Hydraulic fracturing (also known as “fracking”) is an oil and natural gas extraction process that involves the very highly-pressurized injection of hydraulic fracturing fluids containing a mixture of water, sand and unreported amounts of unknown chemicals into underground geologic formations in order to fracture the rock, thereby increasing flows to and furthering the production of oil or gas from a well. Other unconventional highly-pressurized extraction processes called “acidizing” and “gravel packing” involve similar techniques.

In total, fracking, acidizing, gravel packing and other associated well-stimulation practices threaten to contaminate drinking water supplies, cost taxpayers in Los Angeles hundreds of millions of dollars, release potent and dangerous greenhouse gases into the atmosphere and cause earthquakes.

**CONTAMINATED DRINKING WATER**

After being injected into the ground, the chemicals used in the fracking process may leach into groundwater supplies, contaminating drinking water for local residents. In fact, there have been more than 1,000 documented cases of water contamination next to fracking sites, as well as cases of sensory, respiratory, and neurological damage due to ingested contaminated water in communities throughout the United States.

Fracking, acidizing and gravel packing of oil and gas wells are unregulated and are spurring oil and gas extraction and exploration in California and other states, including within the City of Los Angeles. Additionally, fracking is used in the Colorado River and State Water Project watersheds, as well as near local Southern California groundwater aquifers, utilizing large volumes of water, which competes for and jeopardizes regional, state, and water supplies needed by the people of Los Angeles.

The Department of Water & Power (DWP) has stated that, because the well operators are not required to disclose the chemicals used in fracking, other operations and injections, it therefore does not know all the chemicals for which DWP should be testing the City’s water supplies.

Groundwater banking and storage is a critical alternative to building new surface reservoirs and plays an essential role in moving the City of Los Angeles toward greater self-reliance on local water resources. It is critical to the future of Los Angeles that groundwater supplies remain safe.

**A FINANCIAL LIABILITY FOR TAXPAYERS**

Protecting the City’s water supply resources from contamination is a financial necessity for Los Angeles, as treatment of contaminated groundwater resources after the fact is costly and identification of potential responsible parties to determine financial liability is not always possible, particularly in regards to unregulated activities such as fracking, acidizing, gravel packing and
related wastewater disposal. The DWP has announced plans to build the world’s largest groundwater treatment center over one of the largest Superfund pollution sites in the United States: the San Fernando Basin. Two plants, costing a combined $600 million to $800 million, will restore groundwater pumping of drinking water from scores of San Fernando Valley wells that the DWP began closing in the 1980s and ensure that other wells remain productive while curtailing the pollution plumes steadily migrating in their direction. Additional measures to address and treat water supplies potentially contaminated by fracking chemicals pose a tremendous financial liability for taxpayers in Los Angeles.

Allowing activities like hydraulic fracturing, acidizing and gravel packing, which threaten to contaminate the City’s imported and local groundwater supplies, is inherently dangerous to the long-term safety, health, security and reliability of Los Angeles’ water supplies.

UNDERMINING WORK TO ADDRESS THE CLIMATE CRISIS
Higher emissions generated by producing, refining and burning unconventional-produced oil and gas, and drilling and fracking for tight oil and gas can result in massive release of unregulated emissions of methane, a potent greenhouse gas often associated underground with oil.

The California Public Resources Code states that “methane gas hazards...are a clear and present threat to public health and safety” and that “due to the cost and complexity of methane hazard mitigations, property owners and local governments are often unable to mitigate these hazards.” These provisions are of grave import to Los Angeles County and City, as Exploration and Production activities has caused and is causing massive releases of methane and hydrogen sulfide gases into communities and the atmosphere.

Fracking in California can also thereby seriously undermine the State’s efforts to address the climate crisis by reducing greenhouse gas emissions to 1990 levels by 2020. Unregulated and unchecked fracking must not be allowed to offset the air quality benefits of natural gas used in certain applications.

INCREASED EARTHQUAKE RISKS
Further, all high-pressure fracturing and injection creates “seismic events,” but not all are felt as earthquakes. The United States Geological Study (USGS) reports that the number of noticeable earthquakes (greater than a 3.0 Richter magnitude) has increased dramatically over the past few years within the central and eastern United States. More than 300 earthquakes above a Richter magnitude 3.0 occurred in the three years from 2010-2012, compared with an average rate of 21 events per year observed from 1967-2000. USGS scientists have also found that at some locations the increase in seismicity coincides with the injection of wastewater into deep disposal wells.
The USGS has determined that fracking wastewater disposal is responsible for triggering earthquakes in Oklahoma, Arkansas and Ohio, among other states. A magnitude 2.1 earthquake matching the description of micro earthquakes caused by fracking wastewater disposal occurred in the Baldwin Hills on August 27, 2013, at a magnitude and depth compatible to stated USGS concerns about earthquakes induced by fracking.

