipeline, and very little about the marine impacts, since most of the oil hurt the deep canyons of the marine environment. These deep places are hunting grounds for our most sensitive species, including the endangered Gulf sperm whale.

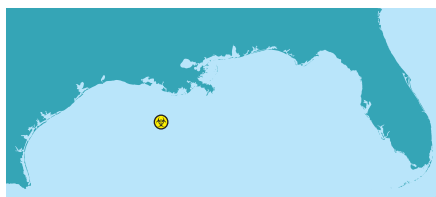
What oil reached the surface was gone in a few days--even without dispersants, leading us to question the entire point of using dispersants for these deep leaks into Gulf waters.

Shell also had a deep leak from a 'Jumper' pipeline in 2016, so we can learn about the possible causes of LLOG harm from Shell's mistakes. Shell, a massive multinational, is less prone to the mistakes of a smaller, bankruptcy prone company like LLOG.

In March 2018, BSEE released its report on Shell's deep leak, and the report was damning. First, Shell knew about a deformed pipeline, or "jumper" since 2014, but failed to act. The seafloor pipeline was designed to break at a certain joint; this joint was stressed by Shell's own drilling wastes from other nearby wells falling on top of it.¹¹ Better pollution controls for drilling muds could have prevented damage to other oil field equipment.

Between 2014 and the 2016 incident, Shell fired approximately 700 local employees. The control officers responsible for shutting down the leak were untrained in recognizing pipeline leaks. As soon as the sun rose, though, a crew helicopter found a tremendous sheen. Operators were able to shut off the oil spill with the push of a button. The whole scenario was avoidable, had experienced workers been at the console.

Shell Glider deep leak and response vessels in Green Canyon, May 2016, Vanishing Earth.



A mother sperm whale and her calf.
Photo credit: CC BY-SA 2.0, <https://commons.wikimedia.org/w/index.php?curid=24212362>



Deepwater leaks in pipelines are impossible to respond to, since most of the oil destroys the pelagic and abyssal environment. In 2016, Shell's Glider field leaked for a similar period of time as LLOG, and recovery was similarly fraught. Most of the oil was naturally dispersed in a matter of days. Cloud cover masked independent observations and estimates of the oil spilled.

LLOG's leak into Mississippi Canyon is disturbing because of the ongoing impacts to Mississippi Canyon since BP's disaster spewed oil into the same area, the feeding grounds for an endemic sperm whale population. Dr. Mate at Oklahoma State University has documented the fact that sperm whales no longer feed in an immense area surrounding the Deepwater Horizon wreckage, and other areas that contain residual oil from the disaster.

A response vessel working to contain the Shell Glider leak. Photo credit: NOAA.



PROTECTING OUR COMMUNITIES

The Gulf coast's communities, environment and economy are suffering from the impacts of regular oil and gas spills and accidents, and we are still at risk of major disasters on the scale of the BP drilling disaster.

There are real human costs when bad things happen offshore. Offshore workers die or suffer grave injuries. Fisherfolk are unable to harvest shrimp, snapper and other once abundant species when oil poisons their fishing grounds. People and animals are exposed to toxic chemicals and suffer long-term harm to their health. Tourist cancel their trips, and local businesses and people that rely on them lose money. And the oil kills the marsh - literally washing away the land Gulf residents live, work and play on. Whether on a massive scale like the BP disaster, or one of the smaller spills that occurs almost every day, every accident does harm to the people and wildlife of the Gulf coast.

Scientists are continuing to study the long-term impacts of BP's oil and dispersants - including documenting damage to deep sea corals and new research on the toxic impacts of dispersants on clean up workers.

People from across the Gulf and the nation are calling for industry accountability - standing up against new lease sales, protesting proposed pipelines, and saying no to drilling in state waters along their coast. The message is clear: we won't stand for business as usual and we won't stand for any new offshore leasing.

Activists march in front of Jackson Square in New Orleans for No New Leases in the Gulf of Mexico.



To protect Gulf communities and residents, we call on the Trump administration and other decision makers to:

Maintain existing protections and enforce the law

Oil drilling and oil spilling go hand and hand, but that doesn't mean that the government shouldn't be doing everything it can to minimize the number of spills and accidents. Unfortunately, the Trump administration and its allies in Congress are more focused on rolling back protections for our communities, critters, and the safety of offshore workers.

