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Re: Proposed Revisions to Regulations Dealing with Oil and Gas Drilling Operations

Dear Mr. Naaseh –

This letter is submitted on behalf of the Carson Coalition, Center for Biological Diversity, Communities for a Better Environment, and Food and Water Watch, and comments on the proposed revisions to the municipal code sections dealing with oil and gas drilling operations in the City of Carson (the “City”).

These organizations are all dedicated to protecting the health and well-being of the citizens of Carson, and are particularly concerned about the harmful effects that continued oil and gas drilling operations will have on the community. They believe that the proposed revisions fail to take the necessary measures to protect the community, and now suggest additional revisions to the code to provide additional, needed protections.

The bottom line is that oil and gas development is inherently dangerous and poses a serious risk to our air, water, climate, and health. No amount of regulation will eliminate these risks. And environmental harms do not adhere to zoning boundaries, so restricting oil and gas activity to certain areas of the city is not a substitute for real protections. We encourage you and the Planning Commission to consider a prohibition on these harmful activities, rather than asking the community to continue to bear the risks of exposure. Local governments have the legal authority to use local laws to ban oil and gas activity within their jurisdictions. Carson should use this authority to prohibit all oil and gas activity within the city and move toward a cleaner and healthier future.

1. The Revisions to Oil and Gas Code Permit Harmful Well-Stimulation Treatments

While the proposed revisions to the Oil and Gas Code ban hydraulic fracturing, the revisions would allow the use of other harmful well-stimulation treatments like acidizing, and fail in safeguarding citizens from the effects of such treatments.

* The Oil and Gas Code requires the City to regulate extraction activities in a manner that protects the public health and environment. The stated purpose of the proposed revisions to the oil and gas code are: “[t]o protect the health, safety, public welfare, physical environment and natural resources of the city by the reasonable regulation of petroleum facilities and operations, including but not limited to: exploration; production; storage; processing; transportation; disposal; plugging, abandonment and re-abandonment of wells; of operations and equipment accessory and incidental thereto and development and redevelopment of oil fields/sites.” (Proposed Revisions to Carson Oil and Gas Code, Section 9500.)¹ Furthermore, the code requires to Planning Commission to approve a Conditional Use Permit allowing drilling activity only if it “will not be detrimental to the comfort, convenience, health, safety, and general welfare of the community, and will be compatible with the uses in the surrounding area.” (Section 9507.3.)

* However,² the proposed revisions to the Oil and Gas Code do not fulfill these mandates to protect the public health, since they still would allow well stimulation treatments (other than hydraulic fracturing) to be done, if the permittee demonstrates that: (1) “well stimulation, other than hydraulic fracturing, is necessary to recover the owner/operator’s reasonable investment backed expectation established through investment made before the effective date of this ordinance”; and (2) that such well stimulation will not create a nuisance. (Section 9536.)

This exemption for well stimulation treatments is flawed, since the phrase “owner/operator’s reasonable investment backed expectation” is vague, and does not conform to the “vested rights” exemptions used in other jurisdictions to preserve operators’ property and constitutional rights. Thus, operators in Carson could be allowed by the City to continue operations, even if they have no actual legal entitlement to continue drilling operations using well stimulation treatment. By contrast, in San Benito County, where the “Protect Our Water and Health: Ban Fracking Initiative” (“Measure J”) banning “high-intensity petroleum operations” passed in the November 2014 election, the exemption for operators’ “vested rights” is described in more narrowly tailored terms.² The initiative states that it “includes reasonable provisions to protect property rights and any vested rights,” and describes “vested rights” as those that are recognized by “State law.” (Measure J, pp. 7-8.) Here, the City of Carson unnecessarily creates ambiguity, and the City of Carson should tie the “vested rights” exemption to entitlements recognized by State law. *

In addition, the proposed revisions ban hydraulic fracturing, but would allow operators to continue using other dangerous types of well stimulation treatments such as acid matrix stimulation. These types of well-stimulation treatments cause a number of harmful effects,

¹ The Proposed Revisions are available at

http://ci.carson.ca.us/content/files/pdfs/planning/oilcodeupdate/oil_code_draft_02102015.pdf

² Available at

<https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbnczYW5iZW5pdG9yaXNpbmcyfGd4OjE1NTNINTIwNTU3YTM3NTU>.