Much of the State of California and the City, in particular, is located on top of fault lines within one of the most active and potentially dangerous earthquake zones in the United States.

**COMPREHENSIVE STUDY NEEDED**
The Los Angeles Municipal Code, Section 13.01, allows the City to regulate through its land use process various activities related to oil and gas drilling and production.

The City’s land use regulations for oil and gas exploration, extraction, and related operations and activities are in need of comprehensive review to determine whether the existing zoning and land use regulations of oil and gas exploration, extraction, and related operations and activities are sufficient to assure public health, safety, environmental quality, and welfare; or whether additional regulations are necessary to address the impacts of oil and gas exploration, extraction, and related operations and activities, including, but not limited to: hydraulic fracturing, acidizing, gravel packing, and related wastewater disposal.

If land use applications, permit applications, or any other applications requesting approval to conduct oil and gas exploration, extraction, production and related operations and activities within the City limits are granted prior to the City examining the impact of such activities and taking all steps necessary to protect public health, safety, and welfare, irreparable harm may be done to the public health, safety, and welfare.

**WE THEREFORE MOVE** that the City Attorney, with the assistance of the Planning and other relevant departments, be requested to prepare and present an ordinance to change the zoning code to prohibit all activity associated with well stimulation, including, but not limited to, hydraulic fracturing, gravel packing, and acidizing, or any combination thereof, and the use of waste disposal injection wells in the City of Los Angeles, with such a prohibition to remain effective until:

- the City Council is assured that companies conducting fracking within the City of Los Angeles, or in areas providing drinking water to the City, can mitigate the effects on climate change, protect environmental quality and natural resources, promote community awareness, allow government access to and testing of chemicals used, anticipate and include related older and emerging extraction technologies such as hydraulic fracturing, acidizing, gravel packing and all wastewater disposal, and require full disclosure and testing of sites, with adequate time for public input;
the City Council is assured of the long-term safety, security and reliability of current and future Los Angeles water supplies, the overall health and safety of the people of Los Angeles and the safety of their property from seismic or subsidence concerns related to the exploration and production of oil, natural gas, or other hydrocarbons, and the maintenance of environmental quality;

state and federal legislation and regulations are put in place that include protections from the adverse effects of hydraulic fracturing, gravel packing, acidizing, wastewater disposal and related activities, consistent with the Clean Air Act, the Clean Water Act, and the Safe Drinking Water Act.

PRESENTED BY

PAUL KORETZ
Councilmember, 5th District

MIKE BONIN
Councilmember, 11th District

SECONDED BY

ORIGINAL

SEP 4 2013
RESOLUTION

WHEREAS, any official position of the City of Los Angeles with respect to legislation, rules, regulations or policies proposed to or pending before a local, state, or federal government body or agency must have first been adopted in the form of a Resolution by the City Council with the concurrence of the Mayor; and

WHEREAS, hydraulic fracturing, commonly known as fracking, is a method of extracting petroleum and gas used for energy from rock layers and shale, and may pose public health risks and lead to property damage, contaminated air and groundwater, and increased seismicity; and

WHEREAS, The Energy Policy Act of 2005 exempted fracking operations from the provisions of Federal Clean Water Act and the Federal Safe Drinking Water Act unless diesel additives are used; and

WHEREAS, provisions of the Federal Clean Air Act also exempt fracking operations from Federal oversight; and

WHEREAS, since 2007, fracking-related oil production has increased from approximately 39 barrels to 217 million barrels, and similar natural gas production has increased from 1.6 trillion cubic feet to 7.2 trillion cubic feet; and

WHEREAS, despite claims that chemicals used in the fracking process are safe, the drilling industry refuses to provide a comprehensive list of chemical additives used; and

WHEREAS, to protect the health and welfare of the public and the environment, it is vital that Federal regulatory oversight of fracking operations be restored; and

WHEREAS, to achieve this, fracking exemptions from the Federal Clean Water Act, Federal Safe Drinking Water Act and Federal Clean Air Act should be removed; and

WHEREAS, these Acts were originally enacted to protect the public and the environment from harmful activities such as fracking;

NOW, THEREFORE, BE IT RESOLVED, with the concurrence of the Mayor, that by the adoption of this Resolution, the City of Los Angeles hereby includes in its 2013-2014 Federal Legislative Program SPONSORSHIP/SUPPORT for legislation that seeks to remove exemptions for fracking from the provisions of the Federal Clean Water Act, Federal Safe Drinking Water Act and the Federal Clean Air Act in order to protect the health and welfare of the public and the environment.

