

Big Oil—The Environment and the Renewed Threat to the Coast

by Thomas E. Cochrane

Living on the scenic, yet fragile, Northern California coast brings many joys. The challenge is: can we protect it? There are numerous threats, including possible shipwrecks, toxic chemical runoff from logging, byproducts of growing grapes, septic spills, and other manmade fallout, plus the very real renewed threat of offshore drilling.

The Big Oil companies would like nothing more than to access the oil and natural gas located just offshore. The Trump Administration has announced their intention to open west coast leasing offshore. Big Oil's assertion is they'll be careful not to spill oil since the cost of cleanup is horrendous, both in terms of dollars as well as negative publicity. And while no one wants to see oil, harmful chemicals, or sewage make their way into our pristine ocean, an oil spill here would also be devastating, given Northern California's economic reliance on tourism.

But the environment is already reacting to something. The starfish have died, sea urchins have proliferated, the kelp has been eaten, the crabs are small in size, and salmon stocks are now at an all-time low—and, alarmingly, the abalone season was even cancelled this year, closed for the second year now.

Our coast is simply reflecting what's happening elsewhere on our environmentally vulnerable planet, and even events far away can have an impact here. Earthquakes across the Pacific Ocean can hit us with mega tsunami waves. Our coast has experienced flotsam from Japan. An El Niño year is once again projected to affect the storm patterns of the coast this winter, bringing yet more unpredictability.

Growing up in rural upstate New York, I studied science and geology, was a dedicated conservationist, yet somehow ended up being transplanted to the Midwest and working as a petroleum geologist for Big Oil. During that era of the 1960s and '70s, I was nevertheless an advocate for drilling and producing oil and gas with the minimal amount of environmental impact. Back then, as I "fracked" wells, my focus was on preventing harm to the fresh water table. As a result my wells never experienced a large spill, or a sizeable blowout. To explain fracking, most oil and gas wells have a small fracture treatment of acid and water pumped into the oil/gas zone at high pressure. The drilling of the oil pay zone puts mud into the formation. The cementing of the pipe then puts cement into the formation. To overcome this damage to the formation, a frack treatment is needed.

The current shale oil production requires huge frack jobs to create voids in the rock so that oil can be extracted. Big Oil knows how

to frack wells and protect the water table. They know fracking is producing earthquakes plus how to stop it. They also know how to reclaim and reuse the frack fluids, so *why* don't they?

As an avid environmentalist for several decades now, I've since come to more fully appreciate that burning fossil fuels, (coal, oil, and natural gas) injects carbon dioxide, methane, and nitrous oxide into our atmosphere, and these gases hold heat at the surface of the earth, thus changing the earth's climate. The carbon dioxide makes the oceans more acidic, producing the die-off of coral reefs, which are home to large and strategic populations of fish and many other species.

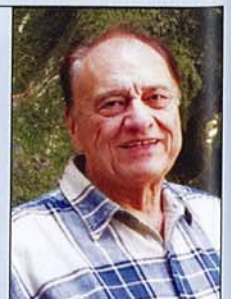
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Making a difference

Having experienced my own environmental awakening, I still ask: *What can I do?* And my hope is that everyone asks this question. We cannot wait for others to lead this timely fight. Talk with everyone you know and get our county's visitors to join us; after all, they want to return again in the future to this same lovely place. We also need to each decrease our own carbon footprint. Consolidate trips so as to drive less, and opt for hybrids and electric cars. Become politically active and do your part to influence politicians regionally, as well as nationally to accept and, most importantly, combat climate change, more commonly referred to as "global warming." Once the public threatens Big Oil and other polluters via activism—or stops them via legislation—they will reform their ways and comply.

The pollution in the atmosphere from the recent horrific fires provides a further warning of the long-term consequences of burning fossil fuels. Carbon dioxide is colorless and odorless but adds to atmospheric pollution in holding other pollutants close to the ground. Look at the air pollution over many of the great cities of the world; we can and *must* reduce the pollution in both our atmosphere and oceans. This little planet is all we have.

Thomas E. Cochrane is a professional geologist, frequent guest speaker, and the author of Shaping the Sonoma-Mendocino Coast, Exploring the Coastal Geology of Northern California, a regional bestseller. His most recent book, Tornados, Rattlesnakes & Oil – A Wildcatter's Memories of Hunting for "Black Gold," chronicles his yesteryear adventures in the Midwest oil patch and offers his sage perspective on "Big Oil" as a former industry insider and now-avid environmentalist who's lived in The Sea Ranch for several decades. For more information, visit: www.RiverBeachPress.com.



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