ranging from: (1) air pollution from volatile organic compounds, nitrogen oxides, particulate matter, hydrogen sulfide, and other substances released during the process; (2) the contamination of drinking water and soils by chemicals utilized during the process and wastewater produced during the process; and (3) an increased risk of seismic activity and ground disturbance.³ Exposure to the pollutants released during the oil development process has been linked to numerous harmful health effects including respiratory and neurological problems, cardiovascular damage, endocrine disruption, birth defects, cancer and premature mortality.⁴

Local governments in places like San Benito County have provided for the phasing out of dangerous high-intensity petroleum operations like acid matrix stimulation, and steam- and carbon- flooding. (See Measure J, pp. 6-7.) To provide the fullest possible protection from high-intensity petroleum operations for city residents, the City of Carson should not just ban hydraulic fracturing, but should adopt language similar to that used in San Benito County, phasing out the use of other risky well stimulation treatments.

2. The Revisions Do Not Require Buffers Necessary for Protection of Public Health

In addition to allowing operators to continue using risky well stimulation treatments, the proposed ordinance allows operations to be conducted in close proximity to schools, residences, businesses, and public rights-of way. Therefore, when venting and flaring associated drilling and production operations occur, and in the event of any well site accident, residents will be directly impacted. The City of Carson should widen the buffers required by the ordinance, to limit the risks to residents' health.

³ See Natural Resources Defense Council, *Drilling in California: Who's at Risk* (October 2014) at pp. 6-8, available at <http://www.nrdc.org/health/files/california-fracking-risks-report.pdf>; Clean Water Action, *In the Pits* (November 2014); available at <http://cleanwateraction.org/files/publications/In%20the%20Pits%20-%20Oil%20and%20Gas%20Wastewater%20in%20California.pdf>; Wei Gan, Cliff Frolich, *Gas Injections May Have Triggered Earthquakes in the Cogdell Oil Field, Texas*, Proceedings of the National Academy of Sciences, Vol. 110 no. 47 (November 19, 2013), available at <http://www.pnas.org/content/110/47/18786.abstract>; NextGeneration, *Distracted by Fracking* (August 8, 2013), available at <http://thenextgeneration.org/blog/post/monterey-shale-series-distracted-by-fracking>, *The Most Dangerous Chemical You've Never Heard Of* (August 15, 2013), available at <http://thenextgeneration.org/blog/post/monterey-shale-series-the-most-dangerous-chemical>; Jueren Xie, *Analysis of Casing Deformations in Thermal Wells* (2008); David Kulakofsky, *Achieving Long-Term Zonal Isolation in Heavy-Oil Steam Injection Wells, a Case History* (2008).

⁴ See *Drilling in California* at pp. 6-8; *In the Pits* at Appendix A; Center for Biological Diversity, *Dirty Dozen: The 12 Most Commonly Used Air Toxics in Unconventional Oil Development in the Los Angeles Basin*, available at http://www.biologicaldiversity.org/campaigns/california_fracking/pdfs/LA_Air_Toxics_Report.pdf

The proposed revisions would prohibit “oil and gas facility sites and associated operations” from being located within: (1) Fifteen hundred feet of any “public school, public park, hospital, long-term health care facility”; (2) Fifteen hundred feet of “any residence or residential zone,” except “the residence of the owner of the land on which a well might be located and except a residence located on the land which, at the time of the drilling of the well, is under lease to the person drilling the well”; (3) Five hundred feet of any commercially designated zone; (4) Fifty feet of any “dedicated public street, highway, public walkway, or nearest rail of a railway being used as such, unless the new well is located on an existing drill site and the new well would not present a safety issue or cause conflicts with a right of way.” (Section 9521.)

