DUNGENESS CRABS, GLOBAL WARMING, AND ACCOUNTABILITY

For nearly 50 years, the fossil fuel industry has known that its oil, gas, and coal products would heat the planet, including our oceans, with consequences that its own experts warned could be "severe" or even "catastrophic." Those warnings are now hitting home for West Coast crabbers, their families, and their communities.

For three straight years, significant portions of the Dungeness crab fishery, which contributes hundreds of millions of dollars to local economies in California and Oregon, were shut down. The culprit: high levels of toxic domoic acid that make crabs unfit for human consumption. Those shutdowns mean lost income for the crabbers, lost wages for their crews, and a devastating ripple effect on the local economy.

The Pacific Coast Federation of Fishermen's Associations (PCFFA) says enough is enough. They're standing up for their members and local businesses by filing a lawsuit to hold fossil fuel companies accountable for the damage they're causing.

Here's why.

The Science is Clear. The Damage is Real.

There's no dispute that the Pacific Ocean is getting warmer, and that it is a consequence of fossil fuel companies marketing products they knew would cause this to happen - and deceiving people about it.

The science is also clear that that those <u>warmer waters are linked to a proliferation of harmful algal blooms</u> (HABs) off the West Coast. Some of those HABs include *pseudo-nitschzia*, an organism that produces domoic acid, a potent neurotoxin that builds up in crabs and other shellfish and can cause dangerous health consequences or even death in people exposed to it. Sufficiently high levels of domoic acid render Dungeness crabs unsafe and unsellable, devastating the commercial crab fishery and the businesses and communities that depend on it.

While algal blooms aren't new, their growing size and persistence is fueled by warming ocean temperatures, as is their presence in areas along the Pacific Coast that had never before had problems with domoic acid toxicity.

In 2015, officials in California and Oregon barred crab fishing for substantial portions of the commercial fishing season due to elevated domoic acid levels in crabs. There were closures or delays again in 2016. And in 2017. And again in 2018. During those years, bans on recreational and commercial fishing for Dungeness and rock crab became all too common. The closures have cost crabbers and processors hundreds of millions of dollars – a major blow to the region's culture, identity, economy, and livelihood.

The Fossil Fuel Industry's Legacy of Deception and Denial.

Fossil fuel companies have known the truth for more than 50 years: their oil, gas, and coal products create greenhouse gas pollution that warms the oceans and atmosphere. They've known for decades that the consequences could be catastrophic and that only a narrow window of time to act existed before the damage might be irreversible. They were so certain that some even took steps to protect their own assets from rising seas and more extreme storms, and they designed infrastructure to better adapt to a warming Arctic.

Nonetheless, these companies and their trade association surrogates engaged for decades in a coordinated, multi-front effort to conceal and contradict their knowledge, discredit the growing body of publicly available science, and persistently create doubt in the minds of customers, consumers, regulators, legislators, journalists, teachers, and the public about the reality and consequences of climate change.¹

In 2017, a peer-reviewed study from Harvard researchers Naomi Oreskes and Geoffrey Supran confirmed that "Exxon Mobil misled the public about the state of climate science and its implications." Their research revealed "a systematic, quantifiable discrepancy between what Exxon Mobil's scientists and executives discussed about climate change in private and in academic circles, and what it presented to the general public."

For example, in 1978, Exxon Science Adviser James Black told the company's Management Committee:

"[T]here is general scientific agreement that the most likely manner in which mankind is influencing the global climate is through carbon dioxide release from the burning of fossil fuels" and "[M]an has a time window of five to ten years before the need for hard decisions regarding changes in energy strategy might become critical."

By the time that 10-year window was closing, Republicans in Congress were leading the charge for aggressive regulation of greenhouse gas pollutants, and GOP presidential candidate George H.W. Bush was promising to tackle the greenhouse effect with the "White House Effect."

But instead of making the "hard decisions" – doing something to avoid or minimize the threats to others – fossil fuel companies launched multi-million-dollar disinformation campaigns to prevent regulation. They denied the truth and deceived the public and policymakers. And they increased production, continued to market and promote their products, and reaped trillions of dollars in profits.

In 2012, while he was CEO of Exxon, <u>Rex Tillerson said</u> that we can all just "adapt" to a world changed by global warming. He said it is just "an engineering problem" with "engineering solutions."

The question is: Who will pay the costs for all that adaptation and engineering? Why should the fossil fuel companies that caused the problem be able to continue raking in billions of dollars in profits while crabbers and other small businesspeople are suffering? PCFFA does not believe letting those companies should be let off the hook while they dump the costs onto crabbers, their families, and other local businesses.

There Are Solutions.

In addition to holding fossil fuel companies accountable for the losses incurred by crabbers and other local businesses tied to fossil-fuel induced closures of the Dungeness Crab fishery, there are several possible options that might be available after further testing and development to help mitigate future domoic acid flareups, including:

- holding crabs in depuration tanks until they rid themselves of domoic acid; or
- developing and deploying rapid testing kits that would allow crabs to be tested individually, instantly, and affordably, enabling the marketing of clean crabs even during a domoic acid flareup.

¹ A detailed timeline showing what the fossil fuel industry knew about the role of its greenhouse gas pollution in sea level rise and climate change, when they knew it, and what they did – and didn't – do about it, can be found here.