



2015 MAR - 5 PM 12:07

FRACKING IN CALIFORNIA: QUESTIONS AND CONCERNS

What is fracking?

Hydraulic fracturing, or fracking, is a method of oil and gas production that involves blasting tremendous quantities of water, mixed with sand and toxic chemicals, under high pressure deep into the earth. Fracking breaks up rock formations to allow oil and gas extraction, but it can also pollute local air and water and endanger wildlife and human health.

Where is fracking being done in California?

Fracking has been documented in 10 California counties — Colusa, Glenn, Kern, Los Angeles, Monterey, Sacramento, Santa Barbara, Sutter, Kings and Ventura. Oil companies have also fracked hundreds of offshore wells in the ocean near California's coast, from Seal Beach to the Santa Barbara Channel. Fracking may have been used elsewhere in California, since state officials have not monitored or tracked the practice until recently. Rising oil prices are driving up interest in exploiting oil in the Monterey Shale using extreme fossil fuel extraction techniques such as fracking. This geological formation under the San Joaquin and the Los Angeles basins holds an estimated 13.7 billion barrels of recoverable shale oil. If fracking and similar techniques are not banned in the state, we could soon experience a dangerous oil boom in California.

How does fracking contaminate our water?

Fracking requires an enormous amount of water — up to 5 million gallons per well. It routinely employs numerous toxic chemicals. About 25 percent of fracking chemicals could cause cancer. Evidence is mounting throughout the country that these chemicals are making their way into aquifers and drinking water. Water quality can also be threatened by methane contamination tied to drilling and the fracturing of rock formations. Water pollution from fracking can happen in a variety of ways, including through surface spills and well casing failures. Fracking can also expose people to harm from lead, arsenic and radioactivity brought back to the surface with fracking flowback fluid. In fact, fracking waste water is so dangerous that it cannot be reused for other purposes. The water we use for fracking is permanently removed from our water supply — a serious problem, especially in the middle of a historic drought.

How does fracking pollute our air?

Fracking can release dangerous petroleum hydrocarbons, including benzene, toluene and xylene. It can also increase ground-level ozone, a key risk factor for asthma and other respiratory illnesses. The pollutants in fracking water and flowback fluid can enter our air when waste water is dumped into pits and then evaporates. Air pollution caused by fracking may contribute to health problems in people living near fossil fuel drilling sites.

How does fracking worsen climate change?

Fracking and similar techniques often release large amounts of methane, a highly potent greenhouse gas that is at least 86 times more effective at trapping heat than carbon dioxide over a

20 year period. Fracking also allows access to huge fossil fuel deposits once beyond the reach of drilling. Moreover, much of California's oil is dirty, heavy crude. The California Air Resources Board scores many of the state's oil fields as about as carbon intensive as oil from the infamous Alberta tar sands. As California strives to lead the fight to avoid a climate change catastrophe, we cannot afford to facilitate the release of billions of barrels of carbon-intensive oil.

How does fracking threaten wildlife?

Endangered species like the California condor, San Joaquin kit fox and blunt-nosed leopard lizard live in places where fracking is likely to expand. These animals can be harmed and killed in many ways by fracking and the industrial development that accompanies it.

Do state and federal laws already protect us from fracking?

Fracking is very poorly regulated at the federal level. In 2005 Congress exempted most types of fracking from the federal Safe Drinking Water Act, severely limiting protections for water quality. In April 2012 the U.S. Environmental Protection Agency finalized new Clean Air Act rules that will limit air pollutants from fracked gas wells. However, the rules do not cover oil wells or set limits on methane release, and they will not take effect until 2015. As a result, regulating fracking falls largely to the states.

Fracking was not monitored or regulated in California until very recently. In September 2013 Governor Brown signed Senate Bill 4. The law requires the Department of Conservation's Division of Oil, Gas and Geothermal Resources (DOGGR) to establish regulations beginning in January 2015. DOGGR has proposed weak, industry-friendly regulations that will do little to protect public health or the environment from fracking. DOGGR is also required to conduct a scientific study of the effects of fracking and other extreme fossil fuel extraction techniques by January 2015, as well as an environmental impact statement by July 2015. In the meantime, California's air, water, health and climate continue to be threatened by fracking pollution.