* Various studies and reports have called into question whether these types of buffers are sufficient to insulate surrounding communities from the risks of oil and gas drilling. Studies have found that there are substantial exposures to volatile organic compounds among residents living half a mile or less from well sites, when compared to residents greater than half a mile from wells.⁵ In evaluating whether 625 foot buffers around drilling sites served as an adequate safety measure, researchers at the West Virginia University School of Public Health found that there were elevated levels of particulate matter and benzene within that zone, at levels which could cause potential health effects.⁶ Hydrofluoric acid, a chemical used to corrode rock in acidizing treatments, turns into vapor at room temperature and is highly toxic and can cause severe skin and respiratory system burns.⁷ In filings submitted to the Environmental Protection Agency, BP and Marathon reported that accidental hydrofluoric releases from their refining facilities could vaporize and travel for over 20 miles.⁸ Studies have shown that proximity to well sites affects fetal development, increasing the prevalence of low birth weight and premature birth, as well as increasing the risk of fetal heart and neural tube defects.⁹

Locating drilling operations close to community residents would add to the environmental and health burdens already being suffered by the community. According to the CalEnviroScreen

⁵ See New York State Department of Health, *A Public Health Review of High Volume Hydraulic Fracturing for Shale Gas Development* at 35 (December 2014); available at, http://www.health.ny.gov/press/reports/docs/high_volume_hydraulic_fracturing.pdf

⁶ Michael McCawley, West Virginia University School of Public Health; *Air, Noise, and Light Monitoring Results for Assessing Environmental Impacts of Horizontal Gas Well Drilling Operations* (May 3, 2013); available at <http://www.wvri.org/wp-content/uploads/2013/10/A-N-L-Final-Report-FOR-WEB.pdf>.

⁷ Earthworks, *Acidizing*, <http://www.earthworksaction.org/issues/detail/acidizing#.VOPPivnIYgo>

⁸ The Center for Public Integrity, *Use of Toxic Acid Puts Millions at Risk* (February 24, 2011); available at <http://www.publicintegrity.org/2011/02/24/2118/use-toxic-acid-puts-millions-risk>

⁹ Elaine Hill, *The Impact of Oil and Gas Extraction on Infant Health in Colorado* (2013); Lisa McKenzie, *Birth Outcomes and Maternal Residential Proximity to Natural Gas Development in Rural Colorado*, *Environmental Health Perspectives* (2014).

database¹⁰ prepared by California's Office of Environmental Health Hazard Assessment (OEHHA), the City of Carson ranks in the top 15% of most-polluted communities in the state.¹¹ Community members in Carson are at greatest risk for exposure to toxic releases from industrial facilities (92 percentile), polluted groundwater (93 percentile), impaired water bodies (95 percentile), fine particulate matter and diesel particulate matter (72 percentile and 79 percentile).¹² In addition, the residents of Carson are mostly from minority groups – the city is 23.8% African American, 25.6% Asian, and 38.6% Hispanic/Latino.¹³ The city's per capita income in 2012 was \$23,650.¹⁴

In order to protect city residents, who already suffer disproportionately high environmental and health risks when compared to the rest of the state, the City of Carson should increase the buffers required by the proposed ordinance.

3. The Revisions Do Not Provide for Adequate Enforcement

The proposed revisions to the oil and gas code provide some limited methods for enforcement, and in the event an operator violates the provisions of the code: citizens may complain to the City's Petroleum Administrator or bring an action for nuisance, and the City may seek injunctive relief or impose fines against an operator in violation of the code. (Sections 9512-9515.)

* The code does not explicitly provide for civil actions brought by citizens against operators, nor does it provide for the imposition of criminal fines or penalties against operators. These omissions make citizens rely on the City to take action against rogue operators, and make it difficult for citizens to seek relief if the City does not act promptly or vigorously to hold operators accountable. In addition, the absence of criminal fines and penalties diminishes the deterrent effect of the code and enables operators to simply build civil fines into their costs of doing business.

¹⁰ CalEnviroScreen is an Environmental Health interactive screening tool prepared by OEHHA, and compiles information about the pollution burdens faced by communities around the state. See Report on Draft California Communities Environmental Health Screening Tool, Version 2.0 (April 2014); available at <http://oehha.ca.gov/ej/pdf/CES20PublicReview04212014.pdf>.

CalEnviroScreen looks at factors such as ozone, particulate matter and other air quality risks; pesticides, air toxics, groundwater and other environmental health risks; as well as socioeconomic factors such as education levels, linguistic isolation and poverty. *Id.* at 15.

¹¹ CalEnviroScreen is available at <http://oehha.ca.gov/ej/ces2.html>

¹² *Id.*

¹³ United States Census Bureau QuickFacts on Carson, California, available at <http://quickfacts.census.gov/qfd/states/06/0611530.html>

¹⁴ *Id.*