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November 5, 2014 Council of the City of Los Angeles Los Angeles City Hall 200 North Main Street, Third Floor Los Angeles, CA 90012

Re:

Council Files 13-1152,13-1152-S1

Regulatory Controls Over Well Stimulation

Honorable City Councilmembers:

The Los Angeles Department of City Planning has prepared the attached report on the issue of oil and gas extraction through well stimulation in response to the City Council motion (Koretz-Bonin) adopted on February 28, 2014, and (Parks-Huizar) adopted on March 5, 2014.

Reports of health and safety problems associated with well stimulation have been brought before the City by residents who live, work, and attend schools near oil and gas facilities. For the purposes of this report, 'well stimulation' is a general term used to describe various methods for enhancing oil and gas production or recovery (including hydraulic fracturing, acidizing, and gravel packing). Upon the Council's direction, the Department of City Planning has been working with the City Administrator's Office and the City Attorney's office to prepare the attached report on how to address these concerns.

The report recommends pursuing new land use and zoning regulations with the assistance of an outside technical expert. Developing new regulations on this complex issue requires collaboration with an expert in petroleum and natural gas engineering or geology, and at present, there is no qualified City Staff with this set of expertise. Once hired, the technical expert will work with the Department of City Planning, and all other relevant departments, to identify new zoning and land use performance standards in order to mitigate potential direct and indirect impacts of oil and gas activity.

If you have any questions, please contact Hagu Solomon-Cary of the Department of City Planning by phone at 213.978.1394, or via email at hagu.solomon-cary@lacity.org.

Sincerely,

ALAN BELL

Deputy Director of Planning

Attachment

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SUMMARY

This report has been prepared in response to the City Council motion adopted on February 28, 2014 (Council File No. 13-1152-S1) authored by Councilmembers Koretz and Bonin. It provides an overview for implementing new controls over oil and gas activity within the City of Los Angeles. In summary, the Planning and Land Use Management Committee ("PLUM") instructed the Department of City Planning ("DCP"), with the assistance of other relevant departments, to review and develop regulatory controls over fracking and prepare and present an ordinance to change the zoning code to prohibit all activities associated with well stimulation.

The DCP's review and summary of regulations controlling oil drilling districts, oil and gas production/injection/disposal wells, and well stimulation at the local, regional, and State level, aims to provide clarity and insight on the changing regulatory landscape and the procedural and administrative opportunities to implement new controls locally.

Currently, the State of California allows various forms of well stimulation, including hydraulic fracturing and acidizing. Recent statewide legislation (Senate Bill 4) will increase public disclosure of well stimulation activities, however, concerns about the bill's adequacy to protect human health, safety, and the protection and conservation of water and other natural resources, have been raised by residents, community groups and environmental organizations within the City of Los Angeles.

The State's authorization to conduct well stimulation does not preempt local jurisdictions from establishing traditional land use and zoning regulations which can dictate *where* oil and gas activity takes place. The oil industry, however, has challenged local government's authority to regulate or prohibit specific well stimulation activities under principles of field preemption. The oil industry has argued that local jurisdictions have no authority to regulate *how* oil and gas extraction occurs. This issue is the subject of pending litigation in Western States Petroleum Association v. City of Compton et al. (LASC Case No. BC552272). The lawsuit is in response to an ordinance passed in Compton prohibiting hydraulic fracturing, acidizing, and other well stimulation activities. It is unlikely that this legal issue will be resolved anytime soon. As of September 24, 2014, the City Council of Compton rescinded the moratorium at the City Attorney's recommendation.

In addition to Federal, State, and regional regulations over oil operations, spills, noticing, reporting, and equipment permits, the City of Los Angeles has the following roles and authorities

governing oil and gas activity within its jurisdiction:

L.A. Municipal Code	L.A. Municipal Code	L.A. Municipal Code	L.A. Administrative Code	California Uniform Fire Code	L.A. Municipal Code
City Council	DCP-Zoning Administrator	LADBS- Permits/Code Enforcement	CAO-Petroleum Administrator	LADF- Permit/Inspection	LADWP
Adopts oil drilling districts via ordinance (i.e. Supplemental Use Districts).	Issues permit approval for establishing oil drilling districts and entitlements for oil and gas drilling via CUPs and Plan Approvals.	Permits and inspects any structure built to enclose oil and gas activities. Enforcement of authorized activities and restrictive conditions.	Investigates applications, consults with experts and decision makers, awards and executes leases/agreements, sureties, forfeitures, and reservations.	Issues operational permits required to operate an oil well, issues action permits for the drilling, re- drilling, or abandonment of oil wells.	Evaluates plans, roads, and well casings to assure safety of existing water mains/wells. Reviews and inspects methods for protection of public water supply.