Has fracking been done in California for many years?

Today's fracking techniques are new and pose new dangers. Technological changes have facilitated an explosion of drilling in areas where, even a decade ago, companies could not recover oil and gas profitably. Directional drilling is a new technique that has greatly expanded access to rock formations. Companies also employ high fluid volumes to fill horizontal "well bores" that sometimes extend for miles. And oil and gas producers are using new chemical concoctions collectively called "slick water" that allow injection fluid to flow rapidly enough to generate the high pressure needed to break apart rock.

Furthermore, oil companies are using a variety of unconventional fossil fuel extraction methods, such as acidization, in addition to fracking. Acidization is similar to fracking but employs hydrofluoric or hydrochloric acid to dissolve rock in order to release oil and gas. Acidization pollutes our air, and acid is a hazardous substance that can leak and cause deadly accidents. As technology has expanded, so have the dangers.

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Approved as to Form and Legality

DRAFT

Oakland City Attorney's Office

OAKLAND CITY COUNCIL

Resolution No. _____ C.M.S.

Introduced by Vice Mayor Kaplan, Councilmember Kalb, Council President McElhaney and
Councilmember Guillén

RESOLUTION IN SUPPORT OF A REQUEST TO THE GOVERNOR TO ADOPT A MORATORIUM ON FRACKING IN CALIFORNIA

WHEREAS, California is suffering from a record-breaking drought and cannot afford to add any more risks to our already limited safe drinking water supply; and

WHEREAS, California regularly suffers from earthquakes which can cause severe harm and loss of life and we cannot afford to increase the risk of earthquakes in our State; and

WHEREAS, hydraulic fracturing, aka 'fracking', has now been demonstrated to increase the risk of earthquakes; and

WHEREAS, the process of fracking routinely includes the use of many toxic chemicals, and has been demonstrated to cause risk of poisoning drinking water supplies; and

WHEREAS, it was recently disclosed that California regulators have been improperly allowing the injection of toxic chemicals into our scarce drinking water supplies; and

WHEREAS, the State of New York, after extensive investigation of potential costs and benefits, has implemented a moratorium on fracking; and

WHEREAS, global climate change threatens our future locally and throughout our planet; and

WHEREAS, increasing the use of fracked fuels increases risks to human health, air quality, wildlife, and global environmental sustainability; now therefore be it

RESOLVED: That the City of Oakland hereby calls for a moratorium on fracking in California; and be it

FURTHER RESOLVED: That the City of Oakland urges that the State complete a comprehensive health impact assessment of the fracking extraction process, along with independent analyses of negative socioeconomic impacts of fracking to local communities and local governments; and be it

FURTHER RESOLVED: That the City of Oakland urges support of the Alameda County Board of Supervisors efforts to amend the Alameda County General Plan, East County Area Plan and County zoning ordinances to ban and restrict oil and gas extraction, including fracking, countywide.

FURTHER RESOLVED: That the Oakland administration shall communicate with Governor Jerry Brown, our delegation in the State Legislature, and all relevant State agencies regarding the importance of implementing a moratorium on fracking; and be it

FURTHER RESOLVED: That seeking a moratorium on fracking in California shall be part of the City of Oakland's State advocacy agenda, including that it shall be advanced by our State lobbying team; and be it.

FURTHER RESOLVED: That within 90 days the administration shall report back to the City Council on the progress of efforts to seek a fracking moratorium in California; and be it

FURTHER RESOLVED: That the City of Oakland urges other cities and counties and community-based organizations in California to urge a moratorium on fracking.

IN COUNCIL, OAKLAND, CALIFORNIA, _____, 2015

PASSED BY THE FOLLOWING VOTE:

AYES -

NOES -

ABSENT -

ABSTENTION -

ATTEST:

LATONDA SIMMONS
City Clerk and Clerk of the Council of
the City of Oakland, California