PRESENTED BY: PAUL KORETZ
Councilmember, 5th District

SECONDED BY: B. Chromovitch

SEP 10 2013
WHEREAS, any official position of the City of Los Angeles with respect to legislation, rules, regulations, or policies proposed to or pending before a local, state, or federal governmental body or agency must first have been adopted in the form of a Resolution by the City Council with the concurrence of the Mayor; and

WHEREAS, hydraulic fracturing, also known as fracking, is a type of resource extraction that potentially threatens the health of both the public, the Los Angeles city water supply and the environment, and requires unconventional drilling techniques, vast quantities of water, and the use of toxic chemicals; and

WHEREAS, the oil and gas industry has been granted exceptions to multiple laws and regulations, such as the Safe Drinking Water Act and the Clean Water Act, and employs potentially hundreds of unknown chemicals of concern; and

WHEREAS, in a study of Pavillion, Wyoming, the Environmental Protection Agency (EPA) recently documented water contamination from fracking chemicals; and

WHEREAS, fracking wastewater may often be laced with hundreds of toxic chemicals, heavy metals, and naturally occurring radioactive materials (NORM); and

WHEREAS, due to the volume and chemical complexity of fracking waste, treating such unknown waste is difficult, making the disposal of fracking wastewater a significant challenge; and that the disposal methods currently available in California have an imminent possibility of reaching local streams and rivers, which supply Los Angeles’ drinking water; and

WHEREAS, rivers, streams and wetlands across our state and particularly within the watersheds from which the City of Los Angeles derives its water supply are vulnerable to pollution by fracking; and

WHEREAS, fracking is currently causing serious local and regional air pollution problems across the country, including the release of such hazardous air pollutants as methanol, formaldehyde, and carbon disulfide; in addition to the release of volatile organic compounds, including benzene and toluene, and nitrogen oxides; and emissions from heavy-duty truck traffic, large generators and compressors at well sites which contribute to smog formation; and

WHEREAS, emissions generated by producing, refining and burning shale oil, and drilling and fracking for shale oil can result in significant uncontrolled emissions of methane, a potent greenhouse gas often associated underground with oil; and

WHEREAS, fracking in California may undermine the state’s efforts to reduce greenhouse gas emissions to 1990 levels by 2020; and

WHEREAS, much of the State of California and Los Angeles, in particular, is located on top of fault lines within one of the most active and potentially dangerous earthquake zones in the United States; and
WHEREAS, Ohio has experienced a dozen unusual earthquakes, the most severe occurring on December 31, 2011, caused by a Class II injection well disposing of fracking wastewater, which resulted in a moratorium on injection wells in the Youngstown, Ohio, area; and

WHEREAS, there have been thousands of recorded minor earthquakes clustered around fracking wastewater disposal wells in central Arkansas and Oklahoma, which the United States Geological Survey “almost certainly” attributes to fracking wastewater disposal activities, and a 5.6 quake in Oklahoma which “was possibly triggered by fluid injection” at nearby wastewater wells; and

WHEREAS, numerous townships, cities, states, and countries have banned or issued moratoriums on horizontal hydraulic fracturing and waste injection wells, including the states of New Jersey, North Carolina, and New York; the cities of Buffalo, NY and Pittsburgh, PA; the Delaware River Gap; and, internationally, in the Canadian Province of Quebec, Germany, France and Bulgaria; and

WHEREAS, the EPA is currently conducting a study, to be completed in 2015, to determine the risks associated with this new industry; and

WHEREAS, the State of California’s Division of Oil, Gas & Geothermal Resources (DOGGR) reports that oil and gas companies are currently fracking in California and specifically, in the Inglewood Oil Field in Los Angeles County, in a region which also affects the residents of Los Angeles, and that these companies have proposed future fracking activities; and

WHEREAS, the State of California’s Division of Oil, Gas & Geothermal Resources (DOGGR) is not currently able to “identify where and how often hydraulic fracturing occurs within the state” and “has not yet developed regulations to address this activity.”

NOW, THEREFORE, BE IT RESOLVED, with the concurrence of the Mayor, that by the adoption of this Resolution, the City of Los Angeles hereby includes in its 2011-2012 Legislative Program support for Governor Jerry Brown, for the Los Angeles Board of Supervisors, and for the State of California’s Division of Oil, Gas & Geothermal Resources (DOGGR) to move swiftly to place a moratorium on hydraulic fracturing and on the disposal of fracking wastewater by injection wells until DOGGR, in conjunction with local and state authorities, makes a determination that such processes are safe for public health, for the Los Angeles water supply and for the environment.

PRESENTED BY

PAUL KORETZ
Councilmember, 5th District

HERB WESSON
Councilmember, 10th District

BERNARD PARKS
Councilmember, 8th District

SECONDED BY