As stated earlier, there remains legal uncertainty around the extent of local government authority to regulate or prohibit well stimulation treatments. As such, the Department recommends against pursuing interim or permanent regulations governing well stimulation at this time. Regardless of how this legal issue of field preemption is ultimately resolved, the Planning Department believes that there is significant room for improvement in the way the City currently regulates and administers oil and gas activity. A local example of rigorous land use standards can be found in the County of Los Angeles' Baldwin Hills Community Standards District (CSD) overlay zone (see page 11 for more details). To that end, the Department recommends the retention of a technical expert to: 1) provide further review of legal and regulatory developments regarding well stimulation, and 2) advise the City on how to better implement zoning and land use regulations in order to address potential direct and indirect effects of both conventional and unconventional oil and gas activity.

Technical expertise leading to an update of Section 13.01 of the LAMC, referenced in the chart above, would include specific performance standards and mitigation measures, improvement to the current administrative and regulatory process, and implementation of a proactive code enforcement process to protect public health. In general, new regulation would apply to new oil and gas permits, while the creation of a proactive code enforcement process would monitor and regularly enforce current conditions of compliance of existing oil and gas operations. This proactive approach is similar to the fee-supported Annual Inspection Monitoring (AIM) program for auto related uses, junk yards, and recycling centers, among others uses. This type of fee-based inspection program and overall update to Section 13.01 of the LAMC will be a major undertaking for the City. It would include code amendments, creation of a fee schedule and collection process, citation and revocation process and some environmental clearance.

BACKGROUND

Oil and gas well stimulation is a general term used to describe various methods that enhance oil and gas production. Well stimulation operations differ from region to region nationwide based on geology and other natural factors. In the recent past, specific well stimulation treatments have raised environmental concerns including: 1) air quality as a result of increased truck traffic and fugitive methane emissions; 2) induced seismicity as it relates to waste water injection wells; 3) sensitive receptors (residential, institutional, etc.) in proximity to noxious emissions, noise, and new industrial infrastructure; 4) water quality as it relates to potential contamination of ground water and surface water; and 5) water quantity as it relates to the supply of water, particularly in light of drought conditions. In 2010, Congress ordered the Environmental Protection Agency (EPA) to research the dangers posed to drinking water sources by hydraulic fracturing. The draft assessment will be released in December 2014 for peer review and public comment. Recently, an independent review of scientific and technical information on advanced well stimulation technologies in California was released¹. The research was published on August 28, 2014 and focuses on the direct impacts of well stimulation but did not analyze the long or short term indirect impacts of said activities. A summary of the findings can be found in Exhibit C1 within this report.

Although a number of Federal regulations govern well stimulation processes, States have regulatory primacy. Now that well stimulation treatments have been brought to public attention, issues surrounding State preemption over local authority are being determined. For example, on July 21, 2014, Western States Petroleum Association ("WSPA")—through the law firm of Latham & Watkins LLP—sued the City of Compton, the City Council, and the Mayor for declaratory and injunctive relief challenging an ordinance prohibiting hydraulic fracturing, acidizing, and other well stimulation activities. WSPA alleges that the ordinance is unconstitutional because it purports to regulate a field that is fully occupied by state law—i.e., the method and manner of oil and gas

¹ http://ccst.us/publications/2014/2014wst.pdf

extraction—and, therefore, is preempted. "By banning only the well stimulation activities set forth in the Ordinance while continuing to allow oil production activities themselves, the City has purported to regulate the method and manner of oil and gas extraction in the City." (Compl. ¶ 53.) On September 23, 2014 the City Council of Compton withdrew the moratorium. The Los Angeles City Attorney's Office is actively monitoring the outcome of this action.