Don't roll back the "well-control rule" and improvements in production platform safety:

The "well-control rule" and its counterpart focused on production platform safety are some of the only reforms put into place in the wake of the BP drilling disaster and were created to fix the problems that led to the BP disaster. These reported rollbacks include getting rid of independent third party certification for devices used in oil and gas production, ending real-time monitoring by the government of deepwater and dangerous drilling operations, and removing requirements that a "safe drilling margin" be maintained during drilling. The Trump administration should immediately halt their effort to roll back key parts of these safety reforms.

Vote "No" on the SECURE act and other legislation that weakens safety measure:

The SECURE Act, which Congress is currently considering, would "secure" enormous profits for the oil & gas industry at the expense of science-based protections for our ecosystems and wildlife, our coastal economies, and our public health. The SECURE Act will gut core provisions of the Marine Mammal Protection Act, the Migratory

Hilcorp pipeline strike, July 2016. These damages to marshes and wildlife have not been fully assessed, nor has the state received compensatory restoration.



Bird Treaty Act and override the Endangered Species Act (ESA) to fast-track offshore activities, including seismic exploration that harm whales, dolphins, and other marine mammals. Congress must vote down this and other similar measures like the SEA Act.

Hold polluters financially accountable:

State and federal regulators must hold polluters accountable for the damage they've done. They're leaving billions of dollars on the table that could be used for vital restoration by not fully holding oil and gas companies financially accountable for spills and pollution. More than four damage assessments are pending in Louisiana's Barataria Bay alone, including two from Hilcorp, a repeatedly bad actor.

STOP THE EXPANSION OF OFFSHORE DRILLING AND END ALL NEW LEASING IN EXISTING AREAS

Extend the Congressional moratorium on offshore drilling in the eastern Gulf and don't open new areas like the Arctic, Atlantic and Pacific:

In January, the Trump administration released a new draft 5 year plan for offshore drilling activities in federal waters that would open up nearly all U.S. water to oil and gas drilling. This represents a vast expansion of the areas offshore where oil and gas activities currently occur - flying in the face of opposition from nearly every Governor of the states impacted and many coastal residents. These changes are being pursued at a time when there is limited demand for existing available leases, despite the Trump administration moving to slash offshore royalty rates.¹² In places where drilling is already occurring, we've seen time and time again that these activities cannot be conducted safely. The Trump administration must not expose new areas to this threat.

End all new offshore oil and gas leasing:

The Gulf of Mexico continues to be a hotbed of offshore oil and gas activity and the spills and accidents the come with it. With companies holding leases that could last for decades, drilling will be happening in this region for some time. But we can't keep doing the same thing over and over again and expect different result. The oil and gas industry has consistently shown its unable and unwilling to clean up its act. It's time to break the cycle. Ending new offshore lease sales in the Gulf of Mexico is a first step in transitioning to a more stable, sustainable and equitable economy for our region and the nation.

1. LOSCO website, <http://www.losco.state.la.us/about.html> Jan 23rd, 2018
2. BSEE <https://www.bsee.gov/stats-facts/offshore-incident-statistics>
3. Skytruth.org compilation of National Response Center data, 2011-2014
4. Id.
5. Median of Fatalities reported, 2008-2016, Id.
6. Taylor Energy (Site 23051) Cumulative Spill Report – 2017 Update
7. <http://news.rice.edu/2017/10/13/harvey-runoff-menaces-texas-coral-reefs-2/>
8. HARC "Summarizing Hurricane Harvey's Environmental Impacts" <https://arcg.is/1im1K48/>
9. Taylor Energy (Site 23051) Cumulative Spill Report – 2017 Update
10. Louisiana lawmakers step in for company behind decade-old Gulf oil leak. Posted Jul 16, 2015 By The Associated Press
11. Investigation of May 11, 2016, Shell Glider Subsea Jumper Leak, Lease OCS-G15565, Green Canyon Block 248 Subsea Well #4 Gulf of Mexico Region, Houma District Off Louisiana Coast March 9, 2018
12. Gulf Of Mexico: Most Leases Draw No Bids in Sale Zinke Called 'bellwether' Pamela King- E&E News - <https://www.eenews.net/stories/1060076973>



FOR A HEALTHY GULF

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