REGULATORY LANDSCAPE

The following is an overview of the relevant State, regional, and local regulations that control oil and gas activity taking place in the City of Los Angeles.

California State Regulations.

In California, where oil production is high and natural gas production is on the rise, there exists no current ban or moratorium on fracking or acidizing. Senate Bill 1132 (Mitchell), which failed to pass through the Senate in May 2014, would have prohibited Division of Oil, Gas and Geothermal Resources ("DOGGR") from authorizing any well stimulation treatment on or after January 1, 2015 until an in-depth, independent scientific study was completed, opened for public comment, and submitted to the Governor for a positive determination. There are, however, oil and gas drilling regulations (Public Resources Code Section 3000 et seq) and the recently passed Senate Bill 4, which impose additional requirements described in detail below.

Senate Bill 4 (Pavley). SB 4 was approved by Governor Brown on September 20, 2013 and is included in the California Public Resource Code (Section 3150-3161). It requires DOGGR, within the State Department of Conservation, to implement additional requirements over the existing laws that regulate drilling, operation, maintenance, and abandonment of oil and gas wells, tanks, and facilities in order to improve safety and mitigate environmental impacts. In summary, SB 4 will: 1) require DOGGR to study and adopt new regulations, 2) require noticing and publication requirements; and, 3) create new definitions and penalties (see Exhibit C2 for the latest version of DOGGR's interim regulations, including definitions).

As a result of SB 4, DOGGR released draft regulations on November 15, 2013. Final regulations are expected to take effect on July 1, 2015. According to DOGGR, owners and operators that use well stimulation techniques must act in accordance with current interim regulations. This includes providing notice in the form of an application which is verified for completion by the Division. Once well stimulation is complete, operators must also abide by the disclosure requirement described below. DOGGR has been officially tracking well stimulation notices on their website since January 1, 2014 as a result of the interim rules. Lastly, SB 4 also requires DOGGR to prepare an Environment Impact Report (EIR) by July 1, 2015 to evaluate the potential impacts of the proposed project (fracking, defined broadly) within DOGGR's six administrative districts. The City of Los Angeles is within District 1: Cypress (see Exhibit A3 for a map of the districts).

DOGGR's interim regulations are described below and organized by the primary entity responsible for compliance.

Division of Oil Gas & Geothermal Resources

- Define the terms well stimulation treatment, hydraulic fracturing, and hydraulic fracturing fluid,
- Require well owner or operator to record and include all data on acid treatments and well stimulation treatments,
- Require DOGGR, in conjunction with the Department of Toxic Substance Control (DTSC), the State Air Resources Board (ARB), the State Water Resource Control Board (SWRCB), the Department of Resources Recycling, and Recovery (and any other local air district or

regional water quality control board in areas where stimulation may occur) to adopt rules and regulations specific to well stimulation, including governing the construction of well casings and full disclosure of the composition and disposition of well stimulation fluids, and to authorize DOGGR to allow well stimulation treatments if specific conditions are met,

- Prior to performing a well stimulation treatment, operators must apply for a permit with the State Oil and Gas Supervisor or district deputy which prohibits the operator from either conducting a new well stimulation treatment or repeating a well stimulation treatment without a valid, approved permit,
- Prohibit the approval of a permit application that is incomplete,
- Require DOGGR, within 5 business days of issuing a permit to commence well stimulation treatment, to provide a copy to specific boards and entities and to post the permit on a publicly accessible portion of its Internet Web site,
- Require DOGGR to start the process of developing an Internet Web site for operators to report specific information related to well stimulation treatments and require the Internet Web site to be operational no later than January 1, 2016.
- Authorize DOGGR to direct reporting to an alternative Internet Web site and require the Division to obtain the data reported to the alternative Internet Web site and make it available to the public,
- Ensure that a well stimulation treatment permit expires one year from the date on which the permit is issued,
- Require DOGGR to perform random periodic spot-check inspections during well stimulation treatments.
- Provide that, where the Division shares jurisdiction over a well with a federal entity, DOGGR's rules and regulations apply in addition to all applicable federal laws and regulations.

State Regional Water Quality Control Board

 Require SRWQCB, on or before July 1, 2015, to develop groundwater monitoring model criteria to be implemented either on a well-by-well basis or on a regional scale on how to conduct appropriate monitoring on individual oil and gas wells subject to well stimulation treatment.

Secretary of the Natural Resources Agency

- Require the Secretary of the Natural Resources Agency to conduct and complete an independent scientific study on well stimulation treatments, including acid well stimulation and hydraulic fracturing treatments prior to or by January 1, 2015.
- Require the Secretary of the Natural Resources Agency to notify various legislative committees on the progress of the independent scientific study on well stimulation and related activities until the study is completed and peer reviewed by independent scientific experts.

Well Operators and Suppliers

- Require well operators and suppliers to provide a copy of the approved well stimulation treatment permit to specified tenants and property owners at least 30 days prior to commencing a well stimulation treatment,
- Require the operator to provide notice to the Division at least 72 hours prior to the actual start of a well stimulation treatment in order for the Division to witness the treatment.
- Require the supplier of the well stimulation treatment to provide the operator, within 30 days following the conclusion of the treatment, certain information regarding the well stimulation fluid,

- Require the operator, within 60 days of the cessation of a well stimulation treatment, to post on a publicly- accessible web site, specified information on the well stimulation fluid,
- Require a supplier claiming trade secret protection for the chemical composition of additives used in a well stimulation treatment to disclose the composition to the DOGGR, in conjunction with a well stimulation treatment permit application, but with certain exceptions, prohibit those with access to the trade secret from disclosing it.

This bill will generate money for deposit into the Oil, Gas, and Geothermal Administrative Fund from annual charges levied, assessments collected, and violation fees from civil penalties payable to the Treasurer. The bill allows these monies to be used for all costs associated with scientific study required to evaluate treatment, inspections, and any air and water quality sampling, monitoring, and testing performed by public entities. The money will also be used to cover the costs to the State Water Resources Control Board and the Regional Water Quality Control Boards in carrying out specific responsibilities relating to well stimulation and groundwater monitoring. SB 4 requires that by January 1, 2016 (and annually thereafter), a comprehensive statewide report on well stimulation be provided to the Legislature and the public.

Despite these additional requirements, some community groups have raised concerns about transparency, namely because well operators or owners are not required to *publicly* disclose the chemical make-up of the well stimulation fluid prior to the act of injection. They are only required to disclose this information to DOGGR prior to the well stimulation. Public disclosure is required sixty days after the cessation of well stimulation via an Internet Website. Others have expressed concerns surrounding DOGGR's ability to address local impacts caused by well stimulation via a Statewide EIR. It should be noted that the mandated Statewide EIR does not preclude local jurisdictions from conducting their own EIR processes (Public Resource Code Section 3161b1c).

Interim Regulations	Independent Scientific Study	Final Regulations	Statewide EIR
January 1, 2014 – July 1, 2015	January 1, 2015	July 1, 2015	July 1, 2015

Regional Regulations

Air Quality Management District Rule 1148.2. The South Coast Air Quality Management District ("SCAQMD") covers four counties including urban portions of Los Angeles and is primarily responsible for monitoring and enforcing point, stationary, and area sources of air pollution. Specific to oil and gas activity, SCAQMD developed Rule 1148.2 Notification and Reporting Requirements for Oil and Gas Wells and Chemical Suppliers. This rule was adopted in April of 2013 and preceded SB 4 and the DOGGR's subsequent interim regulations. SCAQMD created this rule in response to the lack of information available on oil and gas well stimulation and to gather air quality-related data on oil and gas well drilling, well completion, and well reworks. There is some redundancy in the notification and reporting requirements now that SB 4 is chaptered and DOGGR's interim regulations have been established. To that end, SCAQMD has a two year window in which it can report back to their Board with recommendations on how to move forward with the reporting guidelines. In addition, DOGGR should be working in conjunction with SCAQMD to establish local standards per the interim regulations resulting from SB 4.

The SCAQMD also regulates production equipment such as flares or gas separation equipment. These are regulated via standard air quality permits which are pulled by operators or suppliers of equipment and are enforced by SCAQMD inspectors. In addition, well equipment does require a registration permit. At present, the SCAQMD standard air quality permits or registration permits are independent of State permitting processes.